

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.
1. Type of Well ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

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

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

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

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Location of Well

0. SHL: SWSW / 658 FSL / 350 FWL / TWSP: 22S / RANGE: 28E / SECTION: 16 / LAT: 32.3871914 / LONG: -104.1002026 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 543 FSL / 2654 FWL / TWSP: 22S / RANGE: 28E / SECTION: 15 / LAT: 32.3870531 / LONG: -104.0754243 (TVD: 9587 feet, MD: 17176 feet)

BHL: SWSE / 547 FSL / 1391 FEL / TWSP: 22S / RANGE: 28E / SECTION: 15 / LAT: 32.387079 / LONG: -104.0713059 (TVD: 9608 feet, MD: 18432 feet)

CONFIDENTIAL

Well Name: MICHAEL RYAN FED COM	Well Location: T22S / R28E / SEC 16 / SWSW /	County or Parish/State:
Well Number: 128H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM019186	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549984	Well Status: Approved Application for Permit to Drill	Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Sundry ID: 2694259

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 09/22/2022	Time Sundry Submitted: 01:16
Date proposed operation will begin: 12/22/2022	

Procedure Description: BLM Bond No.: NMB001079 Surety Bond No.: RLB0015172 Matador would like to change the BHL from 547' FSL and 1391' FEL to 660' FSL and 1441' FEL. We would also like to change the target zone from a Wolfcamp to a Bone Spring changing our BOP testing requirement to 5M, shallowing our 7-5/8" Intermediate casing set depth to 7,323' and our 5-1/2" production casing set depth to 16,924'.

NOI Attachments

Procedure Description

- Michael_Ryan_Fed_Com_204H_Form_C_102_Signed_Updated_20221122094144.pdf
- Michael_Ryan_Fed_Com_204H_Drill_Plan_20220922131407.pdf
- Michael_Ryan_Fed_Com_204H_Directional_Well_Plan_v3_20220922131357.pdf
- Michael_Ryan_Fed_Com_204H_Directional_Wall_Plot_v3_20220922131349.pdf
- Michael_Ryan_Fed_Com_204H_Casing_Table_Spec_20220922131336.pdf
- Michael_Ryan_Fed_Com_204H_Directional_AC_Report_v3_20220922131321.pdf
- Michael_Ryan_Fed_Com_204H_Casing_Specs_5.5in_20lb_Hunting_TLW_SC_20220922131310.pdf
- LO_MICHAEL_RYAN_FED_COM_204H_REV10_ALT_20220922131258.pdf

Well Name: MICHAEL RYAN FED COM	Well Location: T22S / R28E / SEC 16 / SWSW /	County or Parish/State:
Well Number: 128H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM019186	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549984	Well Status: Approved Application for Permit to Drill	Operator: MATADOR PRODUCTION COMPANY

Conditions of Approval

Additional

MICHAEL_RYAN_FED_COM_204H___SUNDRY_COA_20221216092955.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: DEBBIE CREED **Signed on:** NOV 22, 2022 09:42 AM
Name: MATADOR PRODUCTION COMPANY
Title: BLM Analyst
Street Address: 5400 LBJ FREEWAY
City: DALLAS **State:** TX
Phone: (972) 371-5440
Email address: DEBBIE.CREED@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:** 12/22/2022
Signature: Chris Walls

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

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-49984	² Pool Code 15011	³ Pool Name Culebra Bluff; Bone Spring, South
⁴ Property Code	⁵ Property Name MICHAEL RYAN FED COM	⁶ Well Number 204H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3078'

¹⁰Surface Location

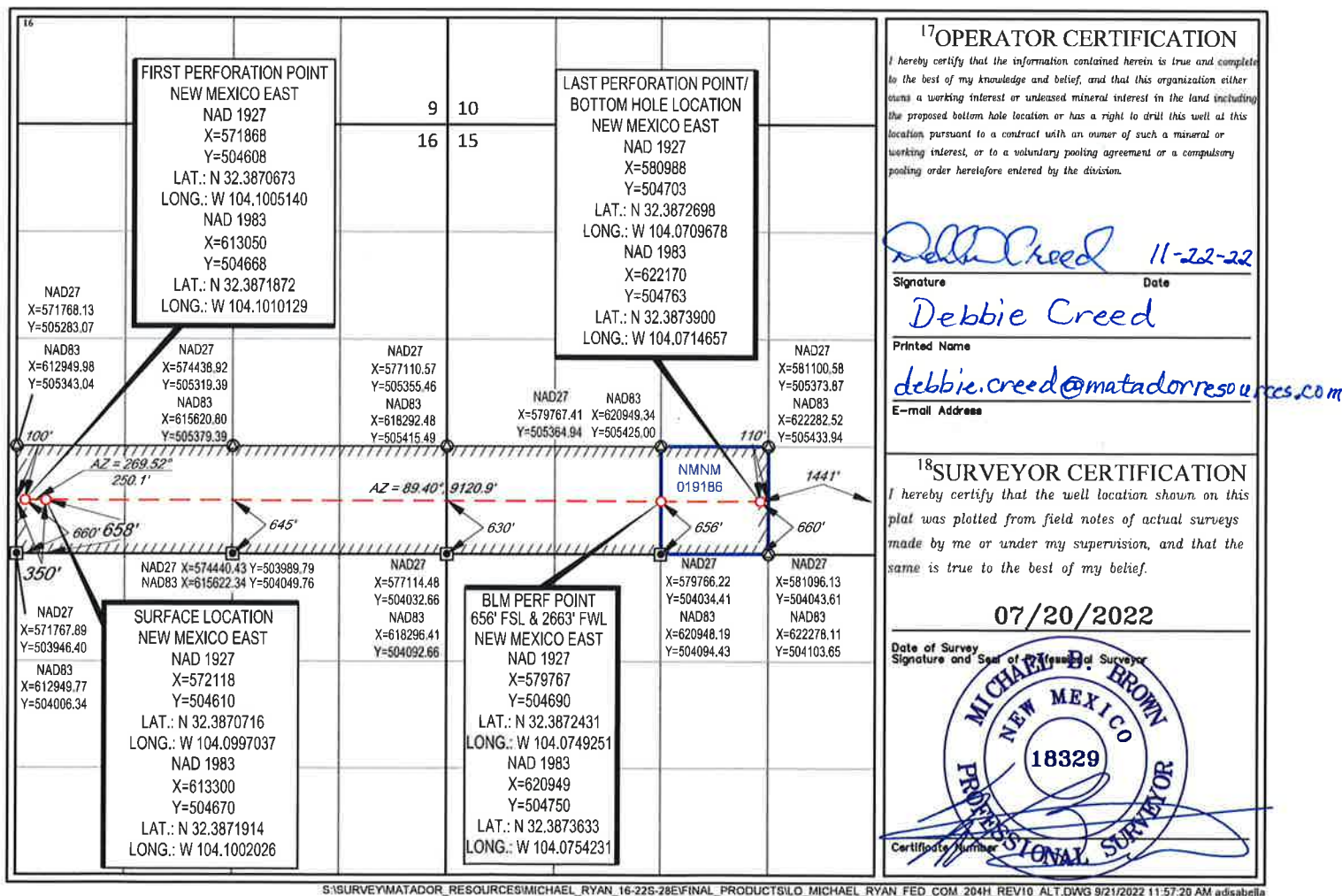
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	22-S	28-E	-	658'	SOUTH	350'	WEST	EDDY

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	15	22-S	28-E	-	660'	SOUTH	1441'	EAST	EDDY

¹² Dedicated Acres 280	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Drill Plan

Michael Ryan Fed Com 204H
SHL: 658' FSL & 350' FWL Section 16
BHL: 660' FSL & 1441' FEL Section 15
Township/Range: 22S 28E
Elevation Above Sea Level: 3078

Drilling Operation Plan

Proposed Drilling Depth: 16924' MD / 8231' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.38718720498962 N / -104.10117489466877 W

TD Lat/Long (NAD83): 32.38739 N / -104.0714657 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	172	172	239	Anhydrite	Barren
Salado (Top of Salt)	411	411	2,103	Salt	Barren
Lamar (Base of Salt)	2,514	2,514	72	Dolomite	Barren
Bell Canyon	2,586	2,586	808	Sandstone	Oil/Natural Gas
Cherry Canyon	3,394	3,394	1,201	Sandstone	Oil/Natural Gas
Brushy Canyon	4,595	4,595	1,393	Sandstone	Oil/Natural Gas
Bone Spring Lime	5,988	5,988	362	Limestone	Oil/Natural Gas
Avalon	6,350	6,350	298	Sandstone	Oil/Natural Gas
1st Bone Spring Carb	6,648	6,648	372	Carbonate	Oil/Natural Gas
1st Bone Spring Sand	7,020	7,020	269	Sandstone	Oil/Natural Gas
2nd Bone Spring Carb	7,289	7,289	459	Carbonate	Oil/Natural Gas
KOP	7,423	7,403	-	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	7,793	7,748	-	Sandstone	Oil/Natural Gas
TD	16,924	8,231		Sandstone	Oil/Natural Gas

2. Notable Zones

2nd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 54'.

3. Pressure Control**Equipment**

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

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

Testing Procedure

Drill Plan

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

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

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

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

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

4. Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 436	0 - 436	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	9.875	0 - 7323	0 - 7323	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Production	6.75	0 - 16924	0 - 8231	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for review

- Request open to deepen Intermediate 1 set depth into curve, no changes in pipe weight or grade is necessary.

Variance Request

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

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

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

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

Drill Plan

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	120	1.72	214	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	136	C	5% NaCl + LCM
Intermediate 1	Lead	550	3.66	2031	10.3	35%	0	A/C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	230	1.38	311	13.2	35%	6323	A/C	5% NaCl + LCM
Production	Lead	10	3.66	28	10.3	10%	7123	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	650	1.35	883	13.2	10%	7423	A/C	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 436	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Bine Emulsion	436 - 7323	8.7 - 9.4	28-30	NC
Production	6.75	Cut Brine/OBM	7323 - 16924	8.6 - 9.4	28-30	NC

6. Cores, Test, & Logs

No core or drill stem test is planned.

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

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Bottom hole pressures is 4023 psi. Maximum anticipated surface pressure is 2212 psi. Expected bottom hole temperature is 140 F.

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

Casing Table Specification Sheet

Michael Ryan Fed Com 204H

SHL: 658' FSL & 350' FWL Section 16

BHL: 660' FSL & 1441' FEL Section 15

Township/Range: 22S 28E

Elevation Above Sea Level: 3078

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 436	0 - 436	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	9.875	0 - 7323	0 - 7323	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Production	6.75	0 - 16924	0 - 8231	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8



TEC-LOCK WEDGE

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

Pipe Body Data

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

Connection Data

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

Operational Data

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

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

Generated on Sep 03, 2019



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

All previous COAs apply

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMNM019186
WELL NAME & NO.:	MICHAEL RYAN FED COM 128H
SURFACE HOLE FOOTAGE:	658'/S & 350'/W
BOTTOM HOLE FOOTAGE:	660'/S & 1441'/E
LOCATION:	Section 16, T.22 S., R.28 E., NENE
COUNTY:	Eddy County, New Mexico

COA

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

A. CASING

Alternate Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **436** feet (a minimum of 70 feet (Eddy 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 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours

after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The 7-5/8 inch intermediate casing shall be set at approximately 7,323 feet. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

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

Operator has proposed to pump down 7-5/8" X 13-3/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

3. The 5-1/2 inch production casing shall be set at approximately 16,924 feet The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (3.5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

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

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

KPI – 12-16-2022

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

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-49984	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 333281	⁵ Property Name MICHAEL RYAN FED COM	⁶ Well Number 204H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3078'

¹⁰Surface Location

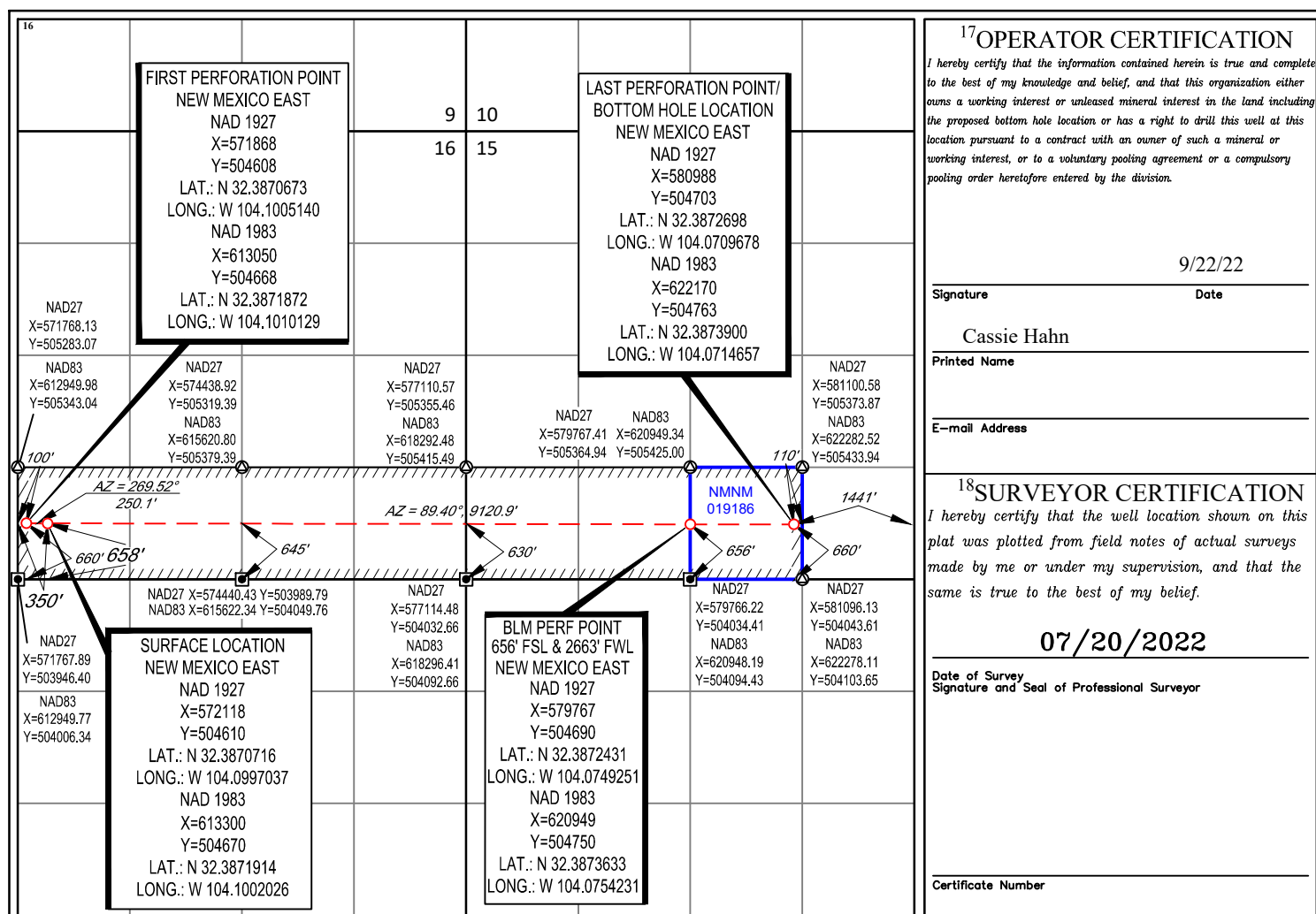
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	22-S	28-E	-	658'	SOUTH	350'	WEST	EDDY

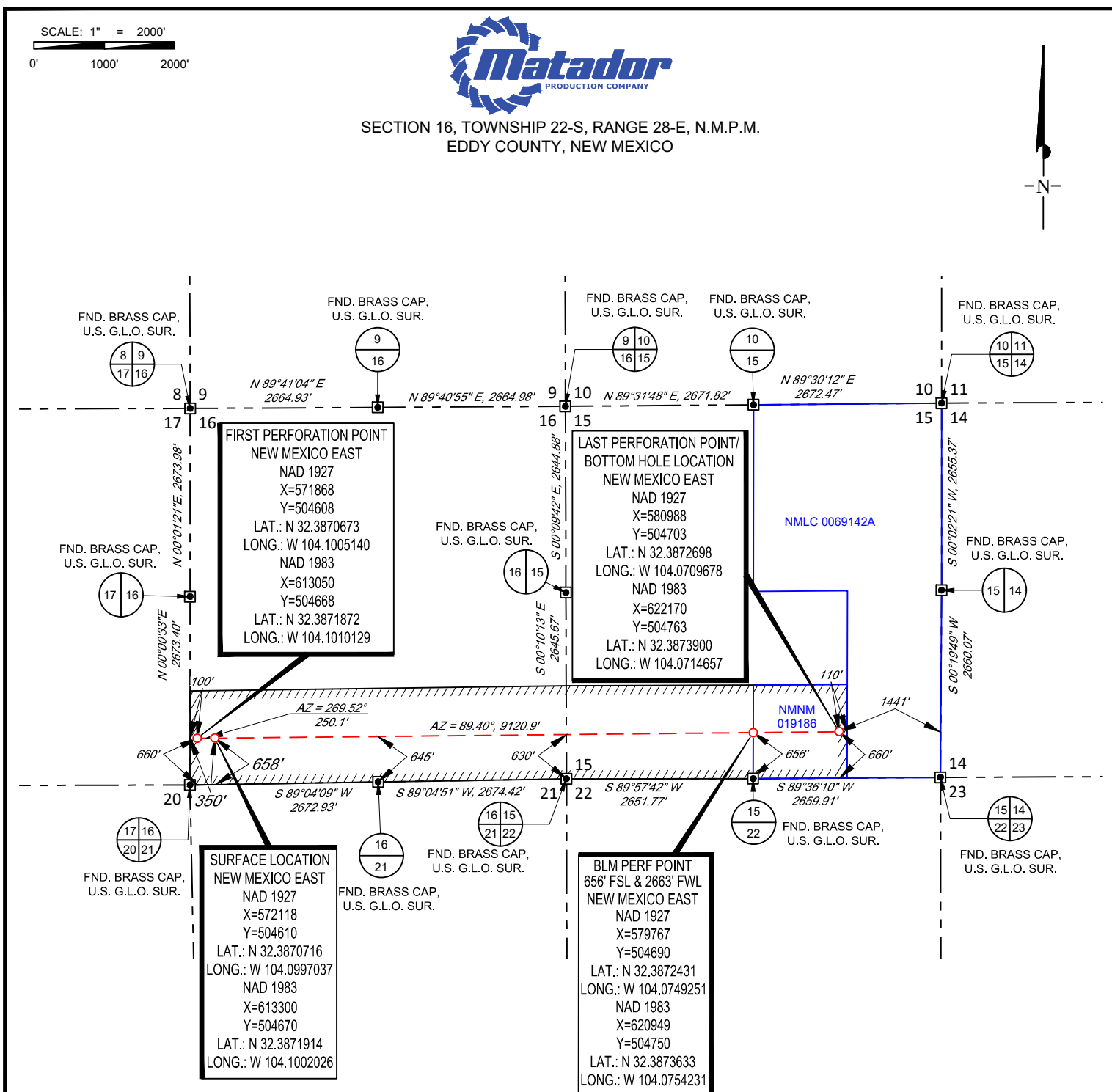
¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	15	22-S	28-E	-	660'	SOUTH	1441'	EAST	EDDY

¹² Dedicated Acres 280	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





LEASE NAME & WELL NO.:		MICHAEL RYAN FED COM 204H	
SECTION <u>16</u>	TWP <u>22-S</u>	RGE <u>28-E</u>	SURVEY <u>N.M.P.M.</u>
COUNTY <u>EDDY</u>		STATE <u>NM</u>	
DESCRIPTION		658' FSL & 350' FWL	

DISTANCE & DIRECTION

FROM INT. OF NM-285. & NM-62. GO EAST ON NM-62 ±2.2 MILES. THENCE EAST (RIGHT) ON REFINERY RD. ±7.6 MILES, THENCE NORTHEAST (LEFT) ON OLD POST RD. ±0.9 MILE, THENCE WEST (LEFT) ON A LEASE RD. ±0.6 MILES, THENCE NORTHWEST (LEFT) ON A PROPOSED RD. AND THRU SITE ±0.7 MILES TO A POINT ±336 FEET SOUTHWEST OF THE LOCATION.

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

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

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

"PRELIMINARY, THIS DOCUMENT SHALL NOT
BE RECORDED FOR ANY PURPOSE."

Michael B. Brown, P.S. No. 18329
September 21, 2022



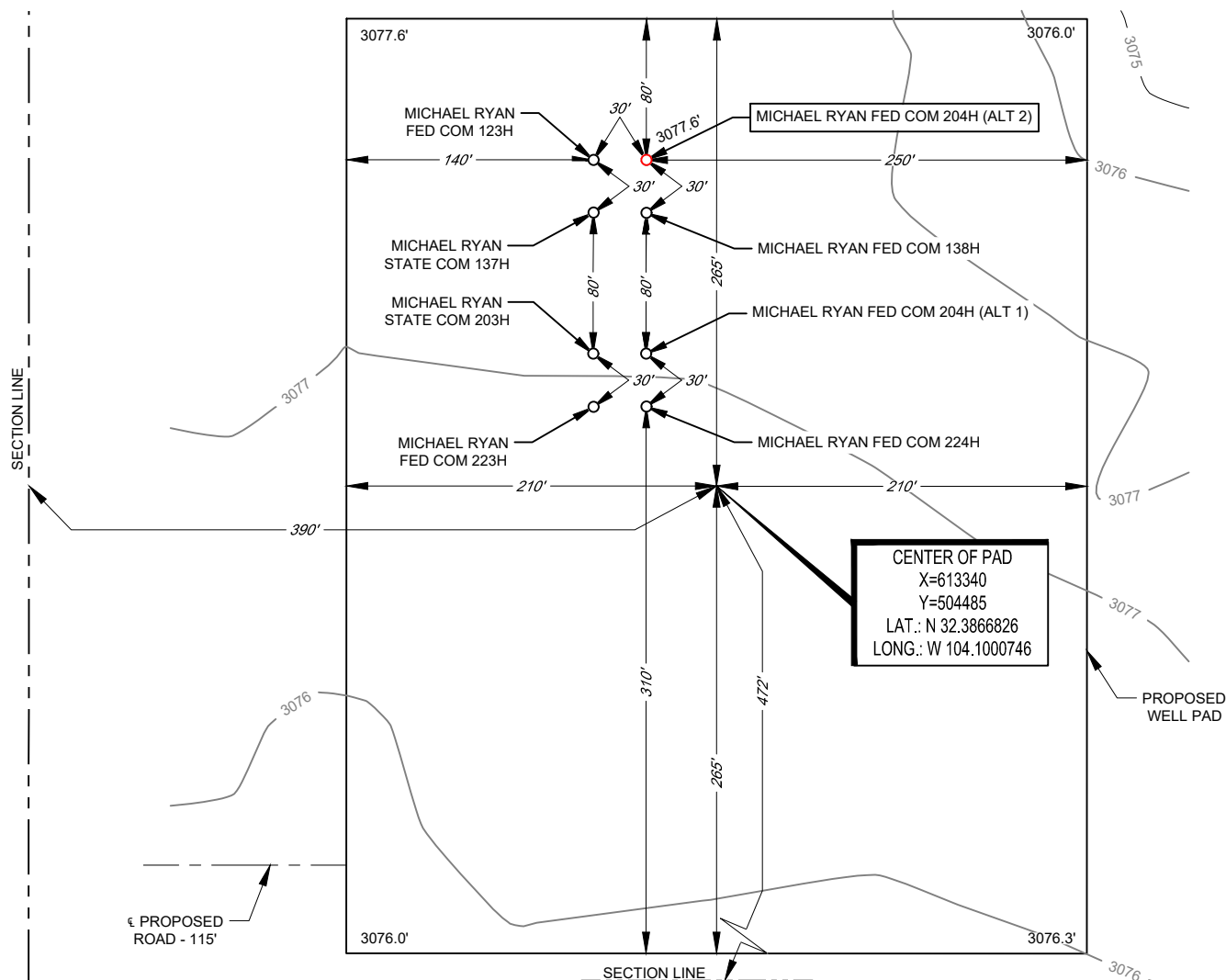
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM



 SECTION LINE
 PROPOSED ROAD

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: MICHAEL RYAN FED COM 204H
204H LATITUDE N 32.3871914 204H LONGITUDE W 104.1002026

CENTER OF PAD IS 472' FSL & 390' FWL

"PRELIMINARY, THIS DOCUMENT SHALL NOT
BE RECORDED FOR ANY PURPOSE."

Michael B. Brown, P.S. No. 18329
September 21, 2022

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

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

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



SCALE: 1" = 100'



0' 50' 100'



1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

Matador Production Company

Rustler Breaks

Michael Ryan

Michael Ryan Fed Com #204H

Wellbore #1

BLM Plan #1

Anticollision Report

19 September, 2022

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 8/7/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	16,923.8	BLM Plan #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Michael Ryan						
Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan	2,101.0	2,100.0	139.8	125.2	9.584	CC
Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan	2,400.0	2,401.3	140.4	123.7	8.409	ES
Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan	16,923.8	18,263.5	1,388.7	1,151.7	5.858	SF
Michael Ryan Fed Com #203H - Wellbore #1 - BLM Plan	1,923.8	1,939.7	46.3	32.8	3.425	CC, ES, SF
Michael Ryan Fed Com #223H - Wellbore #1 - BLM Plan	2,476.4	2,475.9	20.8	3.6	1.207	Level 2, CC, ES, SF
Michael Ryan Fed Com #224H - Wellbore #1 - BLM Plan	1,500.0	1,500.0	29.9	19.6	2.904	CC
Michael Ryan Fed Com #224H - Wellbore #1 - BLM Plan	1,600.0	1,599.7	30.3	19.3	2.758	ES
Michael Ryan Fed Com #224H - Wellbore #1 - BLM Plan	1,700.0	1,699.4	31.7	20.1	2.716	SF
Michael Ryan State Com #123H - Wellbore #1 - State PI	1,700.0	1,700.0	30.0	18.3	2.558	CC
Michael Ryan State Com #123H - Wellbore #1 - State PI	1,800.0	1,799.8	30.2	17.8	2.431	ES
Michael Ryan State Com #123H - Wellbore #1 - State PI	1,900.0	1,899.6	31.2	18.0	2.371	SF
Michael Ryan State Com #137H - Wellbore #1 - BLM Pla	2,304.7	2,315.4	62.1	45.9	3.821	CC, ES, SF

Offset Design Michael Ryan - Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan #1													Offset Site Error:		0.0 usft
Survey Program: 0-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	1.0	-1.0	0.0	0.0	179.98	-139.8	0.0	139.8						
100.0	100.0	101.0	99.0	0.1	0.1	179.98	-139.8	0.0	139.8	139.6	0.26	538.064			
200.0	200.0	201.0	199.0	0.5	0.5	179.98	-139.8	0.0	139.8	138.9	0.98	143.155			
300.0	300.0	301.0	299.0	0.8	0.8	179.98	-139.8	0.0	139.8	138.1	1.69	82.560			
400.0	400.0	401.0	399.0	1.2	1.2	179.98	-139.8	0.0	139.8	137.4	2.41	58.007			
500.0	500.0	501.0	499.0	1.6	1.6	179.98	-139.8	0.0	139.8	136.7	3.13	44.710			
600.0	600.0	601.0	599.0	1.9	1.9	179.98	-139.8	0.0	139.8	136.0	3.84	36.373			
700.0	700.0	701.0	699.0	2.3	2.3	179.98	-139.8	0.0	139.8	135.3	4.56	30.656			
800.0	800.0	801.0	799.0	2.6	2.6	179.98	-139.8	0.0	139.8	134.6	5.28	26.492			
900.0	900.0	901.0	899.0	3.0	3.0	179.98	-139.8	0.0	139.8	133.8	6.00	23.324			
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	179.98	-139.8	0.0	139.8	133.1	6.71	20.833			
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	179.98	-139.8	0.0	139.8	132.4	7.43	18.823			
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	179.98	-139.8	0.0	139.8	131.7	8.15	17.166			
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	179.98	-139.8	0.0	139.8	131.0	8.86	15.777			
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	179.98	-139.8	0.0	139.8	130.3	9.58	14.597			
1,500.0	1,500.0	1,501.0	1,499.0	5.1	5.2	179.98	-139.8	0.0	139.8	129.5	10.30	13.580			

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
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Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,600.0	1,600.0	1,601.0	1,599.0	5.5	5.5	179.98	-139.8	0.0	139.8	128.8	11.01	12.696	
1,700.0	1,700.0	1,701.0	1,699.0	5.9	5.9	179.98	-139.8	0.0	139.8	128.1	11.73	11.920	
1,800.0	1,800.0	1,801.0	1,799.0	6.2	6.2	179.98	-139.8	0.0	139.8	127.4	12.45	11.234	
1,900.0	1,900.0	1,901.0	1,899.0	6.6	6.6	179.98	-139.8	0.0	139.8	126.7	13.16	10.622	
2,000.0	2,000.0	2,001.0	1,999.0	6.9	6.9	179.98	-139.8	0.0	139.8	126.0	13.88	10.074	
2,100.0	2,100.0	2,101.0	2,099.0	7.3	7.3	-89.99	-139.8	0.0	139.8	125.2	14.59	9.584	
2,101.0	2,101.0	2,100.0	2,100.0	7.3	7.3	-90.00	-139.8	0.0	139.8	125.2	14.59	9.584 CC	
2,200.0	2,200.0	2,201.0	2,199.0	7.6	7.7	-91.06	-139.8	0.0	139.9	124.6	15.29	9.147	
2,300.0	2,299.9	2,301.1	2,298.9	8.0	8.0	-92.85	-139.8	0.0	140.0	124.0	15.99	8.754	
2,400.0	2,399.7	2,401.3	2,398.7	8.3	8.4	-95.33	-139.8	0.0	140.4	123.7	16.70	8.409 ES	
2,500.0	2,499.4	2,501.6	2,498.4	8.7	8.7	-98.47	-139.8	0.0	141.4	124.0	17.41	8.121	
2,600.0	2,598.9	2,602.1	2,597.9	9.0	9.1	-102.24	-139.8	0.0	143.1	125.0	18.13	7.896	
2,700.0	2,698.3	2,702.7	2,697.3	9.4	9.5	-106.53	-139.8	0.0	146.0	127.1	18.84	7.746	
2,800.0	2,797.4	2,803.6	2,796.4	9.8	9.8	-111.23	-139.8	0.0	150.2	130.6	19.57	7.677	
2,900.0	2,896.4	2,904.6	2,895.4	10.1	10.2	-115.97	-139.8	0.0	155.8	135.5	20.29	7.680	
3,000.0	2,995.5	2,994.5	2,994.5	10.5	10.5	-120.36	-139.8	0.0	162.5	141.5	20.98	7.744	
3,100.0	3,094.5	3,092.4	3,092.4	10.9	10.8	-124.11	-140.5	-0.4	170.3	148.6	21.68	7.855	
3,200.0	3,193.5	3,190.5	3,190.4	11.3	11.2	-127.03	-142.5	-1.6	179.3	157.0	22.36	8.020	
3,300.0	3,292.5	3,288.7	3,288.6	11.6	11.5	-129.18	-146.0	-3.8	189.3	166.3	23.05	8.216	
3,400.0	3,391.6	3,387.0	3,386.7	12.0	11.8	-130.65	-150.9	-6.9	200.1	176.4	23.74	8.430	
3,500.0	3,490.6	3,485.3	3,484.7	12.4	12.1	-131.54	-157.3	-10.8	211.4	187.0	24.43	8.653	
3,600.0	3,589.6	3,583.6	3,582.6	12.8	12.5	-131.91	-165.0	-15.7	223.2	198.1	25.13	8.882	
3,700.0	3,688.6	3,681.8	3,680.2	13.2	12.8	-131.84	-174.2	-21.4	235.5	209.6	25.84	9.114	
3,800.0	3,787.7	3,779.9	3,777.5	13.6	13.1	-131.41	-184.8	-28.0	248.2	221.6	26.55	9.350	
3,900.0	3,886.7	3,878.7	3,875.4	14.0	13.5	-130.76	-196.4	-35.3	261.3	234.0	27.27	9.580	
4,000.0	3,985.7	3,977.8	3,973.5	14.4	13.8	-130.17	-208.1	-42.6	274.4	246.4	28.00	9.797	
4,100.0	4,084.8	4,076.9	4,071.6	14.8	14.2	-129.64	-219.8	-49.9	287.5	258.7	28.74	10.003	
4,200.0	4,183.8	4,176.0	4,169.8	15.2	14.5	-129.15	-231.5	-57.2	300.6	271.2	29.48	10.197	
4,288.1	4,271.0	4,263.4	4,256.3	15.5	14.9	-128.75	-241.8	-63.7	312.2	282.1	30.14	10.360	
4,300.0	4,282.8	4,275.1	4,267.9	15.6	14.9	-128.71	-243.2	-64.5	313.8	283.6	30.23	10.381	
4,400.0	4,382.0	4,374.3	4,366.1	16.0	15.3	-128.22	-254.9	-71.9	326.0	295.0	30.98	10.524	
4,500.0	4,481.6	4,473.6	4,464.5	16.4	15.6	-127.40	-266.6	-79.2	336.6	304.9	31.72	10.613	
4,600.0	4,581.3	4,572.9	4,562.8	16.7	16.0	-126.28	-278.3	-86.5	345.8	313.4	32.46	10.654	
4,700.0	4,681.2	4,672.2	4,661.1	17.1	16.4	-124.86	-290.1	-93.8	353.7	320.5	33.19	10.655	
4,800.0	4,781.2	4,771.3	4,759.3	17.5	16.7	-123.16	-301.8	-101.1	360.3	326.4	33.92	10.623	
4,821.5	4,802.6	4,807.4	4,780.3	17.5	16.9	146.86	-304.3	-102.7	361.6	327.5	34.13	10.595	
4,900.0	4,881.2	4,870.4	4,857.3	17.8	17.1	148.40	-313.5	-108.4	366.4	331.7	34.64	10.578	
5,000.0	4,981.2	4,969.4	4,955.4	18.1	17.5	150.30	-325.1	-115.7	372.8	337.5	35.35	10.546	
5,100.0	5,081.2	5,068.4	5,053.5	18.5	17.9	152.14	-336.8	-123.1	379.7	343.6	36.07	10.527	
5,200.0	5,181.2	5,167.4	5,151.5	18.8	18.3	153.91	-348.5	-130.4	386.9	350.1	36.78	10.519	
5,300.0	5,281.2	5,266.5	5,249.6	19.2	18.6	155.62	-360.2	-137.7	394.5	357.0	37.49	10.522	
5,400.0	5,381.2	5,365.5	5,347.7	19.5	19.0	157.26	-371.9	-145.0	402.4	364.2	38.20	10.534	
5,500.0	5,481.2	5,464.5	5,445.7	19.8	19.4	158.83	-383.6	-152.3	410.6	371.7	38.91	10.553	
5,600.0	5,581.2	5,563.5	5,543.8	20.2	19.8	160.34	-395.3	-159.6	419.2	379.6	39.62	10.580	
5,700.0	5,681.2	5,662.6	5,641.8	20.5	20.2	161.80	-407.0	-166.9	428.0	387.7	40.33	10.614	
5,800.0	5,781.2	5,761.6	5,739.9	20.9	20.6	163.19	-418.6	-174.2	437.1	396.1	41.03	10.652	
5,900.0	5,881.2	5,860.6	5,838.0	21.2	21.0	164.53	-430.3	-181.5	446.4	404.7	41.74	10.696	
6,000.0	5,981.2	5,959.6	5,936.0	21.6	21.4	165.81	-442.0	-188.8	456.0	413.6	42.44	10.744	
6,100.0	6,081.2	6,058.7	6,034.1	21.9	21.8	167.04	-453.7	-196.1	465.8	422.7	43.15	10.795	
6,200.0	6,181.2	6,157.7	6,132.2	22.3	22.2	168.22	-465.4	-203.4	475.8	431.9	43.85	10.850	
6,300.0	6,281.2	6,256.7	6,230.2	22.6	22.6	169.35	-477.1	-210.7	486.0	441.4	44.56	10.907	
6,400.0	6,381.2	6,355.8	6,328.3	23.0	23.0	170.43	-488.8	-218.0	496.4	451.1	45.26	10.967	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,500.0	6,481.2	6,454.8	6,426.3	23.3	23.3	171.47	-500.5	-225.3	506.9	460.9	45.96	11.029	
6,600.0	6,581.2	6,553.8	6,524.4	23.6	23.7	172.47	-512.1	-232.6	517.6	470.9	46.67	11.092	
6,700.0	6,681.2	6,652.8	6,622.5	24.0	24.1	173.43	-523.8	-239.9	528.4	481.1	47.37	11.156	
6,800.0	6,781.2	6,751.9	6,720.5	24.3	24.5	174.35	-535.5	-247.2	539.4	491.4	48.07	11.222	
6,900.0	6,881.2	6,850.9	6,818.6	24.7	24.9	175.23	-547.2	-254.5	550.6	501.8	48.77	11.288	
7,000.0	6,981.2	6,949.9	6,916.7	25.0	25.3	176.07	-558.9	-261.8	561.8	512.3	49.48	11.355	
7,100.0	7,081.2	7,048.9	7,014.7	25.4	25.7	176.89	-570.6	-269.1	573.2	523.0	50.18	11.422	
7,200.0	7,181.2	7,148.0	7,112.8	25.7	26.1	177.67	-582.3	-276.4	584.7	533.8	50.88	11.490	
7,300.0	7,281.2	7,253.9	7,217.7	26.1	26.6	178.45	-594.5	-284.0	596.0	544.3	51.66	11.537	
7,400.0	7,381.2	7,368.4	7,331.5	26.4	27.0	179.12	-605.2	-290.7	605.2	552.7	52.49	11.530	
7,422.3	7,403.5	7,394.0	7,357.0	26.5	27.1	179.24	-607.2	-292.0	607.0	554.3	52.68	11.523	
7,450.0	7,431.2	7,425.8	7,388.7	26.6	27.2	91.05	-609.5	-293.4	609.0	556.1	52.89	11.513	
7,500.0	7,481.0	7,483.0	7,445.8	26.8	27.5	91.43	-613.0	-295.6	612.2	558.9	53.26	11.493	
7,550.0	7,530.1	7,539.6	7,502.3	26.9	27.7	92.25	-615.8	-297.4	615.0	561.4	53.60	11.472	
7,600.0	7,578.4	7,595.2	7,557.8	27.1	27.9	93.46	-617.9	-298.7	617.6	563.7	53.92	11.455	
7,650.0	7,625.2	7,649.5	7,612.1	27.2	28.1	94.99	-619.2	-299.5	620.3	566.1	54.20	11.445	
7,700.0	7,670.4	7,702.2	7,664.7	27.3	28.2	96.77	-619.9	-299.9	623.5	569.0	54.46	11.449	
7,750.0	7,713.6	7,750.0	7,712.6	27.4	28.4	98.56	-620.0	-300.0	627.6	572.9	54.69	11.474	
7,800.0	7,754.4	7,809.2	7,753.4	27.6	28.6	100.12	-620.0	-300.0	633.3	578.3	54.97	11.521	
7,850.0	7,792.6	7,829.0	7,791.6	27.7	28.7	101.54	-620.0	-300.0	641.2	586.1	55.11	11.634	
7,900.0	7,827.7	7,864.2	7,826.7	27.8	28.8	102.71	-620.0	-300.0	651.6	596.3	55.31	11.780	
7,950.0	7,859.7	7,903.9	7,858.7	28.0	28.9	103.53	-620.0	-300.0	664.8	609.3	55.54	11.969	
8,000.0	7,888.2	7,924.6	7,887.2	28.2	29.0	103.91	-620.0	-300.0	681.1	625.3	55.72	12.222	
8,050.0	7,913.0	7,949.4	7,912.0	28.4	29.0	103.74	-620.0	-300.0	700.4	644.5	55.93	12.524	
8,100.0	7,933.9	7,970.3	7,932.9	28.7	29.1	102.95	-620.0	-300.0	723.0	666.8	56.13	12.880	
8,150.0	7,950.7	7,987.2	7,949.7	28.9	29.2	101.46	-620.0	-300.0	748.5	692.2	56.33	13.288	
8,200.0	7,963.5	8,000.1	7,962.5	29.2	29.2	99.18	-620.0	-300.0	776.8	720.3	56.51	13.745	
8,250.0	7,971.9	8,008.3	7,970.9	29.6	29.2	96.05	-620.0	-300.0	807.6	750.9	56.68	14.248	
8,300.0	7,976.0	8,012.4	7,975.0	30.0	29.3	92.06	-620.0	-300.0	840.6	783.7	56.84	14.789	
8,305.4	7,976.2	8,012.6	7,975.2	30.0	29.3	91.57	-620.0	-300.0	844.2	787.4	56.85	14.850	
8,369.8	7,978.1	8,014.5	7,977.1	30.6	29.3	91.68	-620.0	-300.0	888.9	831.9	57.03	15.585	
8,400.0	7,979.0	8,015.4	7,978.0	30.9	29.3	91.77	-620.0	-300.0	910.4	853.2	57.12	15.938	
8,500.0	7,982.0	8,018.4	7,981.0	31.9	29.3	92.03	-620.0	-300.0	984.8	927.4	57.40	17.157	
8,600.0	7,984.9	8,021.4	7,983.9	33.1	29.3	92.30	-620.0	-300.0	1,063.5	1,005.8	57.66	18.442	
8,700.0	7,987.9	8,024.3	7,986.9	34.4	29.3	92.57	-620.0	-300.0	1,145.5	1,087.6	57.91	19.781	
8,800.0	7,990.9	8,027.3	7,989.9	35.9	29.3	92.84	-620.0	-300.0	1,230.1	1,172.0	58.13	21.163	
8,900.0	7,993.8	8,030.3	7,992.8	37.4	29.3	93.11	-620.0	-300.0	1,316.9	1,258.6	58.32	22.580	
9,000.0	7,996.8	8,033.2	7,995.8	39.0	29.3	93.38	-620.0	-300.0	1,405.4	1,346.9	58.50	24.025	
9,100.0	7,999.8	10,440.2	9,330.3	40.8	43.5	154.69	-606.8	1,032.0	1,473.2	1,430.5	42.70	34.504	
9,200.0	8,002.7	10,540.2	9,332.1	42.6	45.1	154.67	-605.8	1,132.0	1,472.1	1,427.6	44.52	33.063	
9,300.0	8,005.7	10,640.2	9,334.0	44.4	46.8	154.65	-604.8	1,232.0	1,471.0	1,424.6	46.42	31.689	
9,400.0	8,008.7	10,740.2	9,335.8	46.3	48.6	154.64	-603.8	1,332.0	1,470.0	1,421.6	48.38	30.384	
9,500.0	8,011.6	10,840.2	9,337.6	48.3	50.4	154.62	-602.8	1,431.9	1,468.9	1,418.5	50.39	29.149	
9,600.0	8,014.6	10,940.2	9,339.4	50.3	52.3	154.61	-601.8	1,531.9	1,467.8	1,415.3	52.45	27.983	
9,700.0	8,017.6	11,040.2	9,341.2	52.3	54.3	154.59	-600.8	1,631.9	1,466.7	1,412.2	54.56	26.884	
9,800.0	8,020.5	11,140.2	9,343.0	54.4	56.2	154.58	-599.8	1,731.8	1,465.6	1,408.9	56.70	25.849	
9,900.0	8,023.5	11,240.2	9,344.9	56.5	58.2	154.56	-598.8	1,831.8	1,464.5	1,405.7	58.88	24.875	
10,000.0	8,026.5	11,340.2	9,346.7	58.6	60.3	154.55	-597.8	1,931.8	1,463.5	1,402.4	61.08	23.958	
10,100.0	8,029.4	11,440.2	9,348.5	60.8	62.3	154.53	-596.8	2,031.8	1,462.4	1,399.1	63.32	23.095	
10,200.0	8,032.4	11,540.2	9,350.3	63.0	64.4	154.51	-595.8	2,131.7	1,461.3	1,395.7	65.58	22.281	
10,300.0	8,035.4	11,640.1	9,352.1	65.2	66.6	154.50	-594.9	2,231.7	1,460.2	1,392.3	67.87	21.515	
10,400.0	8,038.3	11,740.1	9,353.9	67.4	68.7	154.48	-593.9	2,331.7	1,459.1	1,388.9	70.18	20.792	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,500.0	8,041.3	11,840.1	9,355.7	69.6	70.9	154.47	-592.9	2,431.7	1,458.0	1,385.5	72.50	20.110	
10,600.0	8,044.3	11,940.1	9,357.6	71.8	73.0	154.45	-591.9	2,531.6	1,457.0	1,382.1	74.85	19.466	
10,700.0	8,047.2	12,040.1	9,359.4	74.1	75.2	154.43	-590.9	2,631.6	1,455.9	1,378.7	77.21	18.857	
10,800.0	8,050.2	12,140.1	9,361.2	76.4	77.4	154.42	-589.9	2,731.6	1,454.8	1,375.2	79.58	18.281	
10,900.0	8,053.2	12,240.1	9,363.0	78.7	79.7	154.40	-588.9	2,831.5	1,453.7	1,371.7	81.97	17.735	
11,000.0	8,056.1	12,340.1	9,364.8	80.9	81.9	154.39	-587.9	2,931.5	1,452.6	1,368.3	84.37	17.217	
11,100.0	8,059.1	12,440.1	9,366.6	83.2	84.2	154.37	-586.9	3,031.5	1,451.5	1,364.8	86.79	16.726	
11,200.0	8,062.0	12,540.1	9,368.4	85.5	86.4	154.36	-585.9	3,131.5	1,450.5	1,361.3	89.21	16.259	
11,300.0	8,065.0	12,640.1	9,370.3	87.9	88.7	154.34	-584.9	3,231.4	1,449.4	1,357.7	91.65	15.815	
11,400.0	8,068.0	12,740.1	9,372.1	90.2	91.0	154.32	-583.9	3,331.4	1,448.3	1,354.2	94.09	15.392	
11,500.0	8,070.9	12,840.1	9,373.9	92.5	93.3	154.31	-582.9	3,431.4	1,447.2	1,350.7	96.55	14.990	
11,600.0	8,073.9	12,940.1	9,375.7	94.8	95.6	154.29	-581.9	3,531.3	1,446.1	1,347.1	99.01	14.606	
11,700.0	8,076.9	13,040.1	9,377.5	97.2	97.9	154.27	-580.9	3,631.3	1,445.1	1,343.6	101.48	14.240	
11,800.0	8,079.8	13,140.0	9,379.3	99.5	100.2	154.26	-579.9	3,731.3	1,444.0	1,340.0	103.96	13.889	
11,900.0	8,082.8	13,240.0	9,381.2	101.9	102.5	154.24	-578.9	3,831.3	1,442.9	1,336.4	106.45	13.555	
12,000.0	8,085.8	13,340.0	9,383.0	104.2	104.8	154.23	-577.9	3,931.2	1,441.8	1,332.9	108.94	13.235	
12,100.0	8,088.7	13,440.0	9,384.8	106.6	107.1	154.21	-577.0	4,031.2	1,440.7	1,329.3	111.44	12.928	
12,200.0	8,091.7	13,540.0	9,386.6	109.0	109.5	154.19	-576.0	4,131.2	1,439.6	1,325.7	113.95	12.634	
12,300.0	8,094.7	13,640.0	9,388.4	111.3	111.8	154.18	-575.0	4,231.1	1,438.6	1,322.1	116.46	12.352	
12,400.0	8,097.6	13,740.0	9,390.2	113.7	114.2	154.16	-574.0	4,331.1	1,437.5	1,318.5	118.98	12.082	
12,500.0	8,100.6	13,840.0	9,392.0	116.1	116.5	154.15	-573.0	4,431.1	1,436.4	1,314.9	121.51	11.822	
12,600.0	8,103.6	13,940.0	9,393.9	118.4	118.8	154.13	-572.0	4,531.1	1,435.3	1,311.3	124.04	11.572	
12,700.0	8,106.5	14,040.0	9,395.7	120.8	121.2	154.11	-571.0	4,631.0	1,434.2	1,307.7	126.57	11.332	
12,800.0	8,109.5	14,140.0	9,397.5	123.2	123.6	154.10	-570.0	4,731.0	1,433.2	1,304.1	129.11	11.100	
12,900.0	8,112.5	14,240.0	9,399.3	125.6	125.9	154.08	-569.0	4,831.0	1,432.1	1,300.4	131.66	10.877	
13,000.0	8,115.4	14,340.0	9,401.1	128.0	128.3	154.06	-568.0	4,930.9	1,431.0	1,296.8	134.21	10.663	
13,100.0	8,118.4	14,440.0	9,402.9	130.4	130.7	154.05	-567.0	5,030.9	1,429.9	1,293.2	136.76	10.456	
13,200.0	8,121.4	14,540.0	9,404.7	132.8	133.0	154.03	-566.0	5,130.9	1,428.8	1,289.5	139.32	10.256	
13,300.0	8,124.3	14,639.9	9,406.6	135.1	135.4	154.01	-565.0	5,230.9	1,427.8	1,285.9	141.88	10.063	
13,400.0	8,127.3	14,739.9	9,408.4	137.5	137.8	154.00	-564.0	5,330.8	1,426.7	1,282.2	144.45	9.877	
13,500.0	8,130.3	14,839.9	9,410.2	139.9	140.2	153.98	-563.0	5,430.8	1,425.6	1,278.6	147.02	9.697	
13,600.0	8,133.2	14,939.9	9,412.0	142.3	142.5	153.96	-562.0	5,530.8	1,424.5	1,274.9	149.59	9.523	
13,700.0	8,136.2	15,039.9	9,413.8	144.7	144.9	153.95	-561.0	5,630.8	1,423.4	1,271.3	152.17	9.354	
13,800.0	8,139.2	15,139.9	9,415.6	147.1	147.3	153.93	-560.0	5,730.7	1,422.4	1,267.6	154.76	9.191	
13,900.0	8,142.1	15,239.9	9,417.4	149.5	149.7	153.91	-559.0	5,830.7	1,421.3	1,263.9	157.34	9.033	
14,000.0	8,145.1	15,339.9	9,419.3	151.9	152.1	153.90	-558.1	5,930.7	1,420.2	1,260.3	159.93	8.880	
14,100.0	8,148.1	15,439.9	9,421.1	154.4	154.5	153.88	-557.1	6,030.6	1,419.1	1,256.6	162.53	8.732	
14,200.0	8,151.0	15,539.9	9,422.9	156.8	156.9	153.86	-556.1	6,130.6	1,418.0	1,252.9	165.12	8.588	
14,300.0	8,154.0	15,639.9	9,424.7	159.2	159.3	153.85	-555.1	6,230.6	1,417.0	1,249.2	167.72	8.448	
14,400.0	8,157.0	15,739.9	9,426.5	161.6	161.7	153.83	-554.1	6,330.6	1,415.9	1,245.6	170.33	8.313	
14,500.0	8,159.9	15,839.9	9,428.3	164.0	164.1	153.81	-553.1	6,430.5	1,414.8	1,241.9	172.94	8.181	
14,600.0	8,162.9	15,939.9	9,430.2	166.4	166.5	153.80	-552.1	6,530.5	1,413.7	1,238.2	175.55	8.053	
14,700.0	8,165.8	16,039.9	9,432.0	168.8	168.9	153.78	-551.1	6,630.5	1,412.7	1,234.5	178.16	7.929	
14,800.0	8,168.8	16,139.8	9,433.8	171.2	171.3	153.76	-550.1	6,730.4	1,411.6	1,230.8	180.78	7.808	
14,900.0	8,171.8	16,239.8	9,435.6	173.7	173.7	153.75	-549.1	6,830.4	1,410.5	1,227.1	183.40	7.691	
15,000.0	8,174.7	16,339.8	9,437.4	176.1	176.1	153.73	-548.1	6,930.4	1,409.4	1,223.4	186.02	7.577	
15,100.0	8,177.7	16,439.8	9,439.2	178.5	178.5	153.71	-547.1	7,030.4	1,408.3	1,219.7	188.65	7.466	
15,200.0	8,180.7	16,539.8	9,441.0	180.9	180.9	153.70	-546.1	7,130.3	1,407.3	1,216.0	191.27	7.357	
15,300.0	8,183.6	16,639.8	9,442.9	183.3	183.3	153.68	-545.1	7,230.3	1,406.2	1,212.3	193.91	7.252	
15,400.0	8,186.6	16,739.8	9,444.7	185.7	185.7	153.66	-544.1	7,330.3	1,405.1	1,208.6	196.54	7.149	
15,500.0	8,189.6	16,839.8	9,446.5	188.2	188.1	153.64	-543.1	7,430.2	1,404.0	1,204.9	199.18	7.049	
15,600.0	8,192.5	16,939.8	9,448.3	190.6	190.6	153.63	-542.1	7,530.2	1,403.0	1,201.1	201.82	6.951	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 Michael Ryan - Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,700.0	8,195.5	17,039.8	9,450.1	193.0	193.0	153.61	-541.1	7,630.2	1,401.9	1,197.4	204.47	6.856	
15,800.0	8,198.5	17,139.8	9,451.9	195.4	195.4	153.59	-540.2	7,730.2	1,400.8	1,193.7	207.11	6.764	
15,900.0	8,201.4	17,239.8	9,453.7	197.9	197.8	153.58	-539.2	7,830.1	1,399.7	1,190.0	209.76	6.673	
16,000.0	8,204.4	17,339.8	9,455.6	200.3	200.2	153.56	-538.2	7,930.1	1,398.6	1,186.2	212.41	6.585	
16,100.0	8,207.4	17,439.8	9,457.4	202.7	202.6	153.54	-537.2	8,030.1	1,397.6	1,182.5	215.07	6.498	
16,200.0	8,210.3	17,539.8	9,459.2	205.1	205.0	153.52	-536.2	8,130.1	1,396.5	1,178.8	217.73	6.414	
16,300.0	8,213.3	17,639.7	9,461.0	207.6	207.5	153.51	-535.2	8,230.0	1,395.4	1,175.0	220.39	6.332	
16,400.0	8,216.3	17,739.7	9,462.8	210.0	209.9	153.49	-534.2	8,330.0	1,394.3	1,171.3	223.05	6.251	
16,500.0	8,219.2	17,839.7	9,464.6	212.4	212.3	153.47	-533.2	8,430.0	1,393.3	1,167.6	225.72	6.173	
16,600.0	8,222.2	17,939.7	9,466.5	214.8	214.7	153.45	-532.2	8,529.9	1,392.2	1,163.8	228.39	6.096	
16,700.0	8,225.2	18,039.7	9,468.3	217.3	217.1	153.44	-531.2	8,629.9	1,391.1	1,160.1	231.06	6.021	
16,800.0	8,228.1	18,139.7	9,470.1	219.7	219.6	153.42	-530.2	8,729.9	1,390.0	1,156.3	233.73	5.947	
16,900.0	8,231.1	18,239.7	9,471.9	222.1	222.0	153.40	-529.2	8,829.9	1,389.0	1,152.6	236.41	5.875	
16,923.8	8,231.8	18,263.5	9,472.3	222.7	222.6	153.40	-529.0	8,853.6	1,388.7	1,151.7	237.05	5.858 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-164.75	-110.0	-30.0	114.0				
100.0	100.0	100.0	100.0	0.1	0.1	-164.75	-110.0	-30.0	114.0	113.8	0.26	444.882	
200.0	200.0	200.0	200.0	0.5	0.5	-164.75	-110.0	-30.0	114.0	113.1	0.97	117.161	
300.0	300.0	300.0	300.0	0.8	0.8	-164.75	-110.0	-30.0	114.0	112.3	1.69	67.464	
400.0	400.0	400.0	400.0	1.2	1.2	-164.75	-110.0	-30.0	114.0	111.6	2.41	47.370	
500.0	500.0	500.0	500.0	1.6	1.6	-164.75	-110.0	-30.0	114.0	110.9	3.12	36.499	
600.0	600.0	600.0	600.0	1.9	1.9	-164.75	-110.0	-30.0	114.0	110.2	3.84	29.687	
700.0	700.0	700.0	700.0	2.3	2.3	-164.75	-110.0	-30.0	114.0	109.5	4.56	25.017	
800.0	800.0	800.0	800.0	2.6	2.6	-164.75	-110.0	-30.0	114.0	108.8	5.27	21.617	
900.0	900.0	900.0	900.0	3.0	3.0	-164.75	-110.0	-30.0	114.0	108.0	5.99	19.030	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-164.75	-110.0	-30.0	114.0	107.3	6.71	16.997	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-164.75	-110.0	-30.0	114.0	106.6	7.43	15.356	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-164.75	-110.0	-30.0	114.0	105.9	8.14	14.004	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-164.75	-110.0	-30.0	114.0	105.2	8.86	12.870	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-164.75	-110.0	-30.0	114.0	104.5	9.58	11.907	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-164.75	-110.0	-30.0	114.0	103.7	10.29	11.078	
1,600.0	1,600.0	1,613.8	1,613.5	5.5	5.6	-163.02	-102.2	-31.2	107.7	96.7	10.99	9.797	
1,700.0	1,700.0	1,723.5	1,720.7	5.9	6.0	-156.63	-80.0	-34.6	89.6	78.1	11.56	7.752	
1,800.0	1,800.0	1,824.0	1,815.8	6.2	6.3	-140.41	-47.8	-39.5	64.0	51.8	12.25	5.226	
1,900.0	1,900.0	1,917.4	1,903.0	6.6	6.8	-108.44	-14.9	-44.6	47.1	33.8	13.31	3.538	
1,923.8	1,923.8	1,939.7	1,923.8	6.7	6.9	-98.71	-7.0	-45.8	46.3	32.8	13.52	3.425 CC, ES, SF	
2,000.0	2,000.0	2,010.8	1,990.3	6.9	7.2	-69.98	18.1	-49.6	53.7	39.8	13.89	3.866	
2,100.0	2,100.0	2,104.3	2,077.6	7.3	7.7	43.67	51.0	-54.7	77.5	63.2	14.24	5.439	
2,200.0	2,200.0	2,202.2	2,165.0	7.6	8.2	56.03	84.0	-59.7	107.0	92.2	14.76	7.249	
2,300.0	2,299.9	2,308.6	2,252.4	8.0	8.7	63.50	117.0	-64.8	138.6	123.2	15.41	8.995	
2,400.0	2,399.7	2,384.9	2,339.8	8.3	9.2	68.61	150.0	-69.8	171.0	155.0	15.97	10.704	
2,500.0	2,499.4	2,478.5	2,427.2	8.7	9.7	72.47	183.0	-74.9	203.9	187.2	16.64	12.251	
2,600.0	2,598.9	2,572.0	2,514.5	9.0	10.2	75.57	216.0	-80.0	237.1	219.8	17.33	13.681	
2,700.0	2,698.3	2,665.4	2,601.8	9.4	10.8	78.21	248.9	-85.0	270.5	252.5	18.04	15.000	
2,800.0	2,797.4	2,758.7	2,688.9	9.8	11.3	80.51	281.8	-90.0	304.2	285.5	18.76	16.218	
2,900.0	2,896.4	2,851.9	2,776.0	10.1	11.9	82.80	314.7	-95.1	338.3	318.8	19.50	17.352	
3,000.0	2,995.5	2,945.1	2,863.1	10.5	12.5	84.67	347.5	-100.1	372.8	352.5	20.25	18.412	
3,100.0	3,094.5	3,038.4	2,950.2	10.9	13.0	86.23	380.4	-105.2	407.5	386.5	21.01	19.402	
3,200.0	3,193.5	3,131.6	3,037.3	11.3	13.6	87.54	413.3	-110.2	442.5	420.8	21.77	20.327	
3,300.0	3,292.5	3,224.8	3,124.4	11.6	14.2	88.66	446.2	-115.2	477.7	455.2	22.54	21.191	
3,400.0	3,391.6	3,318.0	3,211.5	12.0	14.8	89.63	479.1	-120.3	513.0	489.7	23.32	21.998	
3,500.0	3,490.6	3,411.3	3,298.6	12.4	15.3	90.48	511.9	-125.3	548.4	524.3	24.10	22.754	
3,600.0	3,589.6	3,504.5	3,385.7	12.8	15.9	91.22	544.8	-130.3	583.9	559.0	24.89	23.462	
3,700.0	3,688.6	3,602.3	3,472.8	13.2	16.6	91.88	577.7	-135.4	619.5	593.8	25.70	24.108	
3,800.0	3,787.7	3,709.0	3,559.9	13.6	17.2	92.46	610.6	-140.4	655.2	628.6	26.55	24.676	
3,900.0	3,886.7	3,784.2	3,647.0	14.0	17.7	92.99	643.4	-145.5	690.9	663.6	27.27	25.337	
4,000.0	3,985.7	3,877.4	3,734.0	14.4	18.3	93.47	676.3	-150.5	726.6	698.6	28.07	25.890	
4,100.0	4,084.8	3,970.7	3,821.1	14.8	18.9	93.90	709.2	-155.5	762.4	733.5	28.87	26.411	
4,200.0	4,183.8	4,063.9	3,908.2	15.2	19.5	94.29	742.1	-160.6	798.2	768.6	29.67	26.903	
4,288.1	4,271.0	4,146.0	3,985.0	15.5	20.0	94.60	771.0	-165.0	829.8	799.4	30.38	27.314	
4,300.0	4,282.8	4,157.1	3,995.3	15.6	20.1	94.71	774.9	-165.6	834.1	803.6	30.48	27.368	
4,400.0	4,382.0	4,250.5	4,082.5	16.0	20.7	95.50	807.9	-170.7	869.8	838.6	31.27	27.814	
4,500.0	4,481.6	4,343.9	4,169.9	16.4	21.3	96.09	840.8	-175.7	905.3	873.3	32.05	28.247	
4,600.0	4,581.3	4,437.5	4,257.3	16.7	21.9	96.50	873.8	-180.8	940.6	907.8	32.81	28.667	
4,700.0	4,681.2	4,531.0	4,344.7	17.1	22.5	96.76	906.8	-185.8	975.6	942.0	33.55	29.076	
4,800.0	4,781.2	4,624.5	4,432.0	17.5	23.1	96.87	939.8	-190.9	1,010.3	976.1	34.28	29.476	
4,821.5	4,802.6	4,644.6	4,450.7	17.5	23.3	6.50	946.8	-191.9	1,017.8	983.3	34.43	29.561	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,881.2	4,718.0	4,519.3	17.8	23.7	6.10	972.7	-195.9	1,044.9	1,010.0	34.99	29.867	
5,000.0	4,981.2	4,811.4	4,606.5	18.1	24.3	5.62	1,005.7	-201.0	1,079.6	1,043.9	35.70	30.242	
5,100.0	5,081.2	4,904.8	4,693.8	18.5	25.0	5.16	1,038.6	-206.0	1,114.3	1,077.9	36.41	30.603	
5,200.0	5,181.2	5,001.8	4,781.1	18.8	25.6	4.74	1,071.6	-211.1	1,149.1	1,112.0	37.14	30.937	
5,300.0	5,281.2	5,108.4	4,868.4	19.2	26.3	4.34	1,104.5	-216.1	1,184.0	1,146.1	37.92	31.224	
5,400.0	5,381.2	5,185.1	4,955.6	19.5	26.8	3.96	1,137.4	-221.2	1,218.9	1,180.3	38.56	31.608	
5,500.0	5,481.2	5,278.5	5,042.9	19.8	27.4	3.60	1,170.4	-226.2	1,253.8	1,214.5	39.28	31.918	
5,600.0	5,581.2	5,371.9	5,130.2	20.2	28.0	3.27	1,203.3	-231.3	1,288.8	1,248.8	40.00	32.218	
5,700.0	5,681.2	5,465.3	5,217.5	20.5	28.6	2.95	1,236.3	-236.3	1,323.8	1,283.1	40.72	32.507	
5,800.0	5,781.2	5,558.7	5,304.7	20.9	29.2	2.64	1,269.2	-241.3	1,358.8	1,317.4	41.45	32.786	
5,900.0	5,881.2	5,652.2	5,392.0	21.2	29.8	2.36	1,302.2	-246.4	1,393.9	1,351.8	42.17	33.055	
6,000.0	5,981.2	5,745.6	5,479.3	21.6	30.5	2.08	1,335.1	-251.4	1,429.0	1,386.1	42.89	33.315	
6,100.0	6,081.2	5,839.0	5,566.5	21.9	31.1	1.82	1,368.0	-256.5	1,464.2	1,420.5	43.62	33.567	
6,200.0	6,181.2	5,932.4	5,653.8	22.3	31.7	1.57	1,401.0	-261.5	1,499.3	1,455.0	44.35	33.810	
6,300.0	6,281.2	6,082.2	5,794.7	22.6	32.6	1.21	1,451.4	-269.3	1,532.9	1,487.3	45.63	33.597	
6,400.0	6,381.2	6,241.1	5,946.1	23.0	33.6	0.90	1,498.8	-276.5	1,562.7	1,515.8	46.90	33.318	
6,500.0	6,481.2	6,403.9	6,103.3	23.3	34.5	0.63	1,540.9	-283.0	1,588.6	1,540.5	48.11	33.017	
6,600.0	6,581.2	6,570.3	6,265.6	23.6	35.3	0.42	1,577.0	-288.5	1,610.3	1,561.0	49.24	32.703	
6,700.0	6,681.2	6,739.6	6,432.2	24.0	36.0	0.25	1,606.6	-293.0	1,627.7	1,577.5	50.27	32.378	
6,800.0	6,781.2	6,911.4	6,602.4	24.3	36.7	0.12	1,629.1	-296.5	1,640.8	1,589.6	51.20	32.046	
6,900.0	6,881.2	7,084.8	6,775.2	24.7	37.3	0.04	1,644.1	-298.8	1,649.5	1,597.5	52.02	31.711	
7,000.0	6,981.2	7,259.3	6,949.5	25.0	37.7	0.00	1,651.4	-299.9	1,653.7	1,601.0	52.71	31.374	
7,100.0	7,081.2	7,409.0	7,081.2	25.4	38.1	0.00	1,652.1	-300.0	1,654.1	1,600.7	53.40	30.975	
7,200.0	7,181.2	7,509.0	7,181.2	25.7	38.3	0.00	1,652.1	-300.0	1,654.1	1,600.0	54.06	30.597	
7,300.0	7,281.2	7,609.0	7,281.2	26.1	38.6	0.00	1,652.1	-300.0	1,654.1	1,599.3	54.72	30.227	
7,400.0	7,381.2	7,709.0	7,381.2	26.4	38.8	0.00	1,652.1	-300.0	1,654.1	1,598.7	55.38	29.865	
7,422.3	7,403.5	7,713.3	7,403.5	26.5	38.8	0.00	1,652.1	-300.0	1,654.1	1,598.6	55.48	29.816	
7,450.0	7,431.2	7,741.0	7,431.2	26.6	38.9	-88.22	1,652.1	-300.0	1,654.0	1,598.4	55.65	29.720	
7,500.0	7,481.0	7,809.3	7,481.0	26.8	39.0	-88.40	1,652.1	-300.0	1,653.9	1,597.9	56.01	29.527	
7,550.0	7,530.1	7,839.9	7,530.1	26.9	39.1	-88.72	1,652.1	-300.0	1,653.7	1,597.4	56.24	29.404	
7,600.0	7,578.4	7,888.1	7,578.4	27.1	39.2	-89.19	1,652.1	-300.0	1,653.4	1,596.9	56.50	29.262	
7,650.0	7,625.2	7,935.0	7,625.2	27.2	39.3	-89.77	1,652.1	-300.0	1,653.3	1,596.5	56.75	29.131	
7,668.2	7,641.9	7,951.7	7,641.9	27.2	39.4	-90.00	1,652.1	-300.0	1,653.3	1,596.4	56.84	29.087	
7,700.0	7,670.4	7,980.2	7,670.4	27.3	39.5	-90.43	1,652.1	-300.0	1,653.3	1,596.3	56.99	29.012	
7,750.0	7,713.6	8,023.4	7,713.6	27.4	39.6	-91.14	1,652.1	-300.0	1,653.7	1,596.5	57.21	28.906	
7,800.0	7,754.4	8,064.2	7,754.4	27.6	39.7	-91.86	1,652.1	-300.0	1,654.7	1,597.2	57.43	28.811	
7,850.0	7,792.6	8,102.4	7,792.6	27.7	39.8	-92.55	1,652.1	-300.0	1,656.3	1,598.6	57.65	28.730	
7,900.0	7,827.7	8,137.5	7,827.7	27.8	39.8	-93.16	1,652.1	-300.0	1,658.8	1,600.9	57.88	28.659	
7,950.0	7,859.7	8,169.5	7,859.7	28.0	39.9	-93.65	1,652.1	-300.0	1,662.4	1,604.3	58.12	28.601	
8,000.0	7,888.2	8,202.0	7,888.2	28.2	40.0	-93.98	1,652.1	-300.0	1,667.2	1,608.8	58.40	28.547	
8,050.0	7,913.0	8,222.7	7,913.0	28.4	40.1	-94.10	1,652.1	-300.0	1,673.4	1,614.7	58.68	28.516	
8,100.0	7,933.9	8,243.7	7,933.9	28.7	40.1	-93.98	1,652.1	-300.0	1,681.0	1,622.0	59.01	28.489	
8,150.0	7,950.7	8,260.5	7,950.7	28.9	40.1	-93.60	1,652.1	-300.0	1,690.2	1,630.8	59.36	28.474	
8,200.0	7,963.5	8,273.2	7,963.5	29.2	40.2	-92.93	1,652.1	-300.0	1,700.9	1,641.1	59.74	28.470	
8,250.0	7,971.9	8,281.7	7,971.9	29.6	40.2	-91.96	1,652.1	-300.0	1,713.1	1,653.0	60.15	28.480	
8,300.0	7,976.0	8,285.8	7,976.0	30.0	40.2	-90.67	1,652.1	-300.0	1,726.8	1,666.2	60.58	28.505	
8,305.4	7,976.2	8,286.0	7,976.2	30.0	40.2	-90.52	1,652.1	-300.0	1,728.4	1,667.8	60.63	28.509	
8,369.8	7,978.1	8,287.9	7,978.1	30.6	40.2	-90.63	1,652.1	-300.0	1,748.9	1,687.7	61.22	28.567	
8,400.0	7,979.0	8,288.8	7,979.0	30.9	40.2	-90.66	1,652.1	-300.0	1,759.6	1,698.1	61.52	28.602	
8,500.0	7,982.0	8,308.2	7,982.0	31.9	40.3	-90.76	1,652.1	-300.0	1,798.1	1,735.5	62.63	28.710	
8,600.0	7,984.9	8,305.3	7,984.9	33.1	40.3	-90.87	1,652.1	-300.0	1,841.3	1,777.5	63.75	28.882	
8,700.0	7,987.9	8,302.3	7,987.9	34.4	40.2	-90.97	1,652.1	-300.0	1,888.8	1,823.8	64.92	29.096	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	7,990.9	8,300.7	7,990.9	35.9	40.2	-91.07	1,652.1	-300.0	1,940.2	1,874.1	66.10	29.354	
8,900.0	7,993.8	8,303.6	7,993.8	37.4	40.3	-91.18	1,652.1	-300.0	1,995.4	1,928.1	67.29	29.655	
9,000.0	7,996.8	8,306.6	7,996.8	39.0	40.3	-91.28	1,652.1	-300.0	2,053.9	1,985.4	68.45	30.007	
9,100.0	7,999.8	8,309.6	7,999.8	40.8	40.3	-91.38	1,652.1	-300.0	2,115.5	2,045.9	69.57	30.409	
9,200.0	8,002.7	10,860.2	9,416.7	42.6	49.0	-130.74	1,665.7	1,099.5	2,167.2	2,101.2	65.98	32.847	
9,300.0	8,005.7	10,960.2	9,419.1	44.4	50.5	-130.73	1,666.7	1,199.5	2,166.9	2,098.1	68.81	31.493	
9,400.0	8,008.7	11,060.2	9,421.5	46.3	52.1	-130.72	1,667.7	1,299.5	2,166.6	2,094.9	71.73	30.205	
9,500.0	8,011.6	11,160.2	9,424.0	48.3	53.7	-130.70	1,668.7	1,399.4	2,166.3	2,091.6	74.74	28.984	
9,600.0	8,014.6	11,260.2	9,426.4	50.3	55.4	-130.69	1,669.7	1,499.4	2,166.0	2,088.2	77.83	27.832	
9,700.0	8,017.6	11,360.2	9,428.8	52.3	57.2	-130.68	1,670.6	1,599.4	2,165.7	2,084.7	80.98	26.745	
9,800.0	8,020.5	11,460.2	9,431.2	54.4	59.0	-130.67	1,671.6	1,699.3	2,165.4	2,081.2	84.19	25.721	
9,900.0	8,023.5	11,560.2	9,433.7	56.5	60.9	-130.66	1,672.6	1,799.3	2,165.2	2,077.7	87.46	24.757	
10,000.0	8,026.5	11,660.2	9,436.1	58.6	62.9	-130.64	1,673.6	1,899.3	2,164.9	2,074.1	90.77	23.850	
10,100.0	8,029.4	11,760.2	9,438.5	60.8	64.8	-130.63	1,674.5	1,999.2	2,164.6	2,070.5	94.13	22.997	
10,200.0	8,032.4	11,860.2	9,440.9	63.0	66.8	-130.62	1,675.5	2,099.2	2,164.3	2,066.8	97.52	22.193	
10,300.0	8,035.4	11,960.2	9,443.4	65.2	68.9	-130.61	1,676.5	2,199.2	2,164.0	2,063.1	100.95	21.436	
10,400.0	8,038.3	12,060.2	9,445.8	67.4	70.9	-130.59	1,677.5	2,299.1	2,163.7	2,059.3	104.41	20.723	
10,500.0	8,041.3	12,160.2	9,448.2	69.6	73.0	-130.58	1,678.5	2,399.1	2,163.4	2,055.5	107.90	20.050	
10,600.0	8,044.3	12,260.2	9,450.6	71.8	75.1	-130.57	1,679.4	2,499.0	2,163.1	2,051.7	111.42	19.415	
10,700.0	8,047.2	12,360.2	9,453.1	74.1	77.2	-130.56	1,680.4	2,599.0	2,162.9	2,047.9	114.95	18.815	
10,800.0	8,050.2	12,460.2	9,455.5	76.4	79.4	-130.54	1,681.4	2,699.0	2,162.6	2,044.1	118.52	18.247	
10,900.0	8,053.2	12,560.2	9,457.9	78.7	81.5	-130.53	1,682.4	2,798.9	2,162.3	2,040.2	122.10	17.710	
11,000.0	8,056.1	12,660.2	9,460.3	80.9	83.7	-130.52	1,683.3	2,898.9	2,162.0	2,036.3	125.70	17.200	
11,100.0	8,059.1	12,760.2	9,462.8	83.2	85.9	-130.51	1,684.3	2,998.9	2,161.7	2,032.4	129.31	16.717	
11,200.0	8,062.0	12,860.2	9,465.2	85.5	88.1	-130.49	1,685.3	3,098.8	2,161.4	2,028.5	132.94	16.258	
11,300.0	8,065.0	12,960.2	9,467.6	87.9	90.4	-130.48	1,686.3	3,198.8	2,161.1	2,024.6	136.59	15.822	
11,400.0	8,068.0	13,060.2	9,470.1	90.2	92.6	-130.47	1,687.2	3,298.8	2,160.9	2,020.6	140.25	15.407	
11,500.0	8,070.9	13,160.2	9,472.5	92.5	94.8	-130.46	1,688.2	3,398.7	2,160.6	2,016.7	143.92	15.012	
11,600.0	8,073.9	13,260.2	9,474.9	94.8	97.1	-130.45	1,689.2	3,498.7	2,160.3	2,012.7	147.61	14.635	
11,700.0	8,076.9	13,360.2	9,477.3	97.2	99.3	-130.43	1,690.2	3,598.7	2,160.0	2,008.7	151.30	14.276	
11,800.0	8,079.8	13,460.2	9,479.8	99.5	101.6	-130.42	1,691.2	3,698.6	2,159.7	2,004.7	155.01	13.933	
11,900.0	8,082.8	13,560.2	9,482.2	101.9	103.9	-130.41	1,692.1	3,798.6	2,159.4	2,000.7	158.72	13.605	
12,000.0	8,085.8	13,660.2	9,484.6	104.2	106.2	-130.40	1,693.1	3,898.5	2,159.2	1,996.7	162.45	13.292	
12,100.0	8,088.7	13,760.2	9,487.0	106.6	108.5	-130.38	1,694.1	3,998.5	2,158.9	1,992.7	166.18	12.991	
12,200.0	8,091.7	13,860.2	9,489.5	109.0	110.8	-130.37	1,695.1	4,098.5	2,158.6	1,988.7	169.92	12.704	
12,300.0	8,094.7	13,960.2	9,491.9	111.3	113.1	-130.36	1,696.0	4,198.4	2,158.3	1,984.6	173.67	12.428	
12,400.0	8,097.6	14,060.2	9,494.3	113.7	115.4	-130.35	1,697.0	4,298.4	2,158.0	1,980.6	177.42	12.163	
12,500.0	8,100.6	14,160.2	9,496.7	116.1	117.7	-130.33	1,698.0	4,398.4	2,157.7	1,976.5	181.18	11.909	
12,600.0	8,103.6	14,260.2	9,499.2	118.4	120.0	-130.32	1,699.0	4,498.3	2,157.4	1,972.5	184.95	11.665	
12,700.0	8,106.5	14,360.2	9,501.6	120.8	122.4	-130.31	1,699.9	4,598.3	2,157.2	1,968.4	188.73	11.430	
12,800.0	8,109.5	14,460.2	9,504.0	123.2	124.7	-130.30	1,700.9	4,698.3	2,156.9	1,964.4	192.51	11.204	
12,900.0	8,112.5	14,560.1	9,506.4	125.6	127.0	-130.28	1,701.9	4,798.2	2,156.6	1,960.3	196.29	10.987	
13,000.0	8,115.4	14,660.1	9,508.9	128.0	129.4	-130.27	1,702.9	4,898.2	2,156.3	1,956.2	200.08	10.777	
13,100.0	8,118.4	14,760.1	9,511.3	130.4	131.7	-130.26	1,703.9	4,998.2	2,156.0	1,952.1	203.88	10.575	
13,200.0	8,121.4	14,860.1	9,513.7	132.8	134.1	-130.25	1,704.8	5,098.1	2,155.7	1,948.1	207.68	10.380	
13,300.0	8,124.3	14,960.1	9,516.1	135.1	136.4	-130.23	1,705.8	5,198.1	2,155.5	1,944.0	211.49	10.192	
13,400.0	8,127.3	15,060.1	9,518.6	137.5	138.8	-130.22	1,706.8	5,298.0	2,155.2	1,939.9	215.30	10.010	
13,500.0	8,130.3	15,160.1	9,521.0	139.9	141.1	-130.21	1,707.8	5,398.0	2,154.9	1,935.8	219.11	9.835	
13,600.0	8,133.2	15,260.1	9,523.4	142.3	143.5	-130.20	1,708.7	5,498.0	2,154.6	1,931.7	222.93	9.665	
13,700.0	8,136.2	15,360.1	9,525.8	144.7	145.9	-130.18	1,709.7	5,597.9	2,154.3	1,927.6	226.76	9.501	
13,800.0	8,139.2	15,460.1	9,528.3	147.1	148.2	-130.17	1,710.7	5,697.9	2,154.0	1,923.5	230.58	9.342	
13,900.0	8,142.1	15,560.1	9,530.7	149.5	150.6	-130.16	1,711.7	5,797.9	2,153.8	1,919.3	234.41	9.188	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,000.0	8,145.1	15,660.1	9,533.1	151.9	153.0	-130.15	1,712.6	5,897.8	2,153.5	1,915.2	238.25	9.039	
14,100.0	8,148.1	15,760.1	9,535.5	154.4	155.4	-130.13	1,713.6	5,997.8	2,153.2	1,911.1	242.09	8.894	
14,200.0	8,151.0	15,860.1	9,538.0	156.8	157.7	-130.12	1,714.6	6,097.8	2,152.9	1,907.0	245.93	8.754	
14,300.0	8,154.0	15,960.1	9,540.4	159.2	160.1	-130.11	1,715.6	6,197.7	2,152.6	1,902.9	249.77	8.618	
14,400.0	8,157.0	16,060.1	9,542.8	161.6	162.5	-130.10	1,716.6	6,297.7	2,152.3	1,898.7	253.62	8.486	
14,500.0	8,159.9	16,160.1	9,545.2	164.0	164.9	-130.09	1,717.5	6,397.7	2,152.1	1,894.6	257.47	8.358	
14,600.0	8,162.9	16,260.1	9,547.7	166.4	167.3	-130.07	1,718.5	6,497.6	2,151.8	1,890.5	261.33	8.234	
14,700.0	8,165.8	16,360.1	9,550.1	168.8	169.7	-130.06	1,719.5	6,597.6	2,151.5	1,886.3	265.18	8.113	
14,800.0	8,168.8	16,460.1	9,552.5	171.2	172.1	-130.05	1,720.5	6,697.5	2,151.2	1,882.2	269.04	7.996	
14,900.0	8,171.8	16,560.1	9,555.0	173.7	174.4	-130.04	1,721.4	6,797.5	2,150.9	1,878.0	272.91	7.882	
15,000.0	8,174.7	16,660.1	9,557.4	176.1	176.8	-130.02	1,722.4	6,897.5	2,150.7	1,873.9	276.77	7.770	
15,100.0	8,177.7	16,760.1	9,559.8	178.5	179.2	-130.01	1,723.4	6,997.4	2,150.4	1,869.7	280.64	7.662	
15,200.0	8,180.7	16,860.1	9,562.2	180.9	181.6	-130.00	1,724.4	7,097.4	2,150.1	1,865.6	284.51	7.557	
15,300.0	8,183.6	16,960.1	9,564.7	183.3	184.0	-129.99	1,725.4	7,197.4	2,149.8	1,861.4	288.38	7.455	
15,400.0	8,186.6	17,060.1	9,567.1	185.7	186.4	-129.97	1,726.3	7,297.3	2,149.5	1,857.3	292.26	7.355	
15,500.0	8,189.6	17,160.1	9,569.5	188.2	188.8	-129.96	1,727.3	7,397.3	2,149.2	1,853.1	296.14	7.258	
15,600.0	8,192.5	17,260.1	9,571.9	190.6	191.2	-129.95	1,728.3	7,497.3	2,149.0	1,848.9	300.02	7.163	
15,700.0	8,195.5	17,360.1	9,574.4	193.0	193.6	-129.94	1,729.3	7,597.2	2,148.7	1,844.8	303.90	7.070	
15,800.0	8,198.5	17,460.1	9,576.8	195.4	196.0	-129.92	1,730.2	7,697.2	2,148.4	1,840.6	307.79	6.980	
15,900.0	8,201.4	17,560.1	9,579.2	197.9	198.4	-129.91	1,731.2	7,797.2	2,148.1	1,836.4	311.68	6.892	
16,000.0	8,204.4	17,660.1	9,581.6	200.3	200.8	-129.90	1,732.2	7,897.1	2,147.8	1,832.3	315.57	6.806	
16,100.0	8,207.4	17,760.1	9,584.1	202.7	203.2	-129.89	1,733.2	7,997.1	2,147.6	1,828.1	319.46	6.722	
16,200.0	8,210.3	17,860.1	9,586.5	205.1	205.6	-129.87	1,734.1	8,097.0	2,147.3	1,823.9	323.35	6.641	
16,300.0	8,213.3	17,960.1	9,588.9	207.6	208.1	-129.86	1,735.1	8,197.0	2,147.0	1,819.7	327.25	6.561	
16,400.0	8,216.3	18,060.1	9,591.3	210.0	210.5	-129.85	1,736.1	8,297.0	2,146.7	1,815.6	331.15	6.483	
16,500.0	8,219.2	18,160.1	9,593.8	212.4	212.9	-129.84	1,737.1	8,396.9	2,146.4	1,811.4	335.05	6.406	
16,600.0	8,222.2	18,260.1	9,596.2	214.8	215.3	-129.82	1,738.1	8,496.9	2,146.2	1,807.2	338.95	6.332	
16,700.0	8,225.2	18,360.1	9,598.6	217.3	217.7	-129.81	1,739.0	8,596.9	2,145.9	1,803.0	342.86	6.259	
16,759.6	8,226.9	18,419.7	9,600.1	218.7	219.1	-129.80	1,739.6	8,656.5	2,145.7	1,800.5	345.19	6.216	
16,800.0	8,228.1	18,408.9	9,599.8	219.7	218.9	-129.80	1,739.5	8,645.6	2,146.2	1,800.2	345.98	6.203	
16,900.0	8,231.1	18,408.9	9,599.8	222.1	218.9	-129.80	1,739.5	8,645.6	2,150.6	1,802.8	347.82	6.183	
16,923.8	8,231.8	18,408.9	9,599.8	222.7	218.9	-129.80	1,739.5	8,645.6	2,152.4	1,804.2	348.15	6.182	

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 Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-134.89	-29.8	-29.9	42.2				
100.0	100.0	100.0	100.0	0.1	0.1	-134.89	-29.8	-29.9	42.2	41.9	0.26	164.634	
200.0	200.0	200.0	200.0	0.5	0.5	-134.89	-29.8	-29.9	42.2	41.2	0.97	43.357	
300.0	300.0	300.0	300.0	0.8	0.8	-134.89	-29.8	-29.9	42.2	40.5	1.69	24.966	
400.0	400.0	400.0	400.0	1.2	1.2	-134.89	-29.8	-29.9	42.2	39.8	2.41	17.530	
500.0	500.0	500.0	500.0	1.6	1.6	-134.89	-29.8	-29.9	42.2	39.1	3.12	13.507	
600.0	600.0	600.0	600.0	1.9	1.9	-134.89	-29.8	-29.9	42.2	38.4	3.84	10.986	
700.0	700.0	700.0	700.0	2.3	2.3	-134.89	-29.8	-29.9	42.2	37.6	4.56	9.258	
800.0	800.0	800.0	800.0	2.6	2.6	-134.89	-29.8	-29.9	42.2	36.9	5.27	8.000	
900.0	900.0	900.0	900.0	3.0	3.0	-134.89	-29.8	-29.9	42.2	36.2	5.99	7.042	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-134.89	-29.8	-29.9	42.2	35.5	6.71	6.290	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-134.89	-29.8	-29.9	42.2	34.8	7.43	5.683	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-134.89	-29.8	-29.9	42.2	34.1	8.14	5.182	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-134.89	-29.8	-29.9	42.2	33.3	8.86	4.763	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-134.89	-29.8	-29.9	42.2	32.6	9.58	4.406	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-134.89	-29.8	-29.9	42.2	31.9	10.29	4.099	
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-134.89	-29.8	-29.9	42.2	31.2	11.01	3.832	
1,700.0	1,700.0	1,700.0	1,700.0	5.9	5.9	-134.89	-29.8	-29.9	42.2	30.5	11.73	3.598	
1,800.0	1,800.0	1,800.0	1,800.0	6.2	6.2	-134.89	-29.8	-29.9	42.2	29.8	12.44	3.391	
1,900.0	1,900.0	1,900.4	1,900.4	6.6	6.6	-133.87	-28.9	-30.1	41.7	28.6	13.16	3.171	
2,000.0	2,000.0	2,000.7	2,000.7	6.9	6.9	-130.69	-26.3	-30.6	40.4	26.5	13.88	2.912	
2,100.0	2,100.0	2,100.9	2,100.8	7.3	7.3	-35.33	-22.1	-31.6	37.8	23.2	14.58	2.592	
2,200.0	2,200.0	2,201.0	2,200.6	7.6	7.7	-28.31	-16.1	-32.9	33.5	18.2	15.29	2.190	
2,300.0	2,299.9	2,300.7	2,300.1	8.0	8.0	-17.04	-8.4	-34.5	27.9	11.9	15.99	1.747	
2,400.0	2,399.7	2,400.2	2,399.1	8.3	8.4	2.95	0.9	-36.5	22.6	5.9	16.69	1.354 Level 3	
2,476.4	2,475.8	2,475.9	2,474.3	8.6	8.7	26.92	9.1	-38.3	20.8	3.6	17.19	1.207 Level 2, CC, ES, SF	
2,500.0	2,499.4	2,499.2	2,497.5	8.7	8.7	35.36	11.9	-38.9	21.0	3.6	17.34	1.210 Level 2	
2,600.0	2,598.9	2,597.8	2,595.2	9.0	9.1	67.23	24.4	-41.6	26.9	9.0	17.97	1.498 Level 3	
2,700.0	2,698.3	2,695.9	2,692.2	9.4	9.5	86.47	38.5	-44.6	39.3	20.7	18.64	2.111	
2,800.0	2,797.4	2,793.3	2,788.4	9.8	9.8	97.08	54.2	-48.0	55.8	36.5	19.33	2.889	
2,900.0	2,896.4	2,890.2	2,883.6	10.1	10.2	102.96	71.3	-51.7	75.1	55.1	20.02	3.750	
3,000.0	2,995.5	2,987.3	2,978.8	10.5	10.6	106.01	89.8	-55.7	96.1	75.3	20.74	4.632	
3,100.0	3,094.5	3,084.9	3,074.5	10.9	11.0	107.93	108.7	-59.8	117.4	95.9	21.48	5.465	
3,200.0	3,193.5	3,182.5	3,170.2	11.3	11.4	109.26	127.6	-63.9	138.8	116.6	22.23	6.246	
3,300.0	3,292.5	3,280.2	3,265.9	11.6	11.8	110.23	146.4	-67.9	160.3	137.3	22.98	6.976	
3,400.0	3,391.6	3,377.8	3,361.7	12.0	12.2	110.97	165.3	-72.0	181.8	158.1	23.73	7.661	
3,500.0	3,490.6	3,475.4	3,457.4	12.4	12.6	111.56	184.2	-76.1	203.3	178.9	24.49	8.304	
3,600.0	3,589.6	3,573.1	3,553.1	12.8	13.0	112.03	203.0	-80.1	224.9	199.6	25.25	8.907	
3,700.0	3,688.6	3,670.7	3,648.8	13.2	13.4	112.42	221.9	-84.2	246.5	220.4	26.01	9.475	
3,800.0	3,787.7	3,768.3	3,744.5	13.6	13.9	112.75	240.8	-88.3	268.0	241.2	26.78	10.009	
3,900.0	3,886.7	3,866.0	3,840.2	14.0	14.3	113.03	259.6	-92.3	289.6	262.1	27.55	10.513	
4,000.0	3,985.7	3,963.6	3,935.9	14.4	14.7	113.27	278.5	-96.4	311.2	282.9	28.32	10.989	
4,100.0	4,084.8	4,061.2	4,031.6	14.8	15.1	113.48	297.4	-100.5	332.8	303.7	29.09	11.439	
4,200.0	4,183.8	4,158.9	4,127.3	15.2	15.6	113.66	316.2	-104.6	354.4	324.5	29.87	11.865	
4,288.1	4,271.0	4,244.9	4,211.7	15.5	15.9	113.80	332.9	-108.1	373.4	342.8	30.55	12.221	
4,300.0	4,282.8	4,256.5	4,223.0	15.6	16.0	113.86	335.1	-108.6	376.0	345.3	30.65	12.268	
4,400.0	4,382.0	4,354.3	4,318.9	16.0	16.4	114.08	354.0	-112.7	396.9	365.5	31.42	12.634	
4,500.0	4,481.6	4,452.2	4,414.9	16.4	16.9	113.95	372.9	-116.8	416.8	384.7	32.18	12.954	
4,600.0	4,581.3	4,550.3	4,511.0	16.7	17.3	113.53	391.9	-120.9	435.7	402.8	32.93	13.235	
4,700.0	4,681.2	4,648.4	4,607.2	17.1	17.7	112.85	410.8	-125.0	453.7	420.1	33.66	13.480	
4,800.0	4,781.2	4,746.5	4,703.4	17.5	18.2	111.93	429.8	-129.1	470.9	436.5	34.38	13.696	
4,821.5	4,802.6	4,767.5	4,724.0	17.5	18.3	21.32	433.8	-129.9	474.4	439.9	34.53	13.740	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,881.2	4,844.5	4,799.4	17.8	18.6	20.32	448.7	-133.1	487.5	452.4	35.09	13.895		
5,000.0	4,981.2	4,942.6	4,895.5	18.1	19.1	19.12	467.7	-137.2	504.4	468.6	35.79	14.092		
5,100.0	5,081.2	5,040.6	4,991.6	18.5	19.5	18.00	486.6	-141.3	521.5	485.0	36.50	14.287		
5,200.0	5,181.2	5,138.6	5,087.7	18.8	19.9	16.94	505.5	-145.4	538.7	501.5	37.21	14.479		
5,300.0	5,281.2	5,236.6	5,183.8	19.2	20.4	15.96	524.5	-149.5	556.2	518.3	37.91	14.669		
5,400.0	5,381.2	5,334.7	5,279.9	19.5	20.8	15.03	543.4	-153.6	573.8	535.1	38.62	14.856		
5,500.0	5,481.2	5,432.7	5,376.0	19.8	21.3	14.16	562.4	-157.7	591.5	552.1	39.33	15.039		
5,600.0	5,581.2	5,530.7	5,472.1	20.2	21.7	13.34	581.3	-161.8	609.3	569.3	40.04	15.219		
5,700.0	5,681.2	5,628.7	5,568.2	20.5	22.2	12.56	600.2	-165.8	627.3	586.5	40.75	15.395		
5,800.0	5,781.2	5,726.8	5,664.3	20.9	22.6	11.83	619.2	-169.9	645.3	603.9	41.45	15.567		
5,900.0	5,881.2	5,824.8	5,760.4	21.2	23.1	11.14	638.1	-174.0	663.5	621.3	42.16	15.736		
6,000.0	5,981.2	5,922.8	5,856.5	21.6	23.5	10.48	657.1	-178.1	681.8	638.9	42.87	15.902		
6,100.0	6,081.2	6,020.9	5,952.6	21.9	24.0	9.86	676.0	-182.2	700.1	656.5	43.58	16.063		
6,200.0	6,181.2	6,118.9	6,048.6	22.3	24.4	9.27	695.0	-186.3	718.5	674.2	44.29	16.221		
6,300.0	6,281.2	6,216.9	6,144.7	22.6	24.9	8.71	713.9	-190.4	737.0	692.0	45.00	16.376		
6,400.0	6,381.2	6,314.9	6,240.8	23.0	25.3	8.18	732.8	-194.5	755.5	709.8	45.72	16.527		
6,500.0	6,481.2	6,413.0	6,336.9	23.3	25.8	7.67	751.8	-198.5	774.1	727.7	46.43	16.674		
6,600.0	6,581.2	6,511.0	6,433.0	23.6	26.2	7.18	770.7	-202.6	792.8	745.7	47.14	16.818		
6,700.0	6,681.2	6,609.0	6,529.1	24.0	26.7	6.72	789.7	-206.7	811.5	763.7	47.85	16.959		
6,800.0	6,781.2	6,707.0	6,625.2	24.3	27.1	6.28	808.6	-210.8	830.3	781.7	48.57	17.096		
6,900.0	6,881.2	6,805.1	6,721.3	24.7	27.6	5.86	827.5	-214.9	849.1	799.8	49.28	17.230		
7,000.0	6,981.2	6,903.1	6,817.4	25.0	28.0	5.46	846.5	-219.0	867.9	817.9	49.99	17.361		
7,100.0	7,081.2	7,001.1	6,913.5	25.4	28.5	5.07	865.4	-223.1	886.8	836.1	50.71	17.489		
7,200.0	7,181.2	7,100.9	7,009.6	25.7	28.9	4.70	884.4	-227.1	905.8	854.3	51.43	17.612		
7,300.0	7,281.2	7,202.8	7,105.7	26.1	29.4	4.35	903.3	-231.2	924.7	872.6	52.16	17.729		
7,400.0	7,381.2	7,304.8	7,201.8	26.4	29.9	4.00	922.2	-235.3	943.7	890.8	52.89	17.843		
7,422.3	7,403.5	7,317.1	7,223.2	26.5	29.9	3.93	926.5	-236.2	948.0	895.0	53.01	17.882		
7,450.0	7,431.2	7,344.2	7,249.8	26.6	30.1	-83.87	931.7	-237.4	953.2	900.0	53.21	17.915		
7,500.0	7,481.0	7,407.2	7,297.4	26.8	30.4	-83.39	941.1	-239.4	962.2	908.6	53.59	17.955		
7,550.0	7,530.1	7,440.7	7,344.4	26.9	30.5	-83.18	950.4	-241.4	970.9	917.0	53.85	18.031		
7,600.0	7,578.4	7,487.5	7,390.3	27.1	30.7	-83.22	959.4	-243.3	979.2	925.1	54.14	18.088		
7,650.0	7,625.2	7,532.9	7,434.7	27.2	30.9	-83.45	968.2	-245.2	987.4	933.0	54.41	18.147		
7,700.0	7,670.4	7,576.4	7,477.4	27.3	31.1	-83.83	976.6	-247.0	995.5	940.8	54.67	18.209		
7,750.0	7,713.6	7,617.8	7,518.0	27.4	31.3	-84.30	984.6	-248.8	1,003.8	948.9	54.92	18.278		
7,800.0	7,754.4	7,656.8	7,556.2	27.6	31.5	-84.79	992.1	-250.4	1,012.4	957.3	55.16	18.356		
7,850.0	7,792.6	7,707.0	7,591.7	27.7	31.7	-85.26	999.1	-251.9	1,021.7	966.2	55.45	18.427		
7,900.0	7,827.7	7,726.3	7,624.3	27.8	31.8	-85.62	1,005.5	-253.3	1,031.8	976.1	55.63	18.546		
7,950.0	7,859.7	7,756.2	7,653.7	28.0	32.0	-85.82	1,011.3	-254.5	1,042.9	987.0	55.88	18.661		
8,000.0	7,888.2	7,782.7	7,679.6	28.2	32.1	-85.81	1,016.4	-255.6	1,055.2	999.0	56.15	18.791		
8,050.0	7,913.0	7,805.4	7,701.9	28.4	32.2	-85.52	1,020.8	-256.6	1,068.8	1,012.3	56.43	18.938		
8,100.0	7,933.9	7,824.3	7,720.4	28.7	32.3	-84.92	1,024.5	-257.4	1,083.8	1,027.0	56.74	19.102		
8,150.0	7,950.7	7,839.2	7,735.0	28.9	32.4	-83.96	1,027.4	-258.0	1,100.2	1,043.2	57.06	19.284		
8,200.0	7,963.5	7,849.9	7,745.5	29.2	32.4	-82.64	1,029.4	-258.5	1,118.1	1,060.7	57.39	19.484		
8,250.0	7,971.9	7,856.4	7,751.9	29.6	32.4	-80.93	1,030.7	-258.7	1,137.3	1,079.6	57.73	19.702		
8,300.0	7,976.0	7,858.7	7,754.1	30.0	32.5	-78.86	1,031.1	-258.8	1,157.8	1,099.7	58.07	19.938		
8,305.4	7,976.2	7,858.7	7,754.1	30.0	32.5	-78.61	1,031.1	-258.8	1,160.0	1,101.9	58.10	19.965		
8,369.8	7,978.1	7,858.1	7,753.6	30.6	32.5	-78.49	1,031.0	-258.8	1,189.2	1,130.7	58.55	20.310		
8,400.0	7,979.0	7,857.8	7,753.2	30.9	32.4	-78.47	1,031.0	-258.8	1,204.1	1,145.4	58.77	20.489		
8,500.0	7,982.0	7,856.7	7,752.2	31.9	32.4	-78.41	1,030.7	-258.7	1,257.5	1,198.0	59.51	21.132		
8,600.0	7,984.9	7,855.6	7,751.1	33.1	32.4	-78.35	1,030.5	-258.7	1,316.3	1,256.0	60.24	21.850		
8,700.0	7,987.9	7,854.5	7,750.0	34.4	32.4	-78.29	1,030.3	-258.6	1,379.8	1,318.8	60.95	22.637		
8,800.0	7,990.9	7,853.4	7,749.0	35.9	32.4	-78.23	1,030.1	-258.6	1,447.4	1,385.8	61.62	23.489		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,900.0	7,993.8	7,852.3	7,747.9	37.4	32.4	-78.17	1,029.9	-258.6	1,518.7	1,456.4	62.24	24.399	
9,000.0	7,996.8	7,851.3	7,746.8	39.0	32.4	-78.11	1,029.7	-258.5	1,593.0	1,530.2	62.81	25.361	
9,100.0	7,999.8	7,850.2	7,745.8	40.8	32.4	-78.05	1,029.5	-258.5	1,670.0	1,606.7	63.33	26.368	
9,200.0	8,002.7	7,849.1	7,744.7	42.6	32.4	-77.99	1,029.3	-258.4	1,749.3	1,685.5	63.81	27.416	
9,300.0	8,005.7	7,848.0	7,743.6	44.4	32.4	-77.93	1,029.1	-258.4	1,830.7	1,766.5	64.24	28.499	
9,400.0	8,008.7	7,846.9	7,742.6	46.3	32.4	-77.87	1,028.8	-258.3	1,913.8	1,849.2	64.62	29.614	
9,500.0	8,011.6	7,845.8	7,741.5	48.3	32.4	-77.81	1,028.6	-258.3	1,998.5	1,933.5	64.98	30.757	
9,600.0	8,014.6	7,844.7	7,740.4	50.3	32.4	-77.75	1,028.4	-258.2	2,084.5	2,019.2	65.30	31.924	
9,700.0	8,017.6	7,843.6	7,739.4	52.3	32.4	-77.69	1,028.2	-258.2	2,171.7	2,106.2	65.59	33.113	
9,800.0	8,020.5	7,842.6	7,738.3	54.4	32.4	-77.63	1,028.0	-258.1	2,260.0	2,194.2	65.85	34.320	
9,900.0	8,023.5	7,841.5	7,737.2	56.5	32.4	-77.58	1,027.8	-258.1	2,349.3	2,283.2	66.09	35.545	
10,000.0	8,026.5	12,042.5	10,022.0	58.6	62.9	-146.48	1,353.1	1,880.9	2,394.6	2,323.5	71.05	33.702	
10,100.0	8,029.4	12,142.5	10,024.8	60.8	64.8	-146.48	1,354.1	1,980.9	2,394.5	2,320.9	73.63	32.521	
10,200.0	8,032.4	12,242.5	10,027.6	63.0	66.8	-146.47	1,355.1	2,080.8	2,394.4	2,318.1	76.24	31.407	
10,300.0	8,035.4	12,342.5	10,030.3	65.2	68.8	-146.47	1,356.1	2,180.8	2,394.3	2,315.4	78.88	30.355	
10,400.0	8,038.3	12,442.5	10,033.1	67.4	70.8	-146.46	1,357.1	2,280.8	2,394.2	2,312.6	81.54	29.363	
10,500.0	8,041.3	12,542.5	10,035.9	69.6	72.9	-146.46	1,358.1	2,380.7	2,394.1	2,309.9	84.23	28.425	
10,600.0	8,044.3	12,642.5	10,038.7	71.8	75.0	-146.45	1,359.1	2,480.7	2,394.0	2,307.0	86.93	27.538	
10,700.0	8,047.2	12,742.5	10,041.4	74.1	77.1	-146.45	1,360.1	2,580.6	2,393.9	2,304.2	89.66	26.699	
10,800.0	8,050.2	12,842.5	10,044.2	76.4	79.2	-146.44	1,361.1	2,680.6	2,393.8	2,301.4	92.41	25.905	
10,900.0	8,053.2	12,942.5	10,047.0	78.7	81.4	-146.44	1,362.1	2,780.5	2,393.7	2,298.5	95.17	25.152	
11,000.0	8,056.1	13,042.5	10,049.7	80.9	83.5	-146.43	1,363.1	2,880.5	2,393.6	2,295.6	97.94	24.438	
11,100.0	8,059.1	13,142.5	10,052.5	83.2	85.7	-146.43	1,364.1	2,980.5	2,393.5	2,292.7	100.74	23.760	
11,200.0	8,062.0	13,242.5	10,055.3	85.5	87.9	-146.42	1,365.1	3,080.4	2,393.4	2,289.8	103.54	23.116	
11,300.0	8,065.0	13,342.5	10,058.1	87.9	90.1	-146.42	1,366.1	3,180.4	2,393.3	2,286.9	106.35	22.503	
11,400.0	8,068.0	13,442.5	10,060.8	90.2	92.3	-146.41	1,367.1	3,280.3	2,393.2	2,284.0	109.18	21.920	
11,500.0	8,070.9	13,542.5	10,063.6	92.5	94.6	-146.41	1,368.1	3,380.3	2,393.1	2,281.1	112.02	21.364	
11,600.0	8,073.9	13,642.5	10,066.4	94.8	96.8	-146.40	1,369.1	3,480.2	2,393.0	2,278.1	114.86	20.834	
11,700.0	8,076.9	13,742.5	10,069.2	97.2	99.1	-146.40	1,370.1	3,580.2	2,392.9	2,275.2	117.72	20.327	
11,800.0	8,079.8	13,842.5	10,071.9	99.5	101.3	-146.40	1,371.1	3,680.1	2,392.8	2,272.2	120.58	19.844	
11,900.0	8,082.8	13,942.5	10,074.7	101.9	103.6	-146.39	1,372.1	3,780.1	2,392.7	2,269.2	123.45	19.382	
12,000.0	8,085.8	14,042.5	10,077.5	104.2	105.9	-146.39	1,373.1	3,880.1	2,392.6	2,266.2	126.33	18.940	
12,100.0	8,088.7	14,142.5	10,080.2	106.6	108.1	-146.38	1,374.1	3,980.0	2,392.5	2,263.3	129.21	18.516	
12,200.0	8,091.7	14,242.5	10,083.0	109.0	110.4	-146.38	1,375.1	4,080.0	2,392.4	2,260.3	132.10	18.110	
12,300.0	8,094.7	14,342.5	10,085.8	111.3	112.7	-146.37	1,376.1	4,179.9	2,392.3	2,257.3	135.00	17.721	
12,400.0	8,097.6	14,442.5	10,088.6	113.7	115.0	-146.37	1,377.1	4,279.9	2,392.2	2,254.3	137.90	17.347	
12,500.0	8,100.6	14,542.5	10,091.3	116.1	117.3	-146.36	1,378.1	4,379.8	2,392.1	2,251.3	140.81	16.988	
12,600.0	8,103.6	14,642.5	10,094.1	118.4	119.7	-146.36	1,379.1	4,479.8	2,392.0	2,248.3	143.72	16.643	
12,700.0	8,106.5	14,742.5	10,096.9	120.8	122.0	-146.35	1,380.1	4,579.8	2,391.9	2,245.2	146.64	16.311	
12,800.0	8,109.5	14,842.5	10,099.6	123.2	124.3	-146.35	1,381.1	4,679.7	2,391.8	2,242.2	149.56	15.992	
12,900.0	8,112.5	14,942.5	10,102.4	125.6	126.6	-146.34	1,382.1	4,779.7	2,391.7	2,239.2	152.49	15.685	
13,000.0	8,115.4	15,042.5	10,105.2	128.0	129.0	-146.34	1,383.1	4,879.6	2,391.6	2,236.2	155.42	15.388	
13,100.0	8,118.4	15,142.5	10,108.0	130.4	131.3	-146.33	1,384.1	4,979.6	2,391.5	2,233.1	158.35	15.102	
13,200.0	8,121.4	15,242.5	10,110.7	132.8	133.6	-146.33	1,385.1	5,079.5	2,391.4	2,230.1	161.29	14.827	
13,300.0	8,124.3	15,342.5	10,113.5	135.1	136.0	-146.32	1,386.1	5,179.5	2,391.3	2,227.0	164.23	14.561	
13,400.0	8,127.3	15,442.5	10,116.3	137.5	138.3	-146.32	1,387.1	5,279.5	2,391.2	2,224.0	167.17	14.304	
13,500.0	8,130.3	15,542.5	10,119.0	139.9	140.7	-146.31	1,388.1	5,379.4	2,391.1	2,220.9	170.12	14.055	
13,600.0	8,133.2	15,642.5	10,121.8	142.3	143.0	-146.31	1,389.1	5,479.4	2,391.0	2,217.9	173.07	13.815	
13,700.0	8,136.2	15,742.5	10,124.6	144.7	145.4	-146.30	1,390.1	5,579.3	2,390.9	2,214.8	176.03	13.582	
13,800.0	8,139.2	15,842.5	10,127.4	147.1	147.8	-146.30	1,391.1	5,679.3	2,390.8	2,211.8	178.98	13.358	
13,900.0	8,142.1	15,942.5	10,130.1	149.5	150.1	-146.30	1,392.1	5,779.2	2,390.7	2,208.7	181.94	13.140	
14,000.0	8,145.1	16,042.5	10,132.9	151.9	152.5	-146.29	1,393.1	5,879.2	2,390.6	2,205.7	184.90	12.929	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 Michael Ryan - Michael Ryan Fed Com #223H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	8,148.1	16,142.5	10,135.7	154.4	154.9	-146.29	1,394.1	5,979.1	2,390.5	2,202.6	187.87	12.724	
14,200.0	8,151.0	16,242.5	10,138.5	156.8	157.2	-146.28	1,395.1	6,079.1	2,390.4	2,199.5	190.84	12.526	
14,300.0	8,154.0	16,342.5	10,141.2	159.2	159.6	-146.28	1,396.1	6,179.1	2,390.3	2,196.5	193.81	12.333	
14,400.0	8,157.0	16,442.5	10,144.0	161.6	162.0	-146.27	1,397.1	6,279.0	2,390.2	2,193.4	196.78	12.147	
14,500.0	8,159.9	16,542.5	10,146.8	164.0	164.4	-146.27	1,398.1	6,379.0	2,390.1	2,190.3	199.75	11.965	
14,600.0	8,162.9	16,642.5	10,149.5	166.4	166.8	-146.26	1,399.1	6,478.9	2,390.0	2,187.2	202.73	11.789	
14,700.0	8,165.8	16,742.5	10,152.3	168.8	169.1	-146.26	1,400.1	6,578.9	2,389.9	2,184.2	205.71	11.618	
14,800.0	8,168.8	16,842.5	10,155.1	171.2	171.5	-146.25	1,401.1	6,678.8	2,389.8	2,181.1	208.69	11.451	
14,900.0	8,171.8	16,942.5	10,157.9	173.7	173.9	-146.25	1,402.1	6,778.8	2,389.7	2,178.0	211.67	11.290	
15,000.0	8,174.7	17,042.5	10,160.6	176.1	176.3	-146.24	1,403.1	6,878.8	2,389.6	2,174.9	214.65	11.132	
15,100.0	8,177.7	17,142.5	10,163.4	178.5	178.7	-146.24	1,404.1	6,978.7	2,389.5	2,171.8	217.64	10.979	
15,200.0	8,180.7	17,242.5	10,166.2	180.9	181.1	-146.23	1,405.1	7,078.7	2,389.4	2,168.7	220.63	10.830	
15,300.0	8,183.6	17,342.5	10,168.9	183.3	183.5	-146.23	1,406.1	7,178.6	2,389.3	2,165.7	223.62	10.685	
15,400.0	8,186.6	17,442.5	10,171.7	185.7	185.9	-146.22	1,407.1	7,278.6	2,389.2	2,162.6	226.61	10.543	
15,500.0	8,189.6	17,542.5	10,174.5	188.2	188.3	-146.22	1,408.1	7,378.5	2,389.1	2,159.5	229.60	10.405	
15,600.0	8,192.5	17,642.5	10,177.3	190.6	190.7	-146.21	1,409.1	7,478.5	2,389.0	2,156.4	232.59	10.271	
15,700.0	8,195.5	17,742.5	10,180.0	193.0	193.1	-146.21	1,410.1	7,578.4	2,388.9	2,153.3	235.59	10.140	
15,800.0	8,198.5	17,842.5	10,182.8	195.4	195.5	-146.20	1,411.1	7,678.4	2,388.8	2,150.2	238.59	10.012	
15,900.0	8,201.4	17,942.5	10,185.6	197.9	197.9	-146.20	1,412.1	7,778.4	2,388.7	2,147.1	241.58	9.888	
16,000.0	8,204.4	18,042.5	10,188.4	200.3	200.3	-146.20	1,413.1	7,878.3	2,388.6	2,144.0	244.58	9.766	
16,100.0	8,207.4	18,142.5	10,191.1	202.7	202.7	-146.19	1,414.1	7,978.3	2,388.5	2,140.9	247.59	9.647	
16,200.0	8,210.3	18,242.5	10,193.9	205.1	205.1	-146.19	1,415.1	8,078.2	2,388.4	2,137.8	250.59	9.531	
16,300.0	8,213.3	18,342.5	10,196.7	207.6	207.5	-146.18	1,416.1	8,178.2	2,388.3	2,134.7	253.59	9.418	
16,400.0	8,216.3	18,442.5	10,199.4	210.0	209.9	-146.18	1,417.1	8,278.1	2,388.2	2,131.6	256.60	9.307	
16,500.0	8,219.2	18,542.5	10,202.2	212.4	212.3	-146.17	1,418.1	8,378.1	2,388.1	2,128.5	259.61	9.199	
16,600.0	8,222.2	18,642.5	10,205.0	214.8	214.7	-146.17	1,419.1	8,478.1	2,388.0	2,125.4	262.61	9.093	
16,700.0	8,225.2	18,742.5	10,207.8	217.3	217.1	-146.16	1,420.1	8,578.0	2,387.9	2,122.2	265.62	8.990	
16,800.0	8,228.1	18,842.5	10,210.5	219.7	219.5	-146.16	1,421.1	8,678.0	2,387.8	2,119.1	268.63	8.889	
16,869.9	8,230.2	18,910.0	10,212.4	221.4	221.1	-146.15	1,421.8	8,745.5	2,387.7	2,117.0	270.71	8.820	
16,900.0	8,231.1	18,910.0	10,212.4	222.1	221.1	-146.15	1,421.8	8,745.5	2,387.9	2,116.6	271.27	8.803	
16,923.8	8,231.8	18,910.0	10,212.4	222.7	221.1	-146.15	1,421.8	8,745.5	2,388.3	2,116.6	271.69	8.791	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	179.91	-29.9	0.0	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	179.91	-29.9	0.0	29.9	29.6	0.26	116.635	
200.0	200.0	200.0	200.0	0.5	0.5	179.91	-29.9	0.0	29.9	28.9	0.97	30.716	
300.0	300.0	300.0	300.0	0.8	0.8	179.91	-29.9	0.0	29.9	28.2	1.69	17.687	
400.0	400.0	400.0	400.0	1.2	1.2	179.91	-29.9	0.0	29.9	27.5	2.41	12.419	
500.0	500.0	500.0	500.0	1.6	1.6	179.91	-29.9	0.0	29.9	26.8	3.12	9.569	
600.0	600.0	600.0	600.0	1.9	1.9	179.91	-29.9	0.0	29.9	26.1	3.84	7.783	
700.0	700.0	700.0	700.0	2.3	2.3	179.91	-29.9	0.0	29.9	25.3	4.56	6.559	
800.0	800.0	800.0	800.0	2.6	2.6	179.91	-29.9	0.0	29.9	24.6	5.27	5.667	
900.0	900.0	900.0	900.0	3.0	3.0	179.91	-29.9	0.0	29.9	23.9	5.99	4.989	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	179.91	-29.9	0.0	29.9	23.2	6.71	4.456	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	179.91	-29.9	0.0	29.9	22.5	7.43	4.026	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	179.91	-29.9	0.0	29.9	21.8	8.14	3.671	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	179.91	-29.9	0.0	29.9	21.0	8.86	3.374	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	179.91	-29.9	0.0	29.9	20.3	9.58	3.122	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	179.91	-29.9	0.0	29.9	19.6	10.29	2.904 CC	
1,600.0	1,600.0	1,599.7	1,599.7	5.5	5.5	-178.66	-30.3	-0.7	30.3	19.3	11.00	2.758 ES	
1,700.0	1,700.0	1,699.4	1,699.4	5.9	5.8	-174.61	-31.6	-3.0	31.7	20.1	11.69	2.716 SF	
1,800.0	1,800.0	1,799.0	1,798.8	6.2	6.2	-168.67	-33.7	-6.8	34.4	22.0	12.38	2.779	
1,900.0	1,900.0	1,898.3	1,898.0	6.6	6.5	-161.84	-36.7	-12.0	38.6	25.6	13.07	2.957	
2,000.0	2,000.0	1,997.5	1,996.9	6.9	6.8	-155.09	-40.4	-18.8	44.7	31.0	13.75	3.251	
2,100.0	2,100.0	2,096.4	2,095.3	7.3	7.2	-59.42	-45.1	-27.0	52.3	37.9	14.42	3.626	
2,200.0	2,200.0	2,195.1	2,193.4	7.6	7.5	-56.11	-50.5	-36.7	60.8	45.7	15.08	4.028	
2,300.0	2,299.9	2,306.4	2,291.1	8.0	8.0	-54.15	-56.7	-47.8	69.9	54.1	15.79	4.428	
2,400.0	2,399.7	2,406.8	2,389.7	8.3	8.3	-53.34	-63.5	-59.9	78.9	62.5	16.48	4.789	
2,500.0	2,499.4	2,507.1	2,488.4	8.7	8.7	-53.61	-70.3	-72.0	86.9	69.8	17.19	5.059	
2,600.0	2,598.9	2,592.6	2,587.2	9.0	9.0	-54.69	-77.1	-84.1	93.9	76.1	17.85	5.264	
2,700.0	2,698.3	2,707.6	2,686.0	9.4	9.5	-56.44	-83.8	-96.2	100.0	81.4	18.62	5.369	
2,800.0	2,797.4	2,792.1	2,784.8	9.8	9.8	-58.81	-90.6	-108.4	105.2	85.9	19.30	5.452	
2,900.0	2,896.4	2,908.1	2,883.5	10.1	10.3	-61.38	-97.4	-120.5	110.2	90.1	20.11	5.481	
3,000.0	2,995.5	2,991.7	2,982.3	10.5	10.6	-63.72	-104.2	-132.6	115.4	94.6	20.80	5.548	
3,100.0	3,094.5	3,091.4	3,081.1	10.9	11.0	-65.86	-111.0	-144.7	120.7	99.2	21.56	5.601	
3,200.0	3,193.5	3,208.8	3,179.9	11.3	11.4	-67.82	-117.8	-156.8	126.3	103.9	22.39	5.639	
3,300.0	3,292.5	3,309.1	3,278.7	11.6	11.8	-69.61	-124.6	-168.9	131.9	108.7	23.17	5.694	
3,400.0	3,391.6	3,409.3	3,377.5	12.0	12.2	-71.25	-131.3	-181.0	137.7	113.7	23.95	5.749	
3,500.0	3,490.6	3,509.5	3,476.3	12.4	12.7	-72.76	-138.1	-193.1	143.5	118.8	24.73	5.804	
3,600.0	3,589.6	3,609.8	3,575.1	12.8	13.1	-74.15	-144.9	-205.2	149.5	124.0	25.52	5.858	
3,700.0	3,688.6	3,690.0	3,673.8	13.2	13.4	-75.43	-151.7	-217.4	155.5	129.3	26.23	5.928	
3,800.0	3,787.7	3,789.7	3,772.6	13.6	13.8	-76.62	-158.5	-229.5	161.6	134.6	27.03	5.980	
3,900.0	3,886.7	3,889.5	3,871.4	14.0	14.2	-77.72	-165.3	-241.6	167.8	140.0	27.83	6.031	
4,000.0	3,985.7	3,989.3	3,970.2	14.4	14.6	-78.74	-172.1	-253.7	174.1	145.4	28.63	6.080	
4,100.0	4,084.8	4,089.0	4,069.0	14.8	15.0	-79.69	-178.8	-265.8	180.3	150.9	29.43	6.128	
4,200.0	4,183.8	4,191.4	4,170.5	15.2	15.4	-80.84	-185.3	-277.4	186.1	155.8	30.27	6.148	
4,288.1	4,271.0	4,282.0	4,260.6	15.5	15.8	-82.35	-190.0	-285.6	189.9	158.9	31.00	6.124	
4,300.0	4,282.8	4,294.2	4,272.8	15.6	15.8	-82.59	-190.5	-286.6	190.3	159.2	31.10	6.118	
4,400.0	4,382.0	4,396.9	4,375.2	16.0	16.2	-84.49	-194.3	-293.4	193.3	161.4	31.92	6.057	
4,500.0	4,481.6	4,499.6	4,477.8	16.4	16.6	-86.21	-196.8	-297.9	195.3	162.6	32.70	5.972	
4,600.0	4,581.3	4,602.3	4,580.4	16.7	16.9	-87.78	-197.9	-299.9	196.1	162.6	33.45	5.863	
4,700.0	4,681.2	4,703.1	4,681.2	17.1	17.3	-89.06	-198.0	-300.0	196.0	161.9	34.16	5.739	
4,800.0	4,781.2	4,803.1	4,781.2	17.5	17.6	-89.60	-198.0	-300.0	196.0	161.2	34.85	5.625	
4,821.5	4,802.6	4,824.5	4,802.6	17.5	17.7	180.00	-198.0	-300.0	196.0	161.0	34.99	5.602	
4,900.0	4,881.2	4,903.1	4,881.2	17.8	17.9	180.00	-198.0	-300.0	196.0	160.5	35.52	5.519	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,981.2	5,003.1	4,981.2	18.1	18.3	180.00	-198.0	-300.0	196.0	159.8	36.19	5.416	
5,100.0	5,081.2	5,103.1	5,081.2	18.5	18.6	180.00	-198.0	-300.0	196.0	159.1	36.87	5.317	
5,200.0	5,181.2	5,203.1	5,181.2	18.8	18.9	180.00	-198.0	-300.0	196.0	158.5	37.54	5.221	
5,300.0	5,281.2	5,303.1	5,281.2	19.2	19.3	180.00	-198.0	-300.0	196.0	157.8	38.22	5.128	
5,400.0	5,381.2	5,403.1	5,381.2	19.5	19.6	180.00	-198.0	-300.0	196.0	157.1	38.90	5.039	
5,500.0	5,481.2	5,503.1	5,481.2	19.8	19.9	180.00	-198.0	-300.0	196.0	156.4	39.58	4.952	
5,600.0	5,581.2	5,603.1	5,581.2	20.2	20.3	180.00	-198.0	-300.0	196.0	155.7	40.27	4.868	
5,700.0	5,681.2	5,703.1	5,681.2	20.5	20.6	180.00	-198.0	-300.0	196.0	155.1	40.95	4.787	
5,800.0	5,781.2	5,803.1	5,781.2	20.9	20.9	180.00	-198.0	-300.0	196.0	154.4	41.63	4.708	
5,900.0	5,881.2	5,903.1	5,881.2	21.2	21.3	180.00	-198.0	-300.0	196.0	153.7	42.32	4.632	
6,000.0	5,981.2	6,003.1	5,981.2	21.6	21.6	180.00	-198.0	-300.0	196.0	153.0	43.01	4.558	
6,100.0	6,081.2	6,103.1	6,081.2	21.9	21.9	180.00	-198.0	-300.0	196.0	152.3	43.69	4.486	
6,200.0	6,181.2	6,203.1	6,181.2	22.3	22.3	180.00	-198.0	-300.0	196.0	151.6	44.38	4.416	
6,300.0	6,281.2	6,303.1	6,281.2	22.6	22.6	180.00	-198.0	-300.0	196.0	150.9	45.07	4.349	
6,400.0	6,381.2	6,403.1	6,381.2	23.0	23.0	180.00	-198.0	-300.0	196.0	150.3	45.76	4.283	
6,500.0	6,481.2	6,503.1	6,481.2	23.3	23.3	180.00	-198.0	-300.0	196.0	149.6	46.45	4.220	
6,600.0	6,581.2	6,603.1	6,581.2	23.6	23.6	180.00	-198.0	-300.0	196.0	148.9	47.15	4.158	
6,700.0	6,681.2	6,703.1	6,681.2	24.0	24.0	180.00	-198.0	-300.0	196.0	148.2	47.84	4.097	
6,800.0	6,781.2	6,803.1	6,781.2	24.3	24.3	180.00	-198.0	-300.0	196.0	147.5	48.53	4.039	
6,900.0	6,881.2	6,903.1	6,881.2	24.7	24.7	180.00	-198.0	-300.0	196.0	146.8	49.23	3.982	
7,000.0	6,981.2	7,003.1	6,981.2	25.0	25.0	180.00	-198.0	-300.0	196.0	146.1	49.92	3.927	
7,100.0	7,081.2	7,103.1	7,081.2	25.4	25.4	180.00	-198.0	-300.0	196.0	145.4	50.62	3.873	
7,200.0	7,181.2	7,203.1	7,181.2	25.7	25.7	180.00	-198.0	-300.0	196.0	144.7	51.31	3.820	
7,300.0	7,281.2	7,303.1	7,281.2	26.1	26.1	180.00	-198.0	-300.0	196.0	144.0	52.01	3.769	
7,400.0	7,381.2	7,403.1	7,381.2	26.4	26.4	180.00	-198.0	-300.0	196.0	143.3	52.71	3.719	
7,422.3	7,403.5	7,425.4	7,403.5	26.5	26.5	180.00	-198.0	-300.0	196.0	143.2	52.86	3.708	
7,450.0	7,431.2	7,453.1	7,431.2	26.6	26.6	91.99	-198.0	-300.0	196.0	143.0	53.05	3.695	
7,500.0	7,481.0	7,502.8	7,481.0	26.8	26.7	93.30	-198.0	-300.0	196.3	142.9	53.36	3.678	
7,550.0	7,530.1	7,552.0	7,530.1	26.9	26.9	95.77	-198.0	-300.0	197.0	143.3	53.66	3.671	
7,600.0	7,578.4	7,600.2	7,578.4	27.1	27.1	99.24	-198.0	-300.0	198.8	144.8	53.92	3.686	
7,650.0	7,625.2	7,647.1	7,625.2	27.2	27.2	103.44	-198.0	-300.0	202.4	148.2	54.15	3.737	
7,700.0	7,670.4	7,707.7	7,670.4	27.3	27.5	108.04	-198.0	-300.0	208.8	154.4	54.41	3.837	
7,750.0	7,713.6	7,735.5	7,713.6	27.4	27.5	112.67	-198.0	-300.0	218.8	164.2	54.54	4.011	
7,800.0	7,754.4	7,776.3	7,754.4	27.6	27.7	116.98	-198.0	-300.0	233.0	178.3	54.70	4.260	
7,850.0	7,792.6	7,814.4	7,792.6	27.7	27.8	120.70	-198.0	-300.0	252.0	197.1	54.85	4.594	
7,900.0	7,827.7	7,849.6	7,827.7	27.8	27.9	123.65	-198.0	-300.0	275.7	220.7	55.00	5.013	
7,950.0	7,859.7	7,881.6	7,859.7	28.0	28.1	125.67	-198.0	-300.0	304.0	248.9	55.15	5.513	
8,000.0	7,888.2	7,910.0	7,888.2	28.2	28.2	126.67	-198.0	-300.0	336.4	281.2	55.28	6.086	
8,050.0	7,913.0	7,934.8	7,913.0	28.4	28.2	126.51	-198.0	-300.0	372.6	317.2	55.40	6.726	
8,100.0	7,933.9	7,955.7	7,933.9	28.7	28.3	124.98	-198.0	-300.0	411.9	356.4	55.50	7.421	
8,150.0	7,950.7	7,972.6	7,950.7	28.9	28.4	121.76	-198.0	-300.0	453.8	398.3	55.59	8.164	
8,200.0	7,963.5	7,985.3	7,963.5	29.2	28.4	116.33	-198.0	-300.0	497.9	442.2	55.66	8.946	
8,250.0	7,971.9	8,006.2	7,971.9	29.6	28.5	108.04	-198.0	-300.0	543.5	487.8	55.75	9.750	
8,300.0	7,976.0	8,002.1	7,976.0	30.0	28.5	96.31	-198.0	-300.0	590.3	534.5	55.74	10.589	
8,305.4	7,976.2	8,001.9	7,976.2	30.0	28.5	94.84	-198.0	-300.0	595.4	539.6	55.75	10.680	
8,369.8	7,978.1	8,000.0	7,978.1	30.6	28.5	95.04	-198.0	-300.0	656.3	600.5	55.75	11.772	
8,400.0	7,979.0	8,000.9	7,979.0	30.9	28.5	95.28	-198.0	-300.0	684.9	629.2	55.76	12.284	
8,500.0	7,982.0	8,003.9	7,982.0	31.9	28.5	96.09	-198.0	-300.0	780.7	724.9	55.79	13.993	
8,600.0	7,984.9	8,006.8	7,984.9	33.1	28.5	96.89	-198.0	-300.0	877.4	821.6	55.83	15.716	
8,700.0	7,987.9	8,009.8	7,987.9	34.4	28.5	97.69	-198.0	-300.0	974.8	918.9	55.86	17.449	
8,800.0	7,990.9	8,012.8	7,990.9	35.9	28.5	98.48	-198.0	-300.0	1,072.6	1,016.7	55.90	19.189	
8,900.0	7,993.8	8,015.7	7,993.8	37.4	28.5	99.27	-198.0	-300.0	1,170.8	1,114.9	55.93	20.934	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.0	7,996.8	8,018.7	7,996.8	39.0	28.5	100.06	-198.0	-300.0	1,269.3	1,213.3	55.96	22.681	
9,100.0	7,999.8	8,021.6	7,999.8	40.8	28.5	100.85	-198.0	-300.0	1,368.0	1,312.0	56.00	24.430	
9,200.0	8,002.7	8,024.6	8,002.7	42.6	28.6	101.63	-198.0	-300.0	1,466.8	1,410.8	56.03	26.181	
9,300.0	8,005.7	8,027.6	8,005.7	44.4	28.6	102.40	-198.0	-300.0	1,565.8	1,509.8	56.06	27.932	
9,400.0	8,008.7	8,030.5	8,008.7	46.3	28.6	103.18	-198.0	-300.0	1,665.0	1,608.9	56.09	29.682	
9,500.0	8,011.6	8,033.5	8,011.6	48.3	28.6	103.94	-198.0	-300.0	1,764.2	1,708.0	56.13	31.432	
9,600.0	8,014.6	8,036.5	8,014.6	50.3	28.6	104.71	-198.0	-300.0	1,863.5	1,807.3	56.16	33.181	
9,700.0	8,017.6	8,039.4	8,017.6	52.3	28.6	105.46	-198.0	-300.0	1,962.8	1,906.6	56.19	34.929	
9,800.0	8,020.5	11,793.2	10,044.2	54.4	56.9	-179.93	31.4	1,690.8	2,024.5	1,987.1	37.36	54.184	
9,900.0	8,023.5	11,893.2	10,047.1	56.5	58.9	-179.93	32.4	1,790.7	2,024.4	1,985.8	38.67	52.356	
10,000.0	8,026.5	12,006.8	10,050.0	58.6	61.1	-179.92	33.4	1,890.7	2,024.4	1,984.3	40.07	50.518	
10,100.0	8,029.4	12,106.8	10,052.9	60.8	63.1	-179.92	34.4	1,990.6	2,024.3	1,982.9	41.41	48.882	
10,200.0	8,032.4	12,206.8	10,055.8	63.0	65.1	-179.92	35.4	2,090.6	2,024.3	1,981.5	42.77	47.332	
10,300.0	8,035.4	12,306.8	10,058.7	65.2	67.2	-179.92	36.4	2,190.5	2,024.2	1,980.1	44.14	45.863	
10,400.0	8,038.3	12,393.2	10,061.6	67.4	69.0	-179.91	37.4	2,290.5	2,024.1	1,978.7	45.43	44.557	
10,500.0	8,041.3	12,506.8	10,064.5	69.6	71.4	-179.91	38.4	2,390.4	2,024.1	1,977.2	46.91	43.148	
10,600.0	8,044.3	12,606.8	10,067.4	71.8	73.5	-179.91	39.4	2,490.4	2,024.0	1,975.7	48.31	41.893	
10,700.0	8,047.2	12,706.8	10,070.3	74.1	75.7	-179.90	40.4	2,590.3	2,024.0	1,974.2	49.73	40.702	
10,800.0	8,050.2	12,806.8	10,073.2	76.4	77.9	-179.90	41.4	2,690.3	2,023.9	1,972.8	51.15	39.569	
10,900.0	8,053.2	12,906.8	10,076.1	78.7	80.1	-179.90	42.4	2,790.2	2,023.9	1,971.3	52.58	38.492	
11,000.0	8,056.1	13,006.8	10,079.1	80.9	82.3	-179.89	43.4	2,890.2	2,023.8	1,969.8	54.02	37.466	
11,100.0	8,059.1	13,106.8	10,082.0	83.2	84.5	-179.89	44.4	2,990.1	2,023.7	1,968.3	55.46	36.489	
11,200.0	8,062.0	13,206.8	10,084.9	85.5	86.7	-179.89	45.4	3,090.1	2,023.7	1,966.8	56.91	35.557	
11,300.0	8,065.0	13,306.8	10,087.8	87.9	88.9	-179.88	46.4	3,190.0	2,023.6	1,965.2	58.37	34.669	
11,400.0	8,068.0	13,406.8	10,090.7	90.2	91.2	-179.88	47.4	3,290.0	2,023.6	1,963.7	59.83	33.820	
11,500.0	8,070.9	13,506.8	10,093.6	92.5	93.4	-179.88	48.4	3,390.0	2,023.5	1,962.2	61.30	33.009	
11,600.0	8,073.9	13,606.8	10,096.5	94.8	95.7	-179.88	49.4	3,489.9	2,023.4	1,960.7	62.77	32.234	
11,700.0	8,076.9	13,693.2	10,099.4	97.2	97.7	-179.87	50.4	3,589.9	2,023.4	1,959.2	64.15	31.540	
11,800.0	8,079.8	13,806.8	10,102.3	99.5	100.3	-179.87	51.4	3,689.8	2,023.3	1,957.6	65.73	30.781	
11,900.0	8,082.8	13,906.8	10,105.2	101.9	102.6	-179.87	52.4	3,789.8	2,023.3	1,956.0	67.22	30.100	
12,000.0	8,085.8	14,006.8	10,108.1	104.2	104.9	-179.86	53.4	3,889.7	2,023.2	1,954.5	68.71	29.447	
12,100.0	8,088.7	14,106.8	10,111.0	106.6	107.2	-179.86	54.4	3,989.7	2,023.1	1,952.9	70.20	28.820	
12,200.0	8,091.7	14,193.2	10,113.9	109.0	109.2	-179.86	55.4	4,089.6	2,023.1	1,951.5	71.60	28.257	
12,300.0	8,094.7	14,293.2	10,116.8	111.3	111.5	-179.85	56.4	4,189.6	2,023.0	1,949.9	73.09	27.677	
12,400.0	8,097.6	14,406.8	10,119.7	113.7	114.1	-179.85	57.4	4,289.5	2,023.0	1,948.3	74.70	27.083	
12,500.0	8,100.6	14,506.8	10,122.6	116.1	116.5	-179.85	58.4	4,389.5	2,022.9	1,946.7	76.20	26.547	
12,600.0	8,103.6	14,593.2	10,125.6	118.4	118.5	-179.85	59.4	4,489.4	2,022.8	1,945.2	77.61	26.065	
12,700.0	8,106.5	14,706.8	10,128.5	120.8	121.1	-179.84	60.4	4,589.4	2,022.8	1,943.6	79.22	25.535	
12,800.0	8,109.5	14,793.2	10,131.4	123.2	123.2	-179.84	61.4	4,689.3	2,022.7	1,942.1	80.63	25.087	
12,900.0	8,112.5	14,906.8	10,134.3	125.6	125.8	-179.84	62.4	4,789.3	2,022.7	1,940.4	82.24	24.594	
13,000.0	8,115.4	15,006.8	10,137.2	128.0	128.2	-179.83	63.4	4,889.2	2,022.6	1,938.9	83.76	24.148	
13,100.0	8,118.4	15,106.8	10,140.1	130.4	130.5	-179.83	64.4	4,989.2	2,022.6	1,937.3	85.28	23.718	
13,200.0	8,121.4	15,206.8	10,143.0	132.8	132.9	-179.83	65.4	5,089.1	2,022.5	1,935.7	86.79	23.302	
13,300.0	8,124.3	15,306.8	10,145.9	135.1	135.3	-179.82	66.4	5,189.1	2,022.4	1,934.1	88.32	22.900	
13,400.0	8,127.3	15,406.8	10,148.8	137.5	137.6	-179.82	67.4	5,289.1	2,022.4	1,932.5	89.84	22.511	
13,500.0	8,130.3	15,506.8	10,151.7	139.9	140.0	-179.82	68.4	5,389.0	2,022.3	1,931.0	91.36	22.135	
13,600.0	8,133.2	15,606.8	10,154.6	142.3	142.4	-179.81	69.4	5,489.0	2,022.3	1,929.4	92.89	21.771	
13,700.0	8,136.2	15,706.8	10,157.5	144.7	144.7	-179.81	70.4	5,588.9	2,022.2	1,927.8	94.42	21.418	
13,800.0	8,139.2	15,793.2	10,160.4	147.1	146.8	-179.81	71.4	5,688.9	2,022.1	1,926.3	95.84	21.099	
13,900.0	8,142.1	15,906.8	10,163.3	149.5	149.5	-179.81	72.4	5,788.8	2,022.1	1,924.6	97.47	20.745	
14,000.0	8,145.1	15,993.2	10,166.2	151.9	151.5	-179.80	73.4	5,888.8	2,022.0	1,923.1	98.90	20.444	
14,100.0	8,148.1	16,093.2	10,169.1	154.4	153.9	-179.80	74.4	5,988.7	2,022.0	1,921.5	100.43	20.132	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	8,151.0	16,206.8	10,172.1	156.8	156.6	-179.80	75.4	6,088.7	2,021.9	1,919.8	102.07	19.809	
14,300.0	8,154.0	16,306.8	10,175.0	159.2	159.0	-179.79	76.4	6,188.6	2,021.8	1,918.2	103.61	19.515	
14,400.0	8,157.0	16,406.8	10,177.9	161.6	161.4	-179.79	77.4	6,288.6	2,021.8	1,916.6	105.14	19.229	
14,500.0	8,159.9	16,506.8	10,180.8	164.0	163.8	-179.79	78.4	6,388.5	2,021.7	1,915.0	106.68	18.952	
14,600.0	8,162.9	16,593.2	10,183.7	166.4	165.9	-179.78	79.4	6,488.5	2,021.7	1,913.6	108.11	18.700	
14,700.0	8,165.8	16,706.8	10,186.6	168.8	168.6	-179.78	80.4	6,588.4	2,021.6	1,911.9	109.75	18.419	
14,800.0	8,168.8	16,806.8	10,189.5	171.2	171.0	-179.78	81.4	6,688.4	2,021.5	1,910.3	111.29	18.164	
14,900.0	8,171.8	16,906.8	10,192.4	173.7	173.4	-179.77	82.4	6,788.3	2,021.5	1,908.7	112.83	17.916	
15,000.0	8,174.7	17,006.8	10,195.3	176.1	175.8	-179.77	83.4	6,888.3	2,021.4	1,907.1	114.37	17.674	
15,100.0	8,177.7	17,093.2	10,198.2	178.5	177.8	-179.77	84.4	6,988.2	2,021.4	1,905.6	115.81	17.454	
15,200.0	8,180.7	17,193.2	10,201.1	180.9	180.2	-179.77	85.4	7,088.2	2,021.3	1,904.0	117.35	17.224	
15,300.0	8,183.6	17,306.8	10,204.0	183.3	183.0	-179.76	86.4	7,188.2	2,021.3	1,902.2	119.00	16.985	
15,400.0	8,186.6	17,406.8	10,206.9	185.7	185.4	-179.76	87.4	7,288.1	2,021.2	1,900.6	120.54	16.767	
15,500.0	8,189.6	17,506.8	10,209.8	188.2	187.8	-179.76	88.4	7,388.1	2,021.1	1,899.0	122.09	16.555	
15,600.0	8,192.5	17,606.8	10,212.7	190.6	190.2	-179.75	89.4	7,488.0	2,021.1	1,897.4	123.63	16.347	
15,700.0	8,195.5	17,693.2	10,215.6	193.0	192.3	-179.75	90.4	7,588.0	2,021.0	1,895.9	125.07	16.158	
15,800.0	8,198.5	17,806.8	10,218.6	195.4	195.0	-179.75	91.4	7,687.9	2,021.0	1,894.2	126.73	15.948	
15,900.0	8,201.4	17,906.8	10,221.5	197.9	197.4	-179.74	92.4	7,787.9	2,020.9	1,892.6	128.27	15.755	
16,000.0	8,204.4	18,006.8	10,224.4	200.3	199.8	-179.74	93.4	7,887.8	2,020.8	1,891.0	129.82	15.567	
16,100.0	8,207.4	18,106.8	10,227.3	202.7	202.2	-179.74	94.4	7,987.8	2,020.8	1,889.4	131.37	15.383	
16,200.0	8,210.3	18,193.2	10,230.2	205.1	204.3	-179.73	95.4	8,087.7	2,020.7	1,887.9	132.81	15.215	
16,300.0	8,213.3	18,306.8	10,233.1	207.6	207.0	-179.73	96.4	8,187.7	2,020.7	1,886.2	134.46	15.027	
16,400.0	8,216.3	18,406.8	10,236.0	210.0	209.5	-179.73	97.4	8,287.6	2,020.6	1,884.6	136.01	14.856	
16,500.0	8,219.2	18,506.8	10,238.9	212.4	211.9	-179.73	98.4	8,387.6	2,020.5	1,883.0	137.56	14.688	
16,600.0	8,222.2	18,606.8	10,241.8	214.8	214.3	-179.72	99.4	8,487.5	2,020.5	1,881.4	139.11	14.524	
16,700.0	8,225.2	18,706.8	10,244.7	217.3	216.7	-179.72	100.4	8,587.5	2,020.4	1,879.8	140.66	14.363	
16,800.0	8,228.1	18,793.2	10,247.6	219.7	218.8	-179.72	101.4	8,687.4	2,020.4	1,878.3	142.11	14.217	
16,852.8	8,229.7	18,846.0	10,249.2	221.0	220.1	-179.71	101.9	8,740.3	2,020.3	1,877.4	142.93	14.135	
16,900.0	8,231.1	18,844.2	10,249.1	222.1	220.0	-179.71	101.9	8,738.5	2,020.9	1,877.7	143.16	14.117	
16,923.8	8,231.8	18,844.2	10,249.1	222.7	220.0	-179.71	101.9	8,738.5	2,021.6	1,878.3	143.26	14.111	

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 Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-30.0	30.0				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-30.0	30.0	29.7	0.26	117.057	
200.0	200.0	200.0	200.0	0.5	0.5	-90.00	0.0	-30.0	30.0	29.0	0.97	30.827	
300.0	300.0	300.0	300.0	0.8	0.8	-90.00	0.0	-30.0	30.0	28.3	1.69	17.751	
400.0	400.0	400.0	400.0	1.2	1.2	-90.00	0.0	-30.0	30.0	27.6	2.41	12.464	
500.0	500.0	500.0	500.0	1.6	1.6	-90.00	0.0	-30.0	30.0	26.9	3.12	9.604	
600.0	600.0	600.0	600.0	1.9	1.9	-90.00	0.0	-30.0	30.0	26.2	3.84	7.811	
700.0	700.0	700.0	700.0	2.3	2.3	-90.00	0.0	-30.0	30.0	25.4	4.56	6.582	
800.0	800.0	800.0	800.0	2.6	2.6	-90.00	0.0	-30.0	30.0	24.7	5.27	5.688	
900.0	900.0	900.0	900.0	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	5.99	5.007	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-90.00	0.0	-30.0	30.0	23.3	6.71	4.472	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-90.00	0.0	-30.0	30.0	22.6	7.43	4.040	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-90.00	0.0	-30.0	30.0	21.9	8.14	3.685	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-90.00	0.0	-30.0	30.0	21.1	8.86	3.386	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-90.00	0.0	-30.0	30.0	20.4	9.58	3.133	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-90.00	0.0	-30.0	30.0	19.7	10.29	2.915	
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-90.00	0.0	-30.0	30.0	19.0	11.01	2.725	
1,700.0	1,700.0	1,700.0	1,700.0	5.9	5.9	-90.00	0.0	-30.0	30.0	18.3	11.73	2.558 CC	
1,800.0	1,800.0	1,799.8	1,799.8	6.2	6.2	-87.94	1.1	-30.2	30.2	17.8	12.44	2.431 ES	
1,900.0	1,900.0	1,899.6	1,899.5	6.6	6.6	-82.00	4.3	-30.9	31.2	18.0	13.16	2.371 SF	
2,000.0	2,000.0	1,999.2	1,998.9	6.9	6.9	-73.05	9.8	-32.0	33.5	19.6	13.87	2.414	
2,100.0	2,100.0	2,098.4	2,097.9	7.3	7.3	28.26	17.3	-33.5	37.0	22.5	14.56	2.544	
2,200.0	2,200.0	2,197.3	2,196.3	7.6	7.6	40.38	26.9	-35.5	42.0	26.8	15.22	2.760	
2,300.0	2,299.9	2,295.7	2,294.0	8.0	8.0	52.29	38.6	-37.9	49.4	33.5	15.88	3.108	
2,400.0	2,399.7	2,393.6	2,390.8	8.3	8.4	62.86	52.3	-40.7	59.5	43.0	16.52	3.605	
2,500.0	2,499.4	2,490.8	2,486.7	8.7	8.7	71.62	68.0	-43.9	72.8	55.6	17.15	4.243	
2,600.0	2,598.9	2,587.2	2,581.4	9.0	9.1	78.60	85.5	-47.5	89.0	71.2	17.79	5.003	
2,700.0	2,698.3	2,682.8	2,675.0	9.4	9.5	84.11	104.9	-51.5	108.1	89.7	18.42	5.867	
2,800.0	2,797.4	2,777.4	2,767.1	9.8	9.9	88.45	126.0	-55.8	129.9	110.9	19.06	6.817	
2,900.0	2,896.4	2,871.2	2,857.9	10.1	10.3	91.82	148.7	-60.5	154.3	134.6	19.70	7.835	
3,000.0	2,995.5	2,964.0	2,947.4	10.5	10.7	94.09	173.0	-65.5	181.1	160.7	20.33	8.906	
3,100.0	3,094.5	3,055.8	3,035.3	10.9	11.1	95.61	198.9	-70.7	209.9	188.9	20.96	10.013	
3,200.0	3,193.5	3,146.6	3,121.7	11.3	11.5	96.60	226.2	-76.3	240.6	219.0	21.58	11.150	
3,300.0	3,292.5	3,240.5	3,210.7	11.6	12.0	97.31	255.6	-82.4	272.6	250.3	22.30	12.223	
3,400.0	3,391.6	3,335.2	3,300.4	12.0	12.5	97.87	285.2	-88.4	304.6	281.6	23.05	13.215	
3,500.0	3,490.6	3,429.9	3,390.1	12.4	12.9	98.33	314.9	-94.5	336.7	312.9	23.81	14.142	
3,600.0	3,589.6	3,524.5	3,479.8	12.8	13.4	98.71	344.6	-100.6	368.7	344.2	24.57	15.009	
3,700.0	3,688.6	3,619.2	3,569.6	13.2	13.9	99.02	374.2	-106.7	400.8	375.5	25.33	15.821	
3,800.0	3,787.7	3,713.9	3,659.3	13.6	14.4	99.29	403.9	-112.7	432.9	406.8	26.10	16.584	
3,900.0	3,886.7	3,808.6	3,749.0	14.0	14.9	99.52	433.5	-118.8	465.0	438.1	26.88	17.300	
4,000.0	3,985.7	3,903.3	3,838.7	14.4	15.5	99.72	463.2	-124.9	497.1	469.5	27.66	17.974	
4,100.0	4,084.8	4,002.0	3,928.4	14.8	16.0	99.90	492.9	-131.0	529.2	500.8	28.46	18.598	
4,200.0	4,183.8	4,107.3	4,018.2	15.2	16.6	100.06	522.5	-137.0	561.3	532.1	29.29	19.167	
4,288.1	4,271.0	4,176.1	4,097.2	15.5	17.0	100.18	548.7	-142.4	589.6	559.7	29.92	19.708	
4,300.0	4,282.8	4,187.4	4,107.9	15.6	17.0	100.26	552.2	-143.1	593.5	563.5	30.01	19.774	
4,400.0	4,382.0	4,282.2	4,197.7	16.0	17.6	100.72	581.9	-149.2	625.3	594.5	30.79	20.307	
4,500.0	4,481.6	4,377.1	4,287.6	16.4	18.1	100.95	611.6	-155.3	656.7	625.1	31.56	20.810	
4,600.0	4,581.3	4,472.0	4,377.6	16.7	18.6	100.97	641.4	-161.4	687.6	655.3	32.30	21.287	
4,700.0	4,681.2	4,567.0	4,467.5	17.1	19.2	100.80	671.1	-167.5	718.2	685.1	33.03	21.740	
4,800.0	4,781.2	4,661.8	4,557.4	17.5	19.7	100.48	700.8	-173.6	748.3	714.6	33.75	22.175	
4,821.5	4,802.6	4,682.1	4,576.7	17.5	19.8	10.01	707.2	-174.9	754.8	720.9	33.90	22.266	
4,900.0	4,881.2	4,756.6	4,647.2	17.8	20.3	9.33	730.5	-179.6	778.3	743.9	34.45	22.595	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,981.2	4,851.3	4,737.0	18.1	20.8	8.53	760.2	-185.7	808.5	773.3	35.15	23.001	
5,100.0	5,081.2	4,946.1	4,826.7	18.5	21.4	7.78	789.8	-191.8	838.7	802.9	35.85	23.394	
5,200.0	5,181.2	5,040.8	4,916.5	18.8	21.9	7.09	819.5	-197.9	869.1	832.6	36.56	23.775	
5,300.0	5,281.2	5,135.6	5,006.3	19.2	22.5	6.44	849.2	-204.0	899.6	862.4	37.26	24.143	
5,400.0	5,381.2	5,230.3	5,096.1	19.5	23.0	5.83	878.9	-210.0	930.2	892.3	37.97	24.498	
5,500.0	5,481.2	5,325.1	5,185.8	19.8	23.6	5.26	908.6	-216.1	960.9	922.3	38.68	24.843	
5,600.0	5,581.2	5,419.8	5,275.6	20.2	24.1	4.73	938.2	-222.2	991.7	952.3	39.39	25.176	
5,700.0	5,681.2	5,514.6	5,365.4	20.5	24.7	4.23	967.9	-228.3	1,022.6	982.5	40.10	25.498	
5,800.0	5,781.2	5,609.3	5,455.2	20.9	25.2	3.76	997.6	-234.4	1,053.5	1,012.7	40.82	25.811	
5,900.0	5,881.2	5,704.1	5,544.9	21.2	25.8	3.31	1,027.3	-240.4	1,084.5	1,042.9	41.53	26.113	
6,000.0	5,981.2	5,801.2	5,634.7	21.6	26.4	2.89	1,057.0	-246.5	1,115.5	1,073.2	42.26	26.399	
6,100.0	6,081.2	5,906.4	5,724.5	21.9	27.0	2.49	1,086.6	-252.6	1,146.6	1,103.6	43.02	26.655	
6,200.0	6,181.2	5,988.3	5,814.3	22.3	27.5	2.12	1,116.3	-258.7	1,177.7	1,134.0	43.68	26.963	
6,300.0	6,281.2	6,083.1	5,904.0	22.6	28.1	1.76	1,146.0	-264.8	1,208.9	1,164.5	44.40	27.229	
6,400.0	6,381.2	6,189.3	6,004.7	23.0	28.7	1.38	1,179.2	-271.6	1,240.0	1,194.8	45.25	27.405	
6,500.0	6,481.2	6,356.9	6,165.5	23.3	29.6	0.88	1,225.6	-281.1	1,267.7	1,221.0	46.70	27.143	
6,600.0	6,581.2	6,529.9	6,334.0	23.6	30.5	0.50	1,263.8	-288.9	1,289.7	1,241.7	48.03	26.853	
6,700.0	6,681.2	6,707.2	6,508.8	24.0	31.3	0.23	1,292.5	-294.8	1,305.9	1,256.7	49.20	26.545	
6,800.0	6,781.2	6,887.4	6,688.1	24.3	31.9	0.07	1,310.8	-298.5	1,316.1	1,265.9	50.17	26.230	
6,900.0	6,881.2	7,069.4	6,869.8	24.7	32.5	0.00	1,318.0	-300.0	1,320.1	1,269.1	50.95	25.910	
7,000.0	6,981.2	7,180.7	6,981.2	25.0	32.8	0.00	1,318.1	-300.0	1,320.1	1,268.5	51.62	25.574	
7,100.0	7,081.2	7,280.7	7,081.2	25.4	33.1	0.00	1,318.1	-300.0	1,320.1	1,267.8	52.29	25.244	
7,200.0	7,181.2	7,380.7	7,181.2	25.7	33.3	0.00	1,318.1	-300.0	1,320.1	1,267.1	52.97	24.922	
7,300.0	7,281.2	7,480.7	7,281.2	26.1	33.6	0.00	1,318.1	-300.0	1,320.1	1,266.5	53.65	24.607	
7,400.0	7,381.2	7,580.7	7,381.2	26.4	33.9	0.00	1,318.1	-300.0	1,320.1	1,265.8	54.33	24.300	
7,401.4	7,382.6	7,582.1	7,382.6	26.4	33.9	0.00	1,318.1	-300.0	1,320.1	1,265.8	54.34	24.296	
7,422.3	7,403.5	7,602.8	7,403.3	26.5	33.9	0.00	1,318.1	-300.0	1,320.1	1,265.6	54.48	24.233	
7,450.0	7,431.2	7,629.7	7,430.2	26.6	34.0	-88.18	1,318.1	-298.9	1,320.1	1,265.5	54.65	24.154	
7,500.0	7,481.0	7,678.3	7,478.5	26.8	34.1	-88.16	1,318.2	-293.9	1,320.0	1,265.1	54.96	24.019	
7,550.0	7,530.1	7,726.8	7,526.1	26.9	34.2	-88.16	1,318.3	-284.8	1,319.9	1,264.6	55.25	23.890	
7,600.0	7,578.4	7,775.3	7,572.8	27.1	34.3	-88.17	1,318.5	-271.7	1,319.6	1,264.1	55.52	23.768	
7,650.0	7,625.2	7,823.8	7,618.2	27.2	34.4	-88.20	1,318.7	-254.8	1,319.3	1,263.5	55.78	23.652	
7,700.0	7,670.4	7,872.2	7,661.9	27.3	34.5	-88.23	1,318.9	-234.0	1,318.9	1,262.8	56.03	23.539	
7,750.0	7,713.6	7,920.7	7,703.8	27.4	34.6	-88.28	1,319.2	-209.7	1,318.4	1,262.1	56.28	23.427	
7,800.0	7,754.4	7,969.2	7,743.5	27.6	34.7	-88.35	1,319.6	-181.9	1,317.8	1,261.3	56.53	23.313	
7,850.0	7,792.6	8,017.6	7,780.7	27.7	34.7	-88.42	1,319.9	-150.8	1,317.2	1,260.4	56.79	23.194	
7,900.0	7,827.7	8,066.2	7,815.1	27.8	34.8	-88.51	1,320.4	-116.7	1,316.5	1,259.4	57.07	23.067	
7,950.0	7,859.7	8,114.7	7,846.6	28.0	34.8	-88.61	1,320.8	-79.7	1,315.8	1,258.4	57.39	22.927	
8,000.0	7,888.2	8,163.3	7,874.9	28.2	34.8	-88.72	1,321.3	-40.2	1,315.0	1,257.2	57.75	22.772	
8,050.0	7,913.0	8,212.0	7,899.7	28.4	34.9	-88.84	1,321.8	1.7	1,314.1	1,256.0	58.16	22.597	
8,100.0	7,933.9	8,260.7	7,920.9	28.7	34.9	-88.97	1,322.3	45.5	1,313.3	1,254.6	58.63	22.401	
8,150.0	7,950.7	8,309.6	7,938.4	28.9	34.9	-89.10	1,322.9	91.1	1,312.3	1,253.2	59.16	22.182	
8,200.0	7,963.5	8,358.5	7,951.9	29.2	34.9	-89.25	1,323.5	138.1	1,311.4	1,251.6	59.77	21.943	
8,250.0	7,971.9	8,407.5	7,961.4	29.6	35.0	-89.40	1,324.1	186.2	1,310.4	1,250.0	60.44	21.683	
8,300.0	7,976.0	8,456.6	7,966.7	30.0	35.0	-89.55	1,324.7	235.0	1,309.5	1,248.3	61.17	21.407	
8,305.4	7,976.2	8,461.9	7,967.0	30.0	35.0	-89.57	1,324.7	240.3	1,309.4	1,248.1	61.25	21.376	
8,366.1	7,978.0	8,525.0	7,969.1	30.5	35.1	-89.61	1,325.4	303.3	1,308.8	1,246.5	62.29	21.010	
8,369.8	7,978.1	8,528.7	7,969.2	30.6	35.1	-89.61	1,325.4	307.0	1,308.8	1,246.4	62.36	20.988	
8,400.0	7,979.0	8,558.9	7,970.1	30.9	35.2	-89.61	1,325.7	337.2	1,308.8	1,245.9	62.91	20.803	
8,500.0	7,982.0	8,658.9	7,973.1	31.9	35.5	-89.61	1,326.8	437.1	1,308.9	1,244.0	64.95	20.152	
8,600.0	7,984.9	8,758.9	7,976.0	33.1	36.2	-89.61	1,327.8	537.1	1,309.1	1,241.8	67.29	19.455	
8,700.0	7,987.9	8,858.9	7,979.0	34.4	37.1	-89.61	1,328.8	637.0	1,309.2	1,239.3	69.88	18.734	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	7,990.9	8,958.9	7,981.9	35.9	38.3	-89.61	1,329.8	737.0	1,309.3	1,236.6	72.72	18.005	
8,900.0	7,993.8	9,058.9	7,984.9	37.4	39.6	-89.61	1,330.9	836.9	1,309.5	1,233.7	75.77	17.282	
9,000.0	7,996.8	9,158.9	7,987.8	39.0	41.1	-89.61	1,331.9	936.9	1,309.6	1,230.6	79.00	16.577	
9,100.0	7,999.8	9,258.9	7,990.8	40.8	42.7	-89.61	1,332.9	1,036.8	1,309.7	1,227.3	82.40	15.895	
9,200.0	8,002.7	9,358.9	7,993.7	42.6	44.4	-89.61	1,333.9	1,136.8	1,309.8	1,223.9	85.94	15.241	
9,300.0	8,005.7	9,458.9	7,996.7	44.4	46.1	-89.61	1,334.9	1,236.7	1,310.0	1,220.4	89.61	14.618	
9,400.0	8,008.7	9,558.9	7,999.6	46.3	48.0	-89.61	1,336.0	1,336.7	1,310.1	1,216.7	93.40	14.027	
9,500.0	8,011.6	9,658.9	8,002.6	48.3	49.9	-89.61	1,337.0	1,436.6	1,310.2	1,213.0	97.28	13.469	
9,600.0	8,014.6	9,758.9	8,005.5	50.3	51.8	-89.60	1,338.0	1,536.6	1,310.4	1,209.1	101.25	12.942	
9,700.0	8,017.6	9,858.9	8,008.5	52.3	53.8	-89.60	1,339.0	1,636.5	1,310.5	1,205.2	105.30	12.445	
9,800.0	8,020.5	9,958.9	8,011.4	54.4	55.8	-89.60	1,340.0	1,736.5	1,310.6	1,201.2	109.42	11.978	
9,900.0	8,023.5	10,058.9	8,014.4	56.5	57.8	-89.60	1,341.1	1,836.4	1,310.8	1,197.2	113.60	11.539	
10,000.0	8,026.5	10,158.9	8,017.3	58.6	59.9	-89.60	1,342.1	1,936.4	1,310.9	1,193.1	117.83	11.125	
10,100.0	8,029.4	10,258.9	8,020.3	60.8	62.0	-89.60	1,343.1	2,036.3	1,311.0	1,188.9	122.12	10.736	
10,200.0	8,032.4	10,358.9	8,023.2	63.0	64.2	-89.60	1,344.1	2,136.3	1,311.2	1,184.7	126.45	10.369	
10,300.0	8,035.4	10,458.9	8,026.2	65.2	66.3	-89.60	1,345.2	2,236.2	1,311.3	1,180.5	130.82	10.024	
10,400.0	8,038.3	10,558.9	8,029.1	67.4	68.5	-89.60	1,346.2	2,336.2	1,311.4	1,176.2	135.22	9.698	
10,500.0	8,041.3	10,658.9	8,032.1	69.6	70.7	-89.60	1,347.2	2,436.1	1,311.5	1,171.9	139.66	9.391	
10,600.0	8,044.3	10,758.9	8,035.0	71.8	72.9	-89.60	1,348.2	2,536.1	1,311.7	1,167.5	144.13	9.101	
10,700.0	8,047.2	10,858.9	8,038.0	74.1	75.1	-89.60	1,349.2	2,636.1	1,311.8	1,163.2	148.63	8.826	
10,800.0	8,050.2	10,958.9	8,040.9	76.4	77.3	-89.60	1,350.3	2,736.0	1,311.9	1,158.8	153.15	8.566	
10,900.0	8,053.2	11,058.9	8,043.9	78.7	79.6	-89.60	1,351.3	2,836.0	1,312.1	1,154.4	157.69	8.321	
11,000.0	8,056.1	11,158.9	8,046.8	80.9	81.8	-89.60	1,352.3	2,935.9	1,312.2	1,149.9	162.25	8.087	
11,100.0	8,059.1	11,258.9	8,049.8	83.2	84.1	-89.59	1,353.3	3,035.9	1,312.3	1,145.5	166.84	7.866	
11,200.0	8,062.0	11,358.9	8,052.7	85.5	86.4	-89.59	1,354.3	3,135.8	1,312.5	1,141.0	171.44	7.656	
11,300.0	8,065.0	11,458.9	8,055.7	87.9	88.7	-89.59	1,355.4	3,235.8	1,312.6	1,136.5	176.05	7.456	
11,400.0	8,068.0	11,558.9	8,058.6	90.2	91.0	-89.59	1,356.4	3,335.7	1,312.7	1,132.0	180.68	7.265	
11,500.0	8,070.9	11,658.9	8,061.6	92.5	93.3	-89.59	1,357.4	3,435.7	1,312.8	1,127.5	185.33	7.084	
11,600.0	8,073.9	11,758.9	8,064.5	94.8	95.6	-89.59	1,358.4	3,535.6	1,313.0	1,123.0	189.98	6.911	
11,700.0	8,076.9	11,858.9	8,067.5	97.2	97.9	-89.59	1,359.5	3,635.6	1,313.1	1,118.5	194.65	6.746	
11,800.0	8,079.8	11,958.9	8,070.4	99.5	100.2	-89.59	1,360.5	3,735.5	1,313.2	1,113.9	199.33	6.588	
11,900.0	8,082.8	12,058.9	8,073.4	101.9	102.6	-89.59	1,361.5	3,835.5	1,313.4	1,109.3	204.02	6.437	
12,000.0	8,085.8	12,158.9	8,076.3	104.2	104.9	-89.59	1,362.5	3,935.4	1,313.5	1,104.8	208.72	6.293	
12,100.0	8,088.7	12,258.9	8,079.3	106.6	107.3	-89.59	1,363.5	4,035.4	1,313.6	1,100.2	213.43	6.155	
12,200.0	8,091.7	12,358.9	8,082.2	109.0	109.6	-89.59	1,364.6	4,135.3	1,313.8	1,095.6	218.15	6.022	
12,300.0	8,094.7	12,458.9	8,085.2	111.3	112.0	-89.59	1,365.6	4,235.3	1,313.9	1,091.0	222.87	5.895	
12,400.0	8,097.6	12,558.9	8,088.1	113.7	114.3	-89.59	1,366.6	4,335.2	1,314.0	1,086.4	227.61	5.773	
12,500.0	8,100.6	12,658.9	8,091.1	116.1	116.7	-89.59	1,367.6	4,435.2	1,314.2	1,081.8	232.35	5.656	
12,600.0	8,103.6	12,758.9	8,094.0	118.4	119.0	-89.59	1,368.6	4,535.1	1,314.3	1,077.2	237.09	5.543	
12,700.0	8,106.5	12,858.9	8,097.0	120.8	121.4	-89.58	1,369.7	4,635.1	1,314.4	1,072.6	241.84	5.435	
12,800.0	8,109.5	12,958.9	8,099.9	123.2	123.8	-89.58	1,370.7	4,735.0	1,314.5	1,067.9	246.60	5.331	
12,900.0	8,112.5	13,058.9	8,102.9	125.6	126.1	-89.58	1,371.7	4,835.0	1,314.7	1,063.3	251.36	5.230	
13,000.0	8,115.4	13,158.9	8,105.8	128.0	128.5	-89.58	1,372.7	4,934.9	1,314.8	1,058.7	256.13	5.133	
13,100.0	8,118.4	13,258.9	8,108.8	130.4	130.9	-89.58	1,373.8	5,034.9	1,314.9	1,054.0	260.90	5.040	
13,200.0	8,121.4	13,358.9	8,111.7	132.8	133.3	-89.58	1,374.8	5,134.8	1,315.1	1,049.4	265.68	4.950	
13,300.0	8,124.3	13,458.9	8,114.7	135.1	135.6	-89.58	1,375.8	5,234.8	1,315.2	1,044.7	270.46	4.863	
13,400.0	8,127.3	13,558.9	8,117.6	137.5	138.0	-89.58	1,376.8	5,334.7	1,315.3	1,040.1	275.25	4.779	
13,500.0	8,130.3	13,658.9	8,120.6	139.9	140.4	-89.58	1,377.8	5,434.7	1,315.5	1,035.4	280.04	4.697	
13,600.0	8,133.2	13,758.9	8,123.5	142.3	142.8	-89.58	1,378.9	5,534.6	1,315.6	1,030.8	284.83	4.619	
13,700.0	8,136.2	13,858.9	8,126.5	144.7	145.2	-89.58	1,379.9	5,634.6	1,315.7	1,026.1	289.63	4.543	
13,800.0	8,139.2	13,958.9	8,129.4	147.1	147.6	-89.58	1,380.9	5,734.5	1,315.8	1,021.4	294.43	4.469	
13,900.0	8,142.1	14,058.9	8,132.4	149.5	150.0	-89.58	1,381.9	5,834.5	1,316.0	1,016.7	299.23	4.398	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.0	8,145.1	14,158.9	8,135.3	151.9	152.4	-89.58	1,382.9	5,934.4	1,316.1	1,012.1	304.03	4.329		
14,100.0	8,148.1	14,258.9	8,138.3	154.4	154.8	-89.58	1,384.0	6,034.4	1,316.2	1,007.4	308.84	4.262		
14,200.0	8,151.0	14,358.9	8,141.2	156.8	157.2	-89.58	1,385.0	6,134.3	1,316.4	1,002.7	313.66	4.197		
14,300.0	8,154.0	14,458.9	8,144.2	159.2	159.6	-89.57	1,386.0	6,234.3	1,316.5	998.0	318.47	4.134		
14,400.0	8,157.0	14,558.9	8,147.1	161.6	162.0	-89.57	1,387.0	6,334.2	1,316.6	993.3	323.29	4.073		
14,500.0	8,159.9	14,658.9	8,150.1	164.0	164.4	-89.57	1,388.1	6,434.2	1,316.8	988.7	328.11	4.013		
14,600.0	8,162.9	14,758.9	8,153.0	166.4	166.8	-89.57	1,389.1	6,534.1	1,316.9	984.0	332.93	3.955		
14,700.0	8,165.8	14,858.9	8,156.0	168.8	169.2	-89.57	1,390.1	6,634.1	1,317.0	979.3	337.75	3.899		
14,800.0	8,168.8	14,958.9	8,158.9	171.2	171.6	-89.57	1,391.1	6,734.0	1,317.1	974.6	342.58	3.845		
14,900.0	8,171.8	15,058.9	8,161.9	173.7	174.0	-89.57	1,392.1	6,834.0	1,317.3	969.9	347.41	3.792		
15,000.0	8,174.7	15,158.9	8,164.8	176.1	176.4	-89.57	1,393.2	6,934.0	1,317.4	965.2	352.24	3.740		
15,100.0	8,177.7	15,258.9	8,167.8	178.5	178.8	-89.57	1,394.2	7,033.9	1,317.5	960.5	357.07	3.690		
15,200.0	8,180.7	15,358.9	8,170.7	180.9	181.2	-89.57	1,395.2	7,133.9	1,317.7	955.8	361.90	3.641		
15,300.0	8,183.6	15,458.9	8,173.7	183.3	183.7	-89.57	1,396.2	7,233.8	1,317.8	951.1	366.74	3.593		
15,400.0	8,186.6	15,558.9	8,176.6	185.7	186.1	-89.57	1,397.2	7,333.8	1,317.9	946.4	371.57	3.547		
15,500.0	8,189.6	15,658.9	8,179.6	188.2	188.5	-89.57	1,398.3	7,433.7	1,318.1	941.6	376.41	3.502		
15,600.0	8,192.5	15,758.9	8,182.5	190.6	190.9	-89.57	1,399.3	7,533.7	1,318.2	936.9	381.25	3.458		
15,700.0	8,195.5	15,858.9	8,185.5	193.0	193.3	-89.57	1,400.3	7,633.6	1,318.3	932.2	386.09	3.415		
15,800.0	8,198.5	15,958.9	8,188.4	195.4	195.7	-89.56	1,401.3	7,733.6	1,318.5	927.5	390.93	3.373		
15,900.0	8,201.4	16,058.9	8,191.4	197.9	198.2	-89.56	1,402.4	7,833.5	1,318.6	922.8	395.78	3.332		
16,000.0	8,204.4	16,158.9	8,194.3	200.3	200.6	-89.56	1,403.4	7,933.5	1,318.7	918.1	400.62	3.292		
16,100.0	8,207.4	16,258.9	8,197.3	202.7	203.0	-89.56	1,404.4	8,033.4	1,318.8	913.4	405.47	3.253		
16,200.0	8,210.3	16,358.9	8,200.2	205.1	205.4	-89.56	1,405.4	8,133.4	1,319.0	908.7	410.32	3.215		
16,300.0	8,213.3	16,458.9	8,203.2	207.6	207.8	-89.56	1,406.4	8,233.3	1,319.1	903.9	415.17	3.177		
16,400.0	8,216.3	16,558.9	8,206.1	210.0	210.3	-89.56	1,407.5	8,333.3	1,319.2	899.2	420.02	3.141		
16,500.0	8,219.2	16,658.9	8,209.1	212.4	212.7	-89.56	1,408.5	8,433.2	1,319.4	894.5	424.87	3.105		
16,600.0	8,222.2	16,758.9	8,212.0	214.8	215.1	-89.56	1,409.5	8,533.2	1,319.5	889.8	429.72	3.071		
16,700.0	8,225.2	16,858.9	8,215.0	217.3	217.5	-89.56	1,410.5	8,633.1	1,319.6	885.0	434.57	3.037		
16,800.0	8,228.1	16,958.9	8,217.9	219.7	219.9	-89.56	1,411.5	8,733.1	1,319.8	880.3	439.43	3.003		
16,900.0	8,231.1	17,058.9	8,220.9	222.1	222.4	-89.56	1,412.6	8,833.0	1,319.9	875.6	444.28	2.971		
16,923.8	8,231.8	17,082.6	8,221.6	222.7	222.9	-89.56	1,412.8	8,856.8	1,319.9	874.5	445.44	2.963		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-167.92	-139.9	-29.9	143.0				
100.0	100.0	100.0	100.0	0.1	0.1	-167.92	-139.9	-29.9	143.0	142.8	0.26	558.061	
200.0	200.0	200.0	200.0	0.5	0.5	-167.92	-139.9	-29.9	143.0	142.1	0.97	146.967	
300.0	300.0	300.0	300.0	0.8	0.8	-167.92	-139.9	-29.9	143.0	141.3	1.69	84.627	
400.0	400.0	400.0	400.0	1.2	1.2	-167.92	-139.9	-29.9	143.0	140.6	2.41	59.421	
500.0	500.0	500.0	500.0	1.6	1.6	-167.92	-139.9	-29.9	143.0	139.9	3.12	45.785	
600.0	600.0	600.0	600.0	1.9	1.9	-167.92	-139.9	-29.9	143.0	139.2	3.84	37.239	
700.0	700.0	700.0	700.0	2.3	2.3	-167.92	-139.9	-29.9	143.0	138.5	4.56	31.381	
800.0	800.0	800.0	800.0	2.6	2.6	-167.92	-139.9	-29.9	143.0	137.8	5.27	27.116	
900.0	900.0	900.0	900.0	3.0	3.0	-167.92	-139.9	-29.9	143.0	137.0	5.99	23.872	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-167.92	-139.9	-29.9	143.0	136.3	6.71	21.321	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-167.92	-139.9	-29.9	143.0	135.6	7.43	19.262	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-167.92	-139.9	-29.9	143.0	134.9	8.14	17.566	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-167.92	-139.9	-29.9	143.0	134.2	8.86	16.145	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-167.92	-139.9	-29.9	143.0	133.5	9.58	14.936	
1,500.0	1,500.0	1,504.5	1,504.5	5.1	5.2	-167.55	-138.0	-30.5	141.4	131.1	10.31	13.724	
1,600.0	1,600.0	1,608.8	1,608.8	5.5	5.5	-166.39	-132.6	-32.1	136.7	125.7	11.02	12.398	
1,700.0	1,700.0	1,712.5	1,711.9	5.9	5.9	-164.27	-123.5	-34.8	128.9	117.2	11.73	10.985	
1,800.0	1,800.0	1,815.4	1,813.9	6.2	6.3	-160.88	-111.1	-38.5	118.4	105.9	12.43	9.519	
1,900.0	1,900.0	1,917.2	1,914.4	6.6	6.7	-155.59	-95.2	-43.2	105.6	92.4	13.14	8.036	
2,000.0	2,000.0	2,017.7	2,013.0	6.9	7.1	-147.36	-76.3	-48.9	91.5	77.6	13.86	6.600	
2,100.0	2,100.0	2,116.8	2,109.3	7.3	7.5	-44.63	-54.4	-55.4	77.5	62.9	14.64	5.296	
2,200.0	2,200.0	2,214.0	2,203.3	7.6	7.9	-27.04	-30.5	-62.5	66.5	51.0	15.47	4.296	
2,300.0	2,299.9	2,310.8	2,296.9	8.0	8.3	-5.73	-6.7	-69.6	62.1	45.9	16.23	3.829	
2,304.7	2,304.6	2,315.4	2,301.3	8.0	8.3	-4.68	-5.5	-69.9	62.1	45.9	16.26	3.821	CC, ES, SF
2,400.0	2,399.7	2,407.7	2,390.5	8.3	8.7	15.70	17.2	-76.7	65.7	48.9	16.81	3.907	
2,500.0	2,499.4	2,504.6	2,484.1	8.7	9.2	33.57	41.1	-83.8	76.0	58.7	17.33	4.385	
2,600.0	2,598.9	2,601.5	2,577.8	9.0	9.6	47.11	65.0	-90.9	90.8	72.9	17.89	5.074	
2,700.0	2,698.3	2,701.7	2,671.3	9.4	10.1	57.26	88.9	-98.0	108.3	89.8	18.52	5.847	
2,800.0	2,797.4	2,795.1	2,764.8	9.8	10.5	65.11	112.7	-105.1	127.6	108.4	19.18	6.651	
2,900.0	2,896.4	2,891.7	2,858.3	10.1	11.0	71.30	136.5	-112.2	148.4	128.5	19.90	7.458	
3,000.0	2,995.5	2,988.4	2,951.7	10.5	11.5	75.95	160.4	-119.3	170.6	149.9	20.65	8.260	
3,100.0	3,094.5	3,085.1	3,045.1	10.9	11.9	79.53	184.2	-126.3	193.5	172.1	21.41	9.039	
3,200.0	3,193.5	3,181.8	3,138.6	11.3	12.4	82.35	208.1	-133.4	217.0	194.8	22.18	9.786	
3,300.0	3,292.5	3,278.5	3,232.0	11.6	12.9	84.62	231.9	-140.5	240.9	218.0	22.95	10.497	
3,400.0	3,391.6	3,375.2	3,325.5	12.0	13.4	86.48	255.7	-147.6	265.2	241.4	23.74	11.171	
3,500.0	3,490.6	3,471.9	3,418.9	12.4	13.9	88.03	279.6	-154.7	289.6	265.1	24.52	11.809	
3,600.0	3,589.6	3,568.6	3,512.3	12.8	14.4	89.34	303.4	-161.8	314.2	288.9	25.31	12.412	
3,700.0	3,688.6	3,665.3	3,605.8	13.2	14.9	90.46	327.2	-168.9	339.0	312.8	26.11	12.983	
3,800.0	3,787.7	3,762.0	3,699.2	13.6	15.4	91.43	351.1	-176.0	363.8	336.9	26.90	13.522	
3,900.0	3,886.7	3,858.7	3,792.7	14.0	15.9	92.27	374.9	-183.1	388.7	361.0	27.70	14.032	
4,000.0	3,985.7	3,955.4	3,886.1	14.4	16.4	93.01	398.7	-190.2	413.7	385.2	28.50	14.515	
4,100.0	4,084.8	4,052.1	3,979.5	14.8	16.9	93.67	422.6	-197.3	438.8	409.5	29.31	14.972	
4,200.0	4,183.8	4,148.8	4,073.0	15.2	17.4	94.26	446.4	-204.3	463.9	433.8	30.11	15.406	
4,288.1	4,271.0	4,234.0	4,155.3	15.5	17.8	94.73	467.4	-210.6	486.1	455.2	30.82	15.770	
4,300.0	4,282.8	4,245.5	4,166.4	15.6	17.9	94.83	470.3	-211.4	489.0	458.1	30.92	15.817	
4,400.0	4,382.0	4,342.2	4,259.9	16.0	18.4	95.51	494.1	-218.5	514.1	482.4	31.71	16.210	
4,500.0	4,481.6	4,439.1	4,353.6	16.4	18.9	95.86	518.0	-225.6	538.9	506.4	32.49	16.587	
4,600.0	4,581.3	4,536.0	4,447.2	16.7	19.4	95.95	541.9	-232.7	563.4	530.2	33.24	16.949	
4,700.0	4,681.2	4,632.9	4,540.8	17.1	19.9	95.79	565.8	-239.8	587.7	553.8	33.98	17.299	
4,800.0	4,781.2	4,729.6	4,634.3	17.5	20.4	95.43	589.6	-246.9	611.9	577.2	34.69	17.639	
4,821.5	4,802.6	4,750.3	4,654.3	17.5	20.5	4.94	594.7	-248.5	617.0	582.2	34.84	17.711	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,881.2	4,826.3	4,727.7	17.8	20.9	4.28	613.4	-254.0	636.0	600.6	35.39	17.971	
5,000.0	4,981.2	4,922.9	4,821.1	18.1	21.4	3.48	637.3	-261.1	660.2	624.1	36.09	18.293	
5,100.0	5,081.2	5,019.5	4,914.5	18.5	21.9	2.75	661.1	-268.2	684.5	647.7	36.79	18.606	
5,200.0	5,181.2	5,127.7	5,019.1	18.8	22.5	2.00	687.3	-276.0	708.6	670.9	37.63	18.831	
5,300.0	5,281.2	5,255.9	5,144.2	19.2	23.1	1.28	714.2	-284.0	729.4	690.8	38.65	18.873	
5,400.0	5,381.2	5,386.5	5,272.7	19.5	23.7	0.74	736.1	-290.5	746.1	706.5	39.61	18.837	
5,500.0	5,481.2	5,518.9	5,404.0	19.8	24.2	0.35	752.5	-295.4	758.4	718.0	40.49	18.731	
5,600.0	5,581.2	5,652.6	5,537.3	20.2	24.7	0.11	763.1	-298.6	766.4	725.1	41.29	18.560	
5,700.0	5,681.2	5,787.1	5,671.7	20.5	25.1	0.01	767.8	-300.0	769.9	727.9	42.01	18.328	
5,800.0	5,781.2	5,903.4	5,781.2	20.9	25.5	0.00	768.0	-300.0	770.0	727.4	42.70	18.035	
5,900.0	5,881.2	6,003.4	5,881.2	21.2	25.8	0.00	768.0	-300.0	770.0	726.7	43.37	17.753	
6,000.0	5,981.2	6,103.4	5,981.2	21.6	26.0	0.00	768.0	-300.0	770.0	726.0	44.05	17.480	
6,100.0	6,081.2	6,203.4	6,081.2	21.9	26.3	0.00	768.0	-300.0	770.0	725.3	44.73	17.215	
6,200.0	6,181.2	6,303.4	6,181.2	22.3	26.6	0.00	768.0	-300.0	770.0	724.6	45.41	16.957	
6,300.0	6,281.2	6,403.4	6,281.2	22.6	26.9	0.00	768.0	-300.0	770.0	724.0	46.09	16.707	
6,400.0	6,381.2	6,503.4	6,381.2	23.0	27.2	0.00	768.0	-300.0	770.0	723.3	46.77	16.463	
6,500.0	6,481.2	6,603.4	6,481.2	23.3	27.5	0.00	768.0	-300.0	770.0	722.6	47.46	16.226	
6,600.0	6,581.2	6,703.4	6,581.2	23.6	27.8	0.00	768.0	-300.0	770.0	721.9	48.14	15.995	
6,700.0	6,681.2	6,803.4	6,681.2	24.0	28.1	0.00	768.0	-300.0	770.0	721.2	48.83	15.771	
6,800.0	6,781.2	6,903.4	6,781.2	24.3	28.4	0.00	768.0	-300.0	770.0	720.5	49.51	15.552	
6,900.0	6,881.2	7,003.4	6,881.2	24.7	28.7	0.00	768.0	-300.0	770.0	719.8	50.20	15.340	
7,000.0	6,981.2	7,103.4	6,981.2	25.0	29.0	0.00	768.0	-300.0	770.0	719.2	50.89	15.132	
7,100.0	7,081.2	7,203.4	7,081.2	25.4	29.3	0.00	768.0	-300.0	770.0	718.5	51.58	14.930	
7,200.0	7,181.2	7,303.4	7,181.2	25.7	29.6	0.00	768.0	-300.0	770.0	717.8	52.27	14.733	
7,300.0	7,281.2	7,403.4	7,281.2	26.1	29.9	0.00	768.0	-300.0	770.0	717.1	52.96	14.541	
7,400.0	7,381.2	7,503.4	7,381.2	26.4	30.2	0.00	768.0	-300.0	770.0	716.4	53.65	14.354	
7,422.3	7,403.5	7,518.9	7,403.5	26.5	30.3	0.00	768.0	-300.0	770.0	716.3	53.78	14.319	
7,450.0	7,431.2	7,546.6	7,431.2	26.6	30.4	-88.25	768.0	-300.0	770.0	716.1	53.96	14.270	
7,500.0	7,481.0	7,603.6	7,481.0	26.8	30.5	-88.60	768.0	-300.0	769.9	715.6	54.30	14.178	
7,550.0	7,530.1	7,645.6	7,530.1	26.9	30.7	-89.27	768.0	-300.0	769.7	715.2	54.57	14.105	
7,589.4	7,568.3	7,683.7	7,568.3	27.0	30.8	-90.00	768.0	-300.0	769.7	714.9	54.79	14.048	
7,600.0	7,578.4	7,706.2	7,578.4	27.1	30.9	-90.22	768.0	-300.0	769.7	714.8	54.89	14.023	
7,650.0	7,625.2	7,740.7	7,625.2	27.2	31.0	-91.40	768.0	-300.0	769.9	714.8	55.10	13.974	
7,700.0	7,670.4	7,785.9	7,670.4	27.3	31.1	-92.75	768.0	-300.0	770.8	715.5	55.34	13.929	
7,750.0	7,713.6	7,829.0	7,713.6	27.4	31.2	-94.19	768.0	-300.0	772.6	717.0	55.57	13.904	
7,800.0	7,754.4	7,869.9	7,754.4	27.6	31.4	-95.62	768.0	-300.0	775.6	719.8	55.79	13.903	
7,850.0	7,792.6	7,908.0	7,792.6	27.7	31.5	-96.97	768.0	-300.0	780.3	724.3	56.01	13.930	
7,900.0	7,827.7	7,943.2	7,827.7	27.8	31.6	-98.13	768.0	-300.0	786.9	730.6	56.24	13.991	
7,950.0	7,859.7	7,975.1	7,859.7	28.0	31.7	-99.03	768.0	-300.0	795.8	739.3	56.48	14.088	
8,000.0	7,888.2	8,003.6	7,888.2	28.2	31.8	-99.56	768.0	-300.0	807.2	750.4	56.74	14.225	
8,050.0	7,913.0	8,028.4	7,913.0	28.4	31.9	-99.67	768.0	-300.0	821.3	764.3	57.02	14.404	
8,100.0	7,933.9	8,049.3	7,933.9	28.7	31.9	-99.27	768.0	-300.0	838.2	780.9	57.30	14.627	
8,150.0	7,950.7	8,066.2	7,950.7	28.9	32.0	-98.30	768.0	-300.0	857.9	800.3	57.60	14.894	
8,200.0	7,963.5	8,078.9	7,963.5	29.2	32.0	-96.71	768.0	-300.0	880.4	822.5	57.90	15.204	
8,250.0	7,971.9	8,087.3	7,971.9	29.6	32.0	-94.46	768.0	-300.0	905.3	847.1	58.20	15.555	
8,300.0	7,976.0	8,108.5	7,976.0	30.0	32.1	-91.53	768.0	-300.0	932.5	874.0	58.54	15.929	
8,305.4	7,976.2	8,108.4	7,976.2	30.0	32.1	-91.17	768.0	-300.0	935.6	877.0	58.57	15.974	
8,369.8	7,978.1	8,106.5	7,978.1	30.6	32.1	-91.38	768.0	-300.0	974.2	915.3	58.91	16.538	
8,400.0	7,979.0	8,105.6	7,979.0	30.9	32.1	-91.44	768.0	-300.0	993.4	934.4	59.07	16.819	
8,500.0	7,982.0	8,102.6	7,982.0	31.9	32.1	-91.67	768.0	-300.0	1,060.9	1,001.4	59.58	17.808	
8,600.0	7,984.9	8,100.4	7,984.9	33.1	32.1	-91.89	768.0	-300.0	1,133.2	1,073.2	60.06	18.868	
8,700.0	7,987.9	8,103.3	7,987.9	34.4	32.1	-92.12	768.0	-300.0	1,209.5	1,149.0	60.52	19.984	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	7,990.9	8,106.3	7,990.9	35.9	32.1	-92.34	768.0	-300.0	1,289.0	1,228.0	60.94	21.153	
8,900.0	7,993.8	8,109.3	7,993.8	37.4	32.1	-92.57	768.0	-300.0	1,371.1	1,309.8	61.31	22.364	
9,000.0	7,996.8	8,112.2	7,996.8	39.0	32.1	-92.79	768.0	-300.0	1,455.5	1,393.9	61.64	23.612	
9,100.0	7,999.8	10,464.6	9,298.1	40.8	44.4	-149.72	781.1	1,013.4	1,503.8	1,457.4	46.43	32.386	
9,200.0	8,002.7	10,564.6	9,300.4	42.6	46.1	-149.71	782.1	1,113.4	1,503.2	1,454.8	48.47	31.016	
9,300.0	8,005.7	10,664.6	9,302.6	44.4	47.8	-149.69	783.1	1,213.3	1,502.7	1,452.1	50.58	29.711	
9,400.0	8,008.7	10,764.6	9,304.8	46.3	49.5	-149.67	784.1	1,313.3	1,502.1	1,449.3	52.75	28.473	
9,500.0	8,011.6	10,864.6	9,307.1	48.3	51.3	-149.65	785.1	1,413.3	1,501.5	1,446.5	54.99	27.304	
9,600.0	8,014.6	10,964.6	9,309.3	50.3	53.2	-149.64	786.1	1,513.2	1,500.9	1,443.6	57.28	26.201	
9,700.0	8,017.6	11,064.6	9,311.5	52.3	55.1	-149.62	787.1	1,613.2	1,500.3	1,440.7	59.62	25.163	
9,800.0	8,020.5	11,164.6	9,313.8	54.4	57.0	-149.60	788.1	1,713.2	1,499.8	1,437.7	62.01	24.186	
9,900.0	8,023.5	11,264.6	9,316.0	56.5	59.0	-149.58	789.1	1,813.1	1,499.2	1,434.7	64.43	23.268	
10,000.0	8,026.5	11,364.6	9,318.3	58.6	61.0	-149.57	790.1	1,913.1	1,498.6	1,431.7	66.89	22.405	
10,100.0	8,029.4	11,464.6	9,320.5	60.8	63.1	-149.55	791.1	2,013.1	1,498.0	1,428.6	69.37	21.594	
10,200.0	8,032.4	11,564.6	9,322.7	63.0	65.1	-149.53	792.1	2,113.0	1,497.4	1,425.6	71.89	20.830	
10,300.0	8,035.4	11,664.6	9,325.0	65.2	67.2	-149.51	793.1	2,213.0	1,496.9	1,422.4	74.43	20.112	
10,400.0	8,038.3	11,764.6	9,327.2	67.4	69.4	-149.50	794.0	2,313.0	1,496.3	1,419.3	76.99	19.434	
10,500.0	8,041.3	11,864.6	9,329.4	69.6	71.5	-149.48	795.0	2,412.9	1,495.7	1,416.1	79.58	18.796	
10,600.0	8,044.3	11,964.6	9,331.7	71.8	73.7	-149.46	796.0	2,512.9	1,495.1	1,412.9	82.18	18.193	
10,700.0	8,047.2	12,064.6	9,333.9	74.1	75.9	-149.44	797.0	2,612.9	1,494.5	1,409.7	84.80	17.624	
10,800.0	8,050.2	12,164.6	9,336.1	76.4	78.0	-149.43	798.0	2,712.8	1,494.0	1,406.5	87.44	17.086	
10,900.0	8,053.2	12,264.6	9,338.4	78.7	80.3	-149.41	799.0	2,812.8	1,493.4	1,403.3	90.09	16.576	
11,000.0	8,056.1	12,364.6	9,340.6	80.9	82.5	-149.39	800.0	2,912.8	1,492.8	1,400.1	92.76	16.093	
11,100.0	8,059.1	12,464.6	9,342.8	83.2	84.7	-149.37	801.0	3,012.7	1,492.2	1,396.8	95.44	15.635	
11,200.0	8,062.0	12,564.6	9,345.1	85.5	87.0	-149.36	802.0	3,112.7	1,491.7	1,393.5	98.13	15.200	
11,300.0	8,065.0	12,664.6	9,347.3	87.9	89.2	-149.34	803.0	3,212.7	1,491.1	1,390.2	100.84	14.787	
11,400.0	8,068.0	12,764.6	9,349.5	90.2	91.5	-149.32	804.0	3,312.6	1,490.5	1,386.9	103.55	14.394	
11,500.0	8,070.9	12,864.6	9,351.8	92.5	93.8	-149.30	805.0	3,412.6	1,489.9	1,383.6	106.28	14.019	
11,600.0	8,073.9	12,964.6	9,354.0	94.8	96.1	-149.28	806.0	3,512.6	1,489.3	1,380.3	109.01	13.662	
11,700.0	8,076.9	13,064.6	9,356.2	97.2	98.3	-149.27	807.0	3,612.6	1,488.8	1,377.0	111.76	13.322	
11,800.0	8,079.8	13,164.6	9,358.5	99.5	100.6	-149.25	808.0	3,712.5	1,488.2	1,373.7	114.51	12.997	
11,900.0	8,082.8	13,264.6	9,360.7	101.9	103.0	-149.23	809.0	3,812.5	1,487.6	1,370.4	117.27	12.686	
12,000.0	8,085.8	13,364.6	9,362.9	104.2	105.3	-149.21	810.0	3,912.5	1,487.0	1,367.0	120.03	12.389	
12,100.0	8,088.7	13,464.6	9,365.2	106.6	107.6	-149.19	811.0	4,012.4	1,486.5	1,363.7	122.81	12.104	
12,200.0	8,091.7	13,564.6	9,367.4	109.0	109.9	-149.18	811.9	4,112.4	1,485.9	1,360.3	125.59	11.831	
12,300.0	8,094.7	13,664.6	9,369.6	111.3	112.2	-149.16	812.9	4,212.4	1,485.3	1,356.9	128.38	11.570	
12,400.0	8,097.6	13,764.6	9,371.9	113.7	114.6	-149.14	813.9	4,312.3	1,484.7	1,353.6	131.17	11.319	
12,500.0	8,100.6	13,864.6	9,374.1	116.1	116.9	-149.12	814.9	4,412.3	1,484.2	1,350.2	133.97	11.078	
12,600.0	8,103.6	13,964.6	9,376.3	118.4	119.3	-149.11	815.9	4,512.3	1,483.6	1,346.8	136.78	10.847	
12,700.0	8,106.5	14,064.5	9,378.6	120.8	121.6	-149.09	816.9	4,612.2	1,483.0	1,343.4	139.59	10.624	
12,800.0	8,109.5	14,164.5	9,380.8	123.2	124.0	-149.07	817.9	4,712.2	1,482.4	1,340.0	142.41	10.410	
12,900.0	8,112.5	14,264.5	9,383.0	125.6	126.3	-149.05	818.9	4,812.2	1,481.9	1,336.6	145.23	10.204	
13,000.0	8,115.4	14,364.5	9,385.3	128.0	128.7	-149.03	819.9	4,912.1	1,481.3	1,333.2	148.06	10.005	
13,100.0	8,118.4	14,464.5	9,387.5	130.4	131.0	-149.02	820.9	5,012.1	1,480.7	1,329.8	150.89	9.813	
13,200.0	8,121.4	14,564.5	9,389.7	132.8	133.4	-149.00	821.9	5,112.1	1,480.1	1,326.4	153.73	9.628	
13,300.0	8,124.3	14,664.5	9,392.0	135.1	135.8	-148.98	822.9	5,212.0	1,479.6	1,323.0	156.57	9.450	
13,400.0	8,127.3	14,764.5	9,394.2	137.5	138.2	-148.96	823.9	5,312.0	1,479.0	1,319.6	159.41	9.278	
13,500.0	8,130.3	14,864.5	9,396.4	139.9	140.5	-148.94	824.9	5,412.0	1,478.4	1,316.2	162.26	9.111	
13,600.0	8,133.2	14,964.5	9,398.7	142.3	142.9	-148.93	825.9	5,511.9	1,477.8	1,312.7	165.12	8.950	
13,700.0	8,136.2	15,064.5	9,400.9	144.7	145.3	-148.91	826.9	5,611.9	1,477.3	1,309.3	167.98	8.794	
13,800.0	8,139.2	15,164.5	9,403.1	147.1	147.7	-148.89	827.9	5,711.9	1,476.7	1,305.9	170.84	8.644	
13,900.0	8,142.1	15,264.5	9,405.4	149.5	150.0	-148.87	828.9	5,811.8	1,476.1	1,302.4	173.71	8.498	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 Michael Ryan - Michael Ryan State Com #137H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,000.0	8,145.1	15,364.5	9,407.6	151.9	152.4	-148.85	829.8	5,911.8	1,475.5	1,299.0	176.58	8.356	
14,100.0	8,148.1	15,464.5	9,409.8	154.4	154.8	-148.83	830.8	6,011.8	1,475.0	1,295.5	179.45	8.219	
14,200.0	8,151.0	15,564.5	9,412.1	156.8	157.2	-148.82	831.8	6,111.7	1,474.4	1,292.1	182.33	8.086	
14,300.0	8,154.0	15,664.5	9,414.3	159.2	159.6	-148.80	832.8	6,211.7	1,473.8	1,288.6	185.21	7.958	
14,400.0	8,157.0	15,764.5	9,416.5	161.6	162.0	-148.78	833.8	6,311.7	1,473.3	1,285.2	188.10	7.832	
14,500.0	8,159.9	15,864.5	9,418.8	164.0	164.4	-148.76	834.8	6,411.6	1,472.7	1,281.7	190.99	7.711	
14,600.0	8,162.9	15,964.5	9,421.0	166.4	166.8	-148.74	835.8	6,511.6	1,472.1	1,278.2	193.88	7.593	
14,700.0	8,165.8	16,064.5	9,423.2	168.8	169.2	-148.73	836.8	6,611.6	1,471.5	1,274.8	196.77	7.478	
14,800.0	8,168.8	16,164.5	9,425.5	171.2	171.6	-148.71	837.8	6,711.5	1,471.0	1,271.3	199.67	7.367	
14,900.0	8,171.8	16,264.5	9,427.7	173.7	174.0	-148.69	838.8	6,811.5	1,470.4	1,267.8	202.58	7.259	
15,000.0	8,174.7	16,364.5	9,429.9	176.1	176.4	-148.67	839.8	6,911.5	1,469.8	1,264.3	205.48	7.153	
15,100.0	8,177.7	16,464.5	9,432.2	178.5	178.8	-148.65	840.8	7,011.4	1,469.3	1,260.9	208.39	7.050	
15,200.0	8,180.7	16,564.5	9,434.4	180.9	181.2	-148.63	841.8	7,111.4	1,468.7	1,257.4	211.30	6.951	
15,300.0	8,183.6	16,664.5	9,436.6	183.3	183.6	-148.62	842.8	7,211.4	1,468.1	1,253.9	214.22	6.853	
15,400.0	8,186.6	16,764.5	9,438.9	185.7	186.0	-148.60	843.8	7,311.3	1,467.5	1,250.4	217.14	6.759	
15,500.0	8,189.6	16,864.5	9,441.1	188.2	188.4	-148.58	844.8	7,411.3	1,467.0	1,246.9	220.06	6.666	
15,600.0	8,192.5	16,964.5	9,443.3	190.6	190.8	-148.56	845.8	7,511.3	1,466.4	1,243.4	222.98	6.576	
15,700.0	8,195.5	17,064.5	9,445.6	193.0	193.2	-148.54	846.8	7,611.2	1,465.8	1,239.9	225.91	6.489	
15,800.0	8,198.5	17,164.5	9,447.8	195.4	195.6	-148.52	847.8	7,711.2	1,465.3	1,236.4	228.84	6.403	
15,900.0	8,201.4	17,264.5	9,450.0	197.9	198.1	-148.51	848.7	7,811.2	1,464.7	1,232.9	231.77	6.319	
16,000.0	8,204.4	17,364.5	9,452.3	200.3	200.5	-148.49	849.7	7,911.1	1,464.1	1,229.4	234.71	6.238	
16,100.0	8,207.4	17,464.5	9,454.5	202.7	202.9	-148.47	850.7	8,011.1	1,463.5	1,225.9	237.65	6.158	
16,200.0	8,210.3	17,564.5	9,456.7	205.1	205.3	-148.45	851.7	8,111.1	1,463.0	1,222.4	240.59	6.081	
16,300.0	8,213.3	17,664.5	9,459.0	207.6	207.7	-148.43	852.7	8,211.0	1,462.4	1,218.9	243.54	6.005	
16,400.0	8,216.3	17,764.4	9,461.2	210.0	210.1	-148.41	853.7	8,311.0	1,461.8	1,215.3	246.49	5.931	
16,500.0	8,219.2	17,864.4	9,463.4	212.4	212.6	-148.40	854.7	8,411.0	1,461.3	1,211.8	249.44	5.858	
16,600.0	8,222.2	17,964.4	9,465.7	214.8	215.0	-148.38	855.7	8,511.0	1,460.7	1,208.3	252.39	5.787	
16,700.0	8,225.2	18,064.4	9,467.9	217.3	217.4	-148.36	856.7	8,610.9	1,460.1	1,204.8	255.35	5.718	
16,800.0	8,228.1	18,164.4	9,470.1	219.7	219.8	-148.34	857.7	8,710.9	1,459.6	1,201.3	258.31	5.651	
16,900.0	8,231.1	18,264.4	9,472.4	222.1	222.2	-148.32	858.7	8,810.9	1,459.0	1,197.7	261.27	5.584	
16,923.8	8,231.8	18,288.2	9,472.9	222.7	222.8	-148.32	858.9	8,834.6	1,458.9	1,196.9	261.97	5.569	

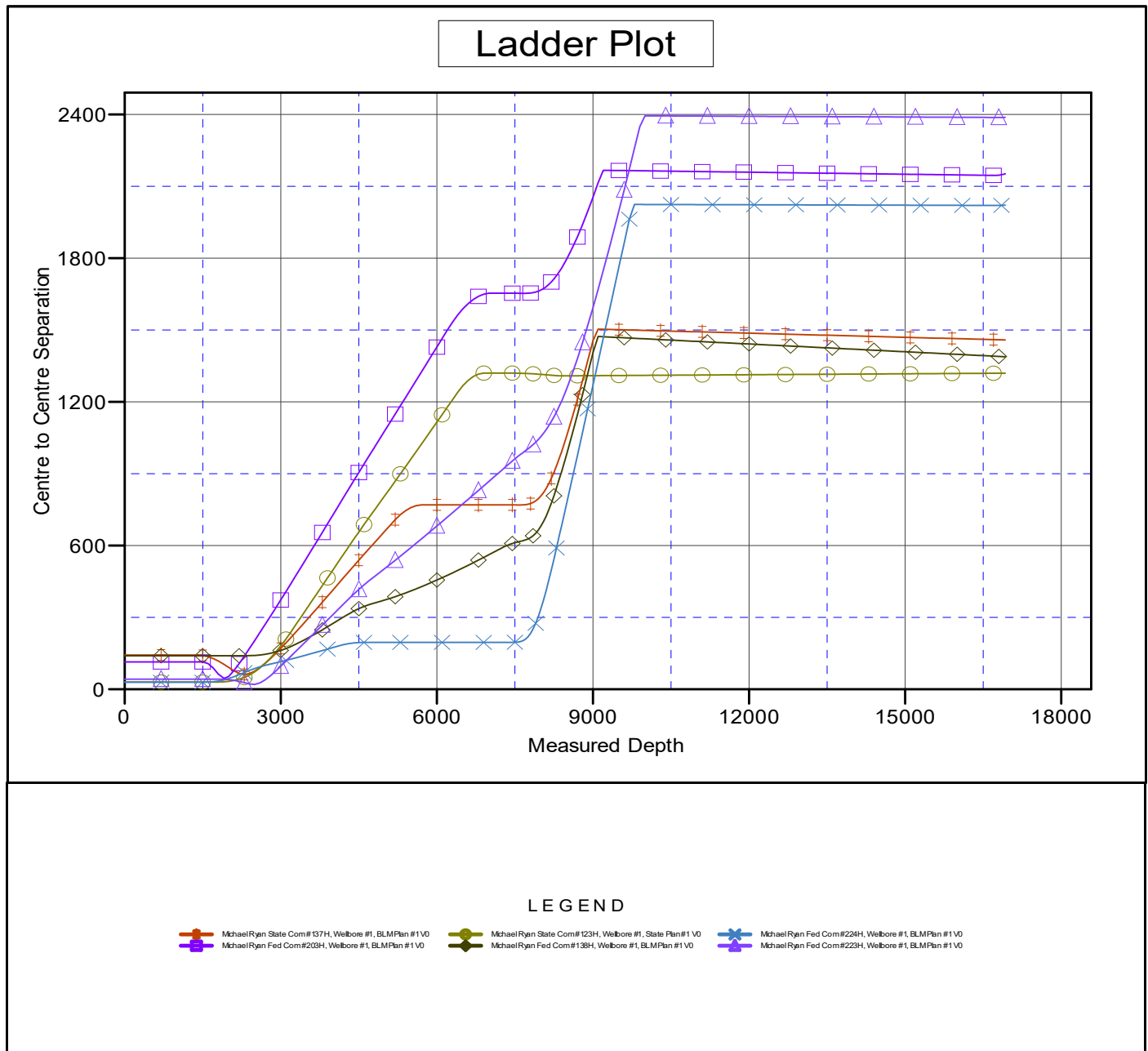
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 @ 3106.5usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Michael Ryan Fed Com #204H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.13°



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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Project:	Rustler Breaks	TVD Reference:	KB @ 3106.5usft
Reference Site:	Michael Ryan	MD Reference:	KB @ 3106.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Michael Ryan Fed Com #204H	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 @ 3106.5usft

Offset Depths are relative to Offset Datum

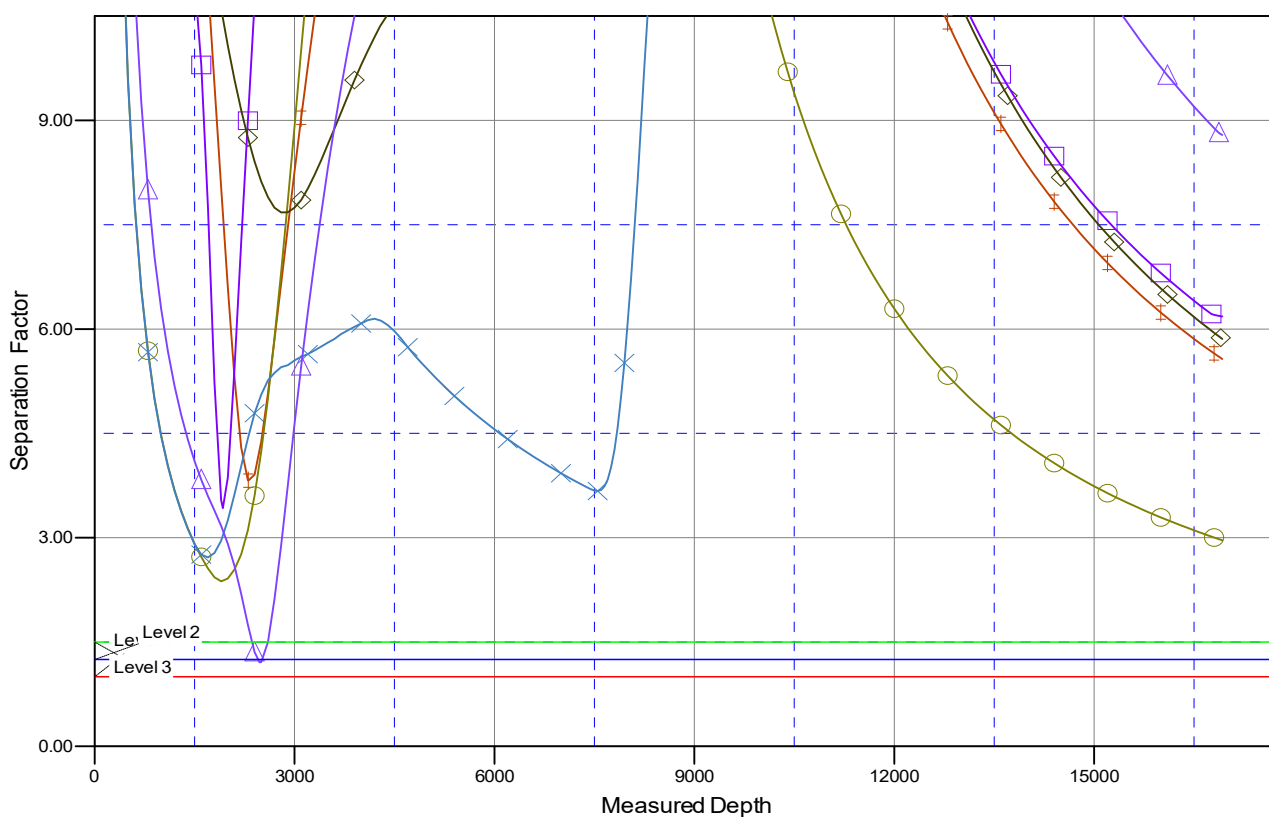
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Michael Ryan Fed Com #204H

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

Grid Convergence at Surface is: 0.13°

Separation Factor Plot



LEGEND

- Michael Ryan State Com #137H, Wellbore #1, BLM Plan #1 V0
- Michael Ryan Fed Com #203H, Wellbore #1, BLM Plan #1 V0
- Michael Ryan Fed Com #123H, Wellbore #1, State Plan #1 V0
- Michael Ryan Fed Com #138H, Wellbore #1, BLM Plan #1 V0
- Michael Ryan Fed Com #223H, Wellbore #1, BLM Plan #1 V0

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



SURVEY PROGRAM

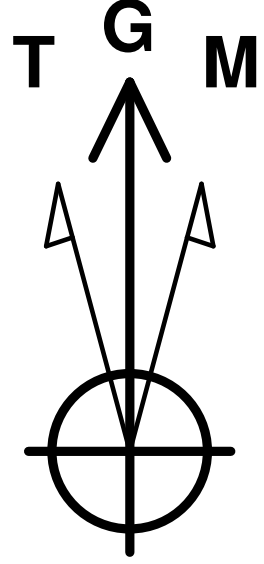
WELL DETAILS: Michael Ryan Fed Com #204H

Depth From	Depth To	Survey/Plan	Tool				GL @ 3078.0	KB @ 3106.5usft		
0.0	16923.8	BLM Plan #1 (Wellbore #1)	MWD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
				0.0	0.0	504610.00	572118.00	32° 23' 13.456 N	104° 5' 58.935 W	

Company: Matador Production Company
Well: Michael Ryan Fed Com #204H
County: Eddy county, NM
Wellbore: Wellbore #1
Plan: BLM Plan #1
Date: 08/07/2022

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 6.62°
To convert a Magnetic Direction to a True Direction, Add 6.75° East
To convert a True Direction to a Grid Direction, Subtract 0.13°



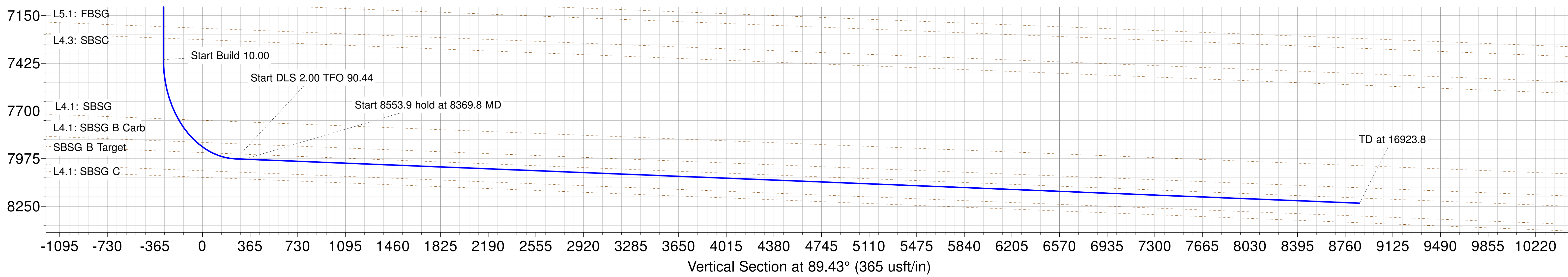
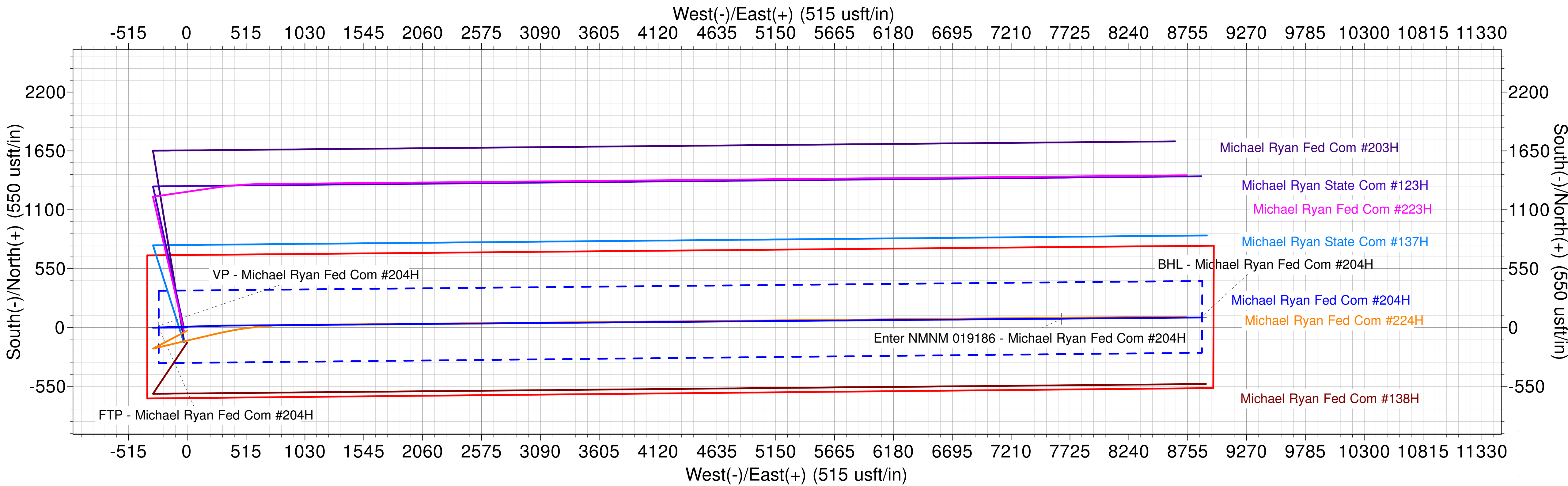
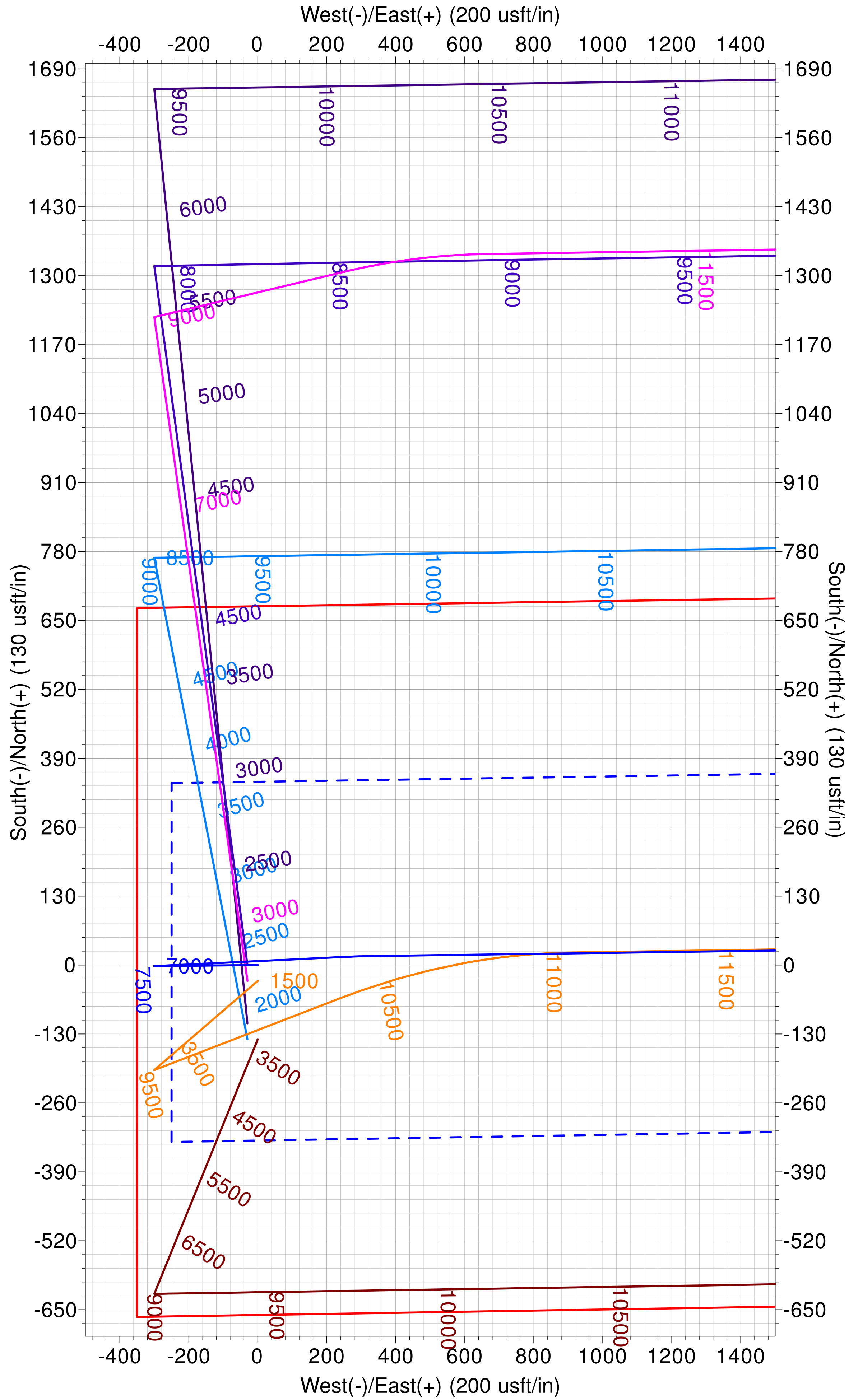
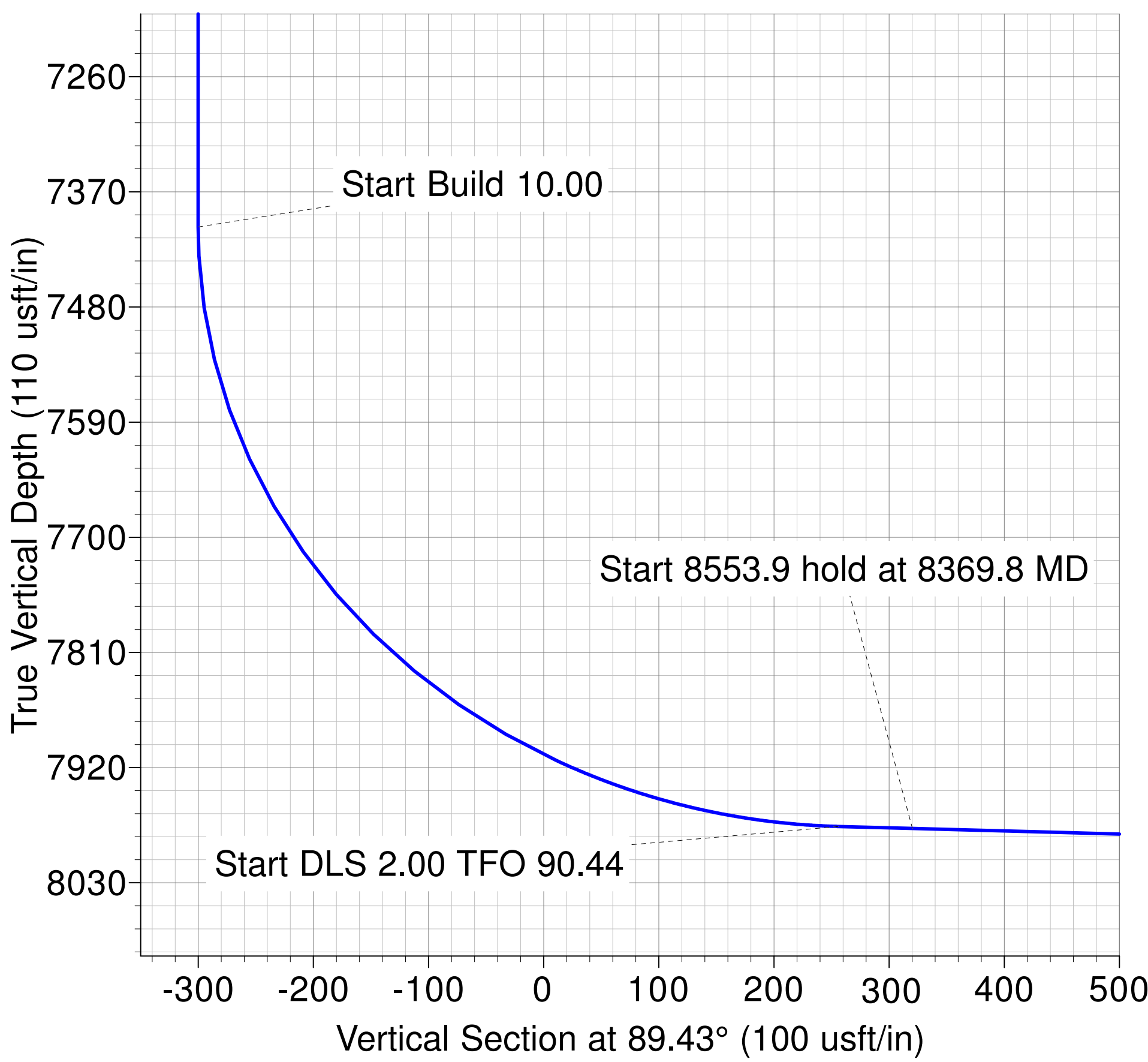
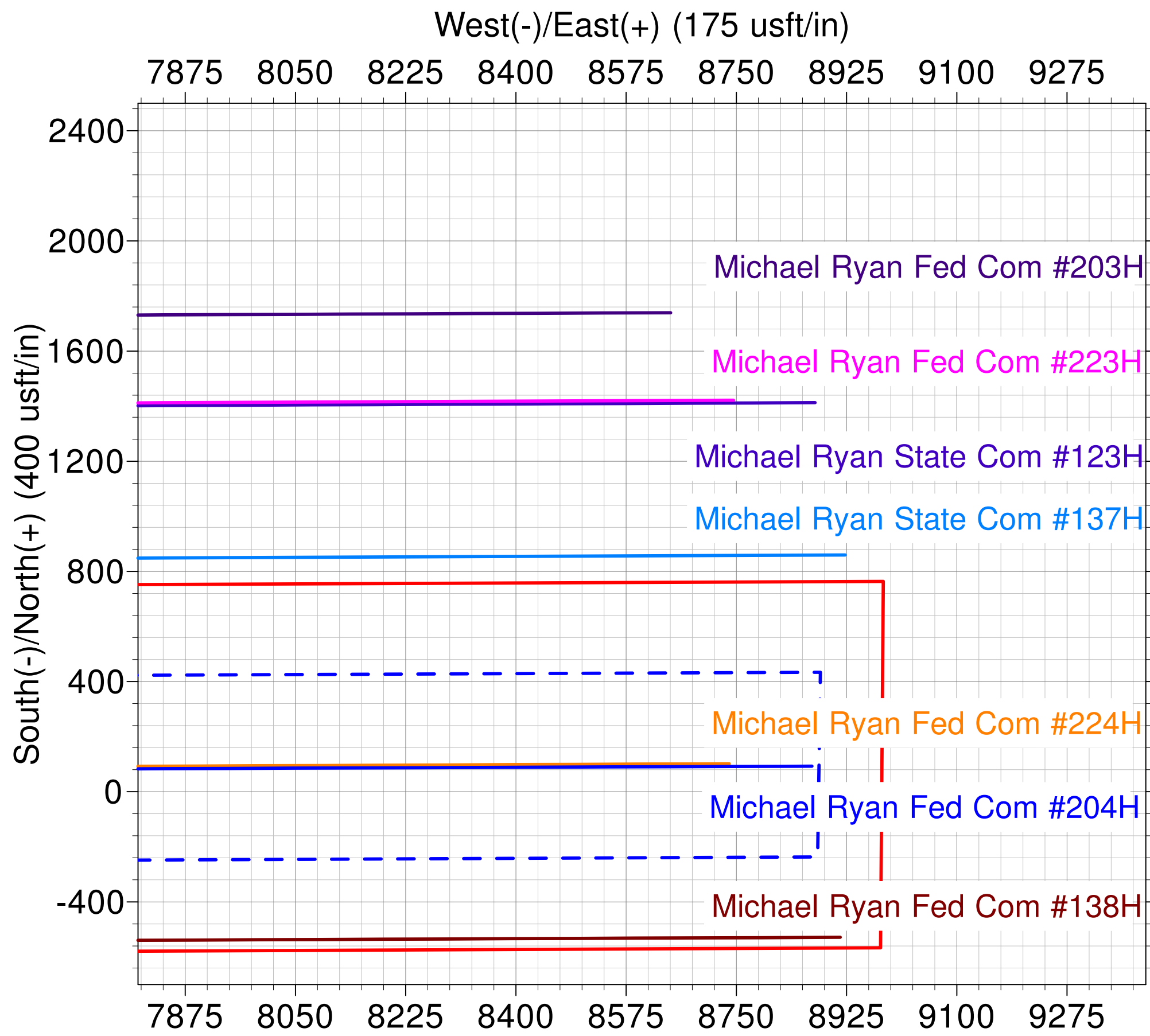
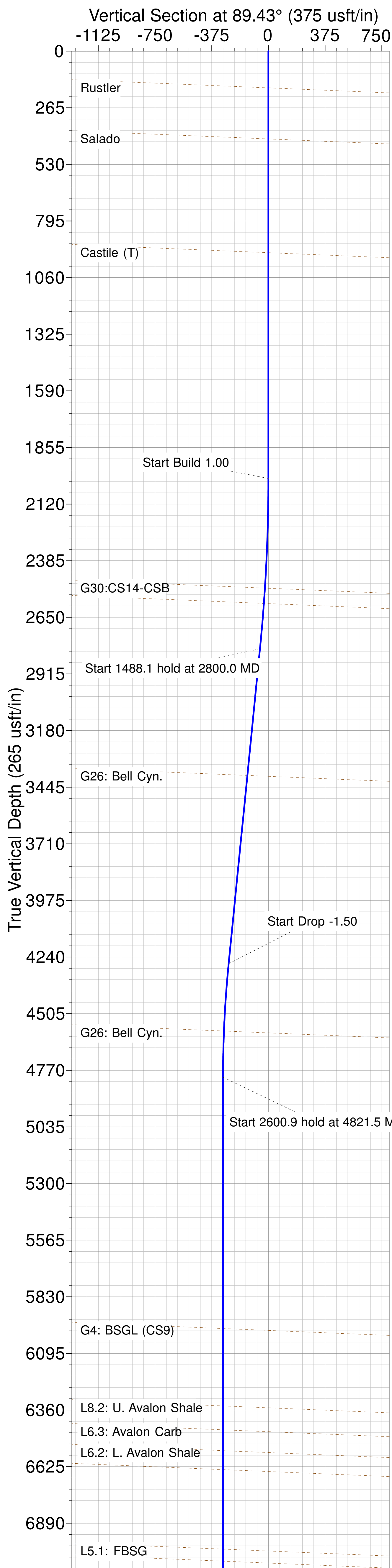
Azimuths to Grid North
True North: -0.12°
Magnetic North: 6.62°

Magnetic Field
Strength: 47542.6snT
Dip Angle: 60.07°
Date: 9/24/2021
Model: IGRF2015

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Michael Ryan Fed Com #204H	7403.5	-2.0	-300.0	504608.00	571818.00	32° 23' 13.443 N	104° 6' 2.434 W
BHL - Michael Ryan Fed Com #204H	8231.8	93.0	8870.0	504703.00	580988.00	32° 23' 14.173 N	104° 4' 15.488 W
Enter NMNM 019186 - Michael Ryan Fed Com #204H	8194.3	80.0	7649.0	504690.00	579767.00	32° 23' 14.073 N	104° 4' 29.728 W
FTP - Michael Ryan Fed Com #204H	7976.5	-2.0	-250.0	504608.00	571868.00	32° 23' 13.441 N	104° 6' 1.851 W

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	Start Build 1.00
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	Start 1488.1 hold at 2800.0 MD
2800.0	8.00	269.62	2797.4	-0.4	-55.8	1.00	269.62	-55.8	Start Drop -1.50
4288.1	8.00	269.62	4271.0	-1.8	-262.9	0.00	0.00	-262.9	Start 2600.9 hold at 4821.5 MD
4821.5	0.00	0.00	4802.6	-2.0	-300.0	1.50	180.00	-300.0	Start Build 10.00
7422.3	0.00	0.00	7403.5	-2.0	-300.0	0.00	0.00	-300.0	Start DLS 2.00 TFO 90.44
8305.4	88.31	88.20	7976.2	15.5	255.8	10.00	88.20	255.9	Start 8553.9 hold at 8369.8 MD
8369.8	88.30	89.49	7978.1	16.8	320.1	2.00	90.44	320.3	TD at 16923.8
16923.8	88.30	89.49	8231.8	93.0	8870.0	0.00	0.00	8870.5	



Matador Production Company

Rustler Breaks

Michael Ryan

Michael Ryan Fed Com #204H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

19 September, 2022

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Rustler Breaks,		
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	Michael Ryan				
Site Position:		Northing:	504,500.19 usft	Latitude:	32° 23' 12.370 N
From:	Lat/Long	Easting:	572,088.00 usft	Longitude:	104° 5' 59.288 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	Michael Ryan Fed Com #204H					
Well Position	+N/-S	109.8 usft	Northing:	504,610.00 usft	Latitude:	32° 23' 13.456 N
	+E/-W	30.0 usft	Easting:	572,118.00 usft	Longitude:	104° 5' 58.935 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,078.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/24/2021	6.75	60.07	47,542.55475662

Design	BLM Plan #1				
Audit Notes:					
Version:	1	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	89.43	

Plan Survey Tool Program	Date	8/7/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	16,923.8	BLM Plan #1 (Wellbore #1)	MWD	
			OWSG MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,800.0	8.00	269.62	2,797.4	-0.4	-55.8	1.00	1.00	0.00	269.62	
4,288.1	8.00	269.62	4,271.0	-1.8	-262.9	0.00	0.00	0.00	0.00	
4,821.5	0.00	0.00	4,802.6	-2.0	-300.0	1.50	-1.50	0.00	180.00	
7,422.3	0.00	0.00	7,403.5	-2.0	-300.0	0.00	0.00	0.00	0.00	VP - Michael Ryan
8,305.4	88.31	88.20	7,976.2	15.5	255.8	10.00	10.00	0.00	88.20	
8,369.8	88.30	89.49	7,978.1	16.8	320.1	2.00	-0.01	2.00	90.44	
16,923.8	88.30	89.49	8,231.8	93.0	8,870.0	0.00	0.00	0.00	0.00	BHL - Michael Ryar

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	1.00	269.62	2,100.0	0.0	-0.9	-0.9	1.00	1.00	0.00
2,200.0	2.00	269.62	2,200.0	0.0	-3.5	-3.5	1.00	1.00	0.00
2,300.0	3.00	269.62	2,299.9	-0.1	-7.9	-7.9	1.00	1.00	0.00
2,400.0	4.00	269.62	2,399.7	-0.1	-14.0	-14.0	1.00	1.00	0.00
2,500.0	5.00	269.62	2,499.4	-0.1	-21.8	-21.8	1.00	1.00	0.00
2,600.0	6.00	269.62	2,598.9	-0.2	-31.4	-31.4	1.00	1.00	0.00
2,700.0	7.00	269.62	2,698.3	-0.3	-42.7	-42.7	1.00	1.00	0.00
2,800.0	8.00	269.62	2,797.4	-0.4	-55.8	-55.8	1.00	1.00	0.00
2,900.0	8.00	269.62	2,896.4	-0.5	-69.7	-69.7	0.00	0.00	0.00
3,000.0	8.00	269.62	2,995.5	-0.6	-83.6	-83.6	0.00	0.00	0.00
3,100.0	8.00	269.62	3,094.5	-0.7	-97.5	-97.5	0.00	0.00	0.00
3,200.0	8.00	269.62	3,193.5	-0.7	-111.4	-111.4	0.00	0.00	0.00
3,300.0	8.00	269.62	3,292.5	-0.8	-125.3	-125.3	0.00	0.00	0.00
3,400.0	8.00	269.62	3,391.6	-0.9	-139.3	-139.3	0.00	0.00	0.00
3,500.0	8.00	269.62	3,490.6	-1.0	-153.2	-153.2	0.00	0.00	0.00
3,600.0	8.00	269.62	3,589.6	-1.1	-167.1	-167.1	0.00	0.00	0.00
3,700.0	8.00	269.62	3,688.6	-1.2	-181.0	-181.0	0.00	0.00	0.00
3,800.0	8.00	269.62	3,787.7	-1.3	-194.9	-194.9	0.00	0.00	0.00
3,900.0	8.00	269.62	3,886.7	-1.4	-208.8	-208.8	0.00	0.00	0.00
4,000.0	8.00	269.62	3,985.7	-1.5	-222.8	-222.8	0.00	0.00	0.00
4,100.0	8.00	269.62	4,084.8	-1.6	-236.7	-236.7	0.00	0.00	0.00
4,200.0	8.00	269.62	4,183.8	-1.7	-250.6	-250.6	0.00	0.00	0.00
4,288.1	8.00	269.62	4,271.0	-1.8	-262.9	-262.9	0.00	0.00	0.00
4,300.0	7.82	269.62	4,282.8	-1.8	-264.5	-264.5	1.50	-1.50	0.00
4,400.0	6.32	269.62	4,382.0	-1.8	-276.8	-276.8	1.50	-1.50	0.00
4,500.0	4.82	269.62	4,481.6	-1.9	-286.5	-286.5	1.50	-1.50	0.00
4,600.0	3.32	269.62	4,581.3	-2.0	-293.6	-293.6	1.50	-1.50	0.00
4,700.0	1.82	269.62	4,681.2	-2.0	-298.1	-298.1	1.50	-1.50	0.00
4,800.0	0.32	269.62	4,781.2	-2.0	-300.0	-300.0	1.50	-1.50	0.00
4,821.5	0.00	0.00	4,802.6	-2.0	-300.0	-300.0	1.50	-1.50	0.00
4,900.0	0.00	0.00	4,881.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,000.0	0.00	0.00	4,981.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,081.2	-2.0	-300.0	-300.0	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	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	0.00	0.00	5,181.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,281.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,381.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,481.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,581.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,681.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,781.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,881.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,981.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,081.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,181.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,281.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,381.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,481.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,581.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,681.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,781.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,881.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,981.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,081.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,181.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,281.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,381.2	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,422.3	0.00	0.00	7,403.5	-2.0	-300.0	-300.0	0.00	0.00	0.00
7,500.0	7.77	88.20	7,481.0	-1.8	-294.8	-294.8	10.00	10.00	0.00
7,600.0	17.77	88.20	7,578.4	-1.1	-272.7	-272.7	10.00	10.00	0.00
7,700.0	27.77	88.20	7,670.4	0.1	-234.1	-234.1	10.00	10.00	0.00
7,800.0	37.77	88.20	7,754.4	1.8	-180.0	-180.0	10.00	10.00	0.00
7,900.0	47.77	88.20	7,827.7	3.9	-112.3	-112.2	10.00	10.00	0.00
8,000.0	57.77	88.20	7,888.2	6.4	-32.8	-32.7	10.00	10.00	0.00
8,100.0	67.77	88.20	7,933.9	9.2	56.0	56.1	10.00	10.00	0.00
8,200.0	77.77	88.20	7,963.5	12.2	151.3	151.4	10.00	10.00	0.00
8,300.0	87.77	88.20	7,976.0	15.3	250.3	250.5	10.00	10.00	0.00
8,305.4	88.31	88.20	7,976.2	15.5	255.8	255.9	10.00	10.00	0.00
8,369.8	88.30	89.49	7,978.1	16.8	320.1	320.3	2.00	-0.01	2.00
8,400.0	88.30	89.49	7,979.0	17.0	350.3	350.4	0.00	0.00	0.00
8,500.0	88.30	89.49	7,982.0	17.9	450.2	450.4	0.00	0.00	0.00
8,600.0	88.30	89.49	7,984.9	18.8	550.2	550.4	0.00	0.00	0.00
8,700.0	88.30	89.49	7,987.9	19.7	650.1	650.3	0.00	0.00	0.00
8,800.0	88.30	89.49	7,990.9	20.6	750.1	750.3	0.00	0.00	0.00
8,900.0	88.30	89.49	7,993.8	21.5	850.0	850.2	0.00	0.00	0.00
9,000.0	88.30	89.49	7,996.8	22.4	950.0	950.2	0.00	0.00	0.00
9,100.0	88.30	89.49	7,999.8	23.3	1,050.0	1,050.1	0.00	0.00	0.00
9,200.0	88.30	89.49	8,002.7	24.2	1,149.9	1,150.1	0.00	0.00	0.00
9,300.0	88.30	89.49	8,005.7	25.1	1,249.9	1,250.0	0.00	0.00	0.00
9,400.0	88.30	89.49	8,008.7	25.9	1,349.8	1,350.0	0.00	0.00	0.00
9,500.0	88.30	89.49	8,011.6	26.8	1,449.8	1,450.0	0.00	0.00	0.00
9,600.0	88.30	89.49	8,014.6	27.7	1,549.7	1,549.9	0.00	0.00	0.00
9,700.0	88.30	89.49	8,017.6	28.6	1,649.7	1,649.9	0.00	0.00	0.00
9,800.0	88.30	89.49	8,020.5	29.5	1,749.6	1,749.8	0.00	0.00	0.00
9,900.0	88.30	89.49	8,023.5	30.4	1,849.6	1,849.8	0.00	0.00	0.00
10,000.0	88.30	89.49	8,026.5	31.3	1,949.5	1,949.7	0.00	0.00	0.00
10,100.0	88.30	89.49	8,029.4	32.2	2,049.5	2,049.7	0.00	0.00	0.00
10,200.0	88.30	89.49	8,032.4	33.1	2,149.4	2,149.6	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	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)	
10,300.0	88.30	89.49	8,035.4	34.0	2,249.4	2,249.6	0.00	0.00	0.00	
10,400.0	88.30	89.49	8,038.3	34.9	2,349.3	2,349.6	0.00	0.00	0.00	
10,500.0	88.30	89.49	8,041.3	35.7	2,449.3	2,449.5	0.00	0.00	0.00	
10,600.0	88.30	89.49	8,044.3	36.6	2,549.2	2,549.5	0.00	0.00	0.00	
10,700.0	88.30	89.49	8,047.2	37.5	2,649.2	2,649.4	0.00	0.00	0.00	
10,800.0	88.30	89.49	8,050.2	38.4	2,749.1	2,749.4	0.00	0.00	0.00	
10,900.0	88.30	89.49	8,053.2	39.3	2,849.1	2,849.3	0.00	0.00	0.00	
11,000.0	88.30	89.49	8,056.1	40.2	2,949.0	2,949.3	0.00	0.00	0.00	
11,100.0	88.30	89.49	8,059.1	41.1	3,049.0	3,049.2	0.00	0.00	0.00	
11,200.0	88.30	89.49	8,062.0	42.0	3,148.9	3,149.2	0.00	0.00	0.00	
11,300.0	88.30	89.49	8,065.0	42.9	3,248.9	3,249.2	0.00	0.00	0.00	
11,400.0	88.30	89.49	8,068.0	43.8	3,348.8	3,349.1	0.00	0.00	0.00	
11,500.0	88.30	89.49	8,070.9	44.7	3,448.8	3,449.1	0.00	0.00	0.00	
11,600.0	88.30	89.49	8,073.9	45.6	3,548.8	3,549.0	0.00	0.00	0.00	
11,700.0	88.30	89.49	8,076.9	46.4	3,648.7	3,649.0	0.00	0.00	0.00	
11,800.0	88.30	89.49	8,079.8	47.3	3,748.7	3,748.9	0.00	0.00	0.00	
11,900.0	88.30	89.49	8,082.8	48.2	3,848.6	3,848.9	0.00	0.00	0.00	
12,000.0	88.30	89.49	8,085.8	49.1	3,948.6	3,948.9	0.00	0.00	0.00	
12,100.0	88.30	89.49	8,088.7	50.0	4,048.5	4,048.8	0.00	0.00	0.00	
12,200.0	88.30	89.49	8,091.7	50.9	4,148.5	4,148.8	0.00	0.00	0.00	
12,300.0	88.30	89.49	8,094.7	51.8	4,248.4	4,248.7	0.00	0.00	0.00	
12,400.0	88.30	89.49	8,097.6	52.7	4,348.4	4,348.7	0.00	0.00	0.00	
12,500.0	88.30	89.49	8,100.6	53.6	4,448.3	4,448.6	0.00	0.00	0.00	
12,600.0	88.30	89.49	8,103.6	54.5	4,548.3	4,548.6	0.00	0.00	0.00	
12,700.0	88.30	89.49	8,106.5	55.4	4,648.2	4,648.5	0.00	0.00	0.00	
12,800.0	88.30	89.49	8,109.5	56.2	4,748.2	4,748.5	0.00	0.00	0.00	
12,900.0	88.30	89.49	8,112.5	57.1	4,848.1	4,848.5	0.00	0.00	0.00	
13,000.0	88.30	89.49	8,115.4	58.0	4,948.1	4,948.4	0.00	0.00	0.00	
13,100.0	88.30	89.49	8,118.4	58.9	5,048.0	5,048.4	0.00	0.00	0.00	
13,200.0	88.30	89.49	8,121.4	59.8	5,148.0	5,148.3	0.00	0.00	0.00	
13,300.0	88.30	89.49	8,124.3	60.7	5,247.9	5,248.3	0.00	0.00	0.00	
13,400.0	88.30	89.49	8,127.3	61.6	5,347.9	5,348.2	0.00	0.00	0.00	
13,500.0	88.30	89.49	8,130.3	62.5	5,447.8	5,448.2	0.00	0.00	0.00	
13,600.0	88.30	89.49	8,133.2	63.4	5,547.8	5,548.1	0.00	0.00	0.00	
13,700.0	88.30	89.49	8,136.2	64.3	5,647.7	5,648.1	0.00	0.00	0.00	
13,800.0	88.30	89.49	8,139.2	65.2	5,747.7	5,748.1	0.00	0.00	0.00	
13,900.0	88.30	89.49	8,142.1	66.1	5,847.6	5,848.0	0.00	0.00	0.00	
14,000.0	88.30	89.49	8,145.1	66.9	5,947.6	5,948.0	0.00	0.00	0.00	
14,100.0	88.30	89.49	8,148.1	67.8	6,047.6	6,047.9	0.00	0.00	0.00	
14,200.0	88.30	89.49	8,151.0	68.7	6,147.5	6,147.9	0.00	0.00	0.00	
14,300.0	88.30	89.49	8,154.0	69.6	6,247.5	6,247.8	0.00	0.00	0.00	
14,400.0	88.30	89.49	8,157.0	70.5	6,347.4	6,347.8	0.00	0.00	0.00	
14,500.0	88.30	89.49	8,159.9	71.4	6,447.4	6,447.8	0.00	0.00	0.00	
14,600.0	88.30	89.49	8,162.9	72.3	6,547.3	6,547.7	0.00	0.00	0.00	
14,700.0	88.30	89.49	8,165.8	73.2	6,647.3	6,647.7	0.00	0.00	0.00	
14,800.0	88.30	89.49	8,168.8	74.1	6,747.2	6,747.6	0.00	0.00	0.00	
14,900.0	88.30	89.49	8,171.8	75.0	6,847.2	6,847.6	0.00	0.00	0.00	
15,000.0	88.30	89.49	8,174.7	75.9	6,947.1	6,947.5	0.00	0.00	0.00	
15,100.0	88.30	89.49	8,177.7	76.7	7,047.1	7,047.5	0.00	0.00	0.00	
15,200.0	88.30	89.49	8,180.7	77.6	7,147.0	7,147.4	0.00	0.00	0.00	
15,300.0	88.30	89.49	8,183.6	78.5	7,247.0	7,247.4	0.00	0.00	0.00	
15,400.0	88.30	89.49	8,186.6	79.4	7,346.9	7,347.4	0.00	0.00	0.00	
15,500.0	88.30	89.49	8,189.6	80.3	7,446.9	7,447.3	0.00	0.00	0.00	
15,600.0	88.30	89.49	8,192.5	81.2	7,546.8	7,547.3	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,700.0	88.30	89.49	8,195.5	82.1	7,646.8	7,647.2	0.00	0.00	0.00	
15,800.0	88.30	89.49	8,198.5	83.0	7,746.7	7,747.2	0.00	0.00	0.00	
15,900.0	88.30	89.49	8,201.4	83.9	7,846.7	7,847.1	0.00	0.00	0.00	
16,000.0	88.30	89.49	8,204.4	84.8	7,946.6	7,947.1	0.00	0.00	0.00	
16,100.0	88.30	89.49	8,207.4	85.7	8,046.6	8,047.0	0.00	0.00	0.00	
16,200.0	88.30	89.49	8,210.3	86.5	8,146.5	8,147.0	0.00	0.00	0.00	
16,300.0	88.30	89.49	8,213.3	87.4	8,246.5	8,247.0	0.00	0.00	0.00	
16,400.0	88.30	89.49	8,216.3	88.3	8,346.4	8,346.9	0.00	0.00	0.00	
16,500.0	88.30	89.49	8,219.2	89.2	8,446.4	8,446.9	0.00	0.00	0.00	
16,600.0	88.30	89.49	8,222.2	90.1	8,546.4	8,546.8	0.00	0.00	0.00	
16,700.0	88.30	89.49	8,225.2	91.0	8,646.3	8,646.8	0.00	0.00	0.00	
16,800.0	88.30	89.49	8,228.1	91.9	8,746.3	8,746.7	0.00	0.00	0.00	
16,900.0	88.30	89.49	8,231.1	92.8	8,846.2	8,846.7	0.00	0.00	0.00	
16,923.8	88.30	89.49	8,231.8	93.0	8,870.0	8,870.5	0.00	0.00	0.00	

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 - Michael Ryan Fe - plan hits target center - Point	0.00	0.00	7,403.5	-2.0	-300.0	504,608.00	571,818.00	32° 23' 13.443 N	104° 6' 2.434 W
FTP - Michael Ryan F - plan misses target center by 202.8usft at 7900.0usft MD (7827.7 TVD, 3.9 N, -112.3 E) - Point	0.00	0.00	7,976.5	-2.0	-250.0	504,608.00	571,868.00	32° 23' 13.441 N	104° 6' 1.851 W
Enter NMNM 019186 - plan misses target center by 2.4usft at 15702.2usft MD (8195.6 TVD, 82.1 N, 7649.0 E) - Point	0.00	0.00	8,194.3	80.0	7,649.0	504,690.00	579,767.00	32° 23' 14.073 N	104° 4' 29.728 W
BHL - Michael Ryan F - plan hits target center - Point	0.00	0.01	8,231.8	93.0	8,870.0	504,703.00	580,988.00	32° 23' 14.173 N	104° 4' 15.488 W

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #204H
Company:	Matador Production Company	TVD Reference:	KB @ 3106.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3106.5usft
Site:	Michael Ryan	North Reference:	Grid
Well:	Michael Ryan Fed Com #204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
172.1	172.1	Rustler		1.69	89.43	
411.2	411.2	Salado		1.69	89.43	
943.4	943.4	Castile (T)		1.69	89.43	
2,514.1	2,513.4	G30:CS14-CSB		1.69	89.43	
2,586.1	2,585.0	G26: Bell Cyn.		1.69	89.43	
3,398.7	3,390.2	G26: Bell Cyn.		1.69	89.43	
4,605.1	4,586.4	G26: Bell Cyn.		1.69	89.43	
5,997.6	5,978.8	G4: BSG (CS9)		1.69	89.43	
6,359.8	6,341.0	L8.2: U. Avalon Shale		1.69	89.43	
6,471.7	6,452.8	L6.3: Avalon Carb		1.69	89.43	
6,569.4	6,550.6	L6.2: L. Avalon Shale		1.69	89.43	
6,658.1	6,639.3	L5.3: FBSC		1.69	89.43	
7,030.0	7,011.2	L5.1: FBSC		1.69	89.43	
7,086.4	7,067.6	M. FBSC		1.69	89.43	
7,232.7	7,213.9	L. FBSC		1.69	89.43	
7,298.8	7,280.0	L4.3: SBSC		1.69	89.43	
7,792.2	7,748.2	L4.1: SBSC		1.69	89.43	
7,984.8	7,879.9	L4.1: SBSC B Carb		1.69	89.43	
8,124.5	7,942.6	SBSG B Target		1.69	89.43	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	Start Build 1.00	
2,800.0	2,797.4	-0.4	-55.8	Start 1488.1 hold at 2800.0 MD	
4,288.1	4,271.0	-1.8	-262.9	Start Drop -1.50	
4,821.5	4,802.6	-2.0	-300.0	Start 2600.9 hold at 4821.5 MD	
7,422.3	7,403.5	-2.0	-300.0	Start Build 10.00	
8,305.4	7,976.2	15.5	255.8	Start DLS 2.00 TFO 90.44	
8,369.8	7,978.1	16.8	320.1	Start 8553.9 hold at 8369.8 MD	
16,923.8	8,231.8	93.0	8,870.0	TD at 16923.8	

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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 173904

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 173904
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	1/12/2023