

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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 383021

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
4. Property Code 337039		3. API Number 30-025-54346
5. Property Name Cimarron State Com		6. Well No. 1243

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	16	19S	34E		395	N	1075	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
B	16	19S	34E	B	100	N	2310	E	Lea

9. Pool Information

QUAIL RIDGE;BONE SPRING	50460
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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 3825
16. Multiple N	17. Proposed Depth 21372	18. Formation Bone Spring	19. Contractor	20. Spud Date 4/2/2025
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	20	13.375	54.5	1795	2077	0
Int1	9.875	7.625	29.7	9553	2068	0
Prod	6.75	5.5	20	21372	1134	9353

Casing/Cement Program: Additional Comments

Option to drill surface hole with surface setting rig. Option to cement surface casing offline. Option to run DV tool and packer
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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:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by Brett A Jennings	Approved By: Matthew Gomez
Title: Regulatory Analyst	Title:
Email Address: brett.jennings@matadorresources.com	Approved Date: 2/17/2025 Expiration Date: 2/17/2027
Date: 2/11/2025 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 30-025-54346	Pool Code 50460	Pool Name QUAIL RIDGE;BONE SPRING
Property Code 337039	Property Name CIMARRON STATE COM	Well Number 1243H
OGRID No. 228937	Operator Name MATADOR PRODUCTION COMPANY	Ground Level Elevation 3825'
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
A	16	19-S	34-E	-	395' N	1075' E	N 32.6664378	W 103.5601946	LEA

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
B	16	19-S	34-E	-	100' N	2310' E	N 32.6672377	W 103.5642083	LEA

Dedicated Acres 320	Infill or Defining Well -	Defining Well API -	Overlapping Spacing Unit (Y/N) -	Consolidated Code C
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
A	16	19-S	34-E	-	50' N	330' E	N 32.6673922	W 103.5577745	LEA

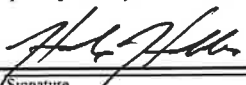
First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	16	19-S	34-E	-	100' N	330' E	N 32.6672548	W 103.5577743	LEA

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
B	16	19-S	34-E	-	100' N	2310' E	N 32.6672377	W 103.5642083	LEA

Unitized Area or Area of Uniform Interest -	Spacing Unity Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation
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OPERATOR CERTIFICATION 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. 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.  Signature Date 1/20/25 Print Name HAWKS.HODGE@MATADORRESOURCES.COM E-mail Address		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.  Signature and Seal of Professional Surveyor Date Certificate Number Date of Survey 11/07/2024	
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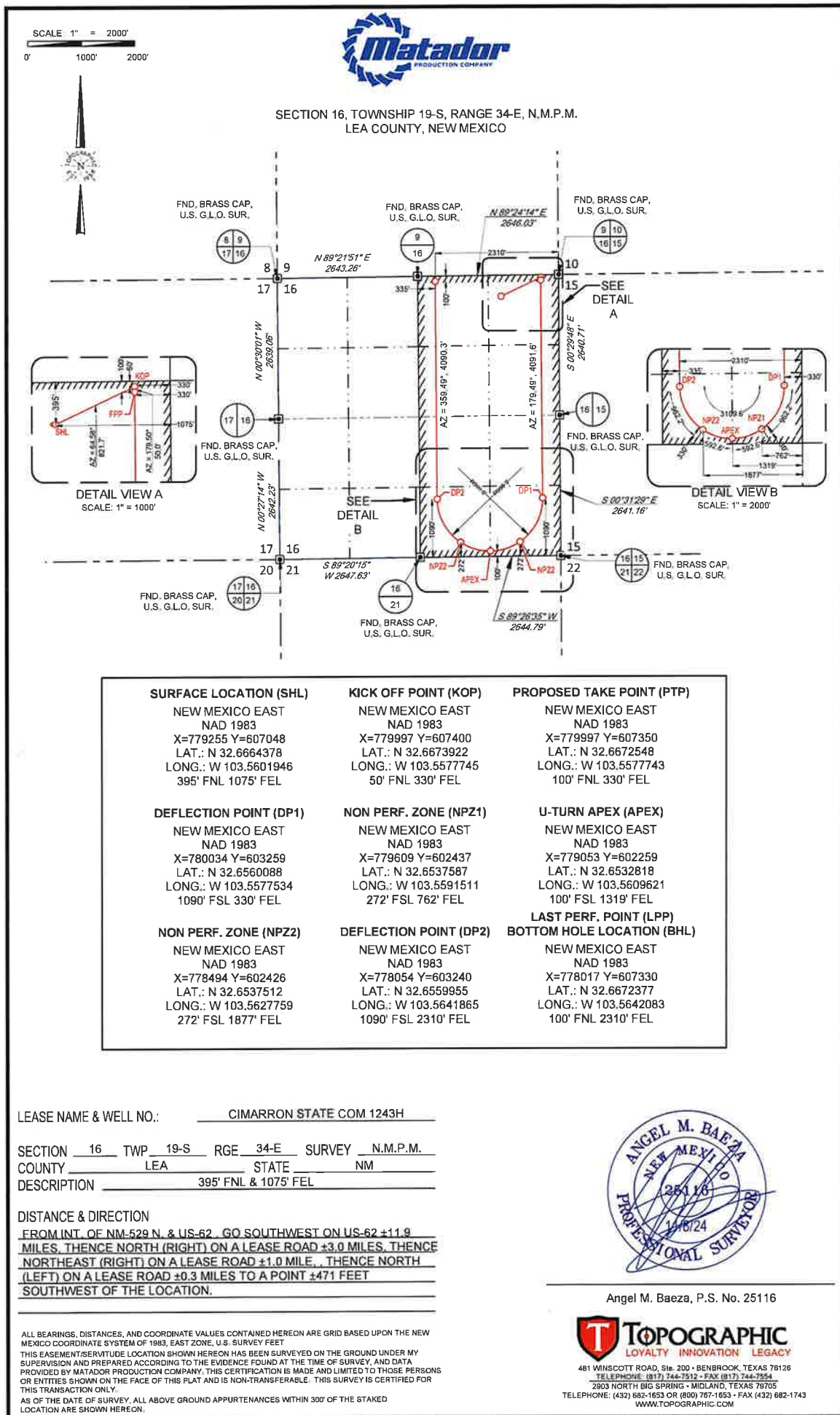
C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Property Name and Well Number CIMARRON STATE COM 1243H		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

DETAIL VIEW A
SCALE: 1" = 1000'

DETAIL VIEW B
SCALE: 1" = 2000'

SURFACE LOCATION (SHL) NEW MEXICO EAST NAD 1983 X=779255 Y=607048 LAT.: N 32.6664378 LONG.: W 103.5601946 NAD 1927 X=738075 Y=606984 LAT.: N 32.6663145 LONG.: W 103.5577006 395' FNL 1075' FEL	KICK OFF POINT (KOP) NEW MEXICO EAST NAD 1983 X=779997 Y=607400 LAT.: N 32.6673922 LONG.: W 103.5577745 NAD 1927 X=738817 Y=607337 LAT.: N 32.6672689 LONG.: W 103.5572806 50' FNL 330' FEL	PROPOSED TAKE POINT (PTP) NEW MEXICO EAST NAD 1983 X=779997 Y=607350 LAT.: N 32.6672548 LONG.: W 103.5577743 NAD 1927 X=738817 Y=607287 LAT.: N 32.6671314 LONG.: W 103.5572804 100' FNL 330' FEL
DEFLECTION POINT (DP1) NEW MEXICO EAST NAD 1983 X=780034 Y=603259 LAT.: N 32.6560088 LONG.: W 103.5577534 NAD 1927 X=738853 Y=603195 LAT.: N 32.6558854 LONG.: W 103.5572599 1090' FSL 330' FEL	NON PERF. ZONE (NP21) NEW MEXICO EAST NAD 1983 X=779609 Y=602437 LAT.: N 32.6537587 LONG.: W 103.5591511 NAD 1927 X=738429 Y=602373 LAT.: N 32.6536353 LONG.: W 103.5586576 272' FSL 762' FEL	U-TURN APEX (APEX) NEW MEXICO EAST NAD 1983 X=779053 Y=602259 LAT.: N 32.6532818 LONG.: W 103.5609621 NAD 1927 X=737873 Y=602196 LAT.: N 32.6531585 LONG.: W 103.5604686 100' FSL 1319' FEL
NON PERF. ZONE (NP22) NEW MEXICO EAST NAD 1983 X=778494 Y=602426 LAT.: N 32.6537512 LONG.: W 103.5627759 NAD 1927 X=737314 Y=602363 LAT.: N 32.6536279 LONG.: W 103.5622823 272' FSL 1877' FEL	DEFLECTION POINT (DP2) NEW MEXICO EAST NAD 1983 X=778054 Y=603240 LAT.: N 32.6559955 LONG.: W 103.5641865 NAD 1927 X=736874 Y=603176 LAT.: N 32.6558722 LONG.: W 103.5636928 1090' FSL 2310' FEL	LAST PERF. POINT (LPP) BOTTOM HOLE LOCATION (BHL) NEW MEXICO EAST NAD 1983 X=778017 Y=607330 LAT.: N 32.6672377 LONG.: W 103.5642083 NAD 1927 X=736837 Y=607266 LAT.: N 32.6671145 LONG.: W 103.5637141 100' FNL 2310' 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.
 11/07/2024
 Date of Survey



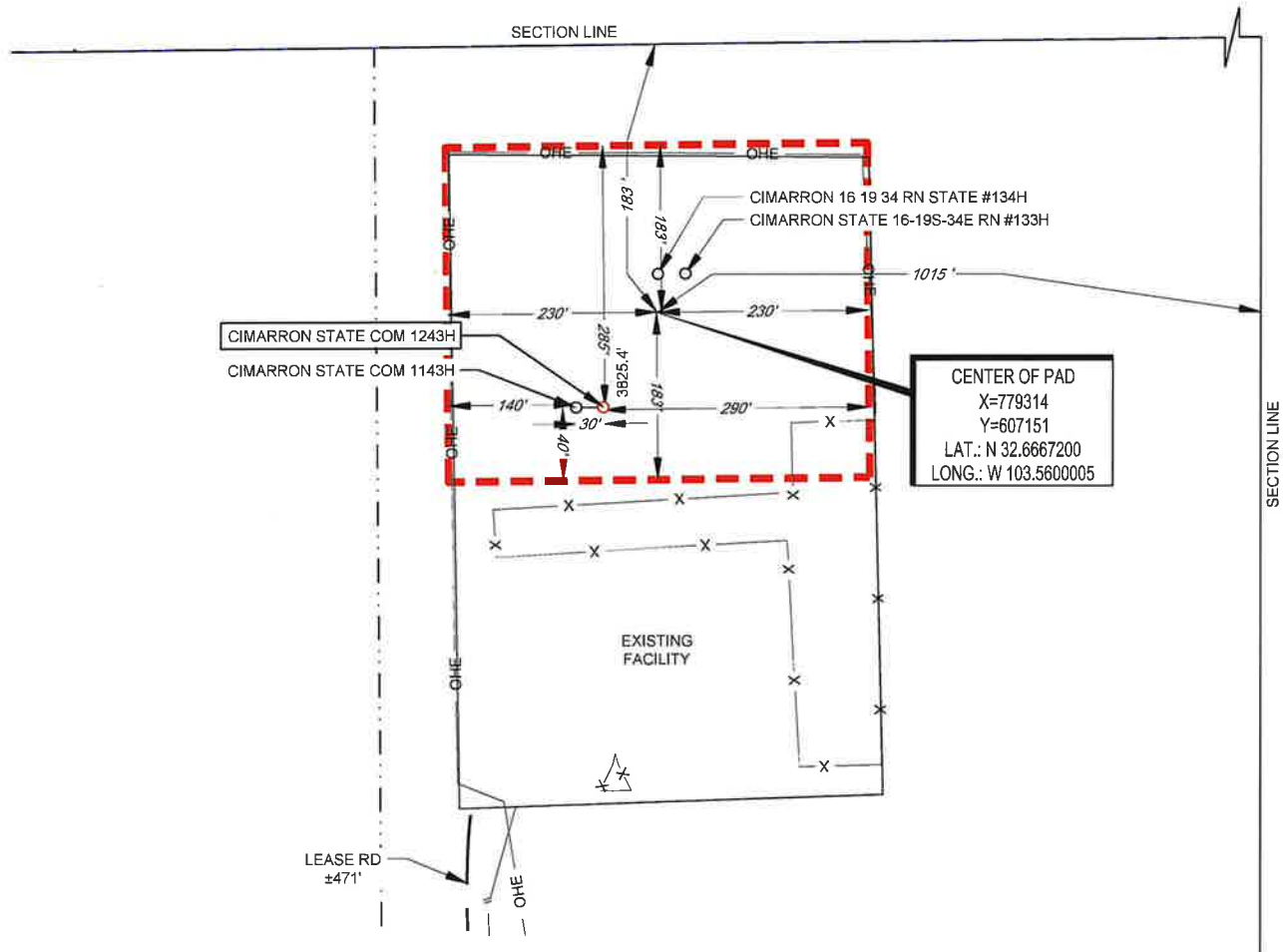
LEGEND

SECTION LINE
PROPOSED ROAD
ROAD WAY



DETAIL VIEW
SCALE: 1" = 200'

SECTION 16, TOWNSHIP 19-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



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

LEASE NAME & WELL NO.: CIMARRON STATE COM 1243H
1243H LATITUDE N 32.6664378 1243H LONGITUDE W 103.5601946

CENTER OF PAD IS 292' FNL & 1015' FEL



SCALE: 1" = 200'
0' 100' 200'

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

481 WINSOTT 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

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 NAVD83, 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"

S:\SURVEY\MATADOR_RESOURCES\CIMARRON_16-19S-34E\FINAL_PRODUCTS\SILO_CIMARRON_STATE_COM_1243H.DWG 11/8/2024 4:34:18 PM adisabella

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State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 383021

PERMIT COMMENTS

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-025-54346
		Well: Cimarron State Com #1243
Created By	Comment	Comment Date
pkautz	Fee Cancellation - Cancelled per operator request	2/11/2025

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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 383021

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-025-54346
	Well: Cimarron State Com #1243

OCD Reviewer	Condition
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.
matthew.gomez	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.
matthew.gomez	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.
matthew.gomez	Cement is required to circulate on both surface and intermediate1 strings of casing.
matthew.gomez	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.
matthew.gomez	Administrative order required for non-standard location prior to production.
matthew.gomez	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.

Addendum to Natural Gas Management Plan for Matador's
Cimarron State Com 1143H and 1243H

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
Cimarron State Com 1143H	900	1300	1500
Cimarron State Com 1243H	900	1300	1500

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

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:** 1/21/2025

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
Cimarron State Com 1143H	TBD	UL-A 16-19S-34E	395' FSL 1105' FEL	900	1300	1500
Cimarron State Com 1243H	TBD	UL-A 16-19S-34E	395' FSL 1075' FEL	900	1300	1500

IV. Central Delivery Point Name: Cimarron 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
Cimarron State Com 1143H	TBD	5/20/2026	6/20/2026	8/1/2026	8/26/2026	8/26/2026
Cimarron State Com 1243H	TBD	6/20/2026	7/20/2026	8/1/2026	8/26/2026	8/26/2026

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

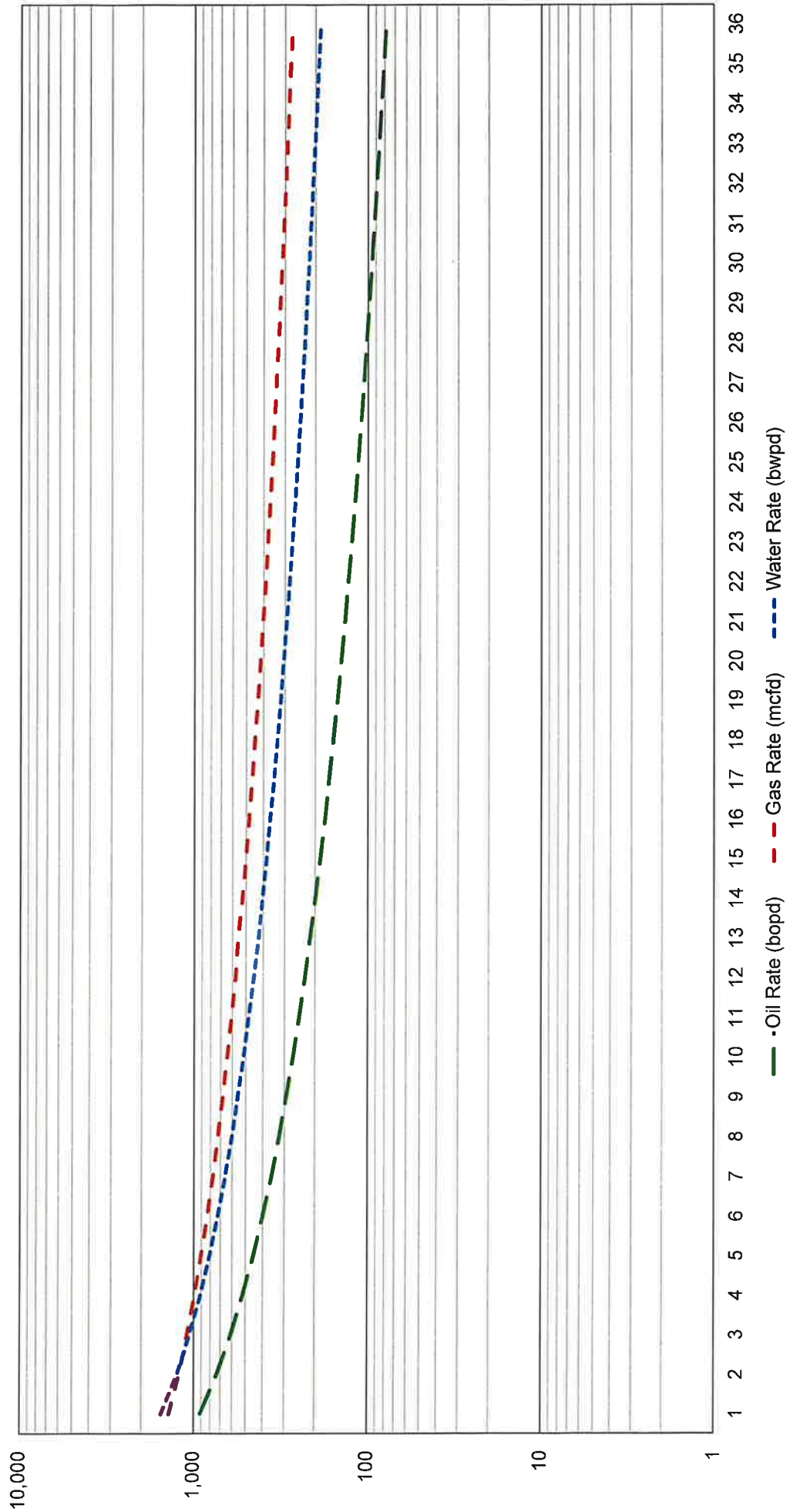
(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural 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: Mark Gonzales
Title: Facilities Engineer
E-mail Address: mark.gonzales@matadorresources.com
Date: 1/21/2024
Phone: (915) 240-3468
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

BONE SPRING – 2.00 Mile Lateral Length



Matador Production Company

Ranger/Arrowhead

Cimarron

Cimarron State Com 1243H

Wellbore #1

State Plan #1

Anticollision Summary Report

22 January, 2025

Anticollision Summary Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3853.5usft
Reference Site:	Cimarron	MD Reference:	KB @ 3853.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cimarron State Com 1243H	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 Single User Db
Reference Design:	State Plan #1	Offset TVD Reference:	Offset Datum

Reference	State 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	1/22/2025		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	21,372.4	State 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						
Cimarron						
Cimarron State Com 1143H - Wellbore #1 - State Plan #1	1,574.3	1,576.1	30.0	19.2	2.774	CC
Cimarron State Com 1143H - Wellbore #1 - State Plan #1	6,800.0	6,804.6	53.1	1.3	1.025	Level 2, ES, SF
Cimarron 1621						
Cimarron 1621 Fed Com #131H - Wellbore #1 - BLM Pla	16,900.0	15,063.0	2,744.8	2,586.8	17.368	SF
Cimarron 1621 Fed Com #131H - Wellbore #1 - BLM Pla	21,372.4	10,188.0	2,599.0	2,483.3	22.466	CC, ES
Cimarron 1621 Fed Com #132H - Wellbore #1 - BLM Pla	17,100.0	14,860.5	1,432.1	1,283.4	9.629	SF
Cimarron 1621 Fed Com #132H - Wellbore #1 - BLM Pla	21,372.4	10,204.4	1,277.5	1,161.9	11.050	CC, ES
Cimarron 1621 Fed Com #201H - Wellbore #1 - BLM PLa	17,000.0	15,057.6	2,195.8	2,041.2	14.209	SF
Cimarron 1621 Fed Com #201H - Wellbore #1 - BLM PLa	21,372.4	10,236.7	2,037.9	1,921.7	17.548	CC, ES
Cimarron 1621 Fed Com #202H - Wellbore #1 - BLM Pla	21,372.4	10,243.3	718.2	602.2	6.193	CC, ES, SF
Cimarron State #133H - Wellbore #1 - Wellbore #1	0.0	0.0	156.8			
Cimarron State #133H - Wellbore #1 - Wellbore #1	2,000.0	1,994.1	158.2	144.5	11.522	ES
Cimarron State #133H - Wellbore #1 - Wellbore #1	16,350.0	15,410.2	683.2	561.0	5.591	SF
Cimarron State #134H - Wellbore #1 - Wellbore #1	2,737.4	2,728.8	90.6	71.5	4.760	CC
Cimarron State #134H - Wellbore #1 - Wellbore #1	2,800.0	2,790.8	90.8	71.4	4.662	ES
Cimarron State #134H - Wellbore #1 - Wellbore #1	9,800.0	9,784.4	202.1	133.0	2.924	SF
Offset Ranger Wells						
Chukar State #001 - Wellbore #1 - Wellbore #1	14,900.0	8,134.0	2,671.5	2,453.0	12.222	SF
Chukar State #001 - Wellbore #1 - Wellbore #1	16,649.9	8,134.0	2,036.0	1,948.0	23.130	CC
Chukar State #001 - Wellbore #1 - Wellbore #1	16,700.0	8,134.0	2,036.8	1,947.9	22.900	ES
Pipeline 16 State - Wellbore #1 - Wellbore #1	19,494.0	10,280.7	309.5	24.1	1.084	Level 2, CC, ES, SF

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

Anticollision Summary Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3853.5usft
Reference Site:	Cimarron	MD Reference:	KB @ 3853.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cimarron State Com 1243H	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 Single User Db
Reference Design:	State Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3853.5usft

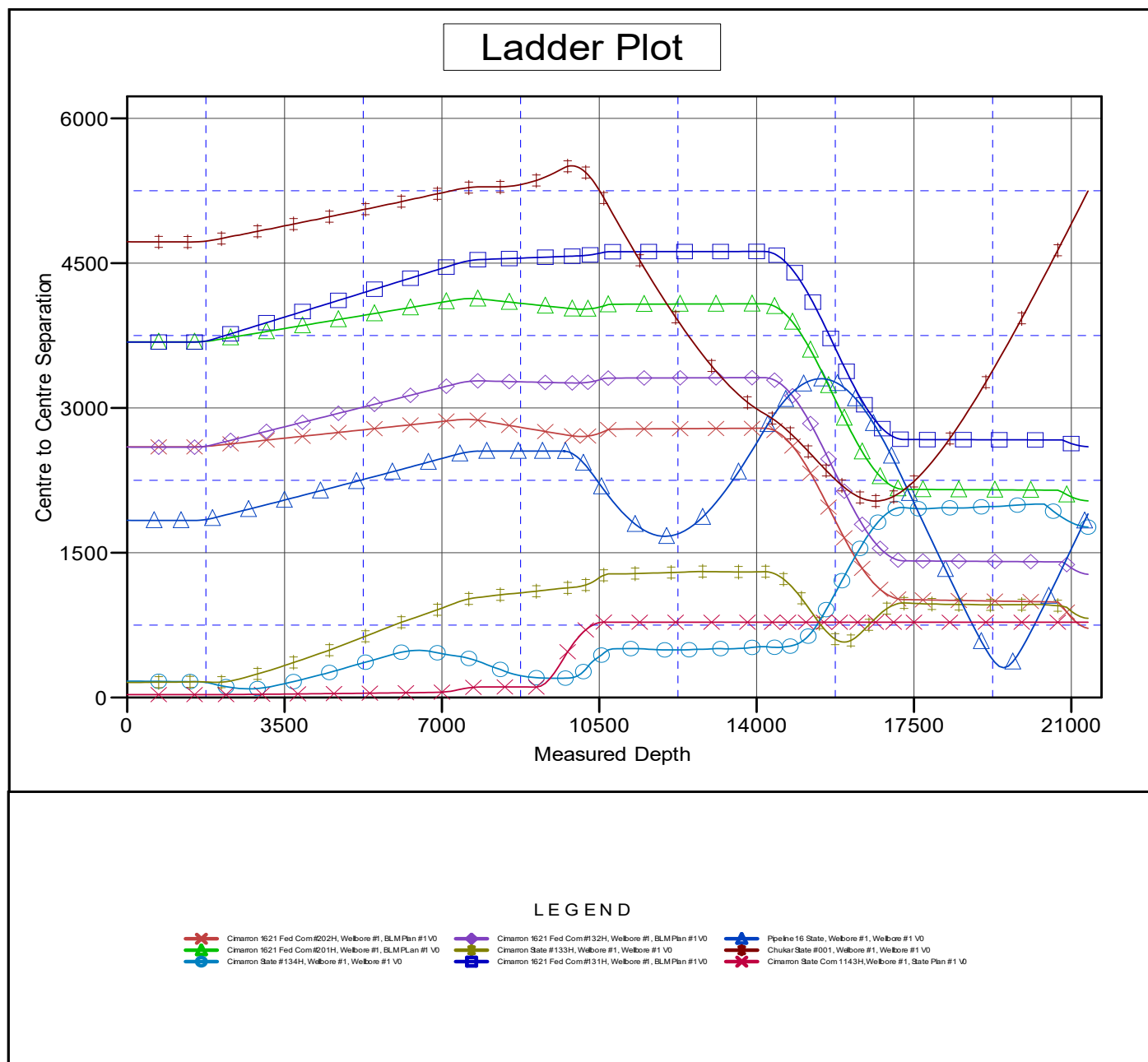
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Cimarron State Com 1243H

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

Grid Convergence at Surface is: 0.42°



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

Anticollision Summary Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Project:	Ranger/Arrowhead	TVD Reference:	KB @ 3853.5usft
Reference Site:	Cimarron	MD Reference:	KB @ 3853.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cimarron State Com 1243H	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 Single User Db
Reference Design:	State Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3853.5usft

Offset Depths are relative to Offset Datum

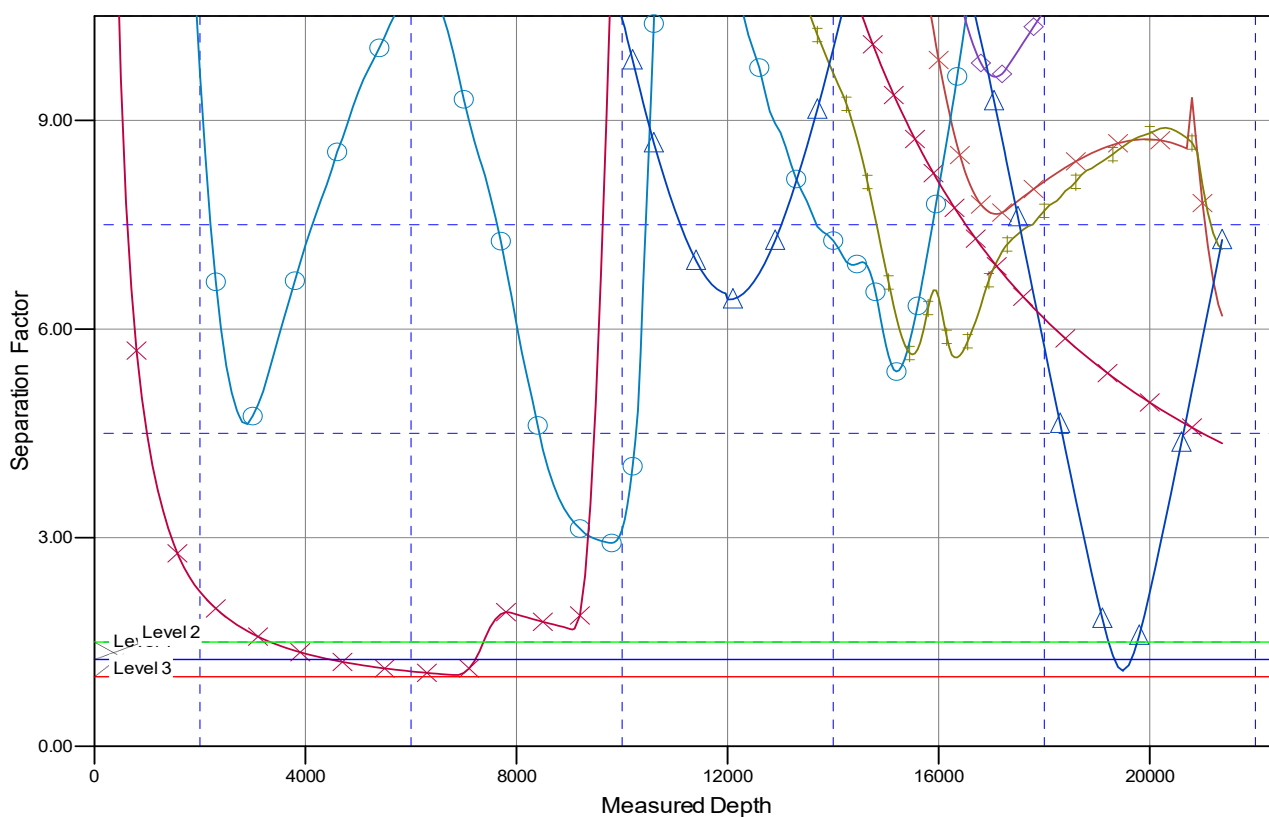
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Cimarron State Com 1243H

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

Grid Convergence at Surface is: 0.42°

Separation Factor Plot



LEGEND

Cimarron 1621 Fed Com #102H, Wellbore #1, BLM Plan #1 V0	Cimarron 1621 Fed Com #132H, Wellbore #1, BLM Plan #1 V0	Pipeline 16 State, Wellbore #1, Wellbore #1 V0
Cimarron 1621 Fed Com #101H, Wellbore #1, BLM Plan #1 V0	Cimarron State #133H, Wellbore #1, Wellbore #1 V0	Chukar State #001, Wellbore #1, Wellbore #1 V0
Cimarron State #134H, Wellbore #1, Wellbore #1 V0	Cimarron 1621 Fed Com #131H, Wellbore #1, BLM Plan #1 V0	Cimarron State Com 1143H, Wellbore #1, State Plan #1 V0

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

Matador Production Company

Ranger/Arrowhead

Cimarron

Cimarron State Com 1243H

Wellbore #1

Plan: State Plan #1

Standard Planning Report

22 January, 2025

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Project	Ranger/Arrowhead		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Cimarron				
Site Position:		Northing:	606,983.56 usft	Latitude:	32° 39' 58.731 N
From:	Lat/Long	Easting:	738,044.59 usft	Longitude:	103° 33' 35.274 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	Cimarron State Com 1243H					
Well Position	+N/-S	0.4 usft	Northing:	606,983.92 usft	Latitude:	32° 39' 58.732 N
	+E/-W	30.0 usft	Easting:	738,074.63 usft	Longitude:	103° 33' 34.922 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,825.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2019	6.70	60.43	47,935.78022855

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	179.49	

Plan Survey Tool Program	Date	1/22/2025			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	21,372.4	State Plan #1 (Wellbore #1)	MWD	
			OWSG MWD - Standard		

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	8.00	64.56	1,898.7	12.0	25.2	2.00	2.00	0.00	64.56	
7,339.3	8.00	64.56	7,285.1	337.1	708.8	0.00	0.00	0.00	0.00	
7,872.6	0.00	0.00	7,816.7	353.1	742.4	1.50	-1.50	0.00	180.00	
9,703.0	0.00	0.00	9,647.0	353.1	742.4	0.00	0.00	0.00	0.00	KOP - Cimarron State
10,603.0	90.00	179.49	10,220.0	-219.9	747.5	10.00	10.00	0.00	179.49	
14,172.2	90.00	179.49	10,220.0	-3,788.9	779.2	0.00	0.00	0.00	0.00	DP1 - Cimarron State
15,716.2	90.00	268.79	10,220.0	-4,788.1	-190.5	5.78	0.00	5.78	90.00	
17,282.1	90.00	359.48	10,220.0	-3,807.9	-1,200.6	5.79	0.00	5.79	90.00	DP2 - Cimarron State
21,372.4	90.00	359.48	10,220.0	282.2	-1,237.6	0.00	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
1,600.0	2.00	64.56	1,600.0	0.7	1.6	-0.7	2.00	2.00	0.00
1,700.0	4.00	64.56	1,699.8	3.0	6.3	-2.9	2.00	2.00	0.00
1,800.0	6.00	64.56	1,799.5	6.7	14.2	-6.6	2.00	2.00	0.00
1,900.0	8.00	64.56	1,898.7	12.0	25.2	-11.8	2.00	2.00	0.00
Start 5439.3 hold at 1900.0 MD									
2,000.0	8.00	64.56	1,997.7	18.0	37.7	-17.6	0.00	0.00	0.00
2,100.0	8.00	64.56	2,096.8	23.9	50.3	-23.5	0.00	0.00	0.00
2,200.0	8.00	64.56	2,195.8	29.9	62.9	-29.3	0.00	0.00	0.00
2,300.0	8.00	64.56	2,294.8	35.9	75.5	-35.2	0.00	0.00	0.00
2,400.0	8.00	64.56	2,393.8	41.9	88.0	-41.1	0.00	0.00	0.00
2,500.0	8.00	64.56	2,492.9	47.8	100.6	-46.9	0.00	0.00	0.00
2,600.0	8.00	64.56	2,591.9	53.8	113.2	-52.8	0.00	0.00	0.00
2,700.0	8.00	64.56	2,690.9	59.8	125.7	-58.7	0.00	0.00	0.00
2,800.0	8.00	64.56	2,789.9	65.8	138.3	-64.5	0.00	0.00	0.00
2,900.0	8.00	64.56	2,889.0	71.8	150.9	-70.4	0.00	0.00	0.00
3,000.0	8.00	64.56	2,988.0	77.7	163.4	-76.3	0.00	0.00	0.00
3,100.0	8.00	64.56	3,087.0	83.7	176.0	-82.1	0.00	0.00	0.00
3,200.0	8.00	64.56	3,186.1	89.7	188.6	-88.0	0.00	0.00	0.00
3,300.0	8.00	64.56	3,285.1	95.7	201.1	-93.9	0.00	0.00	0.00
3,400.0	8.00	64.56	3,384.1	101.6	213.7	-99.7	0.00	0.00	0.00
3,500.0	8.00	64.56	3,483.1	107.6	226.3	-105.6	0.00	0.00	0.00
3,600.0	8.00	64.56	3,582.2	113.6	238.8	-111.5	0.00	0.00	0.00
3,700.0	8.00	64.56	3,681.2	119.6	251.4	-117.3	0.00	0.00	0.00
3,800.0	8.00	64.56	3,780.2	125.5	264.0	-123.2	0.00	0.00	0.00
3,900.0	8.00	64.56	3,879.2	131.5	276.5	-129.1	0.00	0.00	0.00
4,000.0	8.00	64.56	3,978.3	137.5	289.1	-134.9	0.00	0.00	0.00
4,100.0	8.00	64.56	4,077.3	143.5	301.7	-140.8	0.00	0.00	0.00
4,200.0	8.00	64.56	4,176.3	149.5	314.2	-146.7	0.00	0.00	0.00
4,300.0	8.00	64.56	4,275.3	155.4	326.8	-152.5	0.00	0.00	0.00
4,400.0	8.00	64.56	4,374.4	161.4	339.4	-158.4	0.00	0.00	0.00
4,500.0	8.00	64.56	4,473.4	167.4	352.0	-164.3	0.00	0.00	0.00
4,600.0	8.00	64.56	4,572.4	173.4	364.5	-170.1	0.00	0.00	0.00
4,700.0	8.00	64.56	4,671.5	179.3	377.1	-176.0	0.00	0.00	0.00
4,800.0	8.00	64.56	4,770.5	185.3	389.7	-181.9	0.00	0.00	0.00
4,900.0	8.00	64.56	4,869.5	191.3	402.2	-187.7	0.00	0.00	0.00
5,000.0	8.00	64.56	4,968.5	197.3	414.8	-193.6	0.00	0.00	0.00
5,100.0	8.00	64.56	5,067.6	203.3	427.4	-199.4	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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)	
5,200.0	8.00	64.56	5,166.6	209.2	439.9	-205.3	0.00	0.00	0.00	
5,300.0	8.00	64.56	5,265.6	215.2	452.5	-211.2	0.00	0.00	0.00	
5,400.0	8.00	64.56	5,364.6	221.2	465.1	-217.0	0.00	0.00	0.00	
5,500.0	8.00	64.56	5,463.7	227.2	477.6	-222.9	0.00	0.00	0.00	
5,600.0	8.00	64.56	5,562.7	233.1	490.2	-228.8	0.00	0.00	0.00	
5,700.0	8.00	64.56	5,661.7	239.1	502.8	-234.6	0.00	0.00	0.00	
5,800.0	8.00	64.56	5,760.7	245.1	515.3	-240.5	0.00	0.00	0.00	
5,900.0	8.00	64.56	5,859.8	251.1	527.9	-246.4	0.00	0.00	0.00	
6,000.0	8.00	64.56	5,958.8	257.1	540.5	-252.2	0.00	0.00	0.00	
6,100.0	8.00	64.56	6,057.8	263.0	553.0	-258.1	0.00	0.00	0.00	
6,200.0	8.00	64.56	6,156.9	269.0	565.6	-264.0	0.00	0.00	0.00	
6,300.0	8.00	64.56	6,255.9	275.0	578.2	-269.8	0.00	0.00	0.00	
6,400.0	8.00	64.56	6,354.9	281.0	590.7	-275.7	0.00	0.00	0.00	
6,500.0	8.00	64.56	6,453.9	286.9	603.3	-281.6	0.00	0.00	0.00	
6,600.0	8.00	64.56	6,553.0	292.9	615.9	-287.4	0.00	0.00	0.00	
6,700.0	8.00	64.56	6,652.0	298.9	628.5	-293.3	0.00	0.00	0.00	
6,800.0	8.00	64.56	6,751.0	304.9	641.0	-299.2	0.00	0.00	0.00	
6,900.0	8.00	64.56	6,850.0	310.9	653.6	-305.0	0.00	0.00	0.00	
7,000.0	8.00	64.56	6,949.1	316.8	666.2	-310.9	0.00	0.00	0.00	
7,100.0	8.00	64.56	7,048.1	322.8	678.7	-316.8	0.00	0.00	0.00	
7,200.0	8.00	64.56	7,147.1	328.8	691.3	-322.6	0.00	0.00	0.00	
7,300.0	8.00	64.56	7,246.1	334.8	703.9	-328.5	0.00	0.00	0.00	
7,339.3	8.00	64.56	7,285.1	337.1	708.8	-330.8	0.00	0.00	0.00	
Start Drop -1.50										
7,400.0	7.09	64.56	7,345.2	340.5	716.0	-334.2	1.50	-1.50	0.00	
7,500.0	5.59	64.56	7,444.6	345.3	726.0	-338.8	1.50	-1.50	0.00	
7,600.0	4.09	64.56	7,544.3	348.9	733.6	-342.4	1.50	-1.50	0.00	
7,700.0	2.59	64.56	7,644.1	351.4	738.8	-344.8	1.50	-1.50	0.00	
7,800.0	1.09	64.56	7,744.0	352.8	741.7	-346.2	1.50	-1.50	0.00	
7,872.6	0.00	0.00	7,816.7	353.1	742.4	-346.5	1.50	-1.50	0.00	
Start 1830.3 hold at 7872.6 MD										
7,900.0	0.00	0.00	7,844.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,944.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,044.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,144.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,244.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,344.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,444.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,544.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,644.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,744.0	353.1	742.4	-346.5	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,844.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,944.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,044.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,144.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,244.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,344.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,444.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,544.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,644.0	353.1	742.4	-346.5	0.00	0.00	0.00	
9,703.0	0.00	0.00	9,647.0	353.1	742.4	-346.5	0.00	0.00	0.00	
Start Build 10.00 - KOP - Cimarron State Com 1243H										
9,800.0	9.70	179.49	9,743.6	344.9	742.4	-338.3	10.00	10.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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)
9,900.0	19.70	179.49	9,840.2	319.5	742.7	-312.9	10.00	10.00	0.00
9,944.3	24.13	179.49	9,881.3	303.0	742.8	-296.4	10.00	10.00	0.00
PTP - Cimarron State Com 1243H									
10,000.0	29.70	179.49	9,930.9	277.8	743.0	-271.2	10.00	10.00	0.00
10,100.0	39.70	179.49	10,013.0	220.9	743.5	-214.3	10.00	10.00	0.00
10,200.0	49.70	179.49	10,084.0	150.7	744.2	-144.1	10.00	10.00	0.00
10,300.0	59.70	179.49	10,141.7	69.2	744.9	-62.5	10.00	10.00	0.00
10,400.0	69.70	179.49	10,184.4	-21.1	745.7	27.8	10.00	10.00	0.00
10,500.0	79.70	179.49	10,210.7	-117.4	746.6	124.1	10.00	10.00	0.00
10,600.0	89.70	179.49	10,219.9	-216.9	747.4	223.5	10.00	10.00	0.00
10,603.0	90.00	179.49	10,220.0	-219.9	747.5	226.5	10.00	10.00	0.00
Start 3569.2 hold at 10603.0 MD									
10,700.0	90.00	179.49	10,220.0	-316.9	748.3	323.5	0.00	0.00	0.00
10,800.0	90.00	179.49	10,220.0	-416.9	749.2	423.5	0.00	0.00	0.00
10,900.0	90.00	179.49	10,220.0	-516.9	750.1	523.5	0.00	0.00	0.00
11,000.0	90.00	179.49	10,220.0	-616.9	751.0	623.5	0.00	0.00	0.00
11,100.0	90.00	179.49	10,220.0	-716.9	751.9	723.5	0.00	0.00	0.00
11,200.0	90.00	179.49	10,220.0	-816.9	752.8	823.5	0.00	0.00	0.00
11,300.0	90.00	179.49	10,220.0	-916.9	753.7	923.5	0.00	0.00	0.00
11,400.0	90.00	179.49	10,220.0	-1,016.9	754.6	1,023.5	0.00	0.00	0.00
11,500.0	90.00	179.49	10,220.0	-1,116.9	755.5	1,123.5	0.00	0.00	0.00
11,600.0	90.00	179.49	10,220.0	-1,216.8	756.3	1,223.5	0.00	0.00	0.00
11,700.0	90.00	179.49	10,220.0	-1,316.8	757.2	1,323.5	0.00	0.00	0.00
11,800.0	90.00	179.49	10,220.0	-1,416.8	758.1	1,423.5	0.00	0.00	0.00
11,900.0	90.00	179.49	10,220.0	-1,516.8	759.0	1,523.5	0.00	0.00	0.00
12,000.0	90.00	179.49	10,220.0	-1,616.8	759.9	1,623.5	0.00	0.00	0.00
12,100.0	90.00	179.49	10,220.0	-1,716.8	760.8	1,723.5	0.00	0.00	0.00
12,200.0	90.00	179.49	10,220.0	-1,816.8	761.7	1,823.5	0.00	0.00	0.00
12,300.0	90.00	179.49	10,220.0	-1,916.8	762.6	1,923.5	0.00	0.00	0.00
12,400.0	90.00	179.49	10,220.0	-2,016.8	763.5	2,023.5	0.00	0.00	0.00
12,500.0	90.00	179.49	10,220.0	-2,116.8	764.4	2,123.5	0.00	0.00	0.00
12,600.0	90.00	179.49	10,220.0	-2,216.8	765.2	2,223.5	0.00	0.00	0.00
12,700.0	90.00	179.49	10,220.0	-2,316.8	766.1	2,323.5	0.00	0.00	0.00
12,800.0	90.00	179.49	10,220.0	-2,416.8	767.0	2,423.5	0.00	0.00	0.00
12,900.0	90.00	179.49	10,220.0	-2,516.8	767.9	2,523.5	0.00	0.00	0.00
13,000.0	90.00	179.49	10,220.0	-2,616.8	768.8	2,623.5	0.00	0.00	0.00
13,100.0	90.00	179.49	10,220.0	-2,716.8	769.7	2,723.5	0.00	0.00	0.00
13,200.0	90.00	179.49	10,220.0	-2,816.8	770.6	2,823.5	0.00	0.00	0.00
13,300.0	90.00	179.49	10,220.0	-2,916.8	771.5	2,923.5	0.00	0.00	0.00
13,400.0	90.00	179.49	10,220.0	-3,016.8	772.4	3,023.5	0.00	0.00	0.00
13,500.0	90.00	179.49	10,220.0	-3,116.8	773.3	3,123.5	0.00	0.00	0.00
13,600.0	90.00	179.49	10,220.0	-3,216.8	774.1	3,223.5	0.00	0.00	0.00
13,700.0	90.00	179.49	10,220.0	-3,316.8	775.0	3,323.5	0.00	0.00	0.00
13,800.0	90.00	179.49	10,220.0	-3,416.8	775.9	3,423.5	0.00	0.00	0.00
13,900.0	90.00	179.49	10,220.0	-3,516.8	776.8	3,523.5	0.00	0.00	0.00
14,000.0	90.00	179.49	10,220.0	-3,616.8	777.7	3,623.5	0.00	0.00	0.00
14,100.0	90.00	179.49	10,220.0	-3,716.7	778.6	3,723.5	0.00	0.00	0.00
14,172.2	90.00	179.49	10,220.0	-3,788.9	779.2	3,795.7	0.00	0.00	0.00
Start DLS 5.78 TFO 90.00 - DP1 - Cimarron State Com 1243H									
14,200.0	90.00	181.10	10,220.0	-3,816.7	779.1	3,823.5	5.79	0.00	5.79
14,300.0	90.00	186.88	10,220.0	-3,916.5	772.1	3,923.2	5.78	0.00	5.78
14,400.0	90.00	192.67	10,220.0	-4,015.0	755.2	4,021.5	5.78	0.00	5.78
14,500.0	90.00	198.45	10,220.0	-4,111.3	728.4	4,117.6	5.78	0.00	5.78

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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)
14,600.0	90.00	204.24	10,220.0	-4,204.4	692.0	4,210.4	5.78	0.00	5.78
14,700.0	90.00	210.02	10,220.0	-4,293.3	646.4	4,298.9	5.78	0.00	5.78
14,800.0	90.00	215.80	10,220.0	-4,377.2	592.1	4,382.3	5.78	0.00	5.78
14,900.0	90.00	221.59	10,220.0	-4,455.3	529.6	4,459.8	5.78	0.00	5.78
15,000.0	90.00	227.37	10,220.0	-4,526.6	459.6	4,530.5	5.78	0.00	5.78
15,100.0	90.00	233.16	10,220.0	-4,590.5	382.7	4,593.7	5.78	0.00	5.78
15,135.1	90.00	235.18	10,220.0	-4,611.0	354.3	4,614.0	5.78	0.00	5.78
NPZ1 - Cimarron State Com 1243H									
15,200.0	90.00	238.94	10,220.0	-4,646.3	299.8	4,648.8	5.78	0.00	5.78
15,300.0	90.00	244.72	10,220.0	-4,693.5	211.7	4,695.2	5.78	0.00	5.78
15,400.0	90.00	250.51	10,220.0	-4,731.6	119.2	4,732.4	5.78	0.00	5.78
15,500.0	90.00	256.29	10,220.0	-4,760.1	23.4	4,760.1	5.78	0.00	5.78
15,600.0	90.00	262.07	10,220.0	-4,778.9	-74.7	4,778.0	5.78	0.00	5.78
15,700.0	90.00	267.86	10,220.0	-4,787.6	-174.3	4,785.9	5.78	0.00	5.78
15,716.2	90.00	268.79	10,220.0	-4,788.1	-190.5	4,786.2	5.78	0.00	5.78
Start DLS 5.79 TFO 90.00									
15,727.7	90.00	269.46	10,220.0	-4,788.3	-202.0	4,786.3	5.79	0.00	5.79
Apex - Cimarron State Com 1243									
15,800.0	90.00	273.65	10,220.0	-4,786.3	-274.3	4,783.7	5.79	0.00	5.79
15,900.0	90.00	279.44	10,220.0	-4,774.9	-373.6	4,771.4	5.79	0.00	5.79
16,000.0	90.00	285.23	10,220.0	-4,753.6	-471.2	4,749.2	5.79	0.00	5.79
16,100.0	90.00	291.02	10,220.0	-4,722.5	-566.2	4,717.3	5.79	0.00	5.79
16,200.0	90.00	296.81	10,220.0	-4,682.0	-657.6	4,675.9	5.79	0.00	5.79
16,300.0	90.00	302.60	10,220.0	-4,632.4	-744.4	4,625.6	5.79	0.00	5.79
16,320.8	90.00	303.81	10,220.0	-4,621.0	-761.9	4,614.0	5.79	0.00	5.79
NPZ2 - Cimarron State Com 1243H									
16,400.0	90.00	308.40	10,220.0	-4,574.4	-825.8	4,566.8	5.79	0.00	5.79
16,500.0	90.00	314.19	10,220.0	-4,508.4	-900.9	4,500.2	5.79	0.00	5.79
16,600.0	90.00	319.98	10,220.0	-4,435.2	-969.0	4,426.4	5.79	0.00	5.79
16,700.0	90.00	325.77	10,220.0	-4,355.5	-1,029.3	4,346.2	5.79	0.00	5.79
16,800.0	90.00	331.56	10,220.0	-4,270.1	-1,081.3	4,260.3	5.79	0.00	5.79
16,900.0	90.00	337.35	10,220.0	-4,180.0	-1,124.4	4,169.8	5.79	0.00	5.79
17,000.0	90.00	343.14	10,220.0	-4,085.9	-1,158.2	4,075.4	5.79	0.00	5.79
17,100.0	90.00	348.93	10,220.0	-3,988.9	-1,182.3	3,978.2	5.79	0.00	5.79
17,200.0	90.00	354.72	10,220.0	-3,889.9	-1,196.5	3,879.1	5.79	0.00	5.79
17,282.1	90.00	359.48	10,220.0	-3,807.9	-1,200.6	3,797.1	5.79	0.00	5.79
Start 4090.3 hold at 17282.1 MD - DP2 - Cimarron State Com 1243H									
17,300.0	90.00	359.48	10,220.0	-3,790.1	-1,200.8	3,779.2	0.00	0.00	0.00
17,400.0	90.00	359.48	10,220.0	-3,690.1	-1,201.7	3,679.2	0.00	0.00	0.00
17,500.0	90.00	359.48	10,220.0	-3,590.1	-1,202.6	3,579.2	0.00	0.00	0.00
17,600.0	90.00	359.48	10,220.0	-3,490.1	-1,203.5	3,479.2	0.00	0.00	0.00
17,700.0	90.00	359.48	10,220.0	-3,390.1	-1,204.4	3,379.2	0.00	0.00	0.00
17,800.0	90.00	359.48	10,220.0	-3,290.1	-1,205.3	3,279.2	0.00	0.00	0.00
17,900.0	90.00	359.48	10,220.0	-3,190.1	-1,206.2	3,179.2	0.00	0.00	0.00
18,000.0	90.00	359.48	10,220.0	-3,090.1	-1,207.1	3,079.2	0.00	0.00	0.00
18,100.0	90.00	359.48	10,220.0	-2,990.1	-1,208.0	2,979.2	0.00	0.00	0.00
18,200.0	90.00	359.48	10,220.0	-2,890.1	-1,208.9	2,879.2	0.00	0.00	0.00
18,300.0	90.00	359.48	10,220.0	-2,790.1	-1,209.8	2,779.2	0.00	0.00	0.00
18,400.0	90.00	359.48	10,220.0	-2,690.1	-1,210.7	2,679.2	0.00	0.00	0.00
18,500.0	90.00	359.48	10,220.0	-2,590.1	-1,211.6	2,579.2	0.00	0.00	0.00
18,600.0	90.00	359.48	10,220.0	-2,490.1	-1,212.6	2,479.2	0.00	0.00	0.00
18,700.0	90.00	359.48	10,220.0	-2,390.1	-1,213.5	2,379.2	0.00	0.00	0.00
18,800.0	90.00	359.48	10,220.0	-2,290.1	-1,214.4	2,279.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	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)
18,900.0	90.00	359.48	10,220.0	-2,190.1	-1,215.3	2,179.2	0.00	0.00	0.00
19,000.0	90.00	359.48	10,220.0	-2,090.1	-1,216.2	2,079.2	0.00	0.00	0.00
19,100.0	90.00	359.48	10,220.0	-1,990.1	-1,217.1	1,979.2	0.00	0.00	0.00
19,200.0	90.00	359.48	10,220.0	-1,890.1	-1,218.0	1,879.2	0.00	0.00	0.00
19,300.0	90.00	359.48	10,220.0	-1,790.1	-1,218.9	1,779.2	0.00	0.00	0.00
19,400.0	90.00	359.48	10,220.0	-1,690.1	-1,219.8	1,679.2	0.00	0.00	0.00
19,500.0	90.00	359.48	10,220.0	-1,590.2	-1,220.7	1,579.2	0.00	0.00	0.00
19,600.0	90.00	359.48	10,220.0	-1,490.2	-1,221.6	1,479.2	0.00	0.00	0.00
19,700.0	90.00	359.48	10,220.0	-1,390.2	-1,222.5	1,379.2	0.00	0.00	0.00
19,800.0	90.00	359.48	10,220.0	-1,290.2	-1,223.4	1,279.2	0.00	0.00	0.00
19,900.0	90.00	359.48	10,220.0	-1,190.2	-1,224.3	1,179.2	0.00	0.00	0.00
20,000.0	90.00	359.48	10,220.0	-1,090.2	-1,225.2	1,079.2	0.00	0.00	0.00
20,100.0	90.00	359.48	10,220.0	-990.2	-1,226.1	979.2	0.00	0.00	0.00
20,200.0	90.00	359.48	10,220.0	-890.2	-1,227.0	879.2	0.00	0.00	0.00
20,300.0	90.00	359.48	10,220.0	-790.2	-1,227.9	779.2	0.00	0.00	0.00
20,400.0	90.00	359.48	10,220.0	-690.2	-1,228.8	679.2	0.00	0.00	0.00
20,500.0	90.00	359.48	10,220.0	-590.2	-1,229.7	579.2	0.00	0.00	0.00
20,600.0	90.00	359.48	10,220.0	-490.2	-1,230.6	479.2	0.00	0.00	0.00
20,700.0	90.00	359.48	10,220.0	-390.2	-1,231.6	379.2	0.00	0.00	0.00
20,800.0	90.00	359.48	10,220.0	-290.2	-1,232.5	279.2	0.00	0.00	0.00
20,900.0	90.00	359.48	10,220.0	-190.2	-1,233.4	179.2	0.00	0.00	0.00
21,000.0	90.00	359.48	10,220.0	-90.2	-1,234.3	79.2	0.00	0.00	0.00
21,100.0	90.00	359.48	10,220.0	9.8	-1,235.2	-20.8	0.00	0.00	0.00
21,200.0	90.00	359.48	10,220.0	109.8	-1,236.1	-120.8	0.00	0.00	0.00
21,300.0	90.00	359.48	10,220.0	209.8	-1,237.0	-220.8	0.00	0.00	0.00
21,372.3	90.00	359.48	10,220.0	282.1	-1,237.6	-293.1	0.00	0.00	0.00
BHL - Cimarron State Com 1243H									
21,372.4	90.00	359.48	10,220.0	282.2	-1,237.6	-293.2	0.00	0.00	0.00
TD at 21372.4									

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Cimarron State Com 1243H
Company:	Matador Production Company	TVD Reference:	KB @ 3853.5usft
Project:	Ranger/Arrowhead	MD Reference:	KB @ 3853.5usft
Site:	Cimarron	North Reference:	Grid
Well:	Cimarron State Com 1243H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - Cimarron State C - plan hits target center - Point	0.00	0.01	9,647.0	353.1	742.4	607,337.00	738,817.00	32° 40' 2.172 N	103° 33' 26.208 W
PTP - Cimarron State C - plan hits target center - Point	0.00	0.00	9,881.3	303.0	742.8	607,286.92	738,817.44	32° 40' 1.677 N	103° 33' 26.207 W
NPZ1 - Cimarron State C - plan hits target center - Point	0.00	0.00	10,220.0	-4,611.0	354.3	602,372.92	738,428.89	32° 39' 13.082 N	103° 33' 31.172 W
Apex - Cimarron State C - plan hits target center - Point	0.00	0.00	10,220.0	-4,788.3	-202.0	602,195.63	737,872.63	32° 39' 11.368 N	103° 33' 37.693 W
NPZ2 - Cimarron State C - plan hits target center - Point	0.00	0.00	10,220.0	-4,621.0	-761.9	602,362.92	737,312.77	32° 39' 13.063 N	103° 33' 44.227 W
BHL - Cimarron State C - plan hits target center - Point	0.00	0.00	10,220.0	282.1	-1,237.6	607,266.00	736,837.00	32° 40' 1.612 N	103° 33' 49.375 W
DP1 - Cimarron State C - plan misses target center by 0.9usft at 14172.2usft MD (10220.0 TVD, -3788.9 N, 779.2 E) - Point	0.00	0.00	10,220.0	-3,788.9	778.4	603,195.00	738,853.00	32° 39' 21.185 N	103° 33' 26.141 W
DP2 - Cimarron State C - plan hits target center - Point	0.00	0.00	10,220.0	-3,807.9	-1,200.6	603,176.00	736,874.00	32° 39' 21.140 N	103° 33' 49.289 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	Start Build 2.00
1,900.0	1,898.7	12.0	25.2	Start 5439.3 hold at 1900.0 MD
7,339.3	7,285.1	337.1	708.8	Start Drop -1.50
7,872.6	7,816.7	353.1	742.4	Start 1830.3 hold at 7872.6 MD
9,703.0	9,647.0	353.1	742.4	Start Build 10.00
10,603.0	10,220.0	-219.9	747.5	Start 3569.2 hold at 10603.0 MD
14,172.2	10,220.0	-3,788.9	779.2	Start DLS 5.78 TFO 90.00
15,716.2	10,220.0	-4,788.1	-190.5	Start DLS 5.79 TFO 90.00
17,282.1	10,220.0	-3,807.9	-1,200.6	Start 4090.3 hold at 17282.1 MD
21,372.4	10,220.0	282.2	-1,237.6	TD at 21372.4