

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 277458

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 30-015-46667
4. Property Code 326434	5. Property Name RAY STATE COM	6. Well No. 123H

7. Surface Location

UL - Lot O	Section 36	Township 23S	Range 28E	Lot Idn	Feet From 188	N/S Line S	Feet From 2589	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot B	Section 25	Township 23S	Range 28E	Lot Idn B	Feet From 60	N/S Line N	Feet From 1966	E/W Line E	County Eddy
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9. Pool Information

CULEBRA BLUFF;BONE SPRING, SOUTH	15011
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 2963
16. Multiple N	17. Proposed Depth 18900	18. Formation Bone Spring	19. Contractor	20. Spud Date 4/21/2020
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	225	300	0
Int1	12.25	9.625	40	2750	755	0
Prod	8.75	5.5	20	18800	2750	2550

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

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

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 ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed Name: Electronically filed by Ava Monroe	Approved By: Raymond Podany	
Title: Sr. Regulatory Analyst	Title: Geologist	
Email Address: amonroe@matadorresources.com	Approved Date: 2/3/2020	Expiration Date: 2/3/2022
Date: 1/21/2020	Phone: 972-371-5218	Conditions of Approval Attached

OIL CONSERVATION DIVISION

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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	² Pool Code 15011	³ Pool Name Culebra Bluff; Bone Spring, South
⁴ Property Code	⁵ Property Name RAY STATE COM	⁶ Well Number 123H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 2963'

¹⁰Surface Location

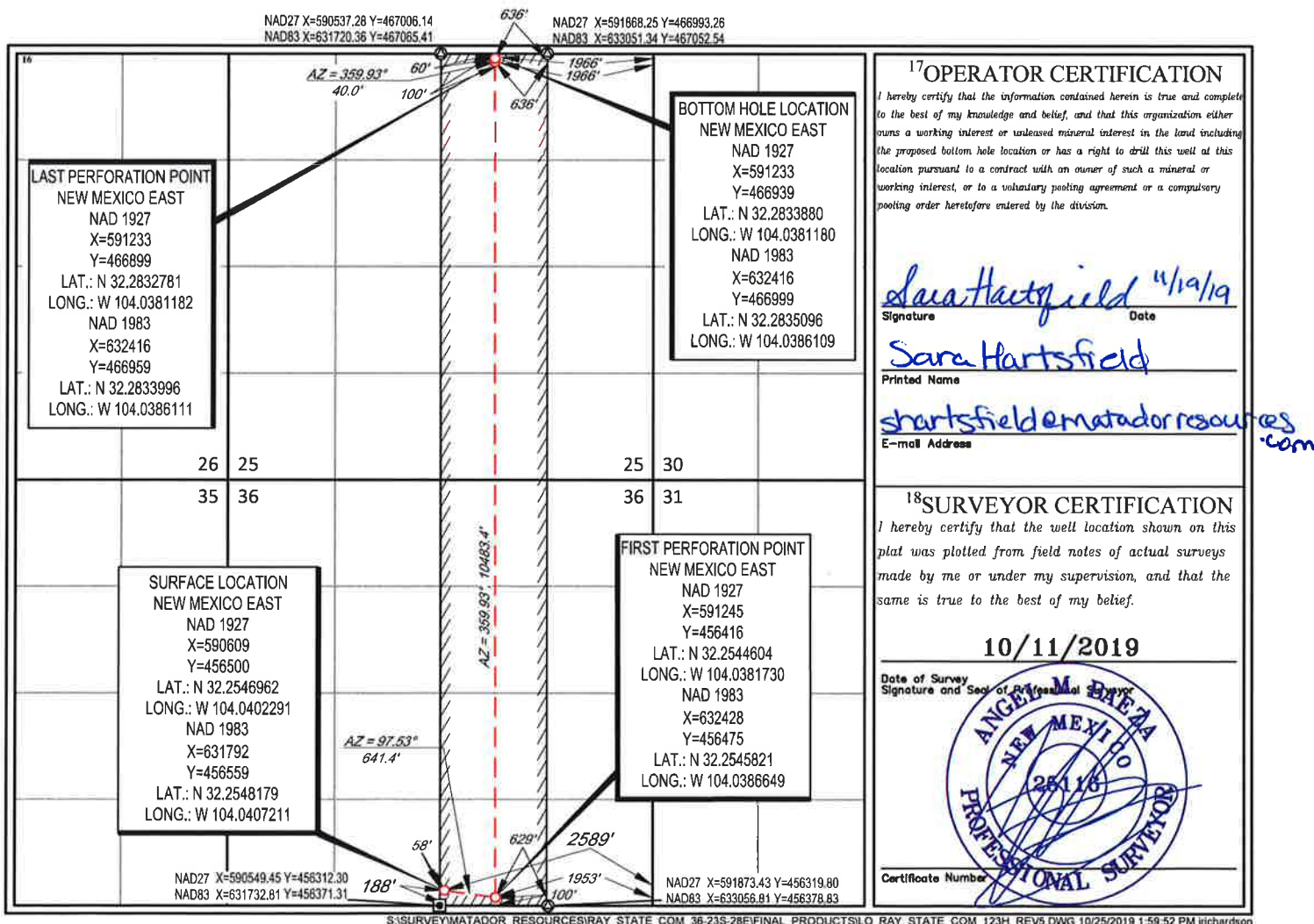
UL or lot no. 0	Section 36	Township 23-S	Range 28-E	Lot Idn -	Feet from the 188'	North/South line SOUTH	Feet from the 2589'	East/West line EAST	County EDDY
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¹¹Bottom Hole Location If Different From Surface

UL or lot no. B	Section 25	Township 23-S	Range 28-E	Lot Idn -	Feet from the 60'	North/South line NORTH	Feet from the 1966'	East/West line EAST	County EDDY
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¹² Dedicated Acres 320	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.





LATITUDE N 32.2548179 LONGITUDE W 104.0407211



SCALE: 1" = 2000'



0' 1000' 2000'



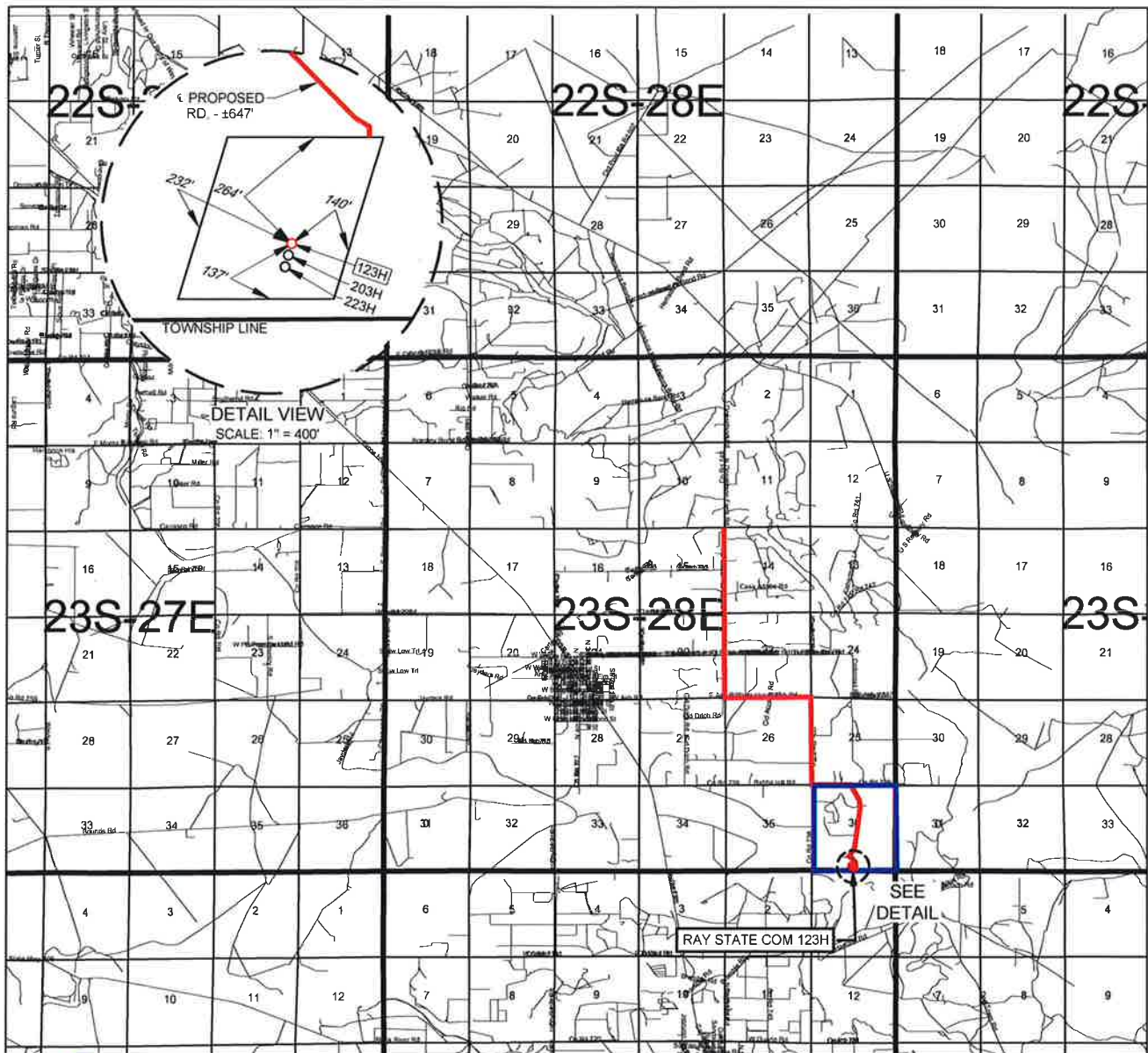
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Sta. 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

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.

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.

VICINITY MAP



LEASE NAME & WELL NO.: _____ RAY STATE COM 123H

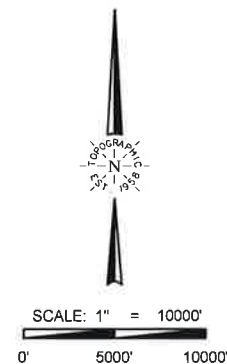
SECTION 36 TWP 23-S RGE 28-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM
 DESCRIPTION 188' FSL & 2589' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-31. & STATE HWY 387. GO SOUTH ON STATE HWY 387. ±2.0
MILES, THENCE CONTINUING ON STATE HWY 387 EAST (LEFT) ±1.0 MILES, THENCE
SOUTH (RIGHT) ON GIOVENGO RD. ±1.0 MILES, THENCE EAST (LEFT) ON RABBIT
HILL RD. ±0.5 MILES, THENCE SOUTHEAST (RIGHT) ON LEASE RD. ±0.9 MILES,
THENCE SOUTHEAST (LEFT) ON PROPOSED RD. ±647 FEET TO A POINT ±327 FEET
NORTHEAST OF THE LOCATION.

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.

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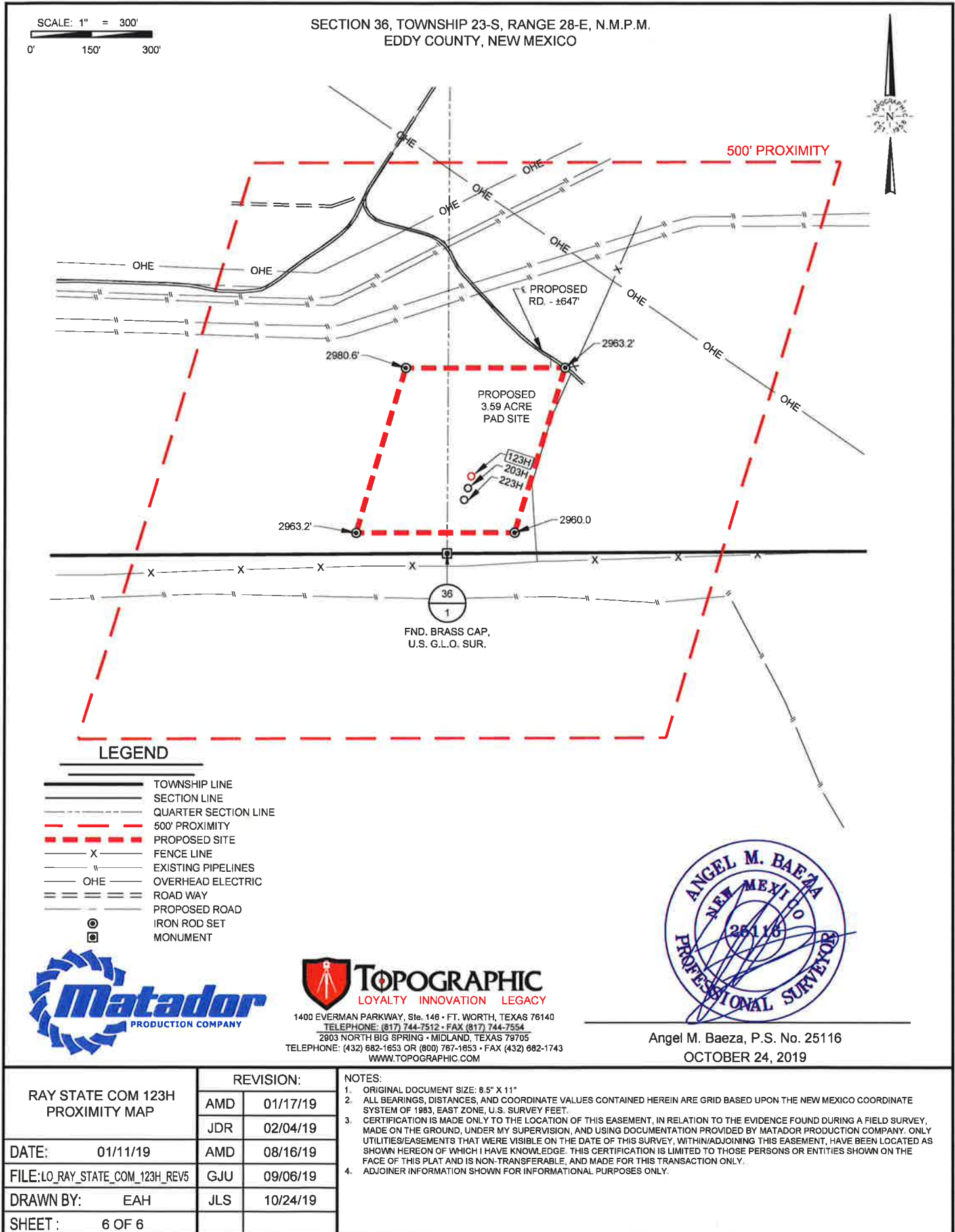


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GAS CAPTURE PLAN

Date: 2/3/2020

☒ Original

Operator & OGRID No.: [228937] MATADOR PRODUCTION COMPANY

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
RAY STATE COM #123H	30-015-46667	O-36-23S-28E	0188S 2589E	3000	Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LONGWOOD RB PIPELINE, LLC and will be connected to LONGWOOD RB PIPELINE, LLC High Pressure gathering system located in Eddy County, New Mexico. It will require 5280' of pipeline to connect the facility to High Pressure gathering system. MATADOR PRODUCTION COMPANY provides (periodically) to LONGWOOD RB PIPELINE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MATADOR PRODUCTION COMPANY and LONGWOOD RB PIPELINE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LONGWOOD RB PIPELINE, LLC Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on LONGWOOD RB PIPELINE, LLC system at that time. Based on current information, it is MATADOR PRODUCTION COMPANY's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Form APD Comments

Permit 277458

PERMIT COMMENTS

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-015-46667
		Well: RAY STATE COM #123H

Created By	Comment	Comment Date
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Santa Fe, NM 87505

Form APD Conditions

Permit 277458

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-015-46667
		Well: RAY STATE COM #123H
OCD Reviewer	Condition	
rpodany	Will require a directional survey with the C-104	
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing	

Matador Production Company

Rustler Breaks

Ray State

Ray State Com #123H

Wellbore #1

Plan: State Plan #1

Standard Planning Report

29 October, 2019

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State 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	Ray State				
Site Position:		Northing:	455,431.16 usft	Latitude:	32° 15' 6.263 N
From:	Lat/Long	Easting:	592,908.03 usft	Longitude:	104° 1' 58.085 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.16 °

Well	Ray State Com #123H					
Well Position	+N/-S	1,069.2 usft	Northing:	456,500.28 usft	Latitude:	32° 15' 16.906 N
	+E/-W	-2,299.3 usft	Easting:	590,608.87 usft	Longitude:	104° 2' 24.825 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	2,961.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.96	60.19	48,762.00761573

Design	State 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	359.93

Plan Survey Tool Program	Date	10/28/2019			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	18,794.7	State 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	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,000.0	10.00	101.92	3,994.9	-18.0	85.2	1.00	1.00	0.00	101.92	
6,908.9	10.00	101.92	6,859.6	-122.3	579.4	0.00	0.00	0.00	0.00	
7,575.5	0.00	0.00	7,522.9	-134.3	636.2	1.50	-1.50	0.00	180.00	
7,894.6	0.00	0.00	7,842.0	-134.3	636.2	0.00	0.00	0.00	0.00	VP - Ray State Con
8,794.6	90.00	0.01	8,415.0	438.7	636.2	10.00	10.00	0.00	0.01	
8,798.4	90.00	359.93	8,415.0	442.5	636.2	2.00	-0.01	-2.00	-90.18	
18,794.7	90.00	359.93	8,415.0	10,438.7	623.9	0.00	0.00	0.00	0.00	BHL - Ray State Cc

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State 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
21.0	0.00	0.00	21.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
425.0	0.00	0.00	425.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,675.0	0.00	0.00	2,675.0	0.0	0.0	0.0	0.00	0.00	0.00
Lamar (Base Salt)									
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
3,100.0	1.00	101.92	3,100.0	-0.2	0.9	-0.2	1.00	1.00	0.00
3,200.0	2.00	101.92	3,200.0	-0.7	3.4	-0.7	1.00	1.00	0.00
3,300.0	3.00	101.92	3,299.9	-1.6	7.7	-1.6	1.00	1.00	0.00
3,400.0	4.00	101.92	3,399.7	-2.9	13.7	-2.9	1.00	1.00	0.00
3,500.0	5.00	101.92	3,499.4	-4.5	21.3	-4.5	1.00	1.00	0.00
3,600.0	6.00	101.92	3,598.9	-6.5	30.7	-6.5	1.00	1.00	0.00
3,700.0	7.00	101.92	3,698.3	-8.8	41.8	-8.9	1.00	1.00	0.00
3,800.0	8.00	101.92	3,797.4	-11.5	54.6	-11.6	1.00	1.00	0.00
Start 279.5 hold at 3800.0 MD									
3,900.0	9.00	101.92	3,896.3	-14.6	69.0	-14.7	1.00	1.00	0.00
4,000.0	10.00	101.92	3,994.9	-18.0	85.2	-18.1	1.00	1.00	0.00
4,079.5	10.00	101.92	4,073.3	-20.8	98.7	-21.0	0.00	0.00	0.00
Start Drop -1.50									
4,100.0	10.00	101.92	4,093.4	-21.6	102.2	-21.7	0.00	0.00	0.00
4,200.0	10.00	101.92	4,191.9	-25.2	119.1	-25.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.0	10.00	101.92	4,290.4	-28.7	136.1	-28.9	0.00	0.00	0.00
4,400.0	10.00	101.92	4,388.9	-32.3	153.1	-32.5	0.00	0.00	0.00
4,500.0	10.00	101.92	4,487.3	-35.9	170.1	-36.1	0.00	0.00	0.00
4,600.0	10.00	101.92	4,585.8	-39.5	187.1	-39.7	0.00	0.00	0.00
4,612.9	10.00	101.92	4,598.5	-40.0	189.3	-40.2	0.00	0.00	0.00
Start 3236.2 hold at 4612.9 MD									
4,700.0	10.00	101.92	4,684.3	-43.1	204.1	-43.3	0.00	0.00	0.00
4,800.0	10.00	101.92	4,782.8	-46.7	221.1	-46.9	0.00	0.00	0.00
4,900.0	10.00	101.92	4,881.3	-50.3	238.1	-50.5	0.00	0.00	0.00
5,000.0	10.00	101.92	4,979.7	-53.8	255.1	-54.2	0.00	0.00	0.00
5,100.0	10.00	101.92	5,078.2	-57.4	272.1	-57.8	0.00	0.00	0.00
5,200.0	10.00	101.92	5,176.7	-61.0	289.1	-61.4	0.00	0.00	0.00
5,300.0	10.00	101.92	5,275.2	-64.6	306.0	-65.0	0.00	0.00	0.00
5,400.0	10.00	101.92	5,373.7	-68.2	323.0	-68.6	0.00	0.00	0.00
5,500.0	10.00	101.92	5,472.1	-71.8	340.0	-72.2	0.00	0.00	0.00
5,600.0	10.00	101.92	5,570.6	-75.4	357.0	-75.8	0.00	0.00	0.00
5,700.0	10.00	101.92	5,669.1	-78.9	374.0	-79.4	0.00	0.00	0.00
5,800.0	10.00	101.92	5,767.6	-82.5	391.0	-83.0	0.00	0.00	0.00
5,900.0	10.00	101.92	5,866.1	-86.1	408.0	-86.6	0.00	0.00	0.00
6,000.0	10.00	101.92	5,964.5	-89.7	425.0	-90.2	0.00	0.00	0.00
6,100.0	10.00	101.92	6,063.0	-93.3	442.0	-93.8	0.00	0.00	0.00
6,200.0	10.00	101.92	6,161.5	-96.9	459.0	-97.4	0.00	0.00	0.00
6,300.0	10.00	101.92	6,260.0	-100.5	475.9	-101.0	0.00	0.00	0.00
6,400.0	10.00	101.92	6,358.5	-104.1	492.9	-104.7	0.00	0.00	0.00
6,434.3	10.00	101.92	6,392.2	-105.3	498.8	-105.9	0.00	0.00	0.00
BSGL									
6,500.0	10.00	101.92	6,457.0	-107.6	509.9	-108.3	0.00	0.00	0.00
6,600.0	10.00	101.92	6,555.4	-111.2	526.9	-111.9	0.00	0.00	0.00
6,700.0	10.00	101.92	6,653.9	-114.8	543.9	-115.5	0.00	0.00	0.00
6,800.0	10.00	101.92	6,752.4	-118.4	560.9	-119.1	0.00	0.00	0.00
6,900.0	10.00	101.92	6,850.9	-122.0	577.9	-122.7	0.00	0.00	0.00
6,908.9	10.00	101.92	6,859.6	-122.3	579.4	-123.0	0.00	0.00	0.00
7,000.0	8.63	101.92	6,949.5	-125.3	593.8	-126.1	1.50	-1.50	0.00
7,100.0	7.13	101.92	7,048.6	-128.2	607.3	-128.9	1.50	-1.50	0.00
7,200.0	5.63	101.92	7,148.0	-130.5	618.1	-131.2	1.50	-1.50	0.00
7,300.0	4.13	101.92	7,247.6	-132.2	626.5	-133.0	1.50	-1.50	0.00
7,400.0	2.63	101.92	7,347.4	-133.5	632.2	-134.2	1.50	-1.50	0.00
7,446.0	1.94	101.92	7,393.4	-133.8	634.0	-134.6	1.50	-1.50	0.00
FBSG									
7,500.0	1.13	101.92	7,447.4	-134.1	635.4	-134.9	1.50	-1.50	0.00
7,575.5	0.00	0.00	7,522.9	-134.3	636.2	-135.1	1.50	-1.50	0.00
7,600.0	0.00	0.00	7,547.4	-134.3	636.2	-135.1	0.00	0.00	0.00
7,663.3	0.00	0.00	7,610.7	-134.3	636.2	-135.1	0.00	0.00	0.00
SBSC									
7,700.0	0.00	0.00	7,647.4	-134.3	636.2	-135.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,747.4	-134.3	636.2	-135.1	0.00	0.00	0.00
7,849.0	0.00	0.00	7,796.4	-134.3	636.2	-135.1	0.00	0.00	0.00
Start Build 10.00									
7,894.6	0.00	0.00	7,842.0	-134.3	636.2	-135.1	0.00	0.00	0.00
VP - Ray State Com #123H									
7,900.0	0.54	0.01	7,847.4	-134.3	636.2	-135.0	10.00	10.00	0.00
8,000.0	10.54	0.01	7,946.8	-124.6	636.2	-125.4	10.00	10.00	0.00
8,100.0	20.54	0.01	8,043.0	-97.9	636.2	-98.7	10.00	10.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,200.0	30.54	0.01	8,133.1	-54.8	636.2	-55.6	10.00	10.00	0.00
8,213.8	31.92	0.01	8,144.9	-47.6	636.2	-48.4	10.00	10.00	0.00
SBSG									
8,300.0	40.54	0.01	8,214.4	3.2	636.2	2.4	10.00	10.00	0.00
8,400.0	50.54	0.01	8,284.3	74.5	636.2	73.7	10.00	10.00	0.00
8,500.0	60.54	0.01	8,340.9	156.8	636.2	156.1	10.00	10.00	0.00
8,600.0	70.54	0.01	8,382.2	247.8	636.2	247.0	10.00	10.00	0.00
8,700.0	80.54	0.01	8,407.2	344.5	636.2	343.7	10.00	10.00	0.00
8,749.0	85.44	0.01	8,413.1	393.1	636.2	392.4	10.00	10.00	0.00
Start DLS 2.00 TFO -90.20									
8,752.5	85.79	0.01	8,413.4	396.6	636.2	395.8	10.00	10.00	0.00
Start 9996.5 hold at 8752.5 MD									
8,780.4	88.57	0.01	8,414.8	424.4	636.2	423.6	10.00	10.00	0.00
SBSG Target (120 Series)									
8,794.6	90.00	0.01	8,415.0	438.7	636.2	437.9	10.00	10.00	0.00
8,798.4	90.00	359.93	8,415.0	442.5	636.2	441.7	2.00	-0.01	-2.00
8,800.0	90.00	359.93	8,415.0	444.0	636.2	443.3	0.00	0.00	0.00
8,900.0	90.00	359.93	8,415.0	544.0	636.1	543.3	0.00	0.00	0.00
9,000.0	90.00	359.93	8,415.0	644.0	636.0	643.3	0.00	0.00	0.00
9,100.0	90.00	359.93	8,415.0	744.0	635.9	743.3	0.00	0.00	0.00
9,200.0	90.00	359.93	8,415.0	844.0	635.7	843.3	0.00	0.00	0.00
9,300.0	90.00	359.93	8,415.0	944.0	635.6	943.3	0.00	0.00	0.00
9,400.0	90.00	359.93	8,415.0	1,044.0	635.5	1,043.3	0.00	0.00	0.00
9,500.0	90.00	359.93	8,415.0	1,144.0	635.4	1,143.3	0.00	0.00	0.00
9,600.0	90.00	359.93	8,415.0	1,244.0	635.2	1,243.3	0.00	0.00	0.00
9,700.0	90.00	359.93	8,415.0	1,344.0	635.1	1,343.3	0.00	0.00	0.00
9,800.0	90.00	359.93	8,415.0	1,444.0	635.0	1,443.3	0.00	0.00	0.00
9,900.0	90.00	359.93	8,415.0	1,544.0	634.9	1,543.3	0.00	0.00	0.00
10,000.0	90.00	359.93	8,415.0	1,644.0	634.7	1,643.3	0.00	0.00	0.00
10,100.0	90.00	359.93	8,415.0	1,744.0	634.6	1,743.3	0.00	0.00	0.00
10,200.0	90.00	359.93	8,415.0	1,844.0	634.5	1,843.3	0.00	0.00	0.00
10,300.0	90.00	359.93	8,415.0	1,944.0	634.4	1,943.3	0.00	0.00	0.00
10,400.0	90.00	359.93	8,415.0	2,044.0	634.2	2,043.3	0.00	0.00	0.00
10,500.0	90.00	359.93	8,415.0	2,144.0	634.1	2,143.3	0.00	0.00	0.00
10,600.0	90.00	359.93	8,415.0	2,244.0	634.0	2,243.3	0.00	0.00	0.00
10,700.0	90.00	359.93	8,415.0	2,344.0	633.9	2,343.3	0.00	0.00	0.00
10,800.0	90.00	359.93	8,415.0	2,444.0	633.8	2,443.3	0.00	0.00	0.00
10,900.0	90.00	359.93	8,415.0	2,544.0	633.6	2,543.3	0.00	0.00	0.00
11,000.0	90.00	359.93	8,415.0	2,644.0	633.5	2,643.3	0.00	0.00	0.00
11,100.0	90.00	359.93	8,415.0	2,744.0	633.4	2,743.3	0.00	0.00	0.00
11,200.0	90.00	359.93	8,415.0	2,844.0	633.3	2,843.3	0.00	0.00	0.00
11,300.0	90.00	359.93	8,415.0	2,944.0	633.1	2,943.3	0.00	0.00	0.00
11,400.0	90.00	359.93	8,415.0	3,044.0	633.0	3,043.3	0.00	0.00	0.00
11,500.0	90.00	359.93	8,415.0	3,144.0	632.9	3,143.3	0.00	0.00	0.00
11,600.0	90.00	359.93	8,415.0	3,244.0	632.8	3,243.3	0.00	0.00	0.00
11,700.0	90.00	359.93	8,415.0	3,344.0	632.6	3,343.3	0.00	0.00	0.00
11,800.0	90.00	359.93	8,415.0	3,444.0	632.5	3,443.3	0.00	0.00	0.00
11,900.0	90.00	359.93	8,415.0	3,544.0	632.4	3,543.3	0.00	0.00	0.00
12,000.0	90.00	359.93	8,415.0	3,644.0	632.3	3,643.3	0.00	0.00	0.00
12,100.0	90.00	359.93	8,415.0	3,744.0	632.1	3,743.3	0.00	0.00	0.00
12,200.0	90.00	359.93	8,415.0	3,844.0	632.0	3,843.3	0.00	0.00	0.00
12,300.0	90.00	359.93	8,415.0	3,944.0	631.9	3,943.3	0.00	0.00	0.00
12,400.0	90.00	359.93	8,415.0	4,044.0	631.8	4,043.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State 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)
12,500.0	90.00	359.93	8,415.0	4,144.0	631.7	4,143.3	0.00	0.00	0.00
12,600.0	90.00	359.93	8,415.0	4,244.0	631.5	4,243.3	0.00	0.00	0.00
12,700.0	90.00	359.93	8,415.0	4,344.0	631.4	4,343.3	0.00	0.00	0.00
12,800.0	90.00	359.93	8,415.0	4,444.0	631.3	4,443.3	0.00	0.00	0.00
12,900.0	90.00	359.93	8,415.0	4,544.0	631.2	4,543.3	0.00	0.00	0.00
13,000.0	90.00	359.93	8,415.0	4,644.0	631.0	4,643.3	0.00	0.00	0.00
13,100.0	90.00	359.93	8,415.0	4,744.0	630.9	4,743.3	0.00	0.00	0.00
13,200.0	90.00	359.93	8,415.0	4,844.0	630.8	4,843.3	0.00	0.00	0.00
13,300.0	90.00	359.93	8,415.0	4,944.0	630.7	4,943.3	0.00	0.00	0.00
13,400.0	90.00	359.93	8,415.0	5,044.0	630.5	5,043.3	0.00	0.00	0.00
13,500.0	90.00	359.93	8,415.0	5,144.0	630.4	5,143.3	0.00	0.00	0.00
13,600.0	90.00	359.93	8,415.0	5,244.0	630.3	5,243.3	0.00	0.00	0.00
13,700.0	90.00	359.93	8,415.0	5,344.0	630.2	5,343.3	0.00	0.00	0.00
13,800.0	90.00	359.93	8,415.0	5,444.0	630.0	5,443.3	0.00	0.00	0.00
13,900.0	90.00	359.93	8,415.0	5,544.0	629.9	5,543.3	0.00	0.00	0.00
14,000.0	90.00	359.93	8,415.0	5,644.0	629.8	5,643.3	0.00	0.00	0.00
14,100.0	90.00	359.93	8,415.0	5,744.0	629.7	5,743.3	0.00	0.00	0.00
14,200.0	90.00	359.93	8,415.0	5,844.0	629.6	5,843.3	0.00	0.00	0.00
14,300.0	90.00	359.93	8,415.0	5,944.0	629.4	5,943.3	0.00	0.00	0.00
14,400.0	90.00	359.93	8,415.0	6,044.0	629.3	6,043.3	0.00	0.00	0.00
14,500.0	90.00	359.93	8,415.0	6,144.0	629.2	6,143.3	0.00	0.00	0.00
14,600.0	90.00	359.93	8,415.0	6,244.0	629.1	6,243.3	0.00	0.00	0.00
14,700.0	90.00	359.93	8,415.0	6,344.0	628.9	6,343.3	0.00	0.00	0.00
14,800.0	90.00	359.93	8,415.0	6,444.0	628.8	6,443.3	0.00	0.00	0.00
14,900.0	90.00	359.93	8,415.0	6,544.0	628.7	6,543.3	0.00	0.00	0.00
15,000.0	90.00	359.93	8,415.0	6,644.0	628.6	6,643.3	0.00	0.00	0.00
15,100.0	90.00	359.93	8,415.0	6,744.0	628.4	6,743.3	0.00	0.00	0.00
15,200.0	90.00	359.93	8,415.0	6,844.0	628.3	6,843.3	0.00	0.00	0.00
15,300.0	90.00	359.93	8,415.0	6,944.0	628.2	6,943.3	0.00	0.00	0.00
15,400.0	90.00	359.93	8,415.0	7,044.0	628.1	7,043.3	0.00	0.00	0.00
15,500.0	90.00	359.93	8,415.0	7,144.0	627.9	7,143.3	0.00	0.00	0.00
15,600.0	90.00	359.93	8,415.0	7,244.0	627.8	7,243.3	0.00	0.00	0.00
15,700.0	90.00	359.93	8,415.0	7,344.0	627.7	7,343.3	0.00	0.00	0.00
15,800.0	90.00	359.93	8,415.0	7,444.0	627.6	7,443.3	0.00	0.00	0.00
15,900.0	90.00	359.93	8,415.0	7,544.0	627.5	7,543.3	0.00	0.00	0.00
16,000.0	90.00	359.93	8,415.0	7,644.0	627.3	7,643.3	0.00	0.00	0.00
16,100.0	90.00	359.93	8,415.0	7,744.0	627.2	7,743.3	0.00	0.00	0.00
16,200.0	90.00	359.93	8,415.0	7,844.0	627.1	7,843.3	0.00	0.00	0.00
16,300.0	90.00	359.93	8,415.0	7,944.0	627.0	7,943.3	0.00	0.00	0.00
16,400.0	90.00	359.93	8,415.0	8,044.0	626.8	8,043.3	0.00	0.00	0.00
16,500.0	90.00	359.93	8,415.0	8,144.0	626.7	8,143.3	0.00	0.00	0.00
16,600.0	90.00	359.93	8,415.0	8,244.0	626.6	8,243.3	0.00	0.00	0.00
16,700.0	90.00	359.93	8,415.0	8,344.0	626.5	8,343.3	0.00	0.00	0.00
16,800.0	90.00	359.93	8,415.0	8,444.0	626.3	8,443.3	0.00	0.00	0.00
16,900.0	90.00	359.93	8,415.0	8,544.0	626.2	8,543.3	0.00	0.00	0.00
17,000.0	90.00	359.93	8,415.0	8,644.0	626.1	8,643.3	0.00	0.00	0.00
17,100.0	90.00	359.93	8,415.0	8,744.0	626.0	8,743.3	0.00	0.00	0.00
17,200.0	90.00	359.93	8,415.0	8,844.0	625.9	8,843.3	0.00	0.00	0.00
17,300.0	90.00	359.93	8,415.0	8,944.0	625.7	8,943.3	0.00	0.00	0.00
17,400.0	90.00	359.93	8,415.0	9,044.0	625.6	9,043.3	0.00	0.00	0.00
17,500.0	90.00	359.93	8,415.0	9,144.0	625.5	9,143.3	0.00	0.00	0.00
17,600.0	90.00	359.93	8,415.0	9,244.0	625.4	9,243.3	0.00	0.00	0.00
17,700.0	90.00	359.93	8,415.0	9,344.0	625.2	9,343.3	0.00	0.00	0.00
17,800.0	90.00	359.93	8,415.0	9,444.0	625.1	9,443.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State 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)	
17,900.0	90.00	359.93	8,415.0	9,544.0	625.0	9,543.3	0.00	0.00	0.00	
18,000.0	90.00	359.93	8,415.0	9,644.0	624.9	9,643.3	0.00	0.00	0.00	
18,100.0	90.00	359.93	8,415.0	9,744.0	624.7	9,743.3	0.00	0.00	0.00	
18,200.0	90.00	359.93	8,415.0	9,844.0	624.6	9,843.3	0.00	0.00	0.00	
18,300.0	90.00	359.93	8,415.0	9,944.0	624.5	9,943.3	0.00	0.00	0.00	
18,400.0	90.00	359.93	8,415.0	10,044.0	624.4	10,043.3	0.00	0.00	0.00	
18,500.0	90.00	359.93	8,415.0	10,144.0	624.2	10,143.3	0.00	0.00	0.00	
18,600.0	90.00	359.93	8,415.0	10,244.0	624.1	10,243.3	0.00	0.00	0.00	
18,700.0	90.00	359.93	8,415.0	10,344.0	624.0	10,343.3	0.00	0.00	0.00	
18,749.1	90.00	359.93	8,415.0	10,393.1	623.9	10,392.3	0.00	0.00	0.00	
TD at 18749.1										
18,794.7	90.00	359.93	8,415.0	10,438.7	623.9	10,437.9	0.00	0.00	0.00	
BHL - Ray State Com #123H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
VP - Ray State Com #	0.00	0.00	7,842.0	-134.3	636.2	456,366.00	591,245.00	32° 15' 15.560 N	104° 2' 17.421 W	
- plan hits target center										
- Point										
BHL - Ray State Com	0.00	0.00	8,415.0	10,438.7	623.9	466,939.39	591,232.78	32° 17' 0.197 N	104° 2' 17.225 W	
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
21.0	21.0	Rustler				
425.0	425.0	Top Salt				
2,675.0	2,675.0	Lamar (Base Salt)				
6,434.3	6,392.2	BSGL				
7,446.0	7,393.4	FBSG				
7,663.3	7,610.7	SBSC				
8,213.8	8,144.9	SBSG				
8,780.4	8,414.8	SBSG Target (120 Series)				

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ray State Com #123H
Company:	Matador Production Company	TVD Reference:	KB @ 2989.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 2989.5usft
Site:	Ray State	North Reference:	Grid
Well:	Ray State Com #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,000.0	3,000.0	0.0	0.0	Start Build 1.00
3,800.0	3,797.4	-11.5	54.6	Start 279.5 hold at 3800.0 MD
4,079.5	4,073.3	-20.8	98.7	Start Drop -1.50
4,612.9	4,598.5	-40.0	189.3	Start 3236.2 hold at 4612.9 MD
7,849.0	7,796.4	-134.3	636.2	Start Build 10.00
8,749.0	8,413.1	393.1	636.2	Start DLS 2.00 TFO -90.20
8,752.5	8,413.4	396.6	636.2	Start 9996.5 hold at 8752.5 MD
18,749.1	8,415.0	10,393.1	623.9	TD at 18749.1