Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
[326125]

2. Name of Operator
[373910]

9. API Well No. 30-025-49870

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory [97088]
XXXXXXXXXXXX

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NGMP Rec 03/08/2022

SL

APPROVED WITH CONDITIONS

KZ
03/16/2022

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 03/07/2022

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 03/07/2022

Additional Operator Remarks

Location of Well

0. SHL: TR C / 20 FNL / 1422 FWL / TWSP: 26S / RANGE: 35E / SECTION: 2 / LAT: 32.079512 / LONG: -103.34228 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 0 FNL / 1877 FWL / TWSP: 26S / RANGE: 35E / SECTION: 11 / LAT: 32.065054 / LONG: -103.340795 (TVD: 10739 feet, MD: 15700 feet)

PPP: SENW / 2647 FNL / 1875 FWL / TWSP: 26S / RANGE: 35E / SECTION: 2 / LAT: 32.072293 / LONG: -103.340802 (TVD: 10739 feet, MD: 13100 feet)

PPP: TR C / 627 FNL / 1877 FWL / TWSP: 26S / RANGE: 35E / SECTION: 2 / LAT: 32.077843 / LONG: -103.340807 (TVD: 10739 feet, MD: 11091 feet)

BHL: TR N / 150 FSL / 1877 FWL / TWSP: 26S / RANGE: 35E / SECTION: 11 / LAT: 32.05094 / LONG: -103.340782 (TVD: 10739 feet, MD: 20879 feet)

BLM Point of Contact

Name: TENILLE ORTIZ
Title: Legal Instruments Examiner
Phone: (575) 234-2224
Email: tortiz@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 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

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-49870	97088	WC-025 G-08 S253534O;BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
326125	TATANKA FED COM	502H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC	3120.8'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	2	26S	35E		20	NORTH	1422	WEST	LEA

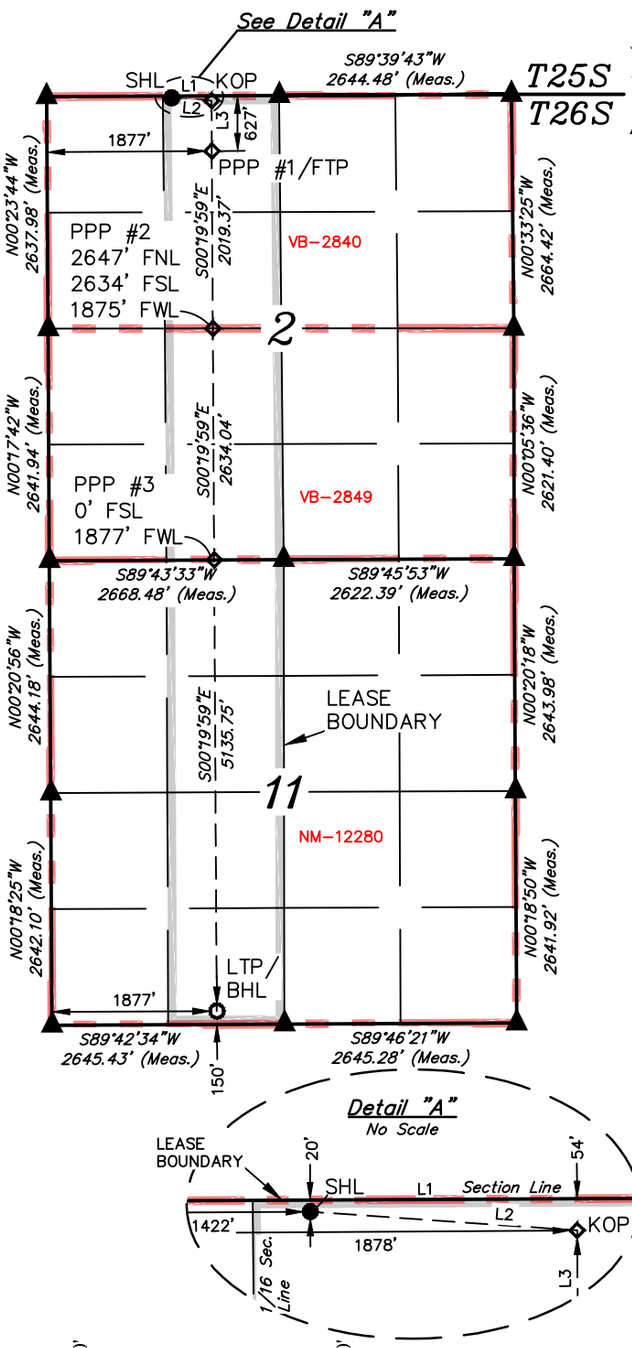
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	11	26S	35E		150	SOUTH	1877	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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]



2000' 1000' 0' 2000'

SCALE
DRAWN BY: Z.L. 04-30-21
REV: 1 D.P. 06-29-21
(ADD KOP, PPP POINTS & LEASE INFO.)

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°42'05"W	2648.06'
L2	S85°59'51"E	457.05'
L3	S00°19'59"E	573.04'

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/PPP/FTP
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°04'46.24" (32.079512°)
LONGITUDE = 103°20'32.21" (103.342280°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°04'45.79" (32.079385°)
LONGITUDE = 103°20'30.55" (103.341818°)
STATE PLANE NAD 83 (N.M. EAST)
N: 394073.60' E: 848293.63'
STATE PLANE NAD 27 (N.M. EAST)
N: 394015.71' E: 807106.02'

NAD 83 (KICK OFF POINT)
LATITUDE = 32°04'45.90" (32.079418°)
LONGITUDE = 103°20'26.91" (103.340808°)
NAD 27 (KICK OFF POINT)
LATITUDE = 32°04'45.45" (32.079291°)
LONGITUDE = 103°20'25.25" (103.340347°)
STATE PLANE NAD 83 (N.M. EAST)
N: 394043.60' E: 848749.63'
STATE PLANE NAD 27 (N.M. EAST)
N: 393985.71' E: 807562.01'

NAD 83 (PPP #1/FTP)
LATITUDE = 32°04'40.23" (32.077843°)
LONGITUDE = 103°20'26.91" (103.340807°)
NAD 27 (PPP #1/FTP)
LATITUDE = 32°04'39.78" (32.077716°)
LONGITUDE = 103°20'25.24" (103.340346°)
STATE PLANE NAD 83 (N.M. EAST)
N: 393470.67' E: 848755.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 393412.80' E: 807567.71'

NAD 83 (PPP #2)
LATITUDE = 32°04'20.26" (32.072293°)
LONGITUDE = 103°20'26.89" (103.340802°)
NAD 27 (PPP #2)
LATITUDE = 32°04'19.80" (32.072166°)
LONGITUDE = 103°20'25.23" (103.340341°)
STATE PLANE NAD 83 (N.M. EAST)
N: 391451.70' E: 848775.50'
STATE PLANE NAD 27 (N.M. EAST)
N: 391393.89' E: 807587.78'

NAD 83 (PPP #3)
LATITUDE = 32°03'54.20" (32.065054°)
LONGITUDE = 103°20'26.86" (103.340795°)
NAD 27 (PPP #3)
LATITUDE = 32°03'53.74" (32.064927°)
LONGITUDE = 103°20'25.20" (103.340335°)
STATE PLANE NAD 83 (N.M. EAST)
N: 388818.18' E: 848801.79'
STATE PLANE NAD 27 (N.M. EAST)
N: 388760.44' E: 807613.96'

NAD 83 (LTP/BHL)
LATITUDE = 32°03'03.38" (32.050940°)
LONGITUDE = 103°20'26.82" (103.340782°)
NAD 27 (LTP/BHL)
LATITUDE = 32°03'02.93" (32.050813°)
LONGITUDE = 103°20'25.16" (103.340322°)
STATE PLANE NAD 83 (N.M. EAST)
N: 383683.44' E: 848853.04'
STATE PLANE NAD 27 (N.M. EAST)
N: 383625.84' E: 807665.00'

[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 7/8/2021 Date

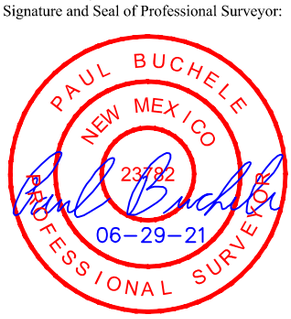
Shelly Albrecht
Printed Name

salbrecht@fmellc.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:

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

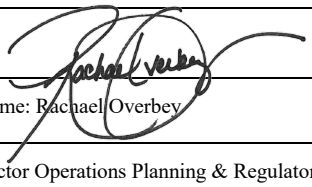
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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@fmellc.com
Date: 3/8/2022
Phone: 720-414-7868

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
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 30-025-49870	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 Fed 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	TBD30-025-49870	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 Fed 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

FRANKLIN MOUNTAIN ENERGY

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.

FRANKLIN MOUNTAIN ENERGY

Tatanka Fed Com 502H

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)	3,120'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,334'	816'			Carbonates
Salado	1,934'	1,216'			Salt, Carbonate & Clastics
Base Salt	-445'	3,595'			Shaley Carbonate & Shale
Lamar	-2,010'	5,160'			Carbonate & Clastics
Bell Canyon	-2,098'	5,248'			Sandstone - oil/gas/water
Cherry Canyon	-2,957'	6,107'			Sandstone - oil/gas/water
Brushy Canyon	-4,395'	7,545'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,734'	8,884'			Shale/Carbonates - oil/gas
Avalon	-5,775'	8,925'			Shale/Carbonates - oil/gas
Chert Zone	-5,956'	9,106'			Chert/Carbonate
First Bone Spring Sand	-7,054'	10,204'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-7,241'	10,391'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,530'	10,680'			Sandstone - oil/gas/water
HZ Target at Landing	-7,589'	10,739'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-8,096'	11,246'			Shale/Carbonates - oil/gas

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,248’	Oil
Bone Spring Sand	10,204’	Oil
Bone Spring Carbonate	11,246’	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
						BTC					
Surface 13 3/8"	54.5	J-55	2730	1130	853	909	1300	1.18	1.67	4.99	5.32
						BTC					
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	1042	5200	1.77	1.74	2.97	3.38
						Stinger					
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	564	11091	1.20	1.38	1.93	1.31
						Eagle					
Long string 5 1/2"	23	P-110	14520	14520	729	606	20879	1.32	1.49	1.26	1.04
						TVD	10739				1.75

7 5/8”casing will be set at 11,099’MD/10,739’ TVD at 90°Inc. Stress calculations on 5 ½” casing performed assuming 20,879’ depth. Actual max vertical depth is 10,739’.

Cementing Program:
Cementing Stage tool can be placed in the 1st Intermediate string as a contingency to ensure required TOC to surface.

String Type	Hole Size	Casing Size	Setting Depth	Sacks	Lead Type of cmt	Yield ft3/sk	Water gal/sk	TOC ft	Tail Sacks	Type of cmt	Yield ft3/sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	795	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal 0.125pps Poly-E-Flake	1.747	9.06	0	334	Tail, 14.8 ppg, Class C, 1% CaCl2, 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5200	1523	Lead, 12.8 ppg, Class C 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	1.79	9.74	0	154	Tail, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.33	6.37	4850	100%
Int2	8.75	7.625	11091	316	Lite Fill, 9.5 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	2.13	5.97	4200	94	NeoCem 14.8 ppg, Class C 0.25 pps Cello-Flake, 2% CaCl2	1.33	6.29	10091	50%
Prod	6.75	5.5	20879	804	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	10091						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 ½" 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.

FRANKLIN MOUNTAIN ENERGY

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' – 11,091'	Brine	8.8-10.2	28-34	N/c
11,091' – 20,879' Lateral	Oil Base	10.0-12.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 10-11 ppg. In order to maintain hole stability, mud weights up to 12 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) H2S 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 10,739' TVD (deepest point of the well) is 170F with an estimated maximum bottom-hole pressure (BHP) at the same point of 6,701 psig (based on 12 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 H2S 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/Escape 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.

FRANKLIN MOUNTAIN ENERGY

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 ½" casing due to the tight clearance with 6 3/4" hole and 5 ½" casing due to tight clearances.

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Tatanka Fed Com
Well: Tatanka Fed Com 502H
Wellbore: OH
Design: Plan #1

Azimuths to Grid North
True North: -0.53°
Magnetic North: 5.90°

Magnetic Field
Strength: 47430.8nT
Dip Angle: 59.80°
Date: 6/24/2021
Model: IGRF2020

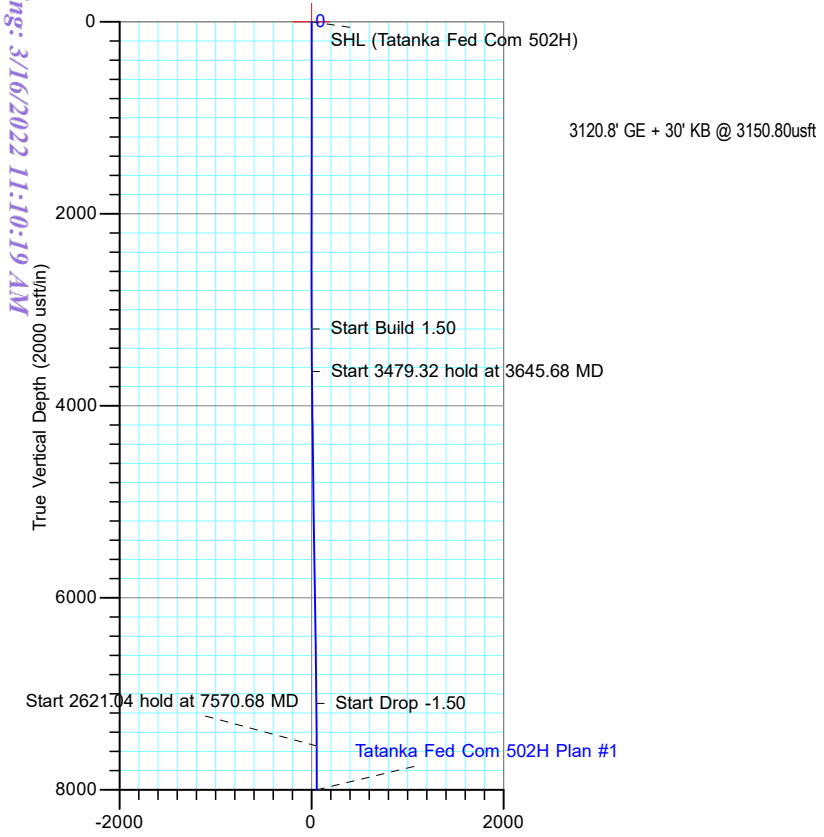
PROJECT DETAILS: Lea County, NM (NAD83)

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

FRANKLIN MOUNTAIN ENERGY

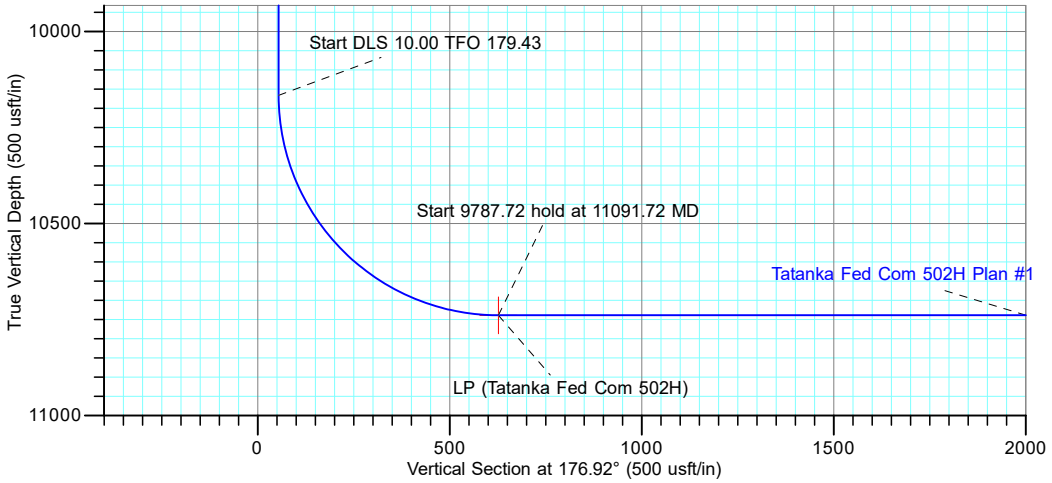
SECTION DETAILS

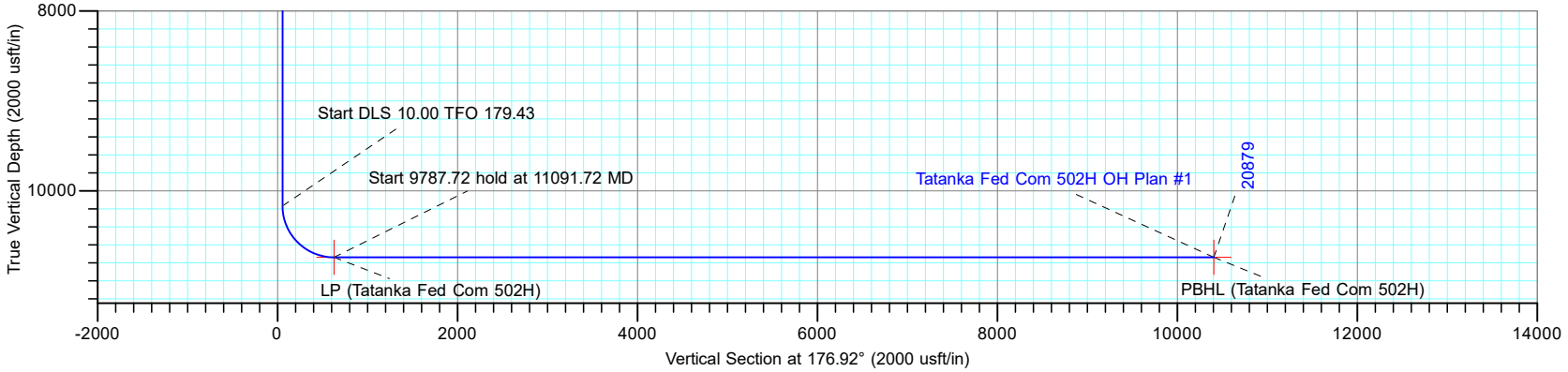
MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3645.68	6.69	93.76	3644.67	-1.70	25.92	1.50	93.76	3.10	Start 3479.32 hold at 3645.68 MD
7125.00	6.69	93.76	7100.33	-28.30	430.08	0.00	0.00	51.38	Start Drop -1.50
7570.68	0.00	0.00	7545.00	-30.00	456.00	1.50	180.00	54.47	Start 2621.04 hold at 7570.68 MD
10191.72	0.00	0.00	10166.04	-30.00	456.00	0.00	0.00	54.47	Start DLS 10.00 TFO 179.43
11091.72	90.00	179.43	10739.00	-602.93	461.72	10.00	179.43	626.88	Start 9787.72 hold at 11091.72 MD
20879.44	90.00	179.43	10739.00	-10390.16	559.41	0.00	0.00	10405.21	TD at 20879.44



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (Tatanka Fed Com 502H)	10739.00	-602.93	461.72	32.077843	-103.340807
PBHL (Tatanka Fed Com 502H)	10739.00	-10390.16	559.41	32.050940	-103.340782
SHL (Tatanka Fed Com 502H)	0.00	0.00	0.00	32.079512	-103.342280





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

Plan: Plan #1 (Tatanka Fed Com 502H/OH)
Tatanka Fed Com
Created By: Dustin Ault Date: 21:53, June 24 202
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Tatanka Fed Com
Well: Tatanka Fed Com 502H
Wellbore: OH
Design: Plan #1

Azimuths to Grid North
True North: -0.53°
Magnetic North: 5.90°

Magnetic Field
Strength: 47430.8nT
Dip Angle: 59.80°
Date: 6/24/2021
Model: IGRF2020

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

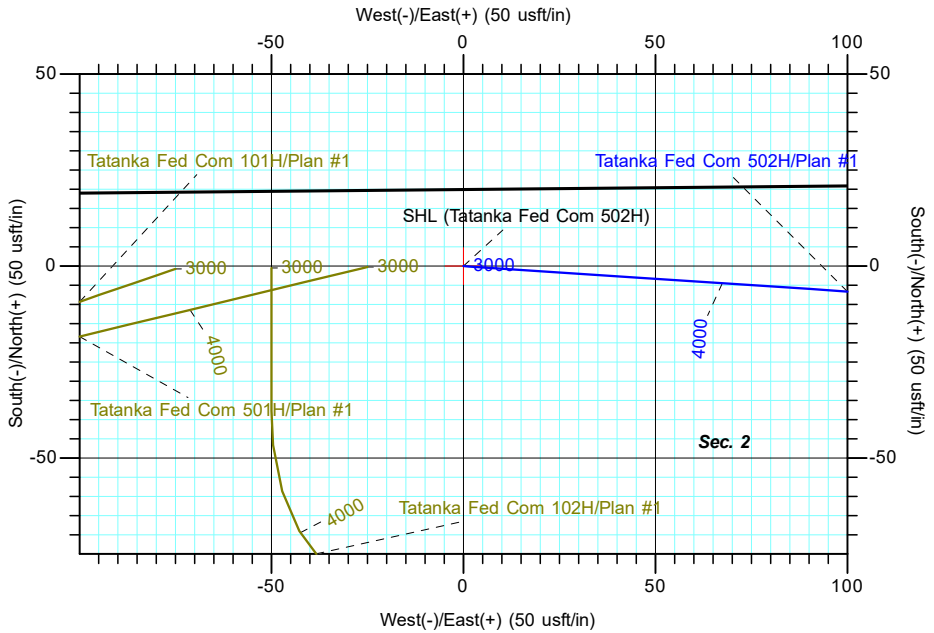
FRANKLIN MOUNTAIN ENERGY

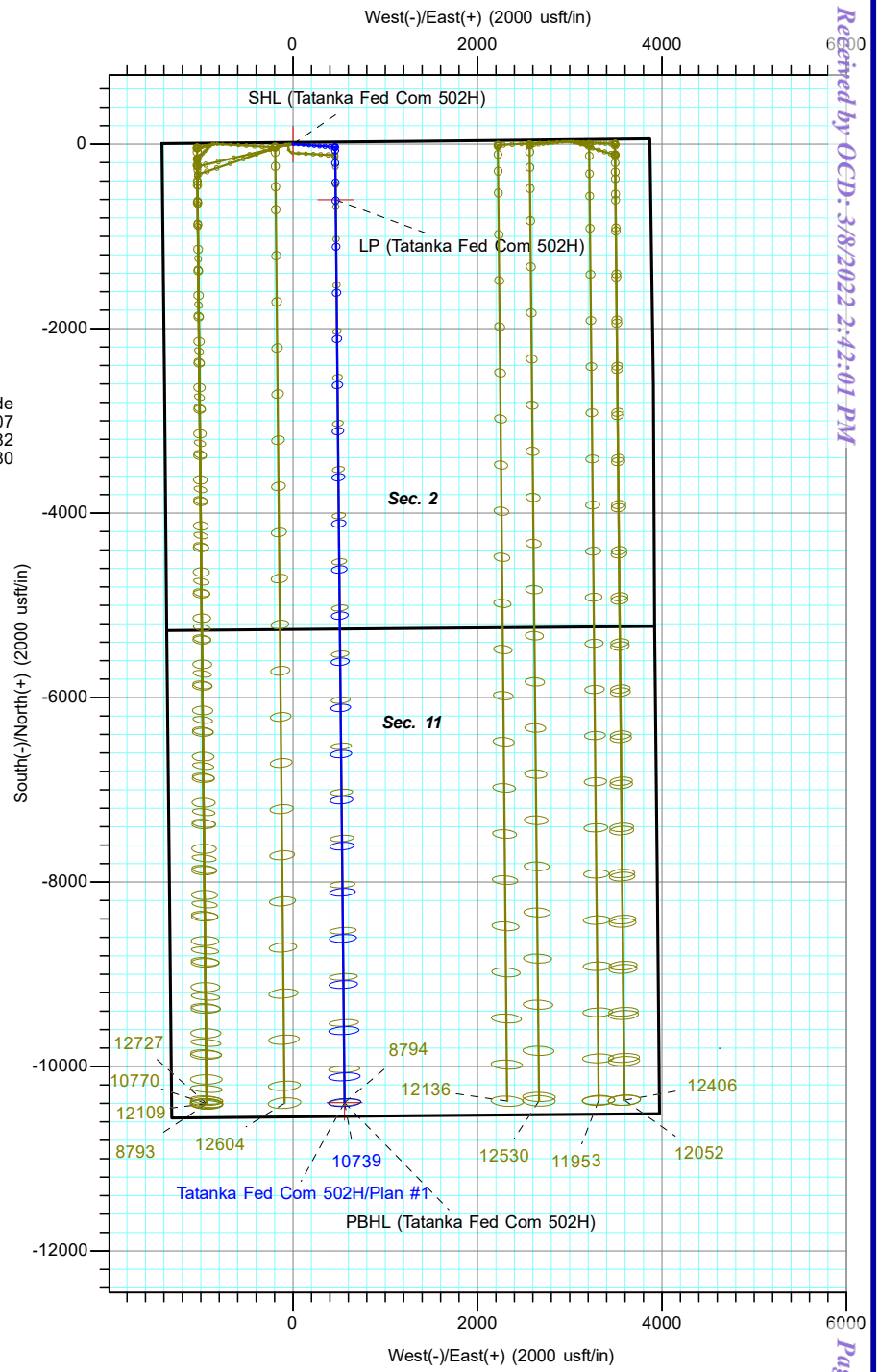
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (Tatanka Fed Com 502H)	10739.00	-602.93	461.72	393470.67	848755.35	32.077843	-103.340807
PBHL (Tatanka Fed Com 502H)	10739.00	-10390.16	559.41	383683.44	848853.04	32.050940	-103.340782
SHL (Tatanka Fed Com 502H)	0.00	0.00	0.00	394073.60	848293.63	32.079512	-103.342280

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3645.68	6.69	93.76	3644.67	-1.70	25.92	1.50	93.76	3.10	Start 3479.32 hold at 3645.68 MD
7125.00	6.69	93.76	7100.33	-28.30	430.08	0.00	0.00	51.38	Start Drop -1.50
7570.68	0.00	0.00	7545.00	-30.00	456.00	1.50	180.00	54.47	Start 2621.04 hold at 7570.68 MD
10191.72	0.00	0.00	10166.04	-30.00	456.00	0.00	0.00	54.47	Start DLS 10.00 TFO 179.43
11091.72	90.00	179.43	10739.00	-602.93	461.72	10.00	179.43	626.88	Start 9787.72 hold at 11091.72 MD
20879.44	90.00	179.43	10739.00	-10390.16	559.41	0.00	0.00	10405.21	TD at 20879.44





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Tatanka Fed Com
Created By: Dustin Ault Date: 21:54, June 24 202
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Lea County, NM (NAD83)
Tatanka Fed Com
Tatanka Fed Com 502H

OH

Plan: Plan #1

Standard Planning Report

24 June, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Company:	Franklin Mountain Energy	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Lea County, NM (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	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 "	**Grid Convergence:**	0.52 °

Well Tatanka Fed Com 502H

Well Position	**+N/-S**	-1.76 usft	**Northing:**	394,073.60 usft	**Latitude:**	32.079512
	+E/-W	876.89 usft	**Easting:**	848,293.63 usft	**Longitude:**	-103.342280
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,120.80 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/24/2021	6.42	59.80	47,430.77087441

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	176.92

Plan Survey Tool Program **Date** 6/24/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,879.33	Plan #1 (OH)	OWSG (Rev2) MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,645.68	6.69	93.76	3,644.67	-1.70	25.92	1.50	1.50	0.00	93.76	
7,125.00	6.69	93.76	7,100.33	-28.30	430.08	0.00	0.00	0.00	0.00	
7,570.68	0.00	0.00	7,545.00	-30.00	456.00	1.50	-1.50	0.00	180.00	
10,191.72	0.00	0.00	10,166.04	-30.00	456.00	0.00	0.00	0.00	0.00	
11,091.72	90.00	179.43	10,739.00	-602.93	461.72	10.00	10.00	19.94	179.43	
20,879.44	90.00	179.43	10,739.00	-10,390.16	559.41	0.00	0.00	0.00	0.00	PBHL (Tatanka Fed C

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Company:	Franklin Mountain Energy	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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
SHL (Tatanka Fed Com 502H)									
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
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
1,200.00	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
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
3,300.00	1.50	93.76	3,299.99	-0.09	1.31	0.16	1.50	1.50	0.00
3,400.00	3.00	93.76	3,399.91	-0.34	5.22	0.62	1.50	1.50	0.00
3,500.00	4.50	93.76	3,499.69	-0.77	11.75	1.40	1.50	1.50	0.00
3,600.00	6.00	93.76	3,599.27	-1.37	20.88	2.49	1.50	1.50	0.00
3,645.68	6.69	93.76	3,644.67	-1.70	25.92	3.10	1.50	1.50	0.00
Start 3479.32 hold at 3645.68 MD									
3,700.00	6.69	93.76	3,698.62	-2.12	32.23	3.85	0.00	0.00	0.00
3,800.00	6.69	93.76	3,797.94	-2.88	43.84	5.24	0.00	0.00	0.00
3,900.00	6.69	93.76	3,897.26	-3.65	55.46	6.62	0.00	0.00	0.00
4,000.00	6.69	93.76	3,996.58	-4.41	67.07	8.01	0.00	0.00	0.00
4,100.00	6.69	93.76	4,095.90	-5.18	78.69	9.40	0.00	0.00	0.00
4,200.00	6.69	93.76	4,195.22	-5.94	90.31	10.79	0.00	0.00	0.00
4,300.00	6.69	93.76	4,294.54	-6.71	101.92	12.18	0.00	0.00	0.00
4,400.00	6.69	93.76	4,393.86	-7.47	113.54	13.56	0.00	0.00	0.00
4,500.00	6.69	93.76	4,493.18	-8.23	125.16	14.95	0.00	0.00	0.00
4,600.00	6.69	93.76	4,592.50	-9.00	136.77	16.34	0.00	0.00	0.00
4,700.00	6.69	93.76	4,691.82	-9.76	148.39	17.73	0.00	0.00	0.00
4,800.00	6.69	93.76	4,791.14	-10.53	160.00	19.11	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Company:	Franklin Mountain Energy	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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)
4,900.00	6.69	93.76	4,890.46	-11.29	171.62	20.50	0.00	0.00	0.00
5,000.00	6.69	93.76	4,989.78	-12.06	183.24	21.89	0.00	0.00	0.00
5,100.00	6.69	93.76	5,089.10	-12.82	194.85	23.28	0.00	0.00	0.00
5,200.00	6.69	93.76	5,188.42	-13.58	206.47	24.66	0.00	0.00	0.00
5,300.00	6.69	93.76	5,287.74	-14.35	218.09	26.05	0.00	0.00	0.00
5,400.00	6.69	93.76	5,387.06	-15.11	229.70	27.44	0.00	0.00	0.00
5,500.00	6.69	93.76	5,486.38	-15.88	241.32	28.83	0.00	0.00	0.00
5,600.00	6.69	93.76	5,585.70	-16.64	252.94	30.21	0.00	0.00	0.00
5,700.00	6.69	93.76	5,685.02	-17.40	264.55	31.60	0.00	0.00	0.00
5,800.00	6.69	93.76	5,784.34	-18.17	276.17	32.99	0.00	0.00	0.00
5,900.00	6.69	93.76	5,883.66	-18.93	287.78	34.38	0.00	0.00	0.00
6,000.00	6.69	93.76	5,982.98	-19.70	299.40	35.77	0.00	0.00	0.00
6,100.00	6.69	93.76	6,082.30	-20.46	311.02	37.15	0.00	0.00	0.00
6,200.00	6.69	93.76	6,181.62	-21.23	322.63	38.54	0.00	0.00	0.00
6,300.00	6.69	93.76	6,280.94	-21.99	334.25	39.93	0.00	0.00	0.00
6,400.00	6.69	93.76	6,380.26	-22.75	345.87	41.32	0.00	0.00	0.00
6,500.00	6.69	93.76	6,479.58	-23.52	357.48	42.70	0.00	0.00	0.00
6,600.00	6.69	93.76	6,578.90	-24.28	369.10	44.09	0.00	0.00	0.00
6,700.00	6.69	93.76	6,678.22	-25.05	380.72	45.48	0.00	0.00	0.00
6,800.00	6.69	93.76	6,777.54	-25.81	392.33	46.87	0.00	0.00	0.00
6,900.00	6.69	93.76	6,876.86	-26.58	403.95	48.25	0.00	0.00	0.00
7,000.00	6.69	93.76	6,976.18	-27.34	415.56	49.64	0.00	0.00	0.00
7,100.00	6.69	93.76	7,075.50	-28.10	427.18	51.03	0.00	0.00	0.00
7,125.00	6.69	93.76	7,100.33	-28.30	430.08	51.38	0.00	0.00	0.00
Start Drop -1.50									
7,200.00	5.56	93.76	7,174.90	-28.82	438.07	52.33	1.50	-1.50	0.00
7,300.00	4.06	93.76	7,274.55	-29.37	446.43	53.33	1.50	-1.50	0.00
7,400.00	2.56	93.76	7,374.38	-29.75	452.20	54.02	1.50	-1.50	0.00
7,500.00	1.06	93.76	7,474.33	-29.96	455.35	54.39	1.50	-1.50	0.00
7,570.68	0.00	0.00	7,545.00	-30.00	456.00	54.47	1.50	-1.50	0.00
Start 2621.04 hold at 7570.68 MD									
7,600.00	0.00	0.00	7,574.32	-30.00	456.00	54.47	0.00	0.00	0.00
7,700.00	0.00	0.00	7,674.32	-30.00	456.00	54.47	0.00	0.00	0.00
7,800.00	0.00	0.00	7,774.32	-30.00	456.00	54.47	0.00	0.00	0.00
7,900.00	0.00	0.00	7,874.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,000.00	0.00	0.00	7,974.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,100.00	0.00	0.00	8,074.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,200.00	0.00	0.00	8,174.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,300.00	0.00	0.00	8,274.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,400.00	0.00	0.00	8,374.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,500.00	0.00	0.00	8,474.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,600.00	0.00	0.00	8,574.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,700.00	0.00	0.00	8,674.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,800.00	0.00	0.00	8,774.32	-30.00	456.00	54.47	0.00	0.00	0.00
8,900.00	0.00	0.00	8,874.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,000.00	0.00	0.00	8,974.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,100.00	0.00	0.00	9,074.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,200.00	0.00	0.00	9,174.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,300.00	0.00	0.00	9,274.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,400.00	0.00	0.00	9,374.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,500.00	0.00	0.00	9,474.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,600.00	0.00	0.00	9,574.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,700.00	0.00	0.00	9,674.32	-30.00	456.00	54.47	0.00	0.00	0.00
9,800.00	0.00	0.00	9,774.32	-30.00	456.00	54.47	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

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Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,900.00	0.00	0.00	9,874.32	-30.00	456.00	54.47	0.00	0.00	0.00
10,000.00	0.00	0.00	9,974.32	-30.00	456.00	54.47	0.00	0.00	0.00
10,100.00	0.00	0.00	10,074.32	-30.00	456.00	54.47	0.00	0.00	0.00
10,191.72	0.00	0.00	10,166.04	-30.00	456.00	54.47	0.00	0.00	0.00
Start DLS 10.00 TFO 179.43									
10,200.00	0.83	179.43	10,174.32	-30.06	456.00	54.53	10.00	10.00	0.00
10,250.00	5.83	179.43	10,224.22	-32.96	456.03	57.43	10.00	10.00	0.00
10,300.00	10.83	179.43	10,273.68	-40.20	456.10	64.66	10.00	10.00	0.00
10,350.00	15.83	179.43	10,322.32	-51.72	456.22	76.18	10.00	10.00	0.00
10,400.00	20.83	179.43	10,369.77	-67.44	456.37	91.88	10.00	10.00	0.00
10,450.00	25.83	179.43	10,415.66	-87.23	456.57	111.65	10.00	10.00	0.00
10,500.00	30.83	179.43	10,459.66	-110.95	456.81	135.35	10.00	10.00	0.00
10,550.00	35.83	179.43	10,501.42	-138.41	457.08	162.79	10.00	10.00	0.00
10,600.00	40.83	179.43	10,540.64	-169.41	457.39	193.75	10.00	10.00	0.00
10,650.00	45.83	179.43	10,577.00	-203.71	457.73	228.02	10.00	10.00	0.00
10,700.00	50.83	179.43	10,610.23	-241.04	458.11	265.32	10.00	10.00	0.00
10,750.00	55.83	179.43	10,640.08	-281.13	458.51	305.37	10.00	10.00	0.00
10,800.00	60.83	179.43	10,666.33	-323.67	458.93	347.87	10.00	10.00	0.00
10,850.00	65.83	179.43	10,688.76	-368.33	459.38	392.49	10.00	10.00	0.00
10,900.00	70.83	179.43	10,707.22	-414.78	459.84	438.90	10.00	10.00	0.00
10,950.00	75.83	179.43	10,721.56	-462.66	460.32	486.74	10.00	10.00	0.00
11,000.00	80.83	179.43	10,731.67	-511.61	460.81	535.64	10.00	10.00	0.00
11,050.00	85.83	179.43	10,737.48	-561.25	461.30	585.24	10.00	10.00	0.00
11,091.72	90.00	179.43	10,739.00	-602.93	461.72	626.88	10.00	10.00	0.00
Start 9787.72 hold at 11091.72 MD - LP (Tatanka Fed Com 502H)									
11,100.00	90.00	179.43	10,739.00	-611.21	461.80	635.15	0.00	0.00	0.00
11,200.00	90.00	179.43	10,739.00	-711.21	462.80	735.06	0.00	0.00	0.00
11,300.00	90.00	179.43	10,739.00	-811.20	463.80	834.96	0.00	0.00	0.00
11,400.00	90.00	179.43	10,739.00	-911.20	464.80	934.87	0.00	0.00	0.00
11,500.00	90.00	179.43	10,739.00	-1,011.19	465.79	1,034.77	0.00	0.00	0.00
11,600.00	90.00	179.43	10,739.00	-1,111.19	466.79	1,134.67	0.00	0.00	0.00
11,700.00	90.00	179.43	10,739.00	-1,211.18	467.79	1,234.58	0.00	0.00	0.00
11,800.00	90.00	179.43	10,739.00	-1,311.18	468.79	1,334.48	0.00	0.00	0.00
11,900.00	90.00	179.43	10,739.00	-1,411.17	469.79	1,434.39	0.00	0.00	0.00
12,000.00	90.00	179.43	10,739.00	-1,511.17	470.78	1,534.29	0.00	0.00	0.00
12,100.00	90.00	179.43	10,739.00	-1,611.16	471.78	1,634.20	0.00	0.00	0.00
12,200.00	90.00	179.43	10,739.00	-1,711.16	472.78	1,734.10	0.00	0.00	0.00
12,300.00	90.00	179.43	10,739.00	-1,811.15	473.78	1,834.00	0.00	0.00	0.00
12,400.00	90.00	179.43	10,739.00	-1,911.15	474.78	1,933.91	0.00	0.00	0.00
12,500.00	90.00	179.43	10,739.00	-2,011.14	475.77	2,033.81	0.00	0.00	0.00
12,600.00	90.00	179.43	10,739.00	-2,111.14	476.77	2,133.72	0.00	0.00	0.00
12,700.00	90.00	179.43	10,739.00	-2,211.13	477.77	2,233.62	0.00	0.00	0.00
12,800.00	90.00	179.43	10,739.00	-2,311.13	478.77	2,333.52	0.00	0.00	0.00
12,900.00	90.00	179.43	10,739.00	-2,411.12	479.77	2,433.43	0.00	0.00	0.00
13,000.00	90.00	179.43	10,739.00	-2,511.12	480.77	2,533.33	0.00	0.00	0.00
13,100.00	90.00	179.43	10,739.00	-2,611.11	481.76	2,633.24	0.00	0.00	0.00
13,200.00	90.00	179.43	10,739.00	-2,711.11	482.76	2,733.14	0.00	0.00	0.00
13,300.00	90.00	179.43	10,739.00	-2,811.10	483.76	2,833.04	0.00	0.00	0.00
13,400.00	90.00	179.43	10,739.00	-2,911.10	484.76	2,932.95	0.00	0.00	0.00
13,500.00	90.00	179.43	10,739.00	-3,011.09	485.76	3,032.85	0.00	0.00	0.00
13,600.00	90.00	179.43	10,739.00	-3,111.09	486.75	3,132.76	0.00	0.00	0.00
13,700.00	90.00	179.43	10,739.00	-3,211.08	487.75	3,232.66	0.00	0.00	0.00
13,800.00	90.00	179.43	10,739.00	-3,311.08	488.75	3,332.56	0.00	0.00	0.00
13,900.00	90.00	179.43	10,739.00	-3,411.07	489.75	3,432.47	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Company:	Franklin Mountain Energy	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.00	90.00	179.43	10,739.00	-3,511.07	490.75	3,532.37	0.00	0.00	0.00
14,100.00	90.00	179.43	10,739.00	-3,611.06	491.74	3,632.28	0.00	0.00	0.00
14,200.00	90.00	179.43	10,739.00	-3,711.06	492.74	3,732.18	0.00	0.00	0.00
14,300.00	90.00	179.43	10,739.00	-3,811.05	493.74	3,832.08	0.00	0.00	0.00
14,400.00	90.00	179.43	10,739.00	-3,911.05	494.74	3,931.99	0.00	0.00	0.00
14,500.00	90.00	179.43	10,739.00	-4,011.04	495.74	4,031.89	0.00	0.00	0.00
14,600.00	90.00	179.43	10,739.00	-4,111.04	496.73	4,131.80	0.00	0.00	0.00
14,700.00	90.00	179.43	10,739.00	-4,211.03	497.73	4,231.70	0.00	0.00	0.00
14,800.00	90.00	179.43	10,739.00	-4,311.03	498.73	4,331.60	0.00	0.00	0.00
14,900.00	90.00	179.43	10,739.00	-4,411.02	499.73	4,431.51	0.00	0.00	0.00
15,000.00	90.00	179.43	10,739.00	-4,511.02	500.73	4,531.41	0.00	0.00	0.00
15,100.00	90.00	179.43	10,739.00	-4,611.01	501.73	4,631.32	0.00	0.00	0.00
15,200.00	90.00	179.43	10,739.00	-4,711.01	502.72	4,731.22	0.00	0.00	0.00
15,300.00	90.00	179.43	10,739.00	-4,811.00	503.72	4,831.13	0.00	0.00	0.00
15,400.00	90.00	179.43	10,739.00	-4,911.00	504.72	4,931.03	0.00	0.00	0.00
15,500.00	90.00	179.43	10,739.00	-5,010.99	505.72	5,030.93	0.00	0.00	0.00
15,600.00	90.00	179.43	10,739.00	-5,110.99	506.72	5,130.84	0.00	0.00	0.00
15,700.00	90.00	179.43	10,739.00	-5,210.98	507.71	5,230.74	0.00	0.00	0.00
15,800.00	90.00	179.43	10,739.00	-5,310.98	508.71	5,330.65	0.00	0.00	0.00
15,900.00	90.00	179.43	10,739.00	-5,410.97	509.71	5,430.55	0.00	0.00	0.00
16,000.00	90.00	179.43	10,739.00	-5,510.97	510.71	5,530.45	0.00	0.00	0.00
16,100.00	90.00	179.43	10,739.00	-5,610.96	511.71	5,630.36	0.00	0.00	0.00
16,200.00	90.00	179.43	10,739.00	-5,710.96	512.70	5,730.26	0.00	0.00	0.00
16,300.00	90.00	179.43	10,739.00	-5,810.95	513.70	5,830.17	0.00	0.00	0.00
16,400.00	90.00	179.43	10,739.00	-5,910.95	514.70	5,930.07	0.00	0.00	0.00
16,500.00	90.00	179.43	10,739.00	-6,010.94	515.70	6,029.97	0.00	0.00	0.00
16,600.00	90.00	179.43	10,739.00	-6,110.94	516.70	6,129.88	0.00	0.00	0.00
16,700.00	90.00	179.43	10,739.00	-6,210.93	517.70	6,229.78	0.00	0.00	0.00
16,800.00	90.00	179.43	10,739.00	-6,310.93	518.69	6,329.69	0.00	0.00	0.00
16,900.00	90.00	179.43	10,739.00	-6,410.92	519.69	6,429.59	0.00	0.00	0.00
17,000.00	90.00	179.43	10,739.00	-6,510.92	520.69	6,529.49	0.00	0.00	0.00
17,100.00	90.00	179.43	10,739.00	-6,610.91	521.69	6,629.40	0.00	0.00	0.00
17,200.00	90.00	179.43	10,739.00	-6,710.91	522.69	6,729.30	0.00	0.00	0.00
17,300.00	90.00	179.43	10,739.00	-6,810.90	523.68	6,829.21	0.00	0.00	0.00
17,400.00	90.00	179.43	10,739.00	-6,910.90	524.68	6,929.11	0.00	0.00	0.00
17,500.00	90.00	179.43	10,739.00	-7,010.89	525.68	7,029.01	0.00	0.00	0.00
17,600.00	90.00	179.43	10,739.00	-7,110.89	526.68	7,128.92	0.00	0.00	0.00
17,700.00	90.00	179.43	10,739.00	-7,210.88	527.68	7,228.82	0.00	0.00	0.00
17,800.00	90.00	179.43	10,739.00	-7,310.88	528.67	7,328.73	0.00	0.00	0.00
17,900.00	90.00	179.43	10,739.00	-7,410.87	529.67	7,428.63	0.00	0.00	0.00
18,000.00	90.00	179.43	10,739.00	-7,510.87	530.67	7,528.53	0.00	0.00	0.00
18,100.00	90.00	179.43	10,739.00	-7,610.86	531.67	7,628.44	0.00	0.00	0.00
18,200.00	90.00	179.43	10,739.00	-7,710.86	532.67	7,728.34	0.00	0.00	0.00
18,300.00	90.00	179.43	10,739.00	-7,810.85	533.66	7,828.25	0.00	0.00	0.00
18,400.00	90.00	179.43	10,739.00	-7,910.85	534.66	7,928.15	0.00	0.00	0.00
18,500.00	90.00	179.43	10,739.00	-8,010.84	535.66	8,028.06	0.00	0.00	0.00
18,600.00	90.00	179.43	10,739.00	-8,110.84	536.66	8,127.96	0.00	0.00	0.00
18,700.00	90.00	179.43	10,739.00	-8,210.83	537.66	8,227.86	0.00	0.00	0.00
18,800.00	90.00	179.43	10,739.00	-8,310.83	538.66	8,327.77	0.00	0.00	0.00
18,900.00	90.00	179.43	10,739.00	-8,410.82	539.65	8,427.67	0.00	0.00	0.00
19,000.00	90.00	179.43	10,739.00	-8,510.82	540.65	8,527.58	0.00	0.00	0.00
19,100.00	90.00	179.43	10,739.00	-8,610.81	541.65	8,627.48	0.00	0.00	0.00
19,200.00	90.00	179.43	10,739.00	-8,710.81	542.65	8,727.38	0.00	0.00	0.00
19,300.00	90.00	179.43	10,739.00	-8,810.80	543.65	8,827.29	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Company:	Franklin Mountain Energy	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site:	Tatanka Fed Com	**North Reference:**	Grid
Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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)
19,400.00	90.00	179.43	10,739.00	-8,910.80	544.64	8,927.19	0.00	0.00	0.00
19,500.00	90.00	179.43	10,739.00	-9,010.79	545.64	9,027.10	0.00	0.00	0.00
19,600.00	90.00	179.43	10,739.00	-9,110.79	546.64	9,127.00	0.00	0.00	0.00
19,700.00	90.00	179.43	10,739.00	-9,210.78	547.64	9,226.90	0.00	0.00	0.00
19,800.00	90.00	179.43	10,739.00	-9,310.78	548.64	9,326.81	0.00	0.00	0.00
19,900.00	90.00	179.43	10,739.00	-9,410.77	549.63	9,426.71	0.00	0.00	0.00
20,000.00	90.00	179.43	10,739.00	-9,510.77	550.63	9,526.62	0.00	0.00	0.00
20,100.00	90.00	179.43	10,739.00	-9,610.76	551.63	9,626.52	0.00	0.00	0.00
20,200.00	90.00	179.43	10,739.00	-9,710.76	552.63	9,726.42	0.00	0.00	0.00
20,300.00	90.00	179.43	10,739.00	-9,810.75	553.63	9,826.33	0.00	0.00	0.00
20,400.00	90.00	179.43	10,739.00	-9,910.75	554.62	9,926.23	0.00	0.00	0.00
20,500.00	90.00	179.43	10,739.00	-10,010.74	555.62	10,026.14	0.00	0.00	0.00
20,600.00	90.00	179.43	10,739.00	-10,110.74	556.62	10,126.04	0.00	0.00	0.00
20,700.00	90.00	179.43	10,739.00	-10,210.73	557.62	10,225.94	0.00	0.00	0.00
20,800.00	90.00	179.43	10,739.00	-10,310.73	558.62	10,325.85	0.00	0.00	0.00
20,879.44	90.00	179.43	10,739.00	-10,390.16	559.41	10,405.21	0.00	0.00	0.00
TD at 20879.44 - PBHL (Tatanka Fed Com 502H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (Tatanka Fed Com - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	394,073.60	848,293.63	32.079512	-103.342280
LP (Tatanka Fed Com 5(- plan hits target center - Point	0.00	0.00	10,739.00	-602.93	461.72	393,470.67	848,755.35	32.077843	-103.340807
PBHL (Tatanka Fed Cor - plan hits target center - Point	0.00	0.00	10,739.00	-10,390.16	559.41	383,683.44	848,853.04	32.050940	-103.340782

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,200.00	3,200.00	0.00	0.00	Start Build 1.50
3,645.68	3,644.67	-1.70	25.92	Start 3479.32 hold at 3645.68 MD
7,125.00	7,100.33	-28.30	430.08	Start Drop -1.50
7,570.68	7,545.00	-30.00	456.00	Start 2621.04 hold at 7570.68 MD
10,191.72	10,166.04	-30.00	456.00	Start DLS 10.00 TFO 179.43
11,091.72	10,739.00	-602.93	461.72	Start 9787.72 hold at 11091.72 MD
20,879.44	10,739.00	-10,390.16	559.41	TD at 20879.44

Franklin Mountain Energy

Lea County, NM (NAD83)
Tatanka Fed Com
Tatanka Fed Com 502H

OH
Plan #1

Anticollision Report

24 June, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	**Error Surface:**	Combined Separation
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 6/24/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	20,879.33	Plan #1 (OH)	OWSG (Rev2) MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Tatanka Fed Com						
Tatanka Fed Com 101H - OH - Plan #1	3,116.12	3,117.72	74.98	59.51	4.846	CC
Tatanka Fed Com 101H - OH - Plan #1	3,200.00	3,201.57	74.98	59.09	4.717	ES, SF
Tatanka Fed Com 102H - OH - Plan #1	3,116.36	3,117.26	49.99	34.52	3.231	CC
Tatanka Fed Com 102H - OH - Plan #1	3,200.00	3,200.90	49.99	34.10	3.145	ES
Tatanka Fed Com 102H - OH - Plan #1	8,208.76	8,226.70	89.50	47.42	2.127	SF
Tatanka Fed Com 501H - OH - Plan #1	3,200.00	3,200.50	24.99	9.10	1.572	CC, ES, SF
Tatanka Fed Com 601H - OH - Plan #2	3,111.38	3,125.08	876.89	861.41	56.652	CC
Tatanka Fed Com 601H - OH - Plan #2	3,200.00	3,211.78	876.91	860.99	55.077	ES
Tatanka Fed Com 601H - OH - Plan #2	20,879.44	22,129.15	2,029.31	1,832.25	10.298	SF
Tatanka Fed Com 604H - OH - Plan #2	10,191.72	10,145.68	2,755.26	2,704.70	54.503	CC
Tatanka Fed Com 604H - OH - Plan #2	10,400.00	10,349.41	2,755.56	2,704.01	53.451	ES
Tatanka Fed Com 604H - OH - Plan #2	20,879.44	22,051.76	3,009.09	2,778.47	13.048	SF
Tatanka Fed Com 704H - OH - Plan #2	10,191.72	10,205.54	1,765.22	1,714.51	34.815	CC
Tatanka Fed Com 704H - OH - Plan #2	10,350.00	10,361.81	1,765.40	1,713.93	34.306	ES
Tatanka Fed Com 704H - OH - Plan #2	20,879.44	22,294.16	2,249.73	2,043.56	10.912	SF
Tatanka Fed Com 705H - OH - Plan #2	4,142.75	3,765.48	2,973.75	2,954.28	152.684	CC, ES
Tatanka Fed Com 705H - OH - Plan #2	20,879.44	22,054.18	3,305.15	3,074.35	14.320	SF
Tatanka Fed Com 801H - OH - Plan #2	3,200.00	3,213.50	851.89	835.97	53.486	CC, ES
Tatanka Fed Com 801H - OH - Plan #2	20,879.44	22,865.07	2,488.08	2,313.31	14.237	SF
Tatanka Fed Com 802H - OH - Plan #2	6,993.21	7,107.42	638.73	603.60	18.182	CC
Tatanka Fed Com 802H - OH - Plan #2	10,300.00	10,338.70	650.06	598.77	12.675	ES
Tatanka Fed Com 802H - OH - Plan #2	10,500.00	10,524.68	655.51	603.32	12.561	SF
Tatanka Fed Com 805H - OH - Plan #2	10,191.72	10,158.14	2,109.22	2,058.64	41.701	CC
Tatanka Fed Com 805H - OH - Plan #2	10,350.00	10,314.42	2,109.37	2,058.03	41.085	ES
Tatanka Fed Com 805H - OH - Plan #2	20,879.44	22,640.46	2,765.50	2,563.34	13.679	SF
Tatanka Fed Com 806H - OH - Plan #2	4,033.90	3,651.25	3,011.16	2,992.23	159.025	CC
Tatanka Fed Com 806H - OH - Plan #2	7,125.00	6,737.67	3,015.88	2,981.44	87.555	ES
Tatanka Fed Com 806H - OH - Plan #2	20,879.44	22,519.74	3,460.94	3,237.92	15.518	SF

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.60	1.60	0.00	0.00	-90.54	-0.71	-74.98	74.98				
100.00	100.00	101.60	101.60	0.13	0.13	-90.54	-0.71	-74.98	74.98	74.80	0.18	413.051	
200.00	200.00	201.60	201.60	0.48	0.49	-90.54	-0.71	-74.98	74.98	74.29	0.69	108.915	
300.00	300.00	301.60	301.60	0.84	0.85	-90.54	-0.71	-74.98	74.98	73.79	1.20	62.726	
400.00	400.00	401.60	401.60	1.20	1.21	-90.54	-0.71	-74.98	74.98	73.28	1.70	44.047	
500.00	500.00	501.60	501.60	1.56	1.57	-90.54	-0.71	-74.98	74.98	72.77	2.21	33.940	
600.00	600.00	601.60	601.60	1.92	1.92	-90.54	-0.71	-74.98	74.98	72.27	2.72	27.605	
700.00	700.00	701.60	701.60	2.28	2.28	-90.54	-0.71	-74.98	74.98	71.76	3.22	23.263	
800.00	800.00	801.60	801.60	2.63	2.64	-90.54	-0.71	-74.98	74.98	71.25	3.73	20.102	
900.00	900.00	901.60	901.60	2.99	3.00	-90.54	-0.71	-74.98	74.98	70.75	4.24	17.697	
1,000.00	1,000.00	1,001.60	1,001.60	3.35	3.36	-90.54	-0.71	-74.98	74.98	70.24	4.74	15.806	
1,100.00	1,100.00	1,101.60	1,101.60	3.71	3.72	-90.54	-0.71	-74.98	74.98	69.73	5.25	14.280	
1,200.00	1,200.00	1,201.60	1,201.60	4.07	4.07	-90.54	-0.71	-74.98	74.98	69.23	5.76	13.022	
1,300.00	1,300.00	1,301.60	1,301.60	4.43	4.43	-90.54	-0.71	-74.98	74.98	68.72	6.26	11.969	
1,400.00	1,400.00	1,401.60	1,401.60	4.79	4.79	-90.54	-0.71	-74.98	74.98	68.21	6.77	11.073	
1,500.00	1,500.00	1,501.60	1,501.60	5.14	5.15	-90.54	-0.71	-74.98	74.98	67.70	7.28	10.302	
1,600.00	1,600.00	1,601.60	1,601.60	5.50	5.51	-90.54	-0.71	-74.98	74.98	67.20	7.79	9.631	
1,700.00	1,700.00	1,701.60	1,701.60	5.86	5.87	-90.54	-0.71	-74.98	74.98	66.69	8.29	9.042	
1,800.00	1,800.00	1,801.60	1,801.60	6.22	6.23	-90.54	-0.71	-74.98	74.98	66.18	8.80	8.521	
1,900.00	1,900.00	1,901.60	1,901.60	6.58	6.58	-90.54	-0.71	-74.98	74.98	65.68	9.31	8.057	
2,000.00	2,000.00	2,001.60	2,001.60	6.94	6.94	-90.54	-0.71	-74.98	74.98	65.17	9.81	7.641	
2,100.00	2,100.00	2,101.60	2,101.60	7.29	7.30	-90.54	-0.71	-74.98	74.98	64.66	10.32	7.265	
2,200.00	2,200.00	2,201.60	2,201.60	7.65	7.66	-90.54	-0.71	-74.98	74.98	64.16	10.83	6.925	
2,300.00	2,300.00	2,301.60	2,301.60	8.01	8.02	-90.54	-0.71	-74.98	74.98	63.65	11.33	6.615	
2,400.00	2,400.00	2,401.60	2,401.60	8.37	8.38	-90.54	-0.71	-74.98	74.98	63.14	11.84	6.332	
2,500.00	2,500.00	2,501.60	2,501.60	8.73	8.73	-90.54	-0.71	-74.98	74.98	62.63	12.35	6.072	
2,600.00	2,600.00	2,601.60	2,601.60	9.09	9.09	-90.54	-0.71	-74.98	74.98	62.13	12.86	5.833	
2,700.00	2,700.00	2,701.60	2,701.60	9.45	9.45	-90.54	-0.71	-74.98	74.98	61.62	13.36	5.612	
2,800.00	2,800.00	2,801.60	2,801.60	9.80	9.81	-90.54	-0.71	-74.98	74.98	61.11	13.87	5.406	
2,900.00	2,900.00	2,901.60	2,901.60	10.16	10.17	-90.54	-0.71	-74.98	74.98	60.61	14.38	5.216	
3,000.00	3,000.00	3,001.60	3,001.60	10.52	10.53	-90.54	-0.71	-74.98	74.98	60.10	14.88	5.038	
3,100.00	3,100.00	3,101.60	3,101.60	10.88	10.89	-90.54	-0.71	-74.98	74.98	59.59	15.39	4.872	
3,116.12	3,116.12	3,117.72	3,117.72	10.94	10.94	-90.54	-0.71	-74.98	74.98	59.51	15.47	4.846	CC
3,200.00	3,200.00	3,201.57	3,201.57	11.24	11.24	-90.54	-0.71	-74.98	74.98	59.09	15.90	4.717	ES, SF
3,300.00	3,299.99	3,300.00	3,299.99	11.59	11.58	175.46	-1.13	-76.22	77.55	61.17	16.38	4.734	
3,400.00	3,399.91	3,397.40	3,397.31	11.93	11.91	174.86	-2.36	-79.80	85.16	68.32	16.84	5.058	
3,500.00	3,499.69	3,494.37	3,494.08	12.27	12.24	174.06	-4.39	-85.71	97.79	80.51	17.28	5.659	
3,600.00	3,599.27	3,590.23	3,589.55	12.62	12.57	173.24	-7.17	-93.82	115.40	97.69	17.71	6.515	
3,645.68	3,644.67	3,633.56	3,632.63	12.78	12.72	172.88	-8.68	-98.23	125.09	107.18	17.91	6.986	
3,700.00	3,698.62	3,684.72	3,683.42	12.97	12.89	172.49	-10.67	-104.04	137.56	119.43	18.13	7.586	
3,800.00	3,797.94	3,778.05	3,775.85	13.32	13.22	171.76	-14.86	-116.28	162.31	143.77	18.54	8.755	
3,900.00	3,897.26	3,870.19	3,866.76	13.68	13.55	171.06	-19.72	-130.46	189.35	170.42	18.93	10.001	
4,000.00	3,996.58	3,961.05	3,956.03	14.03	13.88	170.39	-25.21	-146.47	218.65	199.34	19.31	11.321	
4,100.00	4,095.90	4,050.57	4,043.56	14.40	14.21	169.77	-31.28	-164.20	250.17	230.49	19.68	12.709	
4,200.00	4,195.22	4,138.67	4,129.25	14.76	14.55	169.20	-37.91	-183.54	283.87	263.82	20.04	14.164	
4,300.00	4,294.54	4,225.29	4,213.02	15.12	14.89	168.67	-45.05	-204.37	319.68	299.30	20.39	15.681	
4,400.00	4,393.86	4,310.39	4,294.82	15.49	15.24	168.19	-52.66	-226.59	357.57	336.85	20.72	17.257	
4,500.00	4,493.18	4,395.39	4,375.98	15.86	15.60	167.74	-60.84	-250.46	397.45	376.39	21.07	18.866	
4,600.00	4,592.50	4,486.75	4,463.02	16.23	16.00	167.32	-69.84	-276.73	438.03	416.50	21.53	20.347	
4,700.00	4,691.82	4,578.10	4,550.05	16.60	16.41	166.98	-78.85	-302.99	478.61	456.62	21.99	21.764	
4,800.00	4,791.14	4,669.46	4,637.09	16.97	16.83	166.69	-87.85	-329.26	519.22	496.76	22.46	23.120	
4,900.00	4,890.46	4,760.82	4,724.13	17.35	17.25	166.44	-96.85	-355.53	559.83	536.90	22.93	24.419	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.78	4,852.18	4,811.16	17.73	17.69	166.22	-105.85	-381.79	600.45	577.05	23.40	25.664	
5,100.00	5,089.10	4,943.53	4,898.20	18.10	18.13	166.03	-114.85	-408.06	641.07	617.20	23.87	26.858	
5,200.00	5,188.42	5,034.89	4,985.23	18.48	18.58	165.87	-123.85	-434.33	681.70	657.36	24.34	28.004	
5,300.00	5,287.74	5,126.25	5,072.27	18.86	19.04	165.72	-132.85	-460.59	722.34	697.52	24.82	29.104	
5,400.00	5,387.06	5,217.61	5,159.30	19.24	19.50	165.59	-141.85	-486.86	762.97	737.68	25.30	30.160	
5,500.00	5,486.38	5,308.96	5,246.34	19.62	19.97	165.47	-150.85	-513.12	803.61	777.84	25.78	31.175	
5,600.00	5,585.70	5,400.32	5,333.37	20.00	20.44	165.36	-159.85	-539.39	844.26	818.00	26.26	32.152	
5,700.00	5,685.02	5,491.68	5,420.41	20.39	20.92	165.27	-168.85	-565.66	884.90	858.16	26.74	33.091	
5,800.00	5,784.34	5,583.03	5,507.45	20.77	21.40	165.18	-177.86	-591.92	925.55	898.32	27.23	33.995	
5,900.00	5,883.66	5,674.39	5,594.48	21.16	21.89	165.10	-186.86	-618.19	966.20	938.49	27.71	34.865	
6,000.00	5,982.98	5,765.75	5,681.52	21.54	22.38	165.02	-195.86	-644.46	1,006.85	978.65	28.20	35.704	
6,100.00	6,082.30	5,857.11	5,768.55	21.93	22.87	164.95	-204.86	-670.72	1,047.50	1,018.81	28.69	36.513	
6,200.00	6,181.62	5,948.46	5,855.59	22.31	23.37	164.89	-213.86	-696.99	1,088.16	1,058.98	29.18	37.294	
6,300.00	6,280.94	6,039.82	5,942.62	22.70	23.87	164.83	-222.86	-723.26	1,128.81	1,099.14	29.67	38.047	
6,400.00	6,380.26	6,131.18	6,029.66	23.09	24.38	164.78	-231.86	-749.52	1,169.47	1,139.31	30.16	38.775	
6,500.00	6,479.58	6,222.53	6,116.70	23.48	24.89	164.72	-240.86	-775.79	1,210.12	1,179.47	30.65	39.478	
6,600.00	6,578.90	6,313.89	6,203.73	23.87	25.40	164.68	-249.86	-802.06	1,250.78	1,219.63	31.15	40.157	
6,700.00	6,678.22	6,405.25	6,290.77	24.26	25.91	164.63	-258.86	-828.32	1,291.44	1,259.79	31.64	40.814	
6,800.00	6,777.54	6,496.61	6,377.80	24.65	26.42	164.59	-267.87	-854.59	1,332.09	1,299.96	32.14	41.449	
6,900.00	6,876.86	6,614.53	6,490.37	25.04	27.08	164.54	-279.26	-887.84	1,372.29	1,339.44	32.84	41.783	
7,000.00	6,976.18	6,759.84	6,630.39	25.43	27.86	164.52	-291.83	-924.53	1,409.43	1,375.71	33.72	41.792	
7,100.00	7,075.50	6,909.42	6,775.97	25.82	28.61	164.52	-302.97	-957.02	1,443.00	1,408.41	34.58	41.723	
7,125.00	7,100.33	6,947.44	6,813.18	25.92	28.79	164.53	-305.50	-964.42	1,450.81	1,416.02	34.80	41.696	
7,200.00	7,174.90	7,063.29	6,927.00	26.21	29.32	164.64	-312.48	-984.79	1,472.15	1,436.73	35.42	41.568	
7,300.00	7,274.55	7,221.60	7,083.50	26.58	30.00	164.75	-320.20	-1,007.32	1,495.03	1,458.82	36.21	41.291	
7,400.00	7,374.38	7,383.38	7,244.30	26.95	30.63	164.82	-325.92	-1,024.00	1,511.36	1,474.41	36.95	40.902	
7,500.00	7,474.33	7,547.50	7,408.05	27.30	31.21	164.85	-329.45	-1,034.32	1,520.99	1,483.35	37.64	40.411	
7,570.68	7,545.00	7,664.26	7,524.75	27.55	31.59	-101.38	-330.58	-1,037.60	1,523.70	1,485.62	38.08	40.008	
7,600.00	7,574.32	7,712.77	7,573.25	27.65	31.74	-101.38	-330.71	-1,037.97	1,523.94	1,485.68	38.26	39.831	
7,700.00	7,674.32	7,815.44	7,675.92	27.99	32.04	-101.38	-330.71	-1,037.98	1,523.94	1,485.20	38.75	39.331	
7,800.00	7,774.32	7,915.44	7,775.92	28.33	32.34	-101.38	-330.71	-1,037.98	1,523.94	1,484.71	39.23	38.847	
7,900.00	7,874.32	8,015.44	7,875.92	28.67	32.64	-101.38	-330.71	-1,037.98	1,523.94	1,484.23	39.71	38.375	
8,000.00	7,974.32	8,115.44	7,975.92	29.01	32.93	-101.38	-330.71	-1,037.98	1,523.94	1,483.75	40.20	37.913	
8,100.00	8,074.32	8,215.44	8,075.92	29.35	33.23	-101.38	-330.71	-1,037.98	1,523.94	1,483.26	40.68	37.462	
8,200.00	8,174.32	8,315.44	8,175.92	29.69	33.54	-101.38	-330.71	-1,037.98	1,523.94	1,482.78	41.16	37.020	
8,209.34	8,183.66	8,324.77	8,185.26	29.73	33.56	-101.38	-330.71	-1,037.98	1,523.94	1,482.73	41.21	36.980	
8,300.00	8,274.32	8,400.00	8,260.46	30.04	33.79	-101.43	-332.00	-1,037.97	1,524.26	1,482.64	41.62	36.620	
8,400.00	8,374.32	8,463.15	8,323.10	30.38	33.99	-101.71	-339.69	-1,037.89	1,526.57	1,484.53	42.03	36.318	
8,500.00	8,474.32	8,526.26	8,384.48	30.72	34.20	-102.25	-354.22	-1,037.75	1,531.26	1,488.83	42.42	36.093	
8,600.00	8,574.32	8,585.52	8,440.35	31.07	34.40	-102.97	-373.93	-1,037.55	1,538.62	1,495.84	42.78	35.963	
8,700.00	8,674.32	8,650.00	8,498.46	31.41	34.63	-103.98	-401.79	-1,037.27	1,549.06	1,505.92	43.13	35.912	
8,800.00	8,774.32	8,700.00	8,541.15	31.76	34.81	-104.92	-427.79	-1,037.01	1,562.83	1,519.44	43.39	36.014	
8,900.00	8,874.32	8,734.43	8,569.15	32.10	34.94	-105.64	-447.82	-1,036.81	1,580.24	1,536.71	43.53	36.304	
9,000.00	8,974.32	8,774.36	8,600.04	32.45	35.09	-106.53	-473.09	-1,036.56	1,601.67	1,558.04	43.63	36.709	
9,100.00	9,074.32	8,800.00	8,618.93	32.79	35.19	-107.15	-490.43	-1,036.38	1,627.28	1,583.69	43.59	37.329	
9,200.00	9,174.32	8,850.00	8,653.44	33.14	35.38	-108.41	-526.59	-1,036.02	1,657.02	1,613.37	43.65	37.958	
9,300.00	9,274.32	8,869.82	8,666.22	33.48	35.45	-108.93	-541.73	-1,035.87	1,690.94	1,647.47	43.47	38.898	
9,400.00	9,374.32	8,900.00	8,684.66	33.83	35.58	-109.75	-565.62	-1,035.63	1,729.08	1,685.77	43.31	39.924	
9,500.00	9,474.32	8,917.50	8,694.77	34.17	35.65	-110.24	-579.91	-1,035.49	1,771.20	1,728.18	43.02	41.173	
9,600.00	9,574.32	8,950.00	8,712.36	34.52	35.78	-111.16	-607.23	-1,035.22	1,817.32	1,774.51	42.81	42.453	
9,700.00	9,674.32	8,950.00	8,712.36	34.87	35.78	-111.16	-607.23	-1,035.22	1,866.92	1,824.58	42.33	44.100	
9,800.00	9,774.32	8,972.29	8,723.52	35.22	35.87	-111.81	-626.52	-1,035.02	1,920.04	1,878.02	42.02	45.696	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.00	9,874.32	9,000.00	8,736.33	35.56	35.99	-112.62	-651.09	-1,034.78	1,976.57	1,934.84	41.74	47.357	
10,000.00	9,974.32	9,000.00	8,736.33	35.91	35.99	-112.62	-651.09	-1,034.78	2,035.87	1,994.62	41.25	49.356	
10,100.00	10,074.32	9,000.00	8,736.33	36.26	35.99	-112.62	-651.09	-1,034.78	2,098.26	2,057.49	40.77	51.467	
10,191.72	10,166.04	9,023.40	8,746.21	36.58	36.10	-113.31	-672.30	-1,034.57	2,157.50	2,116.97	40.52	53.240	
10,200.00	10,174.32	9,024.32	8,746.58	36.60	36.10	66.57	-673.13	-1,034.56	2,162.94	2,122.45	40.49	53.416	
10,250.00	10,224.22	9,030.29	8,748.96	36.77	36.13	62.55	-678.62	-1,034.50	2,195.38	2,155.08	40.30	54.472	
10,300.00	10,273.68	9,050.00	8,756.38	36.93	36.22	58.55	-696.87	-1,034.32	2,227.02	2,186.81	40.21	55.382	
10,350.00	10,322.32	9,050.00	8,756.38	37.09	36.22	55.37	-696.87	-1,034.32	2,257.23	2,217.25	39.98	56.466	
10,400.00	10,369.77	9,050.00	8,756.38	37.25	36.22	52.50	-696.87	-1,034.32	2,286.16	2,246.42	39.74	57.527	
10,450.00	10,415.66	9,050.00	8,756.38	37.40	36.22	49.94	-696.87	-1,034.32	2,313.64	2,274.13	39.51	58.558	
10,500.00	10,459.66	9,070.01	8,763.28	37.55	36.31	47.40	-715.66	-1,034.13	2,339.17	2,299.74	39.43	59.327	
10,550.00	10,501.42	9,079.47	8,766.31	37.69	36.36	45.33	-724.62	-1,034.04	2,362.90	2,323.62	39.28	60.160	
10,600.00	10,540.64	9,100.00	8,772.37	37.83	36.45	43.44	-744.23	-1,033.85	2,384.66	2,345.46	39.21	60.821	
10,650.00	10,577.00	9,100.00	8,772.37	37.96	36.45	42.01	-744.23	-1,033.85	2,404.04	2,365.03	39.01	61.623	
10,700.00	10,610.23	9,100.00	8,772.37	38.10	36.45	40.80	-744.23	-1,033.85	2,421.31	2,382.47	38.83	62.352	
10,750.00	10,640.08	9,120.60	8,777.75	38.23	36.55	39.67	-764.11	-1,033.65	2,435.99	2,397.19	38.80	62.780	
10,800.00	10,666.33	9,150.00	8,784.17	38.38	36.70	38.73	-792.79	-1,033.36	2,448.58	2,409.74	38.84	63.046	
10,850.00	10,688.76	9,150.00	8,784.17	38.53	36.70	38.13	-792.79	-1,033.36	2,458.05	2,419.33	38.72	63.487	
10,900.00	10,707.22	9,150.00	8,784.17	38.70	36.70	37.69	-792.79	-1,033.36	2,465.12	2,426.50	38.62	63.824	
10,950.00	10,721.56	9,150.00	8,784.17	38.87	36.70	37.41	-792.79	-1,033.36	2,469.77	2,431.21	38.56	64.051	
11,000.00	10,731.67	9,176.16	8,788.65	39.06	36.84	37.28	-818.56	-1,033.10	2,471.35	2,432.68	38.67	63.915	
11,050.00	10,737.48	9,200.00	8,791.69	39.25	36.97	37.35	-842.21	-1,032.87	2,470.59	2,431.80	38.78	63.704	
11,091.72	10,739.00	9,200.00	8,791.69	39.42	36.97	37.53	-842.21	-1,032.87	2,467.64	2,428.84	38.80	63.592	
11,100.00	10,739.00	9,200.00	8,791.69	39.46	36.97	37.53	-842.21	-1,032.87	2,466.91	2,428.09	38.81	63.561	
11,200.00	10,739.00	9,221.24	8,793.58	39.90	37.08	37.55	-863.36	-1,032.66	2,459.76	2,420.73	39.03	63.023	
11,300.00	10,739.00	9,250.00	8,794.88	40.41	37.24	37.57	-892.09	-1,032.37	2,455.78	2,416.45	39.33	62.434	
11,400.00	10,739.00	9,284.07	8,795.00	40.98	37.44	37.57	-926.16	-1,032.03	2,454.81	2,415.10	39.71	61.823	
11,500.00	10,739.00	9,384.07	8,795.00	41.61	38.05	37.57	-1,026.15	-1,031.03	2,454.80	2,414.44	40.36	60.817	
11,600.00	10,739.00	9,484.07	8,795.00	42.29	38.74	37.57	-1,126.15	-1,030.03	2,454.80	2,413.73	41.08	59.762	
11,700.00	10,739.00	9,584.07	8,795.00	43.02	39.48	37.57	-1,226.14	-1,029.03	2,454.80	2,412.96	41.84	58.667	
11,800.00	10,739.00	9,684.07	8,795.00	43.81	40.28	37.57	-1,326.14	-1,028.03	2,454.80	2,412.14	42.66	57.544	
11,900.00	10,739.00	9,784.07	8,795.00	44.64	41.13	37.57	-1,426.13	-1,027.03	2,454.80	2,411.28	43.52	56.401	
12,000.00	10,739.00	9,884.07	8,795.00	45.51	42.03	37.57	-1,526.13	-1,026.03	2,454.80	2,410.37	44.43	55.247	
12,100.00	10,739.00	9,984.07	8,795.00	46.43	42.98	37.57	-1,626.12	-1,025.03	2,454.80	2,409.42	45.38	54.089	
12,200.00	10,739.00	10,084.07	8,795.00	47.38	43.98	37.57	-1,726.12	-1,024.03	2,454.80	2,408.42	46.38	52.932	
12,300.00	10,739.00	10,184.07	8,795.00	48.38	45.01	37.57	-1,826.11	-1,023.04	2,454.80	2,407.39	47.41	51.783	
12,400.00	10,739.00	10,284.07	8,795.00	49.41	46.08	37.57	-1,926.11	-1,022.04	2,454.80	2,406.33	48.47	50.647	
12,500.00	10,739.00	10,384.07	8,795.00	50.47	47.19	37.57	-2,026.10	-1,021.04	2,454.80	2,405.23	49.57	49.526	
12,600.00	10,739.00	10,484.07	8,795.00	51.56	48.32	37.57	-2,126.10	-1,020.04	2,454.80	2,404.10	50.69	48.425	
12,700.00	10,739.00	10,584.07	8,795.00	52.68	49.49	37.57	-2,226.09	-1,019.04	2,454.80	2,402.95	51.85	47.345	
12,800.00	10,739.00	10,684.07	8,795.00	53.83	50.69	37.57	-2,326.09	-1,018.04	2,454.79	2,401.76	53.03	46.290	
12,900.00	10,739.00	10,784.07	8,795.00	55.01	51.91	37.57	-2,426.08	-1,017.04	2,454.79	2,400.56	54.23	45.262	
13,000.00	10,739.00	10,884.07	8,795.00	56.21	53.15	37.57	-2,526.08	-1,016.04	2,454.79	2,399.33	55.46	44.261	
13,100.00	10,739.00	10,984.07	8,795.00	57.43	54.42	37.57	-2,626.07	-1,015.04	2,454.79	2,398.08	56.71	43.285	
13,200.00	10,739.00	11,084.07	8,795.00	58.67	55.71	37.57	-2,726.07	-1,014.04	2,454.79	2,396.81	57.98	42.336	
13,300.00	10,739.00	11,184.07	8,795.00	59.93	57.01	37.57	-2,826.06	-1,013.04	2,454.79	2,395.52	59.27	41.415	
13,400.00	10,739.00	11,284.07	8,795.00	61.21	58.34	37.57	-2,926.06	-1,012.04	2,454.79	2,394.21	60.58	40.523	
13,500.00	10,739.00	11,384.07	8,795.00	62.51	59.68	37.57	-3,026.05	-1,011.04	2,454.79	2,392.89	61.90	39.658	
13,600.00	10,739.00	11,484.07	8,795.00	63.83	61.04	37.57	-3,126.05	-1,010.04	2,454.79	2,391.55	63.24	38.818	
13,700.00	10,739.00	11,584.07	8,795.00	65.16	62.41	37.57	-3,226.04	-1,009.04	2,454.79	2,390.20	64.59	38.007	
13,800.00	10,739.00	11,684.07	8,795.00	66.50	63.79	37.57	-3,326.04	-1,008.05	2,454.79	2,388.84	65.95	37.221	
13,900.00	10,739.00	11,784.07	8,795.00	67.86	65.19	37.57	-3,426.03	-1,007.05	2,454.79	2,387.46	67.33	36.460	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.00	10,739.00	11,884.07	8,795.00	69.23	66.60	37.57	-3,526.03	-1,006.05	2,454.79	2,386.07	68.72	35.723	
14,100.00	10,739.00	11,984.07	8,795.00	70.61	68.02	37.57	-3,626.02	-1,005.05	2,454.78	2,384.67	70.12	35.009	
14,200.00	10,739.00	12,084.07	8,795.00	72.00	69.45	37.57	-3,726.02	-1,004.05	2,454.78	2,383.26	71.53	34.320	
14,300.00	10,739.00	12,184.07	8,795.00	73.41	70.89	37.57	-3,826.01	-1,003.05	2,454.78	2,381.84	72.95	33.652	
14,400.00	10,739.00	12,284.07	8,795.00	74.82	72.34	37.57	-3,926.01	-1,002.05	2,454.78	2,380.41	74.37	33.006	
14,500.00	10,739.00	12,384.07	8,795.00	76.25	73.79	37.57	-4,026.00	-1,001.05	2,454.78	2,378.97	75.81	32.381	
14,600.00	10,739.00	12,484.07	8,795.00	77.68	75.26	37.57	-4,126.00	-1,000.05	2,454.78	2,377.53	77.26	31.775	
14,700.00	10,739.00	12,584.07	8,795.00	79.12	76.73	37.57	-4,225.99	-999.05	2,454.78	2,376.07	78.71	31.188	
14,800.00	10,739.00	12,684.07	8,795.00	80.57	78.21	37.57	-4,325.99	-998.05	2,454.78	2,374.61	80.17	30.621	
14,900.00	10,739.00	12,784.07	8,795.00	82.03	79.70	37.57	-4,425.98	-997.05	2,454.78	2,373.15	81.63	30.071	
15,000.00	10,739.00	12,884.07	8,795.00	83.49	81.19	37.57	-4,525.98	-996.05	2,454.78	2,371.67	83.10	29.539	
15,100.00	10,739.00	12,984.07	8,795.00	84.96	82.69	37.57	-4,625.97	-995.05	2,454.78	2,370.20	84.58	29.022	
15,200.00	10,739.00	13,084.07	8,795.00	86.44	84.20	37.57	-4,725.97	-994.05	2,454.78	2,368.71	86.07	28.522	
15,300.00	10,739.00	13,184.07	8,795.00	87.92	85.71	37.57	-4,825.96	-993.06	2,454.78	2,367.22	87.55	28.038	
15,400.00	10,739.00	13,284.07	8,795.00	89.41	87.23	37.57	-4,925.96	-992.06	2,454.78	2,365.73	89.05	27.568	
15,500.00	10,739.00	13,384.07	8,795.00	90.91	88.75	37.57	-5,025.95	-991.06	2,454.77	2,364.23	90.55	27.111	
15,600.00	10,739.00	13,484.07	8,795.00	92.41	90.27	37.57	-5,125.95	-990.06	2,454.77	2,362.73	92.05	26.668	
15,700.00	10,739.00	13,584.07	8,795.00	93.92	91.80	37.57	-5,225.94	-989.06	2,454.77	2,361.22	93.55	26.239	
15,800.00	10,739.00	13,684.07	8,795.00	95.43	93.34	37.57	-5,325.94	-988.06	2,454.77	2,359.71	95.06	25.822	
15,900.00	10,739.00	13,784.07	8,795.00	96.94	94.88	37.57	-5,425.93	-987.06	2,454.77	2,358.19	96.58	25.418	
16,000.00	10,739.00	13,884.07	8,795.00	98.46	96.42	37.57	-5,525.93	-986.06	2,454.77	2,356.67	98.10	25.024	
16,100.00	10,739.00	13,984.07	8,795.00	99.99	97.96	37.57	-5,625.92	-985.06	2,454.77	2,355.15	99.62	24.642	
16,200.00	10,739.00	14,084.07	8,795.00	101.51	99.51	37.57	-5,725.92	-984.06	2,454.77	2,353.63	101.14	24.271	
16,300.00	10,739.00	14,184.07	8,795.00	103.05	101.06	37.57	-5,825.91	-983.06	2,454.77	2,352.10	102.67	23.910	
16,400.00	10,739.00	14,284.07	8,795.00	104.58	102.62	37.57	-5,925.91	-982.06	2,454.77	2,350.57	104.20	23.559	
16,500.00	10,739.00	14,384.07	8,795.00	106.12	104.18	37.57	-6,025.90	-981.06	2,454.77	2,349.04	105.73	23.217	
16,600.00	10,739.00	14,484.07	8,795.00	107.66	105.74	37.57	-6,125.90	-980.06	2,454.77	2,347.50	107.26	22.885	
16,700.00	10,739.00	14,584.07	8,795.00	109.21	107.30	37.57	-6,225.89	-979.06	2,454.77	2,345.96	108.80	22.562	
16,800.00	10,739.00	14,684.07	8,795.00	110.76	108.87	37.57	-6,325.89	-978.07	2,454.76	2,344.42	110.34	22.247	
16,900.00	10,739.00	14,784.07	8,795.00	112.31	110.44	37.57	-6,425.88	-977.07	2,454.76	2,342.88	111.88	21.940	
17,000.00	10,739.00	14,884.07	8,795.00	113.86	112.01	37.57	-6,525.88	-976.07	2,454.76	2,341.34	113.43	21.642	
17,100.00	10,739.00	14,984.07	8,795.00	115.42	113.58	37.57	-6,625.87	-975.07	2,454.76	2,339.79	114.97	21.351	
17,200.00	10,739.00	15,084.07	8,795.00	116.98	115.16	37.57	-6,725.87	-974.07	2,454.76	2,338.24	116.52	21.068	
17,300.00	10,739.00	15,184.07	8,795.00	118.54	116.74	37.57	-6,825.86	-973.07	2,454.76	2,336.69	118.07	20.791	
17,400.00	10,739.00	15,284.07	8,795.00	120.10	118.32	37.57	-6,925.86	-972.07	2,454.76	2,335.14	119.62	20.522	
17,500.00	10,739.00	15,384.07	8,795.00	121.67	119.90	37.57	-7,025.85	-971.07	2,454.76	2,333.59	121.17	20.259	
17,600.00	10,739.00	15,484.07	8,795.00	123.24	121.48	37.57	-7,125.85	-970.07	2,454.76	2,332.04	122.72	20.002	
17,700.00	10,739.00	15,584.07	8,795.00	124.81	123.07	37.57	-7,225.84	-969.07	2,454.76	2,330.48	124.28	19.752	
17,800.00	10,739.00	15,684.07	8,795.00	126.38	124.65	37.57	-7,325.84	-968.07	2,454.76	2,328.92	125.84	19.508	
17,900.00	10,739.00	15,784.07	8,795.00	127.96	126.24	37.57	-7,425.83	-967.07	2,454.76	2,327.36	127.39	19.269	
18,000.00	10,739.00	15,884.07	8,795.00	129.53	127.83	37.57	-7,525.83	-966.07	2,454.76	2,325.81	128.95	19.036	
18,100.00	10,739.00	15,984.07	8,795.00	131.11	129.42	37.57	-7,625.82	-965.07	2,454.76	2,324.25	130.51	18.809	
18,200.00	10,739.00	16,084.07	8,795.00	132.69	131.02	37.57	-7,725.82	-964.07	2,454.75	2,322.68	132.07	18.587	
18,300.00	10,739.00	16,184.07	8,795.00	134.28	132.61	37.57	-7,825.81	-963.08	2,454.75	2,321.12	133.63	18.369	
18,400.00	10,739.00	16,284.07	8,795.00	135.86	134.21	37.57	-7,925.81	-962.08	2,454.75	2,319.56	135.19	18.157	
18,500.00	10,739.00	16,384.07	8,795.00	137.44	135.81	37.57	-8,025.80	-961.08	2,454.75	2,317.99	136.76	17.950	
18,600.00	10,739.00	16,484.07	8,795.00	139.03	137.41	37.57	-8,125.80	-960.08	2,454.75	2,316.43	138.32	17.747	
18,700.00	10,739.00	16,584.07	8,795.00	140.62	139.01	37.57	-8,225.79	-959.08	2,454.75	2,314.86	139.89	17.548	
18,800.00	10,739.00	16,684.07	8,795.00	142.21	140.61	37.57	-8,325.79	-958.08	2,454.75	2,313.30	141.45	17.354	
18,900.00	10,739.00	16,784.07	8,795.00	143.80	142.21	37.57	-8,425.78	-957.08	2,454.75	2,311.73	143.02	17.164	
19,000.00	10,739.00	16,884.07	8,795.00	145.39	143.81	37.57	-8,525.78	-956.08	2,454.75	2,310.16	144.58	16.978	
19,100.00	10,739.00	16,984.07	8,795.00	146.99	145.42	37.57	-8,625.77	-955.08	2,454.75	2,308.59	146.15	16.796	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	10,739.00	17,084.07	8,795.00	148.58	147.02	37.57	-8,725.77	-954.08	2,454.75	2,307.02	147.72	16.617	
19,300.00	10,739.00	17,184.07	8,795.00	150.18	148.63	37.57	-8,825.76	-953.08	2,454.75	2,305.46	149.29	16.443	
19,400.00	10,739.00	17,284.07	8,795.00	151.78	150.24	37.57	-8,925.76	-952.08	2,454.75	2,303.89	150.86	16.272	
19,500.00	10,739.00	17,384.07	8,795.00	153.38	151.85	37.57	-9,025.75	-951.08	2,454.74	2,302.32	152.43	16.104	
19,600.00	10,739.00	17,484.07	8,795.00	154.98	153.46	37.57	-9,125.75	-950.08	2,454.74	2,300.74	154.00	15.940	
19,700.00	10,739.00	17,584.07	8,795.00	156.58	155.07	37.57	-9,225.74	-949.09	2,454.74	2,299.17	155.57	15.779	
19,800.00	10,739.00	17,684.07	8,795.00	158.18	156.68	37.57	-9,325.74	-948.09	2,454.74	2,297.60	157.14	15.621	
19,900.00	10,739.00	17,784.07	8,795.00	159.78	158.29	37.57	-9,425.73	-947.09	2,454.74	2,296.03	158.71	15.467	
20,000.00	10,739.00	17,884.07	8,795.00	161.39	159.90	37.57	-9,525.73	-946.09	2,454.74	2,294.46	160.28	15.315	
20,100.00	10,739.00	17,984.07	8,795.00	162.99	161.52	37.57	-9,625.72	-945.09	2,454.74	2,292.89	161.85	15.166	
20,200.00	10,739.00	18,084.07	8,795.00	164.60	163.13	37.57	-9,725.72	-944.09	2,454.74	2,291.31	163.43	15.021	
20,300.00	10,739.00	18,184.07	8,795.00	166.20	164.75	37.57	-9,825.71	-943.09	2,454.74	2,289.74	165.00	14.877	
20,400.00	10,739.00	18,284.07	8,795.00	167.81	166.36	37.57	-9,925.71	-942.09	2,454.74	2,288.17	166.57	14.737	
20,500.00	10,739.00	18,384.07	8,795.00	169.42	167.98	37.57	-10,025.70	-941.09	2,454.74	2,286.59	168.14	14.599	
20,600.00	10,739.00	18,484.07	8,795.00	171.03	169.59	37.57	-10,125.70	-940.09	2,454.74	2,285.02	169.71	14.464	
20,700.00	10,739.00	18,584.07	8,795.00	172.64	171.21	37.57	-10,225.69	-939.09	2,454.74	2,283.45	171.29	14.331	
20,800.00	10,739.00	18,684.07	8,795.00	174.25	172.83	37.57	-10,325.69	-938.09	2,454.73	2,281.88	172.86	14.201	
20,877.05	10,739.00	18,761.12	8,795.00	175.49	174.08	37.57	-10,402.73	-937.32	2,454.73	2,280.66	174.07	14.102	
20,879.44	10,739.00	18,762.37	8,795.00	175.53	174.10	37.57	-10,403.98	-937.31	2,454.73	2,280.63	174.10	14.099	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.90	0.90	0.00	0.00	-90.55	-0.48	-49.99	49.99				
100.00	100.00	100.90	100.90	0.13	0.13	-90.55	-0.48	-49.99	49.99	49.81	0.18	278.152	
200.00	200.00	200.90	200.90	0.48	0.49	-90.55	-0.48	-49.99	49.99	49.31	0.69	72.803	
300.00	300.00	300.90	300.90	0.84	0.85	-90.55	-0.48	-49.99	49.99	48.80	1.19	41.883	
400.00	400.00	400.90	400.90	1.20	1.20	-90.55	-0.48	-49.99	49.99	48.29	1.70	29.397	
500.00	500.00	500.90	500.90	1.56	1.56	-90.55	-0.48	-49.99	49.99	47.78	2.21	22.646	
600.00	600.00	600.90	600.90	1.92	1.92	-90.55	-0.48	-49.99	49.99	47.28	2.71	18.417	
700.00	700.00	700.90	700.90	2.28	2.28	-90.55	-0.48	-49.99	49.99	46.77	3.22	15.519	
800.00	800.00	800.90	800.90	2.63	2.64	-90.55	-0.48	-49.99	49.99	46.26	3.73	13.409	
900.00	900.00	900.90	900.90	2.99	3.00	-90.55	-0.48	-49.99	49.99	45.76	4.24	11.804	
1,000.00	1,000.00	1,000.90	1,000.90	3.35	3.35	-90.55	-0.48	-49.99	49.99	45.25	4.74	10.542	
1,100.00	1,100.00	1,100.90	1,100.90	3.71	3.71	-90.55	-0.48	-49.99	49.99	44.74	5.25	9.524	
1,200.00	1,200.00	1,200.90	1,200.90	4.07	4.07	-90.55	-0.48	-49.99	49.99	44.24	5.76	8.685	
1,300.00	1,300.00	1,300.90	1,300.90	4.43	4.43	-90.55	-0.48	-49.99	49.99	43.73	6.26	7.982	
1,400.00	1,400.00	1,400.90	1,400.90	4.79	4.79	-90.55	-0.48	-49.99	49.99	43.22	6.77	7.384	
1,500.00	1,500.00	1,500.90	1,500.90	5.14	5.15	-90.55	-0.48	-49.99	49.99	42.72	7.28	6.870	
1,600.00	1,600.00	1,600.90	1,600.90	5.50	5.51	-90.55	-0.48	-49.99	49.99	42.21	7.78	6.422	
1,700.00	1,700.00	1,700.90	1,700.90	5.86	5.86	-90.55	-0.48	-49.99	49.99	41.70	8.29	6.030	
1,800.00	1,800.00	1,800.90	1,800.90	6.22	6.22	-90.55	-0.48	-49.99	49.99	41.19	8.80	5.682	
1,900.00	1,900.00	1,900.90	1,900.90	6.58	6.58	-90.55	-0.48	-49.99	49.99	40.69	9.30	5.373	
2,000.00	2,000.00	2,000.90	2,000.90	6.94	6.94	-90.55	-0.48	-49.99	49.99	40.18	9.81	5.095	
2,100.00	2,100.00	2,100.90	2,100.90	7.29	7.30	-90.55	-0.48	-49.99	49.99	39.67	10.32	4.845	
2,200.00	2,200.00	2,200.90	2,200.90	7.65	7.66	-90.55	-0.48	-49.99	49.99	39.17	10.83	4.618	
2,300.00	2,300.00	2,300.90	2,300.90	8.01	8.02	-90.55	-0.48	-49.99	49.99	38.66	11.33	4.411	
2,400.00	2,400.00	2,400.90	2,400.90	8.37	8.37	-90.55	-0.48	-49.99	49.99	38.15	11.84	4.222	
2,500.00	2,500.00	2,500.90	2,500.90	8.73	8.73	-90.55	-0.48	-49.99	49.99	37.65	12.35	4.049	
2,600.00	2,600.00	2,600.90	2,600.90	9.09	9.09	-90.55	-0.48	-49.99	49.99	37.14	12.85	3.889	
2,700.00	2,700.00	2,700.90	2,700.90	9.45	9.45	-90.55	-0.48	-49.99	49.99	36.63	13.36	3.742	
2,800.00	2,800.00	2,800.90	2,800.90	9.80	9.81	-90.55	-0.48	-49.99	49.99	36.12	13.87	3.605	
2,900.00	2,900.00	2,900.90	2,900.90	10.16	10.17	-90.55	-0.48	-49.99	49.99	35.62	14.37	3.478	
3,000.00	3,000.00	3,000.90	3,000.90	10.52	10.52	-90.55	-0.48	-49.99	49.99	35.11	14.88	3.359	
3,100.00	3,100.00	3,100.90	3,100.90	10.88	10.88	-90.55	-0.48	-49.99	49.99	34.60	15.39	3.249	
3,116.36	3,116.36	3,117.26	3,117.26	10.94	10.94	-90.55	-0.48	-49.99	49.99	34.52	15.47	3.231	CC
3,200.00	3,200.00	3,200.90	3,200.90	11.24	11.24	-90.55	-0.48	-49.99	49.99	34.10	15.90	3.145	ES
3,300.00	3,299.99	3,300.85	3,300.84	11.59	11.58	174.31	-1.81	-49.99	51.33	34.94	16.38	3.133	
3,400.00	3,399.91	3,400.62	3,400.52	11.93	11.90	170.63	-5.75	-49.99	55.48	38.63	16.85	3.293	
3,500.00	3,499.69	3,500.00	3,499.69	12.27	12.23	165.64	-12.25	-49.99	62.80	45.49	17.32	3.627	
3,600.00	3,599.27	3,598.81	3,598.08	12.62	12.55	160.39	-21.28	-49.99	73.64	55.86	17.78	4.142	
3,645.68	3,644.67	3,643.71	3,642.71	12.78	12.70	158.11	-26.22	-49.99	79.82	61.83	17.99	4.436	
3,700.00	3,698.62	3,696.91	3,695.51	12.97	12.87	155.53	-32.76	-49.99	87.83	69.59	18.24	4.815	
3,800.00	3,797.94	3,796.74	3,794.44	13.32	13.21	151.08	-46.15	-49.58	103.05	84.33	18.72	5.504	
3,900.00	3,897.26	3,898.54	3,895.46	13.68	13.55	147.89	-58.43	-47.20	116.39	97.17	19.22	6.055	
4,000.00	3,996.58	4,001.04	3,997.30	14.03	13.90	145.54	-69.08	-42.67	127.38	107.65	19.73	6.458	
4,100.00	4,095.90	4,104.12	4,099.77	14.40	14.26	143.69	-78.05	-35.95	135.87	115.65	20.22	6.718	
4,200.00	4,195.22	4,207.63	4,202.63	14.76	14.62	142.16	-85.30	-27.03	141.80	121.08	20.72	6.844	
4,300.00	4,294.54	4,311.41	4,305.67	15.12	14.99	140.83	-90.79	-15.90	145.11	123.91	21.20	6.843	
4,400.00	4,393.86	4,415.32	4,408.64	15.49	15.36	139.61	-94.50	-2.58	145.77	124.09	21.68	6.724	
4,500.00	4,493.18	4,519.19	4,511.34	15.86	15.73	138.43	-96.42	12.91	143.78	121.63	22.15	6.492	
4,600.00	4,592.50	4,619.43	4,610.26	16.23	16.10	137.26	-97.26	29.07	140.26	117.60	22.66	6.190	
4,700.00	4,691.82	4,719.32	4,708.84	16.60	16.46	136.03	-98.09	45.18	136.80	113.62	23.18	5.901	
4,800.00	4,791.14	4,819.22	4,807.43	16.97	16.83	134.74	-98.93	61.30	133.40	109.69	23.71	5.627	
4,900.00	4,890.46	4,919.11	4,906.01	17.35	17.21	133.39	-99.76	77.41	130.07	105.83	24.24	5.366	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.78	5,019.01	5,004.60	17.73	17.59	131.97	-100.60	93.53	126.81	102.04	24.77	5.119	
5,100.00	5,089.10	5,118.91	5,103.18	18.10	17.97	130.47	-101.43	109.64	123.64	98.33	25.31	4.885	
5,200.00	5,188.42	5,218.80	5,201.76	18.48	18.35	128.89	-102.27	125.75	120.56	94.71	25.85	4.664	
5,300.00	5,287.74	5,318.70	5,300.35	18.86	18.74	127.24	-103.10	141.87	117.57	91.18	26.40	4.454	
5,400.00	5,387.06	5,418.59	5,398.93	19.24	19.13	125.49	-103.94	157.98	114.69	87.74	26.95	4.256	
5,500.00	5,486.38	5,518.49	5,497.52	19.62	19.52	123.66	-104.77	174.10	111.92	84.42	27.50	4.069	
5,600.00	5,585.70	5,618.39	5,596.10	20.00	19.91	121.74	-105.61	190.21	109.27	81.21	28.06	3.894	
5,700.00	5,685.02	5,718.28	5,694.69	20.39	20.31	119.73	-106.44	206.32	106.75	78.12	28.63	3.729	
5,800.00	5,784.34	5,818.18	5,793.27	20.77	20.70	117.62	-107.28	222.44	104.36	75.17	29.19	3.575	
5,900.00	5,883.66	5,918.08	5,891.85	21.16	21.10	115.42	-108.11	238.55	102.13	72.36	29.76	3.431	
6,000.00	5,982.98	6,017.97	5,990.44	21.54	21.50	113.12	-108.95	254.67	100.05	69.71	30.34	3.298	
6,100.00	6,082.30	6,117.87	6,089.02	21.93	21.91	110.73	-109.78	270.78	98.14	67.22	30.91	3.175	
6,200.00	6,181.62	6,217.76	6,187.61	22.31	22.31	108.25	-110.62	286.89	96.40	64.91	31.49	3.062	
6,300.00	6,280.94	6,317.66	6,286.19	22.70	22.72	105.68	-111.45	303.01	94.86	62.79	32.07	2.958	
6,400.00	6,380.26	6,417.56	6,384.78	23.09	23.12	103.03	-112.29	319.12	93.51	60.87	32.64	2.865	
6,500.00	6,479.58	6,517.45	6,483.36	23.48	23.53	100.32	-113.12	335.24	92.37	59.15	33.22	2.781	
6,600.00	6,578.90	6,617.35	6,581.94	23.87	23.94	97.54	-113.95	351.35	91.44	57.65	33.79	2.706	
6,700.00	6,678.22	6,717.24	6,680.53	24.26	24.35	94.71	-114.79	367.47	90.73	56.37	34.36	2.641	
6,800.00	6,777.54	6,817.14	6,779.11	24.65	24.76	91.84	-115.62	383.58	90.24	55.32	34.92	2.584	
6,900.00	6,876.86	6,917.04	6,877.70	25.04	25.18	88.95	-116.46	399.69	89.98	54.51	35.48	2.536	
6,972.63	6,949.00	6,989.61	6,949.33	25.32	25.48	86.88	-117.06	411.34	89.94	54.06	35.88	2.507	
7,000.00	6,976.18	7,016.99	6,976.39	25.43	25.59	86.25	-117.28	415.51	89.94	53.92	36.03	2.497	
7,100.00	7,075.50	7,117.12	7,075.59	25.82	25.99	84.99	-117.98	429.10	89.90	53.33	36.58	2.458	
7,125.00	7,100.33	7,142.16	7,100.45	25.92	26.09	84.94	-118.14	432.09	89.87	53.15	36.71	2.448	
7,200.00	7,174.90	7,217.30	7,175.16	26.21	26.38	84.93	-118.55	440.09	89.76	52.63	37.12	2.418	
7,300.00	7,274.55	7,317.47	7,274.98	26.58	26.76	84.93	-118.99	448.47	89.64	51.98	37.66	2.380	
7,400.00	7,374.38	7,417.65	7,374.98	26.95	27.13	84.93	-119.28	454.23	89.56	51.38	38.18	2.346	
7,500.00	7,474.33	7,517.82	7,475.10	27.30	27.48	84.94	-119.45	457.37	89.51	50.84	38.67	2.314	
7,570.68	7,545.00	7,588.62	7,545.90	27.55	27.72	178.71	-119.48	458.01	89.50	50.48	39.02	2.294	
7,600.00	7,574.32	7,617.95	7,575.22	27.65	27.82	178.71	-119.48	458.01	89.50	50.34	39.16	2.286	
7,700.00	7,674.32	7,717.95	7,675.22	27.99	28.16	178.71	-119.48	458.01	89.50	49.87	39.64	2.258	
7,800.00	7,774.32	7,817.95	7,775.22	28.33	28.49	178.71	-119.48	458.01	89.50	49.39	40.12	2.231	
7,900.00	7,874.32	7,917.95	7,875.22	28.67	28.83	178.71	-119.48	458.01	89.50	48.91	40.60	2.205	
8,000.00	7,974.32	8,017.95	7,975.22	29.01	29.17	178.71	-119.48	458.01	89.50	48.42	41.08	2.179	
8,100.00	8,074.32	8,117.95	8,075.22	29.35	29.50	178.71	-119.48	458.01	89.50	47.94	41.56	2.154	
8,200.00	8,174.32	8,217.95	8,175.22	29.69	29.84	178.71	-119.48	458.01	89.50	47.46	42.04	2.129	
8,208.76	8,183.08	8,226.70	8,183.98	29.72	29.87	178.71	-119.48	458.01	89.50	47.42	42.08	2.127	SF
8,300.00	8,274.32	8,310.66	8,267.89	30.04	30.16	178.73	-121.32	458.03	91.63	49.26	42.37	2.163	
8,400.00	8,374.32	8,394.96	8,351.12	30.38	30.44	178.82	-134.21	458.16	106.98	65.17	41.81	2.559	
8,500.00	8,474.32	8,473.93	8,426.59	30.72	30.70	178.93	-157.23	458.38	136.23	95.58	40.66	3.351	
8,600.00	8,574.32	8,550.00	8,495.64	31.07	30.95	179.03	-189.02	458.70	177.84	138.14	39.71	4.479	
8,700.00	8,674.32	8,608.52	8,545.54	31.41	31.15	179.09	-219.54	459.00	229.68	191.91	37.77	6.081	
8,800.00	8,774.32	8,663.40	8,589.28	31.76	31.33	179.14	-252.64	459.32	290.09	253.77	36.33	7.986	
8,900.00	8,874.32	8,710.73	8,624.32	32.10	31.48	179.18	-284.44	459.64	357.36	322.37	34.99	10.212	
9,000.00	8,974.32	8,750.00	8,651.32	32.45	31.62	179.21	-312.95	459.92	430.11	396.38	33.73	12.753	
9,100.00	9,074.32	8,786.49	8,674.60	32.79	31.74	179.23	-341.04	460.20	507.21	474.44	32.77	15.477	
9,200.00	9,174.32	8,816.77	8,692.53	33.14	31.85	179.24	-365.44	460.44	587.82	555.93	31.89	18.432	
9,300.00	9,274.32	8,850.00	8,710.69	33.48	31.98	179.26	-393.26	460.71	671.32	639.92	31.40	21.379	
9,400.00	9,374.32	8,866.01	8,718.86	33.83	32.04	179.26	-407.02	460.85	756.96	726.42	30.54	24.786	
9,500.00	9,474.32	8,900.00	8,734.91	34.17	32.18	179.28	-436.98	461.14	844.83	814.40	30.42	27.770	
9,600.00	9,574.32	8,900.00	8,734.91	34.52	32.18	179.28	-436.98	461.14	933.70	904.16	29.53	31.614	
9,700.00	9,674.32	8,919.70	8,743.38	34.87	32.26	179.28	-454.76	461.32	1,024.10	994.79	29.31	34.943	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,774.32	8,950.00	8,755.22	35.22	32.39	179.29	-482.65	461.60	1,115.95	1,086.56	29.38	37.980	
9,900.00	9,874.32	8,950.00	8,755.22	35.56	32.39	179.29	-482.65	461.60	1,208.03	1,179.10	28.93	41.753	
10,000.00	9,974.32	8,950.00	8,755.22	35.91	32.39	179.29	-482.65	461.60	1,301.28	1,272.68	28.61	45.491	
10,100.00	10,074.32	8,968.06	8,761.56	36.26	32.48	179.30	-499.56	461.76	1,395.07	1,366.43	28.64	48.705	
10,191.72	10,166.04	8,976.67	8,764.40	36.58	32.52	179.30	-507.69	461.84	1,481.67	1,453.07	28.60	51.811	
10,200.00	10,174.32	8,977.43	8,764.64	36.60	32.52	-0.12	-508.40	461.85	1,489.49	1,460.89	28.59	52.090	
10,250.00	10,224.22	9,000.00	8,771.47	36.77	32.63	-0.10	-529.92	462.06	1,536.26	1,507.47	28.79	53.358	
10,300.00	10,273.68	9,000.00	8,771.47	36.93	32.63	-0.08	-529.92	462.06	1,580.88	1,552.24	28.65	55.187	
10,350.00	10,322.32	9,000.00	8,771.47	37.09	32.63	-0.07	-529.92	462.06	1,623.77	1,595.29	28.48	57.012	
10,400.00	10,369.77	9,000.00	8,771.47	37.25	32.63	-0.06	-529.92	462.06	1,664.73	1,636.43	28.30	58.821	
10,450.00	10,415.66	9,000.00	8,771.47	37.40	32.63	-0.06	-529.92	462.06	1,703.62	1,675.51	28.11	60.605	
10,500.00	10,459.66	9,019.15	8,776.59	37.55	32.72	-0.05	-548.36	462.24	1,739.86	1,711.75	28.11	61.903	
10,550.00	10,501.42	9,028.20	8,778.80	37.69	32.76	-0.05	-557.14	462.33	1,773.67	1,745.69	27.98	63.386	
10,600.00	10,540.64	9,050.00	8,783.54	37.83	32.87	-0.04	-578.42	462.54	1,804.95	1,776.99	27.97	64.538	
10,650.00	10,577.00	9,050.00	8,783.54	37.96	32.87	-0.04	-578.42	462.54	1,833.07	1,805.33	27.74	66.076	
10,700.00	10,610.23	9,050.00	8,783.54	38.10	32.87	-0.04	-578.42	462.54	1,858.47	1,830.94	27.53	67.511	
10,750.00	10,640.08	9,050.00	8,783.54	38.23	32.87	-0.04	-578.42	462.54	1,881.08	1,853.75	27.33	68.824	
10,800.00	10,666.33	9,079.00	8,788.59	38.38	33.02	-0.03	-606.97	462.82	1,899.88	1,872.53	27.34	69.479	
10,850.00	10,688.76	9,100.00	8,791.34	38.53	33.13	-0.03	-627.79	463.03	1,915.97	1,888.68	27.30	70.189	
10,900.00	10,707.22	9,100.00	8,791.34	38.70	33.13	-0.03	-627.79	463.03	1,928.58	1,901.45	27.13	71.081	
10,950.00	10,721.56	9,100.00	8,791.34	38.87	33.13	-0.03	-627.79	463.03	1,938.17	1,911.17	27.00	71.787	
11,000.00	10,731.67	9,123.57	8,793.52	39.06	33.26	-0.03	-651.25	463.26	1,944.08	1,917.08	27.00	72.003	
11,050.00	10,737.48	9,150.00	8,794.81	39.25	33.40	-0.03	-677.65	463.52	1,947.06	1,920.04	27.02	72.061	
11,091.72	10,739.00	9,150.00	8,794.81	39.42	33.40	-0.03	-677.65	463.52	1,946.53	1,919.56	26.97	72.184	
11,100.00	10,739.00	9,150.00	8,794.81	39.46	33.40	-0.03	-677.65	463.52	1,946.23	1,919.27	26.96	72.193	
11,200.00	10,739.00	9,183.55	8,795.00	39.90	33.59	-0.03	-711.20	463.85	1,944.90	1,917.86	27.04	71.939	
11,300.00	10,739.00	9,283.55	8,795.00	40.41	34.20	-0.03	-811.19	464.84	1,944.90	1,917.58	27.32	71.182	
11,400.00	10,739.00	9,383.55	8,795.00	40.98	34.88	-0.03	-911.19	465.83	1,944.90	1,917.25	27.65	70.338	
11,500.00	10,739.00	9,483.55	8,795.00	41.61	35.62	-0.03	-1,011.18	466.81	1,944.90	1,916.88	28.02	69.414	
11,600.00	10,739.00	9,583.55	8,795.00	42.29	36.42	-0.03	-1,111.18	467.80	1,944.90	1,916.47	28.43	68.421	
11,700.00	10,739.00	9,683.55	8,795.00	43.02	37.27	-0.03	-1,211.17	468.79	1,944.90	1,916.03	28.87	67.370	
11,800.00	10,739.00	9,783.55	8,795.00	43.81	38.18	-0.03	-1,311.17	469.78	1,944.90	1,915.55	29.35	66.271	
11,900.00	10,739.00	9,883.55	8,795.00	44.64	39.14	-0.03	-1,411.16	470.76	1,944.90	1,915.04	29.86	65.135	
12,000.00	10,739.00	9,983.55	8,795.00	45.51	40.14	-0.03	-1,511.16	471.75	1,944.90	1,914.50	30.40	63.970	
12,100.00	10,739.00	10,083.55	8,795.00	46.43	41.18	-0.03	-1,611.15	472.74	1,944.90	1,913.92	30.98	62.784	
12,200.00	10,739.00	10,183.55	8,795.00	47.38	42.26	-0.03	-1,711.15	473.72	1,944.90	1,913.32	31.58	61.586	
12,300.00	10,739.00	10,283.55	8,795.00	48.38	43.38	-0.03	-1,811.14	474.71	1,944.90	1,912.69	32.21	60.382	
12,400.00	10,739.00	10,383.55	8,795.00	49.41	44.53	-0.03	-1,911.14	475.70	1,944.90	1,912.03	32.87	59.178	
12,500.00	10,739.00	10,483.55	8,795.00	50.47	45.71	-0.03	-2,011.13	476.69	1,944.90	1,911.36	33.54	57.980	
12,600.00	10,739.00	10,583.55	8,795.00	51.56	46.92	-0.03	-2,111.13	477.67	1,944.90	1,910.65	34.25	56.792	
12,700.00	10,739.00	10,683.55	8,795.00	52.68	48.15	-0.03	-2,211.12	478.66	1,944.90	1,909.93	34.97	55.618	
12,800.00	10,739.00	10,783.55	8,795.00	53.83	49.41	-0.03	-2,311.12	479.65	1,944.90	1,909.19	35.71	54.461	
12,900.00	10,739.00	10,883.55	8,795.00	55.01	50.69	-0.03	-2,411.11	480.63	1,944.90	1,908.43	36.47	53.324	
13,000.00	10,739.00	10,983.55	8,795.00	56.21	52.00	-0.03	-2,511.11	481.62	1,944.90	1,907.65	37.25	52.209	
13,100.00	10,739.00	11,083.55	8,795.00	57.43	53.32	-0.02	-2,611.10	482.61	1,944.90	1,906.85	38.05	51.118	
13,200.00	10,739.00	11,183.55	8,795.00	58.67	54.66	-0.02	-2,711.10	483.60	1,944.90	1,906.04	38.86	50.052	
13,300.00	10,739.00	11,283.55	8,795.00	59.93	56.01	-0.02	-2,811.09	484.58	1,944.90	1,905.22	39.68	49.011	
13,400.00	10,739.00	11,383.55	8,795.00	61.21	57.39	-0.02	-2,911.09	485.57	1,944.90	1,904.38	40.52	47.996	
13,500.00	10,739.00	11,483.55	8,795.00	62.51	58.77	-0.02	-3,011.08	486.56	1,944.90	1,903.53	41.37	47.008	
13,600.00	10,739.00	11,583.55	8,795.00	63.83	60.17	-0.02	-3,111.08	487.55	1,944.90	1,902.66	42.24	46.047	
13,700.00	10,739.00	11,683.55	8,795.00	65.16	61.58	-0.02	-3,211.07	488.53	1,944.90	1,901.79	43.11	45.114	
13,800.00	10,739.00	11,783.55	8,795.00	66.50	63.01	-0.02	-3,311.07	489.52	1,944.90	1,900.90	44.00	44.206	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.00	10,739.00	11,883.55	8,795.00	67.86	64.44	-0.02	-3,411.06	490.51	1,944.90	1,900.01	44.89	43.324	
14,000.00	10,739.00	11,983.55	8,795.00	69.23	65.89	-0.02	-3,511.06	491.49	1,944.90	1,899.10	45.80	42.468	
14,100.00	10,739.00	12,083.55	8,795.00	70.61	67.34	-0.02	-3,611.05	492.48	1,944.90	1,898.19	46.71	41.637	
14,200.00	10,739.00	12,183.55	8,795.00	72.00	68.81	-0.02	-3,711.05	493.47	1,944.90	1,897.27	47.63	40.831	
14,300.00	10,739.00	12,283.55	8,795.00	73.41	70.28	-0.02	-3,811.04	494.46	1,944.90	1,896.34	48.56	40.049	
14,400.00	10,739.00	12,383.55	8,795.00	74.82	71.76	-0.02	-3,911.04	495.44	1,944.90	1,895.40	49.50	39.291	
14,500.00	10,739.00	12,483.55	8,795.00	76.25	73.24	-0.02	-4,011.04	496.43	1,944.90	1,894.46	50.44	38.555	
14,600.00	10,739.00	12,583.55	8,795.00	77.68	74.74	-0.02	-4,111.03	497.42	1,944.90	1,893.50	51.40	37.842	
14,700.00	10,739.00	12,683.55	8,795.00	79.12	76.24	-0.02	-4,211.03	498.40	1,944.90	1,892.55	52.35	37.150	
14,800.00	10,739.00	12,783.55	8,795.00	80.57	77.74	-0.02	-4,311.02	499.39	1,944.90	1,891.58	53.32	36.479	
14,900.00	10,739.00	12,883.55	8,795.00	82.03	79.25	-0.02	-4,411.02	500.38	1,944.90	1,890.62	54.28	35.828	
15,000.00	10,739.00	12,983.55	8,795.00	83.49	80.77	-0.02	-4,511.01	501.37	1,944.90	1,889.64	55.26	35.196	
15,100.00	10,739.00	13,083.55	8,795.00	84.96	82.29	-0.02	-4,611.01	502.35	1,944.90	1,888.66	56.24	34.583	
15,200.00	10,739.00	13,183.55	8,795.00	86.44	83.82	-0.02	-4,711.00	503.34	1,944.90	1,887.68	57.22	33.989	
15,300.00	10,739.00	13,283.55	8,795.00	87.92	85.35	-0.02	-4,811.00	504.33	1,944.90	1,886.69	58.21	33.412	
15,400.00	10,739.00	13,383.55	8,795.00	89.41	86.89	-0.02	-4,910.99	505.32	1,944.90	1,885.70	59.20	32.851	
15,500.00	10,739.00	13,483.55	8,795.00	90.91	88.43	-0.02	-5,010.99	506.30	1,944.90	1,884.70	60.20	32.307	
15,600.00	10,739.00	13,583.55	8,795.00	92.41	89.98	-0.02	-5,110.98	507.29	1,944.90	1,883.70	61.20	31.779	
15,700.00	10,739.00	13,683.55	8,795.00	93.92	91.52	-0.02	-5,210.98	508.28	1,944.90	1,882.70	62.20	31.266	
15,800.00	10,739.00	13,783.55	8,795.00	95.43	93.08	-0.02	-5,310.97	509.26	1,944.90	1,881.69	63.21	30.767	
15,900.00	10,739.00	13,883.55	8,795.00	96.94	94.63	-0.02	-5,410.97	510.25	1,944.90	1,880.68	64.22	30.283	
16,000.00	10,739.00	13,983.55	8,795.00	98.46	96.19	-0.02	-5,510.96	511.24	1,944.90	1,879.66	65.24	29.812	
16,100.00	10,739.00	14,083.55	8,795.00	99.99	97.75	-0.02	-5,610.96	512.23	1,944.90	1,878.64	66.26	29.354	
16,200.00	10,739.00	14,183.55	8,795.00	101.51	99.32	-0.01	-5,710.95	513.21	1,944.90	1,877.62	67.28	28.909	
16,300.00	10,739.00	14,283.55	8,795.00	103.05	100.88	-0.01	-5,810.95	514.20	1,944.90	1,876.60	68.30	28.476	
16,400.00	10,739.00	14,383.55	8,795.00	104.58	102.45	-0.01	-5,910.94	515.19	1,944.90	1,875.57	69.33	28.054	
16,500.00	10,739.00	14,483.55	8,795.00	106.12	104.02	-0.01	-6,010.94	516.17	1,944.90	1,874.55	70.35	27.644	
16,600.00	10,739.00	14,583.55	8,795.00	107.66	105.60	-0.01	-6,110.93	517.16	1,944.90	1,873.51	71.39	27.245	
16,700.00	10,739.00	14,683.55	8,795.00	109.21	107.18	-0.01	-6,210.93	518.15	1,944.90	1,872.48	72.42	26.856	
16,800.00	10,739.00	14,783.55	8,795.00	110.76	108.76	-0.01	-6,310.92	519.14	1,944.90	1,871.45	73.45	26.478	
16,900.00	10,739.00	14,883.55	8,795.00	112.31	110.34	-0.01	-6,410.92	520.12	1,944.90	1,870.41	74.49	26.109	
17,000.00	10,739.00	14,983.55	8,795.00	113.86	111.92	-0.01	-6,510.91	521.11	1,944.90	1,869.37	75.53	25.750	
17,100.00	10,739.00	15,083.55	8,795.00	115.42	113.51	-0.01	-6,610.91	522.10	1,944.90	1,868.33	76.57	25.399	
17,200.00	10,739.00	15,183.55	8,795.00	116.98	115.09	-0.01	-6,710.90	523.09	1,944.90	1,867.28	77.62	25.058	
17,300.00	10,739.00	15,283.55	8,795.00	118.54	116.68	-0.01	-6,810.90	524.07	1,944.90	1,866.24	78.66	24.725	
17,400.00	10,739.00	15,383.55	8,795.00	120.10	118.27	-0.01	-6,910.89	525.06	1,944.90	1,865.19	79.71	24.400	
17,500.00	10,739.00	15,483.55	8,795.00	121.67	119.86	-0.01	-7,010.89	526.05	1,944.90	1,864.14	80.76	24.083	
17,600.00	10,739.00	15,583.55	8,795.00	123.24	121.46	-0.01	-7,110.88	527.03	1,944.90	1,863.09	81.81	23.774	
17,700.00	10,739.00	15,683.55	8,795.00	124.81	123.05	-0.01	-7,210.88	528.02	1,944.90	1,862.04	82.86	23.472	
17,800.00	10,739.00	15,783.55	8,795.00	126.38	124.65	-0.01	-7,310.87	529.01	1,944.90	1,860.99	83.91	23.177	
17,900.00	10,739.00	15,883.55	8,795.00	127.96	126.25	-0.01	-7,410.87	530.00	1,944.90	1,859.93	84.97	22.890	
18,000.00	10,739.00	15,983.55	8,795.00	129.53	127.85	-0.01	-7,510.86	530.98	1,944.90	1,858.88	86.02	22.609	
18,100.00	10,739.00	16,083.55	8,795.00	131.11	129.45	-0.01	-7,610.86	531.97	1,944.90	1,857.82	87.08	22.334	
18,200.00	10,739.00	16,183.55	8,795.00	132.69	131.05	-0.01	-7,710.85	532.96	1,944.90	1,856.76	88.14	22.066	
18,300.00	10,739.00	16,283.55	8,795.00	134.28	132.66	-0.01	-7,810.85	533.95	1,944.90	1,855.70	89.20	21.804	
18,400.00	10,739.00	16,383.55	8,795.00	135.86	134.26	-0.01	-7,910.85	534.93	1,944.90	1,854.64	90.26	21.547	
18,500.00	10,739.00	16,483.55	8,795.00	137.44	135.87	-0.01	-8,010.84	535.92	1,944.90	1,853.58	91.32	21.297	
18,600.00	10,739.00	16,583.55	8,795.00	139.03	137.47	-0.01	-8,110.84	536.91	1,944.90	1,852.51	92.39	21.051	
18,700.00	10,739.00	16,683.55	8,795.00	140.62	139.08	-0.01	-8,210.83	537.89	1,944.90	1,851.45	93.45	20.812	
18,800.00	10,739.00	16,783.55	8,795.00	142.21	140.69	-0.01	-8,310.83	538.88	1,944.90	1,850.38	94.52	20.577	
18,900.00	10,739.00	16,883.55	8,795.00	143.80	142.30	-0.01	-8,410.82	539.87	1,944.90	1,849.31	95.59	20.347	
19,000.00	10,739.00	16,983.55	8,795.00	145.39	143.91	-0.01	-8,510.82	540.86	1,944.90	1,848.25	96.65	20.122	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,100.00	10,739.00	17,083.55	8,795.00	146.99	145.52	-0.01	-8,610.81	541.84	1,944.90	1,847.18	97.72	19.902	
19,200.00	10,739.00	17,183.55	8,795.00	148.58	147.13	-0.01	-8,710.81	542.83	1,944.90	1,846.11	98.79	19.687	
19,300.00	10,739.00	17,283.55	8,795.00	150.18	148.75	-0.01	-8,810.80	543.82	1,944.90	1,845.04	99.86	19.476	
19,400.00	10,739.00	17,383.55	8,795.00	151.78	150.36	0.00	-8,910.80	544.80	1,944.90	1,843.97	100.93	19.269	
19,500.00	10,739.00	17,483.55	8,795.00	153.38	151.98	0.00	-9,010.79	545.79	1,944.90	1,842.90	102.00	19.067	
19,600.00	10,739.00	17,583.55	8,795.00	154.98	153.59	0.00	-9,110.79	546.78	1,944.90	1,841.82	103.08	18.868	
19,700.00	10,739.00	17,683.55	8,795.00	156.58	155.21	0.00	-9,210.78	547.77	1,944.90	1,840.75	104.15	18.674	
19,800.00	10,739.00	17,783.55	8,795.00	158.18	156.83	0.00	-9,310.78	548.75	1,944.90	1,839.67	105.23	18.483	
19,900.00	10,739.00	17,883.55	8,795.00	159.78	158.44	0.00	-9,410.77	549.74	1,944.90	1,838.60	106.30	18.296	
20,000.00	10,739.00	17,983.55	8,795.00	161.39	160.06	0.00	-9,510.77	550.73	1,944.90	1,837.52	107.38	18.113	
20,100.00	10,739.00	18,083.55	8,795.00	162.99	161.68	0.00	-9,610.76	551.72	1,944.90	1,836.45	108.45	17.933	
20,200.00	10,739.00	18,183.55	8,795.00	164.60	163.30	0.00	-9,710.76	552.70	1,944.90	1,835.37	109.53	17.757	
20,300.00	10,739.00	18,283.55	8,795.00	166.20	164.92	0.00	-9,810.75	553.69	1,944.90	1,834.29	110.61	17.584	
20,400.00	10,739.00	18,383.55	8,795.00	167.81	166.54	0.00	-9,910.75	554.68	1,944.90	1,833.21	111.69	17.414	
20,500.00	10,739.00	18,483.55	8,795.00	169.42	168.17	0.00	-10,010.74	555.66	1,944.90	1,832.13	112.77	17.247	
20,600.00	10,739.00	18,583.55	8,795.00	171.03	169.79	0.00	-10,110.74	556.65	1,944.90	1,831.05	113.85	17.084	
20,700.00	10,739.00	18,683.55	8,795.00	172.64	171.41	0.00	-10,210.73	557.64	1,944.90	1,829.97	114.93	16.923	
20,800.00	10,739.00	18,783.55	8,795.00	174.25	173.03	0.00	-10,310.73	558.63	1,944.90	1,828.89	116.01	16.765	
20,853.35	10,739.00	18,836.90	8,795.00	175.11	173.90	0.00	-10,364.07	559.15	1,944.90	1,828.32	116.58	16.683	
20,879.44	10,739.00	18,862.99	8,795.00	175.53	174.32	0.00	-10,390.16	559.41	1,944.90	1,828.03	116.87	16.642	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.50	0.50	0.00	0.00	-90.55	-0.24	-24.99	24.99				
100.00	100.00	100.50	100.50	0.13	0.13	-90.55	-0.24	-24.99	24.99	24.81	0.18	139.845	
200.00	200.00	200.50	200.50	0.48	0.49	-90.55	-0.24	-24.99	24.99	24.31	0.69	36.448	
300.00	300.00	300.50	300.50	0.84	0.84	-90.55	-0.24	-24.99	24.99	23.80	1.19	20.955	
400.00	400.00	400.50	400.50	1.20	1.20	-90.55	-0.24	-24.99	24.99	23.29	1.70	14.704	
500.00	500.00	500.50	500.50	1.56	1.56	-90.55	-0.24	-24.99	24.99	22.78	2.21	11.326	
600.00	600.00	600.50	600.50	1.92	1.92	-90.55	-0.24	-24.99	24.99	22.28	2.71	9.210	
700.00	700.00	700.50	700.50	2.28	2.28	-90.55	-0.24	-24.99	24.99	21.77	3.22	7.760	
800.00	800.00	800.50	800.50	2.63	2.64	-90.55	-0.24	-24.99	24.99	21.26	3.73	6.705	
900.00	900.00	900.50	900.50	2.99	3.00	-90.55	-0.24	-24.99	24.99	20.76	4.23	5.902	
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.35	-90.55	-0.24	-24.99	24.99	20.25	4.74	5.271	
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	-90.55	-0.24	-24.99	24.99	19.74	5.25	4.762	
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	-90.55	-0.24	-24.99	24.99	19.24	5.76	4.342	
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.43	-90.55	-0.24	-24.99	24.99	18.73	6.26	3.991	
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.79	-90.55	-0.24	-24.99	24.99	18.22	6.77	3.692	
1,500.00	1,500.00	1,500.50	1,500.50	5.14	5.15	-90.55	-0.24	-24.99	24.99	17.72	7.28	3.435	
1,600.00	1,600.00	1,600.50	1,600.50	5.50	5.50	-90.55	-0.24	-24.99	24.99	17.21	7.78	3.211	
1,700.00	1,700.00	1,700.50	1,700.50	5.86	5.86	-90.55	-0.24	-24.99	24.99	16.70	8.29	3.015	
1,800.00	1,800.00	1,800.50	1,800.50	6.22	6.22	-90.55	-0.24	-24.99	24.99	16.19	8.80	2.841	
1,900.00	1,900.00	1,900.50	1,900.50	6.58	6.58	-90.55	-0.24	-24.99	24.99	15.69	9.30	2.686	
2,000.00	2,000.00	2,000.50	2,000.50	6.94	6.94	-90.55	-0.24	-24.99	24.99	15.18	9.81	2.547	
2,100.00	2,100.00	2,100.50	2,100.50	7.29	7.30	-90.55	-0.24	-24.99	24.99	14.67	10.32	2.422	
2,200.00	2,200.00	2,200.50	2,200.50	7.65	7.66	-90.55	-0.24	-24.99	24.99	14.17	10.82	2.309	
2,300.00	2,300.00	2,300.50	2,300.50	8.01	8.01	-90.55	-0.24	-24.99	24.99	13.66	11.33	2.205	
2,400.00	2,400.00	2,400.50	2,400.50	8.37	8.37	-90.55	-0.24	-24.99	24.99	13.15	11.84	2.111	
2,500.00	2,500.00	2,500.50	2,500.50	8.73	8.73	-90.55	-0.24	-24.99	24.99	12.65	12.35	2.024	
2,600.00	2,600.00	2,600.50	2,600.50	9.09	9.09	-90.55	-0.24	-24.99	24.99	12.14	12.85	1.944	
2,700.00	2,700.00	2,700.50	2,700.50	9.45	9.45	-90.55	-0.24	-24.99	24.99	11.63	13.36	1.871	
2,800.00	2,800.00	2,800.50	2,800.50	9.80	9.81	-90.55	-0.24	-24.99	24.99	11.12	13.87	1.802	
2,900.00	2,900.00	2,900.50	2,900.50	10.16	10.16	-90.55	-0.24	-24.99	24.99	10.62	14.37	1.739	
3,000.00	3,000.00	3,000.50	3,000.50	10.52	10.52	-90.55	-0.24	-24.99	24.99	10.11	14.88	1.679	
3,100.00	3,100.00	3,100.50	3,100.50	10.88	10.88	-90.55	-0.24	-24.99	24.99	9.60	15.39	1.624	
3,200.00	3,200.00	3,200.50	3,200.50	11.24	11.24	-90.55	-0.24	-24.99	24.99	9.10	15.89	1.572	CC, ES, SF
3,300.00	3,299.99	3,300.49	3,300.49	11.59	11.60	175.90	-0.24	-24.99	26.30	9.90	16.39	1.604	
3,400.00	3,399.91	3,400.41	3,400.41	11.93	11.96	176.43	-0.24	-24.99	30.21	13.33	16.89	1.789	
3,500.00	3,499.69	3,499.24	3,499.23	12.27	12.30	176.57	-0.54	-26.24	38.01	20.64	17.36	2.189	
3,600.00	3,599.27	3,597.30	3,597.21	12.62	12.63	176.13	-1.43	-29.94	50.89	33.07	17.82	2.856	
3,645.68	3,644.67	3,641.73	3,641.57	12.78	12.78	175.86	-2.03	-32.42	58.45	40.43	18.02	3.243	
3,700.00	3,698.62	3,694.28	3,693.99	12.97	12.96	175.52	-2.89	-36.01	68.43	50.17	18.26	3.748	
3,800.00	3,797.94	3,790.28	3,789.60	13.32	13.29	174.83	-4.90	-44.36	88.66	69.98	18.69	4.744	
3,900.00	3,897.26	3,885.25	3,883.94	13.68	13.62	174.14	-7.45	-54.91	111.30	92.20	19.10	5.826	
4,000.00	3,996.58	3,979.08	3,976.86	14.03	13.95	173.49	-10.50	-67.58	136.30	116.79	19.51	6.987	
4,100.00	4,095.90	4,071.69	4,068.23	14.40	14.28	172.89	-14.03	-82.26	163.63	143.74	19.90	8.224	
4,200.00	4,195.22	4,162.99	4,157.92	14.76	14.61	172.35	-18.03	-98.83	193.25	172.98	20.28	9.531	
4,300.00	4,294.54	4,252.90	4,245.83	15.12	14.95	171.86	-22.45	-117.18	225.11	204.47	20.64	10.906	
4,400.00	4,393.86	4,341.37	4,331.87	15.49	15.28	171.42	-27.27	-137.20	259.16	238.17	20.99	12.345	
4,500.00	4,493.18	4,428.34	4,415.96	15.86	15.63	171.01	-32.46	-158.75	295.35	274.02	21.33	13.845	
4,600.00	4,592.50	4,513.74	4,498.03	16.23	15.97	170.65	-37.99	-181.73	333.62	311.96	21.66	15.403	
4,700.00	4,691.82	4,600.00	4,580.36	16.60	16.34	170.31	-44.02	-206.74	373.93	351.91	22.02	16.982	
4,800.00	4,791.14	4,679.73	4,655.92	16.97	16.69	170.02	-49.97	-231.46	416.20	393.92	22.28	18.682	
4,900.00	4,890.46	4,761.89	4,733.23	17.35	17.06	169.74	-56.49	-258.51	460.36	437.76	22.60	20.370	
5,000.00	4,989.78	4,851.27	4,817.11	17.73	17.48	169.47	-63.71	-288.51	505.17	482.12	23.06	21.910	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	4,940.64	4,900.99	18.10	17.92	169.25	-70.94	-318.51	549.99	526.47	23.52	23.387	
5,200.00	5,188.42	5,030.02	4,984.87	18.48	18.36	169.06	-78.16	-348.51	594.82	570.84	23.98	24.805	
5,300.00	5,287.74	5,119.39	5,068.75	18.86	18.81	168.90	-85.39	-378.51	639.65	615.20	24.45	26.167	
5,400.00	5,387.06	5,208.77	5,152.63	19.24	19.28	168.76	-92.62	-408.51	684.48	659.57	24.91	27.476	
5,500.00	5,486.38	5,298.15	5,236.51	19.62	19.75	168.64	-99.84	-438.50	729.31	703.93	25.38	28.735	
5,600.00	5,585.70	5,387.52	5,320.39	20.00	20.23	168.53	-107.07	-468.50	774.15	748.30	25.85	29.946	
5,700.00	5,685.02	5,476.90	5,404.27	20.39	20.71	168.43	-114.29	-498.50	818.99	792.67	26.32	31.111	
5,800.00	5,784.34	5,566.27	5,488.15	20.77	21.21	168.35	-121.52	-528.50	863.83	837.03	26.80	32.233	
5,900.00	5,883.66	5,655.65	5,572.03	21.16	21.71	168.27	-128.75	-558.50	908.67	881.40	27.28	33.315	
6,000.00	5,982.98	5,745.02	5,655.91	21.54	22.21	168.20	-135.97	-588.50	953.52	925.76	27.75	34.357	
6,100.00	6,082.30	5,834.40	5,739.79	21.93	22.72	168.13	-143.20	-618.50	998.36	970.13	28.23	35.362	
6,200.00	6,181.62	5,923.77	5,823.67	22.31	23.24	168.07	-150.42	-648.50	1,043.21	1,014.50	28.71	36.332	
6,300.00	6,280.94	6,013.15	5,907.55	22.70	23.76	168.02	-157.65	-678.50	1,088.06	1,058.86	29.20	37.267	
6,400.00	6,380.26	6,102.52	5,991.43	23.09	24.28	167.97	-164.88	-708.50	1,132.90	1,103.22	29.68	38.170	
6,500.00	6,479.58	6,191.90	6,075.31	23.48	24.81	167.92	-172.10	-738.50	1,177.75	1,147.59	30.17	39.043	
6,600.00	6,578.90	6,281.27	6,159.18	23.87	25.35	167.88	-179.33	-768.50	1,222.60	1,191.95	30.65	39.886	
6,700.00	6,678.22	6,370.65	6,243.06	24.26	25.89	167.84	-186.55	-798.50	1,267.45	1,236.31	31.14	40.701	
6,800.00	6,777.54	6,489.22	6,354.67	24.65	26.60	167.80	-195.93	-837.42	1,311.67	1,279.79	31.89	41.135	
6,900.00	6,876.86	6,628.82	6,487.53	25.04	27.40	167.77	-205.96	-879.07	1,352.88	1,320.10	32.78	41.272	
7,000.00	6,976.18	6,772.94	6,626.23	25.43	28.18	167.77	-215.12	-917.08	1,390.69	1,357.03	33.66	41.318	
7,100.00	7,075.50	6,921.36	6,770.51	25.82	28.93	167.79	-223.26	-950.88	1,424.94	1,390.42	34.52	41.283	
7,125.00	7,100.33	6,959.11	6,807.41	25.92	29.11	167.79	-225.12	-958.60	1,432.93	1,398.20	34.73	41.263	
7,200.00	7,174.90	7,074.15	6,920.34	26.21	29.65	167.89	-230.26	-979.95	1,454.79	1,419.45	35.35	41.158	
7,300.00	7,274.55	7,231.48	7,075.73	26.58	30.33	167.98	-236.00	-1,003.78	1,478.36	1,442.22	36.14	40.907	
7,400.00	7,374.38	7,392.39	7,235.57	26.95	30.96	168.04	-240.32	-1,021.70	1,495.36	1,458.47	36.89	40.541	
7,500.00	7,474.33	7,555.75	7,398.50	27.30	31.54	168.07	-243.08	-1,033.17	1,505.64	1,468.06	37.58	40.070	
7,570.68	7,545.00	7,672.05	7,514.71	27.55	31.92	-98.16	-244.05	-1,037.21	1,508.79	1,470.76	38.03	39.678	
7,600.00	7,574.32	7,720.38	7,563.03	27.65	32.07	-98.16	-244.21	-1,037.88	1,509.20	1,471.00	38.20	39.506	
7,700.00	7,674.32	7,832.16	7,674.82	27.99	32.40	-98.16	-244.24	-1,037.99	1,509.27	1,470.57	38.70	38.995	
7,800.00	7,774.32	7,932.16	7,774.82	28.33	32.69	-98.16	-244.24	-1,037.99	1,509.27	1,470.09	39.19	38.514	
7,900.00	7,874.32	8,032.16	7,874.82	28.67	32.99	-98.16	-244.24	-1,037.99	1,509.27	1,469.60	39.67	38.044	
8,000.00	7,974.32	8,132.16	7,974.82	29.01	33.29	-98.16	-244.24	-1,037.99	1,509.27	1,469.12	40.16	37.585	
8,100.00	8,074.32	8,232.16	8,074.82	29.35	33.58	-98.16	-244.24	-1,037.99	1,509.27	1,468.63	40.64	37.136	
8,200.00	8,174.32	8,332.16	8,174.82	29.69	33.88	-98.16	-244.24	-1,037.99	1,509.27	1,468.15	41.13	36.697	
8,300.00	8,274.32	8,432.16	8,274.82	30.04	34.18	-98.16	-244.24	-1,037.99	1,509.27	1,467.66	41.61	36.268	
8,400.00	8,374.32	8,532.16	8,374.82	30.38	34.49	-98.16	-244.24	-1,037.99	1,509.27	1,467.17	42.10	35.849	
8,500.00	8,474.32	8,632.16	8,474.82	30.72	34.79	-98.16	-244.24	-1,037.99	1,509.27	1,466.69	42.59	35.439	
8,600.00	8,574.32	8,732.16	8,574.82	31.07	35.09	-98.16	-244.24	-1,037.99	1,509.27	1,466.20	43.08	35.038	
8,700.00	8,674.32	8,832.16	8,674.82	31.41	35.40	-98.16	-244.24	-1,037.99	1,509.27	1,465.71	43.56	34.645	
8,800.00	8,774.32	8,932.16	8,774.82	31.76	35.71	-98.16	-244.24	-1,037.99	1,509.27	1,465.22	44.05	34.261	
8,900.00	8,874.32	9,032.16	8,874.82	32.10	36.01	-98.16	-244.24	-1,037.99	1,509.27	1,464.73	44.54	33.885	
9,000.00	8,974.32	9,132.16	8,974.82	32.45	36.32	-98.16	-244.24	-1,037.99	1,509.27	1,464.24	45.03	33.517	
9,100.00	9,074.32	9,232.16	9,074.82	32.79	36.63	-98.16	-244.24	-1,037.99	1,509.27	1,463.75	45.52	33.156	
9,200.00	9,174.32	9,332.16	9,174.82	33.14	36.94	-98.16	-244.24	-1,037.99	1,509.27	1,463.26	46.01	32.803	
9,300.00	9,274.32	9,432.16	9,274.82	33.48	37.25	-98.16	-244.24	-1,037.99	1,509.27	1,462.77	46.50	32.457	
9,400.00	9,374.32	9,532.16	9,374.82	33.83	37.56	-98.16	-244.24	-1,037.99	1,509.27	1,462.28	46.99	32.118	
9,500.00	9,474.32	9,632.16	9,474.82	34.17	37.87	-98.16	-244.24	-1,037.99	1,509.27	1,461.79	47.48	31.786	
9,600.00	9,574.32	9,732.16	9,574.82	34.52	38.19	-98.16	-244.24	-1,037.99	1,509.27	1,461.30	47.97	31.460	
9,700.00	9,674.32	9,832.16	9,674.82	34.87	38.50	-98.16	-244.24	-1,037.99	1,509.27	1,460.81	48.47	31.141	
9,800.00	9,774.32	9,932.16	9,774.82	35.22	38.82	-98.16	-244.24	-1,037.99	1,509.27	1,460.31	48.96	30.828	
9,900.00	9,874.32	10,032.16	9,874.82	35.56	39.13	-98.16	-244.24	-1,037.99	1,509.27	1,459.82	49.45	30.521	
10,000.00	9,974.32	10,132.16	9,974.82	35.91	39.45	-98.16	-244.24	-1,037.99	1,509.27	1,459.33	49.94	30.220	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,074.32	10,232.16	10,074.82	36.26	39.76	-98.16	-244.24	-1,037.99	1,509.27	1,458.84	50.44	29.924	
10,191.72	10,166.04	10,323.88	10,166.54	36.58	40.06	-98.16	-244.24	-1,037.99	1,509.27	1,458.38	50.89	29.658	
10,200.00	10,174.32	10,332.16	10,174.82	36.60	40.08	82.41	-244.24	-1,037.99	1,509.27	1,458.34	50.93	29.634	
10,250.00	10,224.22	10,374.99	10,217.64	36.77	40.22	82.52	-244.61	-1,037.99	1,508.95	1,457.79	51.16	29.497	
10,300.00	10,273.68	10,412.17	10,254.73	36.93	40.33	82.68	-247.15	-1,037.96	1,508.45	1,457.08	51.37	29.364	
10,350.00	10,322.32	10,450.00	10,292.22	37.09	40.45	82.88	-252.20	-1,037.91	1,507.83	1,456.24	51.58	29.231	
10,400.00	10,369.77	10,487.01	10,328.48	37.25	40.57	83.12	-259.52	-1,037.84	1,507.09	1,455.29	51.79	29.098	
10,450.00	10,415.66	10,524.73	10,364.89	37.40	40.69	83.41	-269.38	-1,037.74	1,506.25	1,454.24	52.00	28.964	
10,500.00	10,459.66	10,562.72	10,400.82	37.55	40.81	83.74	-281.70	-1,037.62	1,505.32	1,453.10	52.22	28.829	
10,550.00	10,501.42	10,600.00	10,435.20	37.69	40.93	84.09	-296.08	-1,037.48	1,504.33	1,451.91	52.43	28.694	
10,600.00	10,540.64	10,639.68	10,470.69	37.83	41.06	84.50	-313.81	-1,037.30	1,503.30	1,450.66	52.65	28.554	
10,650.00	10,577.00	10,678.74	10,504.35	37.96	41.18	84.94	-333.62	-1,037.10	1,502.25	1,449.39	52.87	28.414	
10,700.00	10,610.23	10,718.27	10,536.96	38.10	41.30	85.40	-355.96	-1,036.88	1,501.21	1,448.11	53.10	28.272	
10,750.00	10,640.08	10,758.34	10,568.35	38.23	41.43	85.89	-380.83	-1,036.64	1,500.20	1,446.87	53.34	28.128	
10,800.00	10,666.33	10,800.00	10,599.07	38.38	41.55	86.43	-408.96	-1,036.36	1,499.25	1,445.67	53.58	27.979	
10,850.00	10,688.76	10,840.33	10,626.79	38.53	41.68	86.96	-438.24	-1,036.07	1,498.38	1,444.54	53.84	27.832	
10,900.00	10,707.22	10,882.41	10,653.44	38.70	41.80	87.52	-470.80	-1,035.74	1,497.62	1,443.52	54.10	27.681	
10,950.00	10,721.56	10,925.34	10,678.09	38.87	41.93	88.10	-505.94	-1,035.40	1,496.99	1,442.61	54.38	27.530	
11,000.00	10,731.67	10,969.22	10,700.49	39.06	42.07	88.70	-543.65	-1,035.02	1,496.51	1,441.85	54.66	27.380	
11,050.00	10,737.48	11,014.15	10,720.37	39.25	42.21	89.31	-583.92	-1,034.62	1,496.20	1,441.26	54.95	27.231	
11,091.72	10,739.00	11,052.53	10,734.81	39.42	42.34	89.82	-619.48	-1,034.27	1,496.09	1,440.90	55.19	27.109	
11,100.00	10,739.00	11,060.27	10,737.43	39.46	42.37	89.92	-626.76	-1,034.20	1,496.08	1,440.85	55.24	27.084	
11,105.66	10,739.00	11,065.61	10,739.18	39.48	42.38	89.99	-631.81	-1,034.15	1,496.08	1,440.81	55.27	27.067	
11,200.00	10,739.00	11,159.00	10,762.08	39.90	42.72	90.86	-722.24	-1,033.25	1,496.26	1,440.39	55.87	26.780	
11,300.00	10,739.00	11,263.24	10,770.00	40.41	43.13	91.17	-826.03	-1,032.22	1,496.41	1,439.82	56.59	26.443	
11,400.00	10,739.00	11,363.24	10,770.00	40.98	43.58	91.17	-926.02	-1,031.23	1,496.41	1,439.03	57.38	26.078	
11,500.00	10,739.00	11,463.24	10,770.00	41.61	44.09	91.17	-1,026.02	-1,030.24	1,496.42	1,438.17	58.25	25.689	
11,600.00	10,739.00	11,563.24	10,770.00	42.29	44.66	91.17	-1,126.01	-1,029.25	1,496.43	1,437.23	59.20	25.277	
11,700.00	10,739.00	11,663.24	10,770.00	43.02	45.29	91.17	-1,226.01	-1,028.26	1,496.44	1,436.21	60.23	24.846	
11,800.00	10,739.00	11,763.24	10,770.00	43.81	45.97	91.17	-1,326.00	-1,027.27	1,496.44	1,435.12	61.33	24.401	
11,900.00	10,739.00	11,863.24	10,770.00	44.64	46.71	91.17	-1,426.00	-1,026.28	1,496.45	1,433.96	62.49	23.946	
12,000.00	10,739.00	11,963.24	10,770.00	45.51	47.49	91.17	-1,525.99	-1,025.29	1,496.46	1,432.73	63.72	23.484	
12,100.00	10,739.00	12,063.24	10,770.00	46.43	48.32	91.17	-1,625.99	-1,024.30	1,496.46	1,431.45	65.01	23.018	
12,200.00	10,739.00	12,163.24	10,770.00	47.38	49.20	91.17	-1,725.98	-1,023.31	1,496.47	1,430.11	66.36	22.551	
12,300.00	10,739.00	12,263.24	10,770.00	48.38	50.12	91.17	-1,825.98	-1,022.32	1,496.48	1,428.72	67.76	22.085	
12,400.00	10,739.00	12,363.24	10,770.00	49.41	51.07	91.17	-1,925.97	-1,021.32	1,496.49	1,427.27	69.21	21.622	
12,500.00	10,739.00	12,463.24	10,770.00	50.47	52.07	91.17	-2,025.97	-1,020.33	1,496.49	1,425.78	70.71	21.163	
12,600.00	10,739.00	12,563.24	10,770.00	51.56	53.09	91.17	-2,125.96	-1,019.34	1,496.50	1,424.24	72.26	20.711	
12,700.00	10,739.00	12,663.24	10,770.00	52.68	54.15	91.17	-2,225.96	-1,018.35	1,496.51	1,422.67	73.84	20.267	
12,800.00	10,739.00	12,763.24	10,770.00	53.83	55.24	91.17	-2,325.95	-1,017.36	1,496.51	1,421.05	75.46	19.831	
12,900.00	10,739.00	12,863.24	10,770.00	55.01	56.36	91.17	-2,425.95	-1,016.37	1,496.52	1,419.40	77.12	19.404	
13,000.00	10,739.00	12,963.24	10,770.00	56.21	57.51	91.17	-2,525.94	-1,015.38	1,496.53	1,417.71	78.82	18.987	
13,100.00	10,739.00	13,063.24	10,770.00	57.43	58.68	91.17	-2,625.94	-1,014.39	1,496.54	1,415.99	80.55	18.580	
13,200.00	10,739.00	13,163.24	10,770.00	58.67	59.87	91.17	-2,725.93	-1,013.40	1,496.54	1,414.24	82.30	18.183	
13,300.00	10,739.00	13,263.24	10,770.00	59.93	61.09	91.17	-2,825.93	-1,012.41	1,496.55	1,412.46	84.09	17.797	
13,400.00	10,739.00	13,363.24	10,770.00	61.21	62.32	91.17	-2,925.92	-1,011.42	1,496.56	1,410.66	85.90	17.422	
13,500.00	10,739.00	13,463.24	10,770.00	62.51	63.58	91.17	-3,025.92	-1,010.42	1,496.56	1,408.83	87.74	17.058	
13,600.00	10,739.00	13,563.24	10,770.00	63.83	64.85	91.17	-3,125.91	-1,009.43	1,496.57	1,406.98	89.60	16.704	
13,700.00	10,739.00	13,663.24	10,770.00	65.16	66.14	91.17	-3,225.91	-1,008.44	1,496.58	1,405.10	91.48	16.360	
13,800.00	10,739.00	13,763.24	10,770.00	66.50	67.44	91.17	-3,325.90	-1,007.45	1,496.59	1,403.21	93.38	16.027	
13,900.00	10,739.00	13,863.24	10,770.00	67.86	68.77	91.17	-3,425.90	-1,006.46	1,496.59	1,401.29	95.30	15.704	
14,000.00	10,739.00	13,963.24	10,770.00	69.23	70.10	91.17	-3,525.89	-1,005.47	1,496.60	1,399.36	97.24	15.391	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	10,739.00	14,063.24	10,770.00	70.61	71.45	91.17	-3,625.89	-1,004.48	1,496.61	1,397.41	99.19	15.088	
14,200.00	10,739.00	14,163.24	10,770.00	72.00	72.81	91.17	-3,725.88	-1,003.49	1,496.61	1,395.45	101.17	14.794	
14,300.00	10,739.00	14,263.24	10,770.00	73.41	74.18	91.17	-3,825.88	-1,002.50	1,496.62	1,393.47	103.15	14.509	
14,400.00	10,739.00	14,363.24	10,770.00	74.82	75.57	91.17	-3,925.87	-1,001.51	1,496.63	1,391.47	105.16	14.232	
14,500.00	10,739.00	14,463.24	10,770.00	76.25	76.96	91.17	-4,025.87	-1,000.52	1,496.64	1,389.47	107.17	13.965	
14,600.00	10,739.00	14,563.24	10,770.00	77.68	78.37	91.17	-4,125.86	-999.52	1,496.64	1,387.44	109.20	13.706	
14,700.00	10,739.00	14,663.24	10,770.00	79.12	79.79	91.17	-4,225.86	-998.53	1,496.65	1,385.41	111.24	13.454	
14,800.00	10,739.00	14,763.24	10,770.00	80.57	81.21	91.17	-4,325.85	-997.54	1,496.66	1,383.37	113.29	13.211	
14,900.00	10,739.00	14,863.24	10,770.00	82.03	82.64	91.17	-4,425.85	-996.55	1,496.66	1,381.31	115.35	12.975	
15,000.00	10,739.00	14,963.24	10,770.00	83.49	84.08	91.17	-4,525.84	-995.56	1,496.67	1,379.25	117.43	12.746	
15,100.00	10,739.00	15,063.24	10,770.00	84.96	85.53	91.17	-4,625.84	-994.57	1,496.68	1,377.17	119.51	12.524	
15,200.00	10,739.00	15,163.24	10,770.00	86.44	86.99	91.17	-4,725.83	-993.58	1,496.69	1,375.09	121.60	12.308	
15,300.00	10,739.00	15,263.24	10,770.00	87.92	88.45	91.17	-4,825.83	-992.59	1,496.69	1,372.99	123.70	12.099	
15,400.00	10,739.00	15,363.24	10,770.00	89.41	89.92	91.17	-4,925.82	-991.60	1,496.70	1,370.89	125.81	11.897	
15,500.00	10,739.00	15,463.24	10,770.00	90.91	91.39	91.17	-5,025.82	-990.61	1,496.71	1,368.78	127.92	11.700	
15,600.00	10,739.00	15,563.24	10,770.00	92.41	92.88	91.17	-5,125.81	-989.62	1,496.72	1,366.67	130.05	11.509	
15,700.00	10,739.00	15,663.24	10,770.00	93.92	94.36	91.17	-5,225.81	-988.62	1,496.72	1,364.54	132.18	11.324	
15,800.00	10,739.00	15,763.24	10,770.00	95.43	95.85	91.17	-5,325.81	-987.63	1,496.73	1,362.41	134.32	11.143	
15,900.00	10,739.00	15,863.24	10,770.00	96.94	97.35	91.17	-5,425.80	-986.64	1,496.74	1,360.28	136.46	10.968	
16,000.00	10,739.00	15,963.24	10,770.00	98.46	98.86	91.17	-5,525.80	-985.65	1,496.74	1,358.13	138.61	10.798	
16,100.00	10,739.00	16,063.24	10,770.00	99.99	100.36	91.17	-5,625.79	-984.66	1,496.75	1,355.98	140.77	10.633	
16,200.00	10,739.00	16,163.24	10,770.00	101.51	101.87	91.17	-5,725.79	-983.67	1,496.76	1,353.83	142.93	10.472	
16,300.00	10,739.00	16,263.24	10,770.00	103.05	103.39	91.17	-5,825.78	-982.68	1,496.77	1,351.67	145.10	10.316	
16,400.00	10,739.00	16,363.24	10,770.00	104.58	104.91	91.17	-5,925.78	-981.69	1,496.77	1,349.50	147.27	10.164	
16,500.00	10,739.00	16,463.24	10,770.00	106.12	106.43	91.17	-6,025.77	-980.70	1,496.78	1,347.33	149.44	10.016	
16,600.00	10,739.00	16,563.24	10,770.00	107.66	107.96	91.17	-6,125.77	-979.71	1,496.79	1,345.16	151.63	9.872	
16,700.00	10,739.00	16,663.24	10,770.00	109.21	109.49	91.17	-6,225.76	-978.71	1,496.79	1,342.98	153.81	9.731	
16,800.00	10,739.00	16,763.24	10,770.00	110.76	111.03	91.17	-6,325.76	-977.72	1,496.80	1,340.80	156.00	9.595	
16,900.00	10,739.00	16,863.24	10,770.00	112.31	112.57	91.17	-6,425.75	-976.73	1,496.81	1,338.61	158.20	9.462	
17,000.00	10,739.00	16,963.24	10,770.00	113.86	114.11	91.17	-6,525.75	-975.74	1,496.82	1,336.42	160.40	9.332	
17,100.00	10,739.00	17,063.24	10,770.00	115.42	115.65	91.17	-6,625.74	-974.75	1,496.82	1,334.22	162.60	9.206	
17,200.00	10,739.00	17,163.24	10,770.00	116.98	117.20	91.17	-6,725.74	-973.76	1,496.83	1,332.02	164.81	9.082	
17,300.00	10,739.00	17,263.24	10,770.00	118.54	118.75	91.17	-6,825.73	-972.77	1,496.84	1,329.82	167.02	8.962	
17,400.00	10,739.00	17,363.24	10,770.00	120.10	120.30	91.17	-6,925.73	-971.78	1,496.84	1,327.61	169.23	8.845	
17,500.00	10,739.00	17,463.24	10,770.00	121.67	121.86	91.17	-7,025.72	-970.79	1,496.85	1,325.41	171.45	8.731	
17,600.00	10,739.00	17,563.24	10,770.00	123.24	123.42	91.17	-7,125.72	-969.80	1,496.86	1,323.19	173.67	8.619	
17,700.00	10,739.00	17,663.24	10,770.00	124.81	124.98	91.17	-7,225.71	-968.81	1,496.87	1,320.98	175.89	8.510	
17,800.00	10,739.00	17,763.24	10,770.00	126.38	126.54	91.17	-7,325.71	-967.81	1,496.87	1,318.76	178.11	8.404	
17,900.00	10,739.00	17,863.24	10,770.00	127.96	128.11	91.17	-7,425.70	-966.82	1,496.88	1,316.54	180.34	8.300	
18,000.00	10,739.00	17,963.24	10,770.00	129.53	129.67	91.17	-7,525.70	-965.83	1,496.89	1,314.31	182.57	8.199	
18,100.00	10,739.00	18,063.24	10,770.00	131.11	131.24	91.17	-7,625.69	-964.84	1,496.89	1,312.09	184.81	8.100	
18,200.00	10,739.00	18,163.24	10,770.00	132.69	132.81	91.17	-7,725.69	-963.85	1,496.90	1,309.86	187.04	8.003	
18,300.00	10,739.00	18,263.24	10,770.00	134.28	134.39	91.17	-7,825.68	-962.86	1,496.91	1,307.63	189.28	7.908	
18,400.00	10,739.00	18,363.24	10,770.00	135.86	135.96	91.17	-7,925.68	-961.87	1,496.92	1,305.40	191.52	7.816	
18,500.00	10,739.00	18,463.24	10,770.00	137.44	137.54	91.17	-8,025.67	-960.88	1,496.92	1,303.16	193.76	7.726	
18,600.00	10,739.00	18,563.24	10,770.00	139.03	139.12	91.17	-8,125.67	-959.89	1,496.93	1,300.92	196.01	7.637	
18,700.00	10,739.00	18,663.24	10,770.00	140.62	140.70	91.17	-8,225.66	-958.90	1,496.94	1,298.68	198.26	7.551	
18,800.00	10,739.00	18,763.24	10,770.00	142.21	142.28	91.17	-8,325.66	-957.91	1,496.94	1,296.44	200.50	7.466	
18,900.00	10,739.00	18,863.24	10,770.00	143.80	143.86	91.17	-8,425.65	-956.91	1,496.95	1,294.20	202.76	7.383	
19,000.00	10,739.00	18,963.24	10,770.00	145.39	145.45	91.17	-8,525.65	-955.92	1,496.96	1,291.95	205.01	7.302	
19,100.00	10,739.00	19,063.24	10,770.00	146.99	147.04	91.17	-8,625.64	-954.93	1,496.97	1,289.70	207.26	7.223	
19,200.00	10,739.00	19,163.24	10,770.00	148.58	148.62	91.17	-8,725.64	-953.94	1,496.97	1,287.45	209.52	7.145	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	10,739.00	19,263.24	10,770.00	150.18	150.21	91.17	-8,825.63	-952.95	1,496.98	1,285.20	211.78	7.069	
19,400.00	10,739.00	19,363.24	10,770.00	151.78	151.80	91.17	-8,925.63	-951.96	1,496.99	1,282.95	214.04	6.994	
19,500.00	10,739.00	19,463.24	10,770.00	153.38	153.40	91.17	-9,025.62	-950.97	1,497.00	1,280.70	216.30	6.921	
19,600.00	10,739.00	19,563.24	10,770.00	154.98	154.99	91.17	-9,125.62	-949.98	1,497.00	1,278.44	218.56	6.849	
19,700.00	10,739.00	19,663.24	10,770.00	156.58	156.58	91.17	-9,225.61	-948.99	1,497.01	1,276.18	220.83	6.779	
19,800.00	10,739.00	19,763.24	10,770.00	158.18	158.18	91.17	-9,325.61	-948.00	1,497.02	1,273.92	223.09	6.710	
19,900.00	10,739.00	19,863.24	10,770.00	159.78	159.77	91.17	-9,425.60	-947.01	1,497.02	1,271.66	225.36	6.643	
20,000.00	10,739.00	19,963.24	10,770.00	161.39	161.37	91.17	-9,525.60	-946.01	1,497.03	1,269.40	227.63	6.577	
20,100.00	10,739.00	20,063.24	10,770.00	162.99	162.97	91.17	-9,625.59	-945.02	1,497.04	1,267.14	229.90	6.512	
20,200.00	10,739.00	20,163.24	10,770.00	164.60	164.57	91.17	-9,725.59	-944.03	1,497.05	1,264.87	232.17	6.448	
20,300.00	10,739.00	20,263.24	10,770.00	166.20	166.17	91.17	-9,825.58	-943.04	1,497.05	1,262.61	234.44	6.386	
20,400.00	10,739.00	20,363.24	10,770.00	167.81	167.77	91.17	-9,925.58	-942.05	1,497.06	1,260.34	236.72	6.324	
20,500.00	10,739.00	20,463.24	10,770.00	169.42	169.38	91.17	-10,025.57	-941.06	1,497.07	1,258.07	238.99	6.264	
20,600.00	10,739.00	20,563.24	10,770.00	171.03	170.98	91.17	-10,125.57	-940.07	1,497.07	1,255.81	241.27	6.205	
20,700.00	10,739.00	20,663.24	10,770.00	172.64	172.59	91.17	-10,225.56	-939.08	1,497.08	1,253.54	243.55	6.147	
20,800.00	10,739.00	20,763.24	10,770.00	174.25	174.19	91.17	-10,325.56	-938.09	1,497.09	1,251.26	245.82	6.090	
20,803.81	10,739.00	20,767.04	10,770.00	174.31	174.25	91.17	-10,329.36	-938.05	1,497.09	1,251.18	245.91	6.088	
20,879.44	10,739.00	20,841.66	10,770.00	175.53	175.40	91.17	-10,403.98	-937.31	1,497.09	1,249.52	247.57	6.047	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 601H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	13.70	13.70	0.00	0.02	-89.89	1.76	-876.89	876.89				
100.00	100.00	113.70	113.70	0.13	0.17	-89.89	1.76	-876.89	876.89	876.68	0.21	4,078.865	
200.00	200.00	213.70	213.70	0.48	0.53	-89.89	1.76	-876.89	876.89	876.17	0.72	1,217.982	
300.00	300.00	313.70	313.70	0.84	0.89	-89.89	1.76	-876.89	876.89	875.67	1.23	714.918	
400.00	400.00	413.70	413.70	1.20	1.25	-89.89	1.76	-876.89	876.89	875.16	1.73	505.887	
500.00	500.00	513.70	513.70	1.56	1.61	-89.89	1.76	-876.89	876.89	874.65	2.24	391.426	
600.00	600.00	613.70	613.70	1.92	1.97	-89.89	1.76	-876.89	876.89	874.14	2.75	319.200	
700.00	700.00	713.70	713.70	2.28	2.33	-89.89	1.76	-876.89	876.89	873.64	3.25	269.475	
800.00	800.00	813.70	813.70	2.63	2.68	-89.89	1.76	-876.89	876.89	873.13	3.76	233.153	
900.00	900.00	913.70	913.70	2.99	3.04	-89.89	1.76	-876.89	876.89	872.62	4.27	205.460	
1,000.00	1,000.00	1,013.70	1,013.70	3.35	3.40	-89.89	1.76	-876.89	876.89	872.12	4.77	183.647	
1,100.00	1,100.00	1,113.70	1,113.70	3.71	3.76	-89.89	1.76	-876.89	876.89	871.61	5.28	166.021	
1,200.00	1,200.00	1,213.70	1,213.70	4.07	4.12	-89.89	1.76	-876.89	876.89	871.10	5.79	151.481	
1,300.00	1,300.00	1,313.70	1,313.70	4.43	4.48	-89.89	1.76	-876.89	876.89	870.60	6.30	139.284	
1,400.00	1,400.00	1,413.70	1,413.70	4.79	4.83	-89.89	1.76	-876.89	876.89	870.09	6.80	128.904	
1,500.00	1,500.00	1,513.70	1,513.70	5.14	5.19	-89.89	1.76	-876.89	876.89	869.58	7.31	119.964	
1,600.00	1,600.00	1,613.70	1,613.70	5.50	5.55	-89.89	1.76	-876.89	876.89	869.08	7.82	112.184	
1,700.00	1,700.00	1,713.70	1,713.70	5.86	5.91	-89.89	1.76	-876.89	876.89	868.57	8.32	105.351	
1,800.00	1,800.00	1,813.70	1,813.70	6.22	6.27	-89.89	1.76	-876.89	876.89	868.06	8.83	99.303	
1,900.00	1,900.00	1,913.70	1,913.70	6.58	6.63	-89.89	1.76	-876.89	876.89	867.55	9.34	93.912	
2,000.00	2,000.00	2,013.70	2,013.70	6.94	6.99	-89.89	1.76	-876.89	876.89	867.05	9.84	89.075	
2,100.00	2,100.00	2,113.70	2,113.70	7.29	7.34	-89.89	1.76	-876.89	876.89	866.54	10.35	84.713	
2,200.00	2,200.00	2,213.70	2,213.70	7.65	7.70	-89.89	1.76	-876.89	876.89	866.03	10.86	80.758	
2,300.00	2,300.00	2,313.70	2,313.70	8.01	8.06	-89.89	1.76	-876.89	876.89	865.53	11.37	77.156	
2,400.00	2,400.00	2,413.70	2,413.70	8.37	8.42	-89.89	1.76	-876.89	876.89	865.02	11.87	73.861	
2,500.00	2,500.00	2,513.70	2,513.70	8.73	8.78	-89.89	1.76	-876.89	876.89	864.51	12.38	70.836	
2,600.00	2,600.00	2,613.70	2,613.70	9.09	9.14	-89.89	1.76	-876.89	876.89	864.01	12.89	68.049	
2,700.00	2,700.00	2,713.70	2,713.70	9.45	9.49	-89.89	1.76	-876.89	876.89	863.50	13.39	65.474	
2,800.00	2,800.00	2,813.70	2,813.70	9.80	9.85	-89.89	1.76	-876.89	876.89	862.99	13.90	63.086	
2,900.00	2,900.00	2,913.70	2,913.70	10.16	10.21	-89.89	1.76	-876.89	876.89	862.48	14.41	60.866	
3,000.00	3,000.00	3,013.70	3,013.70	10.52	10.57	-89.89	1.76	-876.89	876.89	861.98	14.91	58.797	
3,100.00	3,100.00	3,113.70	3,113.70	10.88	10.93	-89.89	1.76	-876.89	876.89	861.47	15.42	56.864	
3,111.38	3,111.38	3,125.08	3,125.08	10.92	10.97	-89.89	1.76	-876.89	876.89	861.41	15.48	56.652	CC
3,200.00	3,200.00	3,211.78	3,211.78	11.24	11.28	-89.89	1.75	-876.90	876.91	860.99	15.92	55.077	ES
3,300.00	3,299.99	3,300.00	3,299.99	11.59	11.58	176.29	0.84	-877.82	879.23	862.85	16.38	53.676	
3,400.00	3,399.91	3,383.46	3,383.39	11.93	11.86	176.16	-1.35	-880.01	885.75	868.95	16.81	52.700	
3,500.00	3,499.69	3,468.95	3,468.73	12.27	12.14	175.94	-4.91	-883.60	896.48	879.24	17.24	52.007	
3,600.00	3,599.27	3,567.87	3,567.40	12.62	12.47	175.66	-9.78	-888.50	910.56	892.85	17.71	51.418	
3,645.68	3,644.67	3,612.92	3,612.35	12.78	12.62	175.54	-12.00	-890.73	917.86	899.94	17.92	51.207	
3,700.00	3,698.62	3,666.45	3,665.75	12.97	12.80	175.40	-14.63	-893.38	926.87	908.68	18.18	50.980	
3,800.00	3,797.94	3,764.99	3,764.04	13.32	13.13	175.17	-19.48	-898.27	943.45	924.80	18.65	50.577	
3,900.00	3,897.26	3,863.53	3,862.34	13.68	13.46	174.94	-24.33	-903.15	960.06	940.93	19.13	50.189	
4,000.00	3,996.58	3,962.07	3,960.64	14.03	13.80	174.71	-29.19	-908.03	976.68	957.07	19.61	49.816	
4,100.00	4,095.90	4,060.61	4,058.94	14.40	14.14	174.50	-34.04	-912.91	993.31	973.23	20.08	49.456	
4,200.00	4,195.22	4,159.15	4,157.24	14.76	14.48	174.29	-38.89	-917.79	1,009.96	989.39	20.57	49.109	
4,300.00	4,294.54	4,257.69	4,255.54	15.12	14.82	174.09	-43.74	-922.67	1,026.61	1,005.57	21.05	48.775	
4,400.00	4,393.86	4,356.23	4,353.84	15.49	15.16	173.90	-48.59	-927.55	1,043.28	1,021.75	21.53	48.453	
4,500.00	4,493.18	4,454.77	4,452.14	15.86	15.51	173.71	-53.44	-932.43	1,059.97	1,037.95	22.02	48.143	
4,600.00	4,592.50	4,553.31	4,550.44	16.23	15.85	173.53	-58.29	-937.31	1,076.66	1,054.15	22.50	47.844	
4,700.00	4,691.82	4,651.85	4,648.74	16.60	16.20	173.35	-63.14	-942.19	1,093.36	1,070.37	22.99	47.555	
4,800.00	4,791.14	4,750.39	4,747.04	16.97	16.54	173.18	-67.99	-947.07	1,110.07	1,086.59	23.48	47.276	
4,900.00	4,890.46	4,848.93	4,845.34	17.35	16.89	173.01	-72.84	-951.95	1,126.79	1,102.82	23.97	47.007	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 601H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.78	4,947.47	4,943.64	17.73	17.24	172.85	-77.69	-956.83	1,143.53	1,119.06	24.46	46.747	
5,100.00	5,089.10	5,046.01	5,041.94	18.10	17.59	172.69	-82.54	-961.71	1,160.26	1,135.31	24.95	46.496	
5,200.00	5,188.42	5,144.55	5,140.24	18.48	17.94	172.54	-87.39	-966.59	1,177.01	1,151.57	25.45	46.254	
5,300.00	5,287.74	5,243.09	5,238.54	18.86	18.29	172.39	-92.24	-971.47	1,193.77	1,167.83	25.94	46.019	
5,400.00	5,387.06	5,341.63	5,336.83	19.24	18.65	172.25	-97.10	-976.36	1,210.53	1,184.10	26.44	45.792	
5,500.00	5,486.38	5,440.17	5,435.13	19.62	19.00	172.11	-101.95	-981.24	1,227.30	1,200.37	26.93	45.572	
5,600.00	5,585.70	5,538.71	5,533.43	20.00	19.35	171.97	-106.80	-986.12	1,244.08	1,216.65	27.43	45.359	
5,700.00	5,685.02	5,637.25	5,631.73	20.39	19.71	171.84	-111.65	-991.00	1,260.86	1,232.94	27.92	45.152	
5,800.00	5,784.34	5,735.79	5,730.03	20.77	20.06	171.71	-116.50	-995.88	1,277.65	1,249.23	28.42	44.953	
5,900.00	5,883.66	5,834.33	5,828.33	21.16	20.42	171.58	-121.35	-1,000.76	1,294.45	1,265.53	28.92	44.759	
6,000.00	5,982.98	5,932.87	5,926.63	21.54	20.78	171.46	-126.20	-1,005.64	1,311.25	1,281.83	29.42	44.571	
6,100.00	6,082.30	6,031.41	6,024.93	21.93	21.13	171.34	-131.05	-1,010.52	1,328.06	1,298.14	29.92	44.389	
6,200.00	6,181.62	6,129.95	6,123.23	22.31	21.49	171.22	-135.90	-1,015.40	1,344.87	1,314.45	30.42	44.212	
6,300.00	6,280.94	6,228.49	6,221.53	22.70	21.85	171.11	-140.75	-1,020.28	1,361.69	1,330.77	30.92	44.040	
6,400.00	6,380.26	6,327.03	6,319.83	23.09	22.21	171.00	-145.60	-1,025.16	1,378.52	1,347.09	31.42	43.873	
6,500.00	6,479.58	6,425.57	6,418.13	23.48	22.57	170.89	-150.45	-1,030.04	1,395.34	1,363.42	31.92	43.711	
6,600.00	6,578.90	6,537.39	6,529.70	23.87	22.97	170.78	-155.76	-1,035.38	1,412.02	1,379.55	32.47	43.483	
6,700.00	6,678.22	6,676.17	6,668.36	24.26	23.47	170.74	-159.62	-1,039.27	1,426.54	1,393.44	33.11	43.088	
6,800.00	6,777.54	6,799.06	6,791.24	24.65	23.90	170.81	-160.24	-1,039.89	1,438.52	1,404.84	33.68	42.718	
6,900.00	6,876.86	6,898.38	6,890.56	25.04	24.24	170.89	-160.24	-1,039.89	1,450.01	1,415.84	34.17	42.431	
7,000.00	6,976.18	6,997.70	6,989.88	25.43	24.58	170.96	-160.24	-1,039.89	1,461.51	1,426.84	34.67	42.152	
7,100.00	7,075.50	7,097.02	7,089.20	25.82	24.93	171.03	-160.24	-1,039.89	1,473.01	1,437.84	35.17	41.881	
7,125.00	7,100.33	7,121.85	7,114.03	25.92	25.01	171.05	-160.24	-1,039.89	1,475.88	1,440.59	35.30	41.814	
7,200.00	7,174.90	7,196.42	7,188.60	26.21	25.27	171.11	-160.24	-1,039.89	1,483.79	1,448.12	35.67	41.597	
7,300.00	7,274.55	7,296.06	7,288.25	26.58	25.62	171.18	-160.24	-1,039.89	1,492.07	1,455.90	36.17	41.252	
7,400.00	7,374.38	7,395.90	7,388.08	26.95	25.96	171.23	-160.24	-1,039.89	1,497.78	1,461.11	36.67	40.847	
7,500.00	7,474.33	7,495.84	7,488.03	27.30	26.31	171.25	-160.24	-1,039.89	1,500.90	1,463.74	37.17	40.385	
7,570.68	7,545.00	7,566.52	7,558.70	27.55	26.55	-94.98	-160.24	-1,039.89	1,501.55	1,464.03	37.51	40.026	
7,600.00	7,574.32	7,595.84	7,588.02	27.65	26.66	-94.98	-160.24	-1,039.89	1,501.55	1,463.89	37.66	39.872	
7,700.00	7,674.32	7,695.84	7,688.02	27.99	27.00	-94.98	-160.24	-1,039.89	1,501.55	1,463.40	38.15	39.356	
7,800.00	7,774.32	7,795.84	7,788.02	28.33	27.35	-94.98	-160.24	-1,039.89	1,501.55	1,462.90	38.65	38.854	
7,900.00	7,874.32	7,895.84	7,888.02	28.67	27.70	-94.98	-160.24	-1,039.89	1,501.55	1,462.41	39.14	38.363	
8,000.00	7,974.32	7,995.84	7,988.02	29.01	28.05	-94.98	-160.24	-1,039.89	1,501.55	1,461.91	39.63	37.885	
8,100.00	8,074.32	8,095.84	8,088.02	29.35	28.40	-94.98	-160.24	-1,039.89	1,501.55	1,461.42	40.13	37.418	
8,200.00	8,174.32	8,195.84	8,188.02	29.69	28.75	-94.98	-160.24	-1,039.89	1,501.55	1,460.92	40.62	36.962	
8,300.00	8,274.32	8,295.84	8,288.02	30.04	29.10	-94.98	-160.24	-1,039.89	1,501.55	1,460.43	41.12	36.517	
8,400.00	8,374.32	8,395.84	8,388.02	30.38	29.45	-94.98	-160.24	-1,039.89	1,501.55	1,459.93	41.62	36.082	
8,500.00	8,474.32	8,495.84	8,488.02	30.72	29.80	-94.98	-160.24	-1,039.89	1,501.55	1,459.44	42.11	35.657	
8,600.00	8,574.32	8,595.84	8,588.02	31.07	30.15	-94.98	-160.24	-1,039.89	1,501.55	1,458.94	42.61	35.242	
8,700.00	8,674.32	8,695.84	8,688.02	31.41	30.50	-94.98	-160.24	-1,039.89	1,501.55	1,458.45	43.10	34.836	
8,800.00	8,774.32	8,795.84	8,788.02	31.76	30.85	-94.98	-160.24	-1,039.89	1,501.55	1,457.95	43.60	34.439	
8,900.00	8,874.32	8,895.84	8,888.02	32.10	31.20	-94.98	-160.24	-1,039.89	1,501.55	1,457.45	44.10	34.051	
9,000.00	8,974.32	8,995.84	8,988.02	32.45	31.55	-94.98	-160.24	-1,039.89	1,501.55	1,456.96	44.59	33.672	
9,100.00	9,074.32	9,095.84	9,088.02	32.79	31.90	-94.98	-160.24	-1,039.89	1,501.55	1,456.46	45.09	33.300	
9,200.00	9,174.32	9,195.84	9,188.02	33.14	32.25	-94.98	-160.24	-1,039.89	1,501.55	1,455.96	45.59	32.937	
9,300.00	9,274.32	9,295.84	9,288.02	33.48	32.60	-94.98	-160.24	-1,039.89	1,501.55	1,455.46	46.09	32.581	
9,400.00	9,374.32	9,395.84	9,388.02	33.83	32.95	-94.98	-160.24	-1,039.89	1,501.55	1,454.96	46.58	32.233	
9,500.00	9,474.32	9,495.84	9,488.02	34.17	33.31	-94.98	-160.24	-1,039.89	1,501.55	1,454.47	47.08	31.892	
9,600.00	9,574.32	9,595.84	9,588.02	34.52	33.66	-94.98	-160.24	-1,039.89	1,501.55	1,453.97	47.58	31.558	
9,700.00	9,674.32	9,695.84	9,688.02	34.87	34.01	-94.98	-160.24	-1,039.89	1,501.55	1,453.47	48.08	31.231	
9,800.00	9,774.32	9,795.84	9,788.02	35.22	34.36	-94.98	-160.24	-1,039.89	1,501.55	1,452.97	48.58	30.910	
9,900.00	9,874.32	9,895.84	9,888.02	35.56	34.71	-94.98	-160.24	-1,039.89	1,501.55	1,452.47	49.08	30.596	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 601H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,974.32	9,995.84	9,988.02	35.91	35.07	-94.98	-160.24	-1,039.89	1,501.55	1,451.97	49.58	30.288	
10,100.00	10,074.32	10,095.84	10,088.02	36.26	35.42	-94.98	-160.24	-1,039.89	1,501.55	1,451.47	50.07	29.986	
10,191.72	10,166.04	10,187.56	10,179.74	36.58	35.74	-94.98	-160.24	-1,039.89	1,501.55	1,451.02	50.53	29.715	
10,200.00	10,174.32	10,195.84	10,188.02	36.60	35.77	85.60	-160.24	-1,039.89	1,501.54	1,450.97	50.57	29.691	
10,250.00	10,224.22	10,245.74	10,237.92	36.77	35.95	85.73	-160.24	-1,039.89	1,501.32	1,450.51	50.82	29.545	
10,300.00	10,273.68	10,295.20	10,287.38	36.93	36.12	86.06	-160.24	-1,039.89	1,500.80	1,449.74	51.06	29.395	
10,350.00	10,322.32	10,343.83	10,336.02	37.09	36.29	86.56	-160.24	-1,039.89	1,500.04	1,448.74	51.29	29.244	
10,400.00	10,369.77	10,391.28	10,383.47	37.25	36.46	87.22	-160.24	-1,039.89	1,499.14	1,447.61	51.53	29.094	
10,450.00	10,415.66	10,437.18	10,429.36	37.40	36.62	88.00	-160.24	-1,039.89	1,498.24	1,446.48	51.76	28.948	
10,500.00	10,459.66	10,481.18	10,473.36	37.55	36.78	88.87	-160.24	-1,039.89	1,497.51	1,445.53	51.98	28.810	
10,550.00	10,501.42	10,522.94	10,515.12	37.69	36.93	89.79	-160.24	-1,039.89	1,497.13	1,444.94	52.19	28.684	
10,561.60	10,510.76	10,532.28	10,524.46	37.72	36.96	90.00	-160.24	-1,039.89	1,497.12	1,444.87	52.24	28.656	
10,600.00	10,540.64	10,562.15	10,554.34	37.83	37.06	90.70	-160.24	-1,039.89	1,497.31	1,444.91	52.40	28.573	
10,650.00	10,577.00	10,598.51	10,590.70	37.96	37.19	91.56	-160.24	-1,039.89	1,498.25	1,445.65	52.60	28.483	
10,700.00	10,610.23	10,631.75	10,623.93	38.10	37.31	92.31	-160.24	-1,039.89	1,500.17	1,447.38	52.79	28.416	
10,750.00	10,640.08	10,661.60	10,653.78	38.23	37.42	92.92	-160.24	-1,039.89	1,503.27	1,450.29	52.97	28.377	
10,800.00	10,666.33	10,687.84	10,680.03	38.38	37.51	93.32	-160.24	-1,039.89	1,507.70	1,454.56	53.15	28.369	
10,850.00	10,688.76	10,710.28	10,702.46	38.53	37.59	93.49	-160.24	-1,039.89	1,513.64	1,460.33	53.30	28.396	
10,900.00	10,707.22	10,728.74	10,720.92	38.70	37.65	93.38	-160.24	-1,039.89	1,521.18	1,467.73	53.45	28.459	
10,950.00	10,721.56	10,743.08	10,735.26	38.87	37.70	92.97	-160.24	-1,039.89	1,530.39	1,476.80	53.58	28.561	
11,000.00	10,731.67	10,753.19	10,745.37	39.06	37.74	92.23	-160.24	-1,039.89	1,541.28	1,487.58	53.70	28.702	
11,050.00	10,737.48	10,759.00	10,751.18	39.25	37.76	91.16	-160.24	-1,039.89	1,553.83	1,500.03	53.80	28.883	
11,091.72	10,739.00	10,760.51	10,752.70	39.42	37.76	90.00	-160.24	-1,039.89	1,565.50	1,511.64	53.87	29.062	
11,100.00	10,739.00	10,760.51	10,752.70	39.46	37.76	90.00	-160.24	-1,039.89	1,567.95	1,514.07	53.88	29.101	
11,200.00	10,739.00	10,760.51	10,752.70	39.90	37.76	90.00	-160.24	-1,039.89	1,600.51	1,546.48	54.04	29.619	
11,300.00	10,739.00	10,760.51	10,752.70	40.41	37.76	90.00	-160.24	-1,039.89	1,638.54	1,584.35	54.20	30.233	
11,400.00	10,739.00	10,760.51	10,752.70	40.98	37.76	90.00	-160.24	-1,039.89	1,681.67	1,627.31	54.36	30.936	
11,500.00	10,739.00	10,760.51	10,752.70	41.61	37.76	90.00	-160.24	-1,039.89	1,729.51	1,674.99	54.52	31.722	
11,600.00	10,739.00	10,760.51	10,752.70	42.29	37.76	90.00	-160.24	-1,039.89	1,781.68	1,727.01	54.68	32.586	
11,700.00	10,739.00	10,760.51	10,752.70	43.02	37.76	90.00	-160.24	-1,039.89	1,837.82	1,782.99	54.82	33.522	
11,800.00	10,739.00	10,760.51	10,752.70	43.81	37.76	90.00	-160.24	-1,039.89	1,897.57	1,842.60	54.96	34.523	
11,900.00	10,739.00	10,760.51	10,752.70	44.64	37.76	90.00	-160.24	-1,039.89	1,960.60	1,905.50	55.10	35.584	
12,000.00	10,739.00	10,760.51	10,752.70	45.51	37.76	90.00	-160.24	-1,039.89	2,026.61	1,971.39	55.22	36.699	
12,100.00	10,739.00	13,350.88	12,123.00	46.43	49.95	132.47	-1,626.15	-1,025.21	2,029.52	1,973.23	56.29	36.056	
12,200.00	10,739.00	13,450.88	12,123.00	47.38	50.84	132.47	-1,726.15	-1,024.21	2,029.51	1,972.22	57.30	35.421	
12,300.00	10,739.00	13,550.88	12,123.00	48.38	51.77	132.47	-1,826.14	-1,023.21	2,029.51	1,971.16	58.35	34.782	
12,400.00	10,739.00	13,650.88	12,123.00	49.41	52.74	132.47	-1,926.14	-1,022.21	2,029.51	1,970.07	59.44	34.145	
12,500.00	10,739.00	13,750.88	12,123.00	50.47	53.73	132.47	-2,026.13	-1,021.21	2,029.51	1,968.94	60.57	33.509	
12,600.00	10,739.00	13,850.88	12,123.00	51.56	54.76	132.47	-2,126.13	-1,020.20	2,029.50	1,967.77	61.73	32.878	
12,700.00	10,739.00	13,950.88	12,123.00	52.68	55.82	132.47	-2,226.12	-1,019.20	2,029.50	1,966.58	62.92	32.253	
12,800.00	10,739.00	14,050.88	12,123.00	53.83	56.91	132.47	-2,326.12	-1,018.20	2,029.50	1,965.35	64.15	31.636	
12,900.00	10,739.00	14,150.88	12,123.00	55.01	58.02	132.47	-2,426.11	-1,017.20	2,029.50	1,964.09	65.41	31.028	
13,000.00	10,739.00	14,250.88	12,123.00	56.21	59.16	132.47	-2,526.11	-1,016.20	2,029.49	1,962.80	66.69	30.430	
13,100.00	10,739.00	14,350.88	12,123.00	57.43	60.33	132.47	-2,626.10	-1,015.20	2,029.49	1,961.49	68.01	29.843	
13,200.00	10,739.00	14,450.88	12,123.00	58.67	61.51	132.47	-2,726.10	-1,014.20	2,029.49	1,960.15	69.34	29.268	
13,300.00	10,739.00	14,550.88	12,123.00	59.93	62.72	132.47	-2,826.09	-1,013.19	2,029.49	1,958.78	70.70	28.705	
13,400.00	10,739.00	14,650.88	12,123.00	61.21	63.94	132.47	-2,926.09	-1,012.19	2,029.48	1,957.40	72.08	28.155	
13,500.00	10,739.00	14,750.88	12,123.00	62.51	65.19	132.47	-3,026.08	-1,011.19	2,029.48	1,956.00	73.49	27.617	
13,600.00	10,739.00	14,850.88	12,123.00	63.83	66.45	132.47	-3,126.08	-1,010.19	2,029.48	1,954.57	74.91	27.093	
13,700.00	10,739.00	14,950.88	12,123.00	65.16	67.73	132.47	-3,226.07	-1,009.19	2,029.48	1,953.13	76.35	26.582	
13,800.00	10,739.00	15,050.88	12,123.00	66.50	69.02	132.47	-3,326.07	-1,008.19	2,029.48	1,951.67	77.80	26.085	
13,900.00	10,739.00	15,150.88	12,123.00	67.86	70.33	132.47	-3,426.06	-1,007.19	2,029.47	1,950.20	79.28	25.600	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 601H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.00	10,739.00	15,250.88	12,123.00	69.23	71.66	132.47	-3,526.06	-1,006.19	2,029.47	1,948.70	80.77	25.128	
14,100.00	10,739.00	15,350.88	12,123.00	70.61	73.00	132.47	-3,626.05	-1,005.18	2,029.47	1,947.20	82.27	24.669	
14,200.00	10,739.00	15,450.88	12,123.00	72.00	74.35	132.47	-3,726.05	-1,004.18	2,029.47	1,945.68	83.79	24.222	
14,300.00	10,739.00	15,550.88	12,123.00	73.41	75.71	132.47	-3,826.04	-1,003.18	2,029.46	1,944.15	85.31	23.788	
14,400.00	10,739.00	15,650.88	12,123.00	74.82	77.08	132.47	-3,926.04	-1,002.18	2,029.46	1,942.60	86.86	23.366	
14,500.00	10,739.00	15,750.88	12,123.00	76.25	78.47	132.47	-4,026.03	-1,001.18	2,029.46	1,941.05	88.41	22.955	
14,600.00	10,739.00	15,850.88	12,123.00	77.68	79.86	132.47	-4,126.03	-1,000.18	2,029.46	1,939.48	89.97	22.556	
14,700.00	10,739.00	15,950.88	12,123.00	79.12	81.26	132.47	-4,226.02	-999.18	2,029.45	1,937.91	91.55	22.168	
14,800.00	10,739.00	16,050.88	12,123.00	80.57	82.68	132.47	-4,326.02	-998.17	2,029.45	1,936.32	93.13	21.791	
14,900.00	10,739.00	16,150.88	12,123.00	82.03	84.10	132.47	-4,426.01	-997.17	2,029.45	1,934.72	94.73	21.424	
15,000.00	10,739.00	16,250.88	12,123.00	83.49	85.53	132.47	-4,526.01	-996.17	2,029.45	1,933.12	96.33	21.068	
15,100.00	10,739.00	16,350.88	12,123.00	84.96	86.97	132.47	-4,626.00	-995.17	2,029.44	1,931.51	97.94	20.722	
15,200.00	10,739.00	16,450.88	12,123.00	86.44	88.41	132.47	-4,726.00	-994.17	2,029.44	1,929.89	99.55	20.385	
15,300.00	10,739.00	16,550.88	12,123.00	87.92	89.87	132.47	-4,825.99	-993.17	2,029.44	1,928.26	101.18	20.058	
15,400.00	10,739.00	16,650.88	12,123.00	89.41	91.32	132.47	-4,925.99	-992.17	2,029.44	1,926.63	102.81	19.739	
15,500.00	10,739.00	16,750.88	12,123.00	90.91	92.79	132.47	-5,025.98	-991.16	2,029.43	1,924.99	104.45	19.430	
15,600.00	10,739.00	16,850.88	12,123.00	92.41	94.26	132.47	-5,125.98	-990.16	2,029.43	1,923.34	106.09	19.129	
15,700.00	10,739.00	16,950.88	12,123.00	93.92	95.74	132.47	-5,225.97	-989.16	2,029.43	1,921.68	107.75	18.835	
15,800.00	10,739.00	17,050.88	12,123.00	95.43	97.22	132.47	-5,325.97	-988.16	2,029.43	1,920.03	109.40	18.550	
15,900.00	10,739.00	17,150.88	12,123.00	96.94	98.71	132.47	-5,425.96	-987.16	2,029.42	1,918.36	111.06	18.273	
16,000.00	10,739.00	17,250.88	12,123.00	98.46	100.21	132.47	-5,525.96	-986.16	2,029.42	1,916.69	112.73	18.003	
16,100.00	10,739.00	17,350.88	12,123.00	99.99	101.70	132.47	-5,625.95	-985.16	2,029.42	1,915.02	114.40	17.739	
16,200.00	10,739.00	17,450.88	12,123.00	101.51	103.21	132.47	-5,725.95	-984.16	2,029.42	1,913.34	116.08	17.483	
16,300.00	10,739.00	17,550.88	12,123.00	103.05	104.71	132.47	-5,825.94	-983.15	2,029.42	1,911.66	117.76	17.234	
16,400.00	10,739.00	17,650.88	12,123.00	104.58	106.23	132.47	-5,925.94	-982.15	2,029.41	1,909.97	119.44	16.991	
16,500.00	10,739.00	17,750.88	12,123.00	106.12	107.74	132.47	-6,025.93	-981.15	2,029.41	1,908.28	121.13	16.754	
16,600.00	10,739.00	17,850.88	12,123.00	107.66	109.26	132.47	-6,125.93	-980.15	2,029.41	1,906.58	122.82	16.523	
16,700.00	10,739.00	17,950.88	12,123.00	109.21	110.79	132.47	-6,225.92	-979.15	2,029.41	1,904.89	124.52	16.298	
16,800.00	10,739.00	18,050.88	12,123.00	110.76	112.31	132.47	-6,325.92	-978.15	2,029.40	1,903.18	126.22	16.078	
16,900.00	10,739.00	18,150.88	12,123.00	112.31	113.85	132.47	-6,425.91	-977.15	2,029.40	1,901.48	127.92	15.864	
17,000.00	10,739.00	18,250.88	12,123.00	113.86	115.38	132.47	-6,525.91	-976.14	2,029.40	1,899.77	129.63	15.656	
17,100.00	10,739.00	18,350.88	12,123.00	115.42	116.92	132.47	-6,625.90	-975.14	2,029.40	1,898.06	131.34	15.452	
17,200.00	10,739.00	18,450.88	12,123.00	116.98	118.46	132.47	-6,725.90	-974.14	2,029.39	1,896.35	133.05	15.253	
17,300.00	10,739.00	18,550.88	12,123.00	118.54	120.00	132.47	-6,825.89	-973.14	2,029.39	1,894.63	134.76	15.059	
17,400.00	10,739.00	18,650.88	12,123.00	120.10	121.55	132.47	-6,925.89	-972.14	2,029.39	1,892.91	136.48	14.870	
17,500.00	10,739.00	18,750.88	12,123.00	121.67	123.10	132.47	-7,025.88	-971.14	2,029.39	1,891.19	138.20	14.685	
17,600.00	10,739.00	18,850.88	12,123.00	123.24	124.65	132.47	-7,125.88	-970.14	2,029.38	1,889.47	139.92	14.504	
17,700.00	10,739.00	18,950.88	12,123.00	124.81	126.20	132.47	-7,225.87	-969.14	2,029.38	1,887.74	141.64	14.328	
17,800.00	10,739.00	19,050.88	12,123.00	126.38	127.76	132.47	-7,325.87	-968.13	2,029.38	1,886.01	143.37	14.155	
17,900.00	10,739.00	19,150.88	12,123.00	127.96	129.32	132.47	-7,425.86	-967.13	2,029.38	1,884.29	145.09	13.987	
18,000.00	10,739.00	19,250.88	12,123.00	129.53	130.88	132.47	-7,525.86	-966.13	2,029.37	1,882.55	146.82	13.822	
18,100.00	10,739.00	19,350.88	12,123.00	131.11	132.44	132.47	-7,625.85	-965.13	2,029.37	1,880.82	148.55	13.661	
18,200.00	10,739.00	19,450.88	12,123.00	132.69	134.01	132.47	-7,725.85	-964.13	2,029.37	1,879.08	150.29	13.503	
18,300.00	10,739.00	19,550.88	12,123.00	134.28	135.58	132.47	-7,825.84	-963.13	2,029.37	1,877.35	152.02	13.349	
18,400.00	10,739.00	19,650.88	12,123.00	135.86	137.14	132.47	-7,925.84	-962.13	2,029.37	1,875.61	153.76	13.199	
18,500.00	10,739.00	19,750.88	12,123.00	137.44	138.72	132.47	-8,025.83	-961.12	2,029.36	1,873.87	155.49	13.051	
18,600.00	10,739.00	19,850.88	12,123.00	139.03	140.29	132.47	-8,125.83	-960.12	2,029.36	1,872.13	157.23	12.907	
18,700.00	10,739.00	19,950.88	12,123.00	140.62	141.86	132.47	-8,225.82	-959.12	2,029.36	1,870.39	158.97	12.766	
18,800.00	10,739.00	20,050.88	12,123.00	142.21	143.44	132.47	-8,325.82	-958.12	2,029.36	1,868.64	160.71	12.627	
18,900.00	10,739.00	20,150.88	12,123.00	143.80	145.02	132.47	-8,425.81	-957.12	2,029.35	1,866.90	162.46	12.492	
19,000.00	10,739.00	20,250.88	12,123.00	145.39	146.60	132.47	-8,525.81	-956.12	2,029.35	1,865.15	164.20	12.359	
19,100.00	10,739.00	20,350.88	12,123.00	146.99	148.18	132.47	-8,625.80	-955.12	2,029.35	1,863.40	165.94	12.229	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 601H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	10,739.00	20,450.88	12,123.00	148.58	149.76	132.47	-8,725.80	-954.12	2,029.35	1,861.66	167.69	12.102	
19,300.00	10,739.00	20,550.88	12,123.00	150.18	151.35	132.47	-8,825.79	-953.11	2,029.34	1,859.91	169.44	11.977	
19,400.00	10,739.00	20,650.88	12,123.00	151.78	152.94	132.47	-8,925.79	-952.11	2,029.34	1,858.16	171.18	11.855	
19,500.00	10,739.00	20,750.88	12,123.00	153.38	154.52	132.47	-9,025.78	-951.11	2,029.34	1,856.41	172.93	11.735	
19,600.00	10,739.00	20,850.88	12,123.00	154.98	156.11	132.47	-9,125.78	-950.11	2,029.34	1,854.65	174.68	11.617	
19,700.00	10,739.00	20,950.88	12,123.00	156.58	157.70	132.47	-9,225.77	-949.11	2,029.33	1,852.90	176.43	11.502	
19,800.00	10,739.00	21,050.88	12,123.00	158.18	159.29	132.47	-9,325.77	-948.11	2,029.33	1,851.15	178.18	11.389	
19,900.00	10,739.00	21,150.88	12,123.00	159.78	160.89	132.47	-9,425.76	-947.11	2,029.33	1,849.40	179.93	11.278	
20,000.00	10,739.00	21,250.88	12,123.00	161.39	162.48	132.47	-9,525.76	-946.10	2,029.33	1,847.64	181.69	11.169	
20,100.00	10,739.00	21,350.88	12,123.00	162.99	164.07	132.47	-9,625.75	-945.10	2,029.32	1,845.89	183.44	11.063	
20,200.00	10,739.00	21,450.88	12,123.00	164.60	165.67	132.47	-9,725.75	-944.10	2,029.32	1,844.13	185.19	10.958	
20,300.00	10,739.00	21,550.88	12,123.00	166.20	167.27	132.47	-9,825.74	-943.10	2,029.32	1,842.38	186.94	10.855	
20,400.00	10,739.00	21,650.88	12,123.00	167.81	168.86	132.47	-9,925.74	-942.10	2,029.32	1,840.62	188.70	10.754	
20,500.00	10,739.00	21,750.88	12,123.00	169.42	170.46	132.47	-10,025.73	-941.10	2,029.32	1,838.86	190.45	10.655	
20,600.00	10,739.00	21,850.88	12,123.00	171.03	172.06	132.47	-10,125.73	-940.10	2,029.31	1,837.11	192.21	10.558	
20,700.00	10,739.00	21,950.88	12,123.00	172.64	173.66	132.47	-10,225.72	-939.10	2,029.31	1,835.35	193.96	10.462	
20,800.00	10,739.00	22,050.88	12,123.00	174.25	175.27	132.47	-10,325.72	-938.09	2,029.31	1,833.59	195.72	10.368	
20,878.35	10,739.00	22,129.15	12,123.00	175.51	176.47	132.47	-10,403.98	-937.31	2,029.31	1,832.26	197.05	10.299	
20,879.44	10,739.00	22,129.15	12,123.00	175.53	176.47	132.47	-10,403.98	-937.31	2,029.31	1,832.25	197.06	10.298	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 604H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.44	29.23	2,985.08	2,985.36				
100.00	100.00	71.90	71.90	0.13	0.09	89.44	29.23	2,985.08	2,985.22	2,985.07	0.15	N/A	
200.00	200.00	171.90	171.90	0.48	0.38	89.44	29.23	2,985.08	2,985.22	2,984.61	0.62	4,836.046	
300.00	300.00	271.90	271.90	0.84	0.74	89.44	29.23	2,985.08	2,985.22	2,984.10	1.12	2,659.725	
400.00	400.00	371.90	371.90	1.20	1.10	89.44	29.23	2,985.08	2,985.22	2,983.59	1.63	1,832.964	
500.00	500.00	471.90	471.90	1.56	1.46	89.44	29.23	2,985.08	2,985.22	2,983.09	2.14	1,398.089	
600.00	600.00	571.90	571.90	1.92	1.82	89.44	29.23	2,985.08	2,985.22	2,982.58	2.64	1,129.934	
700.00	700.00	671.90	671.90	2.28	2.18	89.44	29.23	2,985.08	2,985.22	2,982.07	3.15	948.068	
800.00	800.00	771.90	771.90	2.63	2.53	89.44	29.23	2,985.08	2,985.22	2,981.57	3.66	816.619	
900.00	900.00	871.90	871.90	2.99	2.89	89.44	29.23	2,985.08	2,985.22	2,981.06	4.16	717.178	
1,000.00	1,000.00	971.90	971.90	3.35	3.25	89.44	29.23	2,985.08	2,985.22	2,980.55	4.67	639.323	
1,100.00	1,100.00	1,071.90	1,071.90	3.71	3.61	89.44	29.23	2,985.08	2,985.22	2,980.05	5.18	576.715	
1,200.00	1,200.00	1,171.90	1,171.90	4.07	3.97	89.44	29.23	2,985.08	2,985.22	2,979.54	5.68	525.275	
1,300.00	1,300.00	1,271.90	1,271.90	4.43	4.33	89.44	29.23	2,985.08	2,985.22	2,979.03	6.19	482.259	
1,400.00	1,400.00	1,371.90	1,371.90	4.79	4.68	89.44	29.23	2,985.08	2,985.22	2,978.53	6.70	445.755	
1,500.00	1,500.00	1,471.90	1,471.90	5.14	5.04	89.44	29.23	2,985.08	2,985.22	2,978.02	7.20	414.388	
1,600.00	1,600.00	1,571.90	1,571.90	5.50	5.40	89.44	29.23	2,985.08	2,985.22	2,977.51	7.71	387.145	
1,700.00	1,700.00	1,671.90	1,671.90	5.86	5.76	89.44	29.23	2,985.08	2,985.22	2,977.01	8.22	363.263	
1,800.00	1,800.00	1,771.90	1,771.90	6.22	6.12	89.44	29.23	2,985.08	2,985.22	2,976.50	8.72	342.156	
1,900.00	1,900.00	1,871.90	1,871.90	6.58	6.48	89.44	29.23	2,985.08	2,985.22	2,975.99	9.23	323.367	
2,000.00	2,000.00	1,971.90	1,971.90	6.94	6.84	89.44	29.23	2,985.08	2,985.22	2,975.48	9.74	306.535	
2,100.00	2,100.00	2,071.90	2,071.90	7.29	7.19	89.44	29.23	2,985.08	2,985.22	2,974.98	10.25	291.367	
2,200.00	2,200.00	2,171.90	2,171.90	7.65	7.55	89.44	29.23	2,985.08	2,985.22	2,974.47	10.75	277.630	
2,300.00	2,300.00	2,271.90	2,271.90	8.01	7.91	89.44	29.23	2,985.08	2,985.22	2,973.96	11.26	265.130	
2,400.00	2,400.00	2,371.90	2,371.90	8.37	8.27	89.44	29.23	2,985.08	2,985.22	2,973.46	11.77	253.708	
2,500.00	2,500.00	2,471.90	2,471.90	8.73	8.63	89.44	29.23	2,985.08	2,985.22	2,972.95	12.27	243.228	
2,600.00	2,600.00	2,571.90	2,571.90	9.09	8.99	89.44	29.23	2,985.08	2,985.22	2,972.44	12.78	233.580	
2,700.00	2,700.00	2,671.90	2,671.90	9.45	9.34	89.44	29.23	2,985.08	2,985.22	2,971.94	13.29	224.668	
2,800.00	2,800.00	2,771.90	2,771.90	9.80	9.70	89.44	29.23	2,985.08	2,985.22	2,971.43	13.79	216.412	
2,900.00	2,900.00	2,871.90	2,871.90	10.16	10.06	89.44	29.23	2,985.08	2,985.22	2,970.92	14.30	208.740	
3,000.00	3,000.00	2,971.90	2,971.90	10.52	10.42	89.44	29.23	2,985.08	2,985.22	2,970.42	14.81	201.594	
3,100.00	3,100.00	3,071.90	3,071.90	10.88	10.78	89.44	29.23	2,985.08	2,985.22	2,969.91	15.32	194.921	
3,200.00	3,200.00	3,171.90	3,171.90	11.24	11.14	89.44	29.23	2,985.08	2,985.22	2,969.40	15.82	188.676	
3,300.00	3,299.99	3,271.89	3,271.89	11.59	11.50	-4.33	29.23	2,985.08	2,983.92	2,967.60	16.32	182.816	
3,400.00	3,399.91	3,371.81	3,371.81	11.93	11.85	-4.34	29.23	2,985.08	2,980.00	2,963.19	16.82	177.218	
3,500.00	3,499.69	3,440.41	3,440.41	12.27	12.10	-4.35	29.20	2,985.29	2,973.86	2,956.63	17.23	172.631	
3,600.00	3,599.27	3,500.00	3,499.99	12.62	12.30	-4.37	29.07	2,986.38	2,966.51	2,948.90	17.61	168.436	
3,645.68	3,644.67	3,522.46	3,522.44	12.78	12.38	-4.37	28.99	2,987.03	2,962.77	2,944.99	17.77	166.691	
3,700.00	3,698.62	3,553.08	3,553.04	12.97	12.48	-4.37	28.85	2,988.12	2,958.39	2,940.42	17.98	164.581	
3,800.00	3,797.94	3,600.00	3,599.91	13.32	12.64	-4.38	28.59	2,990.28	2,951.50	2,933.18	18.32	161.109	
3,900.00	3,897.26	3,666.97	3,666.76	13.68	12.87	-4.38	28.08	2,994.34	2,946.01	2,927.29	18.72	157.408	
4,000.00	3,996.58	3,765.36	3,764.90	14.03	13.21	-4.38	27.24	3,001.15	2,941.30	2,922.11	19.20	153.225	
4,100.00	4,095.90	3,865.25	3,864.55	14.40	13.56	-4.38	26.38	3,008.08	2,936.60	2,916.92	19.68	149.203	
4,200.00	4,195.22	3,965.14	3,964.20	14.76	13.90	-4.37	25.52	3,015.00	2,931.89	2,911.72	20.17	145.364	
4,300.00	4,294.54	4,065.03	4,063.84	15.12	14.25	-4.37	24.67	3,021.92	2,927.19	2,906.53	20.66	141.696	
4,400.00	4,393.86	4,164.92	4,163.49	15.49	14.60	-4.37	23.81	3,028.85	2,922.48	2,901.33	21.15	138.190	
4,500.00	4,493.18	4,264.81	4,263.13	15.86	14.95	-4.37	22.95	3,035.77	2,917.78	2,896.14	21.64	134.835	
4,600.00	4,592.50	4,364.70	4,362.78	16.23	15.30	-4.37	22.09	3,042.69	2,913.07	2,890.94	22.13	131.622	
4,700.00	4,691.82	4,464.59	4,462.42	16.60	15.65	-4.37	21.23	3,049.62	2,908.37	2,885.74	22.63	128.543	
4,800.00	4,791.14	4,564.48	4,562.07	16.97	16.01	-4.37	20.38	3,056.54	2,903.66	2,880.54	23.12	125.590	
4,900.00	4,890.46	4,664.37	4,661.71	17.35	16.36	-4.37	19.52	3,063.46	2,898.96	2,875.34	23.62	122.756	
5,000.00	4,989.78	4,764.25	4,761.36	17.73	16.72	-4.37	18.66	3,070.38	2,894.25	2,870.14	24.11	120.034	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 604H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	4,864.14	4,861.00	18.10	17.07	-4.37	17.80	3,077.31	2,889.55	2,864.94	24.61	117.418	
5,200.00	5,188.42	4,964.03	4,960.65	18.48	17.43	-4.37	16.95	3,084.23	2,884.84	2,859.73	25.11	114.902	
5,300.00	5,287.74	5,063.92	5,060.29	18.86	17.79	-4.37	16.09	3,091.15	2,880.13	2,854.53	25.61	112.481	
5,400.00	5,387.06	5,163.81	5,159.94	19.24	18.15	-4.36	15.23	3,098.08	2,875.43	2,849.32	26.10	110.149	
5,500.00	5,486.38	5,263.70	5,259.58	19.62	18.50	-4.36	14.37	3,105.00	2,870.72	2,844.12	26.60	107.902	
5,600.00	5,585.70	5,363.59	5,359.23	20.00	18.86	-4.36	13.52	3,111.92	2,866.02	2,838.91	27.11	105.736	
5,700.00	5,685.02	5,463.48	5,458.88	20.39	19.22	-4.36	12.66	3,118.84	2,861.31	2,833.71	27.61	103.646	
5,800.00	5,784.34	5,563.37	5,558.52	20.77	19.59	-4.36	11.80	3,125.77	2,856.61	2,828.50	28.11	101.628	
5,900.00	5,883.66	5,663.26	5,658.17	21.16	19.95	-4.36	10.94	3,132.69	2,851.90	2,823.29	28.61	99.680	
6,000.00	5,982.98	5,763.15	5,757.81	21.54	20.31	-4.36	10.08	3,139.61	2,847.20	2,818.08	29.11	97.797	
6,100.00	6,082.30	5,863.04	5,857.46	21.93	20.67	-4.36	9.23	3,146.54	2,842.49	2,812.88	29.62	95.977	
6,200.00	6,181.62	5,962.93	5,957.10	22.31	21.03	-4.36	8.37	3,153.46	2,837.79	2,807.67	30.12	94.216	
6,300.00	6,280.94	6,062.81	6,056.75	22.70	21.40	-4.36	7.51	3,160.38	2,833.08	2,802.46	30.62	92.511	
6,400.00	6,380.26	6,162.70	6,156.39	23.09	21.76	-4.36	6.65	3,167.31	2,828.38	2,797.25	31.13	90.861	
6,500.00	6,479.58	6,262.59	6,256.04	23.48	22.12	-4.35	5.80	3,174.23	2,823.67	2,792.04	31.63	89.262	
6,600.00	6,578.90	6,362.48	6,355.68	23.87	22.49	-4.35	4.94	3,181.15	2,818.96	2,786.83	32.14	87.712	
6,700.00	6,678.22	6,462.37	6,455.33	24.26	22.85	-4.35	4.08	3,188.07	2,814.26	2,781.62	32.64	86.210	
6,800.00	6,777.54	6,562.26	6,554.97	24.65	23.22	-4.35	3.22	3,195.00	2,809.55	2,776.40	33.15	84.752	
6,900.00	6,876.86	6,665.83	6,658.29	25.04	23.60	-4.35	2.33	3,202.17	2,804.85	2,771.18	33.67	83.313	
7,000.00	6,976.18	6,955.83	6,948.08	25.43	24.63	-4.38	1.23	3,211.08	2,795.66	2,761.04	34.62	80.751	
7,100.00	7,075.50	7,055.15	7,047.40	25.82	24.98	-4.40	1.23	3,211.08	2,784.05	2,748.93	35.12	79.266	
7,125.00	7,100.33	7,079.97	7,072.23	25.92	25.07	-4.40	1.23	3,211.08	2,781.15	2,745.90	35.25	78.902	
7,200.00	7,174.90	7,154.55	7,146.80	26.21	25.33	-4.41	1.23	3,211.08	2,773.18	2,737.55	35.62	77.844	
7,300.00	7,274.55	7,254.19	7,246.45	26.58	25.68	-4.41	1.23	3,211.08	2,764.82	2,728.69	36.13	76.532	
7,400.00	7,374.38	7,354.02	7,346.28	26.95	26.03	-4.41	1.23	3,211.08	2,759.06	2,722.43	36.63	75.328	
7,500.00	7,474.33	7,453.97	7,446.23	27.30	26.38	-4.41	1.23	3,211.08	2,755.91	2,718.78	37.13	74.229	
7,570.68	7,545.00	7,524.64	7,516.90	27.55	26.62	89.35	1.23	3,211.08	2,755.26	2,717.78	37.48	73.515	
7,600.00	7,574.32	7,553.97	7,546.22	27.65	26.73	89.35	1.23	3,211.08	2,755.26	2,717.63	37.62	73.231	
7,700.00	7,674.32	7,653.97	7,646.22	27.99	27.08	89.35	1.23	3,211.08	2,755.26	2,717.14	38.12	72.277	
7,800.00	7,774.32	7,753.97	7,746.22	28.33	27.43	89.35	1.23	3,211.08	2,755.26	2,716.64	38.62	71.348	
7,900.00	7,874.32	7,853.97	7,846.22	28.67	27.78	89.35	1.23	3,211.08	2,755.26	2,716.14	39.11	70.442	
8,000.00	7,974.32	7,953.97	7,946.22	29.01	28.13	89.35	1.23	3,211.08	2,755.26	2,715.65	39.61	69.558	
8,100.00	8,074.32	8,053.97	8,046.22	29.35	28.48	89.35	1.23	3,211.08	2,755.26	2,715.15	40.11	68.696	
8,200.00	8,174.32	8,153.97	8,146.22	29.69	28.84	89.35	1.23	3,211.08	2,755.26	2,714.65	40.61	67.854	
8,300.00	8,274.32	8,253.97	8,246.22	30.04	29.19	89.35	1.23	3,211.08	2,755.26	2,714.15	41.10	67.033	
8,400.00	8,374.32	8,353.97	8,346.22	30.38	29.54	89.35	1.23	3,211.08	2,755.26	2,713.66	41.60	66.230	
8,500.00	8,474.32	8,453.97	8,446.22	30.72	29.89	89.35	1.23	3,211.08	2,755.26	2,713.16	42.10	65.447	
8,600.00	8,574.32	8,553.97	8,546.22	31.07	30.25	89.35	1.23	3,211.08	2,755.26	2,712.66	42.60	64.681	
8,700.00	8,674.32	8,653.97	8,646.22	31.41	30.60	89.35	1.23	3,211.08	2,755.26	2,712.16	43.10	63.933	
8,800.00	8,774.32	8,753.97	8,746.22	31.76	30.95	89.35	1.23	3,211.08	2,755.26	2,711.66	43.59	63.201	
8,900.00	8,874.32	8,853.97	8,846.22	32.10	31.30	89.35	1.23	3,211.08	2,755.26	2,711.16	44.09	62.486	
9,000.00	8,974.32	8,953.97	8,946.22	32.45	31.66	89.35	1.23	3,211.08	2,755.26	2,710.66	44.59	61.787	
9,100.00	9,074.32	9,053.97	9,046.22	32.79	32.01	89.35	1.23	3,211.08	2,755.26	2,710.16	45.09	61.103	
9,200.00	9,174.32	9,153.97	9,146.22	33.14	32.36	89.35	1.23	3,211.08	2,755.26	2,709.67	45.59	60.433	
9,300.00	9,274.32	9,253.97	9,246.22	33.48	32.72	89.35	1.23	3,211.08	2,755.26	2,709.17	46.09	59.778	
9,400.00	9,374.32	9,353.97	9,346.22	33.83	33.07	89.35	1.23	3,211.08	2,755.26	2,708.67	46.59	59.137	
9,500.00	9,474.32	9,453.97	9,446.22	34.17	33.42	89.35	1.23	3,211.08	2,755.26	2,708.17	47.09	58.509	
9,600.00	9,574.32	9,553.97	9,546.22	34.52	33.78	89.35	1.23	3,211.08	2,755.26	2,707.67	47.59	57.894	
9,700.00	9,674.32	9,653.97	9,646.22	34.87	34.13	89.35	1.23	3,211.08	2,755.26	2,707.17	48.09	57.292	
9,800.00	9,774.32	9,753.97	9,746.22	35.22	34.49	89.35	1.23	3,211.08	2,755.26	2,706.67	48.59	56.702	
9,900.00	9,874.32	9,853.97	9,846.22	35.56	34.84	89.35	1.23	3,211.08	2,755.26	2,706.16	49.09	56.124	
10,000.00	9,974.32	9,953.97	9,946.22	35.91	35.19	89.35	1.23	3,211.08	2,755.26	2,705.66	49.59	55.558	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 604H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,074.32	10,053.97	10,046.22	36.26	35.55	89.35	1.23	3,211.08	2,755.26	2,705.16	50.09	55.002	
10,191.72	10,166.04	10,145.68	10,137.94	36.58	35.87	89.35	1.23	3,211.08	2,755.26	2,704.70	50.55	54.503	CC
10,200.00	10,174.32	10,153.97	10,146.22	36.60	35.90	-90.08	1.23	3,211.08	2,755.26	2,704.66	50.59	54.458	
10,250.00	10,224.22	10,203.87	10,196.12	36.77	36.08	-90.14	1.23	3,211.08	2,755.26	2,704.43	50.84	54.198	
10,300.00	10,273.68	10,253.32	10,245.58	36.93	36.25	-90.28	1.23	3,211.08	2,755.29	2,704.21	51.08	53.942	
10,350.00	10,322.32	10,301.96	10,294.22	37.09	36.43	-90.51	1.23	3,211.08	2,755.37	2,704.05	51.32	53.692	
10,400.00	10,369.77	10,349.41	10,341.67	37.25	36.60	-90.80	1.23	3,211.08	2,755.56	2,704.01	51.55	53.451	ES
10,450.00	10,415.66	10,395.31	10,387.56	37.40	36.76	-91.14	1.23	3,211.08	2,755.93	2,704.14	51.79	53.218	
10,500.00	10,459.66	10,439.31	10,431.56	37.55	36.91	-91.51	1.23	3,211.08	2,756.56	2,704.54	52.01	52.997	
10,550.00	10,501.42	10,481.07	10,473.32	37.69	37.06	-91.89	1.23	3,211.08	2,757.54	2,705.30	52.24	52.790	
10,600.00	10,540.64	10,520.28	10,512.54	37.83	37.20	-92.25	1.23	3,211.08	2,758.97	2,706.51	52.46	52.596	
10,650.00	10,577.00	10,556.64	10,548.90	37.96	37.33	-92.57	1.23	3,211.08	2,760.96	2,708.29	52.67	52.419	
10,700.00	10,610.23	10,589.87	10,582.13	38.10	37.45	-92.82	1.23	3,211.08	2,763.61	2,710.73	52.88	52.259	
10,750.00	10,640.08	10,619.73	10,611.98	38.23	37.55	-92.97	1.23	3,211.08	2,767.02	2,713.93	53.09	52.117	
10,800.00	10,666.33	10,645.97	10,638.23	38.38	37.65	-93.01	1.23	3,211.08	2,771.26	2,717.96	53.30	51.996	
10,850.00	10,688.76	10,668.41	10,660.66	38.53	37.73	-92.91	1.23	3,211.08	2,776.41	2,722.91	53.50	51.895	
10,900.00	10,707.22	10,686.86	10,679.12	38.70	37.79	-92.65	1.23	3,211.08	2,782.51	2,728.81	53.70	51.816	
10,950.00	10,721.56	10,701.20	10,693.46	38.87	37.84	-92.22	1.23	3,211.08	2,789.60	2,735.71	53.89	51.760	
11,000.00	10,731.67	10,711.32	10,703.57	39.06	37.88	-91.61	1.23	3,211.08	2,797.68	2,743.59	54.08	51.728	
11,050.00	10,737.48	10,717.12	10,709.38	39.25	37.90	-90.81	1.23	3,211.08	2,806.72	2,752.45	54.27	51.718	
11,091.72	10,739.00	10,718.64	10,710.90	39.42	37.90	-90.00	1.23	3,211.08	2,814.96	2,760.54	54.42	51.729	
11,100.00	10,739.00	10,718.64	10,710.90	39.46	37.90	-90.00	1.23	3,211.08	2,816.67	2,762.22	54.45	51.733	
11,200.00	10,739.00	10,718.64	10,710.90	39.90	37.90	-90.00	1.23	3,211.08	2,839.12	2,784.30	54.82	51.787	
11,300.00	10,739.00	10,718.64	10,710.90	40.41	37.90	-90.00	1.23	3,211.08	2,864.89	2,809.65	55.24	51.862	
11,400.00	10,739.00	10,718.64	10,710.90	40.98	37.90	-90.00	1.23	3,211.08	2,893.89	2,838.20	55.69	51.960	
11,500.00	10,739.00	10,718.64	10,710.90	41.61	37.90	-90.00	1.23	3,211.08	2,926.02	2,869.84	56.18	52.086	
11,600.00	10,739.00	10,718.64	10,710.90	42.29	37.90	-90.00	1.23	3,211.08	2,961.18	2,904.50	56.68	52.242	
11,700.00	10,739.00	10,718.64	10,710.90	43.02	37.90	-90.00	1.23	3,211.08	2,999.26	2,942.06	57.20	52.430	
11,800.00	10,739.00	12,972.32	11,925.00	43.81	47.07	-113.78	-1,284.20	3,223.67	3,010.67	2,951.21	59.46	50.633	
11,900.00	10,739.00	13,072.32	11,925.00	44.64	47.84	-113.78	-1,384.20	3,224.65	3,010.65	2,950.16	60.49	49.770	
12,000.00	10,739.00	13,172.32	11,925.00	45.51	48.65	-113.78	-1,484.19	3,225.62	3,010.63	2,949.05	61.58	48.888	
12,100.00	10,739.00	13,272.32	11,925.00	46.43	49.50	-113.78	-1,584.19	3,226.60	3,010.62	2,947.89	62.73	47.993	
12,200.00	10,739.00	13,372.32	11,925.00	47.38	50.40	-113.78	-1,684.18	3,227.58	3,010.60	2,946.67	63.93	47.091	
12,300.00	10,739.00	13,472.32	11,925.00	48.38	51.33	-113.78	-1,784.18	3,228.56	3,010.58	2,945.40	65.18	46.186	
12,400.00	10,739.00	13,572.32	11,925.00	49.41	52.30	-113.78	-1,884.17	3,229.54	3,010.56	2,944.08	66.48	45.282	
12,500.00	10,739.00	13,672.32	11,925.00	50.47	53.30	-113.78	-1,984.17	3,230.52	3,010.55	2,942.72	67.83	44.383	
12,600.00	10,739.00	13,772.32	11,925.00	51.56	54.33	-113.78	-2,084.16	3,231.50	3,010.53	2,941.31	69.22	43.493	
12,700.00	10,739.00	13,872.32	11,925.00	52.68	55.39	-113.78	-2,184.16	3,232.48	3,010.51	2,939.86	70.65	42.614	
12,800.00	10,739.00	13,972.32	11,925.00	53.83	56.48	-113.78	-2,284.15	3,233.46	3,010.49	2,938.38	72.11	41.748	
12,900.00	10,739.00	14,072.32	11,925.00	55.01	57.60	-113.78	-2,384.15	3,234.44	3,010.48	2,936.87	73.61	40.897	
13,000.00	10,739.00	14,172.32	11,925.00	56.21	58.74	-113.78	-2,484.14	3,235.42	3,010.46	2,935.32	75.14	40.063	
13,100.00	10,739.00	14,272.32	11,925.00	57.43	59.91	-113.78	-2,584.14	3,236.39	3,010.44	2,933.74	76.71	39.246	
13,200.00	10,739.00	14,372.32	11,925.00	58.67	61.09	-113.78	-2,684.13	3,237.37	3,010.42	2,932.13	78.30	38.448	
13,300.00	10,739.00	14,472.32	11,925.00	59.93	62.30	-113.78	-2,784.13	3,238.35	3,010.41	2,930.49	79.92	37.668	
13,400.00	10,739.00	14,572.32	11,925.00	61.21	63.53	-113.78	-2,884.12	3,239.33	3,010.39	2,928.82	81.57	36.907	
13,500.00	10,739.00	14,672.32	11,925.00	62.51	64.78	-113.78	-2,984.12	3,240.31	3,010.37	2,927.13	83.24	36.165	
13,600.00	10,739.00	14,772.32	11,925.00	63.83	66.05	-113.79	-3,084.11	3,241.29	3,010.36	2,925.42	84.93	35.444	
13,700.00	10,739.00	14,872.32	11,925.00	65.16	67.33	-113.79	-3,184.11	3,242.27	3,010.34	2,923.69	86.65	34.742	
13,800.00	10,739.00	14,972.32	11,925.00	66.50	68.63	-113.79	-3,284.11	3,243.25	3,010.32	2,921.94	88.38	34.060	
13,900.00	10,739.00	15,072.32	11,925.00	67.86	69.94	-113.79	-3,384.10	3,244.23	3,010.30	2,920.17	90.14	33.397	
14,000.00	10,739.00	15,172.32	11,925.00	69.23	71.27	-113.79	-3,484.10	3,245.21	3,010.29	2,918.38	91.91	32.753	
14,100.00	10,739.00	15,272.32	11,925.00	70.61	72.61	-113.79	-3,584.09	3,246.19	3,010.27	2,916.57	93.70	32.127	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 604H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	10,739.00	15,372.32	11,925.00	72.00	73.96	-113.79	-3,684.09	3,247.17	3,010.25	2,914.75	95.50	31.520	
14,300.00	10,739.00	15,472.32	11,925.00	73.41	75.33	-113.79	-3,784.08	3,248.14	3,010.23	2,912.91	97.32	30.930	
14,400.00	10,739.00	15,572.32	11,925.00	74.82	76.70	-113.79	-3,884.08	3,249.12	3,010.22	2,911.06	99.16	30.358	
14,500.00	10,739.00	15,672.32	11,925.00	76.25	78.09	-113.79	-3,984.07	3,250.10	3,010.20	2,909.19	101.01	29.802	
14,600.00	10,739.00	15,772.32	11,925.00	77.68	79.49	-113.79	-4,084.07	3,251.08	3,010.18	2,907.31	102.87	29.263	
14,700.00	10,739.00	15,872.32	11,925.00	79.12	80.89	-113.79	-4,184.06	3,252.06	3,010.16	2,905.42	104.74	28.739	
14,800.00	10,739.00	15,972.32	11,925.00	80.57	82.31	-113.79	-4,284.06	3,253.04	3,010.15	2,903.52	106.62	28.232	
14,900.00	10,739.00	16,072.32	11,925.00	82.03	83.73	-113.79	-4,384.05	3,254.02	3,010.13	2,901.61	108.52	27.739	
15,000.00	10,739.00	16,172.32	11,925.00	83.49	85.17	-113.79	-4,484.05	3,255.00	3,010.11	2,899.69	110.42	27.260	
15,100.00	10,739.00	16,272.32	11,925.00	84.96	86.61	-113.79	-4,584.04	3,255.98	3,010.09	2,897.76	112.34	26.796	
15,200.00	10,739.00	16,372.32	11,925.00	86.44	88.06	-113.79	-4,684.04	3,256.96	3,010.08	2,895.82	114.26	26.344	
15,300.00	10,739.00	16,472.32	11,925.00	87.92	89.51	-113.79	-4,784.03	3,257.94	3,010.06	2,893.87	116.19	25.906	
15,400.00	10,739.00	16,572.32	11,925.00	89.41	90.97	-113.79	-4,884.03	3,258.91	3,010.04	2,891.91	118.13	25.481	
15,500.00	10,739.00	16,672.32	11,925.00	90.91	92.44	-113.79	-4,984.02	3,259.89	3,010.02	2,889.95	120.08	25.067	
15,600.00	10,739.00	16,772.32	11,925.00	92.41	93.91	-113.79	-5,084.02	3,260.87	3,010.01	2,887.97	122.04	24.665	
15,700.00	10,739.00	16,872.32	11,925.00	93.92	95.39	-113.79	-5,184.01	3,261.85	3,009.99	2,885.99	124.00	24.274	
15,800.00	10,739.00	16,972.32	11,925.00	95.43	96.88	-113.79	-5,284.01	3,262.83	3,009.97	2,884.01	125.97	23.895	
15,900.00	10,739.00	17,072.32	11,925.00	96.94	98.37	-113.79	-5,384.00	3,263.81	3,009.96	2,882.01	127.94	23.526	
16,000.00	10,739.00	17,172.32	11,925.00	98.46	99.87	-113.79	-5,484.00	3,264.79	3,009.94	2,880.01	129.92	23.167	
16,100.00	10,739.00	17,272.32	11,925.00	99.99	101.37	-113.79	-5,584.00	3,265.77	3,009.92	2,878.01	131.91	22.818	
16,200.00	10,739.00	17,372.32	11,925.00	101.51	102.87	-113.79	-5,683.99	3,266.75	3,009.90	2,876.00	133.91	22.478	
16,300.00	10,739.00	17,472.32	11,925.00	103.05	104.38	-113.79	-5,783.99	3,267.73	3,009.89	2,873.98	135.90	22.147	
16,400.00	10,739.00	17,572.32	11,925.00	104.58	105.89	-113.79	-5,883.98	3,268.71	3,009.87	2,871.96	137.91	21.825	
16,500.00	10,739.00	17,672.32	11,925.00	106.12	107.41	-113.79	-5,983.98	3,269.68	3,009.85	2,869.93	139.92	21.512	
16,600.00	10,739.00	17,772.32	11,925.00	107.66	108.93	-113.79	-6,083.97	3,270.66	3,009.83	2,867.90	141.93	21.206	
16,700.00	10,739.00	17,872.32	11,925.00	109.21	110.46	-113.79	-6,183.97	3,271.64	3,009.82	2,865.87	143.95	20.909	
16,800.00	10,739.00	17,972.32	11,925.00	110.76	111.99	-113.79	-6,283.96	3,272.62	3,009.80	2,863.83	145.97	20.619	
16,900.00	10,739.00	18,072.32	11,925.00	112.31	113.52	-113.79	-6,383.96	3,273.60	3,009.78	2,861.79	148.00	20.337	
17,000.00	10,739.00	18,172.32	11,925.00	113.86	115.06	-113.79	-6,483.95	3,274.58	3,009.76	2,859.74	150.03	20.062	
17,100.00	10,739.00	18,272.32	11,925.00	115.42	116.60	-113.79	-6,583.95	3,275.56	3,009.75	2,857.69	152.06	19.793	
17,200.00	10,739.00	18,372.32	11,925.00	116.98	118.14	-113.79	-6,683.94	3,276.54	3,009.73	2,855.63	154.10	19.532	
17,300.00	10,739.00	18,472.32	11,925.00	118.54	119.68	-113.79	-6,783.94	3,277.52	3,009.71	2,853.58	156.14	19.276	
17,400.00	10,739.00	18,572.32	11,925.00	120.10	121.23	-113.79	-6,883.93	3,278.50	3,009.69	2,851.51	158.18	19.027	
17,500.00	10,739.00	18,672.32	11,925.00	121.67	122.78	-113.79	-6,983.93	3,279.48	3,009.68	2,849.45	160.23	18.784	
17,600.00	10,739.00	18,772.32	11,925.00	123.24	124.34	-113.79	-7,083.92	3,280.45	3,009.66	2,847.38	162.28	18.546	
17,700.00	10,739.00	18,872.32	11,925.00	124.81	125.89	-113.79	-7,183.92	3,281.43	3,009.64	2,845.31	164.33	18.315	
17,800.00	10,739.00	18,972.32	11,925.00	126.38	127.45	-113.79	-7,283.91	3,282.41	3,009.63	2,843.24	166.39	18.088	
17,900.00	10,739.00	19,072.32	11,925.00	127.96	129.01	-113.79	-7,383.91	3,283.39	3,009.61	2,841.16	168.44	17.867	
18,000.00	10,739.00	19,172.32	11,925.00	129.53	130.57	-113.79	-7,483.90	3,284.37	3,009.59	2,839.09	170.50	17.651	
18,100.00	10,739.00	19,272.32	11,925.00	131.11	132.14	-113.79	-7,583.90	3,285.35	3,009.57	2,837.00	172.57	17.440	
18,200.00	10,739.00	19,372.32	11,925.00	132.69	133.70	-113.79	-7,683.89	3,286.33	3,009.56	2,834.92	174.63	17.233	
18,300.00	10,739.00	19,472.32	11,925.00	134.28	135.27	-113.79	-7,783.89	3,287.31	3,009.54	2,832.84	176.70	17.032	
18,400.00	10,739.00	19,572.32	11,925.00	135.86	136.84	-113.79	-7,883.88	3,288.29	3,009.52	2,830.75	178.77	16.834	
18,500.00	10,739.00	19,672.32	11,925.00	137.44	138.42	-113.79	-7,983.88	3,289.27	3,009.50	2,828.66	180.84	16.641	
18,600.00	10,739.00	19,772.32	11,925.00	139.03	139.99	-113.79	-8,083.88	3,290.25	3,009.49	2,826.57	182.92	16.453	
18,700.00	10,739.00	19,872.32	11,925.00	140.62	141.57	-113.79	-8,183.87	3,291.22	3,009.47	2,824.47	184.99	16.268	
18,800.00	10,739.00	19,972.32	11,925.00	142.21	143.14	-113.79	-8,283.87	3,292.20	3,009.45	2,822.38	187.07	16.087	
18,900.00	10,739.00	20,072.32	11,925.00	143.80	144.72	-113.79	-8,383.86	3,293.18	3,009.43	2,820.28	189.15	15.910	
19,000.00	10,739.00	20,172.32	11,925.00	145.39	146.30	-113.79	-8,483.86	3,294.16	3,009.42	2,818.18	191.23	15.737	
19,100.00	10,739.00	20,272.32	11,925.00	146.99	147.89	-113.79	-8,583.85	3,295.14	3,009.40	2,816.08	193.32	15.567	
19,200.00	10,739.00	20,372.32	11,925.00	148.58	149.47	-113.79	-8,683.85	3,296.12	3,009.38	2,813.98	195.40	15.401	
19,300.00	10,739.00	20,472.32	11,925.00	150.18	151.06	-113.79	-8,783.84	3,297.10	3,009.36	2,811.87	197.49	15.238	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 604H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.00	10,739.00	20,572.32	11,925.00	151.78	152.64	-113.79	-8,883.84	3,298.08	3,009.35	2,809.77	199.58	15.079	
19,500.00	10,739.00	20,672.32	11,925.00	153.38	154.23	-113.79	-8,983.83	3,299.06	3,009.33	2,807.66	201.67	14.922	
19,600.00	10,739.00	20,772.32	11,925.00	154.98	155.82	-113.79	-9,083.83	3,300.04	3,009.31	2,805.55	203.76	14.769	
19,700.00	10,739.00	20,872.32	11,925.00	156.58	157.41	-113.79	-9,183.82	3,301.02	3,009.29	2,803.45	205.85	14.619	
19,800.00	10,739.00	20,972.32	11,925.00	158.18	159.01	-113.79	-9,283.82	3,302.00	3,009.28	2,801.33	207.94	14.472	
19,900.00	10,739.00	21,072.32	11,925.00	159.78	160.60	-113.79	-9,383.81	3,302.97	3,009.26	2,799.22	210.04	14.327	
20,000.00	10,739.00	21,172.32	11,925.00	161.39	162.19	-113.79	-9,483.81	3,303.95	3,009.24	2,797.11	212.14	14.185	
20,100.00	10,739.00	21,272.32	11,925.00	162.99	163.79	-113.79	-9,583.80	3,304.93	3,009.23	2,794.99	214.23	14.046	
20,200.00	10,739.00	21,372.32	11,925.00	164.60	165.39	-113.79	-9,683.80	3,305.91	3,009.21	2,792.88	216.33	13.910	
20,300.00	10,739.00	21,472.32	11,925.00	166.20	166.98	-113.79	-9,783.79	3,306.89	3,009.19	2,790.76	218.43	13.777	
20,400.00	10,739.00	21,572.32	11,925.00	167.81	168.58	-113.80	-9,883.79	3,307.87	3,009.17	2,788.65	220.53	13.645	
20,500.00	10,739.00	21,672.32	11,925.00	169.42	170.18	-113.80	-9,983.78	3,308.85	3,009.16	2,786.53	222.63	13.516	
20,600.00	10,739.00	21,772.32	11,925.00	171.03	171.78	-113.80	-10,083.78	3,309.83	3,009.14	2,784.41	224.73	13.390	
20,700.00	10,739.00	21,872.32	11,925.00	172.64	173.39	-113.80	-10,183.77	3,310.81	3,009.12	2,782.28	226.84	13.266	
20,800.00	10,739.00	21,972.32	11,925.00	174.25	174.99	-113.80	-10,283.77	3,311.79	3,009.10	2,780.16	228.94	13.144	
20,879.44	10,739.00	22,051.76	11,925.00	175.53	176.26	-113.80	-10,363.20	3,312.56	3,009.09	2,778.47	230.62	13.048	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 704H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.44	28.72	2,935.09	2,935.35				
100.00	100.00	73.00	73.00	0.13	0.09	89.44	28.72	2,935.09	2,935.23	2,935.08	0.16	N/A	
200.00	200.00	173.00	173.00	0.48	0.39	89.44	28.72	2,935.09	2,935.23	2,934.61	0.62	4,736.218	
300.00	300.00	273.00	273.00	0.84	0.75	89.44	28.72	2,935.09	2,935.23	2,934.11	1.12	2,609.117	
400.00	400.00	373.00	373.00	1.20	1.10	89.44	28.72	2,935.09	2,935.23	2,933.60	1.63	1,799.322	
500.00	500.00	473.00	473.00	1.56	1.46	89.44	28.72	2,935.09	2,935.23	2,933.09	2.14	1,372.942	
600.00	600.00	573.00	573.00	1.92	1.82	89.44	28.72	2,935.09	2,935.23	2,932.59	2.64	1,109.872	
700.00	700.00	673.00	673.00	2.28	2.18	89.44	28.72	2,935.09	2,935.23	2,932.08	3.15	931.384	
800.00	800.00	773.00	773.00	2.63	2.54	89.44	28.72	2,935.09	2,935.23	2,931.57	3.66	802.343	
900.00	900.00	873.00	873.00	2.99	2.90	89.44	28.72	2,935.09	2,935.23	2,931.07	4.17	704.703	
1,000.00	1,000.00	973.00	973.00	3.35	3.25	89.44	28.72	2,935.09	2,935.23	2,930.56	4.67	628.247	
1,100.00	1,100.00	1,073.00	1,073.00	3.71	3.61	89.44	28.72	2,935.09	2,935.23	2,930.05	5.18	566.756	
1,200.00	1,200.00	1,173.00	1,173.00	4.07	3.97	89.44	28.72	2,935.09	2,935.23	2,929.54	5.69	516.228	
1,300.00	1,300.00	1,273.00	1,273.00	4.43	4.33	89.44	28.72	2,935.09	2,935.23	2,929.04	6.19	473.972	
1,400.00	1,400.00	1,373.00	1,373.00	4.79	4.69	89.44	28.72	2,935.09	2,935.23	2,928.53	6.70	438.110	
1,500.00	1,500.00	1,473.00	1,473.00	5.14	5.05	89.44	28.72	2,935.09	2,935.23	2,928.02	7.21	407.292	
1,600.00	1,600.00	1,573.00	1,573.00	5.50	5.41	89.44	28.72	2,935.09	2,935.23	2,927.52	7.71	380.525	
1,700.00	1,700.00	1,673.00	1,673.00	5.86	5.76	89.44	28.72	2,935.09	2,935.23	2,927.01	8.22	357.059	
1,800.00	1,800.00	1,773.00	1,773.00	6.22	6.12	89.44	28.72	2,935.09	2,935.23	2,926.50	8.73	336.320	
1,900.00	1,900.00	1,873.00	1,873.00	6.58	6.48	89.44	28.72	2,935.09	2,935.23	2,926.00	9.23	317.857	
2,000.00	2,000.00	1,973.00	1,973.00	6.94	6.84	89.44	28.72	2,935.09	2,935.23	2,925.49	9.74	301.315	
2,100.00	2,100.00	2,073.00	2,073.00	7.29	7.20	89.44	28.72	2,935.09	2,935.23	2,924.98	10.25	286.411	
2,200.00	2,200.00	2,173.00	2,173.00	7.65	7.56	89.44	28.72	2,935.09	2,935.23	2,924.48	10.76	272.911	
2,300.00	2,300.00	2,273.00	2,273.00	8.01	7.92	89.44	28.72	2,935.09	2,935.23	2,923.97	11.26	260.626	
2,400.00	2,400.00	2,373.00	2,373.00	8.37	8.27	89.44	28.72	2,935.09	2,935.23	2,923.46	11.77	249.400	
2,500.00	2,500.00	2,473.00	2,473.00	8.73	8.63	89.44	28.72	2,935.09	2,935.23	2,922.95	12.28	239.101	
2,600.00	2,600.00	2,573.00	2,573.00	9.09	8.99	89.44	28.72	2,935.09	2,935.23	2,922.45	12.78	229.619	
2,700.00	2,700.00	2,673.00	2,673.00	9.45	9.35	89.44	28.72	2,935.09	2,935.23	2,921.94	13.29	220.860	
2,800.00	2,800.00	2,773.00	2,773.00	9.80	9.71	89.44	28.72	2,935.09	2,935.23	2,921.43	13.80	212.745	
2,900.00	2,900.00	2,873.00	2,873.00	10.16	10.07	89.44	28.72	2,935.09	2,935.23	2,920.93	14.30	205.205	
3,000.00	3,000.00	2,973.00	2,973.00	10.52	10.42	89.44	28.72	2,935.09	2,935.23	2,920.42	14.81	198.181	
3,100.00	3,100.00	3,073.00	3,073.00	10.88	10.78	89.44	28.72	2,935.09	2,935.23	2,919.91	15.32	191.622	
3,200.00	3,200.00	3,173.00	3,173.00	11.24	11.14	89.44	28.72	2,935.09	2,935.23	2,919.41	15.82	185.483	
3,300.00	3,299.99	3,513.09	3,512.74	11.59	12.32	-4.33	28.05	2,922.28	2,930.94	2,914.08	16.86	173.841	
3,400.00	3,399.91	3,869.29	3,865.82	11.93	13.57	-4.33	25.64	2,876.41	2,913.31	2,895.48	17.83	163.404	
3,500.00	3,499.69	4,051.34	4,044.52	12.27	14.25	-4.34	23.82	2,841.75	2,887.30	2,868.86	18.44	156.566	
3,600.00	3,599.27	4,147.14	4,138.42	12.62	14.61	-4.37	22.82	2,822.79	2,858.64	2,839.73	18.91	151.169	
3,645.68	3,644.67	4,190.65	4,181.07	12.78	14.78	-4.39	22.37	2,814.18	2,844.71	2,825.59	19.12	148.749	
3,700.00	3,698.62	4,242.28	4,231.67	12.97	14.98	-4.39	21.83	2,803.96	2,827.85	2,808.47	19.38	145.933	
3,800.00	3,797.94	4,337.34	4,324.85	13.32	15.35	-4.39	20.84	2,785.14	2,796.80	2,776.95	19.84	140.932	
3,900.00	3,897.26	4,432.40	4,418.02	13.68	15.73	-4.39	19.86	2,766.32	2,765.75	2,745.43	20.31	136.148	
4,000.00	3,996.58	4,527.45	4,511.19	14.03	16.11	-4.39	18.87	2,747.50	2,734.70	2,713.91	20.79	131.568	
4,100.00	4,095.90	4,622.51	4,604.36	14.40	16.50	-4.40	17.88	2,728.69	2,703.65	2,682.39	21.26	127.180	
4,200.00	4,195.22	4,717.57	4,697.53	14.76	16.89	-4.40	16.89	2,709.87	2,672.60	2,650.87	21.73	122.974	
4,300.00	4,294.54	4,812.63	4,790.70	15.12	17.28	-4.40	15.90	2,691.05	2,641.55	2,619.34	22.21	118.939	
4,400.00	4,393.86	4,907.68	4,883.87	15.49	17.67	-4.40	14.91	2,672.23	2,610.50	2,587.81	22.69	115.065	
4,500.00	4,493.18	5,002.74	4,977.04	15.86	18.07	-4.40	13.93	2,653.42	2,579.45	2,556.28	23.17	111.345	
4,600.00	4,592.50	5,097.80	5,070.21	16.23	18.47	-4.40	12.94	2,634.60	2,548.40	2,524.75	23.65	107.770	
4,700.00	4,691.82	5,192.86	5,163.38	16.60	18.88	-4.40	11.95	2,615.78	2,517.35	2,493.22	24.13	104.332	
4,800.00	4,791.14	5,287.91	5,256.56	16.97	19.28	-4.40	10.96	2,596.96	2,486.30	2,461.69	24.61	101.023	
4,900.00	4,890.46	5,382.97	5,349.73	17.35	19.69	-4.40	9.97	2,578.15	2,455.25	2,430.16	25.10	97.837	
5,000.00	4,989.78	5,478.03	5,442.90	17.73	20.10	-4.40	8.98	2,559.33	2,424.20	2,398.62	25.58	94.768	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 704H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	5,573.08	5,536.07	18.10	20.52	-4.41	8.00	2,540.51	2,393.15	2,367.09	26.07	91.810	
5,200.00	5,188.42	5,668.14	5,629.24	18.48	20.93	-4.41	7.01	2,521.69	2,362.10	2,335.55	26.55	88.957	
5,300.00	5,287.74	5,763.20	5,722.41	18.86	21.35	-4.41	6.02	2,502.88	2,331.05	2,304.01	27.04	86.204	
5,400.00	5,387.06	5,858.26	5,815.58	19.24	21.77	-4.41	5.03	2,484.06	2,300.00	2,272.47	27.53	83.546	
5,500.00	5,486.38	5,953.31	5,908.75	19.62	22.19	-4.41	4.04	2,465.24	2,268.95	2,240.93	28.02	80.978	
5,600.00	5,585.70	6,048.37	6,001.92	20.00	22.61	-4.41	3.05	2,446.42	2,237.90	2,209.39	28.51	78.496	
5,700.00	5,685.02	6,143.43	6,095.09	20.39	23.03	-4.41	2.07	2,427.60	2,206.86	2,177.85	29.00	76.096	
5,800.00	5,784.34	6,238.49	6,188.27	20.77	23.45	-4.41	1.08	2,408.79	2,175.81	2,146.31	29.49	73.774	
5,900.00	5,883.66	6,333.54	6,281.44	21.16	23.88	-4.42	0.09	2,389.97	2,144.76	2,114.77	29.99	71.527	
6,000.00	5,982.98	6,428.60	6,374.61	21.54	24.31	-4.42	-0.90	2,371.15	2,113.71	2,083.23	30.48	69.351	
6,100.00	6,082.30	6,523.66	6,467.78	21.93	24.74	-4.42	-1.89	2,352.33	2,082.66	2,051.68	30.97	67.243	
6,200.00	6,181.62	6,618.72	6,560.95	22.31	25.16	-4.42	-2.88	2,333.52	2,051.61	2,020.14	31.47	65.200	
6,300.00	6,280.94	6,713.77	6,654.12	22.70	25.59	-4.42	-3.86	2,314.70	2,020.56	1,988.60	31.96	63.219	
6,400.00	6,380.26	6,804.26	6,742.81	23.09	26.01	-4.42	-4.80	2,296.79	1,989.51	1,957.06	32.45	61.302	
6,500.00	6,479.58	6,870.13	6,807.49	23.48	26.30	-4.43	-5.46	2,284.30	1,959.32	1,926.38	32.94	59.490	
6,600.00	6,578.90	6,933.64	6,870.04	23.87	26.58	-4.43	-6.04	2,273.32	1,930.70	1,897.29	33.41	57.786	
6,700.00	6,678.22	7,000.00	6,935.58	24.26	26.86	-4.43	-6.58	2,262.96	1,903.70	1,869.81	33.89	56.179	
6,800.00	6,777.54	7,062.49	6,997.45	24.65	27.12	-4.44	-7.04	2,254.25	1,878.31	1,843.96	34.35	54.679	
6,900.00	6,876.86	7,127.76	7,062.23	25.04	27.38	-4.45	-7.46	2,246.22	1,854.57	1,819.76	34.81	53.270	
7,000.00	6,976.18	7,200.00	7,134.06	25.43	27.67	-4.46	-7.86	2,238.63	1,832.52	1,797.24	35.28	51.939	
7,100.00	7,075.50	7,259.86	7,193.69	25.82	27.90	-4.47	-8.13	2,233.37	1,812.13	1,776.41	35.72	50.726	
7,125.00	7,100.33	7,276.51	7,210.29	25.92	27.96	-4.47	-8.20	2,232.08	1,807.30	1,771.47	35.84	50.433	
7,200.00	7,174.90	7,326.71	7,260.37	26.21	28.14	-4.47	-8.39	2,228.60	1,794.18	1,758.01	36.17	49.606	
7,300.00	7,274.55	7,400.00	7,333.56	26.58	28.41	-4.46	-8.59	2,224.71	1,780.48	1,743.86	36.62	48.623	
7,400.00	7,374.38	7,462.18	7,395.70	26.95	28.62	-4.45	-8.71	2,222.51	1,771.10	1,734.07	37.03	47.824	
7,500.00	7,474.33	7,530.47	7,463.97	27.30	28.85	-4.45	-8.77	2,221.26	1,766.12	1,728.67	37.45	47.157	
7,570.68	7,545.00	7,584.50	7,518.00	27.55	29.02	89.31	-8.78	2,221.09	1,765.22	1,727.46	37.76	46.754	
7,600.00	7,574.32	7,613.82	7,547.32	27.65	29.12	89.31	-8.78	2,221.09	1,765.22	1,727.32	37.90	46.577	
7,700.00	7,674.32	7,713.82	7,647.32	27.99	29.44	89.31	-8.78	2,221.09	1,765.22	1,726.83	38.39	45.983	
7,800.00	7,774.32	7,813.82	7,747.32	28.33	29.77	89.31	-8.78	2,221.09	1,765.22	1,726.34	38.88	45.403	
7,900.00	7,874.32	7,913.82	7,847.32	28.67	30.09	89.31	-8.78	2,221.09	1,765.22	1,725.85	39.37	44.837	
8,000.00	7,974.32	8,013.82	7,947.32	29.01	30.42	89.31	-8.78	2,221.09	1,765.22	1,725.36	39.86	44.285	
8,100.00	8,074.32	8,113.82	8,047.32	29.35	30.74	89.31	-8.78	2,221.09	1,765.22	1,724.87	40.35	43.745	
8,200.00	8,174.32	8,213.82	8,147.32	29.69	31.07	89.31	-8.78	2,221.09	1,765.22	1,724.37	40.84	43.218	
8,300.00	8,274.32	8,313.82	8,247.32	30.04	31.40	89.31	-8.78	2,221.09	1,765.22	1,723.88	41.34	42.704	
8,400.00	8,374.32	8,413.82	8,347.32	30.38	31.73	89.31	-8.78	2,221.09	1,765.22	1,723.39	41.83	42.201	
8,500.00	8,474.32	8,513.82	8,447.32	30.72	32.05	89.31	-8.78	2,221.09	1,765.22	1,722.90	42.32	41.709	
8,600.00	8,574.32	8,613.82	8,547.32	31.07	32.38	89.31	-8.78	2,221.09	1,765.22	1,722.40	42.82	41.229	
8,700.00	8,674.32	8,713.82	8,647.32	31.41	32.71	89.31	-8.78	2,221.09	1,765.22	1,721.91	43.31	40.759	
8,800.00	8,774.32	8,813.82	8,747.32	31.76	33.04	89.31	-8.78	2,221.09	1,765.22	1,721.41	43.80	40.299	
8,900.00	8,874.32	8,913.82	8,847.32	32.10	33.38	89.31	-8.78	2,221.09	1,765.22	1,720.92	44.30	39.850	
9,000.00	8,974.32	9,013.82	8,947.32	32.45	33.71	89.31	-8.78	2,221.09	1,765.22	1,720.43	44.79	39.410	
9,100.00	9,074.32	9,113.82	9,047.32	32.79	34.04	89.31	-8.78	2,221.09	1,765.22	1,719.93	45.29	38.979	
9,200.00	9,174.32	9,213.82	9,147.32	33.14	34.37	89.31	-8.78	2,221.09	1,765.22	1,719.44	45.78	38.558	
9,300.00	9,274.32	9,313.82	9,247.32	33.48	34.71	89.31	-8.78	2,221.09	1,765.22	1,718.94	46.28	38.145	
9,400.00	9,374.32	9,413.82	9,347.32	33.83	35.04	89.31	-8.78	2,221.09	1,765.22	1,718.45	46.77	37.741	
9,500.00	9,474.32	9,513.82	9,447.32	34.17	35.38	89.31	-8.78	2,221.09	1,765.22	1,717.95	47.27	37.345	
9,600.00	9,574.32	9,613.82	9,547.32	34.52	35.71	89.31	-8.78	2,221.09	1,765.22	1,717.45	47.76	36.957	
9,700.00	9,674.32	9,713.82	9,647.32	34.87	36.05	89.31	-8.78	2,221.09	1,765.22	1,716.96	48.26	36.577	
9,800.00	9,774.32	9,813.82	9,747.32	35.22	36.38	89.31	-8.78	2,221.09	1,765.22	1,716.46	48.76	36.205	
9,900.00	9,874.32	9,913.82	9,847.32	35.56	36.72	89.31	-8.78	2,221.09	1,765.22	1,715.96	49.25	35.840	
10,000.00	9,974.32	10,013.82	9,947.32	35.91	37.05	89.31	-8.78	2,221.09	1,765.22	1,715.47	49.75	35.482	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 704H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,074.32	10,113.82	10,047.32	36.26	37.39	89.31	-8.78	2,221.09	1,765.22	1,714.97	50.25	35.131	
10,191.72	10,166.04	10,205.54	10,139.04	36.58	37.70	89.31	-8.78	2,221.09	1,765.22	1,714.51	50.70	34.815	CC
10,200.00	10,174.32	10,213.82	10,147.32	36.60	37.73	-90.12	-8.78	2,221.09	1,765.22	1,714.47	50.74	34.787	
10,250.00	10,224.22	10,263.72	10,197.22	36.77	37.90	-90.21	-8.78	2,221.09	1,765.23	1,714.24	50.98	34.623	
10,300.00	10,273.68	10,313.18	10,246.68	36.93	38.06	-90.44	-8.78	2,221.09	1,765.27	1,714.04	51.22	34.462	
10,350.00	10,322.32	10,361.81	10,295.32	37.09	38.23	-90.79	-8.78	2,221.09	1,765.40	1,713.93	51.46	34.306	ES
10,400.00	10,369.77	10,409.26	10,342.77	37.25	38.39	-91.24	-8.78	2,221.09	1,765.69	1,714.00	51.69	34.156	
10,450.00	10,415.66	10,455.16	10,388.66	37.40	38.54	-91.78	-8.78	2,221.09	1,766.26	1,714.34	51.92	34.016	
10,500.00	10,459.66	10,499.16	10,432.66	37.55	38.69	-92.36	-8.78	2,221.09	1,767.24	1,715.09	52.15	33.886	
10,550.00	10,501.42	10,540.92	10,474.42	37.69	38.84	-92.95	-8.78	2,221.09	1,768.76	1,716.39	52.38	33.771	
10,600.00	10,540.64	10,580.13	10,513.64	37.83	38.97	-93.51	-8.78	2,221.09	1,771.00	1,718.40	52.60	33.671	
10,650.00	10,577.00	10,616.49	10,550.00	37.96	39.09	-94.00	-8.78	2,221.09	1,774.10	1,721.28	52.82	33.590	
10,700.00	10,610.23	10,649.73	10,583.23	38.10	39.20	-94.39	-8.78	2,221.09	1,778.22	1,725.18	53.04	33.529	
10,750.00	10,640.08	10,679.58	10,613.08	38.23	39.31	-94.63	-8.78	2,221.09	1,783.50	1,730.25	53.25	33.491	
10,800.00	10,666.33	10,705.82	10,639.33	38.38	39.39	-94.69	-8.78	2,221.09	1,790.07	1,736.60	53.47	33.478	
10,850.00	10,688.76	10,728.26	10,661.76	38.53	39.47	-94.54	-8.78	2,221.09	1,798.03	1,744.34	53.69	33.492	
10,900.00	10,707.22	10,746.72	10,680.22	38.70	39.53	-94.13	-8.78	2,221.09	1,807.44	1,753.54	53.90	33.534	
10,950.00	10,721.56	10,761.06	10,694.56	38.87	39.58	-93.46	-8.78	2,221.09	1,818.33	1,764.22	54.11	33.604	
11,000.00	10,731.67	10,771.17	10,704.67	39.06	39.62	-92.51	-8.78	2,221.09	1,830.69	1,776.37	54.32	33.704	
11,050.00	10,737.48	10,776.98	10,710.48	39.25	39.64	-91.26	-8.78	2,221.09	1,844.47	1,789.95	54.52	33.832	
11,091.72	10,739.00	10,778.50	10,712.00	39.42	39.64	-90.00	-8.78	2,221.09	1,856.99	1,802.31	54.68	33.961	
11,100.00	10,739.00	10,778.50	10,712.00	39.46	39.64	-90.00	-8.78	2,221.09	1,859.58	1,804.86	54.71	33.989	
11,200.00	10,739.00	10,778.50	10,712.00	39.90	39.64	-90.00	-8.78	2,221.09	1,893.41	1,838.29	55.11	34.355	
11,300.00	10,739.00	10,778.50	10,712.00	40.41	39.64	-90.00	-8.78	2,221.09	1,931.83	1,876.29	55.54	34.782	
11,400.00	10,739.00	10,778.50	10,712.00	40.98	39.64	-90.00	-8.78	2,221.09	1,974.57	1,918.58	55.99	35.269	
11,500.00	10,739.00	10,778.50	10,712.00	41.61	39.64	-90.00	-8.78	2,221.09	2,021.36	1,964.92	56.44	35.815	
11,600.00	10,739.00	10,778.50	10,712.00	42.29	39.64	-90.00	-8.78	2,221.09	2,071.92	2,015.03	56.89	36.419	
11,700.00	10,739.00	10,778.50	10,712.00	43.02	39.64	-90.00	-8.78	2,221.09	2,125.99	2,068.65	57.34	37.078	
11,800.00	10,739.00	10,778.50	10,712.00	43.81	39.64	-90.00	-8.78	2,221.09	2,183.30	2,125.53	57.77	37.790	
11,900.00	10,739.00	10,778.50	10,712.00	44.64	39.64	-90.00	-8.78	2,221.09	2,243.61	2,185.41	58.20	38.553	
12,000.00	10,739.00	13,414.73	12,109.00	45.51	50.15	-128.36	-1,493.85	2,235.66	2,250.93	2,193.40	57.53	39.128	
12,100.00	10,739.00	13,514.73	12,109.00	46.43	50.98	-128.36	-1,593.85	2,236.64	2,250.92	2,192.38	58.54	38.451	
12,200.00	10,739.00	13,614.73	12,109.00	47.38	51.85	-128.36	-1,693.84	2,237.62	2,250.90	2,191.30	59.60	37.767	
12,300.00	10,739.00	13,714.73	12,109.00	48.38	52.75	-128.36	-1,793.84	2,238.60	2,250.89	2,190.19	60.70	37.080	
12,400.00	10,739.00	13,814.73	12,109.00	49.41	53.69	-128.36	-1,893.84	2,239.58	2,250.88	2,189.03	61.85	36.393	
12,500.00	10,739.00	13,914.73	12,109.00	50.47	54.67	-128.36	-1,993.83	2,240.56	2,250.86	2,187.83	63.03	35.709	
12,600.00	10,739.00	14,014.73	12,109.00	51.56	55.67	-128.36	-2,093.83	2,241.54	2,250.85	2,186.59	64.25	35.031	
12,700.00	10,739.00	14,114.73	12,109.00	52.68	56.71	-128.36	-2,193.82	2,242.52	2,250.83	2,185.33	65.51	34.359	
12,800.00	10,739.00	14,214.73	12,109.00	53.83	57.77	-128.36	-2,293.82	2,243.50	2,250.82	2,184.02	66.80	33.696	
12,900.00	10,739.00	14,314.73	12,109.00	55.01	58.87	-128.36	-2,393.81	2,244.48	2,250.81	2,182.69	68.12	33.042	
13,000.00	10,739.00	14,414.73	12,109.00	56.21	59.98	-128.37	-2,493.81	2,245.47	2,250.79	2,181.33	69.47	32.401	
13,100.00	10,739.00	14,514.73	12,109.00	57.43	61.13	-128.37	-2,593.80	2,246.45	2,250.78	2,179.94	70.84	31.772	
13,200.00	10,739.00	14,614.73	12,109.00	58.67	62.29	-128.37	-2,693.80	2,247.43	2,250.77	2,178.52	72.24	31.156	
13,300.00	10,739.00	14,714.73	12,109.00	59.93	63.48	-128.37	-2,793.79	2,248.41	2,250.75	2,177.08	73.67	30.552	
13,400.00	10,739.00	14,814.73	12,109.00	61.21	64.68	-128.37	-2,893.79	2,249.39	2,250.74	2,175.62	75.12	29.964	
13,500.00	10,739.00	14,914.73	12,109.00	62.51	65.91	-128.37	-2,993.78	2,250.37	2,250.73	2,174.14	76.58	29.389	
13,600.00	10,739.00	15,014.73	12,109.00	63.83	67.15	-128.37	-3,093.78	2,251.35	2,250.71	2,172.64	78.07	28.828	
13,700.00	10,739.00	15,114.73	12,109.00	65.16	68.42	-128.37	-3,193.77	2,252.33	2,250.70	2,171.12	79.58	28.282	
13,800.00	10,739.00	15,214.73	12,109.00	66.50	69.69	-128.37	-3,293.77	2,253.31	2,250.69	2,169.58	81.11	27.749	
13,900.00	10,739.00	15,314.73	12,109.00	67.86	70.99	-128.37	-3,393.76	2,254.29	2,250.67	2,168.02	82.65	27.231	
14,000.00	10,739.00	15,414.73	12,109.00	69.23	72.30	-128.37	-3,493.76	2,255.27	2,250.66	2,166.45	84.21	26.726	
14,100.00	10,739.00	15,514.73	12,109.00	70.61	73.62	-128.37	-3,593.75	2,256.25	2,250.65	2,164.86	85.79	26.236	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 704H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	10,739.00	15,614.73	12,109.00	72.00	74.95	-128.37	-3,693.75	2,257.24	2,250.63	2,163.26	87.37	25.759	
14,300.00	10,739.00	15,714.73	12,109.00	73.41	76.30	-128.37	-3,793.74	2,258.22	2,250.62	2,161.64	88.98	25.295	
14,400.00	10,739.00	15,814.73	12,109.00	74.82	77.66	-128.37	-3,893.74	2,259.20	2,250.60	2,160.01	90.59	24.843	
14,500.00	10,739.00	15,914.73	12,109.00	76.25	79.03	-128.37	-3,993.73	2,260.18	2,250.59	2,158.37	92.22	24.405	
14,600.00	10,739.00	16,014.73	12,109.00	77.68	80.41	-128.37	-4,093.73	2,261.16	2,250.58	2,156.72	93.85	23.980	
14,700.00	10,739.00	16,114.73	12,109.00	79.12	81.80	-128.37	-4,193.72	2,262.14	2,250.56	2,155.06	95.50	23.566	
14,800.00	10,739.00	16,214.73	12,109.00	80.57	83.20	-128.37	-4,293.72	2,263.12	2,250.55	2,153.39	97.16	23.163	
14,900.00	10,739.00	16,314.73	12,109.00	82.03	84.61	-128.37	-4,393.71	2,264.10	2,250.54	2,151.71	98.83	22.772	
15,000.00	10,739.00	16,414.73	12,109.00	83.49	86.03	-128.37	-4,493.71	2,265.08	2,250.52	2,150.02	100.51	22.392	
15,100.00	10,739.00	16,514.73	12,109.00	84.96	87.46	-128.37	-4,593.71	2,266.06	2,250.51	2,148.32	102.19	22.023	
15,200.00	10,739.00	16,614.73	12,109.00	86.44	88.89	-128.37	-4,693.70	2,267.04	2,250.50	2,146.61	103.88	21.664	
15,300.00	10,739.00	16,714.73	12,109.00	87.92	90.33	-128.37	-4,793.70	2,268.02	2,250.48	2,144.90	105.59	21.314	
15,400.00	10,739.00	16,814.73	12,109.00	89.41	91.78	-128.37	-4,893.69	2,269.01	2,250.47	2,143.17	107.30	20.975	
15,500.00	10,739.00	16,914.73	12,109.00	90.91	93.24	-128.37	-4,993.69	2,269.99	2,250.46	2,141.44	109.01	20.644	
15,600.00	10,739.00	17,014.73	12,109.00	92.41	94.70	-128.37	-5,093.68	2,270.97	2,250.44	2,139.71	110.73	20.323	
15,700.00	10,739.00	17,114.73	12,109.00	93.92	96.17	-128.37	-5,193.68	2,271.95	2,250.43	2,137.97	112.46	20.011	
15,800.00	10,739.00	17,214.73	12,109.00	95.43	97.64	-128.37	-5,293.67	2,272.93	2,250.42	2,136.22	114.20	19.707	
15,900.00	10,739.00	17,314.73	12,109.00	96.94	99.12	-128.37	-5,393.67	2,273.91	2,250.40	2,134.47	115.94	19.411	
16,000.00	10,739.00	17,414.73	12,109.00	98.46	100.60	-128.37	-5,493.66	2,274.89	2,250.39	2,132.71	117.68	19.123	
16,100.00	10,739.00	17,514.73	12,109.00	99.99	102.09	-128.37	-5,593.66	2,275.87	2,250.37	2,130.94	119.43	18.842	
16,200.00	10,739.00	17,614.73	12,109.00	101.51	103.59	-128.37	-5,693.65	2,276.85	2,250.36	2,129.17	121.19	18.569	
16,300.00	10,739.00	17,714.73	12,109.00	103.05	105.09	-128.37	-5,793.65	2,277.83	2,250.35	2,127.40	122.95	18.303	
16,400.00	10,739.00	17,814.73	12,109.00	104.58	106.59	-128.37	-5,893.64	2,278.81	2,250.33	2,125.62	124.71	18.044	
16,500.00	10,739.00	17,914.73	12,109.00	106.12	108.10	-128.37	-5,993.64	2,279.79	2,250.32	2,123.84	126.48	17.792	
16,600.00	10,739.00	18,014.73	12,109.00	107.66	109.61	-128.37	-6,093.63	2,280.78	2,250.31	2,122.05	128.25	17.546	
16,700.00	10,739.00	18,114.73	12,109.00	109.21	111.13	-128.38	-6,193.63	2,281.76	2,250.29	2,120.26	130.03	17.306	
16,800.00	10,739.00	18,214.73	12,109.00	110.76	112.65	-128.38	-6,293.62	2,282.74	2,250.28	2,118.47	131.81	17.072	
16,900.00	10,739.00	18,314.73	12,109.00	112.31	114.17	-128.38	-6,393.62	2,283.72	2,250.27	2,116.67	133.59	16.844	
17,000.00	10,739.00	18,414.73	12,109.00	113.86	115.70	-128.38	-6,493.61	2,284.70	2,250.25	2,114.87	135.38	16.622	
17,100.00	10,739.00	18,514.73	12,109.00	115.42	117.23	-128.38	-6,593.61	2,285.68	2,250.24	2,113.07	137.17	16.405	
17,200.00	10,739.00	18,614.73	12,109.00	116.98	118.76	-128.38	-6,693.60	2,286.66	2,250.23	2,111.26	138.96	16.193	
17,300.00	10,739.00	18,714.73	12,109.00	118.54	120.30	-128.38	-6,793.60	2,287.64	2,250.21	2,109.45	140.76	15.986	
17,400.00	10,739.00	18,814.73	12,109.00	120.10	121.84	-128.38	-6,893.59	2,288.62	2,250.20	2,107.64	142.56	15.785	
17,500.00	10,739.00	18,914.73	12,109.00	121.67	123.38	-128.38	-6,993.59	2,289.60	2,250.19	2,105.83	144.36	15.588	
17,600.00	10,739.00	19,014.73	12,109.00	123.24	124.93	-128.38	-7,093.58	2,290.58	2,250.17	2,104.01	146.16	15.395	
17,700.00	10,739.00	19,114.73	12,109.00	124.81	126.48	-128.38	-7,193.58	2,291.56	2,250.16	2,102.19	147.97	15.207	
17,800.00	10,739.00	19,214.73	12,109.00	126.38	128.03	-128.38	-7,293.58	2,292.55	2,250.14	2,100.37	149.78	15.023	
17,900.00	10,739.00	19,314.73	12,109.00	127.96	129.58	-128.38	-7,393.57	2,293.53	2,250.13	2,098.54	151.59	14.844	
18,000.00	10,739.00	19,414.73	12,109.00	129.53	131.14	-128.38	-7,493.57	2,294.51	2,250.12	2,096.72	153.40	14.668	
18,100.00	10,739.00	19,514.73	12,109.00	131.11	132.70	-128.38	-7,593.56	2,295.49	2,250.10	2,094.89	155.21	14.497	
18,200.00	10,739.00	19,614.73	12,109.00	132.69	134.26	-128.38	-7,693.56	2,296.47	2,250.09	2,093.06	157.03	14.329	
18,300.00	10,739.00	19,714.73	12,109.00	134.28	135.82	-128.38	-7,793.55	2,297.45	2,250.08	2,091.23	158.85	14.165	
18,400.00	10,739.00	19,814.73	12,109.00	135.86	137.38	-128.38	-7,893.55	2,298.43	2,250.06	2,089.40	160.67	14.004	
18,500.00	10,739.00	19,914.73	12,109.00	137.44	138.95	-128.38	-7,993.54	2,299.41	2,250.05	2,087.56	162.49	13.847	
18,600.00	10,739.00	20,014.73	12,109.00	139.03	140.52	-128.38	-8,093.54	2,300.39	2,250.04	2,085.72	164.31	13.694	
18,700.00	10,739.00	20,114.73	12,109.00	140.62	142.09	-128.38	-8,193.53	2,301.37	2,250.02	2,083.88	166.14	13.543	
18,800.00	10,739.00	20,214.73	12,109.00	142.21	143.66	-128.38	-8,293.53	2,302.35	2,250.01	2,082.05	167.96	13.396	
18,900.00	10,739.00	20,314.73	12,109.00	143.80	145.24	-128.38	-8,393.52	2,303.33	2,250.00	2,080.20	169.79	13.252	
19,000.00	10,739.00	20,414.73	12,109.00	145.39	146.81	-128.38	-8,493.52	2,304.32	2,249.98	2,078.36	171.62	13.110	
19,100.00	10,739.00	20,514.73	12,109.00	146.99	148.39	-128.38	-8,593.51	2,305.30	2,249.97	2,076.52	173.45	12.972	
19,200.00	10,739.00	20,614.73	12,109.00	148.58	149.97	-128.38	-8,693.51	2,306.28	2,249.95	2,074.67	175.28	12.836	
19,300.00	10,739.00	20,714.73	12,109.00	150.18	151.55	-128.38	-8,793.50	2,307.26	2,249.94	2,072.83	177.11	12.704	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 704H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.00	10,739.00	20,814.73	12,109.00	151.78	153.13	-128.38	-8,893.50	2,308.24	2,249.93	2,070.98	178.95	12.573	
19,500.00	10,739.00	20,914.73	12,109.00	153.38	154.71	-128.38	-8,993.49	2,309.22	2,249.91	2,069.13	180.78	12.445	
19,600.00	10,739.00	21,014.73	12,109.00	154.98	156.30	-128.38	-9,093.49	2,310.20	2,249.90	2,067.28	182.62	12.320	
19,700.00	10,739.00	21,114.73	12,109.00	156.58	157.88	-128.38	-9,193.48	2,311.18	2,249.89	2,065.43	184.45	12.198	
19,800.00	10,739.00	21,214.73	12,109.00	158.18	159.47	-128.38	-9,293.48	2,312.16	2,249.87	2,063.58	186.29	12.077	
19,900.00	10,739.00	21,314.73	12,109.00	159.78	161.06	-128.38	-9,393.47	2,313.14	2,249.86	2,061.73	188.13	11.959	
20,000.00	10,739.00	21,414.73	12,109.00	161.39	162.65	-128.38	-9,493.47	2,314.12	2,249.85	2,059.88	189.97	11.843	
20,100.00	10,739.00	21,514.73	12,109.00	162.99	164.24	-128.38	-9,593.46	2,315.10	2,249.83	2,058.03	191.81	11.730	
20,200.00	10,739.00	21,614.73	12,109.00	164.60	165.83	-128.38	-9,693.46	2,316.09	2,249.82	2,056.17	193.65	11.618	
20,300.00	10,739.00	21,714.73	12,109.00	166.20	167.43	-128.38	-9,793.46	2,317.07	2,249.81	2,054.32	195.49	11.509	
20,400.00	10,739.00	21,814.73	12,109.00	167.81	169.02	-128.39	-9,893.45	2,318.05	2,249.79	2,052.46	197.33	11.401	
20,500.00	10,739.00	21,914.73	12,109.00	169.42	170.62	-128.39	-9,993.45	2,319.03	2,249.78	2,050.61	199.17	11.296	
20,600.00	10,739.00	22,014.73	12,109.00	171.03	172.22	-128.39	-10,093.44	2,320.01	2,249.77	2,048.75	201.01	11.192	
20,700.00	10,739.00	22,114.73	12,109.00	172.64	173.81	-128.39	-10,193.44	2,320.99	2,249.75	2,046.90	202.86	11.090	
20,800.00	10,739.00	22,214.73	12,109.00	174.25	175.41	-128.39	-10,293.43	2,321.97	2,249.74	2,045.04	204.70	10.990	
20,879.44	10,739.00	22,294.16	12,109.00	175.53	176.68	-128.39	-10,372.86	2,322.75	2,249.73	2,043.56	206.17	10.912 SF	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 705H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.44	29.48	3,010.07	3,010.35				
100.00	100.00	71.20	71.20	0.13	0.09	89.44	29.48	3,010.07	3,010.21	3,010.06	0.15	N/A	
200.00	200.00	171.20	171.20	0.48	0.38	89.44	29.48	3,010.07	3,010.21	3,009.60	0.62	4,888.844	
300.00	300.00	271.20	271.20	0.84	0.74	89.44	29.48	3,010.07	3,010.21	3,009.09	1.12	2,685.956	
400.00	400.00	371.20	371.20	1.20	1.10	89.44	29.48	3,010.07	3,010.21	3,008.59	1.63	1,850.233	
500.00	500.00	471.20	471.20	1.56	1.46	89.44	29.48	3,010.07	3,010.21	3,008.08	2.13	1,410.925	
600.00	600.00	571.20	571.20	1.92	1.81	89.44	29.48	3,010.07	3,010.21	3,007.57	2.64	1,140.138	
700.00	700.00	671.20	671.20	2.28	2.17	89.44	29.48	3,010.07	3,010.21	3,007.07	3.15	956.531	
800.00	800.00	771.20	771.20	2.63	2.53	89.44	29.48	3,010.07	3,010.21	3,006.56	3.65	823.847	
900.00	900.00	871.20	871.20	2.99	2.89	89.44	29.48	3,010.07	3,010.21	3,006.05	4.16	723.485	
1,000.00	1,000.00	971.20	971.20	3.35	3.25	89.44	29.48	3,010.07	3,010.21	3,005.55	4.67	644.917	
1,100.00	1,100.00	1,071.20	1,071.20	3.71	3.61	89.44	29.48	3,010.07	3,010.21	3,005.04	5.17	581.740	
1,200.00	1,200.00	1,171.20	1,171.20	4.07	3.97	89.44	29.48	3,010.07	3,010.21	3,004.53	5.68	529.836	
1,300.00	1,300.00	1,271.20	1,271.20	4.43	4.32	89.44	29.48	3,010.07	3,010.21	3,004.03	6.19	486.434	
1,400.00	1,400.00	1,371.20	1,371.20	4.79	4.68	89.44	29.48	3,010.07	3,010.21	3,003.52	6.70	449.604	
1,500.00	1,500.00	1,471.20	1,471.20	5.14	5.04	89.44	29.48	3,010.07	3,010.21	3,003.01	7.20	417.959	
1,600.00	1,600.00	1,571.20	1,571.20	5.50	5.40	89.44	29.48	3,010.07	3,010.21	3,002.51	7.71	390.475	
1,700.00	1,700.00	1,671.20	1,671.20	5.86	5.76	89.44	29.48	3,010.07	3,010.21	3,002.00	8.22	366.383	
1,800.00	1,800.00	1,771.20	1,771.20	6.22	6.12	89.44	29.48	3,010.07	3,010.21	3,001.49	8.72	345.090	
1,900.00	1,900.00	1,871.20	1,871.20	6.58	6.47	89.44	29.48	3,010.07	3,010.21	3,000.98	9.23	326.137	
2,000.00	2,000.00	1,971.20	1,971.20	6.94	6.83	89.44	29.48	3,010.07	3,010.21	3,000.48	9.74	309.157	
2,100.00	2,100.00	2,071.20	2,071.20	7.29	7.19	89.44	29.48	3,010.07	3,010.21	2,999.97	10.24	293.857	
2,200.00	2,200.00	2,171.20	2,171.20	7.65	7.55	89.44	29.48	3,010.07	3,010.21	2,999.46	10.75	280.001	
2,300.00	2,300.00	2,271.20	2,271.20	8.01	7.91	89.44	29.48	3,010.07	3,010.21	2,998.96	11.26	267.392	
2,400.00	2,400.00	2,371.20	2,371.20	8.37	8.27	89.44	29.48	3,010.07	3,010.21	2,998.45	11.76	255.870	
2,500.00	2,500.00	2,471.20	2,471.20	8.73	8.63	89.44	29.48	3,010.07	3,010.21	2,997.94	12.27	245.300	
2,600.00	2,600.00	2,571.20	2,571.20	9.09	8.98	89.44	29.48	3,010.07	3,010.21	2,997.44	12.78	235.568	
2,700.00	2,700.00	2,671.20	2,671.20	9.45	9.34	89.44	29.48	3,010.07	3,010.21	2,996.93	13.29	226.579	
2,800.00	2,800.00	2,771.20	2,771.20	9.80	9.70	89.44	29.48	3,010.07	3,010.21	2,996.42	13.79	218.251	
2,900.00	2,900.00	2,871.20	2,871.20	10.16	10.06	89.44	29.48	3,010.07	3,010.21	2,995.92	14.30	210.514	
3,000.00	3,000.00	2,971.20	2,971.20	10.52	10.42	89.44	29.48	3,010.07	3,010.21	2,995.41	14.81	203.306	
3,100.00	3,100.00	3,071.20	3,071.20	10.88	10.78	89.44	29.48	3,010.07	3,010.21	2,994.90	15.31	196.576	
3,200.00	3,200.00	3,171.20	3,171.20	11.24	11.13	89.44	29.48	3,010.07	3,010.21	2,994.39	15.82	190.276	
3,300.00	3,299.99	3,271.19	3,271.19	11.59	11.49	-4.33	29.48	3,010.07	3,008.91	2,992.59	16.32	184.367	
3,400.00	3,399.91	3,340.62	3,340.62	11.93	11.74	-4.34	29.42	3,010.28	3,005.36	2,988.62	16.73	179.610	
3,500.00	3,499.69	3,400.00	3,399.99	12.27	11.94	-4.34	29.10	3,011.32	3,000.56	2,983.44	17.12	175.300	
3,600.00	3,599.27	3,454.77	3,454.73	12.62	12.13	-4.34	28.57	3,013.07	2,994.58	2,977.10	17.48	171.285	
3,645.68	3,644.67	3,500.00	3,499.91	12.78	12.28	-4.34	27.96	3,015.08	2,991.56	2,973.86	17.70	169.007	
3,700.00	3,698.62	3,500.00	3,499.91	12.97	12.28	-4.34	27.96	3,015.08	2,987.84	2,970.02	17.82	167.644	
3,800.00	3,797.94	3,569.06	3,568.84	13.32	12.51	-4.33	26.73	3,019.14	2,982.18	2,963.95	18.22	163.659	
3,900.00	3,897.26	3,626.32	3,625.92	13.68	12.71	-4.31	25.44	3,023.40	2,977.98	2,959.39	18.59	160.195	
4,000.00	3,996.58	3,700.00	3,699.27	14.03	12.96	-4.29	23.41	3,030.10	2,975.29	2,956.29	19.00	156.585	
4,100.00	4,095.90	3,740.97	3,739.99	14.40	13.10	-4.27	22.11	3,034.40	2,973.88	2,954.56	19.32	153.919	
4,142.75	4,138.36	3,765.48	3,764.33	14.55	13.19	-4.25	21.27	3,037.18	2,973.75	2,954.28	19.48	152.684	CC, ES
4,200.00	4,195.22	3,800.00	3,798.57	14.76	13.31	-4.24	20.01	3,041.35	2,973.99	2,954.30	19.69	151.049	
4,300.00	4,294.54	3,882.42	3,880.24	15.12	13.60	-4.18	16.78	3,051.99	2,975.24	2,955.12	20.12	147.843	
4,400.00	4,393.86	3,982.36	3,979.26	15.49	13.95	-4.12	12.85	3,064.96	2,976.60	2,955.99	20.61	144.407	
4,500.00	4,493.18	4,082.30	4,078.27	15.86	14.31	-4.06	8.92	3,077.93	2,977.97	2,956.86	21.10	141.117	
4,600.00	4,592.50	4,182.24	4,177.29	16.23	14.67	-4.00	4.99	3,090.91	2,979.33	2,957.74	21.59	137.966	
4,700.00	4,691.82	4,282.18	4,276.31	16.60	15.03	-3.94	1.07	3,103.88	2,980.70	2,958.61	22.09	134.945	
4,800.00	4,791.14	4,382.12	4,375.32	16.97	15.40	-3.88	-2.86	3,116.85	2,982.07	2,959.49	22.58	132.049	
4,900.00	4,890.46	4,482.06	4,474.34	17.35	15.77	-3.82	-6.79	3,129.82	2,983.45	2,960.37	23.08	129.269	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 705H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.78	4,582.00	4,573.36	17.73	16.14	-3.76	-10.72	3,142.79	2,984.83	2,961.25	23.58	126.599	
5,100.00	5,089.10	4,681.94	4,672.38	18.10	16.51	-3.70	-14.65	3,155.76	2,986.21	2,962.13	24.08	124.034	
5,200.00	5,188.42	4,781.88	4,771.39	18.48	16.89	-3.64	-18.58	3,168.73	2,987.59	2,963.02	24.58	121.567	
5,300.00	5,287.74	4,881.82	4,870.41	18.86	17.27	-3.58	-22.51	3,181.70	2,988.98	2,963.91	25.08	119.194	
5,400.00	5,387.06	4,981.76	4,969.43	19.24	17.65	-3.52	-26.44	3,194.67	2,990.37	2,964.80	25.58	116.909	
5,500.00	5,486.38	5,081.70	5,068.44	19.62	18.03	-3.45	-30.36	3,207.64	2,991.77	2,965.69	26.08	114.709	
5,600.00	5,585.70	5,181.64	5,167.46	20.00	18.41	-3.39	-34.29	3,220.61	2,993.17	2,966.58	26.59	112.588	
5,700.00	5,685.02	5,281.58	5,266.48	20.39	18.80	-3.33	-38.22	3,233.58	2,994.57	2,967.48	27.09	110.542	
5,800.00	5,784.34	5,381.52	5,365.50	20.77	19.18	-3.27	-42.15	3,246.55	2,995.98	2,968.38	27.60	108.569	
5,900.00	5,883.66	5,481.46	5,464.51	21.16	19.57	-3.21	-46.08	3,259.52	2,997.39	2,969.28	28.10	106.664	
6,000.00	5,982.98	5,581.40	5,563.53	21.54	19.96	-3.15	-50.01	3,272.49	2,998.80	2,970.19	28.61	104.824	
6,100.00	6,082.30	5,681.34	5,662.55	21.93	20.35	-3.09	-53.94	3,285.46	3,000.21	2,971.10	29.12	103.046	
6,200.00	6,181.62	5,781.28	5,761.56	22.31	20.74	-3.03	-57.87	3,298.43	3,001.63	2,972.01	29.62	101.327	
6,300.00	6,280.94	5,881.22	5,860.58	22.70	21.14	-2.97	-61.79	3,311.40	3,003.05	2,972.92	30.13	99.664	
6,400.00	6,380.26	5,981.17	5,959.60	23.09	21.53	-2.91	-65.72	3,324.37	3,004.48	2,973.84	30.64	98.054	
6,500.00	6,479.58	6,081.11	6,058.61	23.48	21.92	-2.85	-69.65	3,337.34	3,005.91	2,974.76	31.15	96.496	
6,600.00	6,578.90	6,181.05	6,157.63	23.87	22.32	-2.79	-73.58	3,350.31	3,007.34	2,975.68	31.66	94.986	
6,700.00	6,678.22	6,280.99	6,256.65	24.26	22.72	-2.73	-77.51	3,363.28	3,008.78	2,976.61	32.17	93.523	
6,800.00	6,777.54	6,380.93	6,355.67	24.65	23.11	-2.67	-81.44	3,376.25	3,010.22	2,977.53	32.68	92.105	
6,900.00	6,876.86	6,480.87	6,454.68	25.04	23.51	-2.61	-85.37	3,389.22	3,011.66	2,978.46	33.19	90.729	
7,000.00	6,976.18	6,580.81	6,553.70	25.43	23.91	-2.55	-89.30	3,402.20	3,013.10	2,979.40	33.71	89.394	
7,100.00	7,075.50	6,680.75	6,652.72	25.82	24.31	-2.49	-93.23	3,415.17	3,014.55	2,980.33	34.22	88.098	
7,125.00	7,100.33	6,705.73	6,677.47	25.92	24.41	-2.48	-94.21	3,418.41	3,014.91	2,980.57	34.35	87.780	
7,200.00	7,174.90	6,780.67	6,751.72	26.21	24.71	-2.44	-97.15	3,428.13	3,016.74	2,982.01	34.73	86.862	
7,300.00	7,274.55	6,880.50	6,850.63	26.58	25.11	-2.38	-101.08	3,441.09	3,021.46	2,986.22	35.24	85.737	
7,400.00	7,374.38	6,980.17	6,949.38	26.95	25.51	-2.32	-105.00	3,454.03	3,028.80	2,993.05	35.75	84.722	
7,500.00	7,474.33	7,298.75	7,266.20	27.30	26.74	-2.16	-114.44	3,485.22	3,036.35	2,999.47	36.87	82.349	
7,570.68	7,545.00	7,548.90	7,516.20	27.55	27.62	91.63	-116.52	3,492.07	3,037.30	2,999.69	37.61	80.756	
7,600.00	7,574.32	7,578.22	7,545.52	27.65	27.72	91.63	-116.52	3,492.07	3,037.30	2,999.55	37.75	80.449	
7,700.00	7,674.32	7,678.22	7,645.52	27.99	28.05	91.63	-116.52	3,492.07	3,037.30	2,999.06	38.25	79.415	
7,800.00	7,774.32	7,778.22	7,745.52	28.33	28.39	91.63	-116.52	3,492.07	3,037.30	2,998.57	38.74	78.408	
7,900.00	7,874.32	7,878.22	7,845.52	28.67	28.73	91.63	-116.52	3,492.07	3,037.30	2,998.07	39.23	77.425	
8,000.00	7,974.32	7,978.22	7,945.52	29.01	29.06	91.63	-116.52	3,492.07	3,037.30	2,997.58	39.72	76.465	
8,100.00	8,074.32	8,078.22	8,045.52	29.35	29.40	91.63	-116.52	3,492.07	3,037.30	2,997.09	40.21	75.528	
8,200.00	8,174.32	8,178.22	8,145.52	29.69	29.74	91.63	-116.52	3,492.07	3,037.30	2,996.60	40.71	74.613	
8,300.00	8,274.32	8,278.22	8,245.52	30.04	30.08	91.63	-116.52	3,492.07	3,037.30	2,996.10	41.20	73.720	
8,400.00	8,374.32	8,378.22	8,345.52	30.38	30.42	91.63	-116.52	3,492.07	3,037.30	2,995.61	41.69	72.847	
8,500.00	8,474.32	8,478.22	8,445.52	30.72	30.76	91.63	-116.52	3,492.07	3,037.30	2,995.11	42.19	71.994	
8,600.00	8,574.32	8,578.22	8,545.52	31.07	31.10	91.63	-116.52	3,492.07	3,037.30	2,994.62	42.68	71.160	
8,700.00	8,674.32	8,678.22	8,645.52	31.41	31.44	91.63	-116.52	3,492.07	3,037.30	2,994.13	43.18	70.345	
8,800.00	8,774.32	8,778.22	8,745.52	31.76	31.78	91.63	-116.52	3,492.07	3,037.30	2,993.63	43.67	69.548	
8,900.00	8,874.32	8,878.22	8,845.52	32.10	32.12	91.63	-116.52	3,492.07	3,037.30	2,993.14	44.17	68.768	
9,000.00	8,974.32	8,978.22	8,945.52	32.45	32.46	91.63	-116.52	3,492.07	3,037.30	2,992.64	44.66	68.006	
9,100.00	9,074.32	9,078.22	9,045.52	32.79	32.81	91.63	-116.52	3,492.07	3,037.30	2,992.14	45.16	67.259	
9,200.00	9,174.32	9,178.22	9,145.52	33.14	33.15	91.63	-116.52	3,492.07	3,037.30	2,991.65	45.65	66.529	
9,300.00	9,274.32	9,278.22	9,245.52	33.48	33.49	91.63	-116.52	3,492.07	3,037.30	2,991.15	46.15	65.813	
9,400.00	9,374.32	9,378.22	9,345.52	33.83	33.84	91.63	-116.52	3,492.07	3,037.30	2,990.66	46.65	65.113	
9,500.00	9,474.32	9,478.22	9,445.52	34.17	34.18	91.63	-116.52	3,492.07	3,037.30	2,990.16	47.14	64.427	
9,600.00	9,574.32	9,578.22	9,545.52	34.52	34.52	91.63	-116.52	3,492.07	3,037.30	2,989.66	47.64	63.755	
9,700.00	9,674.32	9,678.22	9,645.52	34.87	34.87	91.63	-116.52	3,492.07	3,037.30	2,989.17	48.14	63.097	
9,800.00	9,774.32	9,778.22	9,745.52	35.22	35.21	91.63	-116.52	3,492.07	3,037.30	2,988.67	48.63	62.452	
9,900.00	9,874.32	9,878.22	9,845.52	35.56	35.56	91.63	-116.52	3,492.07	3,037.30	2,988.17	49.13	61.819	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 705H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,974.32	9,978.22	9,945.52	35.91	35.90	91.63	-116.52	3,492.07	3,037.30	2,987.67	49.63	61.200	
10,100.00	10,074.32	10,078.22	10,045.52	36.26	36.25	91.63	-116.52	3,492.07	3,037.30	2,987.18	50.13	60.592	
10,191.72	10,166.04	10,169.94	10,137.24	36.58	36.56	91.63	-116.52	3,492.07	3,037.30	2,986.72	50.58	60.045	
10,200.00	10,174.32	10,178.22	10,145.52	36.60	36.59	-87.80	-116.52	3,492.07	3,037.30	2,986.68	50.62	59.996	
10,250.00	10,224.22	10,228.12	10,195.42	36.77	36.77	-87.86	-116.52	3,492.07	3,037.19	2,986.32	50.87	59.709	
10,300.00	10,273.68	10,277.58	10,244.88	36.93	36.94	-88.02	-116.52	3,492.07	3,036.93	2,985.82	51.11	59.423	
10,350.00	10,322.32	10,326.22	10,293.52	37.09	37.10	-88.27	-116.52	3,492.07	3,036.54	2,985.20	51.34	59.140	
10,400.00	10,369.77	10,373.67	10,340.97	37.25	37.27	-88.60	-116.52	3,492.07	3,036.09	2,984.51	51.58	58.862	
10,450.00	10,415.66	10,419.56	10,386.86	37.40	37.43	-88.99	-116.52	3,492.07	3,035.64	2,983.83	51.81	58.591	
10,500.00	10,459.66	10,463.56	10,430.86	37.55	37.58	-89.42	-116.52	3,492.07	3,035.27	2,983.23	52.04	58.329	
10,550.00	10,501.42	10,505.33	10,472.62	37.69	37.72	-89.87	-116.52	3,492.07	3,035.07	2,982.81	52.26	58.077	
10,564.12	10,512.77	10,516.67	10,483.97	37.73	37.76	-90.00	-116.52	3,492.07	3,035.06	2,982.73	52.32	58.007	
10,600.00	10,540.64	10,544.54	10,511.84	37.83	37.86	-90.32	-116.52	3,492.07	3,035.14	2,982.66	52.48	57.836	
10,650.00	10,577.00	10,580.90	10,548.20	37.96	37.99	-90.75	-116.52	3,492.07	3,035.59	2,982.90	52.69	57.609	
10,700.00	10,610.23	10,614.13	10,581.43	38.10	38.10	-91.12	-116.52	3,492.07	3,036.52	2,983.61	52.90	57.396	
10,750.00	10,640.08	10,643.98	10,611.28	38.23	38.21	-91.42	-116.52	3,492.07	3,038.03	2,984.91	53.11	57.199	
10,800.00	10,666.33	10,670.23	10,637.53	38.38	38.30	-91.63	-116.52	3,492.07	3,040.20	2,986.88	53.32	57.019	
10,850.00	10,688.76	10,692.66	10,659.96	38.53	38.37	-91.71	-116.52	3,492.07	3,043.13	2,989.61	53.52	56.857	
10,900.00	10,707.22	10,711.12	10,678.42	38.70	38.44	-91.66	-116.52	3,492.07	3,046.86	2,993.14	53.72	56.715	
10,950.00	10,721.56	10,725.46	10,692.76	38.87	38.49	-91.46	-116.52	3,492.07	3,051.45	2,997.53	53.92	56.593	
11,000.00	10,731.67	10,735.57	10,702.87	39.06	38.52	-91.10	-116.52	3,492.07	3,056.90	3,002.79	54.11	56.492	
11,050.00	10,737.48	10,741.38	10,708.68	39.25	38.54	-90.57	-116.52	3,492.07	3,063.22	3,008.92	54.30	56.413	
11,091.72	10,739.00	10,742.90	10,710.20	39.42	38.55	-90.00	-116.52	3,492.07	3,069.14	3,014.69	54.45	56.365	
11,100.00	10,739.00	10,742.90	10,710.20	39.46	38.55	-90.00	-116.52	3,492.07	3,070.38	3,015.90	54.48	56.357	
11,200.00	10,739.00	10,742.90	10,710.20	39.90	38.55	-90.00	-116.52	3,492.07	3,087.09	3,032.22	54.87	56.263	
11,300.00	10,739.00	10,742.90	10,710.20	40.41	38.55	-90.00	-116.52	3,492.07	3,106.93	3,051.63	55.30	56.179	
11,400.00	10,739.00	10,742.90	10,710.20	40.98	38.55	-90.00	-116.52	3,492.07	3,129.84	3,074.06	55.78	56.112	
11,500.00	10,739.00	10,742.90	10,710.20	41.61	38.55	-90.00	-116.52	3,492.07	3,155.75	3,099.47	56.29	56.064	
11,600.00	10,739.00	10,742.90	10,710.20	42.29	38.55	-90.00	-116.52	3,492.07	3,184.60	3,127.77	56.83	56.039	
11,700.00	10,739.00	10,742.90	10,710.20	43.02	38.55	-90.00	-116.52	3,492.07	3,216.29	3,158.90	57.39	56.042	
11,800.00	10,739.00	10,742.90	10,710.20	43.81	38.55	-90.00	-116.52	3,492.07	3,250.76	3,192.79	57.97	56.074	
11,900.00	10,739.00	10,742.90	10,710.20	44.64	38.55	-90.00	-116.52	3,492.07	3,287.91	3,229.34	58.57	56.139	
12,000.00	10,739.00	13,174.74	12,023.00	45.51	49.24	-113.39	-1,481.41	3,505.45	3,306.59	3,244.98	61.61	53.670	
12,100.00	10,739.00	13,274.74	12,023.00	46.43	50.08	-113.39	-1,581.41	3,506.43	3,306.57	3,243.83	62.75	52.695	
12,200.00	10,739.00	13,374.74	12,023.00	47.38	50.95	-113.39	-1,681.40	3,507.41	3,306.56	3,242.62	63.94	51.711	
12,300.00	10,739.00	13,474.74	12,023.00	48.38	51.87	-113.39	-1,781.40	3,508.39	3,306.54	3,241.35	65.19	50.724	
12,400.00	10,739.00	13,574.74	12,023.00	49.41	52.82	-113.39	-1,881.39	3,509.37	3,306.53	3,240.04	66.48	49.736	
12,500.00	10,739.00	13,674.74	12,023.00	50.47	53.81	-113.39	-1,981.39	3,510.35	3,306.51	3,238.69	67.82	48.754	
12,600.00	10,739.00	13,774.74	12,023.00	51.56	54.82	-113.39	-2,081.38	3,511.34	3,306.49	3,237.29	69.20	47.780	
12,700.00	10,739.00	13,874.74	12,023.00	52.68	55.87	-113.39	-2,181.38	3,512.32	3,306.48	3,235.85	70.62	46.818	
12,800.00	10,739.00	13,974.74	12,023.00	53.83	56.95	-113.39	-2,281.37	3,513.30	3,306.46	3,234.38	72.09	45.869	
12,900.00	10,739.00	14,074.74	12,023.00	55.01	58.05	-113.39	-2,381.37	3,514.28	3,306.44	3,232.86	73.58	44.935	
13,000.00	10,739.00	14,174.74	12,023.00	56.21	59.18	-113.39	-2,481.36	3,515.26	3,306.43	3,231.32	75.11	44.020	
13,100.00	10,739.00	14,274.74	12,023.00	57.43	60.33	-113.39	-2,581.36	3,516.24	3,306.41	3,229.74	76.67	43.124	
13,200.00	10,739.00	14,374.74	12,023.00	58.67	61.51	-113.39	-2,681.35	3,517.22	3,306.40	3,228.13	78.26	42.248	
13,300.00	10,739.00	14,474.74	12,023.00	59.93	62.70	-113.39	-2,781.35	3,518.20	3,306.38	3,226.50	79.88	41.393	
13,400.00	10,739.00	14,574.74	12,023.00	61.21	63.92	-113.39	-2,881.34	3,519.18	3,306.36	3,224.84	81.52	40.558	
13,500.00	10,739.00	14,674.74	12,023.00	62.51	65.16	-113.39	-2,981.34	3,520.16	3,306.35	3,223.16	83.19	39.744	
13,600.00	10,739.00	14,774.74	12,023.00	63.83	66.41	-113.39	-3,081.33	3,521.14	3,306.33	3,221.45	84.88	38.952	
13,700.00	10,739.00	14,874.74	12,023.00	65.16	67.68	-113.39	-3,181.33	3,522.12	3,306.31	3,219.72	86.60	38.180	
13,800.00	10,739.00	14,974.74	12,023.00	66.50	68.97	-113.39	-3,281.33	3,523.10	3,306.30	3,217.96	88.33	37.429	
13,900.00	10,739.00	15,074.74	12,023.00	67.86	70.27	-113.39	-3,381.32	3,524.08	3,306.28	3,216.19	90.09	36.700	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 705H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.00	10,739.00	15,174.74	12,023.00	69.23	71.59	-113.39	-3,481.32	3,525.06	3,306.27	3,214.40	91.86	35.991	
14,100.00	10,739.00	15,274.74	12,023.00	70.61	72.92	-113.39	-3,581.31	3,526.04	3,306.25	3,212.60	93.65	35.303	
14,200.00	10,739.00	15,374.74	12,023.00	72.00	74.26	-113.40	-3,681.31	3,527.02	3,306.23	3,210.78	95.46	34.636	
14,300.00	10,739.00	15,474.74	12,023.00	73.41	75.62	-113.40	-3,781.30	3,528.00	3,306.22	3,208.94	97.28	33.987	
14,400.00	10,739.00	15,574.74	12,023.00	74.82	76.98	-113.40	-3,881.30	3,528.98	3,306.20	3,207.09	99.11	33.358	
14,500.00	10,739.00	15,674.74	12,023.00	76.25	78.36	-113.40	-3,981.29	3,529.96	3,306.18	3,205.22	100.96	32.747	
14,600.00	10,739.00	15,774.74	12,023.00	77.68	79.75	-113.40	-4,081.29	3,530.94	3,306.17	3,203.35	102.82	32.154	
14,700.00	10,739.00	15,874.74	12,023.00	79.12	81.15	-113.40	-4,181.28	3,531.92	3,306.15	3,201.46	104.70	31.578	
14,800.00	10,739.00	15,974.74	12,023.00	80.57	82.56	-113.40	-4,281.28	3,532.90	3,306.14	3,199.55	106.58	31.019	
14,900.00	10,739.00	16,074.74	12,023.00	82.03	83.97	-113.40	-4,381.27	3,533.88	3,306.12	3,197.64	108.48	30.477	
15,000.00	10,739.00	16,174.74	12,023.00	83.49	85.40	-113.40	-4,481.27	3,534.87	3,306.10	3,195.72	110.39	29.950	
15,100.00	10,739.00	16,274.74	12,023.00	84.96	86.83	-113.40	-4,581.26	3,535.85	3,306.09	3,193.78	112.30	29.439	
15,200.00	10,739.00	16,374.74	12,023.00	86.44	88.27	-113.40	-4,681.26	3,536.83	3,306.07	3,191.84	114.23	28.942	
15,300.00	10,739.00	16,474.74	12,023.00	87.92	89.72	-113.40	-4,781.25	3,537.81	3,306.06	3,189.89	116.17	28.460	
15,400.00	10,739.00	16,574.74	12,023.00	89.41	91.18	-113.40	-4,881.25	3,538.79	3,306.04	3,187.93	118.11	27.991	
15,500.00	10,739.00	16,674.74	12,023.00	90.91	92.64	-113.40	-4,981.24	3,539.77	3,306.02	3,185.96	120.06	27.536	
15,600.00	10,739.00	16,774.74	12,023.00	92.41	94.11	-113.40	-5,081.24	3,540.75	3,306.01	3,183.99	122.02	27.094	
15,700.00	10,739.00	16,874.74	12,023.00	93.92	95.58	-113.40	-5,181.23	3,541.73	3,305.99	3,182.01	123.98	26.665	
15,800.00	10,739.00	16,974.74	12,023.00	95.43	97.06	-113.40	-5,281.23	3,542.71	3,305.97	3,180.02	125.96	26.247	
15,900.00	10,739.00	17,074.74	12,023.00	96.94	98.54	-113.40	-5,381.22	3,543.69	3,305.96	3,178.02	127.94	25.841	
16,000.00	10,739.00	17,174.74	12,023.00	98.46	100.03	-113.40	-5,481.22	3,544.67	3,305.94	3,176.02	129.92	25.445	
16,100.00	10,739.00	17,274.74	12,023.00	99.99	101.53	-113.40	-5,581.21	3,545.65	3,305.93	3,174.01	131.92	25.061	
16,200.00	10,739.00	17,374.74	12,023.00	101.51	103.03	-113.40	-5,681.21	3,546.63	3,305.91	3,172.00	133.91	24.687	
16,300.00	10,739.00	17,474.74	12,023.00	103.05	104.53	-113.40	-5,781.20	3,547.61	3,305.89	3,169.98	135.91	24.323	
16,400.00	10,739.00	17,574.74	12,023.00	104.58	106.04	-113.40	-5,881.20	3,548.59	3,305.88	3,167.96	137.92	23.969	
16,500.00	10,739.00	17,674.74	12,023.00	106.12	107.56	-113.40	-5,981.20	3,549.57	3,305.86	3,165.93	139.93	23.624	
16,600.00	10,739.00	17,774.74	12,023.00	107.66	109.07	-113.40	-6,081.19	3,550.55	3,305.84	3,163.89	141.95	23.289	
16,700.00	10,739.00	17,874.74	12,023.00	109.21	110.59	-113.40	-6,181.19	3,551.53	3,305.83	3,161.86	143.97	22.962	
16,800.00	10,739.00	17,974.74	12,023.00	110.76	112.12	-113.40	-6,281.18	3,552.51	3,305.81	3,159.81	146.00	22.643	
16,900.00	10,739.00	18,074.74	12,023.00	112.31	113.65	-113.40	-6,381.18	3,553.49	3,305.80	3,157.77	148.03	22.332	
17,000.00	10,739.00	18,174.74	12,023.00	113.86	115.18	-113.40	-6,481.17	3,554.47	3,305.78	3,155.72	150.06	22.029	
17,100.00	10,739.00	18,274.74	12,023.00	115.42	116.71	-113.40	-6,581.17	3,555.45	3,305.76	3,153.66	152.10	21.734	
17,200.00	10,739.00	18,374.74	12,023.00	116.98	118.25	-113.40	-6,681.16	3,556.43	3,305.75	3,151.60	154.15	21.446	
17,300.00	10,739.00	18,474.74	12,023.00	118.54	119.79	-113.40	-6,781.16	3,557.42	3,305.73	3,149.54	156.19	21.165	
17,400.00	10,739.00	18,574.74	12,023.00	120.10	121.34	-113.40	-6,881.15	3,558.40	3,305.71	3,147.47	158.24	20.890	
17,500.00	10,739.00	18,674.74	12,023.00	121.67	122.88	-113.40	-6,981.15	3,559.38	3,305.70	3,145.41	160.29	20.623	
17,600.00	10,739.00	18,774.74	12,023.00	123.24	124.43	-113.40	-7,081.14	3,560.36	3,305.68	3,143.34	162.35	20.362	
17,700.00	10,739.00	18,874.74	12,023.00	124.81	125.98	-113.40	-7,181.14	3,561.34	3,305.67	3,141.26	164.40	20.107	
17,800.00	10,739.00	18,974.74	12,023.00	126.38	127.54	-113.40	-7,281.13	3,562.32	3,305.65	3,139.19	166.46	19.858	
17,900.00	10,739.00	19,074.74	12,023.00	127.96	129.10	-113.40	-7,381.13	3,563.30	3,305.63	3,137.11	168.53	19.615	
18,000.00	10,739.00	19,174.74	12,023.00	129.53	130.65	-113.40	-7,481.12	3,564.28	3,305.62	3,135.02	170.60	19.377	
18,100.00	10,739.00	19,274.74	12,023.00	131.11	132.22	-113.40	-7,581.12	3,565.26	3,305.60	3,132.94	172.66	19.145	
18,200.00	10,739.00	19,374.74	12,023.00	132.69	133.78	-113.40	-7,681.11	3,566.24	3,305.58	3,130.85	174.74	18.918	
18,300.00	10,739.00	19,474.74	12,023.00	134.28	135.35	-113.40	-7,781.11	3,567.22	3,305.57	3,128.76	176.81	18.696	
18,400.00	10,739.00	19,574.74	12,023.00	135.86	136.91	-113.40	-7,881.10	3,568.20	3,305.55	3,126.67	178.88	18.479	
18,500.00	10,739.00	19,674.74	12,023.00	137.44	138.48	-113.40	-7,981.10	3,569.18	3,305.54	3,124.58	180.96	18.267	
18,600.00	10,739.00	19,774.74	12,023.00	139.03	140.05	-113.40	-8,081.09	3,570.16	3,305.52	3,122.48	183.04	18.059	
18,700.00	10,739.00	19,874.74	12,023.00	140.62	141.63	-113.40	-8,181.09	3,571.14	3,305.50	3,120.38	185.12	17.856	
18,800.00	10,739.00	19,974.74	12,023.00	142.21	143.20	-113.40	-8,281.08	3,572.12	3,305.49	3,118.28	187.20	17.657	
18,900.00	10,739.00	20,074.74	12,023.00	143.80	144.78	-113.40	-8,381.08	3,573.10	3,305.47	3,116.18	189.29	17.462	
19,000.00	10,739.00	20,174.74	12,023.00	145.39	146.36	-113.40	-8,481.08	3,574.08	3,305.45	3,114.08	191.38	17.272	
19,100.00	10,739.00	20,274.74	12,023.00	146.99	147.94	-113.40	-8,581.07	3,575.06	3,305.44	3,111.97	193.47	17.085	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 705H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	10,739.00	20,374.74	12,023.00	148.58	149.52	-113.40	-8,681.07	3,576.04	3,305.42	3,109.86	195.56	16.902	
19,300.00	10,739.00	20,474.74	12,023.00	150.18	151.10	-113.40	-8,781.06	3,577.02	3,305.41	3,107.75	197.65	16.723	
19,400.00	10,739.00	20,574.74	12,023.00	151.78	152.69	-113.40	-8,881.06	3,578.00	3,305.39	3,105.64	199.75	16.548	
19,500.00	10,739.00	20,674.74	12,023.00	153.38	154.27	-113.40	-8,981.05	3,578.98	3,305.37	3,103.53	201.84	16.376	
19,600.00	10,739.00	20,774.74	12,023.00	154.98	155.86	-113.40	-9,081.05	3,579.96	3,305.36	3,101.42	203.94	16.208	
19,700.00	10,739.00	20,874.74	12,023.00	156.58	157.45	-113.40	-9,181.04	3,580.95	3,305.34	3,099.31	206.04	16.043	
19,800.00	10,739.00	20,974.74	12,023.00	158.18	159.04	-113.40	-9,281.04	3,581.93	3,305.33	3,097.19	208.14	15.881	
19,900.00	10,739.00	21,074.74	12,023.00	159.78	160.63	-113.40	-9,381.03	3,582.91	3,305.31	3,095.07	210.24	15.722	
20,000.00	10,739.00	21,174.74	12,023.00	161.39	162.22	-113.40	-9,481.03	3,583.89	3,305.29	3,092.95	212.34	15.566	
20,100.00	10,739.00	21,274.74	12,023.00	162.99	163.82	-113.40	-9,581.02	3,584.87	3,305.28	3,090.83	214.44	15.413	
20,200.00	10,739.00	21,374.74	12,023.00	164.60	165.41	-113.40	-9,681.02	3,585.85	3,305.26	3,088.71	216.55	15.263	
20,300.00	10,739.00	21,474.74	12,023.00	166.20	167.01	-113.40	-9,781.01	3,586.83	3,305.24	3,086.59	218.65	15.116	
20,400.00	10,739.00	21,574.74	12,023.00	167.81	168.60	-113.40	-9,881.01	3,587.81	3,305.23	3,084.47	220.76	14.972	
20,500.00	10,739.00	21,674.74	12,023.00	169.42	170.20	-113.40	-9,981.00	3,588.79	3,305.21	3,082.34	222.87	14.830	
20,600.00	10,739.00	21,774.74	12,023.00	171.03	171.80	-113.40	-10,081.00	3,589.77	3,305.20	3,080.22	224.98	14.691	
20,700.00	10,739.00	21,874.74	12,023.00	172.64	173.40	-113.40	-10,180.99	3,590.75	3,305.18	3,078.09	227.09	14.555	
20,800.00	10,739.00	21,974.74	12,023.00	174.25	175.00	-113.40	-10,280.99	3,591.73	3,305.16	3,075.97	229.20	14.421	
20,879.44	10,739.00	22,054.18	12,023.00	175.53	176.18	-113.40	-10,360.42	3,592.51	3,305.15	3,074.35	230.80	14.320	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 801H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	13.50	13.50	0.00	0.02	-89.87	1.99	-851.89	851.89				
100.00	100.00	113.50	113.50	0.13	0.17	-89.87	1.99	-851.89	851.89	851.68	0.21	3,973.332	
200.00	200.00	213.50	213.50	0.48	0.53	-89.87	1.99	-851.89	851.89	851.17	0.72	1,184.132	
300.00	300.00	313.50	313.50	0.84	0.89	-89.87	1.99	-851.89	851.89	850.67	1.23	694.831	
400.00	400.00	413.50	413.50	1.20	1.25	-89.87	1.99	-851.89	851.89	850.16	1.73	491.611	
500.00	500.00	513.50	513.50	1.56	1.61	-89.87	1.99	-851.89	851.89	849.65	2.24	380.354	
600.00	600.00	613.50	613.50	1.92	1.97	-89.87	1.99	-851.89	851.89	849.15	2.75	310.158	
700.00	700.00	713.50	713.50	2.28	2.32	-89.87	1.99	-851.89	851.89	848.64	3.25	261.833	
800.00	800.00	813.50	813.50	2.63	2.68	-89.87	1.99	-851.89	851.89	848.13	3.76	226.537	
900.00	900.00	913.50	913.50	2.99	3.04	-89.87	1.99	-851.89	851.89	847.62	4.27	199.626	
1,000.00	1,000.00	1,013.50	1,013.50	3.35	3.40	-89.87	1.99	-851.89	851.89	847.12	4.77	178.430	
1,100.00	1,100.00	1,113.50	1,113.50	3.71	3.76	-89.87	1.99	-851.89	851.89	846.61	5.28	161.303	
1,200.00	1,200.00	1,213.50	1,213.50	4.07	4.12	-89.87	1.99	-851.89	851.89	846.10	5.79	147.176	
1,300.00	1,300.00	1,313.50	1,313.50	4.43	4.48	-89.87	1.99	-851.89	851.89	845.60	6.30	135.324	
1,400.00	1,400.00	1,413.50	1,413.50	4.79	4.83	-89.87	1.99	-851.89	851.89	845.09	6.80	125.239	
1,500.00	1,500.00	1,513.50	1,513.50	5.14	5.19	-89.87	1.99	-851.89	851.89	844.58	7.31	116.552	
1,600.00	1,600.00	1,613.50	1,613.50	5.50	5.55	-89.87	1.99	-851.89	851.89	844.08	7.82	108.993	
1,700.00	1,700.00	1,713.50	1,713.50	5.86	5.91	-89.87	1.99	-851.89	851.89	843.57	8.32	102.354	
1,800.00	1,800.00	1,813.50	1,813.50	6.22	6.27	-89.87	1.99	-851.89	851.89	843.06	8.83	96.477	
1,900.00	1,900.00	1,913.50	1,913.50	6.58	6.63	-89.87	1.99	-851.89	851.89	842.56	9.34	91.239	
2,000.00	2,000.00	2,013.50	2,013.50	6.94	6.98	-89.87	1.99	-851.89	851.89	842.05	9.84	86.540	
2,100.00	2,100.00	2,113.50	2,113.50	7.29	7.34	-89.87	1.99	-851.89	851.89	841.54	10.35	82.302	
2,200.00	2,200.00	2,213.50	2,213.50	7.65	7.70	-89.87	1.99	-851.89	851.89	841.03	10.86	78.459	
2,300.00	2,300.00	2,313.50	2,313.50	8.01	8.06	-89.87	1.99	-851.89	851.89	840.53	11.36	74.959	
2,400.00	2,400.00	2,413.50	2,413.50	8.37	8.42	-89.87	1.99	-851.89	851.89	840.02	11.87	71.758	
2,500.00	2,500.00	2,513.50	2,513.50	8.73	8.78	-89.87	1.99	-851.89	851.89	839.51	12.38	68.820	
2,600.00	2,600.00	2,613.50	2,613.50	9.09	9.14	-89.87	1.99	-851.89	851.89	839.01	12.89	66.112	
2,700.00	2,700.00	2,713.50	2,713.50	9.45	9.49	-89.87	1.99	-851.89	851.89	838.50	13.39	63.609	
2,800.00	2,800.00	2,813.50	2,813.50	9.80	9.85	-89.87	1.99	-851.89	851.89	837.99	13.90	61.289	
2,900.00	2,900.00	2,913.50	2,913.50	10.16	10.21	-89.87	1.99	-851.89	851.89	837.49	14.41	59.133	
3,000.00	3,000.00	3,013.50	3,013.50	10.52	10.57	-89.87	1.99	-851.89	851.89	836.98	14.91	57.123	
3,100.00	3,100.00	3,113.50	3,113.50	10.88	10.93	-89.87	1.99	-851.89	851.89	836.47	15.42	55.245	
3,200.00	3,200.00	3,213.50	3,213.50	11.24	11.29	-89.87	1.99	-851.89	851.89	835.97	15.93	53.486	CC, ES
3,300.00	3,299.99	3,311.08	3,311.08	11.59	11.64	176.37	1.99	-851.91	853.22	836.80	16.42	51.961	
3,400.00	3,399.91	3,400.00	3,399.99	11.93	11.94	176.36	1.70	-853.17	858.50	841.62	16.88	50.867	
3,500.00	3,499.69	3,474.55	3,474.49	12.27	12.20	176.34	1.12	-855.78	868.40	851.11	17.28	50.247	
3,600.00	3,599.27	3,555.40	3,555.21	12.62	12.47	176.29	0.13	-860.22	882.98	865.28	17.70	49.889	
3,645.68	3,644.67	3,597.77	3,597.48	12.78	12.62	176.26	-0.51	-863.09	891.08	873.17	17.91	49.762	
3,700.00	3,698.62	3,651.17	3,650.74	12.97	12.80	176.23	-1.32	-866.73	901.05	882.88	18.16	49.605	
3,800.00	3,797.94	3,749.47	3,748.80	13.32	13.14	176.18	-2.82	-873.42	919.40	900.76	18.64	49.325	
3,900.00	3,897.26	3,847.76	3,846.86	13.68	13.47	176.14	-4.32	-880.12	937.76	918.64	19.12	49.055	
4,000.00	3,996.58	3,946.06	3,944.92	14.03	13.82	176.09	-5.81	-886.82	956.11	936.52	19.59	48.794	
4,100.00	4,095.90	4,044.36	4,042.98	14.40	14.16	176.05	-7.31	-893.51	974.47	954.40	20.07	48.542	
4,200.00	4,195.22	4,142.66	4,141.04	14.76	14.50	176.01	-8.80	-900.21	992.83	972.27	20.56	48.298	
4,300.00	4,294.54	4,240.96	4,239.10	15.12	14.85	175.97	-10.30	-906.90	1,011.19	990.15	21.04	48.063	
4,400.00	4,393.86	4,339.25	4,337.15	15.49	15.19	175.93	-11.80	-913.60	1,029.55	1,008.02	21.52	47.835	
4,500.00	4,493.18	4,437.55	4,435.21	15.86	15.54	175.90	-13.29	-920.30	1,047.90	1,025.90	22.01	47.615	
4,600.00	4,592.50	4,535.85	4,533.27	16.23	15.89	175.86	-14.79	-926.99	1,066.26	1,043.77	22.49	47.402	
4,700.00	4,691.82	4,634.15	4,631.33	16.60	16.24	175.83	-16.28	-933.69	1,084.62	1,061.64	22.98	47.196	
4,800.00	4,791.14	4,732.45	4,729.39	16.97	16.59	175.80	-17.78	-940.39	1,102.98	1,079.51	23.47	46.996	
4,900.00	4,890.46	4,830.75	4,827.45	17.35	16.94	175.76	-19.28	-947.08	1,121.34	1,097.39	23.96	46.803	
5,000.00	4,989.78	4,929.04	4,925.50	17.73	17.29	175.73	-20.77	-953.78	1,139.71	1,115.26	24.45	46.617	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 801H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	5,027.34	5,023.56	18.10	17.64	175.70	-22.27	-960.47	1,158.07	1,133.13	24.94	46.436	
5,200.00	5,188.42	5,125.64	5,121.62	18.48	17.99	175.68	-23.76	-967.17	1,176.43	1,151.00	25.43	46.260	
5,300.00	5,287.74	5,223.94	5,219.68	18.86	18.35	175.65	-25.26	-973.87	1,194.79	1,168.87	25.92	46.090	
5,400.00	5,387.06	5,322.24	5,317.74	19.24	18.70	175.62	-26.76	-980.56	1,213.15	1,186.74	26.42	45.925	
5,500.00	5,486.38	5,420.53	5,415.80	19.62	19.06	175.59	-28.25	-987.26	1,231.51	1,204.61	26.91	45.766	
5,600.00	5,585.70	5,518.83	5,513.85	20.00	19.41	175.57	-29.75	-993.95	1,249.88	1,222.47	27.40	45.611	
5,700.00	5,685.02	5,617.13	5,611.91	20.39	19.77	175.54	-31.24	-1,000.65	1,268.24	1,240.34	27.90	45.460	
5,800.00	5,784.34	5,715.43	5,709.97	20.77	20.12	175.52	-32.74	-1,007.35	1,286.60	1,258.21	28.39	45.314	
5,900.00	5,883.66	5,813.73	5,808.03	21.16	20.48	175.50	-34.24	-1,014.04	1,304.97	1,276.08	28.89	45.172	
6,000.00	5,982.98	5,912.02	5,906.09	21.54	20.84	175.47	-35.73	-1,020.74	1,323.33	1,293.94	29.39	45.034	
6,100.00	6,082.30	6,010.32	6,004.15	21.93	21.20	175.45	-37.23	-1,027.44	1,341.69	1,311.81	29.88	44.900	
6,200.00	6,181.62	6,134.79	6,128.36	22.31	21.65	175.43	-38.96	-1,035.20	1,359.59	1,329.11	30.48	44.610	
6,300.00	6,280.94	6,287.07	6,280.55	22.70	22.19	175.45	-39.97	-1,039.69	1,374.13	1,342.98	31.15	44.115	
6,400.00	6,380.26	6,400.28	6,393.76	23.09	22.58	175.49	-40.01	-1,039.89	1,385.86	1,354.18	31.69	43.734	
6,500.00	6,479.58	6,499.60	6,493.08	23.48	22.93	175.53	-40.01	-1,039.89	1,397.47	1,365.28	32.19	43.414	
6,600.00	6,578.90	6,598.92	6,592.40	23.87	23.28	175.57	-40.01	-1,039.89	1,409.08	1,376.39	32.69	43.104	
6,700.00	6,678.22	6,698.24	6,691.72	24.26	23.63	175.60	-40.01	-1,039.89	1,420.68	1,387.49	33.19	42.802	
6,800.00	6,777.54	6,797.56	6,791.04	24.65	23.98	175.64	-40.01	-1,039.89	1,432.29	1,398.60	33.69	42.509	
6,900.00	6,876.86	6,896.88	6,890.36	25.04	24.33	175.67	-40.01	-1,039.89	1,443.90	1,409.71	34.20	42.225	
7,000.00	6,976.18	6,996.20	6,989.68	25.43	24.68	175.71	-40.01	-1,039.89	1,455.51	1,420.81	34.70	41.948	
7,100.00	7,075.50	7,095.52	7,089.00	25.82	25.03	175.74	-40.01	-1,039.89	1,467.12	1,431.92	35.20	41.679	
7,125.00	7,100.33	7,120.34	7,113.83	25.92	25.11	175.75	-40.01	-1,039.89	1,470.02	1,434.69	35.33	41.613	
7,200.00	7,174.90	7,194.92	7,188.40	26.21	25.38	175.78	-40.01	-1,039.89	1,478.00	1,442.30	35.70	41.397	
7,300.00	7,274.55	7,294.56	7,288.05	26.58	25.73	175.82	-40.01	-1,039.89	1,486.36	1,450.16	36.21	41.053	
7,400.00	7,374.38	7,394.39	7,387.88	26.95	26.08	175.84	-40.01	-1,039.89	1,492.12	1,455.41	36.71	40.649	
7,500.00	7,474.33	7,494.34	7,487.83	27.30	26.43	175.85	-40.01	-1,039.89	1,495.27	1,458.06	37.21	40.186	
7,570.68	7,545.00	7,565.01	7,558.50	27.55	26.68	-90.38	-40.01	-1,039.89	1,495.92	1,458.36	37.56	39.827	
7,600.00	7,574.32	7,594.34	7,587.82	27.65	26.78	-90.38	-40.01	-1,039.89	1,495.92	1,458.22	37.71	39.673	
7,700.00	7,674.32	7,694.34	7,687.82	27.99	27.14	-90.38	-40.01	-1,039.89	1,495.92	1,457.72	38.20	39.157	
7,800.00	7,774.32	7,794.34	7,787.82	28.33	27.49	-90.38	-40.01	-1,039.89	1,495.92	1,457.22	38.70	38.654	
7,900.00	7,874.32	7,894.34	7,887.82	28.67	27.84	-90.38	-40.01	-1,039.89	1,495.92	1,456.73	39.20	38.163	
8,000.00	7,974.32	7,994.34	7,987.82	29.01	28.19	-90.38	-40.01	-1,039.89	1,495.92	1,456.23	39.70	37.685	
8,100.00	8,074.32	8,094.34	8,087.82	29.35	28.55	-90.38	-40.01	-1,039.89	1,495.92	1,455.73	40.19	37.218	
8,200.00	8,174.32	8,194.34	8,187.82	29.69	28.90	-90.38	-40.01	-1,039.89	1,495.92	1,455.23	40.69	36.762	
8,300.00	8,274.32	8,294.34	8,287.82	30.04	29.26	-90.38	-40.01	-1,039.89	1,495.92	1,454.73	41.19	36.317	
8,400.00	8,374.32	8,394.34	8,387.82	30.38	29.61	-90.38	-40.01	-1,039.89	1,495.92	1,454.23	41.69	35.883	
8,500.00	8,474.32	8,494.34	8,487.82	30.72	29.96	-90.38	-40.01	-1,039.89	1,495.92	1,453.74	42.19	35.459	
8,600.00	8,574.32	8,594.34	8,587.82	31.07	30.32	-90.38	-40.01	-1,039.89	1,495.92	1,453.24	42.69	35.044	
8,700.00	8,674.32	8,694.34	8,687.82	31.41	30.67	-90.38	-40.01	-1,039.89	1,495.92	1,452.74	43.19	34.639	
8,800.00	8,774.32	8,794.34	8,787.82	31.76	31.02	-90.38	-40.01	-1,039.89	1,495.92	1,452.24	43.69	34.243	
8,900.00	8,874.32	8,894.34	8,887.82	32.10	31.38	-90.38	-40.01	-1,039.89	1,495.92	1,451.74	44.18	33.856	
9,000.00	8,974.32	8,994.34	8,987.82	32.45	31.73	-90.38	-40.01	-1,039.89	1,495.92	1,451.24	44.68	33.477	
9,100.00	9,074.32	9,094.34	9,087.82	32.79	32.09	-90.38	-40.01	-1,039.89	1,495.92	1,450.74	45.18	33.107	
9,200.00	9,174.32	9,194.34	9,187.82	33.14	32.44	-90.38	-40.01	-1,039.89	1,495.92	1,450.24	45.68	32.745	
9,300.00	9,274.32	9,294.34	9,287.82	33.48	32.80	-90.38	-40.01	-1,039.89	1,495.92	1,449.74	46.18	32.390	
9,400.00	9,374.32	9,394.34	9,387.82	33.83	33.15	-90.38	-40.01	-1,039.89	1,495.92	1,449.24	46.69	32.043	
9,500.00	9,474.32	9,494.34	9,487.82	34.17	33.51	-90.38	-40.01	-1,039.89	1,495.92	1,448.74	47.19	31.703	
9,600.00	9,574.32	9,594.34	9,587.82	34.52	33.86	-90.38	-40.01	-1,039.89	1,495.92	1,448.24	47.69	31.370	
9,700.00	9,674.32	9,694.34	9,687.82	34.87	34.22	-90.38	-40.01	-1,039.89	1,495.92	1,447.74	48.19	31.044	
9,800.00	9,774.32	9,794.34	9,787.82	35.22	34.57	-90.38	-40.01	-1,039.89	1,495.92	1,447.24	48.69	30.725	
9,900.00	9,874.32	9,894.34	9,887.82	35.56	34.93	-90.38	-40.01	-1,039.89	1,495.92	1,446.73	49.19	30.412	
10,000.00	9,974.32	9,994.34	9,987.82	35.91	35.28	-90.38	-40.01	-1,039.89	1,495.92	1,446.23	49.69	30.105	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 801H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,074.32	10,094.34	10,087.82	36.26	35.64	-90.38	-40.01	-1,039.89	1,495.92	1,445.73	50.19	29.805	
10,191.72	10,166.04	10,186.05	10,179.54	36.58	35.96	-90.38	-40.01	-1,039.89	1,495.92	1,445.27	50.65	29.534	
10,200.00	10,174.32	10,194.34	10,187.82	36.60	35.99	90.19	-40.01	-1,039.89	1,495.92	1,445.23	50.69	29.510	
10,250.00	10,224.22	10,244.24	10,237.72	36.77	36.17	90.30	-40.01	-1,039.89	1,495.94	1,445.00	50.93	29.370	
10,300.00	10,273.68	10,293.69	10,287.18	36.93	36.34	90.57	-40.01	-1,039.89	1,495.99	1,444.82	51.18	29.233	
10,350.00	10,322.32	10,342.33	10,335.82	37.09	36.52	90.98	-40.01	-1,039.89	1,496.15	1,444.74	51.41	29.101	
10,400.00	10,369.77	10,389.78	10,383.27	37.25	36.69	91.52	-40.01	-1,039.89	1,496.52	1,444.87	51.65	28.976	
10,450.00	10,415.66	10,435.68	10,429.16	37.40	36.85	92.14	-40.01	-1,039.89	1,497.21	1,445.33	51.87	28.863	
10,500.00	10,459.66	10,479.68	10,473.16	37.55	37.01	92.82	-40.01	-1,039.89	1,498.38	1,446.28	52.09	28.763	
10,550.00	10,501.42	10,521.44	10,514.92	37.69	37.15	93.52	-40.01	-1,039.89	1,500.20	1,447.90	52.31	28.681	
10,600.00	10,540.64	10,560.65	10,554.14	37.83	37.29	94.18	-40.01	-1,039.89	1,502.86	1,450.35	52.51	28.620	
10,650.00	10,577.00	10,597.01	10,590.50	37.96	37.42	94.76	-40.01	-1,039.89	1,506.54	1,453.84	52.71	28.583	
10,700.00	10,610.23	10,630.24	10,623.73	38.10	37.54	95.21	-40.01	-1,039.89	1,511.43	1,458.53	52.89	28.575	
10,750.00	10,640.08	10,660.09	10,653.58	38.23	37.65	95.49	-40.01	-1,039.89	1,517.67	1,464.60	53.07	28.598	
10,800.00	10,666.33	10,686.34	10,679.83	38.38	37.74	95.56	-40.01	-1,039.89	1,525.43	1,472.19	53.23	28.655	
10,850.00	10,688.76	10,708.78	10,702.26	38.53	37.82	95.37	-40.01	-1,039.89	1,534.79	1,481.41	53.39	28.749	
10,900.00	10,707.22	10,727.23	10,720.72	38.70	37.89	94.89	-40.01	-1,039.89	1,545.85	1,492.32	53.52	28.881	
10,950.00	10,721.56	10,741.57	10,735.06	38.87	37.94	94.10	-40.01	-1,039.89	1,558.61	1,504.96	53.65	29.053	
11,000.00	10,731.67	10,751.69	10,745.17	39.06	37.97	92.97	-40.01	-1,039.89	1,573.05	1,519.30	53.75	29.264	
11,050.00	10,737.48	10,757.49	10,750.98	39.25	37.99	91.49	-40.01	-1,039.89	1,589.11	1,535.27	53.84	29.513	
11,091.72	10,739.00	10,759.01	10,752.50	39.42	38.00	90.00	-40.01	-1,039.89	1,603.65	1,549.75	53.90	29.750	
11,100.00	10,739.00	10,759.01	10,752.50	39.46	38.00	90.00	-40.01	-1,039.89	1,606.66	1,552.74	53.92	29.800	
11,200.00	10,739.00	10,759.01	10,752.50	39.90	38.00	90.00	-40.01	-1,039.89	1,645.78	1,591.72	54.05	30.448	
11,300.00	10,739.00	10,759.01	10,752.50	40.41	38.00	90.00	-40.01	-1,039.89	1,689.91	1,635.72	54.19	31.182	
11,400.00	10,739.00	10,759.01	10,752.50	40.98	38.00	90.00	-40.01	-1,039.89	1,738.69	1,684.35	54.34	31.997	
11,500.00	10,739.00	10,759.01	10,752.50	41.61	38.00	90.00	-40.01	-1,039.89	1,791.72	1,737.24	54.48	32.886	
11,600.00	10,739.00	10,759.01	10,752.50	42.29	38.00	90.00	-40.01	-1,039.89	1,848.65	1,794.03	54.62	33.844	
11,700.00	10,739.00	10,759.01	10,752.50	43.02	38.00	90.00	-40.01	-1,039.89	1,909.12	1,854.36	54.76	34.864	
11,800.00	10,739.00	10,759.01	10,752.50	43.81	38.00	90.00	-40.01	-1,039.89	1,972.81	1,917.92	54.89	35.942	
11,900.00	10,739.00	10,759.01	10,752.50	44.64	38.00	90.00	-40.01	-1,039.89	2,039.41	1,984.40	55.01	37.072	
12,000.00	10,739.00	10,759.01	10,752.50	45.51	38.00	90.00	-40.01	-1,039.89	2,108.66	2,053.53	55.13	38.250	
12,100.00	10,739.00	10,759.01	10,752.50	46.43	38.00	90.00	-40.01	-1,039.89	2,180.29	2,125.05	55.24	39.471	
12,200.00	10,739.00	10,759.01	10,752.50	47.38	38.00	90.00	-40.01	-1,039.89	2,254.09	2,198.74	55.34	40.730	
12,300.00	10,739.00	10,759.01	10,752.50	48.38	38.00	90.00	-40.01	-1,039.89	2,329.84	2,274.40	55.44	42.024	
12,400.00	10,739.00	10,759.01	10,752.50	49.41	38.00	90.00	-40.01	-1,039.89	2,407.36	2,351.82	55.53	43.351	
12,500.00	10,739.00	10,759.01	10,752.50	50.47	38.00	90.00	-40.01	-1,039.89	2,486.48	2,430.86	55.62	44.706	
12,600.00	10,739.00	14,586.63	12,740.00	51.56	56.61	143.03	-2,125.94	-1,019.24	2,487.66	2,430.69	56.97	43.669	
12,700.00	10,739.00	14,686.63	12,740.00	52.68	57.63	143.03	-2,225.94	-1,018.25	2,487.66	2,429.68	57.98	42.906	
12,800.00	10,739.00	14,786.63	12,740.00	53.83	58.68	143.03	-2,325.93	-1,017.26	2,487.67	2,428.65	59.02	42.149	
12,900.00	10,739.00	14,886.63	12,740.00	55.01	59.76	143.03	-2,425.93	-1,016.27	2,487.67	2,427.59	60.09	41.401	
13,000.00	10,739.00	14,986.63	12,740.00	56.21	60.86	143.03	-2,525.92	-1,015.29	2,487.68	2,426.50	61.18	40.663	
13,100.00	10,739.00	15,086.63	12,740.00	57.43	61.99	143.03	-2,625.92	-1,014.30	2,487.68	2,425.39	62.30	39.934	
13,200.00	10,739.00	15,186.63	12,740.00	58.67	63.14	143.03	-2,725.91	-1,013.31	2,487.69	2,424.25	63.44	39.216	
13,300.00	10,739.00	15,286.63	12,740.00	59.93	64.31	143.03	-2,825.91	-1,012.32	2,487.69	2,423.10	64.59	38.512	
13,400.00	10,739.00	15,386.63	12,740.00	61.21	65.51	143.03	-2,925.90	-1,011.33	2,487.70	2,421.92	65.77	37.822	
13,500.00	10,739.00	15,486.63	12,740.00	62.51	66.72	143.03	-3,025.90	-1,010.34	2,487.70	2,420.73	66.97	37.144	
13,600.00	10,739.00	15,586.63	12,740.00	63.83	67.95	143.03	-3,125.89	-1,009.35	2,487.71	2,419.52	68.19	36.481	
13,700.00	10,739.00	15,686.63	12,740.00	65.16	69.20	143.03	-3,225.89	-1,008.36	2,487.71	2,418.29	69.43	35.832	
13,800.00	10,739.00	15,786.63	12,740.00	66.50	70.47	143.03	-3,325.88	-1,007.37	2,487.72	2,417.04	70.68	35.198	
13,900.00	10,739.00	15,886.63	12,740.00	67.86	71.75	143.03	-3,425.88	-1,006.38	2,487.72	2,415.78	71.95	34.578	
14,000.00	10,739.00	15,986.63	12,740.00	69.23	73.05	143.03	-3,525.87	-1,005.39	2,487.73	2,414.50	73.22	33.974	
14,100.00	10,739.00	16,086.63	12,740.00	70.61	74.36	143.03	-3,625.87	-1,004.40	2,487.73	2,413.22	74.52	33.384	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 801H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	10,739.00	16,186.63	12,740.00	72.00	75.68	143.03	-3,725.86	-1,003.41	2,487.74	2,411.91	75.83	32.809	
14,300.00	10,739.00	16,286.63	12,740.00	73.41	77.02	143.03	-3,825.86	-1,002.42	2,487.74	2,410.60	77.15	32.247	
14,400.00	10,739.00	16,386.63	12,740.00	74.82	78.36	143.03	-3,925.85	-1,001.43	2,487.75	2,409.27	78.48	31.701	
14,500.00	10,739.00	16,486.63	12,740.00	76.25	79.72	143.03	-4,025.85	-1,000.44	2,487.75	2,407.94	79.82	31.168	
14,600.00	10,739.00	16,586.63	12,740.00	77.68	81.09	143.03	-4,125.84	-999.45	2,487.76	2,406.59	81.17	30.649	
14,700.00	10,739.00	16,686.63	12,740.00	79.12	82.48	143.03	-4,225.84	-998.46	2,487.76	2,405.23	82.53	30.143	
14,800.00	10,739.00	16,786.63	12,740.00	80.57	83.87	143.03	-4,325.84	-997.47	2,487.77	2,403.86	83.90	29.650	
14,900.00	10,739.00	16,886.63	12,740.00	82.03	85.27	143.03	-4,425.83	-996.48	2,487.77	2,402.49	85.28	29.171	
15,000.00	10,739.00	16,986.63	12,740.00	83.49	86.67	143.03	-4,525.83	-995.49	2,487.78	2,401.11	86.67	28.704	
15,100.00	10,739.00	17,086.63	12,740.00	84.96	88.09	143.03	-4,625.82	-994.50	2,487.78	2,399.72	88.07	28.249	
15,200.00	10,739.00	17,186.63	12,740.00	86.44	89.52	143.03	-4,725.82	-993.51	2,487.79	2,398.32	89.47	27.805	
15,300.00	10,739.00	17,286.63	12,740.00	87.92	90.95	143.03	-4,825.81	-992.52	2,487.79	2,396.91	90.88	27.373	
15,400.00	10,739.00	17,386.63	12,740.00	89.41	92.39	143.03	-4,925.81	-991.53	2,487.80	2,395.50	92.30	26.953	
15,500.00	10,739.00	17,486.63	12,740.00	90.91	93.84	143.02	-5,025.80	-990.54	2,487.80	2,394.08	93.72	26.544	
15,600.00	10,739.00	17,586.63	12,740.00	92.41	95.29	143.02	-5,125.80	-989.55	2,487.81	2,392.65	95.15	26.145	
15,700.00	10,739.00	17,686.63	12,740.00	93.92	96.75	143.02	-5,225.79	-988.56	2,487.81	2,391.22	96.59	25.756	
15,800.00	10,739.00	17,786.63	12,740.00	95.43	98.22	143.02	-5,325.79	-987.57	2,487.82	2,389.78	98.03	25.377	
15,900.00	10,739.00	17,886.63	12,740.00	96.94	99.69	143.02	-5,425.78	-986.58	2,487.82	2,388.34	99.48	25.008	
16,000.00	10,739.00	17,986.63	12,740.00	98.46	101.17	143.02	-5,525.78	-985.59	2,487.83	2,386.90	100.93	24.648	
16,100.00	10,739.00	18,086.63	12,740.00	99.99	102.65	143.02	-5,625.77	-984.60	2,487.83	2,385.44	102.39	24.298	
16,200.00	10,739.00	18,186.63	12,740.00	101.51	104.14	143.02	-5,725.77	-983.61	2,487.84	2,383.99	103.85	23.955	
16,300.00	10,739.00	18,286.63	12,740.00	103.05	105.63	143.02	-5,825.76	-982.62	2,487.84	2,382.53	105.32	23.622	
16,400.00	10,739.00	18,386.63	12,740.00	104.58	107.13	143.02	-5,925.76	-981.63	2,487.85	2,381.06	106.79	23.297	
16,500.00	10,739.00	18,486.63	12,740.00	106.12	108.63	143.02	-6,025.75	-980.64	2,487.85	2,379.59	108.26	22.980	
16,600.00	10,739.00	18,586.63	12,740.00	107.66	110.14	143.02	-6,125.75	-979.65	2,487.86	2,378.12	109.74	22.671	
16,700.00	10,739.00	18,686.63	12,740.00	109.21	111.65	143.02	-6,225.74	-978.67	2,487.86	2,376.64	111.22	22.369	
16,800.00	10,739.00	18,786.63	12,740.00	110.76	113.16	143.02	-6,325.74	-977.68	2,487.87	2,375.17	112.70	22.074	
16,900.00	10,739.00	18,886.63	12,740.00	112.31	114.68	143.02	-6,425.73	-976.69	2,487.87	2,373.68	114.19	21.787	
17,000.00	10,739.00	18,986.63	12,740.00	113.86	116.20	143.02	-6,525.73	-975.70	2,487.88	2,372.20	115.68	21.506	
17,100.00	10,739.00	19,086.63	12,740.00	115.42	117.73	143.02	-6,625.72	-974.71	2,487.88	2,370.71	117.18	21.232	
17,200.00	10,739.00	19,186.63	12,740.00	116.98	119.26	143.02	-6,725.72	-973.72	2,487.89	2,369.22	118.67	20.964	
17,300.00	10,739.00	19,286.63	12,740.00	118.54	120.79	143.02	-6,825.71	-972.73	2,487.89	2,367.72	120.17	20.703	
17,400.00	10,739.00	19,386.63	12,740.00	120.10	122.32	143.02	-6,925.71	-971.74	2,487.90	2,366.23	121.67	20.448	
17,500.00	10,739.00	19,486.63	12,740.00	121.67	123.86	143.02	-7,025.70	-970.75	2,487.90	2,364.73	123.18	20.198	
17,600.00	10,739.00	19,586.63	12,740.00	123.24	125.40	143.02	-7,125.70	-969.76	2,487.91	2,363.22	124.69	19.953	
17,700.00	10,739.00	19,686.63	12,740.00	124.81	126.94	143.02	-7,225.69	-968.77	2,487.91	2,361.72	126.19	19.715	
17,800.00	10,739.00	19,786.63	12,740.00	126.38	128.49	143.02	-7,325.69	-967.78	2,487.92	2,360.22	127.70	19.482	
17,900.00	10,739.00	19,886.63	12,740.00	127.96	130.04	143.02	-7,425.68	-966.79	2,487.92	2,358.71	129.22	19.254	
18,000.00	10,739.00	19,986.63	12,740.00	129.53	131.59	143.02	-7,525.68	-965.80	2,487.93	2,357.20	130.73	19.031	
18,100.00	10,739.00	20,086.63	12,740.00	131.11	133.14	143.02	-7,625.67	-964.81	2,487.93	2,355.68	132.25	18.812	
18,200.00	10,739.00	20,186.63	12,740.00	132.69	134.70	143.02	-7,725.67	-963.82	2,487.94	2,354.17	133.77	18.599	
18,300.00	10,739.00	20,286.63	12,740.00	134.28	136.26	143.02	-7,825.66	-962.83	2,487.95	2,352.66	135.29	18.390	
18,400.00	10,739.00	20,386.63	12,740.00	135.86	137.82	143.02	-7,925.66	-961.84	2,487.95	2,351.14	136.81	18.185	
18,500.00	10,739.00	20,486.63	12,740.00	137.44	139.38	143.02	-8,025.65	-960.85	2,487.96	2,349.62	138.33	17.985	
18,600.00	10,739.00	20,586.63	12,740.00	139.03	140.95	143.02	-8,125.65	-959.86	2,487.96	2,348.10	139.86	17.789	
18,700.00	10,739.00	20,686.63	12,740.00	140.62	142.51	143.02	-8,225.64	-958.87	2,487.97	2,346.58	141.38	17.597	
18,800.00	10,739.00	20,786.63	12,740.00	142.21	144.08	143.02	-8,325.64	-957.88	2,487.97	2,345.06	142.91	17.409	
18,900.00	10,739.00	20,886.63	12,740.00	143.80	145.65	143.02	-8,425.63	-956.89	2,487.98	2,343.53	144.44	17.225	
19,000.00	10,739.00	20,986.63	12,740.00	145.39	147.22	143.02	-8,525.63	-955.90	2,487.98	2,342.01	145.97	17.044	
19,100.00	10,739.00	21,086.63	12,740.00	146.99	148.80	143.02	-8,625.62	-954.91	2,487.99	2,340.48	147.50	16.868	
19,200.00	10,739.00	21,186.63	12,740.00	148.58	150.37	143.02	-8,725.62	-953.92	2,487.99	2,338.96	149.03	16.694	
19,300.00	10,739.00	21,286.63	12,740.00	150.18	151.95	143.02	-8,825.61	-952.93	2,488.00	2,337.43	150.57	16.524	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 801H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.00	10,739.00	21,386.63	12,740.00	151.78	153.53	143.02	-8,925.61	-951.94	2,488.00	2,335.90	152.10	16.357	
19,500.00	10,739.00	21,486.63	12,740.00	153.38	155.11	143.02	-9,025.61	-950.95	2,488.01	2,334.37	153.64	16.194	
19,600.00	10,739.00	21,586.63	12,740.00	154.98	156.69	143.02	-9,125.60	-949.96	2,488.01	2,332.84	155.17	16.034	
19,700.00	10,739.00	21,686.63	12,740.00	156.58	158.27	143.02	-9,225.60	-948.97	2,488.02	2,331.30	156.71	15.876	
19,800.00	10,739.00	21,786.63	12,740.00	158.18	159.86	143.02	-9,325.59	-947.98	2,488.02	2,329.77	158.25	15.722	
19,900.00	10,739.00	21,886.63	12,740.00	159.78	161.44	143.02	-9,425.59	-946.99	2,488.03	2,328.24	159.79	15.571	
20,000.00	10,739.00	21,986.63	12,740.00	161.39	163.03	143.02	-9,525.58	-946.00	2,488.03	2,326.70	161.33	15.422	
20,100.00	10,739.00	22,086.63	12,740.00	162.99	164.62	143.02	-9,625.58	-945.01	2,488.04	2,325.17	162.87	15.277	
20,200.00	10,739.00	22,186.63	12,740.00	164.60	166.21	143.02	-9,725.57	-944.02	2,488.04	2,323.63	164.41	15.133	
20,300.00	10,739.00	22,286.63	12,740.00	166.20	167.80	143.02	-9,825.57	-943.04	2,488.05	2,322.10	165.95	14.993	
20,400.00	10,739.00	22,386.63	12,740.00	167.81	169.39	143.02	-9,925.56	-942.05	2,488.05	2,320.56	167.49	14.855	
20,500.00	10,739.00	22,486.63	12,740.00	169.42	170.99	143.02	-10,025.56	-941.06	2,488.06	2,319.02	169.03	14.719	
20,600.00	10,739.00	22,586.63	12,740.00	171.03	172.58	143.02	-10,125.55	-940.07	2,488.06	2,317.49	170.58	14.586	
20,700.00	10,739.00	22,686.63	12,740.00	172.64	174.18	143.02	-10,225.55	-939.08	2,488.07	2,315.95	172.12	14.455	
20,800.00	10,739.00	22,786.63	12,740.00	174.25	175.77	143.02	-10,325.54	-938.09	2,488.07	2,314.41	173.66	14.327	
20,802.81	10,739.00	22,789.44	12,740.00	174.29	175.82	143.02	-10,328.35	-938.06	2,488.07	2,314.36	173.71	14.323	
20,879.44	10,739.00	22,865.07	12,740.00	175.53	176.91	143.02	-10,403.98	-937.31	2,488.08	2,313.31	174.77	14.237	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 802H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	13.50	13.50	0.00	0.02	-89.85	2.23	-826.90	826.90				
100.00	100.00	113.50	113.50	0.13	0.17	-89.85	2.23	-826.90	826.90	826.69	0.21	3,856.779	
200.00	200.00	213.50	213.50	0.48	0.53	-89.85	2.23	-826.90	826.90	826.18	0.72	1,149.396	
300.00	300.00	313.50	313.50	0.84	0.89	-89.85	2.23	-826.90	826.90	825.68	1.23	674.449	
400.00	400.00	413.50	413.50	1.20	1.25	-89.85	2.23	-826.90	826.90	825.17	1.73	477.190	
500.00	500.00	513.50	513.50	1.56	1.61	-89.85	2.23	-826.90	826.90	824.66	2.24	369.197	
600.00	600.00	613.50	613.50	1.92	1.97	-89.85	2.23	-826.90	826.90	824.16	2.75	301.059	
700.00	700.00	713.50	713.50	2.28	2.32	-89.85	2.23	-826.90	826.90	823.65	3.25	254.153	
800.00	800.00	813.50	813.50	2.63	2.68	-89.85	2.23	-826.90	826.90	823.14	3.76	219.892	
900.00	900.00	913.50	913.50	2.99	3.04	-89.85	2.23	-826.90	826.90	822.64	4.27	193.771	
1,000.00	1,000.00	1,013.50	1,013.50	3.35	3.40	-89.85	2.23	-826.90	826.90	822.13	4.77	173.196	
1,100.00	1,100.00	1,113.50	1,113.50	3.71	3.76	-89.85	2.23	-826.90	826.90	821.62	5.28	156.571	
1,200.00	1,200.00	1,213.50	1,213.50	4.07	4.12	-89.85	2.23	-826.90	826.90	821.11	5.79	142.859	
1,300.00	1,300.00	1,313.50	1,313.50	4.43	4.48	-89.85	2.23	-826.90	826.90	820.61	6.30	131.354	
1,400.00	1,400.00	1,413.50	1,413.50	4.79	4.83	-89.85	2.23	-826.90	826.90	820.10	6.80	121.565	
1,500.00	1,500.00	1,513.50	1,513.50	5.14	5.19	-89.85	2.23	-826.90	826.90	819.59	7.31	113.133	
1,600.00	1,600.00	1,613.50	1,613.50	5.50	5.55	-89.85	2.23	-826.90	826.90	819.09	7.82	105.795	
1,700.00	1,700.00	1,713.50	1,713.50	5.86	5.91	-89.85	2.23	-826.90	826.90	818.58	8.32	99.351	
1,800.00	1,800.00	1,813.50	1,813.50	6.22	6.27	-89.85	2.23	-826.90	826.90	818.07	8.83	93.647	
1,900.00	1,900.00	1,913.50	1,913.50	6.58	6.63	-89.85	2.23	-826.90	826.90	817.57	9.34	88.563	
2,000.00	2,000.00	2,013.50	2,013.50	6.94	6.98	-89.85	2.23	-826.90	826.90	817.06	9.84	84.002	
2,100.00	2,100.00	2,113.50	2,113.50	7.29	7.34	-89.85	2.23	-826.90	826.90	816.55	10.35	79.888	
2,200.00	2,200.00	2,213.50	2,213.50	7.65	7.70	-89.85	2.23	-826.90	826.90	816.05	10.86	76.158	
2,300.00	2,300.00	2,313.50	2,313.50	8.01	8.06	-89.85	2.23	-826.90	826.90	815.54	11.36	72.761	
2,400.00	2,400.00	2,413.50	2,413.50	8.37	8.42	-89.85	2.23	-826.90	826.90	815.03	11.87	69.653	
2,500.00	2,500.00	2,513.50	2,513.50	8.73	8.78	-89.85	2.23	-826.90	826.90	814.52	12.38	66.801	
2,600.00	2,600.00	2,613.50	2,613.50	9.09	9.14	-89.85	2.23	-826.90	826.90	814.02	12.89	64.173	
2,700.00	2,700.00	2,713.50	2,713.50	9.45	9.49	-89.85	2.23	-826.90	826.90	813.51	13.39	61.744	
2,800.00	2,800.00	2,813.50	2,813.50	9.80	9.85	-89.85	2.23	-826.90	826.90	813.00	13.90	59.492	
2,900.00	2,900.00	2,913.50	2,913.50	10.16	10.21	-89.85	2.23	-826.90	826.90	812.50	14.41	57.398	
3,000.00	3,000.00	3,013.50	3,013.50	10.52	10.57	-89.85	2.23	-826.90	826.90	811.99	14.91	55.447	
3,100.00	3,100.00	3,113.50	3,113.50	10.88	10.93	-89.85	2.23	-826.90	826.90	811.48	15.42	53.624	
3,200.00	3,200.00	3,217.22	3,217.22	11.24	11.30	-89.85	2.23	-826.86	826.87	810.94	15.94	51.889	
3,300.00	3,299.99	3,344.79	3,344.75	11.59	11.74	176.39	2.08	-824.16	826.06	809.58	16.48	50.112	
3,400.00	3,399.91	3,472.29	3,472.06	11.93	12.18	176.39	1.71	-817.21	824.53	807.52	17.01	48.485	
3,500.00	3,499.69	3,599.69	3,598.97	12.27	12.62	176.39	1.11	-806.04	822.27	804.76	17.51	46.955	
3,600.00	3,599.27	3,726.96	3,725.29	12.62	13.06	176.39	0.28	-790.66	819.31	801.30	18.00	45.514	
3,645.68	3,644.67	3,785.05	3,782.76	12.78	13.27	176.39	-0.17	-782.25	817.71	799.49	18.22	44.883	
3,700.00	3,698.62	3,854.04	3,850.85	12.97	13.52	176.38	-0.77	-771.12	815.24	796.77	18.47	44.132	
3,800.00	3,797.94	3,954.87	3,950.18	13.32	13.89	176.37	-1.69	-753.85	809.67	790.71	18.96	42.709	
3,900.00	3,897.26	4,054.71	4,048.55	13.68	14.26	176.36	-2.61	-736.74	804.09	784.65	19.45	41.352	
4,000.00	3,996.58	4,154.56	4,146.91	14.03	14.63	176.35	-3.53	-719.64	798.52	778.59	19.93	40.057	
4,100.00	4,095.90	4,254.40	4,245.27	14.40	15.01	176.34	-4.45	-702.53	792.95	772.52	20.43	38.820	
4,200.00	4,195.22	4,354.25	4,343.64	14.76	15.39	176.33	-5.37	-685.42	787.37	766.45	20.92	37.638	
4,300.00	4,294.54	4,454.09	4,442.00	15.12	15.78	176.32	-6.29	-668.31	781.80	760.39	21.41	36.508	
4,400.00	4,393.86	4,553.93	4,540.36	15.49	16.17	176.31	-7.21	-651.21	776.23	754.32	21.91	35.426	
4,500.00	4,493.18	4,653.78	4,638.73	15.86	16.56	176.29	-8.13	-634.10	770.65	748.25	22.41	34.391	
4,600.00	4,592.50	4,753.62	4,737.09	16.23	16.96	176.28	-9.04	-616.99	765.08	742.17	22.91	33.398	
4,700.00	4,691.82	4,853.47	4,835.46	16.60	17.35	176.27	-9.96	-599.89	759.51	736.10	23.41	32.446	
4,800.00	4,791.14	4,953.31	4,933.82	16.97	17.75	176.26	-10.88	-582.78	753.93	730.02	23.91	31.532	
4,900.00	4,890.46	5,053.16	5,032.18	17.35	18.16	176.25	-11.80	-565.67	748.36	723.95	24.41	30.654	
5,000.00	4,989.78	5,153.00	5,130.55	17.73	18.56	176.23	-12.72	-548.57	742.79	717.87	24.92	29.811	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 802H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	5,252.85	5,228.91	18.10	18.97	176.22	-13.64	-531.46	737.21	711.79	25.42	28.999	
5,200.00	5,188.42	5,352.69	5,327.27	18.48	19.38	176.21	-14.56	-514.35	731.64	705.71	25.93	28.219	
5,300.00	5,287.74	5,452.53	5,425.64	18.86	19.79	176.20	-15.48	-497.25	726.07	699.63	26.43	27.467	
5,400.00	5,387.06	5,552.38	5,524.00	19.24	20.21	176.18	-16.40	-480.14	720.50	693.55	26.94	26.743	
5,500.00	5,486.38	5,652.22	5,622.37	19.62	20.62	176.17	-17.31	-463.03	714.92	687.47	27.45	26.045	
5,600.00	5,585.70	5,752.07	5,720.73	20.00	21.04	176.16	-18.23	-445.92	709.35	681.39	27.96	25.371	
5,700.00	5,685.02	5,851.91	5,819.09	20.39	21.46	176.14	-19.15	-428.82	703.78	675.31	28.47	24.721	
5,800.00	5,784.34	5,951.76	5,917.46	20.77	21.88	176.13	-20.07	-411.71	698.20	669.23	28.98	24.094	
5,900.00	5,883.66	6,051.60	6,015.82	21.16	22.30	176.12	-20.99	-394.60	692.63	663.14	29.49	23.487	
6,000.00	5,982.98	6,151.45	6,114.18	21.54	22.72	176.10	-21.91	-377.50	687.06	657.06	30.00	22.901	
6,100.00	6,082.30	6,251.29	6,212.55	21.93	23.14	176.09	-22.83	-360.39	681.49	650.97	30.51	22.334	
6,200.00	6,181.62	6,351.14	6,310.91	22.31	23.57	176.07	-23.75	-343.28	675.91	644.89	31.03	21.786	
6,300.00	6,280.94	6,450.98	6,409.28	22.70	23.99	176.06	-24.67	-326.18	670.34	638.80	31.54	21.254	
6,400.00	6,380.26	6,550.82	6,507.64	23.09	24.42	176.04	-25.58	-309.07	664.77	632.72	32.05	20.740	
6,500.00	6,479.58	6,650.67	6,606.00	23.48	24.85	176.03	-26.50	-291.96	659.20	626.63	32.57	20.241	
6,600.00	6,578.90	6,750.51	6,704.37	23.87	25.27	176.01	-27.42	-274.86	653.62	620.54	33.08	19.758	
6,700.00	6,678.22	6,850.36	6,802.73	24.26	25.70	175.99	-28.34	-257.75	648.05	614.45	33.60	19.289	
6,800.00	6,777.54	6,941.95	6,893.02	24.65	26.09	175.98	-29.17	-242.36	642.85	608.72	34.12	18.838	
6,900.00	6,876.86	7,027.56	6,977.68	25.04	26.45	175.98	-29.85	-229.73	639.67	605.02	34.65	18.460	
6,993.21	6,969.44	7,107.42	7,056.90	25.40	26.77	175.98	-30.39	-219.65	638.73	603.60	35.13	18.182	CC
7,000.00	6,976.18	7,113.24	7,062.69	25.43	26.80	175.98	-30.42	-218.98	638.74	603.57	35.16	18.165	
7,100.00	7,075.50	7,200.00	7,148.98	25.82	27.13	176.00	-30.90	-210.04	640.04	604.38	35.66	17.948	
7,125.00	7,100.33	7,220.32	7,169.22	25.92	27.21	176.01	-31.00	-208.23	640.72	604.94	35.78	17.907	
7,200.00	7,174.90	7,284.53	7,233.23	26.21	27.45	176.03	-31.27	-203.21	642.85	606.71	36.14	17.790	
7,300.00	7,274.55	7,370.09	7,318.64	26.58	27.76	176.05	-31.54	-198.20	645.36	608.77	36.60	17.635	
7,400.00	7,374.38	7,455.61	7,404.11	26.95	28.06	176.06	-31.71	-195.10	647.50	610.47	37.04	17.482	
7,500.00	7,474.33	7,541.11	7,489.59	27.30	28.35	176.08	-31.77	-193.91	649.27	611.81	37.46	17.333	
7,570.68	7,545.00	7,610.02	7,558.50	27.55	28.58	-90.16	-31.77	-193.90	649.90	612.11	37.80	17.195	
7,600.00	7,574.32	7,639.34	7,587.82	27.65	28.67	-90.16	-31.77	-193.90	649.90	611.96	37.94	17.130	
7,700.00	7,674.32	7,739.34	7,687.82	27.99	29.00	-90.16	-31.77	-193.90	649.90	611.47	38.43	16.911	
7,800.00	7,774.32	7,839.34	7,787.82	28.33	29.33	-90.16	-31.77	-193.90	649.90	610.98	38.92	16.697	
7,900.00	7,874.32	7,939.34	7,887.82	28.67	29.67	-90.16	-31.77	-193.90	649.90	610.49	39.42	16.489	
8,000.00	7,974.32	8,039.34	7,987.82	29.01	30.00	-90.16	-31.77	-193.90	649.90	610.00	39.91	16.285	
8,100.00	8,074.32	8,139.34	8,087.82	29.35	30.33	-90.16	-31.77	-193.90	649.90	609.50	40.40	16.087	
8,200.00	8,174.32	8,239.34	8,187.82	29.69	30.66	-90.16	-31.77	-193.90	649.90	609.01	40.89	15.893	
8,300.00	8,274.32	8,339.34	8,287.82	30.04	31.00	-90.16	-31.77	-193.90	649.90	608.52	41.39	15.703	
8,400.00	8,374.32	8,439.34	8,387.82	30.38	31.33	-90.16	-31.77	-193.90	649.90	608.02	41.88	15.518	
8,500.00	8,474.32	8,539.34	8,487.82	30.72	31.66	-90.16	-31.77	-193.90	649.90	607.53	42.37	15.337	
8,600.00	8,574.32	8,639.34	8,587.82	31.07	32.00	-90.16	-31.77	-193.90	649.90	607.03	42.87	15.160	
8,700.00	8,674.32	8,739.34	8,687.82	31.41	32.33	-90.16	-31.77	-193.90	649.90	606.54	43.36	14.988	
8,800.00	8,774.32	8,839.34	8,787.82	31.76	32.67	-90.16	-31.77	-193.90	649.90	606.04	43.86	14.818	
8,900.00	8,874.32	8,939.34	8,887.82	32.10	33.01	-90.16	-31.77	-193.90	649.90	605.55	44.35	14.653	
9,000.00	8,974.32	9,039.34	8,987.82	32.45	33.34	-90.16	-31.77	-193.90	649.90	605.05	44.85	14.491	
9,100.00	9,074.32	9,139.34	9,087.82	32.79	33.68	-90.16	-31.77	-193.90	649.90	604.56	45.34	14.333	
9,200.00	9,174.32	9,239.34	9,187.82	33.14	34.02	-90.16	-31.77	-193.90	649.90	604.06	45.84	14.178	
9,300.00	9,274.32	9,339.34	9,287.82	33.48	34.36	-90.16	-31.77	-193.90	649.90	603.57	46.34	14.026	
9,400.00	9,374.32	9,439.34	9,387.82	33.83	34.70	-90.16	-31.77	-193.90	649.90	603.07	46.83	13.877	
9,500.00	9,474.32	9,539.34	9,487.82	34.17	35.03	-90.16	-31.77	-193.90	649.90	602.57	47.33	13.732	
9,600.00	9,574.32	9,639.34	9,587.82	34.52	35.37	-90.16	-31.77	-193.90	649.90	602.08	47.83	13.589	
9,700.00	9,674.32	9,739.34	9,687.82	34.87	35.71	-90.16	-31.77	-193.90	649.90	601.58	48.32	13.449	
9,800.00	9,774.32	9,839.34	9,787.82	35.22	36.05	-90.16	-31.77	-193.90	649.90	601.08	48.82	13.312	
9,900.00	9,874.32	9,939.34	9,887.82	35.56	36.39	-90.16	-31.77	-193.90	649.90	600.59	49.32	13.178	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 802H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,974.32	10,039.34	9,987.82	35.91	36.73	-90.16	-31.77	-193.90	649.90	600.09	49.82	13.046	
10,100.00	10,074.32	10,139.34	10,087.82	36.26	37.08	-90.16	-31.77	-193.90	649.90	599.59	50.31	12.917	
10,191.72	10,166.04	10,231.06	10,179.54	36.58	37.39	-90.16	-31.77	-193.90	649.90	599.13	50.77	12.801	
10,200.00	10,174.32	10,239.34	10,187.82	36.60	37.42	90.42	-31.77	-193.90	649.90	599.09	50.81	12.791	
10,250.00	10,224.22	10,289.24	10,237.72	36.77	37.59	90.67	-31.77	-193.90	649.93	598.88	51.05	12.731	
10,300.00	10,273.68	10,338.70	10,287.18	36.93	37.76	91.29	-31.77	-193.90	650.06	598.77	51.29	12.675 ES	
10,350.00	10,322.32	10,387.33	10,335.82	37.09	37.92	92.24	-31.77	-193.90	650.42	598.90	51.52	12.625	
10,400.00	10,369.77	10,434.78	10,383.27	37.25	38.09	93.47	-31.77	-193.90	651.25	599.51	51.75	12.585	
10,450.00	10,415.66	10,480.68	10,429.16	37.40	38.24	94.90	-31.77	-193.90	652.83	600.86	51.97	12.562	
10,500.00	10,459.66	10,524.68	10,473.16	37.55	38.39	96.46	-31.77	-193.90	655.51	603.32	52.18	12.561 SF	
10,550.00	10,501.42	10,566.44	10,514.92	37.69	38.54	98.03	-31.77	-193.90	659.66	607.26	52.40	12.590	
10,600.00	10,540.64	10,605.65	10,554.14	37.83	38.67	99.53	-31.77	-193.90	665.68	613.08	52.60	12.655	
10,650.00	10,577.00	10,642.01	10,590.50	37.96	38.80	100.83	-31.77	-193.90	673.93	621.14	52.80	12.764	
10,700.00	10,610.23	10,675.25	10,623.73	38.10	38.91	101.84	-31.77	-193.90	684.77	631.78	52.99	12.922	
10,750.00	10,640.08	10,705.10	10,653.58	38.23	39.01	102.47	-31.77	-193.90	698.44	645.26	53.17	13.135	
10,800.00	10,666.33	10,731.34	10,679.83	38.38	39.10	102.62	-31.77	-193.90	715.12	661.77	53.34	13.406	
10,850.00	10,688.76	10,753.78	10,702.26	38.53	39.18	102.20	-31.77	-193.90	734.88	681.38	53.50	13.736	
10,900.00	10,707.22	10,772.24	10,720.72	38.70	39.24	101.14	-31.77	-193.90	757.68	704.04	53.64	14.126	
10,950.00	10,721.56	10,786.58	10,735.06	38.87	39.29	99.36	-31.77	-193.90	783.37	729.61	53.76	14.572	
11,000.00	10,731.67	10,796.69	10,745.17	39.06	39.33	96.80	-31.77	-193.90	811.72	757.86	53.86	15.072	
11,050.00	10,737.48	10,802.50	10,750.98	39.25	39.35	93.43	-31.77	-193.90	842.40	788.47	53.93	15.619	
11,091.72	10,739.00	10,804.01	10,752.50	39.42	39.35	90.00	-31.77	-193.90	869.52	815.53	53.98	16.107	
11,100.00	10,739.00	10,804.01	10,752.50	39.46	39.35	90.00	-31.77	-193.90	875.04	821.05	53.99	16.207	
11,200.00	10,739.00	10,804.01	10,752.50	39.90	39.35	90.00	-31.77	-193.90	944.93	890.85	54.08	17.472	
11,300.00	10,739.00	10,804.01	10,752.50	40.41	39.35	90.00	-31.77	-193.90	1,019.84	965.68	54.16	18.829	
11,400.00	10,739.00	10,804.01	10,752.50	40.98	39.35	90.00	-31.77	-193.90	1,098.76	1,044.53	54.23	20.260	
11,500.00	10,739.00	10,804.01	10,752.50	41.61	39.35	90.00	-31.77	-193.90	1,180.87	1,126.58	54.29	21.750	
11,600.00	10,739.00	10,804.01	10,752.50	42.29	39.35	90.00	-31.77	-193.90	1,265.56	1,211.22	54.35	23.287	
11,700.00	10,739.00	10,804.01	10,752.50	43.02	39.35	90.00	-31.77	-193.90	1,352.35	1,297.95	54.39	24.862	
11,800.00	10,739.00	10,804.01	10,752.50	43.81	39.35	90.00	-31.77	-193.90	1,440.85	1,386.41	54.44	26.468	
11,900.00	10,739.00	10,804.02	10,752.50	44.64	39.35	90.00	-31.77	-193.90	1,530.76	1,476.28	54.48	28.100	
12,000.00	10,739.00	10,804.02	10,752.50	45.51	39.35	90.00	-31.77	-193.90	1,621.86	1,567.35	54.51	29.753	
12,100.00	10,739.00	10,804.02	10,752.50	46.43	39.35	90.00	-31.77	-193.90	1,713.95	1,659.40	54.54	31.423	
12,200.00	10,739.00	10,804.02	10,752.50	47.38	39.35	90.00	-31.77	-193.90	1,806.88	1,752.30	54.57	33.108	
12,300.00	10,739.00	10,804.02	10,752.50	48.38	39.35	90.00	-31.77	-193.90	1,900.52	1,845.92	54.60	34.806	
12,400.00	10,739.00	14,308.49	12,617.00	49.41	55.05	160.78	-1,917.57	-175.26	1,974.58	1,927.92	46.65	42.326	
12,500.00	10,739.00	14,408.49	12,617.00	50.47	56.01	160.78	-2,017.56	-174.27	1,974.58	1,927.21	47.37	41.686	
12,600.00	10,739.00	14,508.49	12,617.00	51.56	56.99	160.78	-2,117.56	-173.29	1,974.58	1,926.48	48.11	41.047	
12,700.00	10,739.00	14,608.49	12,617.00	52.68	58.01	160.78	-2,217.56	-172.30	1,974.59	1,925.72	48.87	40.408	
12,800.00	10,739.00	14,708.49	12,617.00	53.83	59.06	160.78	-2,317.55	-171.31	1,974.59	1,924.94	49.65	39.771	
12,900.00	10,739.00	14,808.49	12,617.00	55.01	60.13	160.78	-2,417.55	-170.32	1,974.59	1,924.14	50.45	39.138	
13,000.00	10,739.00	14,908.49	12,617.00	56.21	61.23	160.78	-2,517.54	-169.33	1,974.60	1,923.32	51.28	38.510	
13,100.00	10,739.00	15,008.49	12,617.00	57.43	62.35	160.78	-2,617.54	-168.35	1,974.60	1,922.48	52.12	37.888	
13,200.00	10,739.00	15,108.49	12,617.00	58.67	63.50	160.78	-2,717.53	-167.36	1,974.60	1,921.63	52.98	37.273	
13,300.00	10,739.00	15,208.49	12,617.00	59.93	64.67	160.78	-2,817.53	-166.37	1,974.61	1,920.75	53.85	36.667	
13,400.00	10,739.00	15,308.49	12,617.00	61.21	65.86	160.78	-2,917.52	-165.38	1,974.61	1,919.87	54.74	36.070	
13,500.00	10,739.00	15,408.49	12,617.00	62.51	67.06	160.78	-3,017.52	-164.39	1,974.61	1,918.96	55.65	35.483	
13,600.00	10,739.00	15,508.49	12,617.00	63.83	68.29	160.78	-3,117.51	-163.40	1,974.62	1,918.05	56.57	34.906	
13,700.00	10,739.00	15,608.49	12,617.00	65.16	69.54	160.78	-3,217.51	-162.42	1,974.62	1,917.12	57.50	34.340	
13,800.00	10,739.00	15,708.49	12,617.00	66.50	70.80	160.77	-3,317.50	-161.43	1,974.62	1,916.17	58.45	33.784	
13,900.00	10,739.00	15,808.49	12,617.00	67.86	72.07	160.77	-3,417.50	-160.44	1,974.63	1,915.22	59.41	33.239	
14,000.00	10,739.00	15,908.49	12,617.00	69.23	73.37	160.77	-3,517.49	-159.45	1,974.63	1,914.25	60.38	32.704	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 802H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	10,739.00	16,008.49	12,617.00	70.61	74.67	160.77	-3,617.49	-158.46	1,974.63	1,913.27	61.36	32.181	
14,200.00	10,739.00	16,108.49	12,617.00	72.00	75.99	160.77	-3,717.48	-157.47	1,974.64	1,912.28	62.35	31.668	
14,300.00	10,739.00	16,208.49	12,617.00	73.41	77.32	160.77	-3,817.48	-156.49	1,974.64	1,911.28	63.36	31.166	
14,400.00	10,739.00	16,308.49	12,617.00	74.82	78.67	160.77	-3,917.47	-155.50	1,974.64	1,910.27	64.37	30.676	
14,500.00	10,739.00	16,408.49	12,617.00	76.25	80.03	160.77	-4,017.47	-154.51	1,974.64	1,909.25	65.39	30.198	
14,600.00	10,739.00	16,508.49	12,617.00	77.68	81.39	160.77	-4,117.46	-153.52	1,974.65	1,908.23	66.42	29.730	
14,700.00	10,739.00	16,608.49	12,617.00	79.12	82.77	160.77	-4,217.46	-152.53	1,974.65	1,907.20	67.46	29.273	
14,800.00	10,739.00	16,708.49	12,617.00	80.57	84.16	160.77	-4,317.45	-151.55	1,974.65	1,906.15	68.50	28.827	
14,900.00	10,739.00	16,808.49	12,617.00	82.03	85.55	160.77	-4,417.45	-150.56	1,974.66	1,905.10	69.55	28.391	
15,000.00	10,739.00	16,908.49	12,617.00	83.49	86.96	160.77	-4,517.44	-149.57	1,974.66	1,904.05	70.61	27.964	
15,100.00	10,739.00	17,008.49	12,617.00	84.96	88.37	160.77	-4,617.44	-148.58	1,974.66	1,902.98	71.68	27.548	
15,200.00	10,739.00	17,108.49	12,617.00	86.44	89.79	160.77	-4,717.43	-147.59	1,974.67	1,901.91	72.75	27.141	
15,300.00	10,739.00	17,208.49	12,617.00	87.92	91.22	160.77	-4,817.43	-146.60	1,974.67	1,900.84	73.84	26.744	
15,400.00	10,739.00	17,308.49	12,617.00	89.41	92.66	160.77	-4,917.42	-145.62	1,974.67	1,899.75	74.92	26.357	
15,500.00	10,739.00	17,408.49	12,617.00	90.91	94.11	160.77	-5,017.42	-144.63	1,974.68	1,898.67	76.01	25.979	
15,600.00	10,739.00	17,508.49	12,617.00	92.41	95.56	160.77	-5,117.41	-143.64	1,974.68	1,897.58	77.10	25.610	
15,700.00	10,739.00	17,608.49	12,617.00	93.92	97.01	160.77	-5,217.41	-142.65	1,974.68	1,896.48	78.20	25.250	
15,800.00	10,739.00	17,708.49	12,617.00	95.43	98.48	160.77	-5,317.40	-141.66	1,974.69	1,895.38	79.31	24.899	
15,900.00	10,739.00	17,808.49	12,617.00	96.94	99.95	160.77	-5,417.40	-140.67	1,974.69	1,894.27	80.42	24.555	
16,000.00	10,739.00	17,908.49	12,617.00	98.46	101.42	160.77	-5,517.39	-139.69	1,974.69	1,893.16	81.53	24.219	
16,100.00	10,739.00	18,008.49	12,617.00	99.99	102.90	160.77	-5,617.39	-138.70	1,974.70	1,892.04	82.65	23.891	
16,200.00	10,739.00	18,108.49	12,617.00	101.51	104.39	160.77	-5,717.38	-137.71	1,974.70	1,890.92	83.78	23.571	
16,300.00	10,739.00	18,208.49	12,617.00	103.05	105.88	160.77	-5,817.38	-136.72	1,974.70	1,889.80	84.90	23.258	
16,400.00	10,739.00	18,308.49	12,617.00	104.58	107.37	160.77	-5,917.37	-135.73	1,974.71	1,888.67	86.03	22.953	
16,500.00	10,739.00	18,408.49	12,617.00	106.12	108.87	160.77	-6,017.37	-134.75	1,974.71	1,887.54	87.17	22.654	
16,600.00	10,739.00	18,508.49	12,617.00	107.66	110.38	160.77	-6,117.36	-133.76	1,974.71	1,886.41	88.31	22.362	
16,700.00	10,739.00	18,608.49	12,617.00	109.21	111.88	160.77	-6,217.36	-132.77	1,974.72	1,885.27	89.44	22.078	
16,800.00	10,739.00	18,708.49	12,617.00	110.76	113.40	160.77	-6,317.36	-131.78	1,974.72	1,884.13	90.59	21.799	
16,900.00	10,739.00	18,808.49	12,617.00	112.31	114.91	160.77	-6,417.35	-130.79	1,974.72	1,882.99	91.73	21.527	
17,000.00	10,739.00	18,908.49	12,617.00	113.86	116.43	160.77	-6,517.35	-129.80	1,974.73	1,881.84	92.88	21.260	
17,100.00	10,739.00	19,008.49	12,617.00	115.42	117.95	160.77	-6,617.34	-128.82	1,974.73	1,880.69	94.04	21.000	
17,200.00	10,739.00	19,108.49	12,617.00	116.98	119.48	160.77	-6,717.34	-127.83	1,974.73	1,879.54	95.19	20.745	
17,300.00	10,739.00	19,208.49	12,617.00	118.54	121.01	160.77	-6,817.33	-126.84	1,974.74	1,878.39	96.35	20.496	
17,400.00	10,739.00	19,308.49	12,617.00	120.10	122.54	160.77	-6,917.33	-125.85	1,974.74	1,877.23	97.51	20.252	
17,500.00	10,739.00	19,408.49	12,617.00	121.67	124.08	160.76	-7,017.32	-124.86	1,974.74	1,876.07	98.67	20.014	
17,600.00	10,739.00	19,508.49	12,617.00	123.24	125.62	160.76	-7,117.32	-123.87	1,974.75	1,874.91	99.83	19.781	
17,700.00	10,739.00	19,608.49	12,617.00	124.81	127.16	160.76	-7,217.31	-122.89	1,974.75	1,873.75	101.00	19.553	
17,800.00	10,739.00	19,708.49	12,617.00	126.38	128.71	160.76	-7,317.31	-121.90	1,974.75	1,872.59	102.16	19.329	
17,900.00	10,739.00	19,808.49	12,617.00	127.96	130.25	160.76	-7,417.30	-120.91	1,974.76	1,871.42	103.33	19.110	
18,000.00	10,739.00	19,908.49	12,617.00	129.53	131.80	160.76	-7,517.30	-119.92	1,974.76	1,870.25	104.51	18.896	
18,100.00	10,739.00	20,008.49	12,617.00	131.11	133.35	160.76	-7,617.29	-118.93	1,974.76	1,869.08	105.68	18.686	
18,200.00	10,739.00	20,108.49	12,617.00	132.69	134.91	160.76	-7,717.29	-117.95	1,974.77	1,867.91	106.86	18.481	
18,300.00	10,739.00	20,208.49	12,617.00	134.28	136.47	160.76	-7,817.28	-116.96	1,974.77	1,866.74	108.03	18.280	
18,400.00	10,739.00	20,308.49	12,617.00	135.86	138.02	160.76	-7,917.28	-115.97	1,974.77	1,865.56	109.21	18.083	
18,500.00	10,739.00	20,408.49	12,617.00	137.44	139.59	160.76	-8,017.27	-114.98	1,974.77	1,864.39	110.39	17.889	
18,600.00	10,739.00	20,508.49	12,617.00	139.03	141.15	160.76	-8,117.27	-113.99	1,974.78	1,863.21	111.57	17.700	
18,700.00	10,739.00	20,608.49	12,617.00	140.62	142.71	160.76	-8,217.26	-113.00	1,974.78	1,862.03	112.75	17.514	
18,800.00	10,739.00	20,708.49	12,617.00	142.21	144.28	160.76	-8,317.26	-112.02	1,974.78	1,860.85	113.94	17.332	
18,900.00	10,739.00	20,808.49	12,617.00	143.80	145.85	160.76	-8,417.25	-111.03	1,974.79	1,859.67	115.12	17.154	
19,000.00	10,739.00	20,908.49	12,617.00	145.39	147.42	160.76	-8,517.25	-110.04	1,974.79	1,858.48	116.31	16.979	
19,100.00	10,739.00	21,008.49	12,617.00	146.99	148.99	160.76	-8,617.24	-109.05	1,974.79	1,857.30	117.50	16.807	
19,200.00	10,739.00	21,108.49	12,617.00	148.58	150.57	160.76	-8,717.24	-108.06	1,974.80	1,856.11	118.68	16.639	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 802H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	10,739.00	21,208.49	12,617.00	150.18	152.14	160.76	-8,817.23	-107.07	1,974.80	1,854.93	119.87	16.474	
19,400.00	10,739.00	21,308.49	12,617.00	151.78	153.72	160.76	-8,917.23	-106.09	1,974.80	1,853.74	121.06	16.312	
19,500.00	10,739.00	21,408.49	12,617.00	153.38	155.30	160.76	-9,017.22	-105.10	1,974.81	1,852.55	122.26	16.153	
19,600.00	10,739.00	21,508.49	12,617.00	154.98	156.88	160.76	-9,117.22	-104.11	1,974.81	1,851.36	123.45	15.997	
19,700.00	10,739.00	21,608.49	12,617.00	156.58	158.46	160.76	-9,217.21	-103.12	1,974.81	1,850.17	124.64	15.844	
19,800.00	10,739.00	21,708.49	12,617.00	158.18	160.05	160.76	-9,317.21	-102.13	1,974.82	1,848.98	125.84	15.694	
19,900.00	10,739.00	21,808.49	12,617.00	159.78	161.63	160.76	-9,417.20	-101.14	1,974.82	1,847.79	127.03	15.546	
20,000.00	10,739.00	21,908.49	12,617.00	161.39	163.22	160.76	-9,517.20	-100.16	1,974.82	1,846.60	128.23	15.401	
20,100.00	10,739.00	22,008.49	12,617.00	162.99	164.80	160.76	-9,617.19	-99.17	1,974.83	1,845.40	129.42	15.258	
20,200.00	10,739.00	22,108.49	12,617.00	164.60	166.39	160.76	-9,717.19	-98.18	1,974.83	1,844.21	130.62	15.119	
20,300.00	10,739.00	22,208.49	12,617.00	166.20	167.98	160.76	-9,817.18	-97.19	1,974.83	1,843.01	131.82	14.981	
20,400.00	10,739.00	22,308.49	12,617.00	167.81	169.57	160.76	-9,917.18	-96.20	1,974.84	1,841.82	133.02	14.846	
20,500.00	10,739.00	22,408.49	12,617.00	169.42	171.16	160.76	-10,017.17	-95.22	1,974.84	1,840.62	134.22	14.714	
20,600.00	10,739.00	22,508.49	12,617.00	171.03	172.76	160.76	-10,117.17	-94.23	1,974.84	1,839.42	135.42	14.583	
20,700.00	10,739.00	22,608.49	12,617.00	172.64	174.35	160.76	-10,217.16	-93.24	1,974.85	1,838.22	136.62	14.455	
20,800.00	10,739.00	22,708.49	12,617.00	174.25	175.93	160.76	-10,317.16	-92.25	1,974.85	1,837.05	137.80	14.331	
20,801.71	10,739.00	22,710.20	12,617.00	174.28	175.96	160.76	-10,318.87	-92.23	1,974.85	1,837.03	137.82	14.329	
20,879.44	10,739.00	22,787.51	12,617.00	175.53	177.07	160.76	-10,396.17	-91.47	1,974.85	1,836.28	138.58	14.251	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 805H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.44	28.98	2,960.08	2,960.35				
100.00	100.00	72.20	72.20	0.13	0.09	89.44	28.98	2,960.08	2,960.22	2,960.07	0.15	N/A	
200.00	200.00	172.20	172.20	0.48	0.38	89.44	28.98	2,960.08	2,960.22	2,959.60	0.62	4,790.359	
300.00	300.00	272.20	272.20	0.84	0.74	89.44	28.98	2,960.08	2,960.22	2,959.10	1.12	2,635.780	
400.00	400.00	372.20	372.20	1.20	1.10	89.44	28.98	2,960.08	2,960.22	2,958.59	1.63	1,816.802	
500.00	500.00	472.20	472.20	1.56	1.46	89.44	28.98	2,960.08	2,960.22	2,958.09	2.14	1,385.903	
600.00	600.00	572.20	572.20	1.92	1.82	89.44	28.98	2,960.08	2,960.22	2,957.58	2.64	1,120.157	
700.00	700.00	672.20	672.20	2.28	2.18	89.44	28.98	2,960.08	2,960.22	2,957.07	3.15	939.906	
800.00	800.00	772.20	772.20	2.63	2.54	89.44	28.98	2,960.08	2,960.22	2,956.57	3.66	809.615	
900.00	900.00	872.20	872.20	2.99	2.89	89.44	28.98	2,960.08	2,960.22	2,956.06	4.16	711.044	
1,000.00	1,000.00	972.20	972.20	3.35	3.25	89.44	28.98	2,960.08	2,960.22	2,955.55	4.67	633.867	
1,100.00	1,100.00	1,072.20	1,072.20	3.71	3.61	89.44	28.98	2,960.08	2,960.22	2,955.04	5.18	571.803	
1,200.00	1,200.00	1,172.20	1,172.20	4.07	3.97	89.44	28.98	2,960.08	2,960.22	2,954.54	5.68	520.807	
1,300.00	1,300.00	1,272.20	1,272.20	4.43	4.33	89.44	28.98	2,960.08	2,960.22	2,954.03	6.19	478.162	
1,400.00	1,400.00	1,372.20	1,372.20	4.79	4.69	89.44	28.98	2,960.08	2,960.22	2,953.52	6.70	441.972	
1,500.00	1,500.00	1,472.20	1,472.20	5.14	5.04	89.44	28.98	2,960.08	2,960.22	2,953.02	7.20	410.874	
1,600.00	1,600.00	1,572.20	1,572.20	5.50	5.40	89.44	28.98	2,960.08	2,960.22	2,952.51	7.71	383.865	
1,700.00	1,700.00	1,672.20	1,672.20	5.86	5.76	89.44	28.98	2,960.08	2,960.22	2,952.00	8.22	360.188	
1,800.00	1,800.00	1,772.20	1,772.20	6.22	6.12	89.44	28.98	2,960.08	2,960.22	2,951.50	8.73	339.261	
1,900.00	1,900.00	1,872.20	1,872.20	6.58	6.48	89.44	28.98	2,960.08	2,960.22	2,950.99	9.23	320.633	
2,000.00	2,000.00	1,972.20	1,972.20	6.94	6.84	89.44	28.98	2,960.08	2,960.22	2,950.48	9.74	303.944	
2,100.00	2,100.00	2,072.20	2,072.20	7.29	7.20	89.44	28.98	2,960.08	2,960.22	2,949.98	10.25	288.906	
2,200.00	2,200.00	2,172.20	2,172.20	7.65	7.55	89.44	28.98	2,960.08	2,960.22	2,949.47	10.75	275.286	
2,300.00	2,300.00	2,272.20	2,272.20	8.01	7.91	89.44	28.98	2,960.08	2,960.22	2,948.96	11.26	262.892	
2,400.00	2,400.00	2,372.20	2,372.20	8.37	8.27	89.44	28.98	2,960.08	2,960.22	2,948.45	11.77	251.567	
2,500.00	2,500.00	2,472.20	2,472.20	8.73	8.63	89.44	28.98	2,960.08	2,960.22	2,947.95	12.27	241.176	
2,600.00	2,600.00	2,572.20	2,572.20	9.09	8.99	89.44	28.98	2,960.08	2,960.22	2,947.44	12.78	231.610	
2,700.00	2,700.00	2,672.20	2,672.20	9.45	9.35	89.44	28.98	2,960.08	2,960.22	2,946.93	13.29	222.774	
2,800.00	2,800.00	2,772.20	2,772.20	9.80	9.70	89.44	28.98	2,960.08	2,960.22	2,946.43	13.79	214.587	
2,900.00	2,900.00	2,872.20	2,872.20	10.16	10.06	89.44	28.98	2,960.08	2,960.22	2,945.92	14.30	206.981	
3,000.00	3,000.00	2,972.20	2,972.20	10.52	10.42	89.44	28.98	2,960.08	2,960.22	2,945.41	14.81	199.896	
3,100.00	3,100.00	3,072.20	3,072.20	10.88	10.78	89.44	28.98	2,960.08	2,960.22	2,944.91	15.32	193.279	
3,200.00	3,200.00	3,172.20	3,172.20	11.24	11.14	89.44	28.98	2,960.08	2,960.22	2,944.40	15.82	187.087	
3,300.00	3,299.99	3,272.19	3,272.19	11.59	11.50	-4.33	28.98	2,960.08	2,958.92	2,942.59	16.32	181.276	
3,400.00	3,399.91	3,614.60	3,614.25	11.93	12.68	-4.34	27.85	2,947.18	2,952.04	2,934.69	17.35	170.101	
3,500.00	3,499.69	3,776.54	3,775.40	12.27	13.24	-4.35	26.47	2,931.33	2,935.44	2,917.48	17.96	163.444	
3,600.00	3,599.27	3,874.64	3,872.97	12.62	13.59	-4.37	25.58	2,921.19	2,916.07	2,897.63	18.44	158.174	
3,645.68	3,644.67	3,919.28	3,917.37	12.78	13.74	-4.38	25.18	2,916.58	2,906.37	2,887.71	18.65	155.809	
3,700.00	3,698.62	3,972.29	3,970.09	12.97	13.93	-4.38	24.70	2,911.11	2,894.52	2,875.61	18.91	153.059	
3,800.00	3,797.94	4,069.88	4,067.16	13.32	14.28	-4.38	23.82	2,901.02	2,872.70	2,853.32	19.39	148.182	
3,900.00	3,897.26	4,167.48	4,164.22	13.68	14.63	-4.38	22.94	2,890.94	2,850.89	2,831.02	19.86	143.526	
4,000.00	3,996.58	4,265.07	4,261.29	14.03	14.98	-4.39	22.06	2,880.86	2,829.07	2,808.73	20.34	139.078	
4,100.00	4,095.90	4,362.66	4,358.36	14.40	15.33	-4.39	21.18	2,870.78	2,807.26	2,786.43	20.82	134.825	
4,200.00	4,195.22	4,460.25	4,455.42	14.76	15.68	-4.39	20.30	2,860.69	2,785.44	2,764.14	21.30	130.756	
4,300.00	4,294.54	4,557.84	4,552.49	15.12	16.04	-4.39	19.42	2,850.61	2,763.62	2,741.84	21.79	126.859	
4,400.00	4,393.86	4,655.43	4,649.55	15.49	16.39	-4.39	18.54	2,840.53	2,741.81	2,719.54	22.27	123.124	
4,500.00	4,493.18	4,753.02	4,746.62	15.86	16.75	-4.40	17.66	2,830.45	2,719.99	2,697.24	22.75	119.543	
4,600.00	4,592.50	4,850.62	4,843.68	16.23	17.11	-4.40	16.78	2,820.37	2,698.18	2,674.94	23.24	116.106	
4,700.00	4,691.82	4,948.21	4,940.75	16.60	17.47	-4.40	15.90	2,810.28	2,676.36	2,652.64	23.73	112.804	
4,800.00	4,791.14	5,045.80	5,037.81	16.97	17.83	-4.40	15.02	2,800.20	2,654.55	2,630.33	24.21	109.632	
4,900.00	4,890.46	5,143.39	5,134.88	17.35	18.19	-4.40	14.14	2,790.12	2,632.73	2,608.03	24.70	106.581	
5,000.00	4,989.78	5,240.98	5,231.94	17.73	18.56	-4.41	13.25	2,780.04	2,610.92	2,585.73	25.19	103.645	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 805H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.10	5,338.57	5,329.01	18.10	18.92	-4.41	12.37	2,769.95	2,589.10	2,563.42	25.68	100.817	
5,200.00	5,188.42	5,436.16	5,426.07	18.48	19.29	-4.41	11.49	2,759.87	2,567.29	2,541.11	26.17	98.093	
5,300.00	5,287.74	5,533.75	5,523.14	18.86	19.65	-4.41	10.61	2,749.79	2,545.47	2,518.81	26.66	95.467	
5,400.00	5,387.06	5,631.35	5,620.20	19.24	20.02	-4.41	9.73	2,739.71	2,523.65	2,496.50	27.16	92.934	
5,500.00	5,486.38	5,728.94	5,717.27	19.62	20.39	-4.42	8.85	2,729.63	2,501.84	2,474.19	27.65	90.488	
5,600.00	5,585.70	5,826.53	5,814.33	20.00	20.75	-4.42	7.97	2,719.54	2,480.02	2,451.88	28.14	88.127	
5,700.00	5,685.02	5,924.12	5,911.40	20.39	21.12	-4.42	7.09	2,709.46	2,458.21	2,429.57	28.64	85.845	
5,800.00	5,784.34	6,021.71	6,008.46	20.77	21.49	-4.42	6.21	2,699.38	2,436.39	2,407.26	29.13	83.639	
5,900.00	5,883.66	6,119.30	6,105.53	21.16	21.86	-4.43	5.33	2,689.30	2,414.58	2,384.95	29.62	81.505	
6,000.00	5,982.98	6,216.89	6,202.59	21.54	22.23	-4.43	4.45	2,679.21	2,392.76	2,362.64	30.12	79.440	
6,100.00	6,082.30	6,314.49	6,299.66	21.93	22.60	-4.43	3.57	2,669.13	2,370.95	2,340.33	30.62	77.440	
6,200.00	6,181.62	6,412.08	6,396.72	22.31	22.97	-4.43	2.69	2,659.05	2,349.13	2,318.02	31.11	75.504	
6,300.00	6,280.94	6,509.67	6,493.79	22.70	23.34	-4.44	1.81	2,648.97	2,327.31	2,295.71	31.61	73.627	
6,400.00	6,380.26	6,607.26	6,590.85	23.09	23.72	-4.44	0.93	2,638.89	2,305.50	2,273.39	32.11	71.807	
6,500.00	6,479.58	6,704.85	6,687.92	23.48	24.09	-4.44	0.05	2,628.80	2,283.68	2,251.08	32.60	70.042	
6,600.00	6,578.90	6,802.44	6,784.98	23.87	24.46	-4.45	-0.83	2,618.72	2,261.87	2,228.77	33.10	68.329	
6,700.00	6,678.22	6,900.03	6,882.05	24.26	24.84	-4.45	-1.72	2,608.64	2,240.05	2,206.45	33.60	66.666	
6,800.00	6,777.54	6,997.63	6,979.11	24.65	25.21	-4.45	-2.60	2,598.56	2,218.24	2,184.14	34.10	65.052	
6,900.00	6,876.86	7,095.22	7,076.18	25.04	25.58	-4.45	-3.48	2,588.47	2,196.42	2,161.82	34.60	63.483	
7,000.00	6,976.18	7,167.55	7,148.15	25.43	25.86	-4.46	-4.11	2,581.26	2,175.01	2,139.95	35.06	62.028	
7,100.00	7,075.50	7,230.17	7,210.55	25.82	26.10	-4.46	-4.56	2,576.02	2,155.13	2,119.62	35.51	60.684	
7,125.00	7,100.33	7,245.88	7,226.22	25.92	26.15	-4.46	-4.67	2,574.87	2,150.41	2,114.79	35.63	60.362	
7,200.00	7,174.90	7,300.00	7,280.22	26.21	26.35	-4.45	-4.97	2,571.38	2,137.60	2,101.63	35.97	59.428	
7,300.00	7,274.55	7,356.94	7,337.09	26.58	26.56	-4.44	-5.22	2,568.54	2,124.17	2,087.77	36.40	58.364	
7,400.00	7,374.38	7,421.04	7,401.15	26.95	26.79	-4.43	-5.41	2,566.35	2,115.00	2,078.18	36.83	57.432	
7,500.00	7,474.33	7,500.00	7,480.10	27.30	27.07	-4.43	-5.52	2,565.13	2,110.19	2,072.91	37.28	56.603	
7,570.68	7,545.00	7,537.10	7,517.20	27.55	27.19	89.34	-5.52	2,565.08	2,109.22	2,071.67	37.55	56.165	
7,600.00	7,574.32	7,566.42	7,546.52	27.65	27.29	89.34	-5.52	2,565.08	2,109.22	2,071.52	37.70	55.950	
7,700.00	7,674.32	7,666.42	7,646.52	27.99	27.64	89.34	-5.52	2,565.08	2,109.22	2,071.03	38.19	55.226	
7,800.00	7,774.32	7,766.42	7,746.52	28.33	27.98	89.34	-5.52	2,565.08	2,109.22	2,070.54	38.69	54.521	
7,900.00	7,874.32	7,866.42	7,846.52	28.67	28.32	89.34	-5.52	2,565.08	2,109.22	2,070.04	39.18	53.833	
8,000.00	7,974.32	7,966.42	7,946.52	29.01	28.67	89.34	-5.52	2,565.08	2,109.22	2,069.55	39.68	53.162	
8,100.00	8,074.32	8,066.42	8,046.52	29.35	29.01	89.34	-5.52	2,565.08	2,109.22	2,069.05	40.17	52.507	
8,200.00	8,174.32	8,166.42	8,146.52	29.69	29.36	89.34	-5.52	2,565.08	2,109.22	2,068.56	40.67	51.867	
8,300.00	8,274.32	8,266.42	8,246.52	30.04	29.70	89.34	-5.52	2,565.08	2,109.22	2,068.06	41.16	51.243	
8,400.00	8,374.32	8,366.42	8,346.52	30.38	30.05	89.34	-5.52	2,565.08	2,109.22	2,067.56	41.66	50.633	
8,500.00	8,474.32	8,466.42	8,446.52	30.72	30.39	89.34	-5.52	2,565.08	2,109.22	2,067.07	42.15	50.037	
8,600.00	8,574.32	8,566.42	8,546.52	31.07	30.74	89.34	-5.52	2,565.08	2,109.22	2,066.57	42.65	49.454	
8,700.00	8,674.32	8,666.42	8,646.52	31.41	31.09	89.34	-5.52	2,565.08	2,109.22	2,066.08	43.15	48.885	
8,800.00	8,774.32	8,766.42	8,746.52	31.76	31.43	89.34	-5.52	2,565.08	2,109.22	2,065.58	43.64	48.329	
8,900.00	8,874.32	8,866.42	8,846.52	32.10	31.78	89.34	-5.52	2,565.08	2,109.22	2,065.08	44.14	47.784	
9,000.00	8,974.32	8,966.42	8,946.52	32.45	32.13	89.34	-5.52	2,565.08	2,109.22	2,064.58	44.64	47.252	
9,100.00	9,074.32	9,066.42	9,046.52	32.79	32.47	89.34	-5.52	2,565.08	2,109.22	2,064.09	45.14	46.731	
9,200.00	9,174.32	9,166.42	9,146.52	33.14	32.82	89.34	-5.52	2,565.08	2,109.22	2,063.59	45.63	46.221	
9,300.00	9,274.32	9,266.42	9,246.52	33.48	33.17	89.34	-5.52	2,565.08	2,109.22	2,063.09	46.13	45.722	
9,400.00	9,374.32	9,366.42	9,346.52	33.83	33.52	89.34	-5.52	2,565.08	2,109.22	2,062.59	46.63	45.234	
9,500.00	9,474.32	9,466.42	9,446.52	34.17	33.87	89.34	-5.52	2,565.08	2,109.22	2,062.09	47.13	44.756	
9,600.00	9,574.32	9,566.42	9,546.52	34.52	34.22	89.34	-5.52	2,565.08	2,109.22	2,061.60	47.63	44.287	
9,700.00	9,674.32	9,666.42	9,646.52	34.87	34.56	89.34	-5.52	2,565.08	2,109.22	2,061.10	48.12	43.828	
9,800.00	9,774.32	9,766.42	9,746.52	35.22	34.91	89.34	-5.52	2,565.08	2,109.22	2,060.60	48.62	43.379	
9,900.00	9,874.32	9,866.42	9,846.52	35.56	35.26	89.34	-5.52	2,565.08	2,109.22	2,060.10	49.12	42.938	
10,000.00	9,974.32	9,966.42	9,946.52	35.91	35.61	89.34	-5.52	2,565.08	2,109.22	2,059.60	49.62	42.506	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 805H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,074.32	10,066.42	10,046.52	36.26	35.96	89.34	-5.52	2,565.08	2,109.22	2,059.10	50.12	42.083	
10,191.72	10,166.04	10,158.14	10,138.24	36.58	36.28	89.34	-5.52	2,565.08	2,109.22	2,058.64	50.58	41.701	CC
10,200.00	10,174.32	10,166.42	10,146.52	36.60	36.31	-90.09	-5.52	2,565.08	2,109.22	2,058.60	50.62	41.668	
10,250.00	10,224.22	10,216.32	10,196.42	36.77	36.48	-90.17	-5.52	2,565.08	2,109.23	2,058.37	50.86	41.470	
10,300.00	10,273.68	10,265.78	10,245.88	36.93	36.66	-90.36	-5.52	2,565.08	2,109.26	2,058.16	51.10	41.275	
10,350.00	10,322.32	10,314.42	10,294.52	37.09	36.83	-90.66	-5.52	2,565.08	2,109.37	2,058.03	51.34	41.085	ES
10,400.00	10,369.77	10,361.87	10,341.97	37.25	36.99	-91.04	-5.52	2,565.08	2,109.62	2,058.04	51.58	40.903	
10,450.00	10,415.66	10,407.76	10,387.86	37.40	37.15	-91.48	-5.52	2,565.08	2,110.09	2,058.28	51.81	40.730	
10,500.00	10,459.66	10,451.76	10,431.86	37.55	37.31	-91.97	-5.52	2,565.08	2,110.91	2,058.87	52.03	40.568	
10,550.00	10,501.42	10,493.53	10,473.62	37.69	37.45	-92.46	-5.52	2,565.08	2,112.18	2,059.93	52.26	40.419	
10,600.00	10,540.64	10,532.74	10,512.84	37.83	37.59	-92.93	-5.52	2,565.08	2,114.05	2,061.57	52.48	40.286	
10,650.00	10,577.00	10,569.10	10,549.20	37.96	37.72	-93.35	-5.52	2,565.08	2,116.64	2,063.95	52.69	40.169	
10,700.00	10,610.23	10,602.33	10,582.43	38.10	37.84	-93.68	-5.52	2,565.08	2,120.10	2,067.19	52.91	40.072	
10,750.00	10,640.08	10,632.18	10,612.28	38.23	37.94	-93.88	-5.52	2,565.08	2,124.53	2,071.41	53.12	39.996	
10,800.00	10,666.33	10,658.43	10,638.53	38.38	38.03	-93.93	-5.52	2,565.08	2,130.04	2,076.72	53.33	39.943	
10,850.00	10,688.76	10,680.86	10,660.96	38.53	38.11	-93.80	-5.52	2,565.08	2,136.73	2,083.20	53.53	39.914	
10,900.00	10,707.22	10,699.32	10,679.42	38.70	38.18	-93.46	-5.52	2,565.08	2,144.65	2,090.91	53.74	39.910	
10,950.00	10,721.56	10,713.66	10,693.76	38.87	38.23	-92.90	-5.52	2,565.08	2,153.83	2,099.90	53.94	39.933	
11,000.00	10,731.67	10,723.77	10,703.87	39.06	38.26	-92.10	-5.52	2,565.08	2,164.28	2,110.14	54.13	39.982	
11,050.00	10,737.48	10,729.58	10,709.68	39.25	38.28	-91.06	-5.52	2,565.08	2,175.94	2,121.62	54.32	40.058	
11,091.72	10,739.00	10,731.10	10,711.20	39.42	38.29	-90.00	-5.52	2,565.08	2,186.56	2,132.09	54.47	40.142	
11,100.00	10,739.00	10,731.10	10,711.20	39.46	38.29	-90.00	-5.52	2,565.08	2,188.75	2,134.25	54.50	40.160	
11,200.00	10,739.00	10,731.10	10,711.20	39.90	38.29	-90.00	-5.52	2,565.08	2,217.56	2,162.68	54.88	40.407	
11,300.00	10,739.00	10,731.10	10,711.20	40.41	38.29	-90.00	-5.52	2,565.08	2,250.45	2,195.15	55.29	40.700	
11,400.00	10,739.00	10,731.10	10,711.20	40.98	38.29	-90.00	-5.52	2,565.08	2,287.23	2,231.50	55.73	41.040	
11,500.00	10,739.00	10,731.10	10,711.20	41.61	38.29	-90.00	-5.52	2,565.08	2,327.74	2,271.55	56.19	41.428	
11,600.00	10,739.00	10,731.10	10,711.20	42.29	38.29	-90.00	-5.52	2,565.08	2,371.77	2,315.12	56.65	41.864	
11,700.00	10,739.00	10,731.10	10,711.20	43.02	38.29	-90.00	-5.52	2,565.08	2,419.14	2,362.02	57.12	42.348	
11,800.00	10,739.00	10,731.10	10,711.20	43.81	38.29	-90.00	-5.52	2,565.08	2,469.65	2,412.06	57.59	42.880	
11,900.00	10,739.00	10,731.10	10,711.20	44.64	38.29	-90.00	-5.52	2,565.08	2,523.12	2,465.06	58.06	43.459	
12,000.00	10,739.00	10,731.10	10,711.20	45.51	38.29	-90.00	-5.52	2,565.08	2,579.35	2,520.84	58.51	44.083	
12,100.00	10,739.00	10,731.10	10,711.20	46.43	38.29	-90.00	-5.52	2,565.08	2,638.18	2,579.22	58.95	44.751	
12,200.00	10,739.00	10,731.10	10,711.20	47.38	38.29	-90.00	-5.52	2,565.08	2,699.43	2,640.05	59.38	45.460	
12,300.00	10,739.00	10,731.10	10,711.20	48.38	38.29	-90.00	-5.52	2,565.08	2,762.94	2,703.15	59.79	46.212	
12,400.00	10,739.00	14,161.03	12,502.00	49.41	54.13	-130.34	-1,890.47	2,583.56	2,766.65	2,705.61	61.04	45.324	
12,500.00	10,739.00	14,261.03	12,502.00	50.47	55.09	-130.34	-1,990.47	2,584.54	2,766.64	2,704.46	62.18	44.494	
12,600.00	10,739.00	14,361.03	12,502.00	51.56	56.09	-130.34	-2,090.46	2,585.52	2,766.62	2,703.27	63.35	43.670	
12,700.00	10,739.00	14,461.03	12,502.00	52.68	57.12	-130.34	-2,190.46	2,586.50	2,766.61	2,702.05	64.56	42.853	
12,800.00	10,739.00	14,561.03	12,502.00	53.83	58.18	-130.34	-2,290.45	2,587.48	2,766.60	2,700.79	65.80	42.044	
12,900.00	10,739.00	14,661.03	12,502.00	55.01	59.27	-130.34	-2,390.45	2,588.46	2,766.58	2,699.51	67.07	41.247	
13,000.00	10,739.00	14,761.03	12,502.00	56.21	60.38	-130.34	-2,490.44	2,589.44	2,766.57	2,698.19	68.38	40.461	
13,100.00	10,739.00	14,861.03	12,502.00	57.43	61.51	-130.34	-2,590.44	2,590.42	2,766.56	2,696.85	69.71	39.689	
13,200.00	10,739.00	14,961.03	12,502.00	58.67	62.67	-130.34	-2,690.43	2,591.40	2,766.54	2,695.48	71.06	38.931	
13,300.00	10,739.00	15,061.03	12,502.00	59.93	63.85	-130.34	-2,790.43	2,592.38	2,766.53	2,694.09	72.44	38.189	
13,400.00	10,739.00	15,161.03	12,502.00	61.21	65.05	-130.34	-2,890.42	2,593.36	2,766.52	2,692.67	73.85	37.463	
13,500.00	10,739.00	15,261.03	12,502.00	62.51	66.27	-130.34	-2,990.42	2,594.34	2,766.50	2,691.23	75.27	36.753	
13,600.00	10,739.00	15,361.03	12,502.00	63.83	67.51	-130.34	-3,090.41	2,595.32	2,766.49	2,689.77	76.72	36.060	
13,700.00	10,739.00	15,461.03	12,502.00	65.16	68.76	-130.34	-3,190.41	2,596.30	2,766.47	2,688.29	78.19	35.383	
13,800.00	10,739.00	15,561.03	12,502.00	66.50	70.03	-130.34	-3,290.40	2,597.28	2,766.46	2,686.79	79.67	34.724	
13,900.00	10,739.00	15,661.03	12,502.00	67.86	71.32	-130.34	-3,390.40	2,598.26	2,766.45	2,685.28	81.17	34.082	
14,000.00	10,739.00	15,761.03	12,502.00	69.23	72.62	-130.34	-3,490.40	2,599.24	2,766.43	2,683.75	82.69	33.457	
14,100.00	10,739.00	15,861.03	12,502.00	70.61	73.94	-130.34	-3,590.39	2,600.22	2,766.42	2,682.20	84.22	32.849	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 805H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	10,739.00	15,961.03	12,502.00	72.00	75.27	-130.34	-3,690.39	2,601.20	2,766.41	2,680.64	85.76	32.256	
14,300.00	10,739.00	16,061.03	12,502.00	73.41	76.61	-130.34	-3,790.38	2,602.19	2,766.39	2,679.07	87.32	31.680	
14,400.00	10,739.00	16,161.03	12,502.00	74.82	77.96	-130.34	-3,890.38	2,603.17	2,766.38	2,677.48	88.90	31.119	
14,500.00	10,739.00	16,261.03	12,502.00	76.25	79.33	-130.34	-3,990.37	2,604.15	2,766.37	2,675.88	90.48	30.574	
14,600.00	10,739.00	16,361.03	12,502.00	77.68	80.70	-130.34	-4,090.37	2,605.13	2,766.35	2,674.27	92.08	30.043	
14,700.00	10,739.00	16,461.03	12,502.00	79.12	82.09	-130.34	-4,190.36	2,606.11	2,766.34	2,672.65	93.69	29.527	
14,800.00	10,739.00	16,561.03	12,502.00	80.57	83.49	-130.34	-4,290.36	2,607.09	2,766.33	2,671.02	95.31	29.025	
14,900.00	10,739.00	16,661.03	12,502.00	82.03	84.89	-130.34	-4,390.35	2,608.07	2,766.31	2,669.37	96.94	28.537	
15,000.00	10,739.00	16,761.03	12,502.00	83.49	86.30	-130.34	-4,490.35	2,609.05	2,766.30	2,667.72	98.58	28.063	
15,100.00	10,739.00	16,861.03	12,502.00	84.96	87.73	-130.34	-4,590.34	2,610.03	2,766.28	2,666.06	100.22	27.602	
15,200.00	10,739.00	16,961.03	12,502.00	86.44	89.15	-130.34	-4,690.34	2,611.01	2,766.27	2,664.40	101.87	27.154	
15,300.00	10,739.00	17,061.03	12,502.00	87.92	90.59	-130.34	-4,790.33	2,611.99	2,766.26	2,662.72	103.54	26.718	
15,400.00	10,739.00	17,161.03	12,502.00	89.41	92.04	-130.34	-4,890.33	2,612.97	2,766.24	2,661.04	105.21	26.294	
15,500.00	10,739.00	17,261.03	12,502.00	90.91	93.49	-130.34	-4,990.32	2,613.95	2,766.23	2,659.35	106.88	25.881	
15,600.00	10,739.00	17,361.03	12,502.00	92.41	94.95	-130.34	-5,090.32	2,614.93	2,766.22	2,657.65	108.57	25.480	
15,700.00	10,739.00	17,461.03	12,502.00	93.92	96.41	-130.34	-5,190.31	2,615.91	2,766.20	2,655.95	110.26	25.089	
15,800.00	10,739.00	17,561.03	12,502.00	95.43	97.88	-130.35	-5,290.31	2,616.89	2,766.19	2,654.24	111.95	24.708	
15,900.00	10,739.00	17,661.03	12,502.00	96.94	99.35	-130.35	-5,390.30	2,617.87	2,766.18	2,652.52	113.66	24.338	
16,000.00	10,739.00	17,761.03	12,502.00	98.46	100.84	-130.35	-5,490.30	2,618.85	2,766.16	2,650.79	115.37	23.977	
16,100.00	10,739.00	17,861.03	12,502.00	99.99	102.32	-130.35	-5,590.29	2,619.83	2,766.15	2,649.07	117.08	23.626	
16,200.00	10,739.00	17,961.03	12,502.00	101.51	103.81	-130.35	-5,690.29	2,620.81	2,766.14	2,647.34	118.80	23.284	
16,300.00	10,739.00	18,061.03	12,502.00	103.05	105.31	-130.35	-5,790.28	2,621.79	2,766.12	2,645.60	120.52	22.951	
16,400.00	10,739.00	18,161.03	12,502.00	104.58	106.81	-130.35	-5,890.28	2,622.77	2,766.11	2,643.86	122.25	22.627	
16,500.00	10,739.00	18,261.03	12,502.00	106.12	108.32	-130.35	-5,990.28	2,623.75	2,766.09	2,642.11	123.98	22.310	
16,600.00	10,739.00	18,361.03	12,502.00	107.66	109.82	-130.35	-6,090.27	2,624.73	2,766.08	2,640.36	125.72	22.002	
16,700.00	10,739.00	18,461.03	12,502.00	109.21	111.34	-130.35	-6,190.27	2,625.71	2,766.07	2,638.61	127.46	21.701	
16,800.00	10,739.00	18,561.03	12,502.00	110.76	112.86	-130.35	-6,290.26	2,626.69	2,766.05	2,636.85	129.21	21.408	
16,900.00	10,739.00	18,661.03	12,502.00	112.31	114.38	-130.35	-6,390.26	2,627.67	2,766.04	2,635.09	130.95	21.122	
17,000.00	10,739.00	18,761.03	12,502.00	113.86	115.90	-130.35	-6,490.25	2,628.65	2,766.03	2,633.32	132.70	20.844	
17,100.00	10,739.00	18,861.03	12,502.00	115.42	117.43	-130.35	-6,590.25	2,629.63	2,766.01	2,631.55	134.46	20.571	
17,200.00	10,739.00	18,961.03	12,502.00	116.98	118.96	-130.35	-6,690.24	2,630.61	2,766.00	2,629.78	136.22	20.306	
17,300.00	10,739.00	19,061.03	12,502.00	118.54	120.49	-130.35	-6,790.24	2,631.59	2,765.99	2,628.01	137.98	20.046	
17,400.00	10,739.00	19,161.03	12,502.00	120.10	122.03	-130.35	-6,890.23	2,632.57	2,765.97	2,626.23	139.74	19.793	
17,500.00	10,739.00	19,261.03	12,502.00	121.67	123.57	-130.35	-6,990.23	2,633.56	2,765.96	2,624.45	141.51	19.546	
17,600.00	10,739.00	19,361.03	12,502.00	123.24	125.11	-130.35	-7,090.22	2,634.54	2,765.95	2,622.67	143.28	19.305	
17,700.00	10,739.00	19,461.03	12,502.00	124.81	126.66	-130.35	-7,190.22	2,635.52	2,765.93	2,620.88	145.05	19.069	
17,800.00	10,739.00	19,561.03	12,502.00	126.38	128.21	-130.35	-7,290.21	2,636.50	2,765.92	2,619.10	146.82	18.839	
17,900.00	10,739.00	19,661.03	12,502.00	127.96	129.76	-130.35	-7,390.21	2,637.48	2,765.90	2,617.31	148.60	18.613	
18,000.00	10,739.00	19,761.03	12,502.00	129.53	131.31	-130.35	-7,490.20	2,638.46	2,765.89	2,615.51	150.38	18.393	
18,100.00	10,739.00	19,861.03	12,502.00	131.11	132.87	-130.35	-7,590.20	2,639.44	2,765.88	2,613.72	152.16	18.178	
18,200.00	10,739.00	19,961.03	12,502.00	132.69	134.43	-130.35	-7,690.19	2,640.42	2,765.86	2,611.92	153.94	17.967	
18,300.00	10,739.00	20,061.03	12,502.00	134.28	135.99	-130.35	-7,790.19	2,641.40	2,765.85	2,610.12	155.73	17.761	
18,400.00	10,739.00	20,161.03	12,502.00	135.86	137.55	-130.35	-7,890.18	2,642.38	2,765.84	2,608.32	157.52	17.559	
18,500.00	10,739.00	20,261.03	12,502.00	137.44	139.12	-130.35	-7,990.18	2,643.36	2,765.82	2,606.52	159.30	17.362	
18,600.00	10,739.00	20,361.03	12,502.00	139.03	140.68	-130.35	-8,090.17	2,644.34	2,765.81	2,604.72	161.09	17.169	
18,700.00	10,739.00	20,461.03	12,502.00	140.62	142.25	-130.35	-8,190.17	2,645.32	2,765.80	2,602.91	162.88	16.980	
18,800.00	10,739.00	20,561.03	12,502.00	142.21	143.82	-130.35	-8,290.16	2,646.30	2,765.78	2,601.10	164.68	16.795	
18,900.00	10,739.00	20,661.03	12,502.00	143.80	145.39	-130.35	-8,390.16	2,647.28	2,765.77	2,599.30	166.47	16.614	
19,000.00	10,739.00	20,761.03	12,502.00	145.39	146.97	-130.35	-8,490.15	2,648.26	2,765.76	2,597.48	168.27	16.436	
19,100.00	10,739.00	20,861.03	12,502.00	146.99	148.54	-130.35	-8,590.15	2,649.24	2,765.74	2,595.68	170.07	16.263	
19,200.00	10,739.00	20,961.03	12,502.00	148.58	150.12	-130.35	-8,690.15	2,650.22	2,765.73	2,593.86	171.87	16.092	
19,300.00	10,739.00	21,061.03	12,502.00	150.18	151.70	-130.35	-8,790.14	2,651.20	2,765.72	2,592.05	173.67	15.926	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 805H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.00	10,739.00	21,161.03	12,502.00	151.78	153.28	-130.35	-8,890.14	2,652.18	2,765.70	2,590.23	175.47	15.762	
19,500.00	10,739.00	21,261.03	12,502.00	153.38	154.86	-130.35	-8,990.13	2,653.16	2,765.69	2,588.42	177.27	15.601	
19,600.00	10,739.00	21,361.03	12,502.00	154.98	156.44	-130.35	-9,090.13	2,654.14	2,765.67	2,586.60	179.07	15.444	
19,700.00	10,739.00	21,461.03	12,502.00	156.58	158.03	-130.35	-9,190.12	2,655.12	2,765.66	2,584.78	180.88	15.290	
19,800.00	10,739.00	21,561.03	12,502.00	158.18	159.61	-130.35	-9,290.12	2,656.10	2,765.65	2,582.97	182.68	15.139	
19,900.00	10,739.00	21,661.03	12,502.00	159.78	161.20	-130.35	-9,390.11	2,657.08	2,765.63	2,581.15	184.49	14.991	
20,000.00	10,739.00	21,761.03	12,502.00	161.39	162.79	-130.36	-9,490.11	2,658.06	2,765.62	2,579.32	186.30	14.845	
20,100.00	10,739.00	21,861.03	12,502.00	162.99	164.38	-130.36	-9,590.10	2,659.04	2,765.61	2,577.50	188.10	14.703	
20,200.00	10,739.00	21,961.03	12,502.00	164.60	165.97	-130.36	-9,690.10	2,660.02	2,765.59	2,575.68	189.91	14.562	
20,300.00	10,739.00	22,061.03	12,502.00	166.20	167.56	-130.36	-9,790.09	2,661.00	2,765.58	2,573.85	191.73	14.425	
20,400.00	10,739.00	22,161.03	12,502.00	167.81	169.16	-130.36	-9,890.09	2,661.98	2,765.57	2,572.03	193.54	14.290	
20,500.00	10,739.00	22,261.03	12,502.00	169.42	170.75	-130.36	-9,990.08	2,662.96	2,765.55	2,570.20	195.35	14.157	
20,600.00	10,739.00	22,361.03	12,502.00	171.03	172.35	-130.36	-10,090.08	2,663.94	2,765.54	2,568.38	197.16	14.027	
20,700.00	10,739.00	22,461.03	12,502.00	172.64	173.94	-130.36	-10,190.07	2,664.92	2,765.53	2,566.55	198.97	13.899	
20,800.00	10,739.00	22,561.03	12,502.00	174.25	175.54	-130.36	-10,290.07	2,665.91	2,765.51	2,564.73	200.79	13.773	
20,879.44	10,739.00	22,640.46	12,502.00	175.53	176.74	-130.36	-10,369.50	2,666.68	2,765.50	2,563.34	202.16	13.679	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 806H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.44	29.73	3,035.07	3,035.37				
100.00	100.00	69.40	69.40	0.13	0.09	89.44	29.73	3,035.07	3,035.22	3,035.06	0.15	N/A	
200.00	200.00	169.40	169.40	0.48	0.37	89.44	29.73	3,035.07	3,035.22	3,034.60	0.61	4,961.425	
300.00	300.00	269.40	269.40	0.84	0.73	89.44	29.73	3,035.07	3,035.22	3,034.10	1.12	2,718.561	
400.00	400.00	369.40	369.40	1.20	1.09	89.44	29.73	3,035.07	3,035.22	3,033.59	1.62	1,870.598	
500.00	500.00	469.40	469.40	1.56	1.45	89.44	29.73	3,035.07	3,035.22	3,033.09	2.13	1,425.583	
600.00	600.00	569.40	569.40	1.92	1.81	89.44	29.73	3,035.07	3,035.22	3,032.58	2.64	1,151.540	
700.00	700.00	669.40	669.40	2.28	2.17	89.44	29.73	3,035.07	3,035.22	3,032.07	3.14	965.842	
800.00	800.00	769.40	769.40	2.63	2.53	89.44	29.73	3,035.07	3,035.22	3,031.57	3.65	831.707	
900.00	900.00	869.40	869.40	2.99	2.88	89.44	29.73	3,035.07	3,035.22	3,031.06	4.16	730.280	
1,000.00	1,000.00	969.40	969.40	3.35	3.24	89.44	29.73	3,035.07	3,035.22	3,030.55	4.66	650.899	
1,100.00	1,100.00	1,069.40	1,069.40	3.71	3.60	89.44	29.73	3,035.07	3,035.22	3,030.05	5.17	587.082	
1,200.00	1,200.00	1,169.40	1,169.40	4.07	3.96	89.44	29.73	3,035.07	3,035.22	3,029.54	5.68	534.660	
1,300.00	1,300.00	1,269.40	1,269.40	4.43	4.32	89.44	29.73	3,035.07	3,035.22	3,029.03	6.18	490.832	
1,400.00	1,400.00	1,369.40	1,369.40	4.79	4.68	89.44	29.73	3,035.07	3,035.22	3,028.52	6.69	453.644	
1,500.00	1,500.00	1,469.40	1,469.40	5.14	5.03	89.44	29.73	3,035.07	3,035.22	3,028.02	7.20	421.695	
1,600.00	1,600.00	1,569.40	1,569.40	5.50	5.39	89.44	29.73	3,035.07	3,035.22	3,027.51	7.70	393.949	
1,700.00	1,700.00	1,669.40	1,669.40	5.86	5.75	89.44	29.73	3,035.07	3,035.22	3,027.00	8.21	369.629	
1,800.00	1,800.00	1,769.40	1,769.40	6.22	6.11	89.44	29.73	3,035.07	3,035.22	3,026.50	8.72	348.137	
1,900.00	1,900.00	1,869.40	1,869.40	6.58	6.47	89.44	29.73	3,035.07	3,035.22	3,025.99	9.23	329.007	
2,000.00	2,000.00	1,969.40	1,969.40	6.94	6.83	89.44	29.73	3,035.07	3,035.22	3,025.48	9.73	311.869	
2,100.00	2,100.00	2,069.40	2,069.40	7.29	7.19	89.44	29.73	3,035.07	3,035.22	3,024.98	10.24	296.429	
2,200.00	2,200.00	2,169.40	2,169.40	7.65	7.54	89.44	29.73	3,035.07	3,035.22	3,024.47	10.75	282.445	
2,300.00	2,300.00	2,269.40	2,269.40	8.01	7.90	89.44	29.73	3,035.07	3,035.22	3,023.96	11.25	269.721	
2,400.00	2,400.00	2,369.40	2,369.40	8.37	8.26	89.44	29.73	3,035.07	3,035.22	3,023.46	11.76	258.094	
2,500.00	2,500.00	2,469.40	2,469.40	8.73	8.62	89.44	29.73	3,035.07	3,035.22	3,022.95	12.27	247.428	
2,600.00	2,600.00	2,569.40	2,569.40	9.09	8.98	89.44	29.73	3,035.07	3,035.22	3,022.44	12.77	237.609	
2,700.00	2,700.00	2,669.40	2,669.40	9.45	9.34	89.44	29.73	3,035.07	3,035.22	3,021.93	13.28	228.539	
2,800.00	2,800.00	2,769.40	2,769.40	9.80	9.69	89.44	29.73	3,035.07	3,035.22	3,021.43	13.79	220.136	
2,900.00	2,900.00	2,869.40	2,869.40	10.16	10.05	89.44	29.73	3,035.07	3,035.22	3,020.92	14.29	212.330	
3,000.00	3,000.00	2,969.40	2,969.40	10.52	10.41	89.44	29.73	3,035.07	3,035.22	3,020.41	14.80	205.058	
3,100.00	3,100.00	3,069.40	3,069.40	10.88	10.77	89.44	29.73	3,035.07	3,035.22	3,019.91	15.31	198.267	
3,200.00	3,200.00	3,169.40	3,169.40	11.24	11.13	89.44	29.73	3,035.07	3,035.22	3,019.40	15.82	191.912	
3,300.00	3,299.99	3,238.71	3,238.71	11.59	11.37	-4.33	29.72	3,035.27	3,034.26	3,018.03	16.24	186.895	
3,400.00	3,399.91	3,300.00	3,299.99	11.93	11.59	-4.33	29.66	3,036.38	3,032.09	3,015.47	16.62	182.387	
3,500.00	3,499.69	3,350.27	3,350.23	12.27	11.76	-4.34	29.56	3,038.02	3,028.76	3,011.78	16.98	178.361	
3,600.00	3,599.27	3,400.00	3,399.91	12.62	11.93	-4.35	29.43	3,040.30	3,024.29	3,006.95	17.33	174.478	
3,645.68	3,644.67	3,431.55	3,431.41	12.78	12.04	-4.35	29.33	3,042.07	3,021.84	3,004.33	17.52	172.511	
3,700.00	3,698.62	3,461.87	3,461.67	12.97	12.14	-4.36	29.22	3,044.03	3,019.03	3,001.31	17.72	170.418	
3,800.00	3,797.94	3,500.00	3,499.69	13.32	12.27	-4.36	29.06	3,046.83	3,015.06	2,997.03	18.03	167.208	
3,900.00	3,897.26	3,573.69	3,573.09	13.68	12.53	-4.36	28.69	3,053.31	3,012.36	2,993.92	18.44	163.328	
4,000.00	3,996.58	3,629.66	3,628.75	14.03	12.72	-4.36	28.36	3,059.17	3,011.22	2,992.41	18.81	160.125	
4,033.90	4,030.25	3,651.25	3,650.20	14.16	12.80	-4.36	28.21	3,061.65	3,011.16	2,992.23	18.94	159.025	CC
4,100.00	4,095.90	3,712.67	3,711.20	14.40	13.01	-4.37	27.80	3,068.88	3,011.26	2,992.02	19.24	156.481	
4,200.00	4,195.22	3,812.67	3,810.50	14.76	13.37	-4.37	27.13	3,080.65	3,011.41	2,991.68	19.73	152.615	
4,300.00	4,294.54	3,912.67	3,909.80	15.12	13.72	-4.37	26.46	3,092.41	3,011.57	2,991.35	20.22	148.924	
4,400.00	4,393.86	4,012.67	4,009.11	15.49	14.08	-4.37	25.79	3,104.18	3,011.72	2,991.01	20.71	145.397	
4,500.00	4,493.18	4,112.67	4,108.41	15.86	14.44	-4.37	25.12	3,115.95	3,011.87	2,990.67	21.21	142.024	
4,600.00	4,592.50	4,212.67	4,207.71	16.23	14.81	-4.37	24.45	3,127.71	3,012.03	2,990.32	21.70	138.796	
4,700.00	4,691.82	4,312.67	4,307.01	16.60	15.17	-4.38	23.78	3,139.48	3,012.18	2,989.98	22.20	135.704	
4,800.00	4,791.14	4,412.67	4,406.32	16.97	15.54	-4.38	23.11	3,151.25	3,012.33	2,989.64	22.69	132.741	
4,900.00	4,890.46	4,512.67	4,505.62	17.35	15.91	-4.38	22.43	3,163.01	3,012.48	2,989.29	23.19	129.898	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 806H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.78	4,612.67	4,604.92	17.73	16.28	-4.38	21.76	3,174.78	3,012.64	2,988.95	23.69	127.170	
5,100.00	5,089.10	4,712.67	4,704.23	18.10	16.65	-4.38	21.09	3,186.55	3,012.79	2,988.60	24.19	124.549	
5,200.00	5,188.42	4,812.67	4,803.53	18.48	17.03	-4.38	20.42	3,198.32	3,012.94	2,988.25	24.69	122.030	
5,300.00	5,287.74	4,912.67	4,902.83	18.86	17.40	-4.39	19.75	3,210.08	3,013.09	2,987.90	25.19	119.607	
5,400.00	5,387.06	5,012.67	5,002.13	19.24	17.78	-4.39	19.08	3,221.85	3,013.25	2,987.55	25.69	117.275	
5,500.00	5,486.38	5,112.67	5,101.44	19.62	18.16	-4.39	18.41	3,233.62	3,013.40	2,987.20	26.20	115.030	
5,600.00	5,585.70	5,212.67	5,200.74	20.00	18.54	-4.39	17.74	3,245.38	3,013.55	2,986.85	26.70	112.866	
5,700.00	5,685.02	5,312.67	5,300.04	20.39	18.92	-4.39	17.07	3,257.15	3,013.70	2,986.50	27.20	110.779	
5,800.00	5,784.34	5,412.67	5,399.35	20.77	19.30	-4.39	16.40	3,268.92	3,013.86	2,986.15	27.71	108.766	
5,900.00	5,883.66	5,512.67	5,498.65	21.16	19.68	-4.40	15.73	3,280.68	3,014.01	2,985.80	28.22	106.823	
6,000.00	5,982.98	5,612.67	5,597.95	21.54	20.06	-4.40	15.05	3,292.45	3,014.16	2,985.44	28.72	104.946	
6,100.00	6,082.30	5,712.67	5,697.25	21.93	20.45	-4.40	14.38	3,304.22	3,014.32	2,985.09	29.23	103.132	
6,200.00	6,181.62	5,812.67	5,796.56	22.31	20.83	-4.40	13.71	3,315.99	3,014.47	2,984.73	29.73	101.378	
6,300.00	6,280.94	5,912.67	5,895.86	22.70	21.22	-4.40	13.04	3,327.75	3,014.62	2,984.38	30.24	99.682	
6,400.00	6,380.26	6,012.67	5,995.16	23.09	21.61	-4.41	12.37	3,339.52	3,014.77	2,984.02	30.75	98.040	
6,500.00	6,479.58	6,112.67	6,094.47	23.48	21.99	-4.41	11.70	3,351.29	3,014.93	2,983.67	31.26	96.450	
6,600.00	6,578.90	6,212.67	6,193.77	23.87	22.38	-4.41	11.03	3,363.05	3,015.08	2,983.31	31.77	94.910	
6,700.00	6,678.22	6,312.67	6,293.07	24.26	22.77	-4.41	10.36	3,374.82	3,015.23	2,982.95	32.28	93.417	
6,800.00	6,777.54	6,412.67	6,392.37	24.65	23.16	-4.41	9.69	3,386.59	3,015.38	2,982.60	32.79	91.970	
6,900.00	6,876.86	6,512.67	6,491.68	25.04	23.55	-4.41	9.02	3,398.35	3,015.54	2,982.24	33.30	90.566	
7,000.00	6,976.18	6,612.67	6,590.98	25.43	23.94	-4.42	8.35	3,410.12	3,015.69	2,981.88	33.81	89.203	
7,100.00	7,075.50	6,712.67	6,690.28	25.82	24.33	-4.42	7.67	3,421.89	3,015.84	2,981.53	34.32	87.880	
7,125.00	7,100.33	6,737.67	6,715.11	25.92	24.42	-4.42	7.51	3,424.83	3,015.88	2,981.44	34.45	87.555 ES	
7,200.00	7,174.90	6,812.66	6,789.58	26.21	24.72	-4.42	7.00	3,433.65	3,016.73	2,981.90	34.83	86.617	
7,300.00	7,274.55	6,912.60	6,888.82	26.58	25.11	-4.42	6.33	3,445.41	3,020.14	2,984.81	35.34	85.466	
7,400.00	7,374.38	7,012.42	6,987.94	26.95	25.50	-4.42	5.66	3,457.16	3,026.17	2,990.32	35.84	84.424	
7,500.00	7,474.33	7,254.61	7,228.88	27.30	26.43	-4.41	4.28	3,481.45	3,033.91	2,997.16	36.75	82.553	
7,570.68	7,545.00	7,540.36	7,514.40	27.55	27.44	89.36	3.73	3,491.07	3,035.26	2,997.67	37.59	80.753	
7,600.00	7,574.32	7,569.68	7,543.72	27.65	27.54	89.36	3.73	3,491.07	3,035.26	2,997.53	37.73	80.443	
7,700.00	7,674.32	7,669.68	7,643.72	27.99	27.88	89.36	3.73	3,491.07	3,035.26	2,997.03	38.22	79.406	
7,800.00	7,774.32	7,769.68	7,743.72	28.33	28.23	89.36	3.73	3,491.07	3,035.26	2,996.54	38.72	78.394	
7,900.00	7,874.32	7,869.68	7,843.72	28.67	28.57	89.36	3.73	3,491.07	3,035.26	2,996.05	39.21	77.407	
8,000.00	7,974.32	7,969.68	7,943.72	29.01	28.91	89.36	3.73	3,491.07	3,035.26	2,995.55	39.71	76.443	
8,100.00	8,074.32	8,069.68	8,043.72	29.35	29.25	89.36	3.73	3,491.07	3,035.26	2,995.06	40.20	75.503	
8,200.00	8,174.32	8,169.68	8,143.72	29.69	29.59	89.36	3.73	3,491.07	3,035.26	2,994.56	40.70	74.585	
8,300.00	8,274.32	8,269.68	8,243.72	30.04	29.93	89.36	3.73	3,491.07	3,035.26	2,994.07	41.19	73.689	
8,400.00	8,374.32	8,369.68	8,343.72	30.38	30.28	89.36	3.73	3,491.07	3,035.26	2,993.57	41.69	72.813	
8,500.00	8,474.32	8,469.68	8,443.72	30.72	30.62	89.36	3.73	3,491.07	3,035.26	2,993.08	42.18	71.958	
8,600.00	8,574.32	8,569.68	8,543.72	31.07	30.96	89.36	3.73	3,491.07	3,035.26	2,992.58	42.68	71.122	
8,700.00	8,674.32	8,669.68	8,643.72	31.41	31.31	89.36	3.73	3,491.07	3,035.26	2,992.08	43.17	70.304	
8,800.00	8,774.32	8,769.68	8,743.72	31.76	31.65	89.36	3.73	3,491.07	3,035.26	2,991.59	43.67	69.505	
8,900.00	8,874.32	8,869.68	8,843.72	32.10	32.00	89.36	3.73	3,491.07	3,035.26	2,991.09	44.17	68.724	
9,000.00	8,974.32	8,969.68	8,943.72	32.45	32.34	89.36	3.73	3,491.07	3,035.26	2,990.59	44.66	67.959	
9,100.00	9,074.32	9,069.68	9,043.72	32.79	32.69	89.36	3.73	3,491.07	3,035.26	2,990.10	45.16	67.211	
9,200.00	9,174.32	9,169.68	9,143.72	33.14	33.03	89.36	3.73	3,491.07	3,035.26	2,989.60	45.66	66.479	
9,300.00	9,274.32	9,269.68	9,243.72	33.48	33.38	89.36	3.73	3,491.07	3,035.26	2,989.10	46.15	65.762	
9,400.00	9,374.32	9,369.68	9,343.72	33.83	33.73	89.36	3.73	3,491.07	3,035.26	2,988.60	46.65	65.061	
9,500.00	9,474.32	9,469.68	9,443.72	34.17	34.07	89.36	3.73	3,491.07	3,035.26	2,988.11	47.15	64.374	
9,600.00	9,574.32	9,569.68	9,543.72	34.52	34.42	89.36	3.73	3,491.07	3,035.26	2,987.61	47.65	63.701	
9,700.00	9,674.32	9,669.68	9,643.72	34.87	34.77	89.36	3.73	3,491.07	3,035.26	2,987.11	48.15	63.042	
9,800.00	9,774.32	9,769.68	9,743.72	35.22	35.11	89.36	3.73	3,491.07	3,035.26	2,986.61	48.65	62.396	
9,900.00	9,874.32	9,869.68	9,843.72	35.56	35.46	89.36	3.73	3,491.07	3,035.26	2,986.11	49.14	61.763	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 806H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,974.32	9,969.68	9,943.72	35.91	35.81	89.36	3.73	3,491.07	3,035.26	2,985.61	49.64	61.142	
10,100.00	10,074.32	10,069.68	10,043.72	36.26	36.16	89.36	3.73	3,491.07	3,035.26	2,985.12	50.14	60.534	
10,191.72	10,166.04	10,161.40	10,135.44	36.58	36.47	89.36	3.73	3,491.07	3,035.26	2,984.66	50.60	59.986	
10,200.00	10,174.32	10,169.68	10,143.72	36.60	36.50	-90.07	3.73	3,491.07	3,035.26	2,984.62	50.64	59.938	
10,250.00	10,224.22	10,219.58	10,193.62	36.77	36.68	-90.12	3.73	3,491.07	3,035.26	2,984.38	50.88	59.653	
10,300.00	10,273.68	10,269.04	10,243.08	36.93	36.85	-90.25	3.73	3,491.07	3,035.29	2,984.16	51.12	59.372	
10,350.00	10,322.32	10,317.68	10,291.72	37.09	37.02	-90.46	3.73	3,491.07	3,035.36	2,984.00	51.36	59.098	
10,400.00	10,369.77	10,365.12	10,339.17	37.25	37.18	-90.72	3.73	3,491.07	3,035.53	2,983.93	51.60	58.831	
10,450.00	10,415.66	10,411.02	10,385.06	37.40	37.34	-91.03	3.73	3,491.07	3,035.86	2,984.03	51.83	58.575	
10,500.00	10,459.66	10,455.02	10,429.06	37.55	37.50	-91.37	3.73	3,491.07	3,036.43	2,984.37	52.06	58.331	
10,550.00	10,501.42	10,496.78	10,470.82	37.69	37.64	-91.71	3.73	3,491.07	3,037.32	2,985.04	52.28	58.099	
10,600.00	10,540.64	10,536.00	10,510.04	37.83	37.78	-92.04	3.73	3,491.07	3,038.62	2,986.12	52.50	57.881	
10,650.00	10,577.00	10,572.36	10,546.40	37.96	37.91	-92.33	3.73	3,491.07	3,040.42	2,987.71	52.71	57.679	
10,700.00	10,610.23	10,605.59	10,579.63	38.10	38.02	-92.56	3.73	3,491.07	3,042.82	2,989.90	52.92	57.494	
10,750.00	10,640.08	10,635.44	10,609.48	38.23	38.13	-92.70	3.73	3,491.07	3,045.91	2,992.78	53.13	57.326	
10,800.00	10,666.33	10,661.68	10,635.73	38.38	38.22	-92.73	3.73	3,491.07	3,049.76	2,996.42	53.34	57.178	
10,850.00	10,688.76	10,684.12	10,658.16	38.53	38.30	-92.64	3.73	3,491.07	3,054.44	3,000.90	53.54	57.049	
10,900.00	10,707.22	10,702.58	10,676.62	38.70	38.36	-92.41	3.73	3,491.07	3,059.98	3,006.24	53.74	56.941	
10,950.00	10,721.56	10,716.92	10,690.96	38.87	38.41	-92.01	3.73	3,491.07	3,066.43	3,012.49	53.94	56.854	
11,000.00	10,731.67	10,727.03	10,701.07	39.06	38.45	-91.46	3.73	3,491.07	3,073.77	3,019.64	54.13	56.789	
11,050.00	10,737.48	10,732.84	10,706.88	39.25	38.47	-90.73	3.73	3,491.07	3,081.99	3,027.68	54.31	56.747	
11,091.72	10,739.00	10,734.36	10,708.40	39.42	38.47	-90.00	3.73	3,491.07	3,089.50	3,035.04	54.46	56.729	
11,100.00	10,739.00	10,734.36	10,708.40	39.46	38.47	-90.00	3.73	3,491.07	3,091.06	3,036.57	54.49	56.728	
11,200.00	10,739.00	10,734.36	10,708.40	39.90	38.47	-90.00	3.73	3,491.07	3,111.52	3,056.65	54.87	56.707	
11,300.00	10,739.00	10,734.36	10,708.40	40.41	38.47	-90.00	3.73	3,491.07	3,135.04	3,079.75	55.29	56.697	
11,400.00	10,739.00	10,734.36	10,708.40	40.98	38.47	-90.00	3.73	3,491.07	3,161.55	3,105.80	55.76	56.702	
11,500.00	10,739.00	10,734.36	10,708.40	41.61	38.47	-90.00	3.73	3,491.07	3,190.98	3,134.73	56.25	56.726	
11,600.00	10,739.00	10,734.36	10,708.40	42.29	38.47	-90.00	3.73	3,491.07	3,223.24	3,166.47	56.77	56.772	
11,700.00	10,739.00	10,734.36	10,708.40	43.02	38.47	-90.00	3.73	3,491.07	3,258.26	3,200.94	57.32	56.844	
11,800.00	10,739.00	10,734.36	10,708.40	43.81	38.47	-90.00	3.73	3,491.07	3,295.93	3,238.05	57.88	56.944	
11,900.00	10,739.00	10,734.36	10,708.40	44.64	38.47	-90.00	3.73	3,491.07	3,336.18	3,277.73	58.45	57.075	
12,000.00	10,739.00	10,734.36	10,708.40	45.51	38.47	-90.00	3.73	3,491.07	3,378.91	3,319.88	59.03	57.237	
12,100.00	10,739.00	10,734.36	10,708.40	46.43	38.47	-90.00	3.73	3,491.07	3,424.03	3,364.41	59.62	57.434	
12,200.00	10,739.00	13,840.31	12,375.00	47.38	52.06	-118.77	-1,681.45	3,507.56	3,462.42	3,399.70	62.72	55.207	
12,300.00	10,739.00	13,940.31	12,375.00	48.38	52.96	-118.77	-1,781.45	3,508.54	3,462.40	3,398.50	63.90	54.184	
12,400.00	10,739.00	14,040.31	12,375.00	49.41	53.90	-118.77	-1,881.44	3,509.52	3,462.39	3,397.25	65.13	53.161	
12,500.00	10,739.00	14,140.31	12,375.00	50.47	54.87	-118.77	-1,981.44	3,510.50	3,462.37	3,395.96	66.41	52.140	
12,600.00	10,739.00	14,240.31	12,375.00	51.56	55.87	-118.77	-2,081.43	3,511.48	3,462.35	3,394.63	67.72	51.126	
12,700.00	10,739.00	14,340.31	12,375.00	52.68	56.91	-118.77	-2,181.43	3,512.46	3,462.33	3,393.26	69.08	50.123	
12,800.00	10,739.00	14,440.31	12,375.00	53.83	57.97	-118.77	-2,281.42	3,513.44	3,462.32	3,391.85	70.47	49.133	
12,900.00	10,739.00	14,540.31	12,375.00	55.01	59.06	-118.77	-2,381.42	3,514.41	3,462.30	3,390.41	71.89	48.159	
13,000.00	10,739.00	14,640.31	12,375.00	56.21	60.17	-118.77	-2,481.41	3,515.39	3,462.28	3,388.93	73.35	47.201	
13,100.00	10,739.00	14,740.31	12,375.00	57.43	61.31	-118.77	-2,581.41	3,516.37	3,462.27	3,387.43	74.84	46.262	
13,200.00	10,739.00	14,840.31	12,375.00	58.67	62.48	-118.77	-2,681.40	3,517.35	3,462.25	3,385.89	76.36	45.341	
13,300.00	10,739.00	14,940.31	12,375.00	59.93	63.66	-118.77	-2,781.40	3,518.33	3,462.23	3,384.32	77.91	44.440	
13,400.00	10,739.00	15,040.31	12,375.00	61.21	64.86	-118.77	-2,881.40	3,519.31	3,462.22	3,382.73	79.48	43.560	
13,500.00	10,739.00	15,140.31	12,375.00	62.51	66.09	-118.77	-2,981.39	3,520.29	3,462.20	3,381.12	81.08	42.702	
13,600.00	10,739.00	15,240.31	12,375.00	63.83	67.33	-118.78	-3,081.39	3,521.27	3,462.18	3,379.48	82.70	41.865	
13,700.00	10,739.00	15,340.31	12,375.00	65.16	68.59	-118.78	-3,181.38	3,522.24	3,462.16	3,377.82	84.34	41.050	
13,800.00	10,739.00	15,440.31	12,375.00	66.50	69.86	-118.78	-3,281.38	3,523.22	3,462.15	3,376.15	86.00	40.258	
13,900.00	10,739.00	15,540.31	12,375.00	67.86	71.15	-118.78	-3,381.37	3,524.20	3,462.13	3,374.45	87.68	39.486	
14,000.00	10,739.00	15,640.31	12,375.00	69.23	72.46	-118.78	-3,481.37	3,525.18	3,462.11	3,372.74	89.38	38.736	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 806H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	10,739.00	15,740.31	12,375.00	70.61	73.78	-118.78	-3,581.36	3,526.16	3,462.10	3,371.01	91.09	38.007	
14,200.00	10,739.00	15,840.31	12,375.00	72.00	75.11	-118.78	-3,681.36	3,527.14	3,462.08	3,369.26	92.82	37.298	
14,300.00	10,739.00	15,940.31	12,375.00	73.41	76.46	-118.78	-3,781.35	3,528.12	3,462.06	3,367.49	94.57	36.609	
14,400.00	10,739.00	16,040.31	12,375.00	74.82	77.81	-118.78	-3,881.35	3,529.10	3,462.05	3,365.72	96.33	35.940	
14,500.00	10,739.00	16,140.31	12,375.00	76.25	79.18	-118.78	-3,981.34	3,530.07	3,462.03	3,363.93	98.10	35.290	
14,600.00	10,739.00	16,240.31	12,375.00	77.68	80.56	-118.78	-4,081.34	3,531.05	3,462.01	3,362.12	99.89	34.659	
14,700.00	10,739.00	16,340.31	12,375.00	79.12	81.95	-118.78	-4,181.33	3,532.03	3,461.99	3,360.31	101.69	34.046	
14,800.00	10,739.00	16,440.31	12,375.00	80.57	83.35	-118.78	-4,281.33	3,533.01	3,461.98	3,358.48	103.50	33.450	
14,900.00	10,739.00	16,540.31	12,375.00	82.03	84.75	-118.78	-4,381.32	3,533.99	3,461.96	3,356.64	105.32	32.872	
15,000.00	10,739.00	16,640.31	12,375.00	83.49	86.17	-118.78	-4,481.32	3,534.97	3,461.94	3,354.80	107.15	32.310	
15,100.00	10,739.00	16,740.31	12,375.00	84.96	87.59	-118.78	-4,581.31	3,535.95	3,461.93	3,352.94	108.99	31.765	
15,200.00	10,739.00	16,840.31	12,375.00	86.44	89.02	-118.78	-4,681.31	3,536.92	3,461.91	3,351.07	110.84	31.235	
15,300.00	10,739.00	16,940.31	12,375.00	87.92	90.46	-118.78	-4,781.30	3,537.90	3,461.89	3,349.20	112.69	30.719	
15,400.00	10,739.00	17,040.31	12,375.00	89.41	91.91	-118.78	-4,881.30	3,538.88	3,461.88	3,347.31	114.56	30.218	
15,500.00	10,739.00	17,140.31	12,375.00	90.91	93.36	-118.78	-4,981.29	3,539.86	3,461.86	3,345.42	116.44	29.732	
15,600.00	10,739.00	17,240.31	12,375.00	92.41	94.82	-118.78	-5,081.29	3,540.84	3,461.84	3,343.52	118.32	29.258	
15,700.00	10,739.00	17,340.31	12,375.00	93.92	96.29	-118.78	-5,181.29	3,541.82	3,461.82	3,341.62	120.21	28.799	
15,800.00	10,739.00	17,440.31	12,375.00	95.43	97.76	-118.78	-5,281.28	3,542.80	3,461.81	3,339.70	122.10	28.352	
15,900.00	10,739.00	17,540.31	12,375.00	96.94	99.24	-118.78	-5,381.28	3,543.78	3,461.79	3,337.78	124.01	27.916	
16,000.00	10,739.00	17,640.31	12,375.00	98.46	100.72	-118.78	-5,481.27	3,544.75	3,461.77	3,335.86	125.91	27.493	
16,100.00	10,739.00	17,740.31	12,375.00	99.99	102.21	-118.78	-5,581.27	3,545.73	3,461.76	3,333.93	127.83	27.081	
16,200.00	10,739.00	17,840.31	12,375.00	101.51	103.70	-118.78	-5,681.26	3,546.71	3,461.74	3,331.99	129.75	26.680	
16,300.00	10,739.00	17,940.31	12,375.00	103.05	105.20	-118.78	-5,781.26	3,547.69	3,461.72	3,330.05	131.67	26.290	
16,400.00	10,739.00	18,040.31	12,375.00	104.58	106.71	-118.78	-5,881.25	3,548.67	3,461.71	3,328.10	133.61	25.910	
16,500.00	10,739.00	18,140.31	12,375.00	106.12	108.21	-118.78	-5,981.25	3,549.65	3,461.69	3,326.15	135.54	25.540	
16,600.00	10,739.00	18,240.31	12,375.00	107.66	109.72	-118.78	-6,081.24	3,550.63	3,461.67	3,324.19	137.48	25.179	
16,700.00	10,739.00	18,340.31	12,375.00	109.21	111.24	-118.78	-6,181.24	3,551.61	3,461.65	3,322.23	139.43	24.828	
16,800.00	10,739.00	18,440.31	12,375.00	110.76	112.76	-118.78	-6,281.23	3,552.58	3,461.64	3,320.26	141.37	24.486	
16,900.00	10,739.00	18,540.31	12,375.00	112.31	114.28	-118.78	-6,381.23	3,553.56	3,461.62	3,318.29	143.33	24.152	
17,000.00	10,739.00	18,640.31	12,375.00	113.86	115.80	-118.78	-6,481.22	3,554.54	3,461.60	3,316.32	145.28	23.826	
17,100.00	10,739.00	18,740.31	12,375.00	115.42	117.33	-118.78	-6,581.22	3,555.52	3,461.59	3,314.34	147.25	23.509	
17,200.00	10,739.00	18,840.31	12,375.00	116.98	118.87	-118.78	-6,681.21	3,556.50	3,461.57	3,312.36	149.21	23.199	
17,300.00	10,739.00	18,940.31	12,375.00	118.54	120.40	-118.78	-6,781.21	3,557.48	3,461.55	3,310.37	151.18	22.897	
17,400.00	10,739.00	19,040.31	12,375.00	120.10	121.94	-118.78	-6,881.20	3,558.46	3,461.54	3,308.39	153.15	22.602	
17,500.00	10,739.00	19,140.31	12,375.00	121.67	123.48	-118.78	-6,981.20	3,559.43	3,461.52	3,306.40	155.12	22.315	
17,600.00	10,739.00	19,240.31	12,375.00	123.24	125.03	-118.78	-7,081.19	3,560.41	3,461.50	3,304.40	157.10	22.034	
17,700.00	10,739.00	19,340.31	12,375.00	124.81	126.58	-118.78	-7,181.19	3,561.39	3,461.48	3,302.40	159.08	21.759	
17,800.00	10,739.00	19,440.31	12,375.00	126.38	128.13	-118.78	-7,281.18	3,562.37	3,461.47	3,300.40	161.06	21.492	
17,900.00	10,739.00	19,540.31	12,375.00	127.96	129.68	-118.78	-7,381.18	3,563.35	3,461.45	3,298.40	163.05	21.230	
18,000.00	10,739.00	19,640.31	12,375.00	129.53	131.23	-118.78	-7,481.17	3,564.33	3,461.43	3,296.40	165.04	20.974	
18,100.00	10,739.00	19,740.31	12,375.00	131.11	132.79	-118.78	-7,581.17	3,565.31	3,461.42	3,294.39	167.03	20.724	
18,200.00	10,739.00	19,840.31	12,375.00	132.69	134.35	-118.78	-7,681.17	3,566.29	3,461.40	3,292.38	169.02	20.479	
18,300.00	10,739.00	19,940.31	12,375.00	134.28	135.91	-118.78	-7,781.16	3,567.26	3,461.38	3,290.36	171.02	20.240	
18,400.00	10,739.00	20,040.31	12,375.00	135.86	137.47	-118.78	-7,881.16	3,568.24	3,461.37	3,288.35	173.01	20.006	
18,500.00	10,739.00	20,140.31	12,375.00	137.44	139.04	-118.78	-7,981.15	3,569.22	3,461.35	3,286.34	175.01	19.778	
18,600.00	10,739.00	20,240.31	12,375.00	139.03	140.61	-118.78	-8,081.15	3,570.20	3,461.33	3,284.32	177.01	19.554	
18,700.00	10,739.00	20,340.31	12,375.00	140.62	142.18	-118.78	-8,181.14	3,571.18	3,461.31	3,282.30	179.02	19.335	
18,800.00	10,739.00	20,440.31	12,375.00	142.21	143.75	-118.78	-8,281.14	3,572.16	3,461.30	3,280.27	181.02	19.121	
18,900.00	10,739.00	20,540.31	12,375.00	143.80	145.32	-118.78	-8,381.13	3,573.14	3,461.28	3,278.25	183.03	18.911	
19,000.00	10,739.00	20,640.31	12,375.00	145.39	146.90	-118.78	-8,481.13	3,574.12	3,461.26	3,276.22	185.04	18.705	
19,100.00	10,739.00	20,740.31	12,375.00	146.99	148.47	-118.78	-8,581.12	3,575.09	3,461.25	3,274.19	187.05	18.504	
19,200.00	10,739.00	20,840.31	12,375.00	148.58	150.05	-118.78	-8,681.12	3,576.07	3,461.23	3,272.17	189.06	18.307	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Tatanka Fed Com - Tatanka Fed Com 806H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	10,739.00	20,940.31	12,375.00	150.18	151.63	-118.78	-8,781.11	3,577.05	3,461.21	3,270.14	191.08	18.114	
19,400.00	10,739.00	21,040.31	12,375.00	151.78	153.21	-118.78	-8,881.11	3,578.03	3,461.19	3,268.10	193.09	17.925	
19,500.00	10,739.00	21,140.31	12,375.00	153.38	154.79	-118.78	-8,981.10	3,579.01	3,461.18	3,266.07	195.11	17.740	
19,600.00	10,739.00	21,240.31	12,375.00	154.98	156.38	-118.78	-9,081.10	3,579.99	3,461.16	3,264.03	197.13	17.558	
19,700.00	10,739.00	21,340.31	12,375.00	156.58	157.96	-118.78	-9,181.09	3,580.97	3,461.14	3,262.00	199.15	17.380	
19,800.00	10,739.00	21,440.31	12,375.00	158.18	159.55	-118.78	-9,281.09	3,581.95	3,461.13	3,259.96	201.17	17.205	
19,900.00	10,739.00	21,540.31	12,375.00	159.78	161.14	-118.78	-9,381.08	3,582.92	3,461.11	3,257.92	203.19	17.034	
20,000.00	10,739.00	21,640.31	12,375.00	161.39	162.73	-118.79	-9,481.08	3,583.90	3,461.09	3,255.88	205.22	16.866	
20,100.00	10,739.00	21,740.31	12,375.00	162.99	164.32	-118.79	-9,581.07	3,584.88	3,461.08	3,253.84	207.24	16.701	
20,200.00	10,739.00	21,840.31	12,375.00	164.60	165.91	-118.79	-9,681.07	3,585.86	3,461.06	3,251.80	209.26	16.539	
20,300.00	10,739.00	21,940.31	12,375.00	166.20	167.50	-118.79	-9,781.06	3,586.84	3,461.04	3,249.75	211.29	16.381	
20,400.00	10,739.00	22,040.31	12,375.00	167.81	169.10	-118.79	-9,881.06	3,587.82	3,461.02	3,247.71	213.32	16.225	
20,500.00	10,739.00	22,140.31	12,375.00	169.42	170.69	-118.79	-9,981.06	3,588.80	3,461.01	3,245.66	215.35	16.072	
20,600.00	10,739.00	22,240.31	12,375.00	171.03	172.29	-118.79	-10,081.05	3,589.77	3,460.99	3,243.61	217.38	15.922	
20,700.00	10,739.00	22,340.31	12,375.00	172.64	173.89	-118.79	-10,181.05	3,590.75	3,460.97	3,241.56	219.41	15.774	
20,800.00	10,739.00	22,440.31	12,375.00	174.25	175.48	-118.79	-10,281.04	3,591.73	3,460.96	3,239.52	221.44	15.629	
20,879.44	10,739.00	22,519.74	12,375.00	175.53	176.72	-118.79	-10,360.47	3,592.51	3,460.94	3,237.92	223.02	15.518	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

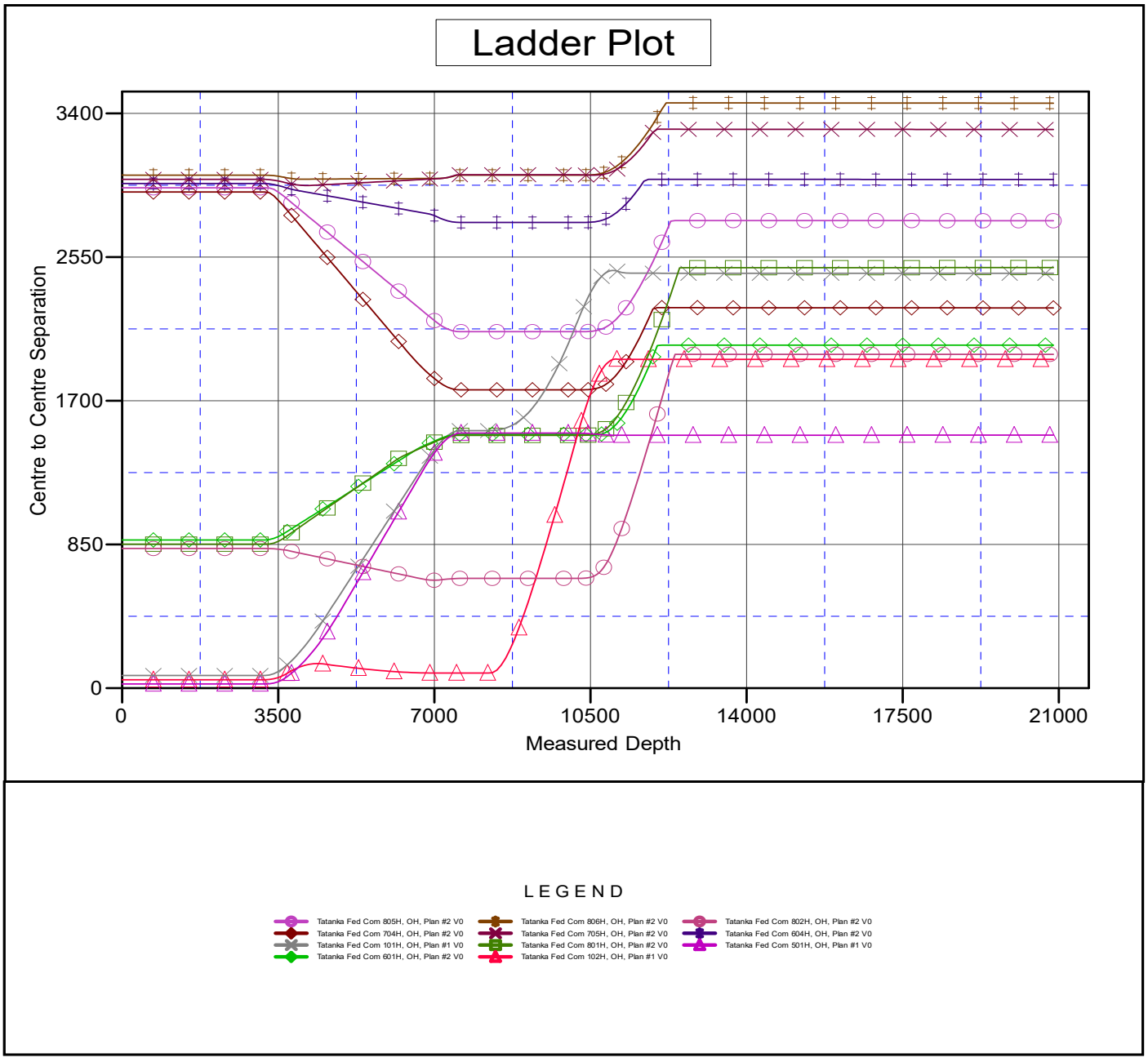
Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3120.8' GE + 30' KB @ 3150.80usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Tatanka Fed Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.53°



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

Total Directional Services

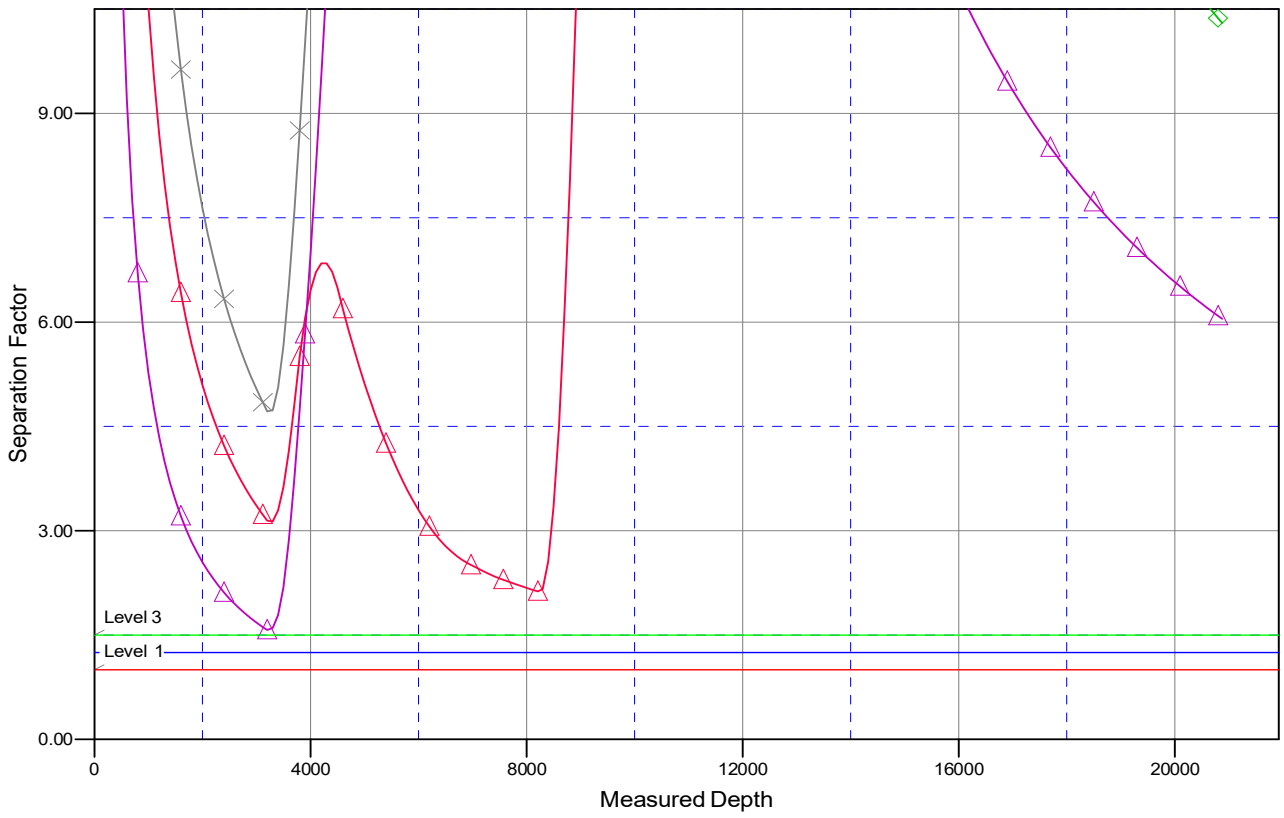
Anticollision Report

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well Tatanka Fed Com 502H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Reference Site:	Tatanka Fed Com	**MD Reference:**	3120.8' GE + 30' KB @ 3150.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Tatanka Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3120.8' GE + 30' KB @ 3150.80usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Tatanka Fed Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.53°

Separation Factor Plot



LEGEND

Tatanka Fed Com 805H, OH, Plan #2 V0
Tatanka Fed Com 704H, OH, Plan #2 V0
Tatanka Fed Com 101H, OH, Plan #1 V0
Tatanka Fed Com 601H, OH, Plan #2 V0
Tatanka Fed Com 806H, OH, Plan #2 V0
Tatanka Fed Com 705H, OH, Plan #2 V0
Tatanka Fed Com 801H, OH, Plan #2 V0
Tatanka Fed Com 102H, OH, Plan #1 V0
Tatanka Fed Com 802H, OH, Plan #2 V0
Tatanka Fed Com 604H, OH, Plan #2 V0
Tatanka Fed Com 501H, OH, Plan #1 V0

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Franklin Mountain Energy LLC
LEASE NO.:	NMNM12280
COUNTY:	Lea County

Wells:

Tatanka Fed Com 601H
Tatanka Fed Com 801H
Tatanka Fed Com 802H
Tatanka Fed Com 502H
Tatanka Fed Com 501H
Tatanka Fed Com 102H
Tatanka Fed Com 101H
Tatanka Fed Com 603H
Tatanka Fed Com 804H
Tatanka Fed Com 703H
Tatanka Fed Com 803H
Tatanka Fed Com 602H
Tatanka Fed Com 702H
Tatanka Fed Com 104H
Tatanka Fed Com 103H
Tatanka Fed Com 504H
Tatanka Fed Com 503H
Tatanka Fed Com 806H
Tatanka Fed Com 705H
Tatanka Fed Com 604H
Tatanka Fed Com 805H
Tatanka Fed Com 704H

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

☐**General Provisions**
☐**Permit Expiration**
☐**Archaeology, Paleontology, and Historical Sites**
☐**Noxious Weeds**
☒**Special Requirements**
- Watershed
- Range
- Lesser Prairie Chicken
- VRM IV

☐**Construction**
- Notification
- Topsoil
- Closed Loop System
- Federal Mineral Material Pits
- Well Pads
- Roads

☐**Road Section Diagram**
☒**Production (Post Drilling)**
- Well Structures & Facilities
- Pipelines
- Electric Lines

☐**Interim Reclamation**
☐**Final Abandonment & Reclamation**

Approval Date: 03/07/2022

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be

responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Watershed:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

TANK BATTERY:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or

floodplains and must span across the features at a distance away that would not promote further erosion.

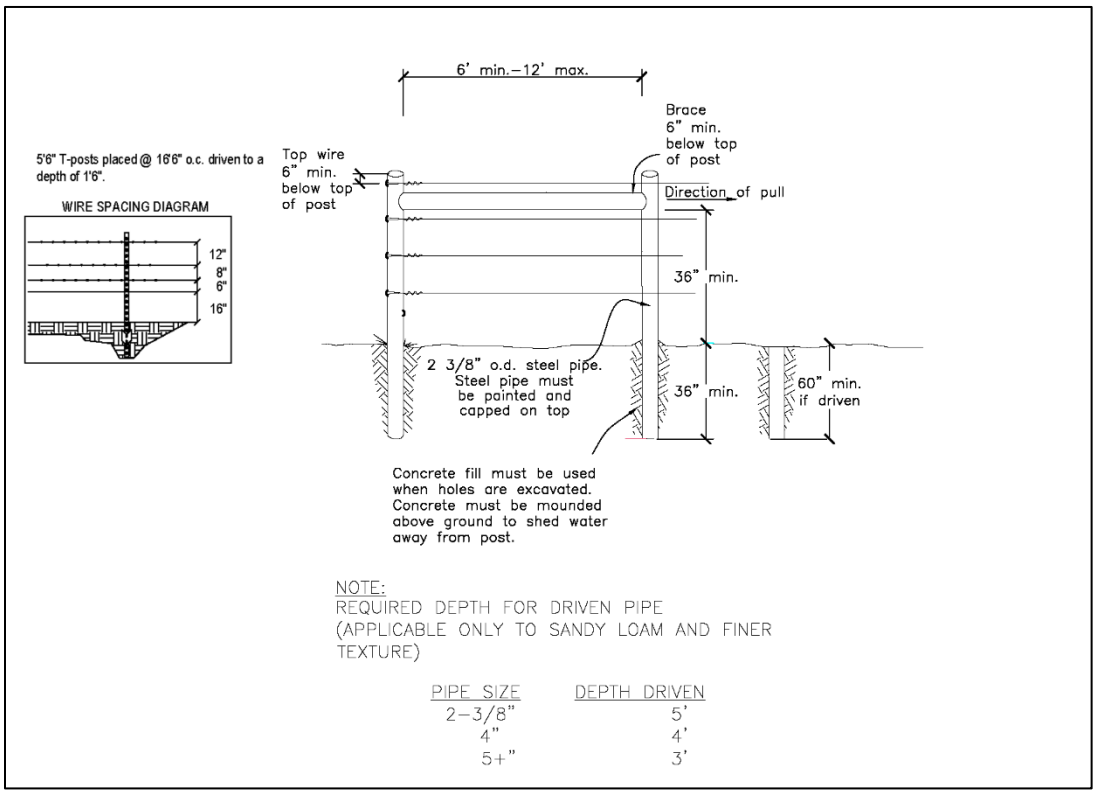
Range:

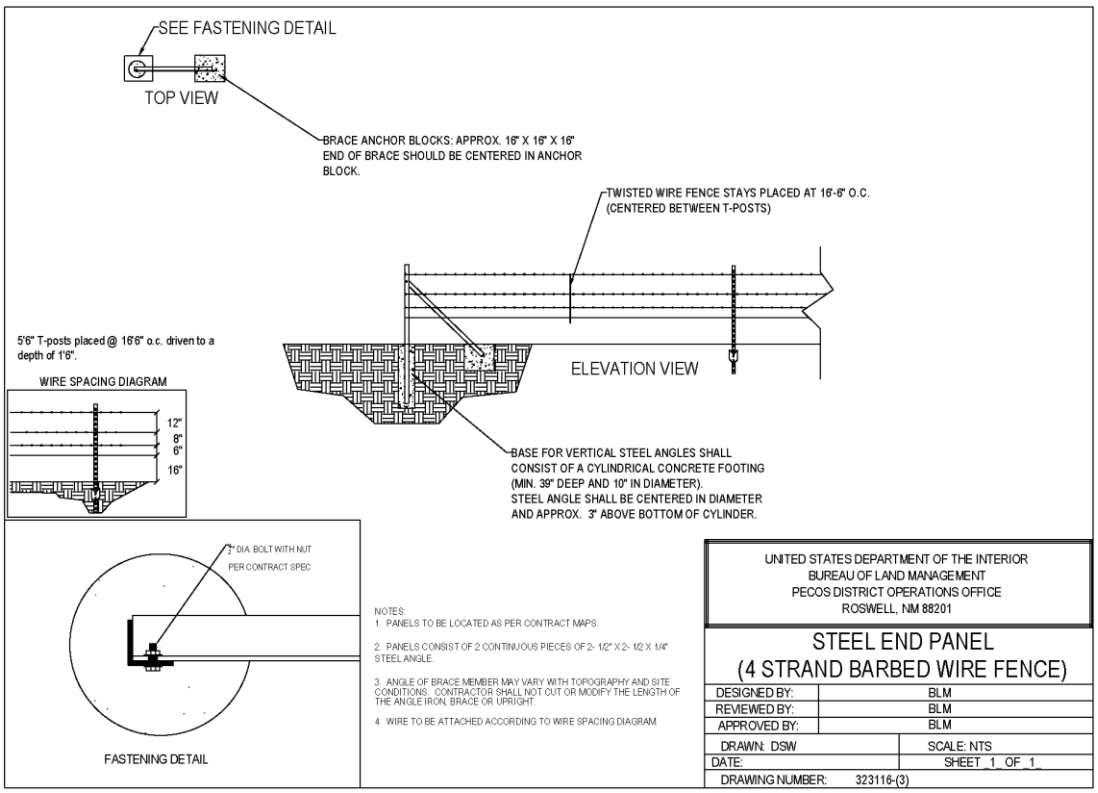
Cattleguards

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement

Where entry granted across a fence line, the fence must be H-braced or angle iron braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall consult the private surface landowner or the grazing allotment holder prior to cutting any fence(s).





Livestock Watering Requirement

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary

Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VRM IV:

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Carlsbad Canyon from the BLM Standard Environmental Color Chart (CC-001: June 2008).

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Carlsbad Canyon, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

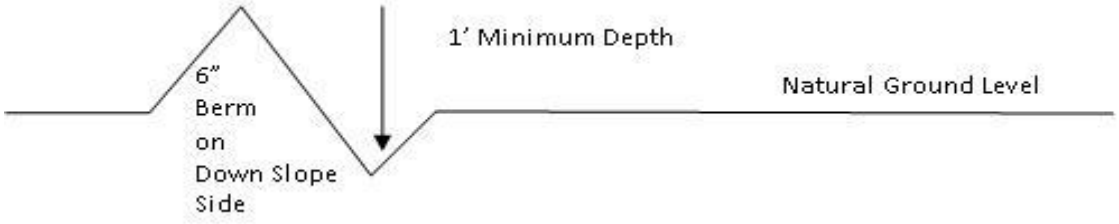
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

 Approval Date: 03/07/2022

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

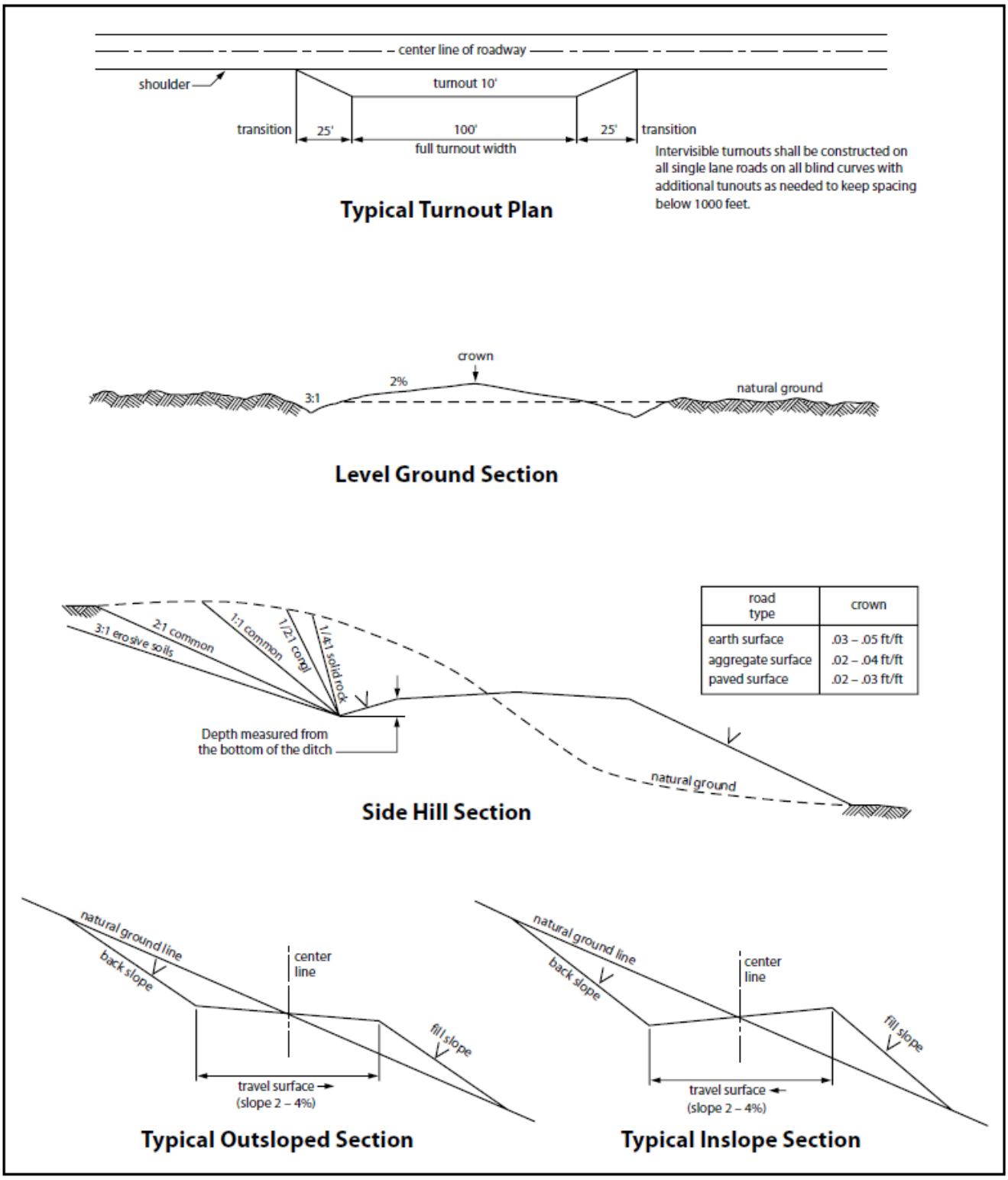


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.

9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

☐**Seed Mixture 1**
☒**Seed Mixture 2**
☐**Seed Mixture 2/LPC**
☐**Seed Mixture 3**
☐**Seed Mixture 4**
☐**Seed Mixture Aplomado Falcon Mixture**

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter

enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq*. (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq*. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq*.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of **30** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the

surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

16. The holder is hereby obligated to comply with procedures established in the Native American

Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

17. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

18. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-

way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

12. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

13. Special Stipulations:
For reclamation remove poles, lines, transformer, etc. and dispose of properly.
Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM12280**
LOCATION:	Section 2, T.26 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Tatanka Fed Com 102H
SURFACE HOLE FOOTAGE:	20'/N & 1372'/W
BOTTOM HOLE FOOTAGE	150'/S & 1877'/W

WELL NAME & NO.:	Tatanka Fed Com 501H
SURFACE HOLE FOOTAGE:	20'/N & 1397'/W
BOTTOM HOLE FOOTAGE	150'/S & 380'/W

WELL NAME & NO.:	Tatanka Fed Com 502H
SURFACE HOLE FOOTAGE:	20'/N & 1422'/W
BOTTOM HOLE FOOTAGE	150'/S & 1877'/W

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	◉ None	○ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☑ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Strawn** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

Approval Date: 03/07/2022

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1110 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

    Option 2:

    Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

    a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

    b. Second stage above DV tool:

    - Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7 5/8** inch intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.

d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

 Approval Date: 03/07/2022

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

 Approval Date: 03/07/2022

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

 Approval Date: 03/07/2022

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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

CONDITIONS

Action 88306

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 88306
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/16/2022
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	3/16/2022
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	3/16/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	3/16/2022