

**District I**

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

**District II**

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

**District III**

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

**District IV**

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

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

Form C-101  
August 1, 2011

Permit 311670

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

1. Operator Name and Address Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206		2. OGRID Number 373910
		3. API Number 30-025-49901
4. Property Code 332693	5. Property Name TATANKA STATE COM	6. Well No. 701H

**7. Surface Location**

UL - Lot D	Section 2	Township 26S	Range 35E	Lot Idn D	Feet From 10	N/S Line N	Feet From 620	E/W Line W	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot M	Section 2	Township 26S	Range 35E	Lot Idn M	Feet From 150	N/S Line S	Feet From 820	E/W Line W	County Lea
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**9. Pool Information**

WC-025 G-09 S253536D;UPR WOLF CAMP	98228
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Federal	15. Ground Level Elevation 3134
16. Multiple N	17. Proposed Depth 17228	18. Formation Wolfcamp	19. Contractor	20. Spud Date 7/15/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1300	1129	0
Int1	12.25	9.625	40	5230	1687	0
Int2	8.75	7.625	29.7	11800	447	4170
Prod	6.75	5.5	23	17228	479	10800

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	5000	Cactus

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 Rachael A Overbey

Approved By: Paul F Kautz

Title: Project Manager

Title: Geologist

Email Address: roverbey@fmellc.com

Approved Date: 3/21/2022 Expiration Date: 3/21/2024

Date: 3/8/2022 Phone: 303-570-4057

Conditions of Approval Attached

**District I**  
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**District IV**  
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Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
		98228	WC-025 G-09 S253536D; UPR WOLFCAMP
<sup>4</sup> Property Code	<sup>5</sup> Property Name		<sup>6</sup> Well Number
	TATANKA STATE COM		701H
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name		<sup>9</sup> Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC		3134.2'

## <sup>10</sup> Surface Location

UL or lot no. D	Section 2	Township 26S	Range 35E	Lot Idn	Feet from the 10	North/South line NORTH	Feet from the 620	East/West line WEST	County LEA
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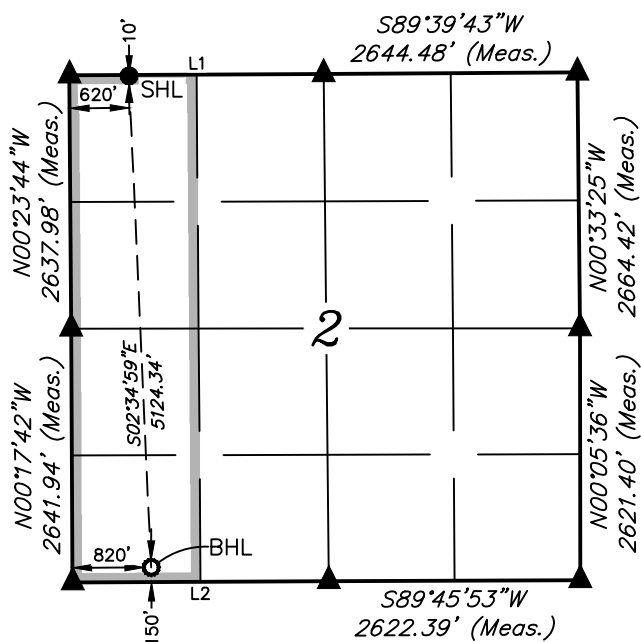
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. M	Section 2	Township 26S	Range 35E	Lot Idn	Feet from the 150	North/South line SOUTH	Feet from the 820	East/West line WEST	County LEA
<sup>12</sup> Dedicated Acres 160		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16	
<b>NAD 83 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°04'46.34" (32.079539°) LONGITUDE = 103°20'41.53" (103.344868°)	<b>NAD 83 (BOTTOM HOLE LOCATION)</b> LATITUDE = 32°03'55.68" (32.065467°) LONGITUDE = 103°20'39.14" (103.344205°)
<b>NAD 27 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°04'45.88" (32.079412°) LONGITUDE = 103°20'39.86" (103.34407°)	<b>NAD 27 (BOTTOM HOLE LOCATION)</b> LATITUDE = 32°03'55.22" (32.065340°) LONGITUDE = 103°20'37.48" (103.343745°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 394076.06' E: 847491.73'	<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 388958.69' E: 847743.99'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 394018.19' E: 806304.13'	<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 388900.95' E: 806556.18'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°42'05"W	2648.06'
L2	S89°43'33"W	2668.48'



● = SURFACE HOLE LOCATION  
○ = BOTTOM HOLE LOCATION  
▲ = SECTION CORNER LOCATED



SCALE

DRAWN BY: S.T.O. 12-10-21

## 17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Nicholas Verity Date 12/13/2021

Rachael Overbey  
Printed Name

roverbey@gmail.com  
E-mail Address

## 18 SURVEYOR CERTIFICATION

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

APRIL 19, 2021

Date of Survey \_\_\_\_\_  
Signature and Seal of Professional Surveyor: \_\_\_\_\_



**Certificate Number:**

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

Form APD Conditions

Permit 311670

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: Franklin Mountain Energy LLC [373910] 44 Cook Street Denver, CO 80206	API Number: 30-025-49901
	Well: TATANKA STATE COM #701H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	1) SURFACE & INTERMEDIATE1 CASING - Cement must circulate to surface -- 2) INTERMEDIATE2 CASING - Cement must tie back into intermediate1 casing -- 3) PRODUCTION CASING - Cement must tie back into intermediate2 casing --
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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:** Franklin Mountain Energy, LLC **OGRID:** 373910 **Date:** 03/\_08/\_2022

**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
See Attached Well List						

**IV. Central Delivery Point Name:** Tatanka North CTB: (f#) TBD [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
See Attached Well List						

**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**

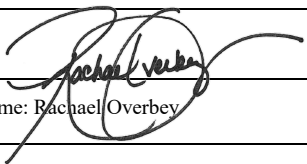
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: Rachael Overbey
Title: Director Operations Planning & Regulatory
E-mail Address: roverbey@fmelle.com
Date: 3/8/2022
Phone: 720-414-7868
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**NATURAL GAS MANAGEMENT PLAN**

**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 14 Digit	ULSTR	Surface Location FTG	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Tatanka Fed Com 101H	TBD	C-2-26S-35E	20 FNL 1347 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 102H	TBD	C-2-26S-35E	20 FNL 1372 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 103H	TBD	B-2-26S-35E	20 FNL 1875 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 104H	TBD	B-2-26S-35E	20 FNL 1850 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 501H	TBD	C-2-26S-35E	20 FNL 1397 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 502H	TBD	C-2-26S-35E	20 FNL 1422 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 503H	TBD	B-2-26S-35E	20 FNL 1925 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 504H	TBD	B-2-26S-35E	20 FNL 1900 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 601H	TBD	D-2-26S-35E	10 FNL 545 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 602H	TBD	N-35-25S-35E	998 FSL 1807 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 603H	TBD	N-35-25S-35E	998 FSL 1907 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 604H	TBD	A-2-26S-35E	20 FNL 885 FEL	800 +/-	700 +/-	600 +/-
Tatanka State Com 701H	TBD	D-2-26S-35E	10 FNL 620 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 702H	TBD	N-35-25S-35E	998 FSL 1782 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 703H	TBD	N-35-25S-35E	998 FSL 1857 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 704H	TBD	A-2-26S-35E	20 FNL 935 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 705H	TBD	A-2-26S-35E	20 FNL 860 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 801H	TBD	D-2-26S-35E	10 FNL 570 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 802H	TBD	D-2-26S-35E	10 FNL 595 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 803H	TBD	N-35-25S-35E	998 FSL 1832 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 804H	TBD	N-35-25S-35E	998 FSL 1882 FWL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 805H	TBD	A-2-26S-35E	20 FNL 910 FEL	800 +/-	700 +/-	600 +/-
Tatanka Fed Com 806H	TBD	A-2-26S-35E	20 FNL 835 FEL	800 +/-	700 +/-	600 +/-

**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 14 Digit	Spud Date (Batch Drilling)	TD Reached Date	Completion Commencement Date	Initial Flowback Date	First Production Date
Tatanka Fed Com 101H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 102H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 103H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 104H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 501H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 502H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 503H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 504H	TBD	TBD	TBD	TBD	TBD	TBD
Tatanka Fed Com 601H	TBD	7/15/2022	12/15/2022	2/28/2023	3/28/2023	4/2/2023
Tatanka Fed Com 602H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 603H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 604H	TBD	7/1/2022	12/15/2022	1/30/2023	3/1/2023	3/4/2023
Tatanka State Com 701H	TBD	7/15/2022	12/15/2022	2/28/2023	3/28/2023	4/2/2023
Tatanka Fed Com 702H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 703H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 704H	TBD	7/1/2022	12/15/2022	1/30/2023	3/1/2023	3/4/2023
Tatanka Fed Com 705H	TBD	7/1/2022	12/15/2022	1/30/2023	3/1/2023	3/4/2023
Tatanka Fed Com 801H	TBD	7/15/2022	12/15/2022	2/28/2023	3/28/2023	4/2/2023
Tatanka Fed Com 802H	TBD	7/15/2022	12/15/2022	2/28/2023	3/28/2023	4/2/2023
Tatanka Fed Com 803H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 804H	TBD	6/15/2022	12/15/2022	1/30/2023	3/10/2023	3/13/2023
Tatanka Fed Com 805H	TBD	7/1/2022	12/15/2022	1/30/2023	3/1/2023	3/4/2023
Tatanka Fed Com 806H	TBD	7/1/2022	12/15/2022	1/30/2023	3/1/2023	3/4/2023





## Natural Gas Management Plan

### Items VI-VIII

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

- Data from surrounding wells is used to generate type curves which provides the basis for expected gas rates during initial production, peak production and then the natural decline.
- Separation equipment will be sized to provide adequate separation for peak production.
- Facility design includes multiple stages of separation to minimize gas waste. Wells flow through a high pressure 2-phase separator to remove bulk gas, liquid from the 2-phase separator is sent to a 3-phase separator where additional gas is separated. Gas from the 2 Phase and 3 Phase separators are then sent through a gas scrubber before being route to treatment and/or sales. As production declines the 2-phase separator may be removed.
- Industry standard sizing calculations are used for gas-liquid separation and liquid-liquid separation.

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

- Drilling, completion and production setup is designed to minimize the waste of natural gas and to flare instead of vent.
- *Drilling Operations:*
  - Natural gas encountered will be flared instead of vented unless there is an equipment malfunction and/or to avoid risking safety or the environment.
  - Flares will be properly sized and placed at least 100' from the nearest surface hole on the pad.
- *Completions/Recompletions Operations:*
  - Flowback operations will not commence until connected to a properly sized gas gathering system.
  - During initial flowback wells are routed to the separation equipment as soon as technically feasible to minimize gas waste.
  - During separation flowback wells are routed to the separation equipment to minimize gas waste.
  - Gas sales is maximized. Gas will be flared instead of vented during an emergency or malfunction to avoid posing a risk to operations or personnel safety.
  - Flares are properly sized with a continuous pilot.
- *Production Operations:*
  - Gas sales will be maximized. Gas will be flared instead of vented during an emergency or malfunction to avoid posing a risk to operations or personnel safety.
  - After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- *Performance Standards:*
  - The facility will be designed to handle peak production rates and pressures.
  - All tanks will have automatic gauging equipment.
  - Flares will be designed to ensure proper combustion and will have continuous pilots. Flares will be located 100' from nearest surface hole on the pad and storage tanks.
  - Weekly AVOs will be performed, and any leaking thief hatches will be cleaned and properly re-sealed.



- *Measurement and Calibration:*
  - All volume that is flared and vented that is not measured will be estimated.
  - When metering is not practical due to low pressure/rate, all vented or flared volumes will be estimated.
  - Measurement will conform to industry standards. Measurement will not be bypassed except for purposes of inspection or calibration.

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

- Venting will be minimized during active and planned maintenance.
- Systems and equipment requiring maintenance will be isolated and blown down to sales and then flare before any remaining gas is vented in an effort to minimize waste and venting.
- Downhole maintenance will use best management practices to minimize vent.



## Tatanka Fed Com 701H

1. Geologic name of surface location: Permian
2. Estimated tops of important geological markers:

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,133'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,364'	799'			Carbonates
Salado	1,998'	1,165'			Salt, Carbonate & Clastics
Base Salt	-187'	3,350'			Shaley Carbonate & Shale
Lamar	-2,029'	5,192'			Carbonate & Clastics
Bell Canyon	-2,123'	5,287'			Sandstone - oil/gas/water
Cherry Canyon	-2,961'	6,124'			Sandstone - oil/gas/water
Brushy Canyon	-4,422'	7,585'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,733'	8,897'			Shale/Carbonates - oil/gas
Avalon	-5,870'	9,033'			Shale/Carbonates - oil/gas
*Chert Zone*	-6,059'	9,222'			Carbonate/Chert
First Bone Spring Sand	-7,084'	10,247'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-7,263'	10,426'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,490'	10,653'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-8,108'	11,272'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,742'	11,905'			Sandstone - oil/gas/water
Wolfcamp	-9,084'	12,247'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-9,141'	12,305'			Overpressure Shale - Oil/Gas
<b>HZ Target</b>	<b>-9,254'</b>	<b>12,418'</b>			<b>Overpressure Shale - Oil/Gas</b>
Wolfcamp B	-9,382'	12,546'			Overpressure Shale - Oil/Gas

3. Estimated depth of anticipated fresh water, oil or gas:

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	5,287'	Oil
Bone Spring	10,247'	Oil
Wolfcamp	12,247'	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface freshwater sands will be protected by setting 13 3/8" casing at 1,300' and circulating cement back to surface.

4. Casing Program:

All casing strings will be run new. Safety factors calculated assuming the well is vertical.

Casing string	Weight	Grade	Burst	Collapse	Tension	Conn	Length	API design factor			
								Burst	Collapse	Tension	Coupling
Surface 13 3/8"	54.5	J-55	2730	1130	853	BTC 909	1300	1.18	1.67	4.99	5.32
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5230	1.76	1.73	2.96	3.37
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	11800	1.12	1.29	1.84	1.25
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606 TVD	17228 12471	1.32	1.80	1.47	1.22 1.57



7 5/8" casing will be set at 11,800' MD/11,793' TVD at 0° Inc. Stress calculations on 5 1/2" casing performed assuming 17,228' depth. Actual max vertical depth is 12,471'.

### Cementing Program:

Cementing Stage tool can be placed in the 1<sup>st</sup> Intermediate string as a contingency to ensure required TOC to surface.

String Type	Hole Size	Casing Size	Setting Depth	Sacks	Type of cmt	Lead Yield ft <sup>3</sup> /sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Tail Yield ft <sup>3</sup> /sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	795	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	334	Tail, 14.8 ppg, Class C,	1.349	6.51	1000	100%
Int1	12.25	9.625	5230	1533	0.125pps Poly-E-Flake					1% CaCl <sub>2</sub> , 0.125pps Celo-Flake				
					Lead, 12.8 ppg, Class C 5% Salt,	1.79	9.74	0	154	Tail, 14.8 ppg, Class C,	1.33	6.37	4870	100%
					0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal					0.1% HR 800 .125 pps Poly-E-Flake				
Int2	8.75	7.625	11800	353	Lite Fill, 9.5 ppg, Class C 3lb/sk	2.13	5.97	4170	94	NeoCem 14.8 ppg, Class C	1.33	6.29	10800	50%
					Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake					0.25 pps Cello-Flake, 2% CaCl <sub>2</sub>				
Prod	6.75	5.5	17228	479	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	10800						20%

### 5. Minimum Specifications for Pressure Control:

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on bottom and 4 1/2" x 7" variable pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the second intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The second intermediate casing will be tested to 2000 psi for 30 minutes prior to drillout.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.



## 6. Types and characteristics of the proposed mud system:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal. The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' – 11,800'	Brine	8.8-10.2	28-34	N/c
11,800' – 17,228' Lateral	Oil Base	10.0-12.5	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 10-12.5 ppg. In order to maintain hole stability, mud weights up to 13 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

## 7. Auxiliary well control and monitoring equipment:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) H<sub>2</sub>S monitoring and detection equipment will be utilized from surface casing point to TD.

(D) A wear bushing will be installed in the wellhead prior to drilling out of the surface casing.

## 8. Logging, testing and coring program:

GR–CCL–CNL Will be run in cased hole during completions phase of operations.

Open-hole logs are not planned for this well.

## 9. Abnormal conditions, pressures, temperatures and potential hazards:

The estimated bottom-hole temperature at 12,471' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,430 psig (based on 13 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

## 10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H<sub>2</sub>S training.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment

a. Well Control Equipment

i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.

ii. Choke manifold with a remotely operated hydraulic choke.

iii. Mud/gas separator

b. Protective equipment for essential personnel

i. Breathing Apparatus

1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.

2. Work/Escapes packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity



3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
- ii. Auxiliary Rescue Equipment
  1. Stretcher
  2. Two OSHA full body harnesses
  3. 100 feet of 5/8 inches OSHA approved rope
  4. 1-20# class ABC fire extinguisher
- c. H2S Detection and Monitoring Equipment
  - i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
    1. Rig Floor
    2. Below Rig Floor / Near BOPs
    3. End of flow line or where well bore fluid is being discharged (near shakers)
  - ii. If H2S is encountered, measured values and formations will be provided to the BLM.
- d. Visual Warning Systems
  - i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  - ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  - iii. Two windsocks will be placed in strategic locations, visible from all angles.
- e. Mud Program
  - i. The Mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
- f. Metallurgy
  - i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.
- g. Communication
  - i. Communication will be via cell phones and walkie talkies on location.

Franklin Mountain Energy has conducted a review of offset operated wells to determine if an H2S contingency plan is required for the proposed well. Based on concentrations of offset wells, proximity to main roads, and distance to populated areas, the radius of exposure created by a potential release was determined to be minimal and low enough to not necessitate an H2S contingency plan. This will be reevaluated during wellbore construction if H2S is observed and after the well is on production.

#### **11. Anticipated starting date and duration of operations:**

The drilling operations on the well should be finished in approximately one month. However, in order to minimize disturbance in the area and to improve efficiency Franklin Mountain is planning to drill all the wells on the pad prior to commence completion operations. To even further reduce the time heavy machinery is used the “batch drilling” method may be used. A batch drilling sequence sundry will be submitted for BLM approval prior to spud. A drilling rig with walking/skidding capabilities will be used.

**12. Disposal/environmental concerns:**

- (A) Drilled cuttings will be hauled to and disposed of in a state-certified disposal site.
- (B) Non-hazardous waste mud/cement from the drilling process will also be hauled to and disposed of in a state-certified disposal site.
- (C) Garbage will be hauled to the Pecos City Landfill.
- (D) Sewage (grey water) will be hauled to the Carlsbad City Landfill

**13. Wellhead:**

A multi-bowl wellhead system will be utilized.

After running the 13 3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5,000 psi pressure test. This pressure test will be repeated at least every 21 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5,000 psi.

After running the 2nd intermediate casing, and before drilling out, the wellhead, BOP, and related equipment will be tested to 10,000/250 psig.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the BLM office in Carlsbad.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing strings. After installation of the first intermediate string the pack-off and lower flanges will be pressure tested to 5000 psi. After installation of the second intermediate string, the pack-off and upper flange will be pressure tested to 10,000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

**14. Additional variance requests****A. Casing.**

In order to minimize potential environmental and technical hazards, this well is planned with two intermediate strings of casing.

1. Variance is requested to wave the centralizer requirements for the 7 5/8" casing due to the tight clearance with 9 5/8" string.
2. Variance is requested to wave/reduce the centralizer requirements for the 5 1/2" casing due to the tight clearance with 6 3/4" hole and 5 1/2" casing due to tight clearances.



# Franklin Mountain Energy

Project: Lea County, NM (NAD83)  
Site: Tatanka Fed Com  
Well: Tatanka State Com 701  
Wellbore: Wellbore #1  
Design: Plan #1



Azimuths to Grid North  
True North: -0.53°  
Magnetic North: 5.79°

Magnetic Field  
Strength: 47428.3nT  
Dip Angle: 59.65°  
Date: 12/20/2021  
Model: HDGM\_FILE

PROJECT DETAILS: Lea County, NM (NAD83)  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone

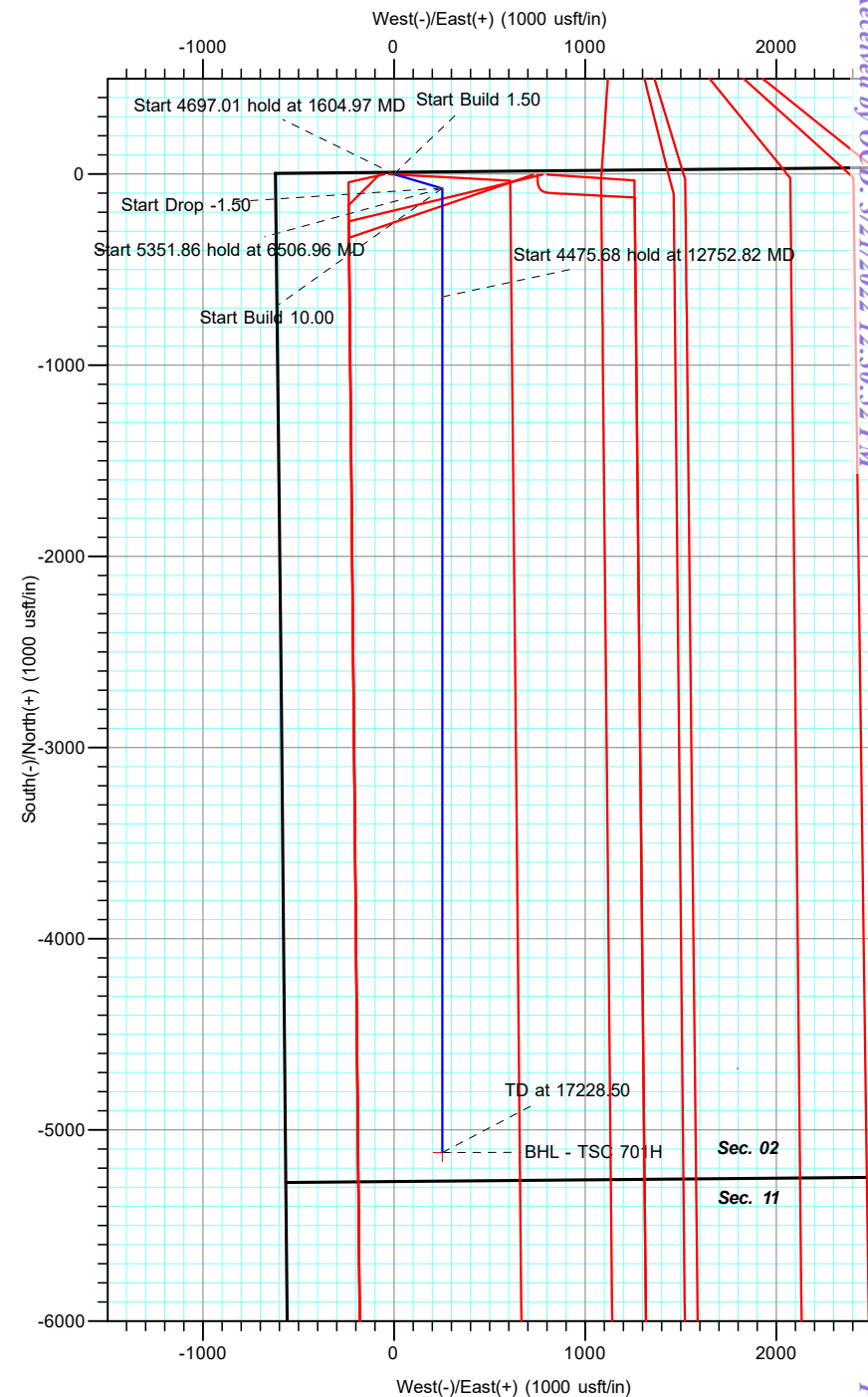
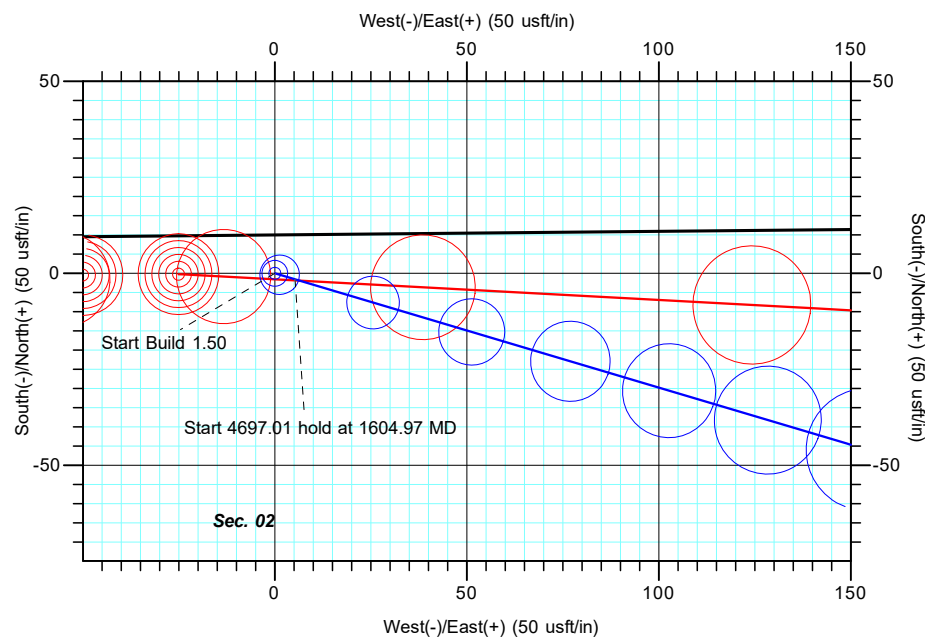


## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - TSC 701H	12471.66	-5117.39	252.29	388958.65	847744.11	32.065467	-103.344205

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	Start Build 1.50
1604.97	3.07	106.57	1604.87	-1.57	5.27	1.83	5.50	Start 4697.01 hold at 1604.97 MD
6301.99	3.07	106.57	6295.13	-73.43	246.73	85.49	257.43	Start Drop -1.50
6506.96	0.00	0.00	6500.00	-75.00	252.00	87.32	262.92	Start 5351.86 hold at 6506.96 MD
11858.82	0.00	0.00	11851.86	-75.00	252.00	87.32	262.92	Start Build 10.00
12752.82	89.40	180.00	12424.79	-641.96	252.03	653.59	829.88	Start 4475.68 hold at 12752.82 MD
17228.50	89.40	180.00	12471.66	-5117.39	252.29	5123.61	5305.32	TD at 17228.50



TOTAL DIRECTIONAL SERVICES LLC  
671 Academy Ct, Windsor, CO 80550  
Phone: (970) 460-9402

Plan: Plan #1 (Tatanka State Com 701/Wellbore #1)  
Tatanka Fed Com  
Created By: RDW  
Date: 16:18, December 20 2021  
Approved: \_\_\_\_\_  
Date: \_\_\_\_\_

Received by OCD: 3/21/2022 12:30:52 PM

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# Franklin Mountain Energy

Project: Lea County, NM (NAD83)  
Site: Tatanka Fed Com  
Well: Tatanka State Com 701  
Wellbore: Wellbore #1  
Design: Plan #1

RKB +30' @ 3163.00usft



Azimuths to Grid North  
True North: -0.53°  
Magnetic North: 5.79°

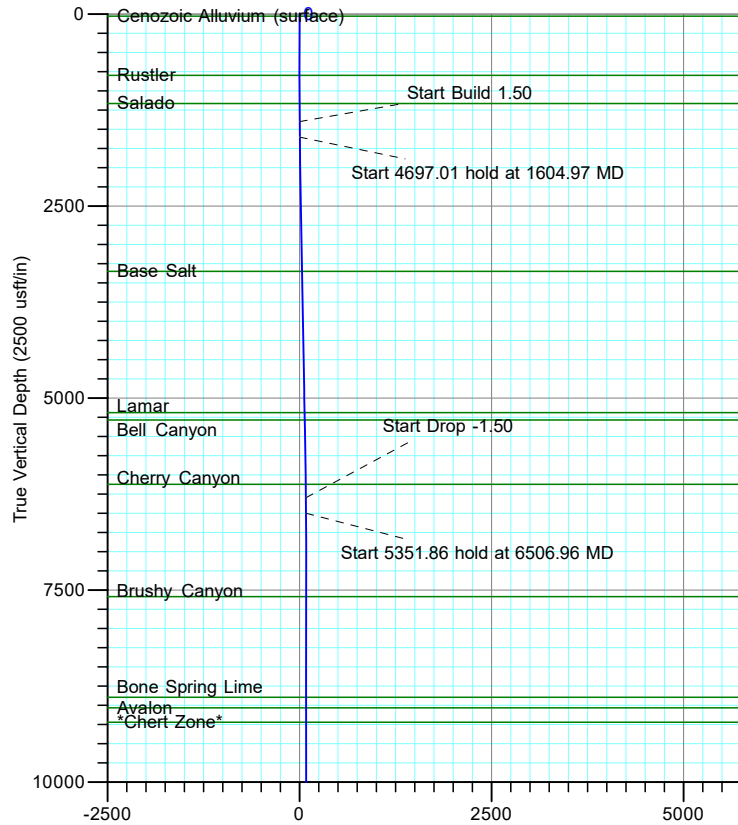
Magnetic Field  
Strength: 47428.3nT  
Dip Angle: 59.65°  
Date: 12/20/2021  
Model: HDGM\_FILE

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone



Received by OCD: 3/21/2022 12:30:52 PM

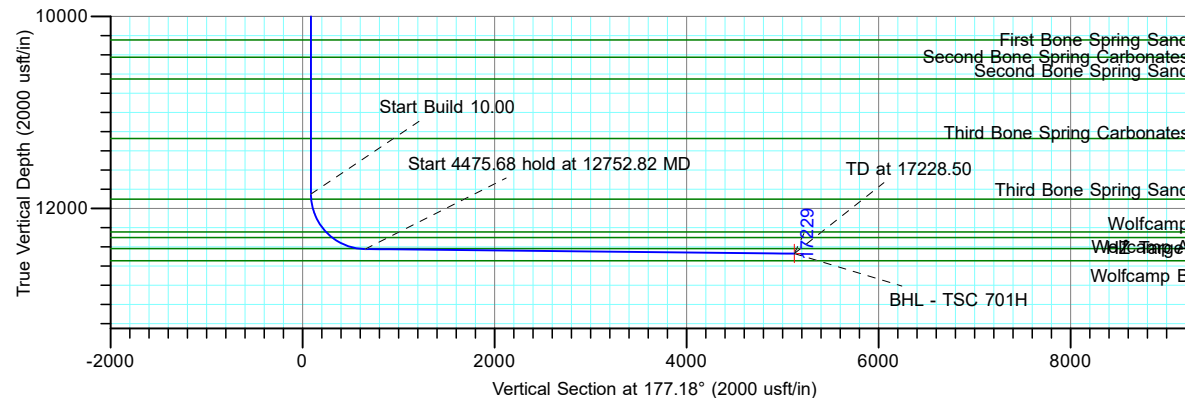
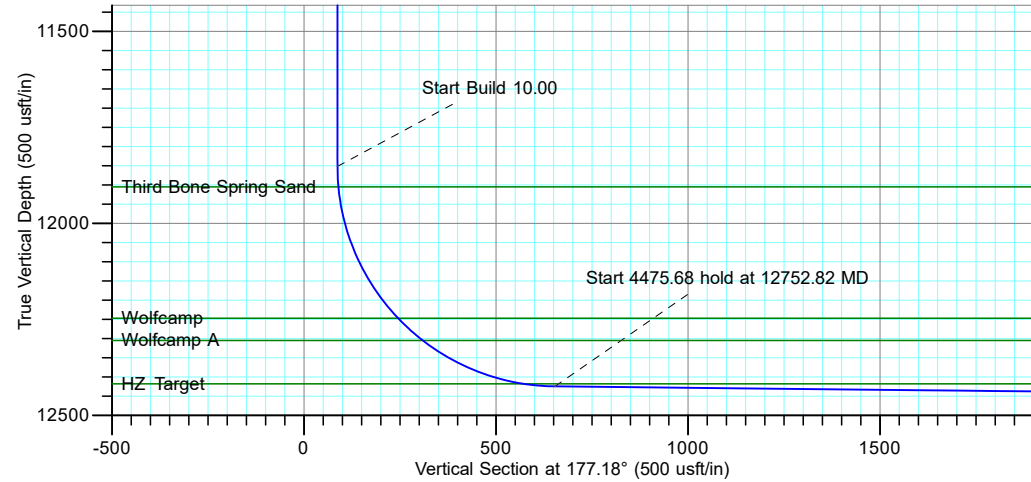


## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	Start Build 1.50
1604.97	3.07	106.57	1604.87	-1.57	5.27	1.83	5.50	Start 4697.01 hold at 1604.97 MD
6301.99	3.07	106.57	6295.13	-73.43	246.73	85.49	257.43	Start Drop -1.50
6506.96	0.00	0.00	6500.00	-75.00	252.00	87.32	262.92	Start 5351.86 hold at 6506.96 MD
11858.82	0.00	0.00	11851.86	-75.00	252.00	87.32	262.92	Start Build 10.00
12752.82	89.40	180.00	12424.79	-641.96	252.03	653.59	829.88	Start 4475.68 hold at 12752.82 MD
17228.50	89.40	180.00	12471.66	-5117.39	252.29	5123.61	5305.32	TD at 17228.50

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BHL - TSC 701H	12471.66	-5117.39	252.29	32.065467	-103.344205



TOTAL DIRECTIONAL SERVICES LLC  
671 Academy Ct, Windsor, CO 80550  
Phone: (970) 460-9402

Plan: Plan #1 (Tatanka State Com 701/Wellbore #1)  
Tatanka Fed Com  
Created By: RDW Date: 16:53, December 20 2021  
Date: \_\_\_\_\_  
Approved: \_\_\_\_\_ Date: \_\_\_\_\_

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# Franklin Mountain Energy

Lea County, NM (NAD83)

Tatanka Fed Com

Tatanka State Com 701

Wellbore #1

Plan: Plan #1

## Standard Planning Report

20 December, 2021





## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

<b>Project</b>	Lea County, NM (NAD83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site	Tatanka Fed Com				
Site Position:		Northing:	394,075.36 usft	Latitude:	32.079539
From:	Map	Easting:	847,416.74 usft	Longitude:	-103.345111
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Tatanka State Com 701					
Well Position	+N/-S	0.00 usft	Northing:	394,076.05 usft	Latitude:	32.079539
	+E/-W	0.00 usft	Easting:	847,491.82 usft	Longitude:	-103.344868
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,133.00 usft
Grid Convergence:		0.53 °				

<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>
	HDGM_FILE	12/20/2021	6.32	59.65	47,428.30

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	177.18	

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/20/2021			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	17,228.50	Plan #1 (Wellbore #1)	OWSG (Rev2) 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>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,604.97	3.07	106.57	1,604.87	-1.57	5.27	1.50	1.50	0.00	106.57		
6,301.99	3.07	106.57	6,295.13	-73.43	246.73	0.00	0.00	0.00	0.00		
6,506.96	0.00	0.00	6,500.00	-75.00	252.00	1.50	-1.50	0.00	180.00		
11,858.82	0.00	0.00	11,851.86	-75.00	252.00	0.00	0.00	0.00	0.00		
12,752.82	89.40	180.00	12,424.79	-641.96	252.03	10.00	10.00	0.00	180.00		
17,228.50	89.40	180.00	12,471.66	-5,117.39	252.29	0.00	0.00	0.00	0.00	BHL - TSC 701H	



## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Cenozoic Alluvium (surface)</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
799.00	0.00	0.00	799.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Rustler</b>									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,165.00	0.00	0.00	1,165.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Salado</b>									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 1.50</b>									
1,500.00	1.50	106.57	1,499.99	-0.37	1.25	0.43	1.50	1.50	0.00
1,604.97	3.07	106.57	1,604.87	-1.57	5.27	1.83	1.50	1.50	0.00
<b>Start 4697.01 hold at 1604.97 MD</b>									
1,700.00	3.07	106.57	1,699.76	-3.02	10.15	3.52	0.00	0.00	0.00
1,800.00	3.07	106.57	1,799.62	-4.55	15.30	5.30	0.00	0.00	0.00
1,900.00	3.07	106.57	1,899.48	-6.08	20.44	7.08	0.00	0.00	0.00
2,000.00	3.07	106.57	1,999.33	-7.61	25.58	8.86	0.00	0.00	0.00
2,100.00	3.07	106.57	2,099.19	-9.14	30.72	10.64	0.00	0.00	0.00
2,200.00	3.07	106.57	2,199.05	-10.67	35.86	12.42	0.00	0.00	0.00
2,300.00	3.07	106.57	2,298.90	-12.20	41.00	14.21	0.00	0.00	0.00
2,400.00	3.07	106.57	2,398.76	-13.73	46.14	15.99	0.00	0.00	0.00
2,500.00	3.07	106.57	2,498.61	-15.26	51.28	17.77	0.00	0.00	0.00
2,600.00	3.07	106.57	2,598.47	-16.79	56.42	19.55	0.00	0.00	0.00
2,700.00	3.07	106.57	2,698.33	-18.32	61.56	21.33	0.00	0.00	0.00
2,800.00	3.07	106.57	2,798.18	-19.85	66.70	23.11	0.00	0.00	0.00
2,900.00	3.07	106.57	2,898.04	-21.38	71.84	24.89	0.00	0.00	0.00
3,000.00	3.07	106.57	2,997.89	-22.91	76.98	26.67	0.00	0.00	0.00
3,100.00	3.07	106.57	3,097.75	-24.44	82.13	28.46	0.00	0.00	0.00
3,200.00	3.07	106.57	3,197.61	-25.97	87.27	30.24	0.00	0.00	0.00
3,300.00	3.07	106.57	3,297.46	-27.50	92.41	32.02	0.00	0.00	0.00
3,352.61	3.07	106.57	3,350.00	-28.31	95.11	32.96	0.00	0.00	0.00
<b>Base Salt</b>									
3,400.00	3.07	106.57	3,397.32	-29.03	97.55	33.80	0.00	0.00	0.00
3,500.00	3.07	106.57	3,497.17	-30.56	102.69	35.58	0.00	0.00	0.00
3,600.00	3.07	106.57	3,597.03	-32.09	107.83	37.36	0.00	0.00	0.00
3,700.00	3.07	106.57	3,696.89	-33.62	112.97	39.14	0.00	0.00	0.00
3,800.00	3.07	106.57	3,796.74	-35.15	118.11	40.92	0.00	0.00	0.00
3,900.00	3.07	106.57	3,896.60	-36.68	123.25	42.71	0.00	0.00	0.00
4,000.00	3.07	106.57	3,996.45	-38.21	128.39	44.49	0.00	0.00	0.00
4,100.00	3.07	106.57	4,096.31	-39.74	133.53	46.27	0.00	0.00	0.00
4,200.00	3.07	106.57	4,196.17	-41.27	138.67	48.05	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.00	3.07	106.57	4,296.02	-42.80	143.81	49.83	0.00	0.00	0.00
4,400.00	3.07	106.57	4,395.88	-44.33	148.95	51.61	0.00	0.00	0.00
4,500.00	3.07	106.57	4,495.73	-45.86	154.10	53.39	0.00	0.00	0.00
4,600.00	3.07	106.57	4,595.59	-47.39	159.24	55.18	0.00	0.00	0.00
4,700.00	3.07	106.57	4,695.45	-48.92	164.38	56.96	0.00	0.00	0.00
4,800.00	3.07	106.57	4,795.30	-50.45	169.52	58.74	0.00	0.00	0.00
4,900.00	3.07	106.57	4,895.16	-51.98	174.66	60.52	0.00	0.00	0.00
5,000.00	3.07	106.57	4,995.01	-53.51	179.80	62.30	0.00	0.00	0.00
5,100.00	3.07	106.57	5,094.87	-55.04	184.94	64.08	0.00	0.00	0.00
5,197.27	3.07	106.57	5,192.00	-56.53	189.94	65.81	0.00	0.00	0.00
<b>Lamar</b>									
5,200.00	3.07	106.57	5,194.73	-56.57	190.08	65.86	0.00	0.00	0.00
5,292.41	3.07	106.57	5,287.00	-57.99	194.83	67.51	0.00	0.00	0.00
<b>Bell Canyon</b>									
5,300.00	3.07	106.57	5,294.58	-58.10	195.22	67.64	0.00	0.00	0.00
5,400.00	3.07	106.57	5,394.44	-59.63	200.36	69.43	0.00	0.00	0.00
5,500.00	3.07	106.57	5,494.30	-61.16	205.50	71.21	0.00	0.00	0.00
5,600.00	3.07	106.57	5,594.15	-62.69	210.64	72.99	0.00	0.00	0.00
5,700.00	3.07	106.57	5,694.01	-64.22	215.78	74.77	0.00	0.00	0.00
5,800.00	3.07	106.57	5,793.86	-65.75	220.92	76.55	0.00	0.00	0.00
5,900.00	3.07	106.57	5,893.72	-67.28	226.07	78.33	0.00	0.00	0.00
6,000.00	3.07	106.57	5,993.58	-68.81	231.21	80.11	0.00	0.00	0.00
6,100.00	3.07	106.57	6,093.43	-70.34	236.35	81.89	0.00	0.00	0.00
6,130.61	3.07	106.57	6,124.00	-70.81	237.92	82.44	0.00	0.00	0.00
<b>Cherry Canyon</b>									
6,200.00	3.07	106.57	6,193.29	-71.87	241.49	83.68	0.00	0.00	0.00
6,301.99	3.07	106.57	6,295.13	-73.43	246.73	85.49	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
6,400.00	1.60	106.57	6,393.06	-74.57	250.56	86.82	1.50	-1.50	0.00
6,506.96	0.00	0.00	6,500.00	-75.00	252.00	87.32	1.50	-1.50	0.00
<b>Start 5351.86 hold at 6506.96 MD</b>									
6,600.00	0.00	0.00	6,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
6,700.00	0.00	0.00	6,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
6,800.00	0.00	0.00	6,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
6,900.00	0.00	0.00	6,893.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,000.00	0.00	0.00	6,993.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,100.00	0.00	0.00	7,093.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,200.00	0.00	0.00	7,193.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,300.00	0.00	0.00	7,293.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,400.00	0.00	0.00	7,393.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,500.00	0.00	0.00	7,493.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,591.96	0.00	0.00	7,585.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Brushy Canyon</b>									
7,600.00	0.00	0.00	7,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,700.00	0.00	0.00	7,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,800.00	0.00	0.00	7,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
7,900.00	0.00	0.00	7,893.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,000.00	0.00	0.00	7,993.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,100.00	0.00	0.00	8,093.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,200.00	0.00	0.00	8,193.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,300.00	0.00	0.00	8,293.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,400.00	0.00	0.00	8,393.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,500.00	0.00	0.00	8,493.04	-75.00	252.00	87.32	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
8,600.00	0.00	0.00	8,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,700.00	0.00	0.00	8,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,800.00	0.00	0.00	8,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,900.00	0.00	0.00	8,893.04	-75.00	252.00	87.32	0.00	0.00	0.00
8,903.96	0.00	0.00	8,897.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Bone Spring Lime</b>									
9,000.00	0.00	0.00	8,993.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,039.96	0.00	0.00	9,033.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Avalon</b>									
9,100.00	0.00	0.00	9,093.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,200.00	0.00	0.00	9,193.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,228.96	0.00	0.00	9,222.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>*Chert Zone*</b>									
9,300.00	0.00	0.00	9,293.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,400.00	0.00	0.00	9,393.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,500.00	0.00	0.00	9,493.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,600.00	0.00	0.00	9,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,700.00	0.00	0.00	9,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,800.00	0.00	0.00	9,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
9,900.00	0.00	0.00	9,893.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,000.00	0.00	0.00	9,993.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,100.00	0.00	0.00	10,093.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,200.00	0.00	0.00	10,193.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,253.96	0.00	0.00	10,247.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>First Bone Spring Sand</b>									
10,300.00	0.00	0.00	10,293.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,400.00	0.00	0.00	10,393.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,432.96	0.00	0.00	10,426.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Second Bone Spring Carbonates</b>									
10,500.00	0.00	0.00	10,493.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,600.00	0.00	0.00	10,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,659.96	0.00	0.00	10,653.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Second Bone Spring Sand</b>									
10,700.00	0.00	0.00	10,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,800.00	0.00	0.00	10,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
10,900.00	0.00	0.00	10,893.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,000.00	0.00	0.00	10,993.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,100.00	0.00	0.00	11,093.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,200.00	0.00	0.00	11,193.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,278.96	0.00	0.00	11,272.00	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Third Bone Spring Carbonates</b>									
11,300.00	0.00	0.00	11,293.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,400.00	0.00	0.00	11,393.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,500.00	0.00	0.00	11,493.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,600.00	0.00	0.00	11,593.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,700.00	0.00	0.00	11,693.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,800.00	0.00	0.00	11,793.04	-75.00	252.00	87.32	0.00	0.00	0.00
11,858.82	0.00	0.00	11,851.86	-75.00	252.00	87.32	0.00	0.00	0.00
<b>Start Build 10.00</b>									
11,900.00	4.12	180.00	11,893.01	-76.48	252.00	88.80	10.00	10.00	0.00
11,912.03	5.32	180.00	11,905.00	-77.47	252.00	89.78	10.00	10.00	0.00
<b>Third Bone Spring Sand</b>									
11,950.00	9.12	180.00	11,942.66	-82.24	252.00	94.55	10.00	10.00	0.00



## Planning Report



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<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
12,000.00	14.12	180.00	11,991.62	-92.31	252.00	104.60	10.00	10.00	0.00
12,050.00	19.12	180.00	12,039.51	-106.60	252.00	118.88	10.00	10.00	0.00
12,100.00	24.12	180.00	12,085.98	-125.02	252.00	137.27	10.00	10.00	0.00
12,150.00	29.12	180.00	12,130.67	-147.41	252.00	159.64	10.00	10.00	0.00
12,200.00	34.12	180.00	12,173.23	-173.62	252.01	185.81	10.00	10.00	0.00
12,250.00	39.12	180.00	12,213.35	-203.43	252.01	215.59	10.00	10.00	0.00
12,294.84	43.60	180.00	12,247.00	-233.05	252.01	245.18	10.00	10.00	0.00
<b>Wolfcamp</b>									
12,300.00	44.12	180.00	12,250.72	-236.63	252.01	248.75	10.00	10.00	0.00
12,350.00	49.12	180.00	12,285.05	-272.96	252.01	285.03	10.00	10.00	0.00
12,381.49	52.27	180.00	12,305.00	-297.32	252.01	309.37	10.00	10.00	0.00
<b>Wolfcamp A</b>									
12,400.00	54.12	180.00	12,316.09	-312.14	252.01	324.17	10.00	10.00	0.00
12,450.00	59.12	180.00	12,343.59	-353.88	252.02	365.86	10.00	10.00	0.00
12,500.00	64.12	180.00	12,367.35	-397.85	252.02	409.78	10.00	10.00	0.00
12,550.00	69.12	180.00	12,387.19	-443.73	252.02	455.60	10.00	10.00	0.00
12,600.00	74.12	180.00	12,402.95	-491.16	252.02	502.98	10.00	10.00	0.00
12,650.00	79.12	180.00	12,414.52	-539.79	252.03	551.55	10.00	10.00	0.00
12,670.33	81.15	180.00	12,418.00	-559.82	252.03	571.55	10.00	10.00	0.00
<b>HZ Target</b>									
12,700.00	84.12	180.00	12,421.80	-589.24	252.03	600.94	10.00	10.00	0.00
12,752.82	89.40	180.00	12,424.79	-641.96	252.03	653.59	10.00	10.00	0.00
<b>Start 4475.68 hold at 12752.82 MD</b>									
12,800.00	89.40	180.00	12,425.28	-689.14	252.04	700.71	0.00	0.00	0.00
12,900.00	89.40	180.00	12,426.33	-789.13	252.04	800.58	0.00	0.00	0.00
13,000.00	89.40	180.00	12,427.38	-889.13	252.05	900.46	0.00	0.00	0.00
13,100.00	89.40	180.00	12,428.42	-989.12	252.05	1,000.33	0.00	0.00	0.00
13,200.00	89.40	180.00	12,429.47	-1,089.11	252.06	1,100.20	0.00	0.00	0.00
13,300.00	89.40	180.00	12,430.52	-1,189.11	252.06	1,200.08	0.00	0.00	0.00
13,400.00	89.40	180.00	12,431.57	-1,289.10	252.07	1,299.95	0.00	0.00	0.00
13,500.00	89.40	180.00	12,432.61	-1,389.10	252.08	1,399.83	0.00	0.00	0.00
13,600.00	89.40	180.00	12,433.66	-1,489.09	252.08	1,499.70	0.00	0.00	0.00
13,700.00	89.40	180.00	12,434.71	-1,589.09	252.09	1,599.57	0.00	0.00	0.00
13,800.00	89.40	180.00	12,435.75	-1,689.08	252.09	1,699.45	0.00	0.00	0.00
13,900.00	89.40	180.00	12,436.80	-1,789.08	252.10	1,799.32	0.00	0.00	0.00
14,000.00	89.40	180.00	12,437.85	-1,889.07	252.10	1,899.19	0.00	0.00	0.00
14,100.00	89.40	180.00	12,438.90	-1,989.06	252.11	1,999.07	0.00	0.00	0.00
14,200.00	89.40	180.00	12,439.94	-2,089.06	252.12	2,098.94	0.00	0.00	0.00
14,300.00	89.40	180.00	12,440.99	-2,189.05	252.12	2,198.81	0.00	0.00	0.00
14,400.00	89.40	180.00	12,442.04	-2,289.05	252.13	2,298.69	0.00	0.00	0.00
14,500.00	89.40	180.00	12,443.08	-2,389.04	252.13	2,398.56	0.00	0.00	0.00
14,600.00	89.40	180.00	12,444.13	-2,489.04	252.14	2,498.43	0.00	0.00	0.00
14,700.00	89.40	180.00	12,445.18	-2,589.03	252.14	2,598.31	0.00	0.00	0.00
14,800.00	89.40	180.00	12,446.23	-2,689.03	252.15	2,698.18	0.00	0.00	0.00
14,900.00	89.40	180.00	12,447.27	-2,789.02	252.16	2,798.05	0.00	0.00	0.00
15,000.00	89.40	180.00	12,448.32	-2,889.02	252.16	2,897.93	0.00	0.00	0.00
15,100.00	89.40	180.00	12,449.37	-2,989.01	252.17	2,997.80	0.00	0.00	0.00
15,200.00	89.40	180.00	12,450.41	-3,089.00	252.17	3,097.67	0.00	0.00	0.00
15,300.00	89.40	180.00	12,451.46	-3,189.00	252.18	3,197.55	0.00	0.00	0.00
15,400.00	89.40	180.00	12,452.51	-3,288.99	252.18	3,297.42	0.00	0.00	0.00
15,500.00	89.40	180.00	12,453.56	-3,388.99	252.19	3,397.30	0.00	0.00	0.00
15,600.00	89.40	180.00	12,454.60	-3,488.98	252.20	3,497.17	0.00	0.00	0.00
15,700.00	89.40	180.00	12,455.65	-3,588.98	252.20	3,597.04	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,800.00	89.40	180.00	12,456.70	-3,688.97	252.21	3,696.92	0.00	0.00	0.00
15,900.00	89.40	180.00	12,457.74	-3,788.97	252.21	3,796.79	0.00	0.00	0.00
16,000.00	89.40	180.00	12,458.79	-3,888.96	252.22	3,896.66	0.00	0.00	0.00
16,100.00	89.40	180.00	12,459.84	-3,988.96	252.23	3,996.54	0.00	0.00	0.00
16,200.00	89.40	180.00	12,460.89	-4,088.95	252.23	4,096.41	0.00	0.00	0.00
16,300.00	89.40	180.00	12,461.93	-4,188.94	252.24	4,196.28	0.00	0.00	0.00
16,400.00	89.40	180.00	12,462.98	-4,288.94	252.24	4,296.16	0.00	0.00	0.00
16,500.00	89.40	180.00	12,464.03	-4,388.93	252.25	4,396.03	0.00	0.00	0.00
16,600.00	89.40	180.00	12,465.08	-4,488.93	252.25	4,495.90	0.00	0.00	0.00
16,700.00	89.40	180.00	12,466.12	-4,588.92	252.26	4,595.78	0.00	0.00	0.00
16,800.00	89.40	180.00	12,467.17	-4,688.92	252.27	4,695.65	0.00	0.00	0.00
16,900.00	89.40	180.00	12,468.22	-4,788.91	252.27	4,795.52	0.00	0.00	0.00
17,000.00	89.40	180.00	12,469.26	-4,888.91	252.28	4,895.40	0.00	0.00	0.00
17,100.00	89.40	180.00	12,470.31	-4,988.90	252.28	4,995.27	0.00	0.00	0.00
17,200.00	89.40	180.00	12,471.36	-5,088.89	252.29	5,095.14	0.00	0.00	0.00
17,228.50	89.40	180.00	12,471.66	-5,117.39	252.29	5,123.61	0.00	0.00	0.00

TD at 17228.50

## Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL - TSC 701H	0.00	0.00	12,471.66	-5,117.39	252.29	388,958.65	847,744.11	32.065467	-103.344205
- plan hits target center									
- Point									





## Planning Report



<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Tatanka State Com 701
<b>Company:</b>	Franklin Mountain Energy	<b>TVD Reference:</b>	RKB +30' @ 3163.00usft
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	RKB +30' @ 3163.00usft
<b>Site:</b>	Tatanka Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	Tatanka State Com 701	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
30.00	30.00	Cenozoic Alluvium (surface)			
799.00	799.00	Rustler			
1,165.00	1,165.00	Salado			
3,352.61	3,350.00	Base Salt			
5,197.27	5,192.00	Lamar			
5,292.41	5,287.00	Bell Canyon			
6,130.61	6,124.00	Cherry Canyon			
7,591.96	7,585.00	Brushy Canyon			
8,903.96	8,897.00	Bone Spring Lime			
9,039.96	9,033.00	Avalon			
9,228.96	9,222.00	*Chert Zone*			
10,253.96	10,247.00	First Bone Spring Sand			
10,432.96	10,426.00	Second Bone Spring Carbonates			
10,659.96	10,653.00	Second Bone Spring Sand			
11,278.96	11,272.00	Third Bone Spring Carbonates			
11,912.03	11,905.00	Third Bone Spring Sand			
12,294.84	12,247.00	Wolfcamp			
12,381.49	12,305.00	Wolfcamp A			
12,670.33	12,418.00	HZ Target			

## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,400.00	1,400.00	0.00	0.00	Start Build 1.50
1,604.97	1,604.87	-1.57	5.27	Start 4697.01 hold at 1604.97 MD
6,301.99	6,295.13	-73.43	246.73	Start Drop -1.50
6,506.96	6,500.00	-75.00	252.00	Start 5351.86 hold at 6506.96 MD
11,858.82	11,851.86	-75.00	252.00	Start Build 10.00
12,752.82	12,424.79	-641.96	252.03	Start 4475.68 hold at 12752.82 MD
17,228.50	12,471.66	-5,117.39	252.29	TD at 17228.50