

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 414398

**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 332756		3. API Number 30-025-56144
5. Property Name DEE OSBORNE 1930 STATE COM		6. Well No. 111H

**7. Surface Location**

UL - Lot D	Section 19	Township 21S	Range 35E	Lot Idn 1	Feet From 149	N/S Line N	Feet From 1030	E/W Line W	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot M	Section 30	Township 21S	Range 35E	Lot Idn 4	Feet From 110	N/S Line S	Feet From 660	E/W Line W	County Lea
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**9. Pool Information**

WILSON;BONE SPRING	64560
WILSON;BONE SPRING, SOUTH (GAS)	96880

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3646
16. Multiple Y	17. Proposed Depth 19464	18. Formation Bone Spring	19. Contractor	20. Spud Date 12/20/2026
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	1910	2018	0
Int1	12.25	9.625	40	5740	1633	0
Prod	8.75	5.5	20	19464	1942	5540

**Casing/Cement Program: Additional Comments**

Option to drill 17.5" surface hole. Option to drill surface hole with surface setting rig. Option to cement surface casing offline. Option to run DV tool and Packer. Option to cement intermediate casing offline. Option to drill 7.875" production hole.

**22. Proposed Blowout Prevention Program**

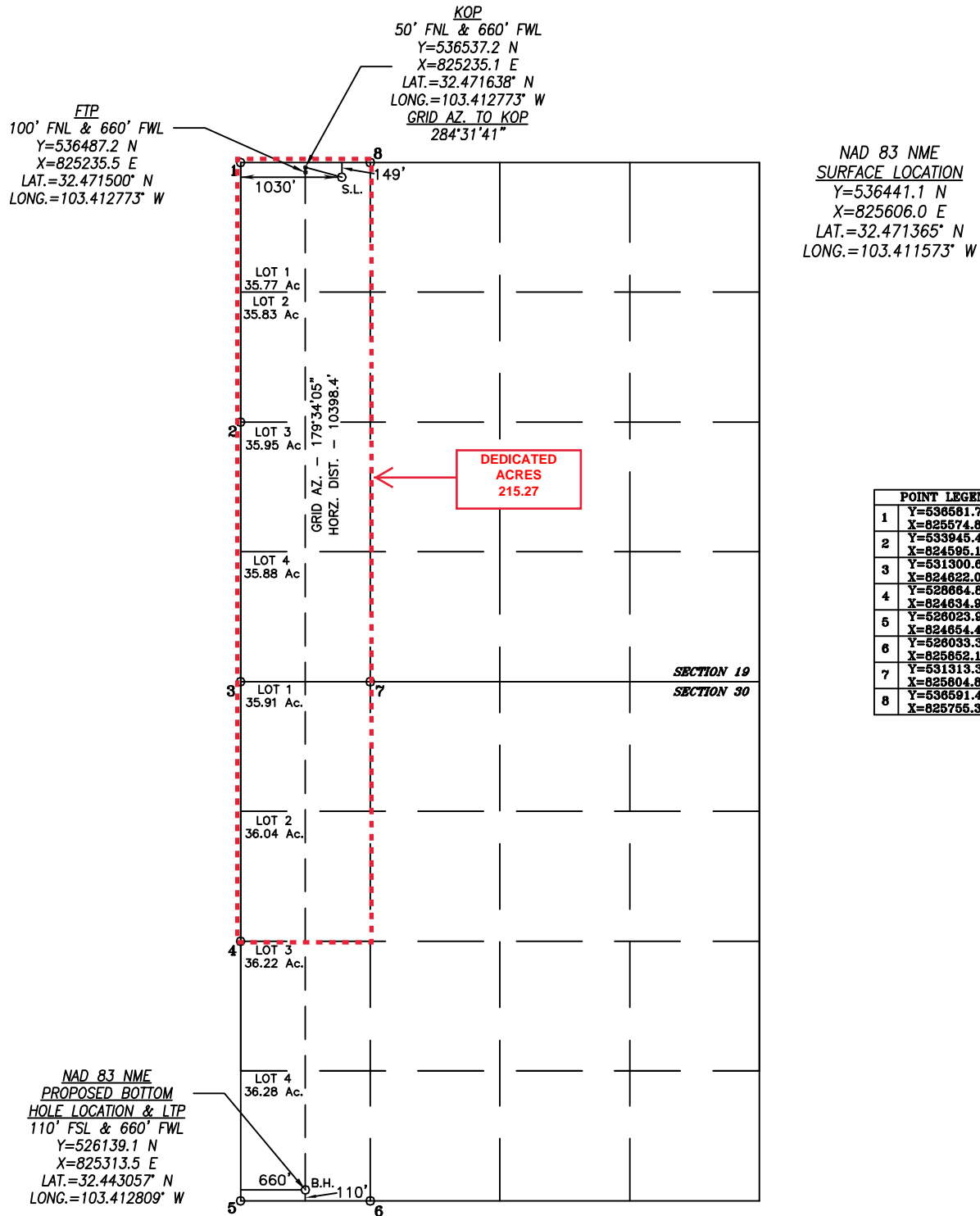
Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3000	Cameron
Double Ram	10000	5000	Cameron
Pipe	10000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable.  Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Brett A Jennings	Approved By: Jeffrey Harrison	
Title: Regulatory Analyst	Title: Petroleum Specialist III	
Email Address: brett.jennings@matadorresources.com	Approved Date: 5/4/2026	Expiration Date: 5/4/2028
Date: 4/15/2026	Phone: 972-629-2160	Conditions of Approval Attached



This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

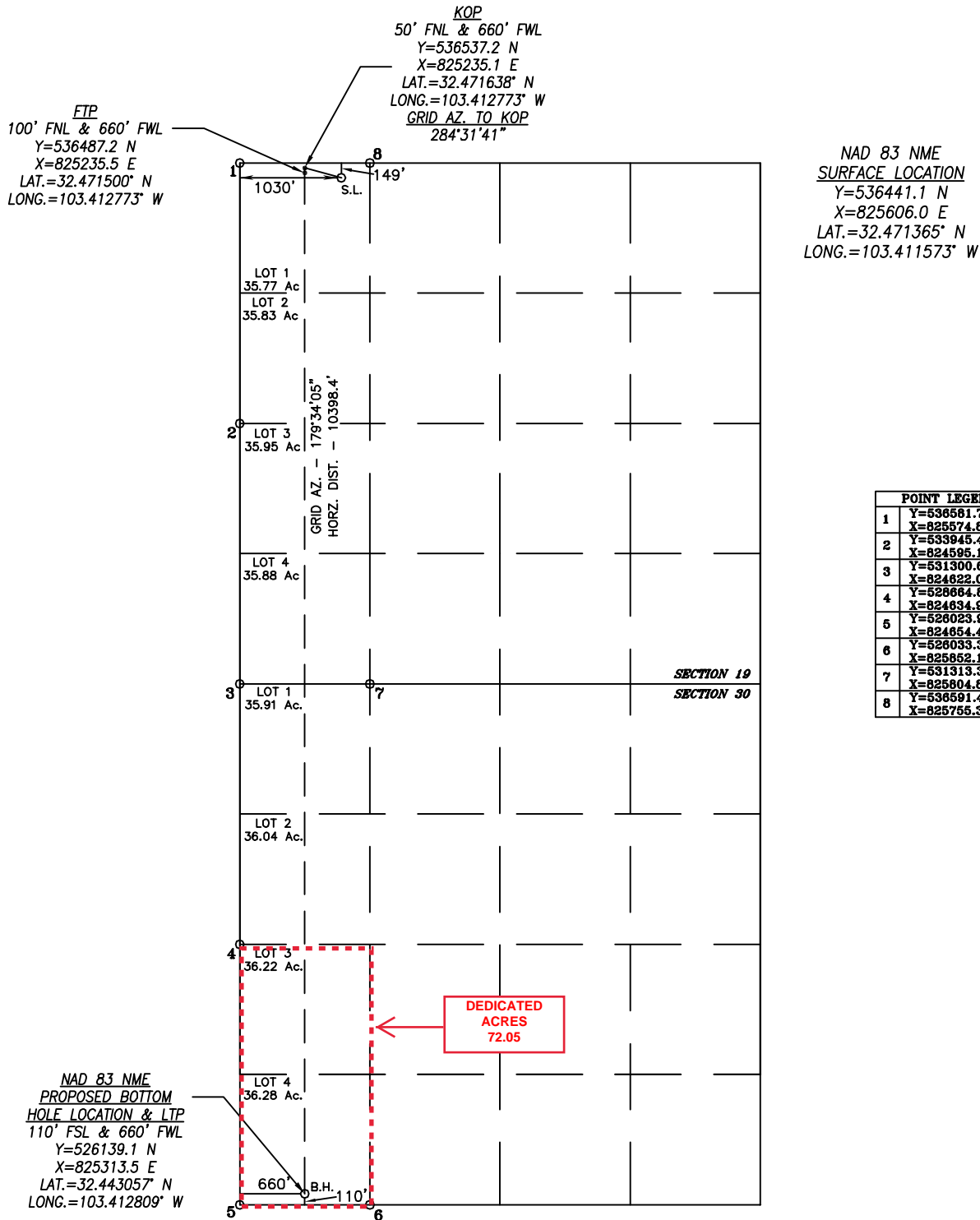
Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.





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

Form APD Conditions

Permit 414398

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-025-56144
	Well: DEE OSBORNE 1930 STATE COM #111H

OCD Reviewer	Condition
jeffrey.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing.
jeffrey.harrison	If the method of isolation was not by circulation, a CBL must be performed; if strata isolation is not achieved, then remediation will be required before further operations.
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
jeffrey.harrison	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.
jeffrey.harrison	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.
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	All logs run on the well must be submitted to NMOCD.
jeffrey.harrison	The OCD is currently reviewing the areas containing the Capitan Reef Aquifer and may expand the designated 4-string casing area to encompass additional portions of it in the future.
jeffrey.harrison	This well is within the Capitan Reef aquifer zone. The first intermediate casing string shall be set and cemented back to surface immediately below the Capitan Reef.
jeffrey.harrison	In Capitan Reef areas if lost circulation (50% or greater) occurs below the base of the salt, the operator shall switch to freshwater mud until the intermediate casing is set.
jeffrey.harrison	Administrative order required for non-standard location prior to production.
jeffrey.harrison	If a DV tool used, once the DV tool is opened and circulation is established, it needs to be noted if cement is circulated off of the top of the DV tool and how much.
jeffrey.harrison	If cement is not circulated off of the top of the DV tool, then a CBL will be required. Depending upon the results of the CBL, remedial action may be required prior to drilling operations continuing.

**Addendum to Natural Gas Management Plan for Matador's**  
**Dee Osborne 1930 State Com 111H, 112H, 131H, 132H**

**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
Dee Osborne 1930 State Com 111H	900	1200	1600
Dee Osborne 1930 State Com 112H	900	1200	1600
Dee Osborne 1930 State Com 131H	900	1200	1600
Dee Osborne 1930 State Com 132H	900	1200	1600

**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

Submit Electronically  
 Via E-permitting

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

**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:** 4/7/2026

**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
Dee Osborne 1930 State Com 111H	TBD	1-19-21S-35E	149' FNL, 1030' FWL	900	1200	1600
Dee Osborne 1930 State Com 112H	TBD	1-19-21S-35E	179' FNL, 1030' FWL	900	1200	1600
Dee Osborne 1930 State Com 131H	TBD	1-19-21S-35E	149' FNL, 1060' FWL	900	1200	1600
Dee Osborne 1930 State Com 132H	TBD	1-19-21S-35E	179' FNL, 1060' FWL	900	1200	1600

**IV. Central Delivery Point Name:** Dee Osborne 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
Dee Osborne 1930 State Com 111H	TBD	12/20/2026	01/14/2027	04/15/2027	05/25/2027	06/10/2027
Dee Osborne 1930 State Com 112H	TBD	01/15/2027	01/29/2027	04/15/2027	05/25/2027	06/10/2027
Dee Osborne 1930 State Com 131H	TBD	01/30/2027	02/14/2027	04/15/2027	05/25/2027	06/10/2027
Dee Osborne 1930 State Com 132H	TBD	02/15/2027	03/13/2027	04/15/2027	05/25/2027	06/10/2027

**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: Sr. Facilities Engineer
E-mail Address: mark.gonzales@matadorresources.com
Date: 4/7/2026
Phone: (575) 627-2435
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:



Well Name: Dee Osborne 1930 State Com #111H

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	20	13.375	J-55	54.50	1910	0	2018	0	Option to drill 17.5" surface hole. Option to drill surface hole with surface setting rig. Option to cement surface casing offline
INT 1	Brine	12.25	9.625	J-55	40.00	5740	0	1633	0	Option to run DV tool and Packer. Option to cement intermediate casing offline
PROD	OBM/Cut Brine	8.75/6.75	5.5	P-110	20.00	19464	0	1942	5540	Option to drill 7.875" production hole.

Fluid Type

Pick List Choices

- Air
- Fresh Water
- Cut Brine
- Brine
- Produced Water
- Mud
- Oil-Based Mud

# **Matador Production Company**

**Ranger/Arrowhead**

**Dee Osborne**

**Dee Osborne 1930 State Com #111H**

**Wellbore #1**

**Plan: State Plan #1**

## **Standard Planning Report**

**09 August, 2025**

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

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

<b>Site</b>	Dee Osborne,				
<b>Site Position:</b>		<b>Northing:</b>	536,379.55 usft	<b>Latitude:</b>	32° 28' 16.457 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	784,533.16 usft	<b>Longitude:</b>	103° 24' 38.650 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.50 °

<b>Well</b>	Dee Osborne 1930 State Com #111H					
<b>Well Position</b>	<b>+N/-S</b>	-0.2 usft	<b>Northing:</b>	536,379.33 usft	<b>Latitude:</b>	32° 28' 16.464 N
	<b>+E/-W</b>	-110.1 usft	<b>Easting:</b>	784,423.05 usft	<b>Longitude:</b>	103° 24' 39.935 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,645.5 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/31/2024	6.07	60.21	47,321.38996560

<b>Design</b>	State Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	179.57

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/9/2025		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	19,463.8	State Plan #1 (Wellbore #1)	MWD OWSG MWD - Standard

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
1,075.0	1.50	250.00	1,075.0	-0.3	-0.9	2.00	2.00	0.00	250.00	
4,904.3	4.77	289.41	4,898.4	35.4	-198.2	0.10	0.09	1.03	54.16	
5,473.1	4.77	289.41	5,465.2	51.1	-242.8	0.00	0.00	0.00	0.00	
8,738.7	0.00	0.00	8,727.0	96.3	-370.9	0.15	-0.15	0.00	180.00	KOP - Dee Osborne 1
9,638.7	90.00	179.57	9,300.0	-476.7	-366.6	10.00	10.00	0.00	179.57	
19,463.8	90.00	179.57	9,300.0	-10,301.5	-292.8	0.00	0.00	0.00	0.00	BHL - Dee Osborne 1

Planning Report

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<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
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<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
690.0	0.00	0.00	690.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>G30:CS14-CSB (Lamar/Tansil)</b>									
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
<b>Start Build 2.00</b>									
1,075.0	1.50	250.00	1,075.0	-0.3	-0.9	0.3	2.00	2.00	0.00
<b>Start DLS 0.10 TFO 54.16</b>									
1,100.0	1.51	250.75	1,100.0	-0.6	-1.5	0.5	0.10	0.06	2.99
1,200.0	1.57	253.60	1,199.9	-1.4	-4.1	1.3	0.10	0.06	2.85
1,300.0	1.64	256.23	1,299.9	-2.1	-6.8	2.1	0.10	0.06	2.63
1,400.0	1.70	258.66	1,399.9	-2.7	-9.7	2.7	0.10	0.07	2.43
1,500.0	1.77	260.91	1,499.8	-3.3	-12.6	3.2	0.10	0.07	2.25
1,600.0	1.85	262.98	1,599.8	-3.7	-15.8	3.6	0.10	0.07	2.07
1,700.0	1.92	264.90	1,699.7	-4.1	-19.0	3.9	0.10	0.07	1.91
1,800.0	2.00	266.67	1,799.7	-4.3	-22.5	4.1	0.10	0.08	1.77
1,840.4	2.03	267.34	1,840.0	-4.4	-23.9	4.2	0.10	0.08	1.68
<b>Rustler</b>									
1,900.0	2.08	268.31	1,899.6	-4.5	-26.0	4.3	0.10	0.08	1.61
2,000.0	2.16	269.83	1,999.5	-4.5	-29.7	4.3	0.10	0.08	1.52
2,100.0	2.24	271.23	2,099.5	-4.5	-33.5	4.2	0.10	0.08	1.41
2,200.0	2.32	272.54	2,199.4	-4.4	-37.5	4.1	0.10	0.08	1.31
2,245.7	2.36	273.11	2,245.0	-4.3	-39.4	4.0	0.10	0.08	1.24
<b>Salado</b>									
2,300.0	2.40	273.76	2,299.3	-4.1	-41.6	3.8	0.10	0.08	1.20
2,400.0	2.49	274.90	2,399.2	-3.8	-45.9	3.5	0.10	0.08	1.14
2,500.0	2.57	275.96	2,499.1	-3.4	-50.3	3.0	0.10	0.09	1.06
2,600.0	2.66	276.96	2,599.0	-2.9	-54.8	2.5	0.10	0.09	0.99
2,700.0	2.75	277.89	2,698.9	-2.3	-59.5	1.8	0.10	0.09	0.93
2,800.0	2.83	278.76	2,798.8	-1.6	-64.3	1.1	0.10	0.09	0.87
2,900.0	2.92	279.58	2,898.6	-0.8	-69.2	0.2	0.10	0.09	0.82
3,000.0	3.01	280.35	2,998.5	0.1	-74.3	-0.7	0.10	0.09	0.77
3,100.0	3.10	281.08	3,098.4	1.1	-79.6	-1.7	0.10	0.09	0.73
3,200.0	3.19	281.77	3,198.2	2.2	-85.0	-2.8	0.10	0.09	0.69
3,300.0	3.28	282.42	3,298.1	3.4	-90.5	-4.1	0.10	0.09	0.65
3,400.0	3.37	283.03	3,397.9	4.7	-96.1	-5.4	0.10	0.09	0.61
3,500.0	3.46	283.62	3,497.7	6.0	-101.9	-6.8	0.10	0.09	0.58
3,600.0	3.55	284.17	3,597.5	7.5	-107.9	-8.3	0.10	0.09	0.55
3,700.0	3.65	284.69	3,697.3	9.1	-113.9	-9.9	0.10	0.09	0.52
3,800.0	3.74	285.19	3,797.1	10.7	-120.2	-11.6	0.10	0.09	0.50
3,900.0	3.83	285.67	3,896.9	12.5	-126.5	-13.4	0.10	0.09	0.48
4,000.0	3.92	286.12	3,996.7	14.4	-133.0	-15.3	0.10	0.09	0.45
4,100.0	4.01	286.55	4,096.4	16.3	-139.7	-17.3	0.10	0.09	0.43
4,119.6	4.03	286.64	4,116.0	16.7	-141.0	-17.7	0.10	0.09	0.42
<b>Capitan</b>									

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,200.0	4.11	286.96	4,196.2	18.3	-146.5	-19.4	0.10	0.09	0.41	
4,300.0	4.20	287.36	4,295.9	20.5	-153.4	-21.6	0.10	0.09	0.39	
4,400.0	4.29	287.74	4,395.6	22.7	-160.4	-23.9	0.10	0.09	0.38	
4,500.0	4.39	288.10	4,495.4	25.0	-167.6	-26.3	0.10	0.09	0.36	
4,600.0	4.48	288.44	4,595.1	27.5	-175.0	-28.8	0.10	0.09	0.35	
4,700.0	4.58	288.77	4,694.7	30.0	-182.5	-31.4	0.10	0.09	0.33	
4,800.0	4.67	289.09	4,794.4	32.6	-190.1	-34.0	0.10	0.09	0.32	
4,900.0	4.76	289.40	4,894.1	35.3	-197.9	-36.8	0.10	0.09	0.31	
4,904.3	4.77	289.41	4,898.4	35.4	-198.2	-36.9	0.10	0.09	0.30	
<b>Start 568.8 hold at 4904.3 MD</b>										
5,000.0	4.77	289.41	4,993.7	38.1	-205.7	-39.6	0.00	0.00	0.00	
5,100.0	4.77	289.41	5,093.4	40.8	-213.5	-42.4	0.00	0.00	0.00	
5,200.0	4.77	289.41	5,193.0	43.6	-221.4	-45.3	0.00	0.00	0.00	
5,300.0	4.77	289.41	5,292.7	46.4	-229.2	-48.1	0.00	0.00	0.00	
5,400.0	4.77	289.41	5,392.3	49.1	-237.0	-50.9	0.00	0.00	0.00	
5,473.1	4.77	289.41	5,465.2	51.1	-242.8	-53.0	0.00	0.00	0.00	
<b>Start Drop -0.15</b>										
5,500.0	4.73	289.41	5,492.0	51.9	-244.9	-53.7	0.15	-0.15	0.00	
5,600.0	4.58	289.41	5,591.7	54.6	-252.5	-56.5	0.15	-0.15	0.00	
5,690.6	4.45	289.41	5,682.0	57.0	-259.3	-58.9	0.15	-0.15	0.00	
<b>G13: Cherry Cyn.</b>										
5,700.0	4.44	289.41	5,691.4	57.2	-259.9	-59.1	0.15	-0.15	0.00	
5,800.0	4.29	289.41	5,791.1	59.7	-267.1	-61.7	0.15	-0.15	0.00	
5,900.0	4.14	289.41	5,890.8	62.2	-274.1	-64.2	0.15	-0.15	0.00	
6,000.0	4.00	289.41	5,990.5	64.5	-280.8	-66.6	0.15	-0.15	0.00	
6,100.0	3.85	289.41	6,090.3	66.8	-287.2	-69.0	0.15	-0.15	0.00	
6,200.0	3.71	289.41	6,190.1	69.0	-293.4	-71.2	0.15	-0.15	0.00	
6,300.0	3.56	289.41	6,289.9	71.1	-299.4	-73.3	0.15	-0.15	0.00	
6,400.0	3.41	289.41	6,389.7	73.1	-305.1	-75.4	0.15	-0.15	0.00	
6,500.0	3.27	289.41	6,489.5	75.1	-310.6	-77.4	0.15	-0.15	0.00	
6,600.0	3.12	289.41	6,589.4	76.9	-315.9	-79.3	0.15	-0.15	0.00	
6,700.0	2.98	289.41	6,689.2	78.7	-320.9	-81.1	0.15	-0.15	0.00	
6,800.0	2.83	289.41	6,789.1	80.4	-325.7	-82.8	0.15	-0.15	0.00	
6,867.0	2.73	289.41	6,856.0	81.4	-328.8	-83.9	0.15	-0.15	0.00	
<b>G7: Brushy Cyn.</b>										
6,900.0	2.68	289.41	6,889.0	82.0	-330.2	-84.4	0.15	-0.15	0.00	
7,000.0	2.54	289.41	6,988.9	83.5	-334.5	-86.0	0.15	-0.15	0.00	
7,100.0	2.39	289.41	7,088.8	84.9	-338.6	-87.4	0.15	-0.15	0.00	
7,200.0	2.25	289.41	7,188.7	86.3	-342.4	-88.8	0.15	-0.15	0.00	
7,300.0	2.10	289.41	7,288.6	87.5	-346.0	-90.1	0.15	-0.15	0.00	
7,400.0	1.95	289.41	7,388.6	88.7	-349.3	-91.3	0.15	-0.15	0.00	
7,500.0	1.81	289.41	7,488.5	89.8	-352.4	-92.4	0.15	-0.15	0.00	
7,600.0	1.66	289.41	7,588.5	90.8	-355.3	-93.4	0.15	-0.15	0.00	
7,700.0	1.52	289.41	7,688.4	91.7	-357.9	-94.4	0.15	-0.15	0.00	
7,800.0	1.37	289.41	7,788.4	92.5	-360.3	-95.2	0.15	-0.15	0.00	
7,852.6	1.29	289.41	7,841.0	93.0	-361.4	-95.7	0.15	-0.15	0.00	
<b>G5: L. Brushy Cyn.</b>										
7,900.0	1.22	289.41	7,888.4	93.3	-362.4	-96.0	0.15	-0.15	0.00	
8,000.0	1.08	289.41	7,988.4	94.0	-364.3	-96.7	0.15	-0.15	0.00	
8,100.0	0.93	289.41	8,088.4	94.5	-366.0	-97.3	0.15	-0.15	0.00	
8,111.6	0.92	289.41	8,100.0	94.6	-366.1	-97.4	0.15	-0.15	0.00	
<b>G4: BSGL (CS9)</b>										
8,200.0	0.79	289.41	8,188.3	95.0	-367.4	-97.8	0.15	-0.15	0.00	

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,300.0	0.64	289.41	8,288.3	95.5	-368.5	-98.2	0.15	-0.15	0.00	
8,400.0	0.49	289.41	8,388.3	95.8	-369.5	-98.6	0.15	-0.15	0.00	
8,500.0	0.35	289.41	8,488.3	96.0	-370.2	-98.8	0.15	-0.15	0.00	
8,537.7	0.29	289.41	8,526.0	96.1	-370.4	-98.9	0.15	-0.15	0.00	
<b>L8.2: U. Avalon Shale</b>										
8,600.0	0.20	289.41	8,588.3	96.2	-370.6	-99.0	0.15	-0.15	0.00	
8,685.7	0.08	289.41	8,674.0	96.3	-370.8	-99.0	0.15	-0.15	0.00	
<b>L6.3: Avalon Carb</b>										
8,700.0	0.06	289.41	8,688.3	96.3	-370.8	-99.1	0.15	-0.15	0.00	
8,738.7	0.00	0.00	8,727.0	96.3	-370.9	-99.1	0.15	-0.15	0.00	
<b>Start Build 10.00 - KOP - Dee Osborne 1930 State Com #111H</b>										
8,800.0	6.13	179.57	8,788.2	93.0	-370.8	-95.8	10.00	10.00	0.00	
8,900.0	16.13	179.57	8,886.2	73.7	-370.7	-76.5	10.00	10.00	0.00	
9,000.0	26.13	179.57	8,979.4	37.7	-370.4	-40.5	10.00	10.00	0.00	
9,100.0	36.13	179.57	9,064.8	-13.9	-370.0	11.1	10.00	10.00	0.00	
9,200.0	46.13	179.57	9,140.1	-79.6	-369.5	76.8	10.00	10.00	0.00	
9,241.9	50.33	179.57	9,168.0	-110.9	-369.3	108.1	10.00	10.00	0.00	
<b>L5.3: FBSC</b>										
9,300.0	56.13	179.57	9,202.7	-157.4	-369.0	154.6	10.00	10.00	0.00	
9,400.0	66.13	179.57	9,251.0	-244.8	-368.3	242.1	10.00	10.00	0.00	
9,415.4	67.67	179.57	9,257.0	-259.0	-368.2	256.2	10.00	10.00	0.00	
<b>L5.1: FBSC</b>										
9,500.0	76.13	179.57	9,283.3	-339.3	-367.6	336.6	10.00	10.00	0.00	
9,600.0	86.13	179.57	9,298.7	-438.0	-366.8	435.3	10.00	10.00	0.00	
9,638.7	90.00	179.57	9,300.0	-476.7	-366.6	473.9	10.00	10.00	0.00	
<b>Start 9825.1 hold at 9638.7 MD</b>										
9,700.0	90.00	179.57	9,300.0	-538.0	-366.1	535.2	0.00	0.00	0.00	
9,800.0	90.00	179.57	9,300.0	-638.0	-365.3	635.2	0.00	0.00	0.00	
9,900.0	90.00	179.57	9,300.0	-738.0	-364.6	735.2	0.00	0.00	0.00	
10,000.0	90.00	179.57	9,300.0	-838.0	-363.8	835.2	0.00	0.00	0.00	
10,100.0	90.00	179.57	9,300.0	-938.0	-363.1	935.2	0.00	0.00	0.00	
10,200.0	90.00	179.57	9,300.0	-1,038.0	-362.3	1,035.2	0.00	0.00	0.00	
10,300.0	90.00	179.57	9,300.0	-1,138.0	-361.6	1,135.2	0.00	0.00	0.00	
10,400.0	90.00	179.57	9,300.0	-1,238.0	-360.8	1,235.2	0.00	0.00	0.00	
10,500.0	90.00	179.57	9,300.0	-1,338.0	-360.1	1,335.2	0.00	0.00	0.00	
10,600.0	90.00	179.57	9,300.0	-1,438.0	-359.3	1,435.2	0.00	0.00	0.00	
10,700.0	90.00	179.57	9,300.0	-1,538.0	-358.6	1,535.2	0.00	0.00	0.00	
10,800.0	90.00	179.57	9,300.0	-1,638.0	-357.8	1,635.2	0.00	0.00	0.00	
10,900.0	90.00	179.57	9,300.0	-1,738.0	-357.1	1,735.2	0.00	0.00	0.00	
11,000.0	90.00	179.57	9,300.0	-1,838.0	-356.3	1,835.2	0.00	0.00	0.00	
11,100.0	90.00	179.57	9,300.0	-1,938.0	-355.6	1,935.2	0.00	0.00	0.00	
11,200.0	90.00	179.57	9,300.0	-2,037.9	-354.8	2,035.2	0.00	0.00	0.00	
11,300.0	90.00	179.57	9,300.0	-2,137.9	-354.1	2,135.2	0.00	0.00	0.00	
11,400.0	90.00	179.57	9,300.0	-2,237.9	-353.3	2,235.2	0.00	0.00	0.00	
11,500.0	90.00	179.57	9,300.0	-2,337.9	-352.6	2,335.2	0.00	0.00	0.00	
11,600.0	90.00	179.57	9,300.0	-2,437.9	-351.8	2,435.2	0.00	0.00	0.00	
11,700.0	90.00	179.57	9,300.0	-2,537.9	-351.1	2,535.2	0.00	0.00	0.00	
11,800.0	90.00	179.57	9,300.0	-2,637.9	-350.3	2,635.2	0.00	0.00	0.00	
11,900.0	90.00	179.57	9,300.0	-2,737.9	-349.6	2,735.2	0.00	0.00	0.00	
12,000.0	90.00	179.57	9,300.0	-2,837.9	-348.8	2,835.2	0.00	0.00	0.00	
12,100.0	90.00	179.57	9,300.0	-2,937.9	-348.1	2,935.2	0.00	0.00	0.00	
12,200.0	90.00	179.57	9,300.0	-3,037.9	-347.3	3,035.2	0.00	0.00	0.00	
12,300.0	90.00	179.57	9,300.0	-3,137.9	-346.6	3,135.2	0.00	0.00	0.00	

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,400.0	90.00	179.57	9,300.0	-3,237.9	-345.8	3,235.2	0.00	0.00	0.00	
12,500.0	90.00	179.57	9,300.0	-3,337.9	-345.1	3,335.2	0.00	0.00	0.00	
12,600.0	90.00	179.57	9,300.0	-3,437.9	-344.3	3,435.2	0.00	0.00	0.00	
12,700.0	90.00	179.57	9,300.0	-3,537.9	-343.6	3,535.2	0.00	0.00	0.00	
12,800.0	90.00	179.57	9,300.0	-3,637.9	-342.8	3,635.2	0.00	0.00	0.00	
12,900.0	90.00	179.57	9,300.0	-3,737.9	-342.1	3,735.2	0.00	0.00	0.00	
13,000.0	90.00	179.57	9,300.0	-3,837.9	-341.3	3,835.2	0.00	0.00	0.00	
13,100.0	90.00	179.57	9,300.0	-3,937.9	-340.6	3,935.2	0.00	0.00	0.00	
13,200.0	90.00	179.57	9,300.0	-4,037.9	-339.8	4,035.2	0.00	0.00	0.00	
13,300.0	90.00	179.57	9,300.0	-4,137.9	-339.1	4,135.2	0.00	0.00	0.00	
13,400.0	90.00	179.57	9,300.0	-4,237.9	-338.3	4,235.2	0.00	0.00	0.00	
13,500.0	90.00	179.57	9,300.0	-4,337.9	-337.6	4,335.2	0.00	0.00	0.00	
13,600.0	90.00	179.57	9,300.0	-4,437.9	-336.8	4,435.2	0.00	0.00	0.00	
13,700.0	90.00	179.57	9,300.0	-4,537.9	-336.1	4,535.2	0.00	0.00	0.00	
13,800.0	90.00	179.57	9,300.0	-4,637.9	-335.3	4,635.2	0.00	0.00	0.00	
13,900.0	90.00	179.57	9,300.0	-4,737.9	-334.6	4,735.2	0.00	0.00	0.00	
14,000.0	90.00	179.57	9,300.0	-4,837.9	-333.8	4,835.2	0.00	0.00	0.00	
14,100.0	90.00	179.57	9,300.0	-4,937.9	-333.1	4,935.2	0.00	0.00	0.00	
14,200.0	90.00	179.57	9,300.0	-5,037.9	-332.3	5,035.2	0.00	0.00	0.00	
14,300.0	90.00	179.57	9,300.0	-5,137.9	-331.6	5,135.2	0.00	0.00	0.00	
14,400.0	90.00	179.57	9,300.0	-5,237.9	-330.8	5,235.2	0.00	0.00	0.00	
14,500.0	90.00	179.57	9,300.0	-5,337.9	-330.1	5,335.2	0.00	0.00	0.00	
14,600.0	90.00	179.57	9,300.0	-5,437.9	-329.3	5,435.2	0.00	0.00	0.00	
14,700.0	90.00	179.57	9,300.0	-5,537.8	-328.6	5,535.2	0.00	0.00	0.00	
14,800.0	90.00	179.57	9,300.0	-5,637.8	-327.8	5,635.2	0.00	0.00	0.00	
14,900.0	90.00	179.57	9,300.0	-5,737.8	-327.1	5,735.2	0.00	0.00	0.00	
15,000.0	90.00	179.57	9,300.0	-5,837.8	-326.3	5,835.2	0.00	0.00	0.00	
15,100.0	90.00	179.57	9,300.0	-5,937.8	-325.6	5,935.2	0.00	0.00	0.00	
15,200.0	90.00	179.57	9,300.0	-6,037.8	-324.8	6,035.2	0.00	0.00	0.00	
15,300.0	90.00	179.57	9,300.0	-6,137.8	-324.1	6,135.2	0.00	0.00	0.00	
15,400.0	90.00	179.57	9,300.0	-6,237.8	-323.3	6,235.2	0.00	0.00	0.00	
15,500.0	90.00	179.57	9,300.0	-6,337.8	-322.6	6,335.2	0.00	0.00	0.00	
15,600.0	90.00	179.57	9,300.0	-6,437.8	-321.8	6,435.2	0.00	0.00	0.00	
15,700.0	90.00	179.57	9,300.0	-6,537.8	-321.1	6,535.2	0.00	0.00	0.00	
15,800.0	90.00	179.57	9,300.0	-6,637.8	-320.3	6,635.2	0.00	0.00	0.00	
15,900.0	90.00	179.57	9,300.0	-6,737.8	-319.6	6,735.2	0.00	0.00	0.00	
16,000.0	90.00	179.57	9,300.0	-6,837.8	-318.8	6,835.2	0.00	0.00	0.00	
16,100.0	90.00	179.57	9,300.0	-6,937.8	-318.1	6,935.2	0.00	0.00	0.00	
16,200.0	90.00	179.57	9,300.0	-7,037.8	-317.3	7,035.2	0.00	0.00	0.00	
16,300.0	90.00	179.57	9,300.0	-7,137.8	-316.6	7,135.2	0.00	0.00	0.00	
16,400.0	90.00	179.57	9,300.0	-7,237.8	-315.8	7,235.2	0.00	0.00	0.00	
16,500.0	90.00	179.57	9,300.0	-7,337.8	-315.1	7,335.2	0.00	0.00	0.00	
16,600.0	90.00	179.57	9,300.0	-7,437.8	-314.3	7,435.2	0.00	0.00	0.00	
16,700.0	90.00	179.57	9,300.0	-7,537.8	-313.6	7,535.2	0.00	0.00	0.00	
16,800.0	90.00	179.57	9,300.0	-7,637.8	-312.8	7,635.2	0.00	0.00	0.00	
16,900.0	90.00	179.57	9,300.0	-7,737.8	-312.1	7,735.2	0.00	0.00	0.00	
17,000.0	90.00	179.57	9,300.0	-7,837.8	-311.3	7,835.2	0.00	0.00	0.00	
17,100.0	90.00	179.57	9,300.0	-7,937.8	-310.6	7,935.2	0.00	0.00	0.00	
17,200.0	90.00	179.57	9,300.0	-8,037.8	-309.8	8,035.2	0.00	0.00	0.00	
17,300.0	90.00	179.57	9,300.0	-8,137.8	-309.1	8,135.2	0.00	0.00	0.00	
17,400.0	90.00	179.57	9,300.0	-8,237.8	-308.3	8,235.2	0.00	0.00	0.00	
17,500.0	90.00	179.57	9,300.0	-8,337.8	-307.6	8,335.2	0.00	0.00	0.00	
17,600.0	90.00	179.57	9,300.0	-8,437.8	-306.8	8,435.2	0.00	0.00	0.00	
17,700.0	90.00	179.57	9,300.0	-8,537.8	-306.1	8,535.2	0.00	0.00	0.00	

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,800.0	90.00	179.57	9,300.0	-8,637.8	-305.3	8,635.2	0.00	0.00	0.00	
17,900.0	90.00	179.57	9,300.0	-8,737.8	-304.6	8,735.2	0.00	0.00	0.00	
18,000.0	90.00	179.57	9,300.0	-8,837.8	-303.8	8,835.2	0.00	0.00	0.00	
18,100.0	90.00	179.57	9,300.0	-8,937.8	-303.1	8,935.2	0.00	0.00	0.00	
18,200.0	90.00	179.57	9,300.0	-9,037.8	-302.3	9,035.2	0.00	0.00	0.00	
18,300.0	90.00	179.57	9,300.0	-9,137.7	-301.6	9,135.2	0.00	0.00	0.00	
18,400.0	90.00	179.57	9,300.0	-9,237.7	-300.8	9,235.2	0.00	0.00	0.00	
18,500.0	90.00	179.57	9,300.0	-9,337.7	-300.1	9,335.2	0.00	0.00	0.00	
18,600.0	90.00	179.57	9,300.0	-9,437.7	-299.3	9,435.2	0.00	0.00	0.00	
18,700.0	90.00	179.57	9,300.0	-9,537.7	-298.6	9,535.2	0.00	0.00	0.00	
18,800.0	90.00	179.57	9,300.0	-9,637.7	-297.8	9,635.2	0.00	0.00	0.00	
18,900.0	90.00	179.57	9,300.0	-9,737.7	-297.1	9,735.2	0.00	0.00	0.00	
19,000.0	90.00	179.57	9,300.0	-9,837.7	-296.3	9,835.2	0.00	0.00	0.00	
19,100.0	90.00	179.57	9,300.0	-9,937.7	-295.5	9,935.2	0.00	0.00	0.00	
19,200.0	90.00	179.57	9,300.0	-10,037.7	-294.8	10,035.2	0.00	0.00	0.00	
19,300.0	90.00	179.57	9,300.0	-10,137.7	-294.0	10,135.2	0.00	0.00	0.00	
19,400.0	90.00	179.57	9,300.0	-10,237.7	-293.3	10,235.2	0.00	0.00	0.00	
19,463.8	90.00	179.57	9,300.0	-10,301.5	-292.8	10,299.0	0.00	0.00	0.00	
TD at 19463.8 - BHL - Dee Osborne 1930 State Com #111H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP - Dee Osborne 193 - hit/miss target - Shape - Point	0.00	0.00	8,727.0	96.3	-370.9	536,475.60	784,052.20	32° 28' 17.448 N	103° 24' 44.254 W	
BHL - Dee Osborne 193 - plan misses target center by 0.2usft at 19463.8usft MD (9300.0 TVD, -10301.5 N, -292.8 E) - Point	0.00	0.00	9,300.0	-10,301.5	-292.7	526,077.86	784,130.39	32° 26' 34.559 N	103° 24' 44.388 W	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
690.0	690.0	G30:CS14-CSB (Lamar/Tansil)		0.00	179.57	
1,840.4	1,840.0	Rustler		0.00	179.57	
2,245.7	2,245.0	Salado		0.00	179.57	
4,119.6	4,116.0	Capitan		0.00	179.57	
5,690.6	5,682.0	G13: Cherry Cyn.		0.00	179.57	
6,867.0	6,856.0	G7: Brushy Cyn.		0.00	179.57	
7,852.6	7,841.0	G5: L. Brushy Cyn.		0.00	179.57	
8,111.6	8,100.0	G4: BSG (CS9)		0.00	179.57	
8,537.7	8,526.0	L8.2: U. Avalon Shale		0.00	179.57	
8,685.7	8,674.0	L6.3: Avalon Carb		0.00	179.57	
9,241.9	9,168.0	L5.3: FBSC		0.00	179.57	
9,415.4	9,257.0	L5.1: FBSG		0.00	179.57	

Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dee Osborne 1930 State Com #111H
<b>Company:</b>	Matador Production Company	<b>TVD Reference:</b>	KB @ 3674.0usft
<b>Project:</b>	Ranger/Arrowhead	<b>MD Reference:</b>	KB @ 3674.0usft
<b>Site:</b>	Dee Osborne	<b>North Reference:</b>	Grid
<b>Well:</b>	Dee Osborne 1930 State Com #111H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	State Plan #1		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,000.0	1,000.0	0.0	0.0	Start Build 2.00	
1,075.0	1,075.0	-0.3	-0.9	Start DLS 0.10 TFO 54.16	
4,904.3	4,898.4	35.4	-198.2	Start 568.8 hold at 4904.3 MD	
5,473.1	5,465.2	51.1	-242.8	Start Drop -0.15	
8,738.7	8,727.0	96.3	-370.9	Start Build 10.00	
9,638.7	9,300.0	-476.7	-366.6	Start 9825.1 hold at 9638.7 MD	
19,463.8	9,300.0	-10,301.5	-292.8	TD at 19463.8	