

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 346807

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240		2. OGRID Number 228937
		3. API Number 30-015-54058
4. Property Code 333281	5. Property Name MICHAEL RYAN FEDERAL COM	6. Well No. 223H

7. Surface Location

UL - Lot M	Section 16	Township 22S	Range 28E	Lot Idn M	Feet From 549	N/S Line S	Feet From 320	E/W Line W	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot J	Section 15	Township 22S	Range 28E	Lot Idn J	Feet From 1980	N/S Line S	Feet From 1675	E/W Line E	County Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3078
16. Multiple N	17. Proposed Depth 18919	18. Formation Wolfcamp	19. Contractor	20. Spud Date 5/30/2025
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	400	380	0
Int1	9.875	7.625	29.7	9435	810	0
Prod	6.75	5.5	20	18859	1050	9235

Casing/Cement Program: Additional Comments

Option to drill surface hole with surface setting rig Option to run DV tool and Packer.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3000	Cameron
Double Ram	10000	5000	Cameron
Pipe	10000	5000	Camreon

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Brett A Jennings	Approved By: Ward Rikala	
Title: Regulatory Analyst	Title:	
Email Address: brett.jennings@matadorresources.com	Approved Date: 8/15/2023	Expiration Date: 8/15/2025
Date: 8/7/2023	Phone: 972-629-2160	Conditions of Approval Attached

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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 30-015-54058		² Pool Code 98220	³ Pool Name Purple Sage; Wolfcamp (Gas)
⁴ Property Code 333281	⁵ Property Name MICHAEL RYAN FEDERAL COM		⁶ Well Number 223H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY		⁹ Elevation 3078'

¹⁰Surface Location

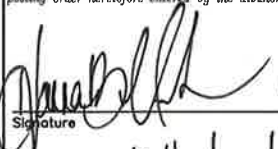


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	22-S	28-E	-	549'	SOUTH	320'	WEST	EDDY

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
J	15	22-S	28-E	-	1980'	SOUTH	1675'	EAST	EDDY

¹² Dedicated Acres 560	¹³ Joint or Infill	¹⁴ Consolidation Code C	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.

¹⁶ FIRST PERFORATION POINT NEW MEXICO EAST NAD 1927 X=572098 Y=505932 LAT.: N 32.3907051 LONG.: W 104.0997585 NAD 1983 X=613280 Y=505992 LAT.: N 32.3908249 LONG.: W 104.1002574		9 10 16 15	LAST PERFORATION POINT/ BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 X=580763 Y=506021 LAT.: N 32.3908956 LONG.: W 104.0716882 NAD 1983 X=621945 Y=506081 LAT.: N 32.3910158 LONG.: W 104.0721862	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  4/18/2023 Signature Date Hanna Bollenbach Printed Name hanna.bollenbach@matadorresources.com E-mail Address
SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=572088 Y=504500 LAT.: N 32.3867694 LONG.: W 104.0998019 NAD 1983 X=613270 Y=504560 LAT.: N 32.3868892 LONG.: W 104.1003008		DEDICATED ACRES 560	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief. 10/08/2022 Date of Survey  Signature and Seal of Professional Surveyor  Certificate Number	

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1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 346807

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-015-54058
	Well: MICHAEL RYAN FEDERAL COM #223H

OCD Reviewer	Condition
ward.rikala	Notify OCD 24 hours prior to casing & cement
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
ward.rikala	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

Addendum to Natural Gas Management Plan for Matador's

Michael Ryan TB

VI. Separation Equipment

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

Well Name	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Barry Miller State Com 221H	400	4,500	2,500
Barry Miller State Com 222H	400	4,500	2,500
Michel Ryan Federal Com 223H	400	4,500	2,500

VII. Operation Practices

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

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

VII. Best Management Practices

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

- Isolating the affected component and reducing pressure through process piping
- Blowing down the equipment being maintained to a control device

- Performing preventative maintenance and minimizing the duration of maintenance activities
- Shutting in sources of supply as possible
- Other steps that are available depending on the maintenance being performed

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description **Effective May 25, 2021**

I. Operator: Matador Production Company **OGRID:** 228937 **Date:** 07/26/2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Barry Miller State Com 221H	TBD	D 16-22S-28E	855' FNL 430' FWL	400	4,500	2,500
Barry Miller State Com 222H	TBD	D 21-22S-28E	855' FNL 460' FWL	400	4,500	2,500
Michel Ryan Federal Com 223H	TBD	D-16-22S-28E	549' FSL 320' FWL	400	4,500	2,500

IV. Central Delivery Point Name: Michael Ryan TB [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Barry Miller State Com 221H	TBD	05/07/2025	05/25/2025	07/07/2025	08/07/2025	08/08/2025
Barry Miller State Com 222H	TBD	04/18/2025	05/06/2025	07/07/2025	08/07/2025	08/08/2025
Michel Ryan Federal Com 223H	TBD	05/30/2025	05/30/2025	07/07/2025	08/07/2025	08/08/2025

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications**Effective May 25, 2021**

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: Omar Enriquez <small>Digitally signed by Omar Enriquez DN: cn=Omar Enriquez, o=Mata Dor Resources, c=US Date: 2023.07.26 13:04:03 -0500</small>
Printed Name: Omar Enriquez
Title: Sr. Production Engineer
E-mail Address: oenriquez@matadorresources.com
Date: 07/26/2025
Phone: (972) 587-4638
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Matador Production Company

Rustler Breaks

Michael Ryan

Michael Ryan Fed Com #223H

Wellbore #1

BLM Plan #1

Anticollision Report

20 July, 2023

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	Survey 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 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	7/19/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,859.3	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						
Barry Miller						
Barry Miller State Com #136H - Wellbore #1 - State Plan	9,193.8	9,406.7	805.6	738.3	11.977	CC
Barry Miller State Com #136H - Wellbore #1 - State Plan	9,200.0	9,411.4	805.6	738.3	11.971	ES
Barry Miller State Com #136H - Wellbore #1 - State Plan	17,800.0	17,250.3	1,015.0	739.5	3.683	SF
Michael Ryan						
Michael Ryan Fed Com #124H - Wellbore #1 - BLM Plan	1,500.0	1,500.0	85.4	75.2	8.301	CC
Michael Ryan Fed Com #124H - Wellbore #1 - BLM Plan	3,800.0	3,781.6	88.5	61.2	3.249	ES
Michael Ryan Fed Com #124H - Wellbore #1 - BLM Plan	18,848.8	18,114.6	1,160.5	784.3	3.085	SF
Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan	2,000.0	2,001.0	42.3	28.5	3.050	CC, ES
Michael Ryan Fed Com #138H - Wellbore #1 - BLM Plan	2,100.0	2,101.0	43.1	28.5	2.950	SF
Michael Ryan Fed Com #203H - Wellbore #1 - BLM Plan	0.0	0.0	80.2			
Michael Ryan Fed Com #203H - Wellbore #1 - BLM Plan	500.0	500.9	81.1	78.0	25.832	ES
Michael Ryan Fed Com #203H - Wellbore #1 - BLM Plan	18,859.3	18,364.7	690.0	436.0	2.717	SF
Michael Ryan Fed Com #224H - Wellbore #1 - BLM Plan	2,348.2	2,349.3	25.6	9.3	1.570	CC, ES
Michael Ryan Fed Com #224H - Wellbore #1 - BLM Plan	2,400.0	2,400.9	26.1	9.4	1.565	SF
Michael Ryan State Com #123H - Wellbore #1 - State PI	1,700.0	1,700.0	110.0	98.3	9.381	CC, ES
Michael Ryan State Com #123H - Wellbore #1 - State PI	7,914.4	7,945.1	222.0	161.5	3.668	SF
Michael Ryan State Com #137H - Wellbore #1 - BLM Pla	1,204.0	1,205.4	8.4	0.3	1.032	Level 2, CC, ES, SF

Offset Design	Barry Miller - Barry Miller State Com #136H - Wellbore #1 - State Plan #1												Offset Site Error:	0.0 usft
Survey Program:	O-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		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	6.0	6.0	0.0	0.0	2.04	3,971.1	141.3	3,973.6					
100.0	100.0	106.0	106.0	0.1	0.1	2.04	3,971.1	141.3	3,973.6	3,973.3	0.28	N/A		
200.0	200.0	206.0	206.0	0.5	0.5	2.04	3,971.1	141.3	3,973.6	3,972.6	0.99	3,994.531		
300.0	300.0	306.0	306.0	0.8	0.9	2.04	3,971.1	141.3	3,973.6	3,971.9	1.71	2,321.429		
400.0	400.0	406.0	406.0	1.2	1.2	2.04	3,971.1	141.3	3,973.6	3,971.2	2.43	1,636.137		
500.0	500.0	506.0	506.0	1.6	1.6	2.04	3,971.1	141.3	3,973.6	3,970.4	3.15	1,263.228		
600.0	600.0	606.0	606.0	1.9	1.9	2.04	3,971.1	141.3	3,973.6	3,969.7	3.86	1,028.754		
700.0	700.0	706.0	706.0	2.3	2.3	2.04	3,971.1	141.3	3,973.6	3,969.0	4.58	867.697		
800.0	800.0	806.0	806.0	2.6	2.7	2.04	3,971.1	141.3	3,973.6	3,968.3	5.30	750.242		
900.0	900.0	906.0	906.0	3.0	3.0	2.04	3,971.1	141.3	3,973.6	3,967.6	6.01	660.794		

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

Matador Production Company

Rustler Breaks

Michael Ryan

Michael Ryan Fed Com #223H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

20 July, 2023

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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 #223H					
Well Position	+N/-S	-0.2 usft	Northing:	504,500.00 usft	Latitude:	32° 23' 12.368 N
	+E/-W	0.0 usft	Easting:	572,088.00 usft	Longitude:	104° 5' 59.288 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	7/20/2023	6.55	60.05	47,355.97387654

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	7/19/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	18,859.3	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	
3,375.8	13.76	349.32	3,362.6	161.5	-30.5	1.00	1.00	0.00	349.32	
8,351.5	13.76	349.32	8,195.6	1,324.4	-249.7	0.00	0.00	0.00	0.00	
9,268.7	0.00	0.00	9,104.0	1,432.1	-270.0	1.50	-1.50	0.00	180.00	
9,568.7	0.00	0.00	9,404.0	1,432.1	-270.0	0.00	0.00	0.00	0.00	VP - Michael Ryan Fe
10,452.8	88.41	78.40	9,976.7	1,544.1	275.7	10.00	10.00	0.00	78.40	
11,062.5	88.39	90.60	9,993.8	1,602.4	881.2	2.00	0.00	2.00	90.25	
18,859.3	88.39	90.60	10,212.4	1,520.9	8,674.5	0.00	0.00	0.00	0.00	BHL - Michael Ryan F

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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
172.1	0.00	0.00	172.1	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
411.2	0.00	0.00	411.2	0.0	0.0	0.0	0.00	0.00	0.00
Salado									
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
943.4	0.00	0.00	943.4	0.0	0.0	0.0	0.00	0.00	0.00
Castile (T)									
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
Start Build 1.00									
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	349.32	2,100.0	0.9	-0.2	-0.2	1.00	1.00	0.00
2,200.0	2.00	349.32	2,200.0	3.4	-0.6	-0.6	1.00	1.00	0.00
2,300.0	3.00	349.32	2,299.9	7.7	-1.5	-1.4	1.00	1.00	0.00
2,400.0	4.00	349.32	2,399.7	13.7	-2.6	-2.4	1.00	1.00	0.00
2,500.0	5.00	349.32	2,499.4	21.4	-4.0	-3.8	1.00	1.00	0.00
2,514.7	5.15	349.32	2,514.0	22.7	-4.3	-4.1	1.00	1.00	0.00
G30:CS14-CSB									
2,586.8	5.87	349.32	2,585.8	29.5	-5.6	-5.3	1.00	1.00	0.00
G26: Bell Cyn.									
2,600.0	6.00	349.32	2,598.9	30.8	-5.8	-5.5	1.00	1.00	0.00
2,628.0	6.28	349.32	2,626.8	33.8	-6.4	-6.0	1.00	1.00	0.00
Start 6155.0 hold at 2628.0 MD									
2,700.0	7.00	349.32	2,698.3	42.0	-7.9	-7.5	1.00	1.00	0.00
2,800.0	8.00	349.32	2,797.4	54.8	-10.3	-9.8	1.00	1.00	0.00
2,900.0	9.00	349.32	2,896.3	69.3	-13.1	-12.4	1.00	1.00	0.00
3,000.0	10.00	349.32	2,994.9	85.5	-16.1	-15.3	1.00	1.00	0.00
3,100.0	11.00	349.32	3,093.3	103.4	-19.5	-18.5	1.00	1.00	0.00
3,200.0	12.00	349.32	3,191.2	123.0	-23.2	-22.0	1.00	1.00	0.00
3,300.0	13.00	349.32	3,288.9	144.3	-27.2	-25.8	1.00	1.00	0.00
3,375.8	13.76	349.32	3,362.6	161.5	-30.5	-28.8	1.00	1.00	0.00
3,400.0	13.76	349.32	3,386.1	167.2	-31.5	-29.9	0.00	0.00	0.00
3,407.6	13.76	349.32	3,393.5	169.0	-31.9	-30.2	0.00	0.00	0.00
G26: Bell Cyn.									
3,500.0	13.76	349.32	3,483.3	190.6	-35.9	-34.0	0.00	0.00	0.00
3,600.0	13.76	349.32	3,580.4	213.9	-40.3	-38.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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)
3,700.0	13.76	349.32	3,677.5	237.3	-44.7	-42.4	0.00	0.00	0.00
3,800.0	13.76	349.32	3,774.6	260.7	-49.1	-46.6	0.00	0.00	0.00
3,900.0	13.76	349.32	3,871.8	284.0	-53.6	-50.7	0.00	0.00	0.00
4,000.0	13.76	349.32	3,968.9	307.4	-58.0	-54.9	0.00	0.00	0.00
4,100.0	13.76	349.32	4,066.0	330.8	-62.4	-59.1	0.00	0.00	0.00
4,200.0	13.76	349.32	4,163.2	354.2	-66.8	-63.2	0.00	0.00	0.00
4,300.0	13.76	349.32	4,260.3	377.5	-71.2	-67.4	0.00	0.00	0.00
4,400.0	13.76	349.32	4,357.4	400.9	-75.6	-71.6	0.00	0.00	0.00
4,500.0	13.76	349.32	4,454.6	424.3	-80.0	-75.8	0.00	0.00	0.00
4,600.0	13.76	349.32	4,551.7	447.6	-84.4	-79.9	0.00	0.00	0.00
4,642.3	13.76	349.32	4,592.8	457.5	-86.3	-81.7	0.00	0.00	0.00
G26: Bell Cyn.									
4,700.0	13.76	349.32	4,648.8	471.0	-88.8	-84.1	0.00	0.00	0.00
4,800.0	13.76	349.32	4,746.0	494.4	-93.2	-88.3	0.00	0.00	0.00
4,900.0	13.76	349.32	4,843.1	517.7	-97.6	-92.5	0.00	0.00	0.00
5,000.0	13.76	349.32	4,940.2	541.1	-102.0	-96.6	0.00	0.00	0.00
5,100.0	13.76	349.32	5,037.4	564.5	-106.4	-100.8	0.00	0.00	0.00
5,200.0	13.76	349.32	5,134.5	587.9	-110.8	-105.0	0.00	0.00	0.00
5,300.0	13.76	349.32	5,231.6	611.2	-115.2	-109.2	0.00	0.00	0.00
5,400.0	13.76	349.32	5,328.7	634.6	-119.7	-113.3	0.00	0.00	0.00
5,500.0	13.76	349.32	5,425.9	658.0	-124.1	-117.5	0.00	0.00	0.00
5,600.0	13.76	349.32	5,523.0	681.3	-128.5	-121.7	0.00	0.00	0.00
5,700.0	13.76	349.32	5,620.1	704.7	-132.9	-125.9	0.00	0.00	0.00
5,800.0	13.76	349.32	5,717.3	728.1	-137.3	-130.0	0.00	0.00	0.00
5,900.0	13.76	349.32	5,814.4	751.4	-141.7	-134.2	0.00	0.00	0.00
6,000.0	13.76	349.32	5,911.5	774.8	-146.1	-138.4	0.00	0.00	0.00
6,074.3	13.76	349.32	5,983.7	792.2	-149.4	-141.5	0.00	0.00	0.00
G4: BSGL (CS9)									
6,100.0	13.76	349.32	6,008.7	798.2	-150.5	-142.5	0.00	0.00	0.00
6,200.0	13.76	349.32	6,105.8	821.6	-154.9	-146.7	0.00	0.00	0.00
6,300.0	13.76	349.32	6,202.9	844.9	-159.3	-150.9	0.00	0.00	0.00
6,400.0	13.76	349.32	6,300.1	868.3	-163.7	-155.1	0.00	0.00	0.00
6,446.8	13.76	349.32	6,345.5	879.2	-165.8	-157.0	0.00	0.00	0.00
L8.2: U. Avalon Shale									
6,500.0	13.76	349.32	6,397.2	891.7	-168.1	-159.2	0.00	0.00	0.00
6,561.8	13.76	349.32	6,457.2	906.1	-170.8	-161.8	0.00	0.00	0.00
L6.3: Avalon Carb									
6,600.0	13.76	349.32	6,494.3	915.0	-172.5	-163.4	0.00	0.00	0.00
6,662.3	13.76	349.32	6,554.9	929.6	-175.3	-166.0	0.00	0.00	0.00
L6.2: L. Avalon Shale									
6,700.0	13.76	349.32	6,591.4	938.4	-176.9	-167.6	0.00	0.00	0.00
6,753.5	13.76	349.32	6,643.4	950.9	-179.3	-169.8	0.00	0.00	0.00
L5.3: FBSC									
6,800.0	13.76	349.32	6,688.6	961.8	-181.3	-171.8	0.00	0.00	0.00
6,900.0	13.76	349.32	6,785.7	985.1	-185.7	-175.9	0.00	0.00	0.00
7,000.0	13.76	349.32	6,882.8	1,008.5	-190.2	-180.1	0.00	0.00	0.00
7,100.0	13.76	349.32	6,980.0	1,031.9	-194.6	-184.3	0.00	0.00	0.00
7,136.0	13.76	349.32	7,014.9	1,040.3	-196.1	-185.8	0.00	0.00	0.00
L5.1: FBSC									
7,193.9	13.76	349.32	7,071.2	1,053.8	-198.7	-188.2	0.00	0.00	0.00
M. FBSC									
7,200.0	13.76	349.32	7,077.1	1,055.2	-199.0	-188.5	0.00	0.00	0.00
7,300.0	13.76	349.32	7,174.2	1,078.6	-203.4	-192.6	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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)	
7,344.4	13.76	349.32	7,217.4	1,089.0	-205.3	-194.5	0.00	0.00	0.00	
L. FBSG										
7,400.0	13.76	349.32	7,271.4	1,102.0	-207.8	-196.8	0.00	0.00	0.00	
7,412.4	13.76	349.32	7,283.4	1,104.9	-208.3	-197.3	0.00	0.00	0.00	
L4.3: SBSC										
7,500.0	13.76	349.32	7,368.5	1,125.4	-212.2	-201.0	0.00	0.00	0.00	
7,600.0	13.76	349.32	7,465.6	1,148.7	-216.6	-205.2	0.00	0.00	0.00	
7,700.0	13.76	349.32	7,562.8	1,172.1	-221.0	-209.3	0.00	0.00	0.00	
7,800.0	13.76	349.32	7,659.9	1,195.5	-225.4	-213.5	0.00	0.00	0.00	
7,890.4	13.76	349.32	7,747.6	1,216.6	-229.4	-217.3	0.00	0.00	0.00	
L4.1: SBSC										
7,900.0	13.76	349.32	7,757.0	1,218.8	-229.8	-217.7	0.00	0.00	0.00	
8,000.0	13.76	349.32	7,854.1	1,242.2	-234.2	-221.8	0.00	0.00	0.00	
8,021.5	13.76	349.32	7,875.1	1,247.2	-235.2	-222.7	0.00	0.00	0.00	
L4.1: SBSC B Carb										
8,082.3	13.76	349.32	7,934.1	1,261.4	-237.8	-225.3	0.00	0.00	0.00	
SBSC B Target										
8,100.0	13.76	349.32	7,951.3	1,265.6	-238.6	-226.0	0.00	0.00	0.00	
8,189.5	13.76	349.32	8,038.2	1,286.5	-242.6	-229.8	0.00	0.00	0.00	
L4.1: SBSC C										
8,200.0	13.76	349.32	8,048.4	1,288.9	-243.0	-230.2	0.00	0.00	0.00	
8,229.0	13.76	349.32	8,076.6	1,295.7	-244.3	-231.4	0.00	0.00	0.00	
L3.3: TBSC										
8,300.0	13.76	349.32	8,145.5	1,312.3	-247.4	-234.4	0.00	0.00	0.00	
8,351.5	13.76	349.32	8,195.6	1,324.4	-249.7	-236.5	0.00	0.00	0.00	
8,400.0	13.03	349.32	8,242.7	1,335.4	-251.8	-238.5	1.50	-1.50	0.00	
8,500.0	11.53	349.32	8,340.5	1,356.3	-255.7	-242.2	1.50	-1.50	0.00	
8,600.0	10.03	349.32	8,438.7	1,374.7	-259.2	-245.5	1.50	-1.50	0.00	
8,651.9	9.25	349.32	8,489.8	1,383.2	-260.8	-247.0	1.50	-1.50	0.00	
L3.3.2: Break Sand (T)										
8,700.0	8.53	349.32	8,537.4	1,390.5	-262.2	-248.3	1.50	-1.50	0.00	
8,783.0	7.29	349.32	8,619.6	1,401.7	-264.3	-250.3	1.50	-1.50	0.00	
Start Drop -1.50										
8,800.0	7.03	349.32	8,636.5	1,403.8	-264.7	-250.7	1.50	-1.50	0.00	
8,900.0	5.53	349.32	8,735.8	1,414.6	-266.7	-252.6	1.50	-1.50	0.00	
9,000.0	4.03	349.32	8,835.5	1,422.8	-268.3	-254.1	1.50	-1.50	0.00	
9,100.0	2.53	349.32	8,935.3	1,428.4	-269.3	-255.1	1.50	-1.50	0.00	
9,164.8	1.56	349.32	9,000.1	1,430.7	-269.7	-255.5	1.50	-1.50	0.00	
L3.1: TBSC										
9,200.0	1.03	349.32	9,035.3	1,431.4	-269.9	-255.6	1.50	-1.50	0.00	
9,268.7	0.00	0.00	9,104.0	1,432.1	-270.0	-255.8	1.50	-1.50	0.00	
9,300.0	0.00	0.00	9,135.3	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,235.3	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
9,444.1	0.00	0.00	9,279.4	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
L. TBSC										
9,483.1	0.00	0.00	9,318.4	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
L2: WFMP A										
9,500.0	0.00	0.00	9,335.3	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
9,535.0	0.00	0.00	9,370.3	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
Start Build 10.00										
9,568.7	0.00	0.00	9,404.0	1,432.1	-270.0	-255.8	0.00	0.00	0.00	
VP - Michael Ryan Fed Com #223H										
9,600.0	3.13	78.40	9,435.3	1,432.2	-269.2	-254.9	10.00	10.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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)
9,622.0	5.32	78.40	9,457.2	1,432.5	-267.6	-253.3	10.00	10.00	0.00
WFMP A Fat									
9,650.0	8.13	78.40	9,485.0	1,433.2	-264.4	-250.1	10.00	10.00	0.00
9,700.0	13.13	78.40	9,534.1	1,435.1	-255.3	-241.1	10.00	10.00	0.00
9,750.0	18.13	78.40	9,582.3	1,437.8	-242.2	-227.8	10.00	10.00	0.00
9,800.0	23.13	78.40	9,629.0	1,441.3	-224.9	-210.6	10.00	10.00	0.00
9,850.0	28.13	78.40	9,674.1	1,445.7	-203.7	-189.3	10.00	10.00	0.00
9,900.0	33.13	78.40	9,717.1	1,450.8	-178.8	-164.3	10.00	10.00	0.00
9,904.9	33.61	78.40	9,721.2	1,451.3	-176.2	-161.7	10.00	10.00	0.00
WFMP B									
9,950.0	38.13	78.40	9,757.8	1,456.6	-150.3	-135.8	10.00	10.00	0.00
10,000.0	43.13	78.40	9,795.7	1,463.2	-118.4	-103.8	10.00	10.00	0.00
10,050.0	48.13	78.40	9,830.6	1,470.4	-83.4	-68.7	10.00	10.00	0.00
10,100.0	53.13	78.40	9,862.4	1,478.1	-45.5	-30.8	10.00	10.00	0.00
10,104.4	53.57	78.40	9,865.0	1,478.8	-42.0	-27.3	10.00	10.00	0.00
WFMP B.1									
10,150.0	58.13	78.40	9,890.6	1,486.4	-5.1	9.7	10.00	10.00	0.00
10,195.8	62.71	78.40	9,913.2	1,494.4	33.9	48.7	10.00	10.00	0.00
FTP - Michael Ryan Fed Com #223H									
10,200.0	63.13	78.40	9,915.1	1,495.2	37.6	52.4	10.00	10.00	0.00
10,250.0	68.13	78.40	9,935.7	1,504.3	82.2	97.1	10.00	10.00	0.00
10,300.0	73.13	78.40	9,952.3	1,513.8	128.3	143.4	10.00	10.00	0.00
10,350.0	78.13	78.40	9,964.7	1,523.6	175.8	190.9	10.00	10.00	0.00
10,358.7	79.00	78.40	9,966.4	1,525.3	184.2	199.3	10.00	10.00	0.00
WFMP B.2									
10,400.0	83.13	78.40	9,972.8	1,533.5	224.1	239.3	10.00	10.00	0.00
10,419.1	85.04	78.40	9,974.8	1,537.3	242.7	258.0	10.00	10.00	0.00
Start DLS 2.00 TFO 90.10									
10,452.8	88.41	78.40	9,976.7	1,544.1	275.7	291.0	10.00	10.00	0.00
10,500.0	88.41	79.34	9,978.0	1,553.2	321.9	337.4	2.00	-0.01	2.00
10,600.0	88.40	81.34	9,980.8	1,569.9	420.5	436.1	2.00	-0.01	2.00
10,700.0	88.39	83.35	9,983.6	1,583.2	519.5	535.3	2.00	0.00	2.00
10,800.0	88.39	85.35	9,986.4	1,593.1	619.0	634.8	2.00	0.00	2.00
10,830.3	88.39	85.95	9,987.3	1,595.4	649.2	665.0	2.00	0.00	2.00
Start 8089.2 hold at 10830.3 MD									
10,900.0	88.39	87.35	9,989.2	1,599.5	718.8	734.6	2.00	0.00	2.00
11,000.0	88.39	89.35	9,992.1	1,602.3	818.7	834.6	2.00	0.00	2.00
11,062.5	88.39	90.60	9,993.8	1,602.4	881.2	897.1	2.00	0.00	2.00
11,100.0	88.39	90.60	9,994.9	1,602.0	918.6	934.5	0.00	0.00	0.00
11,200.0	88.39	90.60	9,997.7	1,600.9	1,018.6	1,034.5	0.00	0.00	0.00
11,300.0	88.39	90.60	10,000.5	1,599.9	1,118.6	1,134.4	0.00	0.00	0.00
11,400.0	88.39	90.60	10,003.3	1,598.8	1,218.5	1,234.4	0.00	0.00	0.00
11,500.0	88.39	90.60	10,006.1	1,597.8	1,318.5	1,334.3	0.00	0.00	0.00
11,600.0	88.39	90.60	10,008.9	1,596.8	1,418.4	1,434.2	0.00	0.00	0.00
11,700.0	88.39	90.60	10,011.7	1,595.7	1,518.4	1,534.2	0.00	0.00	0.00
11,800.0	88.39	90.60	10,014.5	1,594.7	1,618.3	1,634.1	0.00	0.00	0.00
11,900.0	88.39	90.60	10,017.3	1,593.6	1,718.3	1,734.1	0.00	0.00	0.00
12,000.0	88.39	90.60	10,020.1	1,592.6	1,818.2	1,834.0	0.00	0.00	0.00
12,100.0	88.39	90.60	10,022.9	1,591.5	1,918.2	1,933.9	0.00	0.00	0.00
12,200.0	88.39	90.60	10,025.7	1,590.5	2,018.1	2,033.9	0.00	0.00	0.00
12,300.0	88.39	90.60	10,028.5	1,589.4	2,118.1	2,133.8	0.00	0.00	0.00
12,400.0	88.39	90.60	10,031.3	1,588.4	2,218.1	2,233.8	0.00	0.00	0.00
12,500.0	88.39	90.60	10,034.1	1,587.4	2,318.0	2,333.7	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,600.0	88.39	90.60	10,036.9	1,586.3	2,418.0	2,433.6	0.00	0.00	0.00	
12,700.0	88.39	90.60	10,039.7	1,585.3	2,517.9	2,533.6	0.00	0.00	0.00	
12,800.0	88.39	90.60	10,042.5	1,584.2	2,617.9	2,633.5	0.00	0.00	0.00	
12,900.0	88.39	90.60	10,045.3	1,583.2	2,717.8	2,733.5	0.00	0.00	0.00	
13,000.0	88.39	90.60	10,048.1	1,582.1	2,817.8	2,833.4	0.00	0.00	0.00	
13,100.0	88.39	90.60	10,050.9	1,581.1	2,917.7	2,933.3	0.00	0.00	0.00	
13,200.0	88.39	90.60	10,053.7	1,580.0	3,017.7	3,033.3	0.00	0.00	0.00	
13,300.0	88.39	90.60	10,056.5	1,579.0	3,117.7	3,133.2	0.00	0.00	0.00	
13,400.0	88.39	90.60	10,059.3	1,578.0	3,217.6	3,233.1	0.00	0.00	0.00	
13,500.0	88.39	90.60	10,062.1	1,576.9	3,317.6	3,333.1	0.00	0.00	0.00	
13,600.0	88.39	90.60	10,064.9	1,575.9	3,417.5	3,433.0	0.00	0.00	0.00	
13,700.0	88.39	90.60	10,067.8	1,574.8	3,517.5	3,533.0	0.00	0.00	0.00	
13,800.0	88.39	90.60	10,070.6	1,573.8	3,617.4	3,632.9	0.00	0.00	0.00	
13,900.0	88.39	90.60	10,073.4	1,572.7	3,717.4	3,732.8	0.00	0.00	0.00	
14,000.0	88.39	90.60	10,076.2	1,571.7	3,817.3	3,832.8	0.00	0.00	0.00	
14,100.0	88.39	90.60	10,079.0	1,570.6	3,917.3	3,932.7	0.00	0.00	0.00	
14,200.0	88.39	90.60	10,081.8	1,569.6	4,017.3	4,032.7	0.00	0.00	0.00	
14,300.0	88.39	90.60	10,084.6	1,568.5	4,117.2	4,132.6	0.00	0.00	0.00	
14,400.0	88.39	90.60	10,087.4	1,567.5	4,217.2	4,232.5	0.00	0.00	0.00	
14,500.0	88.39	90.60	10,090.2	1,566.5	4,317.1	4,332.5	0.00	0.00	0.00	
14,600.0	88.39	90.60	10,093.0	1,565.4	4,417.1	4,432.4	0.00	0.00	0.00	
14,700.0	88.39	90.60	10,095.8	1,564.4	4,517.0	4,532.4	0.00	0.00	0.00	
14,800.0	88.39	90.60	10,098.6	1,563.3	4,617.0	4,632.3	0.00	0.00	0.00	
14,900.0	88.39	90.60	10,101.4	1,562.3	4,716.9	4,732.2	0.00	0.00	0.00	
15,000.0	88.39	90.60	10,104.2	1,561.2	4,816.9	4,832.2	0.00	0.00	0.00	
15,100.0	88.39	90.60	10,107.0	1,560.2	4,916.9	4,932.1	0.00	0.00	0.00	
15,200.0	88.39	90.60	10,109.8	1,559.1	5,016.8	5,032.1	0.00	0.00	0.00	
15,300.0	88.39	90.60	10,112.6	1,558.1	5,116.8	5,132.0	0.00	0.00	0.00	
15,400.0	88.39	90.60	10,115.4	1,557.1	5,216.7	5,231.9	0.00	0.00	0.00	
15,500.0	88.39	90.60	10,118.2	1,556.0	5,316.7	5,331.9	0.00	0.00	0.00	
15,600.0	88.39	90.60	10,121.0	1,555.0	5,416.6	5,431.8	0.00	0.00	0.00	
15,700.0	88.39	90.60	10,123.8	1,553.9	5,516.6	5,531.8	0.00	0.00	0.00	
15,800.0	88.39	90.60	10,126.6	1,552.9	5,616.5	5,631.7	0.00	0.00	0.00	
15,900.0	88.39	90.60	10,129.4	1,551.8	5,716.5	5,731.6	0.00	0.00	0.00	
16,000.0	88.39	90.60	10,132.2	1,550.8	5,816.4	5,831.6	0.00	0.00	0.00	
16,100.0	88.39	90.60	10,135.0	1,549.7	5,916.4	5,931.5	0.00	0.00	0.00	
16,200.0	88.39	90.60	10,137.8	1,548.7	6,016.4	6,031.5	0.00	0.00	0.00	
16,300.0	88.39	90.60	10,140.6	1,547.6	6,116.3	6,131.4	0.00	0.00	0.00	
16,400.0	88.39	90.60	10,143.5	1,546.6	6,216.3	6,231.3	0.00	0.00	0.00	
16,500.0	88.39	90.60	10,146.3	1,545.6	6,316.2	6,331.3	0.00	0.00	0.00	
16,600.0	88.39	90.60	10,149.1	1,544.5	6,416.2	6,431.2	0.00	0.00	0.00	
16,700.0	88.39	90.60	10,151.9	1,543.5	6,516.1	6,531.2	0.00	0.00	0.00	
16,800.0	88.39	90.60	10,154.7	1,542.4	6,616.1	6,631.1	0.00	0.00	0.00	
16,900.0	88.39	90.60	10,157.5	1,541.4	6,716.0	6,731.0	0.00	0.00	0.00	
17,000.0	88.39	90.60	10,160.3	1,540.3	6,816.0	6,831.0	0.00	0.00	0.00	
17,100.0	88.39	90.60	10,163.1	1,539.3	6,916.0	6,930.9	0.00	0.00	0.00	
17,200.0	88.39	90.60	10,165.9	1,538.2	7,015.9	7,030.9	0.00	0.00	0.00	
17,300.0	88.39	90.60	10,168.7	1,537.2	7,115.9	7,130.8	0.00	0.00	0.00	
17,400.0	88.39	90.60	10,171.5	1,536.2	7,215.8	7,230.7	0.00	0.00	0.00	
17,500.0	88.39	90.60	10,174.3	1,535.1	7,315.8	7,330.7	0.00	0.00	0.00	
17,600.0	88.39	90.60	10,177.1	1,534.1	7,415.7	7,430.6	0.00	0.00	0.00	
17,700.0	88.39	90.60	10,179.9	1,533.0	7,515.7	7,530.6	0.00	0.00	0.00	
17,800.0	88.39	90.60	10,182.7	1,532.0	7,615.6	7,630.5	0.00	0.00	0.00	
17,900.0	88.39	90.60	10,185.5	1,530.9	7,715.6	7,730.4	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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)	
18,000.0	88.39	90.60	10,188.3	1,529.9	7,815.6	7,830.4	0.00	0.00	0.00	
18,100.0	88.39	90.60	10,191.1	1,528.8	7,915.5	7,930.3	0.00	0.00	0.00	
18,200.0	88.39	90.60	10,193.9	1,527.8	8,015.5	8,030.3	0.00	0.00	0.00	
18,300.0	88.39	90.60	10,196.7	1,526.8	8,115.4	8,130.2	0.00	0.00	0.00	
18,400.0	88.39	90.60	10,199.5	1,525.7	8,215.4	8,230.1	0.00	0.00	0.00	
18,500.0	88.39	90.60	10,202.3	1,524.7	8,315.3	8,330.1	0.00	0.00	0.00	
18,600.0	88.39	90.60	10,205.1	1,523.6	8,415.3	8,430.0	0.00	0.00	0.00	
18,700.0	88.39	90.60	10,207.9	1,522.6	8,515.2	8,530.0	0.00	0.00	0.00	
18,800.0	88.39	90.60	10,210.7	1,521.5	8,615.2	8,629.9	0.00	0.00	0.00	
18,859.3	88.39	90.60	10,212.4	1,520.9	8,674.5	8,689.2	0.00	0.00	0.00	
BHL - Michael Ryan Fed Com #223H										

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 Fed (0.00	0.00	9,404.0	1,432.1	-270.0	505,932.00	571,818.00	32° 23' 26.545 N	104° 6' 2.400 W
- plan hits target center									
- Point									
FTP - Michael Ryan Fed	0.00	0.00	9,977.0	1,432.0	10.0	505,932.00	572,098.00	32° 23' 26.539 N	104° 5' 59.134 W
- plan misses target center by 92.4usft at 10195.8usft MD (9913.2 TVD, 1494.4 N, 33.9 E)									
- Point									
BHL - Michael Ryan Fed	0.00	0.00	10,212.4	1,520.9	8,674.5	506,021.00	580,763.00	32° 23' 27.221 N	104° 4' 18.075 W
- plan hits target center									
- Point									

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Michael Ryan Fed Com #223H
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 #223H	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		1.59	89.43	
411.2	411.2	Salado		1.59	89.43	
943.4	943.4	Castile (T)		1.59	89.43	
2,514.7	2,514.0	G30:CS14-CSB		1.59	89.43	
2,586.8	2,585.8	G26: Bell Cyn.		1.59	89.43	
3,407.6	3,393.5	G26: Bell Cyn.		1.59	89.43	
4,642.3	4,592.8	G26: Bell Cyn.		1.59	89.43	
6,074.3	5,983.7	G4: BSG (CS9)		1.59	89.43	
6,446.8	6,345.5	L8.2: U. Avalon Shale		1.59	89.43	
6,561.8	6,457.2	L6.3: Avalon Carb		1.59	89.43	
6,662.3	6,554.9	L6.2: L. Avalon Shale		1.59	89.43	
6,753.5	6,643.4	L5.3: FBSC		1.59	89.43	
7,136.0	7,014.9	L5.1: FBSG		1.59	89.43	
7,193.9	7,071.2	M. FBSG		1.59	89.43	
7,344.4	7,217.4	L. FBSG		1.59	89.43	
7,412.4	7,283.4	L4.3: SBSC		1.59	89.43	
7,890.4	7,747.6	L4.1: SBSC		1.59	89.43	
8,021.5	7,875.1	L4.1: SBSC B Carb		1.59	89.43	
8,082.3	7,934.1	SBSC B Target		1.59	89.43	
8,189.5	8,038.2	L4.1: SBSC C		1.59	89.43	
8,229.0	8,076.6	L3.3: TBSC		1.59	89.43	
8,651.9	8,489.8	L3.3.2: Break Sand (T)		1.59	89.43	
9,164.8	9,000.1	L3.1: TBSG		1.59	89.43	
9,444.1	9,279.4	L. TBSG		1.59	89.43	
9,483.1	9,318.4	L2: WFMP A		1.59	89.43	
9,622.0	9,457.2	WFMP A Fat		1.59	89.43	
9,904.9	9,721.2	WFMP B		1.59	89.43	
10,104.4	9,865.0	WFMP B.1		1.59	89.43	
10,358.7	9,966.4	WFMP B.2		1.59	89.43	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00	
2,628.0	2,626.8	33.8	-6.4	Start 6155.0 hold at 2628.0 MD	
8,783.0	8,619.7	1,401.2	-264.2	Start Drop -1.50	
9,535.0	9,370.4	1,431.5	-269.9	Start Build 10.00	
10,419.1	9,974.8	1,536.7	243.0	Start DLS 2.00 TFO 90.10	
10,830.3	9,987.3	1,594.8	649.4	Start 8089.2 hold at 10830.3 MD	
18,919.5				TD at 18919.5	