

District I1625 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) 476-3462Form C-101
August 1, 2011

Permit 371134

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

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 30-015-55326
4. Property Code 336207	5. Property Name Dr. Ireland State 16	6. Well No. 139H

7. Surface Location

UL - Lot B	Section 21	Township 23S	Range 28E	Lot Idn	Feet From 946	N/S Line N	Feet From 1931	E/W Line E	County Eddy
---------------	---------------	-----------------	--------------	---------	------------------	---------------	-------------------	---------------	----------------

8. Proposed Bottom Hole Location

UL - Lot P	Section 16	Township 23S	Range 28E	Lot Idn P	Feet From 110	N/S Line S	Feet From 331	E/W Line E	County Eddy
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	----------------

9. Pool Information

CULEBRA BLUFF;BONE SPRING, SOUTH	15011
----------------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3024
16. Multiple N	17. Proposed Depth 19909	18. Formation Bone Spring	19. Contractor	20. Spud Date 8/5/2024
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	338	322	0
Int1	9.875	7.625	29.7	7941	1328	0
Prod	6.75	5.5	20	19909	1139	7741

Casing/Cement Program: Additional Comments

--

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:

OIL CONSERVATION DIVISION

Printed Name: Electronically filed by Brett A Jennings	Approved By: Ward Rikala
Title: Regulatory Analyst	Title: Petroleum Specialist Supervisor
Email Address: brett.jennings@matadorresources.com	Approved Date: 8/14/2024 Expiration Date: 8/14/2026
Date: 8/13/2024 Phone: 972-629-2160	Conditions of Approval Attached

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☐ Initial Submittal
			☐ Amended Report
		☐ As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-55326	Pool Code 15011	Pool Name CULEBRA BLUFF; BONE SPRING, SOUTH
Property Code 336207	Property Name DR. IRELAND STATE 16	Well Number 139H
OGRID No. 228937	Operator Name MATADOR PRODUCTION COMPANY	Ground Level Elevation 3024'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	21	23-S	28-E	-	946' N	1931' E	N 32.2953894	W 104.0900998	EDDY

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	16	23-S	28-E	-	110' S	331' E	N 32.2983155	W 104.0849492	EDDY

Dedicated Acres 320	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidated Code
Order Numbers			Well Setbacks are under Common Ownership: ☐ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	21	23-S	28-E	-	473' N	1654 E	N 32.2966935	W 104.0892158	EDDY

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	16	23-S	28-E	-	100' S	1651' E	N 32.2982686	W 104.0892211	EDDY

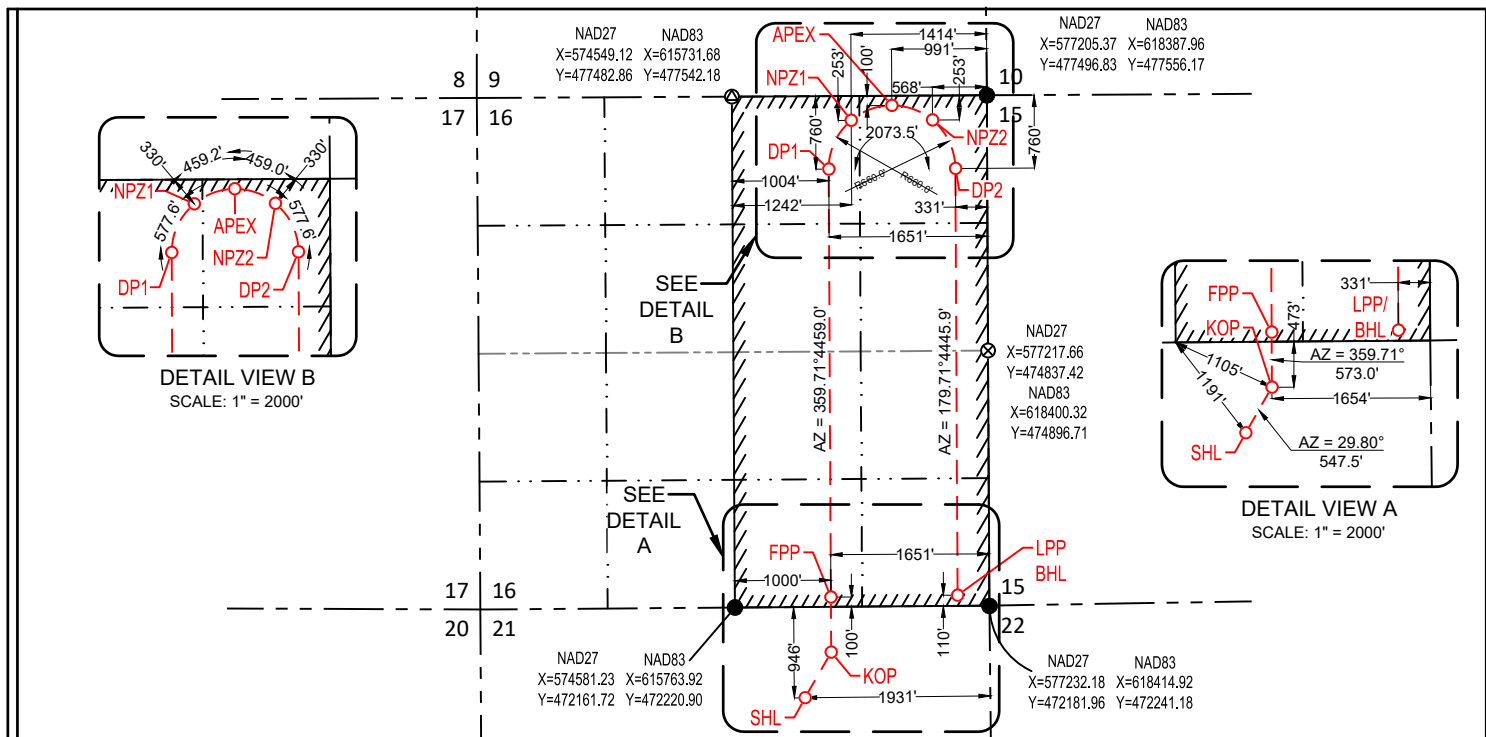
Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	16	23-S	28-E	-	110' S	331' E	N 32.2983155	W 104.0849492	EDDY

Unitized Area or Area of Uniform Intrest	Spacing Unity Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation 3024'
--	---	--

OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  08/13/2024		SURVEYORS CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>  25116 8/2/24	
Signature Brett Jennings		Signature and Seal of Professional Surveyor	
Date 08/13/2024		Date 07/13/2024	
Print Name Brett.Jennings@matadorresources.com		Certificate Number	
E-mail Address		Date of Survey	

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☐ Initial Submittal ☐ Amended Report ☐ As Drilled
Property Name and Well Number DR. IRELAND STATE 16 139H		

**SURFACE LOCATION (SHL)**

NEW MEXICO EAST
NAD 1983
X=616494 Y=471280
LAT.: N 32.2953894
LONG.: W 104.0900998
NAD 1927
X=575312 Y=471221
LAT.: N 32.2952687
LONG.: W 104.0896045
946' FNL 1931' FEL

KICK OFF POINT (KOP)

NEW MEXICO EAST
NAD 1983
X=616766 Y=471756
LAT.: N 32.2966935
LONG.: W 104.0892158
NAD 1927
X=575584 Y=471696
LAT.: N 32.2965729
LONG.: W 104.0887205
473' FNL 1654' FEL

FIRST PERF. POINT (FPP)

NEW MEXICO EAST
NAD 1983
X=616763 Y=472329
LAT.: N 32.2982686
LONG.: W 104.0892211
NAD 1927
X=575581 Y=472269
LAT.: N 32.2981480
LONG.: W 104.0887257
100' FSL 1651' FEL

DEFLECTION POINT (DP1)

NEW MEXICO EAST
NAD 1983
X=616741 Y=476787
LAT.: N 32.3105257
LONG.: W 104.0892623
NAD 1927
X=575558 Y=476728
LAT.: N 32.3104051
LONG.: W 104.0887665
760' FNL 1651' FEL

NON PERF. ZONE (NPZ1)

NEW MEXICO EAST
NAD 1983
X=616975 Y=477295
LAT.: N 32.3119204
LONG.: W 104.0884999
NAD 1927
X=575792 Y=477236
LAT.: N 32.3117998
LONG.: W 104.0880041
253' FNL 1414' FEL

U-TURN APEX (APEX)

NEW MEXICO EAST
NAD 1983
X=617397 Y=477451
LAT.: N 32.3123453
LONG.: W 104.0871321
NAD 1927
X=576215 Y=477392
LAT.: N 32.3122248
LONG.: W 104.0866363
100' FNL 991' FEL

NON PERF. ZONE (NPZ2)

NEW MEXICO EAST
NAD 1983
X=617821 Y=477300
LAT.: N 32.3119273
LONG.: W 104.0857618
NAD 1927
X=576638 Y=477241
LAT.: N 32.3118067
LONG.: W 104.0852661
253' FNL 568' FEL

DEFLECTION POINT (DP2)

NEW MEXICO EAST
NAD 1983
X=618061 Y=476794
LAT.: N 32.3105365
LONG.: W 104.0849897
NAD 1927
X=576878 Y=476735
LAT.: N 32.3104159
LONG.: W 104.0844940
760' FNL 331' FEL

**LAST PERF. POINT (LPP)
BOTTOM HOLE LOCATION (BHL)**

NEW MEXICO EAST
NAD 1983
X=618083 Y=472349
LAT.: N 32.2983155
LONG.: W 104.0849492
NAD 1927
X=576901 Y=472289
LAT.: N 32.2981948
LONG.: W 104.0844539
110' FSL 331' FEL

SURVEYORS CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
07/13/2024

Date of Survey

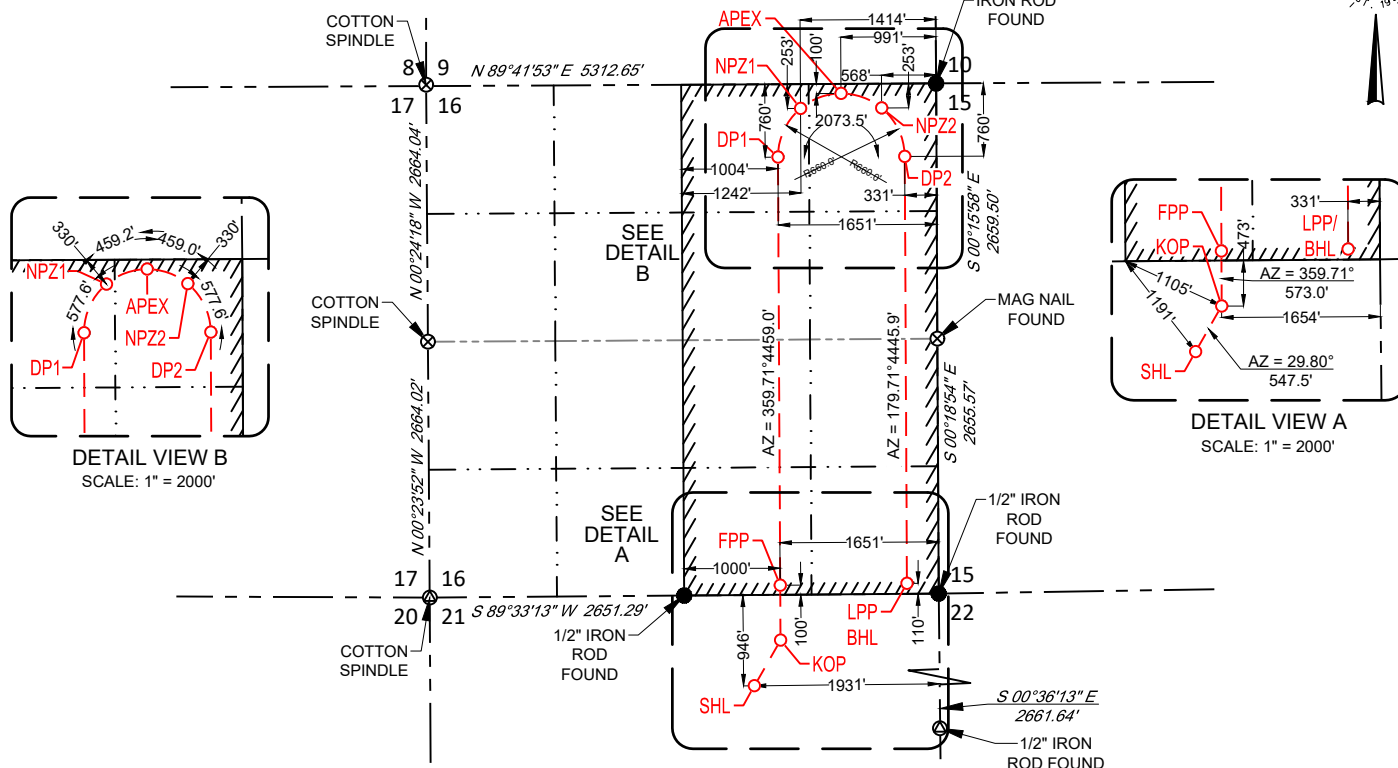


SCALE: 1" = 2000'

0' 1000' 2000'



SECTION 21, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



SURFACE LOCATION (SHL) KICK OFF POINT (KOP) FIRST PERF. POINT (FPP) DEFLECTION POINT (DP1) NON PERF. ZONE (NPZ1)

NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983
X=616494 Y=471280	X=616766 Y=471756	X=616763 Y=472329	X=616741 Y=476787	X=616975 Y=477295
LAT.: N 32.2953894	LAT.: N 32.2966935	LAT.: N 32.2982686	LAT.: N 32.3105257	LAT.: N 32.3119204
LONG.: W 104.0900998	LONG.: W 104.0892158	LONG.: W 104.0892211	LONG.: W 104.0892623	LONG.: W 104.0884999
946' FNL 1931' FEL	473' FNL 1654' FEL	100' FSL 1651' FEL	760' FNL 1651' FEL	253' FNL 1414' FEL

U-TURN APEX (APEX)	NON PERF. ZONE (NPZ2)	DEFLECTION POINT (DP2)	LAST PERF. POINT (LPP)	BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983	NEW MEXICO EAST NAD 1983
X=617397 Y=477451	X=617821 Y=477300	X=618061 Y=476794	X=618083 Y=472349	X=618083 Y=472349
LAT.: N 32.3123453	LAT.: N 32.3119273	LAT.: N 32.3105365	LAT.: N 32.2983155	LAT.: N 32.2983155
LONG.: W 104.0871321	LONG.: W 104.0857618	LONG.: W 104.0849897	LONG.: W 104.0849492	LONG.: W 104.0849492
100' FNL 991' FEL	253' FNL 568' FEL	760' FNL 331' FEL	110' FSL 331' FEL	110' FSL 331' FEL

LEASE NAME & WELL NO.: DR. IRELAND STATE 16 139H

SECTION 21 TWP 23-S RGE 28-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 946' FNL & 1931' FEL

DISTANCE & DIRECTION

FROM INT. OF N 8TH ST/US HWY 285 N. & W CEDAR ST. GO NORTH ON N
8TH ST/US HWY 285 N ±0.9 MILES, THENCE EAST (RIGHT) ON E LONDON
RD ±0.9 MILES, THENCE SOUTH (RIGHT) ON A PROPOSED RD. ±741 FEET
TO A POINT ±244 FEET NORTHEAST OF THE LOCATION.



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

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.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

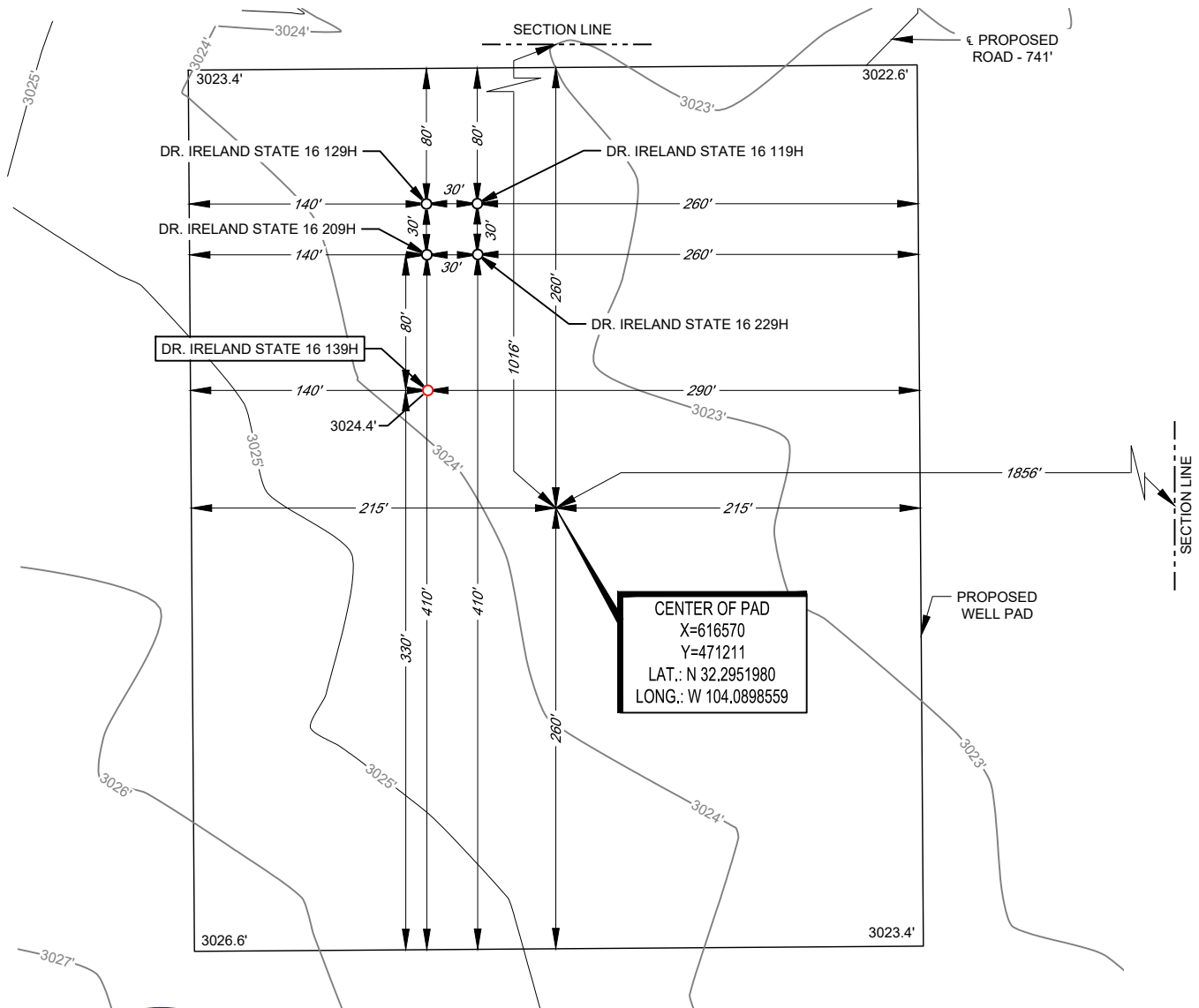
LEGEND

--- SECTION LINE
 --- PROPOSED ROAD



DETAIL VIEW
 SCALE: 1" = 100'

SECTION 21, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO



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

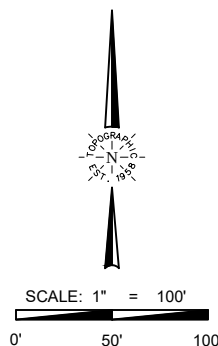
LEASE NAME & WELL NO.: DR. IRELAND STATE 16 139H
 139H LATITUDE N 32.2953894 139H LONGITUDE W 104.0900998

CENTER OF PAD IS 1016' FNL & 1856' FEL

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"



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY

481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
 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

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 APD Conditions
Permit 371134

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-015-55326
	Well: Dr. Ireland State 16 #139H

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	If cement does not circulate on any string, a CBL is required for that string 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

Well Name: Dr Ireland State 16 #139H										
STRING	FLUID TYPE	HOLE SZ	CSG SZ	CSG GRADE	CSG WT	DEPTH SET	TOP CSG	TTL SX CEMENT	EST TOC	ADDITIONAL INFO FOR CSG/CMT PROGRAM (Optional)
SURF	FRESH WTR	17.5	13.375	J-55	54.50	338	0	322	0	Option to drill surface hole with surface setting rig Option to cement surface casing offline
INT 1	Diesel Brine Emulsion	9.875	7.625	P-110	29.70	7941	0	1328	0	Option to run DV tool and Packer.
PROD	OBM/Cut Brine	6.75	5.5	P-110	20.00	19909	0	1139	7741	

Matador Production Company

Rustler Breaks

Dr Ireland

Dr Ireland State 16 #139H

Wellbore #1

Plan: State Plan #1

Standard Planning Report

28 July, 2024

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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	Dr Ireland				
Site Position:		Northing:	471,301.60 usft	Latitude:	32° 17' 43.761 N
From:	Lat/Long	Easting:	575,341.07 usft	Longitude:	104° 5' 22.231 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	Dr Ireland State 16 #139H					
Well Position	+N/-S	-80.3 usft	Northing:	471,221.32 usft	Latitude:	32° 17' 42.967 N
	+E/-W	-29.5 usft	Easting:	575,311.62 usft	Longitude:	104° 5' 22.576 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,024.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/24/2024	6.43	59.96	47,200.58827348

Design	State Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.71

Plan Survey Tool Program	Date	7/28/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,915.7	State Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,533.3	8.00	25.05	1,531.6	33.7	15.7	1.50	1.50	0.00	25.05	
4,633.8	8.00	25.05	4,601.9	424.6	198.5	0.00	0.00	0.00	0.00	
5,433.8	0.00	0.00	5,399.3	475.1	222.1	1.00	-1.00	0.00	180.00	
8,041.5	0.00	0.00	8,007.0	475.1	222.1	0.00	0.00	0.00	0.00	KOP - Dr Ireland Sta
8,941.5	90.00	2.20	8,580.0	1,047.6	244.1	10.00	10.00	0.00	2.20	
10,095.3	90.00	359.71	8,580.0	2,201.1	263.3	0.22	0.00	-0.22	-90.01	
13,401.0	90.00	359.71	8,580.0	5,506.8	246.4	0.00	0.00	0.00	0.00	DP1 - Dr Ireland Sta
15,408.7	90.00	174.38	8,580.0	5,574.7	1,560.4	8.70	0.00	8.70	90.00	
15,469.9	90.00	174.38	8,580.0	5,513.8	1,566.3	0.00	0.00	0.00	0.00	DP2 - Dr Ireland Sta
15,531.6	90.00	179.74	8,580.0	5,452.2	1,569.5	8.70	0.00	8.70	90.01	
19,915.7	90.00	179.74	8,580.0	1,068.1	1,589.1	0.00	0.00	0.00	0.00	BHL - Dr Ireland Sta

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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
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
268.0	0.00	0.00	268.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Rustler)									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
345.0	0.00	0.00	345.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Salado)									
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
991.0	0.00	0.00	991.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (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	1.50	25.05	1,100.0	1.2	0.6	1.2	1.50	1.50	0.00
1,200.0	3.00	25.05	1,199.9	4.7	2.2	4.7	1.50	1.50	0.00
1,300.0	4.50	25.05	1,299.7	10.7	5.0	10.6	1.50	1.50	0.00
1,400.0	6.00	25.05	1,399.3	19.0	8.9	18.9	1.50	1.50	0.00
1,500.0	7.50	25.05	1,498.6	29.6	13.8	29.5	1.50	1.50	0.00
1,533.3	8.00	25.05	1,531.6	33.7	15.7	33.6	1.50	1.50	0.00
1,600.0	8.00	25.05	1,597.6	42.1	19.7	42.0	0.00	0.00	0.00
1,700.0	8.00	25.05	1,696.6	54.7	25.6	54.6	0.00	0.00	0.00
1,800.0	8.00	25.05	1,795.7	67.3	31.5	67.1	0.00	0.00	0.00
1,900.0	8.00	25.05	1,894.7	79.9	37.4	79.7	0.00	0.00	0.00
2,000.0	8.00	25.05	1,993.7	92.5	43.2	92.3	0.00	0.00	0.00
2,100.0	8.00	25.05	2,092.8	105.1	49.1	104.9	0.00	0.00	0.00
2,200.0	8.00	25.05	2,191.8	117.7	55.0	117.4	0.00	0.00	0.00
2,300.0	8.00	25.05	2,290.8	130.3	60.9	130.0	0.00	0.00	0.00
2,400.0	8.00	25.05	2,389.8	142.9	66.8	142.6	0.00	0.00	0.00
2,500.0	8.00	25.05	2,488.9	155.6	72.7	155.2	0.00	0.00	0.00
2,568.8	8.00	25.05	2,557.0	164.2	76.8	163.8	0.00	0.00	0.00
Z (G30:CS14-CSB)									
2,600.0	8.00	25.05	2,587.9	168.2	78.6	167.8	0.00	0.00	0.00
2,603.1	8.00	25.05	2,591.0	168.6	78.8	168.2	0.00	0.00	0.00
Z (G26: Bell Cyn.)									
2,700.0	8.00	25.05	2,686.9	180.8	84.5	180.3	0.00	0.00	0.00
2,800.0	8.00	25.05	2,785.9	193.4	90.4	192.9	0.00	0.00	0.00
2,900.0	8.00	25.05	2,885.0	206.0	96.3	205.5	0.00	0.00	0.00
3,000.0	8.00	25.05	2,984.0	218.6	102.2	218.1	0.00	0.00	0.00
3,100.0	8.00	25.05	3,083.0	231.2	108.1	230.6	0.00	0.00	0.00
3,200.0	8.00	25.05	3,182.0	243.8	114.0	243.2	0.00	0.00	0.00
3,300.0	8.00	25.05	3,281.1	256.4	119.9	255.8	0.00	0.00	0.00
3,400.0	8.00	25.05	3,380.1	269.0	125.8	268.4	0.00	0.00	0.00
3,430.2	8.00	25.05	3,410.0	272.8	127.5	272.2	0.00	0.00	0.00
Z (G16: Manzanita)									
3,475.6	8.00	25.05	3,455.0	278.6	130.2	277.9	0.00	0.00	0.00
Z (G13: Cherry Cyn.)									
3,500.0	8.00	25.05	3,479.1	281.6	131.6	281.0	0.00	0.00	0.00
3,600.0	8.00	25.05	3,578.2	294.2	137.5	293.5	0.00	0.00	0.00
3,700.0	8.00	25.05	3,677.2	306.8	143.4	306.1	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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)
3,800.0	8.00	25.05	3,776.2	319.5	149.3	318.7	0.00	0.00	0.00
3,900.0	8.00	25.05	3,875.2	332.1	155.2	331.3	0.00	0.00	0.00
4,000.0	8.00	25.05	3,974.3	344.7	161.1	343.8	0.00	0.00	0.00
4,100.0	8.00	25.05	4,073.3	357.3	167.0	356.4	0.00	0.00	0.00
4,200.0	8.00	25.05	4,172.3	369.9	172.9	369.0	0.00	0.00	0.00
4,300.0	8.00	25.05	4,271.3	382.5	178.8	381.6	0.00	0.00	0.00
4,400.0	8.00	25.05	4,370.4	395.1	184.7	394.2	0.00	0.00	0.00
4,500.0	8.00	25.05	4,469.4	407.7	190.6	406.7	0.00	0.00	0.00
4,600.0	8.00	25.05	4,568.4	420.3	196.5	419.3	0.00	0.00	0.00
4,618.8	8.00	25.05	4,587.0	422.7	197.6	421.7	0.00	0.00	0.00
Z (G7: Brushy Cyn.)									
4,633.8	8.00	25.05	4,601.9	424.6	198.5	423.6	0.00	0.00	0.00
4,700.0	7.34	25.05	4,667.5	432.6	202.2	431.6	1.00	-1.00	0.00
4,800.0	6.34	25.05	4,766.8	443.4	207.3	442.3	1.00	-1.00	0.00
4,900.0	5.34	25.05	4,866.3	452.6	211.6	451.5	1.00	-1.00	0.00
5,000.0	4.34	25.05	4,965.9	460.2	215.1	459.1	1.00	-1.00	0.00
5,100.0	3.34	25.05	5,065.7	466.3	218.0	465.2	1.00	-1.00	0.00
5,200.0	2.34	25.05	5,165.6	470.8	220.1	469.7	1.00	-1.00	0.00
5,300.0	1.34	25.05	5,265.5	473.7	221.4	472.6	1.00	-1.00	0.00
5,400.0	0.34	25.05	5,365.5	475.0	222.0	473.9	1.00	-1.00	0.00
5,433.8	0.00	0.00	5,399.3	475.1	222.1	474.0	1.00	-1.00	0.00
5,500.0	0.00	0.00	5,465.5	475.1	222.1	474.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,565.5	475.1	222.1	474.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,665.5	475.1	222.1	474.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,765.5	475.1	222.1	474.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,865.5	475.1	222.1	474.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,965.5	475.1	222.1	474.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,065.5	475.1	222.1	474.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,165.5	475.1	222.1	474.0	0.00	0.00	0.00
6,215.5	0.00	0.00	6,181.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (G4: BSGI (CS9))									
6,264.5	0.00	0.00	6,230.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (G4.1: AVALON-SS)									
6,291.5	0.00	0.00	6,257.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (G3.3: Avalon SS (B))									
6,300.0	0.00	0.00	6,265.5	475.1	222.1	474.0	0.00	0.00	0.00
6,396.5	0.00	0.00	6,362.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L8.2: U. Avalon Shale)									
6,400.0	0.00	0.00	6,365.5	475.1	222.1	474.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,465.5	475.1	222.1	474.0	0.00	0.00	0.00
6,512.5	0.00	0.00	6,478.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L6.3: Avalon Carb)									
6,600.0	0.00	0.00	6,565.5	475.1	222.1	474.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,665.5	475.1	222.1	474.0	0.00	0.00	0.00
6,725.5	0.00	0.00	6,691.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L6.2: L. Avalon Shale)									
6,800.0	0.00	0.00	6,765.5	475.1	222.1	474.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,865.5	475.1	222.1	474.0	0.00	0.00	0.00
6,907.5	0.00	0.00	6,873.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L5.3: FBSC)									
7,000.0	0.00	0.00	6,965.5	475.1	222.1	474.0	0.00	0.00	0.00
7,078.5	0.00	0.00	7,044.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L5.1: FBSC)									

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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)
7,100.0	0.00	0.00	7,065.5	475.1	222.1	474.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,165.5	475.1	222.1	474.0	0.00	0.00	0.00
7,250.5	0.00	0.00	7,216.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (M. FBSG)									
7,300.0	0.00	0.00	7,265.5	475.1	222.1	474.0	0.00	0.00	0.00
7,340.5	0.00	0.00	7,306.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L. FBSG)									
7,400.0	0.00	0.00	7,365.5	475.1	222.1	474.0	0.00	0.00	0.00
7,450.5	0.00	0.00	7,416.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L4.3: SBSC)									
7,500.0	0.00	0.00	7,465.5	475.1	222.1	474.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,565.5	475.1	222.1	474.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,665.5	475.1	222.1	474.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,765.5	475.1	222.1	474.0	0.00	0.00	0.00
7,886.5	0.00	0.00	7,852.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L4.1: SBSG)									
7,900.0	0.00	0.00	7,865.5	475.1	222.1	474.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,965.5	475.1	222.1	474.0	0.00	0.00	0.00
8,026.5	0.00	0.00	7,992.0	475.1	222.1	474.0	0.00	0.00	0.00
Z (L4.1: SBSG B Carb)									
8,041.5	0.00	0.00	8,007.0	475.1	222.1	474.0	0.00	0.00	0.00
KOP - Dr Ireland State 16 139H									
8,100.0	5.85	2.20	8,065.4	478.1	222.2	476.9	10.00	10.00	0.00
8,200.0	15.85	2.20	8,163.5	496.9	222.9	495.7	10.00	10.00	0.00
8,237.3	19.58	2.20	8,199.0	508.2	223.4	507.1	10.00	10.00	0.00
Z (L4.1: SBSG C)									
8,249.0	20.75	2.20	8,210.0	512.2	223.5	511.1	10.00	10.00	0.00
Z (L3.3: TBSC)									
8,300.0	25.85	2.20	8,256.8	532.4	224.3	531.2	10.00	10.00	0.00
8,400.0	35.85	2.20	8,342.6	583.6	226.3	582.4	10.00	10.00	0.00
8,500.0	45.85	2.20	8,418.1	648.8	228.8	647.7	10.00	10.00	0.00
8,600.0	55.85	2.20	8,481.2	726.2	231.7	725.0	10.00	10.00	0.00
8,700.0	65.85	2.20	8,529.8	813.4	235.1	812.2	10.00	10.00	0.00
8,800.0	75.85	2.20	8,562.6	907.7	238.7	906.4	10.00	10.00	0.00
8,852.1	81.06	2.20	8,573.0	958.7	240.7	957.4	10.00	10.00	0.00
Z (L3.3.2: Break Sand (T))									
8,900.0	85.85	2.20	8,578.5	1,006.2	242.5	1,005.0	10.00	10.00	0.00
8,941.5	90.00	2.20	8,580.0	1,047.6	244.1	1,046.4	10.00	10.00	0.00
9,000.0	90.00	2.07	8,580.0	1,106.1	246.3	1,104.8	0.22	0.00	-0.22
9,100.0	90.00	1.86	8,580.0	1,206.0	249.7	1,204.7	0.22	0.00	-0.22
9,200.0	90.00	1.64	8,580.0	1,306.0	252.7	1,304.7	0.22	0.00	-0.22
9,300.0	90.00	1.43	8,580.0	1,405.9	255.4	1,404.6	0.22	0.00	-0.22
9,400.0	90.00	1.21	8,580.0	1,505.9	257.7	1,504.6	0.22	0.00	-0.22
9,500.0	90.00	0.99	8,580.0	1,605.9	259.6	1,604.6	0.22	0.00	-0.22
9,600.0	90.00	0.78	8,580.0	1,705.9	261.2	1,704.5	0.22	0.00	-0.22
9,700.0	90.00	0.56	8,580.0	1,805.9	262.4	1,804.5	0.22	0.00	-0.22
9,800.0	90.00	0.35	8,580.0	1,905.9	263.1	1,904.5	0.22	0.00	-0.22
9,900.0	90.00	0.13	8,580.0	2,005.9	263.6	2,004.5	0.22	0.00	-0.22
10,000.0	90.00	359.91	8,580.0	2,105.9	263.6	2,104.5	0.22	0.00	-0.22
10,095.3	90.00	359.71	8,580.0	2,201.1	263.3	2,199.8	0.22	0.00	-0.22
10,100.0	90.00	359.71	8,580.0	2,205.9	263.3	2,204.5	0.00	0.00	0.00
10,200.0	90.00	359.71	8,580.0	2,305.9	262.7	2,304.5	0.00	0.00	0.00
10,300.0	90.00	359.71	8,580.0	2,405.9	262.2	2,404.5	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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)
10,400.0	90.00	359.71	8,580.0	2,505.9	261.7	2,504.5	0.00	0.00	0.00
10,500.0	90.00	359.71	8,580.0	2,605.9	261.2	2,604.5	0.00	0.00	0.00
10,600.0	90.00	359.71	8,580.0	2,705.9	260.7	2,704.5	0.00	0.00	0.00
10,700.0	90.00	359.71	8,580.0	2,805.9	260.2	2,804.5	0.00	0.00	0.00
10,800.0	90.00	359.71	8,580.0	2,905.9	259.7	2,904.5	0.00	0.00	0.00
10,900.0	90.00	359.71	8,580.0	3,005.9	259.2	3,004.5	0.00	0.00	0.00
11,000.0	90.00	359.71	8,580.0	3,105.9	258.7	3,104.5	0.00	0.00	0.00
11,100.0	90.00	359.71	8,580.0	3,205.9	258.1	3,204.5	0.00	0.00	0.00
11,200.0	90.00	359.71	8,580.0	3,305.9	257.6	3,304.5	0.00	0.00	0.00
11,300.0	90.00	359.71	8,580.0	3,405.9	257.1	3,404.5	0.00	0.00	0.00
11,400.0	90.00	359.71	8,580.0	3,505.9	256.6	3,504.5	0.00	0.00	0.00
11,500.0	90.00	359.71	8,580.0	3,605.9	256.1	3,604.5	0.00	0.00	0.00
11,600.0	90.00	359.71	8,580.0	3,705.9	255.6	3,704.5	0.00	0.00	0.00
11,700.0	90.00	359.71	8,580.0	3,805.9	255.1	3,804.5	0.00	0.00	0.00
11,800.0	90.00	359.71	8,580.0	3,905.9	254.6	3,904.5	0.00	0.00	0.00
11,900.0	90.00	359.71	8,580.0	4,005.9	254.1	4,004.5	0.00	0.00	0.00
12,000.0	90.00	359.71	8,580.0	4,105.9	253.5	4,104.5	0.00	0.00	0.00
12,100.0	90.00	359.71	8,580.0	4,205.9	253.0	4,204.5	0.00	0.00	0.00
12,200.0	90.00	359.71	8,580.0	4,305.9	252.5	4,304.5	0.00	0.00	0.00
12,300.0	90.00	359.71	8,580.0	4,405.8	252.0	4,404.5	0.00	0.00	0.00
12,400.0	90.00	359.71	8,580.0	4,505.8	251.5	4,504.5	0.00	0.00	0.00
12,500.0	90.00	359.71	8,580.0	4,605.8	251.0	4,604.5	0.00	0.00	0.00
12,600.0	90.00	359.71	8,580.0	4,705.8	250.5	4,704.5	0.00	0.00	0.00
12,700.0	90.00	359.71	8,580.0	4,805.8	250.0	4,804.5	0.00	0.00	0.00
12,800.0	90.00	359.71	8,580.0	4,905.8	249.5	4,904.5	0.00	0.00	0.00
12,900.0	90.00	359.71	8,580.0	5,005.8	248.9	5,004.5	0.00	0.00	0.00
13,000.0	90.00	359.71	8,580.0	5,105.8	248.4	5,104.5	0.00	0.00	0.00
13,100.0	90.00	359.71	8,580.0	5,205.8	247.9	5,204.5	0.00	0.00	0.00
13,200.0	90.00	359.71	8,580.0	5,305.8	247.4	5,304.5	0.00	0.00	0.00
13,300.0	90.00	359.71	8,580.0	5,405.8	246.9	5,404.5	0.00	0.00	0.00
13,400.0	90.00	359.71	8,580.0	5,505.8	246.4	5,504.5	0.00	0.00	0.00
13,401.0	90.00	359.71	8,580.0	5,506.8	246.4	5,505.5	0.00	0.00	0.00
DP1 - Dr Ireland State 16 139H									
13,500.0	90.00	8.32	8,580.0	5,605.5	253.3	5,604.1	8.70	0.00	8.70
13,600.0	90.00	17.02	8,580.0	5,703.0	275.2	5,701.5	8.70	0.00	8.70
13,700.0	90.00	25.72	8,580.0	5,796.0	311.6	5,794.4	8.70	0.00	8.70
13,800.0	90.00	34.42	8,580.0	5,882.5	361.7	5,880.6	8.70	0.00	8.70
13,900.0	90.00	43.12	8,580.0	5,960.4	424.2	5,958.1	8.70	0.00	8.70
14,000.0	90.00	51.82	8,580.0	6,027.9	497.9	6,025.3	8.70	0.00	8.70
14,100.0	90.00	60.52	8,580.0	6,083.5	580.9	6,080.5	8.70	0.00	8.70
14,200.0	90.00	69.22	8,580.0	6,125.9	671.3	6,122.5	8.70	0.00	8.70
14,300.0	90.00	77.92	8,580.0	6,154.2	767.1	6,150.2	8.70	0.00	8.70
14,400.0	90.00	86.62	8,580.0	6,167.6	866.1	6,163.2	8.70	0.00	8.70
14,436.8	90.00	89.82	8,580.0	6,168.8	902.9	6,164.1	8.70	0.00	8.70
APEX - Dr Ireland State 16 139H									
14,500.0	90.00	95.32	8,580.0	6,165.9	966.0	6,161.0	8.70	0.00	8.70
14,600.0	90.00	104.02	8,580.0	6,149.1	1,064.5	6,143.7	8.70	0.00	8.70
14,700.0	90.00	112.72	8,580.0	6,117.7	1,159.3	6,111.7	8.70	0.00	8.70
14,800.0	90.00	121.42	8,580.0	6,072.2	1,248.3	6,065.8	8.70	0.00	8.70
14,900.0	90.00	130.12	8,580.0	6,013.8	1,329.3	6,007.0	8.70	0.00	8.70
15,000.0	90.00	138.82	8,580.0	5,943.8	1,400.6	5,936.6	8.70	0.00	8.70
15,100.0	90.00	147.52	8,580.0	5,863.8	1,460.5	5,856.4	8.70	0.00	8.70
15,200.0	90.00	156.22	8,580.0	5,775.7	1,507.6	5,768.0	8.70	0.00	8.70

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	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)
15,300.0	90.00	164.92	8,580.0	5,681.5	1,540.8	5,673.7	8.70	0.00	8.70
15,400.0	90.00	173.62	8,580.0	5,583.4	1,559.4	5,575.4	8.70	0.00	8.70
15,408.7	90.00	174.38	8,580.0	5,574.7	1,560.4	5,566.7	8.70	0.00	8.70
15,469.9	90.00	174.38	8,580.0	5,513.8	1,566.3	5,505.8	0.00	0.00	0.00
DP2 - Dr Ireland State 16 139H									
15,500.0	90.00	177.00	8,580.0	5,483.8	1,568.6	5,475.8	8.70	0.00	8.70
15,531.6	90.00	179.74	8,580.0	5,452.2	1,569.5	5,444.2	8.70	0.00	8.70
15,600.0	90.00	179.74	8,580.0	5,383.8	1,569.8	5,375.8	0.00	0.00	0.00
15,700.0	90.00	179.74	8,580.0	5,283.8	1,570.3	5,275.8	0.00	0.00	0.00
15,800.0	90.00	179.74	8,580.0	5,183.8	1,570.7	5,175.8	0.00	0.00	0.00
15,900.0	90.00	179.74	8,580.0	5,083.8	1,571.2	5,075.8	0.00	0.00	0.00
16,000.0	90.00	179.74	8,580.0	4,983.8	1,571.6	4,975.8	0.00	0.00	0.00
16,100.0	90.00	179.74	8,580.0	4,883.8	1,572.0	4,875.8	0.00	0.00	0.00
16,200.0	90.00	179.74	8,580.0	4,783.8	1,572.5	4,775.8	0.00	0.00	0.00
16,300.0	90.00	179.74	8,580.0	4,683.8	1,572.9	4,675.8	0.00	0.00	0.00
16,400.0	90.00	179.74	8,580.0	4,583.8	1,573.4	4,575.8	0.00	0.00	0.00
16,500.0	90.00	179.74	8,580.0	4,483.8	1,573.8	4,475.8	0.00	0.00	0.00
16,600.0	90.00	179.74	8,580.0	4,383.8	1,574.3	4,375.8	0.00	0.00	0.00
16,700.0	90.00	179.74	8,580.0	4,283.8	1,574.7	4,275.8	0.00	0.00	0.00
16,800.0	90.00	179.74	8,580.0	4,183.8	1,575.2	4,175.8	0.00	0.00	0.00
16,900.0	90.00	179.74	8,580.0	4,083.8	1,575.6	4,075.8	0.00	0.00	0.00
17,000.0	90.00	179.74	8,580.0	3,983.8	1,576.1	3,975.8	0.00	0.00	0.00
17,100.0	90.00	179.74	8,580.0	3,883.8	1,576.5	3,875.8	0.00	0.00	0.00
17,200.0	90.00	179.74	8,580.0	3,783.8	1,577.0	3,775.8	0.00	0.00	0.00
17,300.0	90.00	179.74	8,580.0	3,683.8	1,577.4	3,675.8	0.00	0.00	0.00
17,400.0	90.00	179.74	8,580.0	3,583.8	1,577.9	3,575.8	0.00	0.00	0.00
17,500.0	90.00	179.74	8,580.0	3,483.8	1,578.3	3,475.8	0.00	0.00	0.00
17,600.0	90.00	179.74	8,580.0	3,383.8	1,578.8	3,375.8	0.00	0.00	0.00
17,700.0	90.00	179.74	8,580.0	3,283.8	1,579.2	3,275.8	0.00	0.00	0.00
17,800.0	90.00	179.74	8,580.0	3,183.8	1,579.7	3,175.8	0.00	0.00	0.00
17,900.0	90.00	179.74	8,580.0	3,083.8	1,580.1	3,075.8	0.00	0.00	0.00
18,000.0	90.00	179.74	8,580.0	2,983.8	1,580.5	2,975.8	0.00	0.00	0.00
18,100.0	90.00	179.74	8,580.0	2,883.8	1,581.0	2,875.8	0.00	0.00	0.00
18,200.0	90.00	179.74	8,580.0	2,783.8	1,581.4	2,775.8	0.00	0.00	0.00
18,300.0	90.00	179.74	8,580.0	2,683.8	1,581.9	2,675.8	0.00	0.00	0.00
18,400.0	90.00	179.74	8,580.0	2,583.8	1,582.3	2,575.8	0.00	0.00	0.00
18,500.0	90.00	179.74	8,580.0	2,483.8	1,582.8	2,475.8	0.00	0.00	0.00
18,600.0	90.00	179.74	8,580.0	2,383.8	1,583.2	2,375.8	0.00	0.00	0.00
18,700.0	90.00	179.74	8,580.0	2,283.8	1,583.7	2,275.8	0.00	0.00	0.00
18,800.0	90.00	179.74	8,580.0	2,183.8	1,584.1	2,175.8	0.00	0.00	0.00
18,900.0	90.00	179.74	8,580.0	2,083.8	1,584.6	2,075.8	0.00	0.00	0.00
19,000.0	90.00	179.74	8,580.0	1,983.8	1,585.0	1,975.8	0.00	0.00	0.00
19,100.0	90.00	179.74	8,580.0	1,883.8	1,585.5	1,875.8	0.00	0.00	0.00
19,200.0	90.00	179.74	8,580.0	1,783.8	1,585.9	1,775.8	0.00	0.00	0.00
19,300.0	90.00	179.74	8,580.0	1,683.9	1,586.4	1,675.8	0.00	0.00	0.00
19,400.0	90.00	179.74	8,580.0	1,583.9	1,586.8	1,575.8	0.00	0.00	0.00
19,500.0	90.00	179.74	8,580.0	1,483.9	1,587.3	1,475.8	0.00	0.00	0.00
19,600.0	90.00	179.74	8,580.0	1,383.9	1,587.7	1,375.8	0.00	0.00	0.00
19,700.0	90.00	179.74	8,580.0	1,283.9	1,588.2	1,275.8	0.00	0.00	0.00
19,800.0	90.00	179.74	8,580.0	1,183.9	1,588.6	1,175.8	0.00	0.00	0.00
19,900.0	90.00	179.74	8,580.0	1,083.9	1,589.1	1,075.8	0.00	0.00	0.00
19,915.7	90.00	179.74	8,580.0	1,068.1	1,589.1	1,060.1	0.00	0.00	0.00
BHL - Dr Ireland State 16 139H									

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Dr Ireland State 16 #139H
Company:	Matador Production Company	TVD Reference:	KB @ 3052.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3052.5usft
Site:	Dr Ireland	North Reference:	Grid
Well:	Dr Ireland State 16 #139H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
KOP - Dr Ireland State	0.00	0.00	8,007.0	475.1	222.1	471,696.38	575,533.69	32° 17' 47.664 N	104° 5' 19.976 W
- plan hits target center									
- Point									
DP2 - Dr Ireland State	0.00	0.00	8,580.0	5,513.8	1,566.3	476,735.12	576,877.97	32° 18' 37.497 N	104° 5' 4.178 W
- plan hits target center									
- Point									
APEX - Dr Ireland Sta	0.00	0.00	8,580.0	6,170.3	903.0	477,391.63	576,214.60	32° 18' 44.009 N	104° 5' 11.891 W
- plan misses target center by 1.5usft at 14436.8usft MD (8580.0 TVD, 6168.8 N, 902.9 E)									
- Point									
DP1 - Dr Ireland State	0.00	0.00	8,580.0	5,506.8	246.4	476,728.16	575,558.00	32° 18' 37.458 N	104° 5' 19.559 W
- plan hits target center									
- Point									
BHL - Dr Ireland State	0.00	0.00	8,580.0	1,068.1	1,589.1	472,289.42	576,900.68	32° 17' 53.501 N	104° 5' 4.034 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
268.0	268.0	Z (Rustler)				
345.0	345.0	Z (Salado)				
991.0	991.0	Z (Castile (T))				
2,568.8	2,557.0	Z (G30:CS14-CSB)				
2,603.1	2,591.0	Z (G26: Bell Cyn.)				
3,430.2	3,410.0	Z (G16: Manzanita)				
3,475.6	3,455.0	Z (G13: Cherry Cyn.)				
4,618.8	4,587.0	Z (G7: Brushy Cyn.)				
6,215.5	6,181.0	Z (G4: BSG (CS9))				
6,264.5	6,230.0	Z (G4.1: AVALON-SS)				
6,291.5	6,257.0	Z (G3.3: Avalon SS (B))				
6,396.5	6,362.0	Z (L8.2: U. Avalon Shale)				
6,512.5	6,478.0	Z (L6.3: Avalon Carb)				
6,725.5	6,691.0	Z (L6.2: L. Avalon Shale)				
6,907.5	6,873.0	Z (L5.3: FBSC)				
7,078.5	7,044.0	Z (L5.1: FBSC)				
7,250.5	7,216.0	Z (M. FBSC)				
7,340.5	7,306.0	Z (L. FBSC)				
7,450.5	7,416.0	Z (L4.3: SBSC)				
7,886.5	7,852.0	Z (L4.1: SBSC)				
8,026.5	7,992.0	Z (L4.1: SBSC B Carb)				
8,237.3	8,199.0	Z (L4.1: SBSC C)				
8,249.0	8,210.0	Z (L3.3: TBSC)				
8,852.1	8,573.0	Z (L3.3.2: Break Sand (T))				

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:** 7/22/2024

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
Dr. Ireland State 16 139H	TBD	P 21-23S-28E	946' FNL 1931' FEL	1450	2100	2100

IV. Central Delivery Point Name: Dr. Ireland 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
Dr. Ireland State 16 139H	TBD	2/25/2025	3/13/2025	3/15/2025	05/25/2025	05/25/2025

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: 
Printed Name: Klint Franz
Title: Facilities Engineer
E-mail Address: klint.franz@matadorresources.com
Date: 07/23/2024
Phone: (972) 371-5200
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Addendum to Natural Gas Management Plan for Matador's**Dr. Ireland State 16 139H****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
Dr. Ireland State 16 139H	1450	2,100	2,100

VII. Operation Practices

Although not a complete recitation of all our efforts to comply with a subsection A through F of 19.15.27.8 NMAC, a summary is as follows. During drilling, Matador will have a properly sized flare stack at least 100 feet from the nearest surface hole. 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.

VIII. 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