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.
[332472]

2. Name of Operator
[373910]

9. API Well No.
30-025-49812

3a. Address

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

10. Field and Pool, or Exploratory **[98185]**

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 03/03/2022

KZ
03/04/2022

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 02/11/2022

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: 02/11/2022

Additional Operator Remarks

Location of Well

0. SHL: TR N / 345 FSL / 1344 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.167668 / LONG: -103.325446 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 0 FSL / 1882 FWL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.181255 / LONG: -103.323733 (TVD: 9961 feet, MD: 15000 feet)

PPP: NENW / 0 FSL / 1881 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.177619 / LONG: -103.32373 (TVD: 9961 feet, MD: 13700 feet)

PPP: TR N / 623 FSL / 1878 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.168432 / LONG: -103.323724 (TVD: 9961 feet, MD: 10324 feet)

BHL: TR C / 150 FNL / 1877 FWL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.195351 / LONG: -103.323742 (TVD: 9961 feet, MD: 20188 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
30-025-49812	98185	WC-025 G-09 S253502B;LWR BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
332472	FMM FED COM	302H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC	3290.3'

[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
N	36	24S	35E		345	SOUTH	1344	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
C	25	24S	35E		150	NORTH	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]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°10'03.61" (32.167668°)
LONGITUDE = 103°19'31.61" (103.325446°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°10'03.15" (32.167542°)
LONGITUDE = 103°19'29.93" (103.324981°)
STATE PLANE NAD 83 (N.M. EAST)
N: 426193.18' E: 853207.63'
STATE PLANE NAD 27 (N.M. EAST)
N: 426134.37' E: 812021.22'

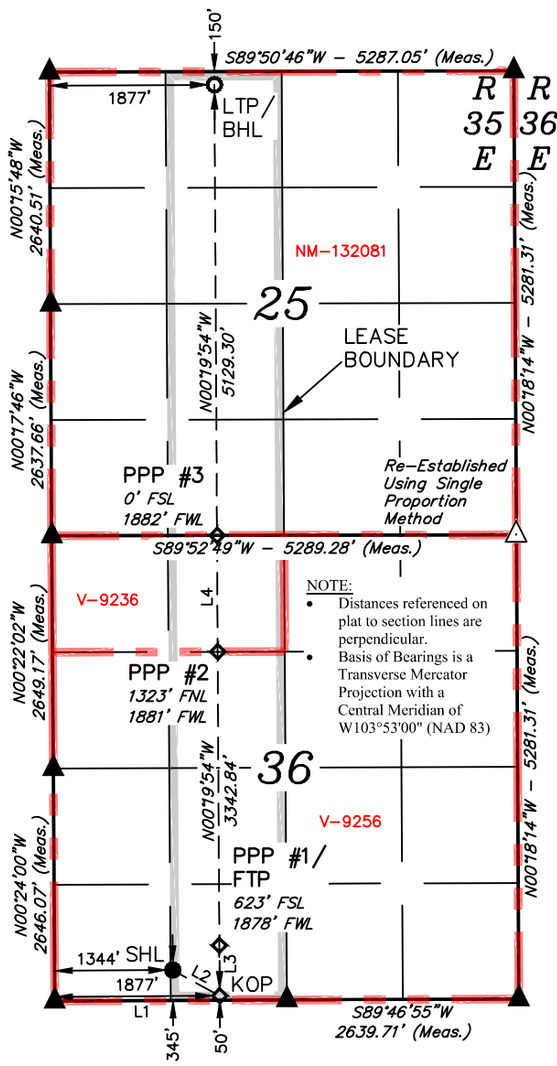
NAD 83 (KOP)
LATITUDE = 32°10'00.69" (32.166857°)
LONGITUDE = 103°19'25.40" (103.323723°)
NAD 27 (KOP)
LATITUDE = 32°10'00.23" (32.166731°)
LONGITUDE = 103°19'23.73" (103.323258°)
STATE PLANE NAD 83 (N.M. EAST)
N: 425903.09' E: 853743.67'
STATE PLANE NAD 27 (N.M. EAST)
N: 425844.29' E: 812557.24'

NAD 83 (PPP #1/FTP)
LATITUDE = 32°10'06.36" (32.168432°)
LONGITUDE = 103°19'25.41" (103.323724°)
NAD 27 (PPP #1/FTP)
LATITUDE = 32°10'05.90" (32.168305°)
LONGITUDE = 103°19'23.73" (103.323259°)
STATE PLANE NAD 83 (N.M. EAST)
N: 426476.02' E: 853737.97'
STATE PLANE NAD 27 (N.M. EAST)
N: 426417.20' E: 812551.56'

NAD 83 (PPP #2)
LATITUDE = 32°10'39.43" (32.177619°)
LONGITUDE = 103°19'25.43" (103.323730°)
NAD 27 (PPP #2)
LATITUDE = 32°10'38.97" (32.177492°)
LONGITUDE = 103°19'23.75" (103.323265°)
STATE PLANE NAD 83 (N.M. EAST)
N: 429818.20' E: 853704.64'
STATE PLANE NAD 27 (N.M. EAST)
N: 429759.30' E: 812518.37'

NAD 83 (PPP #3)
LATITUDE = 32°10'52.52" (32.181255°)
LONGITUDE = 103°19'25.44" (103.323733°)
NAD 27 (PPP #3)
LATITUDE = 32°10'52.06" (32.181128°)
LONGITUDE = 103°19'23.76" (103.323267°)
STATE PLANE NAD 83 (N.M. EAST)
N: 431141.02' E: 853691.45'
STATE PLANE NAD 27 (N.M. EAST)
N: 431082.07' E: 812505.23'

NAD 83 (LTP/BHL)
LATITUDE = 32°11'43.26" (32.195351°)
LONGITUDE = 103°19'25.47" (103.323742°)
NAD 27 (LTP/BHL)
LATITUDE = 32°11'42.81" (32.195225°)
LONGITUDE = 103°19'23.79" (103.323276°)
STATE PLANE NAD 83 (N.M. EAST)
N: 436269.31' E: 853640.31'
STATE PLANE NAD 27 (N.M. EAST)
N: 436210.23' E: 812454.29'



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°40'37"W	2642.16'
L2	S61°20'22"E	609.59'
L3	N00°19'52"W	573.04'
L4	N00°19'54"W	1323.07'

2000' 1000' 0' 2000'

SCALE

DRAWN BY: T.L.L. 08-04-21
REV: 1 D.J.S. 09-22-21
(ADD TAKE POINTS & LEASE INFO.)

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/FTP/PPP
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

[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 9/23/2021 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.

July 31, 2021
Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE
NEW MEXICO
23782
09-22-21
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:** __02/_24_/_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: ___FMM CTB: (f#) fAPP2203348319_____ [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

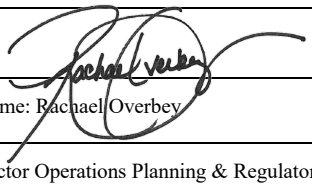
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: 2/24/2022
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
FMM Fed Com 101H	TBD	M-36-24S-35E	345 FSL 1269 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 102H	TBD	M-36-24S-35E	345 FSL 1319 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 301H	TBD	M-36-24S-35E	345 FSL 1294 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 302H	TBD	N-36-24S-35E	345 FSL 1344 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 801H	TBD	M-36-24S-35E	270 FSL 1281 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 802H	TBD	M-36-24S-35E	270 FSL 1306 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 803H	TBD	N-36-24S-35E	270 FSL 1331 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 103H	TBD	O-36-24S-35E	345 FSL 2027 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 104H	TBD	O-36-24S-35E	345 FSL 1977 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 303H	TBD	O-36-24S-35E	345 FSL 2002 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 304H	TBD	O-36-24S-35E	345 FSL 1952 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 804H	TBD	O-36-24S-35E	270 FSL 2015 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 805H	TBD	O-36-24S-35E	270 FSL 1990 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 806H	TBD	O-36-24S-35E	270 FSL 1965 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
FMM Fed Com 101H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 102H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 301H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 302H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 801H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 802H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 803H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 103H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 104H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 303H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 304H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 804H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 805H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 806H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023

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

FMM Fed Com 302H

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)	3,288'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,127'	1,191'			Carbonates
Salado	1,969'	1,349'			Salt, Carbonate & Clastics
Base Salt	111'	3,207'			Shaley Carbonate & Shale
Capitan	-1,210'	4,528'			Carbonates
Lamar	-1,830'	5,148'			Carbonate & Clastics
Bell Canyon	-1,977'	5,295'			Sandstone - oil/gas/water
Cherry Canyon	-2,705'	6,023'			Sandstone - oil/gas/water
Brushy Canyon	-4,026'	7,344'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,269'	8,587'			Shale/Carbonates - oil/gas
Avalon	-5,341'	8,659'			Shale/Carbonates - oil/gas
Chert Zone	-5,584'	8,902'			Carbonate/Chert
First Bone Spring Sand	-6,582'	9,900'			Sandstone - oil/gas/water
HZ Target	-6,643'	9,961'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,718'	10,036'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,122'	10,440'			Sandstone - oil/gas/water

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,295’	Oil
Bone Spring Sand	9,900’	Oil
Bone Spring Carbonate	10,036’	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	10324	1.29	1.48	2.03	1.39
						Eagle					
Long string 5 1/2"	23	P-110	14520	14520	729	606	20118	1.32	1.54	1.30	1.08
						TVD	9961				1.84

7 5/8”casing will be set at 10,324’MD/9,961’ TVD at 90°Inc. Stress calculations on 5 ½” casing performed assuming 20,118’ depth. Actual max vertical depth is 9,961’.

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	Lead Yield ft3/sk	Lead Water gal/sk	Lead TOC ft	Tail Sacks	Tail Type of cmt	Tail Yield ft3/sk	Tail Water gal/sk	Tail TOC	Excess
Surf	17.5	13.375	1300	803	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	330	Tail, 14.8 ppg, Class C,	1.349	6.51	1000	100%
Int1	12.25	9.625	5200	1523	0.125pps Poly-E-Flake Lead, 12.8 ppg, Class C 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	1.79	9.74	0	154	1% CaCl2, 0.125pps Celo-Flake Tail, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.33	6.37	4900	100%
Int2	8.75	7.625	10324	274	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% CaICl2	1.33	6.29	9324	50%
Prod	6.75	5.5	20118	805	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	9324						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 .22 psi/ft, but not to exceed 70 percent of the minimum internal yield, as per Onshore Order # 2 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' – 10,324'	Brine	8.8-10.2	28-34	N/c
10,324' – 20,118' 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 9,961' TVD (deepest point of the well) is 170F with an estimated maximum bottom-hole pressure (BHP) at the same point of 6,215 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.

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: FMM Fed Com
Well: FMM Fed Com 302H
Wellbore: OH
Design: Plan #1

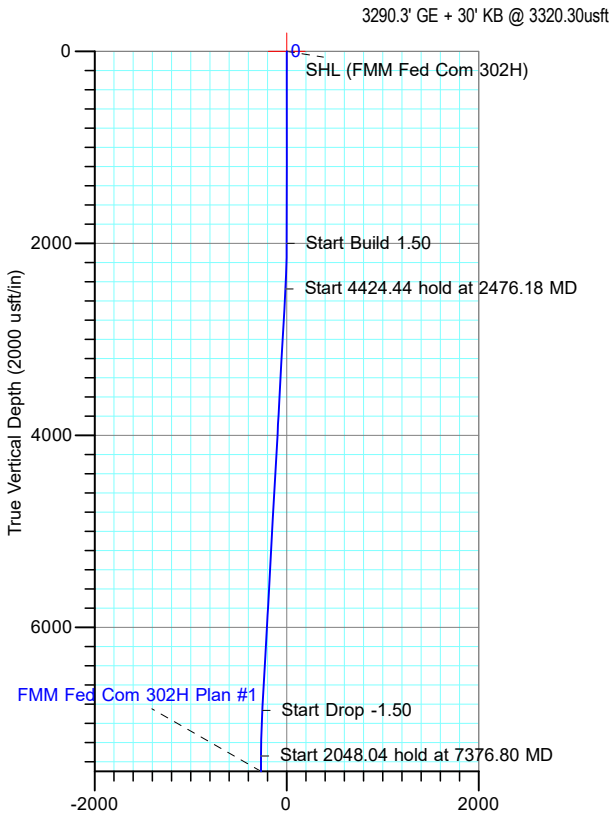
Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.87°

Magnetic Field
Strength: 47465.2nT
Dip Angle: 59.88°
Date: 8/27/2021
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

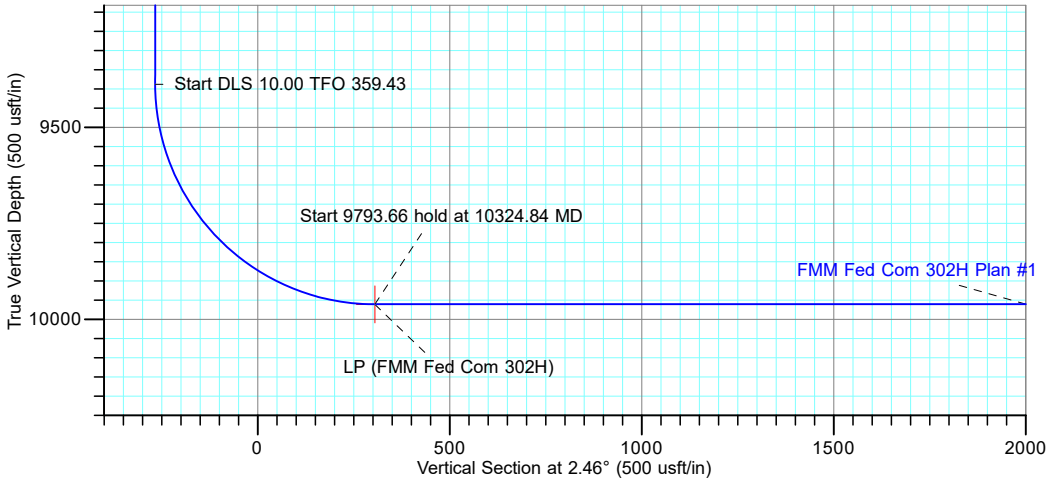


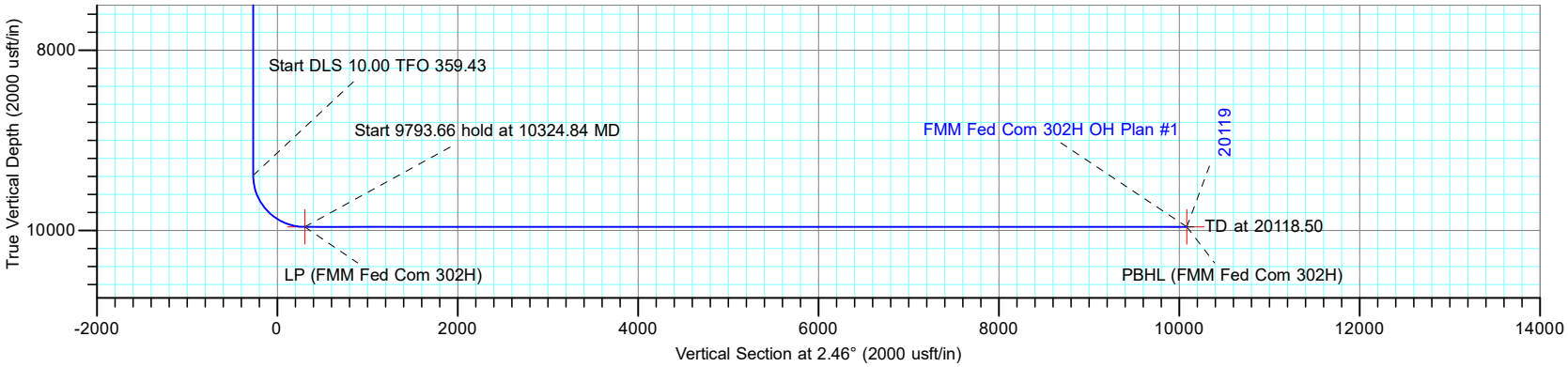
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2476.18	7.14	118.42	2474.95	-14.11	26.07	1.50	118.42	-12.97	Start 4424.44 hold at 2476.18 MD
6900.62	7.14	118.42	6865.05	-275.89	509.93	0.00	0.00	-253.76	Start Drop -1.50
7376.80	0.00	0.00	7340.00	-290.00	536.00	1.50	180.00	-266.73	Start 2048.04 hold at 7376.80 MD
9424.84	0.00	0.00	9388.04	-290.00	536.00	0.00	0.00	-266.73	Start DLS 10.00 TFO 359.43
10324.84	90.00	359.43	9961.00	282.93	530.29	10.00	359.43	305.42	Start 9793.66 hold at 10324.84 MD
20118.50	90.00	359.43	9961.00	10076.11	432.77	0.00	0.00	10085.39	TD at 20118.50

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (FMM Fed Com 302H)	9961.00	282.93	530.29	32.168432	-103.323724
PBHL (FMM Fed Com 302H)	9961.00	10076.11	432.77	32.195351	-103.323742
SHL (FMM Fed Com 302H)	0.00	0.00	0.00	32.167668	-103.325446





TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #1 (FMM Fed Com 302H/OH)
FMM Fed Com
Created By: Dustin Ault Date: 15:00, August 27 20
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: FMM Fed Com
Well: FMM Fed Com 302H
Wellbore: OH
Design: Plan #1

Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.87°

Magnetic Field
Strength: 47465.2nT
Dip Angle: 59.88°
Date: 8/27/2021
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

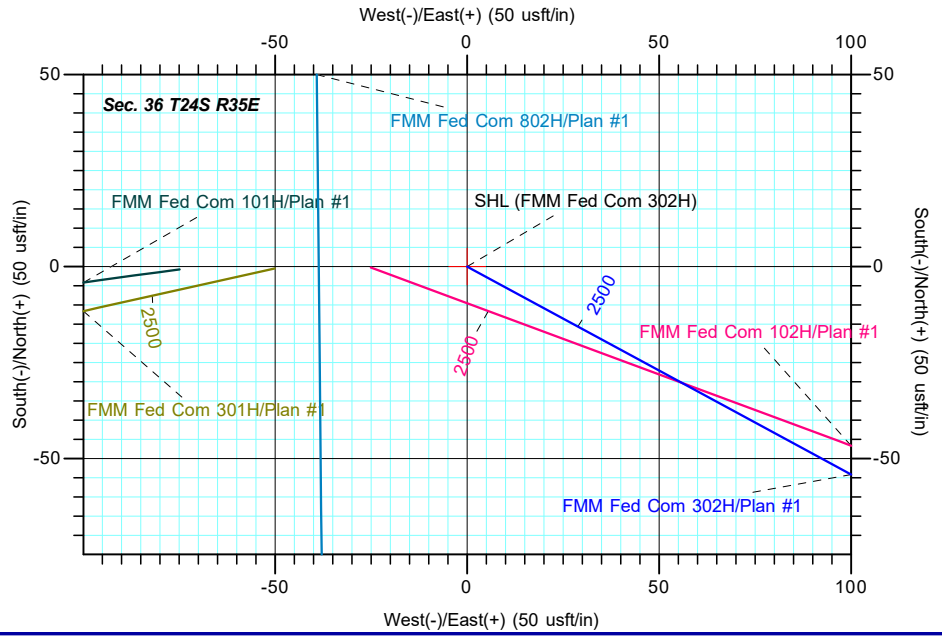
FRANKLIN MOUNTAIN ENERGY

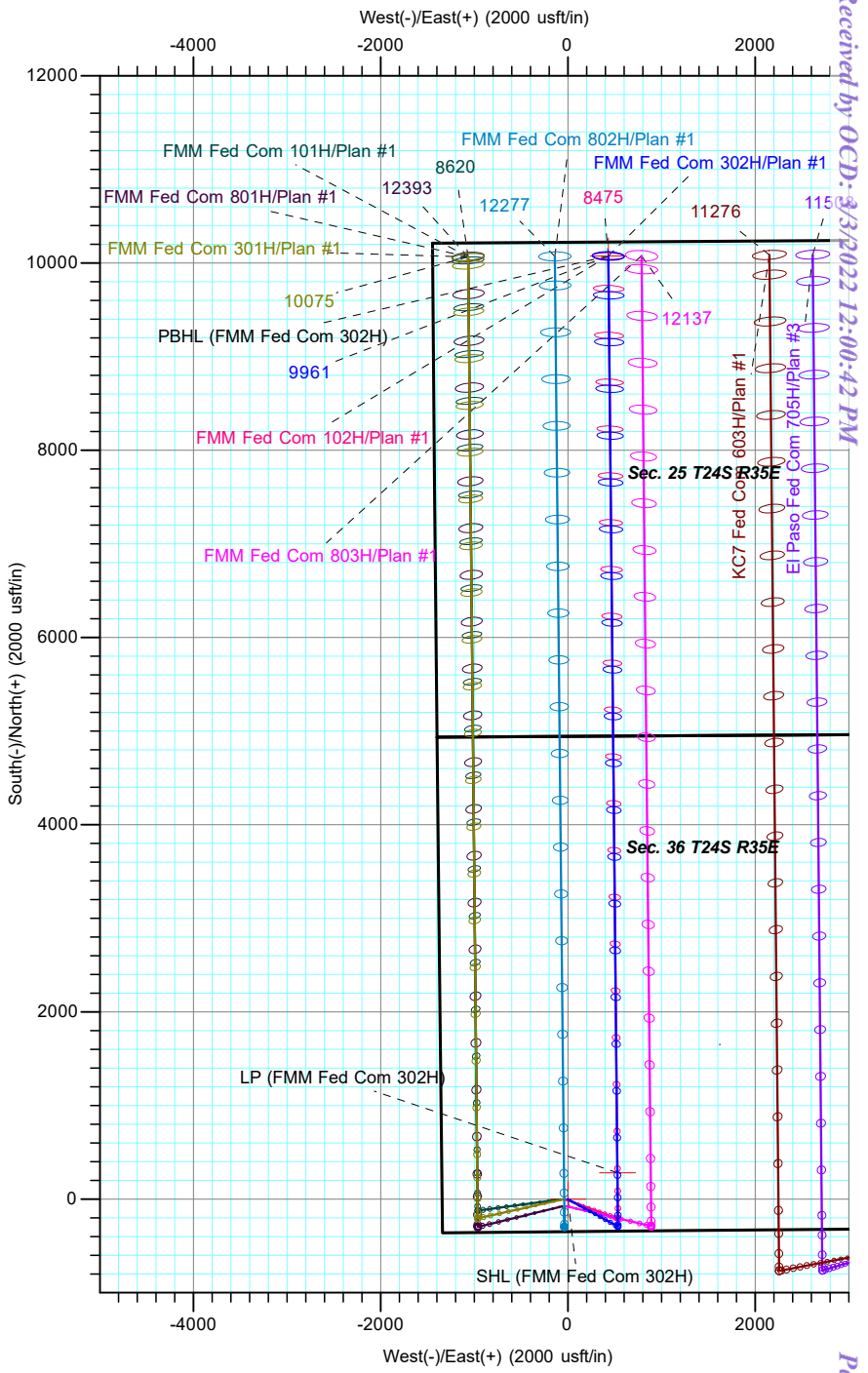
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (FMM Fed Com 302H)	9961.00	282.93	530.29	426476.02	853737.96	32.168432	-103.323724
PBHL (FMM Fed Com 302H)	9961.00	10076.11	432.77	436269.20	853640.44	32.195351	-103.323742
SHL (FMM Fed Com 302H)	0.00	0.00	0.00	426193.09	853207.67	32.167668	-103.325446

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	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2476.18	7.14	118.42	2474.95	-14.11	26.07	1.50	118.42	-12.97	Start 4424.44 hold at 2476.18 MD
6900.62	7.14	118.42	6865.05	-275.89	509.93	0.00	0.00	-253.76	Start Drop -1.50
7376.80	0.00	0.00	7340.00	-290.00	536.00	1.50	180.00	-266.73	Start 2048.04 hold at 7376.80 MD
9424.84	0.00	0.00	9388.04	-290.00	536.00	0.00	0.00	-266.73	Start DLS 10.00 TFO 359.43
10324.84	90.00	359.43	9961.00	282.93	530.29	10.00	359.43	305.42	Start 9793.66 hold at 10324.84 MD
20118.50	90.00	359.43	9961.00	10076.11	432.77	0.00	0.00	10085.39	TD at 20118.50





TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #1 (FMM Fed Com 302H/OH)
FMM Fed Com
Created By: Dustin Ault Date: 15:01, August 27 202
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Lea County, NM (NAD83)
FMM Fed Com
FMM Fed Com 302H

OH

Plan: Plan #1

Standard Planning Report

27 August, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Company:	Franklin Mountain Energy	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 302H	**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 FMM Fed Com

Site Position:		**Northing:**	426,192.39 usft	**Latitude:**	32.167668
From:	Lat/Long	**Easting:**	853,132.79 usft	**Longitude:**	-103.325688
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.54 °

Well FMM Fed Com 302H

Well Position	**+N/-S**	0.70 usft	**Northing:**	426,193.09 usft	**Latitude:**	32.167668
	+E/-W	74.89 usft	**Easting:**	853,207.67 usft	**Longitude:**	-103.325446
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,290.30 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/27/2021	6.40	59.88	47,465.16409933

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	2.46

Plan Survey Tool Program **Date** 8/27/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,118.47	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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,476.18	7.14	118.42	2,474.95	-14.11	26.07	1.50	1.50	0.00	118.42	
6,900.62	7.14	118.42	6,865.05	-275.89	509.93	0.00	0.00	0.00	0.00	
7,376.80	0.00	0.00	7,340.00	-290.00	536.00	1.50	-1.50	0.00	180.00	
9,424.84	0.00	0.00	9,388.04	-290.00	536.00	0.00	0.00	0.00	0.00	
10,324.84	90.00	359.43	9,961.00	282.93	530.29	10.00	10.00	-0.06	359.43	
20,118.50	90.00	359.43	9,961.00	10,076.11	432.77	0.00	0.00	0.00	0.00	PBHL (FMM Fed Com

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Company:	Franklin Mountain Energy	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 302H	**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 (FMM Fed Com 302H)									
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
Start Build 1.50									
2,100.00	1.50	118.42	2,099.99	-0.62	1.15	-0.57	1.50	1.50	0.00
2,200.00	3.00	118.42	2,199.91	-2.49	4.60	-2.29	1.50	1.50	0.00
2,300.00	4.50	118.42	2,299.69	-5.60	10.36	-5.15	1.50	1.50	0.00
2,400.00	6.00	118.42	2,399.27	-9.96	18.40	-9.16	1.50	1.50	0.00
2,476.18	7.14	118.42	2,474.95	-14.11	26.07	-12.97	1.50	1.50	0.00
Start 4424.44 hold at 2476.18 MD									
2,500.00	7.14	118.42	2,498.58	-15.52	28.68	-14.27	0.00	0.00	0.00
2,600.00	7.14	118.42	2,597.81	-21.43	39.61	-19.71	0.00	0.00	0.00
2,700.00	7.14	118.42	2,697.03	-27.35	50.55	-25.15	0.00	0.00	0.00
2,800.00	7.14	118.42	2,796.25	-33.27	61.48	-30.60	0.00	0.00	0.00
2,900.00	7.14	118.42	2,895.48	-39.18	72.42	-36.04	0.00	0.00	0.00
3,000.00	7.14	118.42	2,994.70	-45.10	83.36	-41.48	0.00	0.00	0.00
3,100.00	7.14	118.42	3,093.93	-51.02	94.29	-46.92	0.00	0.00	0.00
3,200.00	7.14	118.42	3,193.15	-56.93	105.23	-52.37	0.00	0.00	0.00
3,300.00	7.14	118.42	3,292.37	-62.85	116.16	-57.81	0.00	0.00	0.00
3,400.00	7.14	118.42	3,391.60	-68.77	127.10	-63.25	0.00	0.00	0.00
3,500.00	7.14	118.42	3,490.82	-74.68	138.04	-68.69	0.00	0.00	0.00
3,600.00	7.14	118.42	3,590.05	-80.60	148.97	-74.13	0.00	0.00	0.00
3,700.00	7.14	118.42	3,689.27	-86.52	159.91	-79.58	0.00	0.00	0.00
3,800.00	7.14	118.42	3,788.49	-92.43	170.84	-85.02	0.00	0.00	0.00
3,900.00	7.14	118.42	3,887.72	-98.35	181.78	-90.46	0.00	0.00	0.00
4,000.00	7.14	118.42	3,986.94	-104.27	192.72	-95.90	0.00	0.00	0.00
4,100.00	7.14	118.42	4,086.17	-110.19	203.65	-101.35	0.00	0.00	0.00
4,200.00	7.14	118.42	4,185.39	-116.10	214.59	-106.79	0.00	0.00	0.00
4,300.00	7.14	118.42	4,284.61	-122.02	225.52	-112.23	0.00	0.00	0.00
4,400.00	7.14	118.42	4,383.84	-127.94	236.46	-117.67	0.00	0.00	0.00
4,500.00	7.14	118.42	4,483.06	-133.85	247.40	-123.11	0.00	0.00	0.00
4,600.00	7.14	118.42	4,582.29	-139.77	258.33	-128.56	0.00	0.00	0.00
4,700.00	7.14	118.42	4,681.51	-145.69	269.27	-134.00	0.00	0.00	0.00
4,800.00	7.14	118.42	4,780.73	-151.60	280.20	-139.44	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 FMM Fed Com 302H
Company:	Franklin Mountain Energy	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 302H	**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	7.14	118.42	4,879.96	-157.52	291.14	-144.88	0.00	0.00	0.00
5,000.00	7.14	118.42	4,979.18	-163.44	302.08	-150.32	0.00	0.00	0.00
5,100.00	7.14	118.42	5,078.41	-169.35	313.01	-155.77	0.00	0.00	0.00
5,200.00	7.14	118.42	5,177.63	-175.27	323.95	-161.21	0.00	0.00	0.00
5,300.00	7.14	118.42	5,276.85	-181.19	334.88	-166.65	0.00	0.00	0.00
5,400.00	7.14	118.42	5,376.08	-187.10	345.82	-172.09	0.00	0.00	0.00
5,500.00	7.14	118.42	5,475.30	-193.02	356.76	-177.54	0.00	0.00	0.00
5,600.00	7.14	118.42	5,574.53	-198.94	367.69	-182.98	0.00	0.00	0.00
5,700.00	7.14	118.42	5,673.75	-204.86	378.63	-188.42	0.00	0.00	0.00
5,800.00	7.14	118.42	5,772.97	-210.77	389.56	-193.86	0.00	0.00	0.00
5,900.00	7.14	118.42	5,872.20	-216.69	400.50	-199.30	0.00	0.00	0.00
6,000.00	7.14	118.42	5,971.42	-222.61	411.44	-204.75	0.00	0.00	0.00
6,100.00	7.14	118.42	6,070.65	-228.52	422.37	-210.19	0.00	0.00	0.00
6,200.00	7.14	118.42	6,169.87	-234.44	433.31	-215.63	0.00	0.00	0.00
6,300.00	7.14	118.42	6,269.09	-240.36	444.24	-221.07	0.00	0.00	0.00
6,400.00	7.14	118.42	6,368.32	-246.27	455.18	-226.52	0.00	0.00	0.00
6,500.00	7.14	118.42	6,467.54	-252.19	466.12	-231.96	0.00	0.00	0.00
6,600.00	7.14	118.42	6,566.77	-258.11	477.05	-237.40	0.00	0.00	0.00
6,700.00	7.14	118.42	6,665.99	-264.02	487.99	-242.84	0.00	0.00	0.00
6,800.00	7.14	118.42	6,765.21	-269.94	498.92	-248.28	0.00	0.00	0.00
6,900.62	7.14	118.42	6,865.05	-275.89	509.93	-253.76	0.00	0.00	0.00
Start Drop -1.50									
7,000.00	5.65	118.42	6,963.81	-281.16	519.67	-258.61	1.50	-1.50	0.00
7,100.00	4.15	118.42	7,063.44	-285.23	527.18	-262.35	1.50	-1.50	0.00
7,200.00	2.65	118.42	7,163.26	-288.05	532.40	-264.94	1.50	-1.50	0.00
7,300.00	1.15	118.42	7,263.21	-289.63	535.32	-266.40	1.50	-1.50	0.00
7,376.80	0.00	0.00	7,340.00	-290.00	536.00	-266.73	1.50	-1.50	0.00
Start 2048.04 hold at 7376.80 MD									
7,400.00	0.00	0.00	7,363.20	-290.00	536.00	-266.73	0.00	0.00	0.00
7,500.00	0.00	0.00	7,463.20	-290.00	536.00	-266.73	0.00	0.00	0.00
7,600.00	0.00	0.00	7,563.20	-290.00	536.00	-266.73	0.00	0.00	0.00
7,700.00	0.00	0.00	7,663.20	-290.00	536.00	-266.73	0.00	0.00	0.00
7,800.00	0.00	0.00	7,763.20	-290.00	536.00	-266.73	0.00	0.00	0.00
7,900.00	0.00	0.00	7,863.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,000.00	0.00	0.00	7,963.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,100.00	0.00	0.00	8,063.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,200.00	0.00	0.00	8,163.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,300.00	0.00	0.00	8,263.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,400.00	0.00	0.00	8,363.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,500.00	0.00	0.00	8,463.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,600.00	0.00	0.00	8,563.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,700.00	0.00	0.00	8,663.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,800.00	0.00	0.00	8,763.20	-290.00	536.00	-266.73	0.00	0.00	0.00
8,900.00	0.00	0.00	8,863.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,000.00	0.00	0.00	8,963.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,100.00	0.00	0.00	9,063.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,200.00	0.00	0.00	9,163.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,300.00	0.00	0.00	9,263.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,400.00	0.00	0.00	9,363.20	-290.00	536.00	-266.73	0.00	0.00	0.00
9,424.84	0.00	0.00	9,388.04	-290.00	536.00	-266.73	0.00	0.00	0.00
Start DLS 10.00 TFO 359.43									
9,450.00	2.52	359.43	9,413.19	-289.45	535.99	-266.18	10.00	10.00	0.00
9,500.00	7.52	359.43	9,462.98	-285.08	535.95	-261.82	10.00	10.00	0.00

FRANKLIN MOUNTAIN ENERGY

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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)
9,550.00	12.52	359.43	9,512.21	-276.38	535.86	-253.14	10.00	10.00	0.00
9,600.00	17.52	359.43	9,560.48	-263.44	535.74	-240.20	10.00	10.00	0.00
9,650.00	22.52	359.43	9,607.45	-246.33	535.57	-223.12	10.00	10.00	0.00
9,700.00	27.52	359.43	9,652.74	-225.19	535.35	-202.01	10.00	10.00	0.00
9,750.00	32.52	359.43	9,696.02	-200.19	535.11	-177.04	10.00	10.00	0.00
9,800.00	37.52	359.43	9,736.96	-171.51	534.82	-148.40	10.00	10.00	0.00
9,850.00	42.52	359.43	9,775.24	-139.37	534.50	-116.31	10.00	10.00	0.00
9,900.00	47.52	359.43	9,810.58	-104.02	534.15	-81.00	10.00	10.00	0.00
9,950.00	52.52	359.43	9,842.70	-65.72	533.77	-42.76	10.00	10.00	0.00
10,000.00	57.52	359.43	9,871.35	-24.77	533.36	-1.86	10.00	10.00	0.00
10,050.00	62.52	359.43	9,896.33	18.52	532.93	41.37	10.00	10.00	0.00
10,100.00	67.52	359.43	9,917.45	63.83	532.48	86.62	10.00	10.00	0.00
10,150.00	72.52	359.43	9,934.53	110.80	532.01	133.52	10.00	10.00	0.00
10,200.00	77.52	359.43	9,947.45	159.08	531.53	181.74	10.00	10.00	0.00
10,250.00	82.52	359.43	9,956.12	208.31	531.04	230.90	10.00	10.00	0.00
10,300.00	87.52	359.43	9,960.46	258.10	530.54	280.63	10.00	10.00	0.00
10,324.84	90.00	359.43	9,961.00	282.93	530.29	305.42	10.00	10.00	0.00
Start 9793.66 hold at 10324.84 MD - LP (FMM Fed Com 302H)									
10,400.00	90.00	359.43	9,961.00	358.09	529.55	380.48	0.00	0.00	0.00
10,500.00	90.00	359.43	9,961.00	458.08	528.55	480.34	0.00	0.00	0.00
10,600.00	90.00	359.43	9,961.00	558.08	527.55	580.20	0.00	0.00	0.00
10,700.00	90.00	359.43	9,961.00	658.07	526.56	680.06	0.00	0.00	0.00
10,800.00	90.00	359.43	9,961.00	758.07	525.56	779.92	0.00	0.00	0.00
10,900.00	90.00	359.43	9,961.00	858.06	524.57	879.78	0.00	0.00	0.00
11,000.00	90.00	359.43	9,961.00	958.06	523.57	979.64	0.00	0.00	0.00
11,100.00	90.00	359.43	9,961.00	1,058.05	522.58	1,079.50	0.00	0.00	0.00
11,200.00	90.00	359.43	9,961.00	1,158.05	521.58	1,179.36	0.00	0.00	0.00
11,300.00	90.00	359.43	9,961.00	1,258.04	520.58	1,279.22	0.00	0.00	0.00
11,400.00	90.00	359.43	9,961.00	1,358.04	519.59	1,379.08	0.00	0.00	0.00
11,500.00	90.00	359.43	9,961.00	1,458.03	518.59	1,478.94	0.00	0.00	0.00
11,600.00	90.00	359.43	9,961.00	1,558.03	517.60	1,578.80	0.00	0.00	0.00
11,700.00	90.00	359.43	9,961.00	1,658.02	516.60	1,678.66	0.00	0.00	0.00
11,800.00	90.00	359.43	9,961.00	1,758.02	515.60	1,778.52	0.00	0.00	0.00
11,900.00	90.00	359.43	9,961.00	1,858.01	514.61	1,878.38	0.00	0.00	0.00
12,000.00	90.00	359.43	9,961.00	1,958.01	513.61	1,978.24	0.00	0.00	0.00
12,100.00	90.00	359.43	9,961.00	2,058.00	512.62	2,078.10	0.00	0.00	0.00
12,200.00	90.00	359.43	9,961.00	2,158.00	511.62	2,177.96	0.00	0.00	0.00
12,300.00	90.00	359.43	9,961.00	2,257.99	510.63	2,277.82	0.00	0.00	0.00
12,400.00	90.00	359.43	9,961.00	2,357.99	509.63	2,377.68	0.00	0.00	0.00
12,500.00	90.00	359.43	9,961.00	2,457.98	508.63	2,477.54	0.00	0.00	0.00
12,600.00	90.00	359.43	9,961.00	2,557.98	507.64	2,577.40	0.00	0.00	0.00
12,700.00	90.00	359.43	9,961.00	2,657.97	506.64	2,677.26	0.00	0.00	0.00
12,800.00	90.00	359.43	9,961.00	2,757.97	505.65	2,777.12	0.00	0.00	0.00
12,900.00	90.00	359.43	9,961.00	2,857.96	504.65	2,876.98	0.00	0.00	0.00
13,000.00	90.00	359.43	9,961.00	2,957.96	503.65	2,976.84	0.00	0.00	0.00
13,100.00	90.00	359.43	9,961.00	3,057.95	502.66	3,076.70	0.00	0.00	0.00
13,200.00	90.00	359.43	9,961.00	3,157.95	501.66	3,176.56	0.00	0.00	0.00
13,300.00	90.00	359.43	9,961.00	3,257.94	500.67	3,276.42	0.00	0.00	0.00
13,400.00	90.00	359.43	9,961.00	3,357.94	499.67	3,376.28	0.00	0.00	0.00
13,500.00	90.00	359.43	9,961.00	3,457.93	498.68	3,476.14	0.00	0.00	0.00
13,600.00	90.00	359.43	9,961.00	3,557.93	497.68	3,576.00	0.00	0.00	0.00
13,700.00	90.00	359.43	9,961.00	3,657.92	496.68	3,675.86	0.00	0.00	0.00
13,800.00	90.00	359.43	9,961.00	3,757.92	495.69	3,775.73	0.00	0.00	0.00
13,900.00	90.00	359.43	9,961.00	3,857.91	494.69	3,875.59	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 FMM Fed Com 302H
Company:	Franklin Mountain Energy	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 302H	**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	359.43	9,961.00	3,957.91	493.70	3,975.45	0.00	0.00	0.00
14,100.00	90.00	359.43	9,961.00	4,057.90	492.70	4,075.31	0.00	0.00	0.00
14,200.00	90.00	359.43	9,961.00	4,157.90	491.70	4,175.17	0.00	0.00	0.00
14,300.00	90.00	359.43	9,961.00	4,257.89	490.71	4,275.03	0.00	0.00	0.00
14,400.00	90.00	359.43	9,961.00	4,357.89	489.71	4,374.89	0.00	0.00	0.00
14,500.00	90.00	359.43	9,961.00	4,457.88	488.72	4,474.75	0.00	0.00	0.00
14,600.00	90.00	359.43	9,961.00	4,557.88	487.72	4,574.61	0.00	0.00	0.00
14,700.00	90.00	359.43	9,961.00	4,657.87	486.73	4,674.47	0.00	0.00	0.00
14,800.00	90.00	359.43	9,961.00	4,757.87	485.73	4,774.33	0.00	0.00	0.00
14,900.00	90.00	359.43	9,961.00	4,857.86	484.73	4,874.19	0.00	0.00	0.00
15,000.00	90.00	359.43	9,961.00	4,957.86	483.74	4,974.05	0.00	0.00	0.00
15,100.00	90.00	359.43	9,961.00	5,057.85	482.74	5,073.91	0.00	0.00	0.00
15,200.00	90.00	359.43	9,961.00	5,157.85	481.75	5,173.77	0.00	0.00	0.00
15,300.00	90.00	359.43	9,961.00	5,257.84	480.75	5,273.63	0.00	0.00	0.00
15,400.00	90.00	359.43	9,961.00	5,357.84	479.75	5,373.49	0.00	0.00	0.00
15,500.00	90.00	359.43	9,961.00	5,457.83	478.76	5,473.35	0.00	0.00	0.00
15,600.00	90.00	359.43	9,961.00	5,557.83	477.76	5,573.21	0.00	0.00	0.00
15,700.00	90.00	359.43	9,961.00	5,657.82	476.77	5,673.07	0.00	0.00	0.00
15,800.00	90.00	359.43	9,961.00	5,757.82	475.77	5,772.93	0.00	0.00	0.00
15,900.00	90.00	359.43	9,961.00	5,857.81	474.77	5,872.79	0.00	0.00	0.00
16,000.00	90.00	359.43	9,961.00	5,957.81	473.78	5,972.65	0.00	0.00	0.00
16,100.00	90.00	359.43	9,961.00	6,057.80	472.78	6,072.51	0.00	0.00	0.00
16,200.00	90.00	359.43	9,961.00	6,157.80	471.79	6,172.37	0.00	0.00	0.00
16,300.00	90.00	359.43	9,961.00	6,257.79	470.79	6,272.23	0.00	0.00	0.00
16,400.00	90.00	359.43	9,961.00	6,357.79	469.80	6,372.09	0.00	0.00	0.00
16,500.00	90.00	359.43	9,961.00	6,457.78	468.80	6,471.95	0.00	0.00	0.00
16,600.00	90.00	359.43	9,961.00	6,557.78	467.80	6,571.81	0.00	0.00	0.00
16,700.00	90.00	359.43	9,961.00	6,657.77	466.81	6,671.67	0.00	0.00	0.00
16,800.00	90.00	359.43	9,961.00	6,757.77	465.81	6,771.53	0.00	0.00	0.00
16,900.00	90.00	359.43	9,961.00	6,857.76	464.82	6,871.39	0.00	0.00	0.00
17,000.00	90.00	359.43	9,961.00	6,957.76	463.82	6,971.25	0.00	0.00	0.00
17,100.00	90.00	359.43	9,961.00	7,057.75	462.82	7,071.11	0.00	0.00	0.00
17,200.00	90.00	359.43	9,961.00	7,157.75	461.83	7,170.97	0.00	0.00	0.00
17,300.00	90.00	359.43	9,961.00	7,257.74	460.83	7,270.83	0.00	0.00	0.00
17,400.00	90.00	359.43	9,961.00	7,357.74	459.84	7,370.69	0.00	0.00	0.00
17,500.00	90.00	359.43	9,961.00	7,457.73	458.84	7,470.55	0.00	0.00	0.00
17,600.00	90.00	359.43	9,961.00	7,557.73	457.85	7,570.41	0.00	0.00	0.00
17,700.00	90.00	359.43	9,961.00	7,657.72	456.85	7,670.27	0.00	0.00	0.00
17,800.00	90.00	359.43	9,961.00	7,757.72	455.85	7,770.13	0.00	0.00	0.00
17,900.00	90.00	359.43	9,961.00	7,857.71	454.86	7,869.99	0.00	0.00	0.00
18,000.00	90.00	359.43	9,961.00	7,957.71	453.86	7,969.85	0.00	0.00	0.00
18,100.00	90.00	359.43	9,961.00	8,057.70	452.87	8,069.71	0.00	0.00	0.00
18,200.00	90.00	359.43	9,961.00	8,157.70	451.87	8,169.57	0.00	0.00	0.00
18,300.00	90.00	359.43	9,961.00	8,257.69	450.87	8,269.43	0.00	0.00	0.00
18,400.00	90.00	359.43	9,961.00	8,357.69	449.88	8,369.30	0.00	0.00	0.00
18,500.00	90.00	359.43	9,961.00	8,457.68	448.88	8,469.16	0.00	0.00	0.00
18,600.00	90.00	359.43	9,961.00	8,557.68	447.89	8,569.02	0.00	0.00	0.00
18,700.00	90.00	359.43	9,961.00	8,657.67	446.89	8,668.88	0.00	0.00	0.00
18,800.00	90.00	359.43	9,961.00	8,757.67	445.90	8,768.74	0.00	0.00	0.00
18,900.00	90.00	359.43	9,961.00	8,857.66	444.90	8,868.60	0.00	0.00	0.00
19,000.00	90.00	359.43	9,961.00	8,957.66	443.90	8,968.46	0.00	0.00	0.00
19,100.00	90.00	359.43	9,961.00	9,057.65	442.91	9,068.32	0.00	0.00	0.00
19,200.00	90.00	359.43	9,961.00	9,157.65	441.91	9,168.18	0.00	0.00	0.00
19,300.00	90.00	359.43	9,961.00	9,257.64	440.92	9,268.04	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 FMM Fed Com 302H
Company:	Franklin Mountain Energy	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 302H	**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	359.43	9,961.00	9,357.64	439.92	9,367.90	0.00	0.00	0.00
19,500.00	90.00	359.43	9,961.00	9,457.63	438.92	9,467.76	0.00	0.00	0.00
19,600.00	90.00	359.43	9,961.00	9,557.63	437.93	9,567.62	0.00	0.00	0.00
19,700.00	90.00	359.43	9,961.00	9,657.62	436.93	9,667.48	0.00	0.00	0.00
19,800.00	90.00	359.43	9,961.00	9,757.62	435.94	9,767.34	0.00	0.00	0.00
19,900.00	90.00	359.43	9,961.00	9,857.61	434.94	9,867.20	0.00	0.00	0.00
20,000.00	90.00	359.43	9,961.00	9,957.61	433.95	9,967.06	0.00	0.00	0.00
20,100.00	90.00	359.43	9,961.00	10,057.60	432.95	10,066.92	0.00	0.00	0.00
20,118.50	90.00	359.43	9,961.00	10,076.11	432.77	10,085.39	0.00	0.00	0.00
TD at 20118.50 - PBHL (FMM Fed Com 302H)									

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 (FMM Fed Com 30 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	426,193.09	853,207.67	32.167668	-103.325446
LP (FMM Fed Com 302 - plan hits target center - Point	0.00	0.00	9,961.00	282.93	530.29	426,476.02	853,737.96	32.168432	-103.323724
PBHL (FMM Fed Com 3 - plan hits target center - Point	0.00	0.00	9,961.00	10,076.11	432.77	436,269.20	853,640.44	32.195351	-103.323742

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,000.00	2,000.00	0.00	0.00	Start Build 1.50
2,476.18	2,474.95	-14.11	26.07	Start 4424.44 hold at 2476.18 MD
6,900.62	6,865.05	-275.89	509.93	Start Drop -1.50
7,376.80	7,340.00	-290.00	536.00	Start 2048.04 hold at 7376.80 MD
9,424.84	9,388.04	-290.00	536.00	Start DLS 10.00 TFO 359.43
10,324.84	9,961.00	282.93	530.29	Start 9793.66 hold at 10324.84 MD
20,118.50	9,961.00	10,076.11	432.77	TD at 20118.50

FRANKLIN MOUNTAIN ENERGY

Franklin Mountain Energy

Lea County, NM (NAD83)
FMM Fed Com
FMM Fed Com 302H

OH
Plan #1

Anticollision Report

27 August, 2021

total

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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:	1,843.00 to 28,999.00usft	**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** 8/27/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	20,118.47	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
FMM Fed Com						
FMM Fed Com 101H - OH - Plan #1	1,843.00	1,839.73	75.10	66.10	8.342	CC, ES
FMM Fed Com 101H - OH - Plan #1	2,000.00	1,993.57	79.86	70.09	8.180	SF
FMM Fed Com 102H - OH - Plan #1	2,653.08	2,655.28	23.32	10.49	1.818	CC
FMM Fed Com 102H - OH - Plan #1	3,100.00	3,102.13	24.60	9.56	1.635	ES
FMM Fed Com 102H - OH - Plan #1	3,400.00	3,402.08	26.74	10.15	1.612	SF
FMM Fed Com 301H - OH - Plan #1	2,000.00	1,998.30	50.13	40.33	5.113	CC, ES
FMM Fed Com 301H - OH - Plan #1	2,100.00	2,097.00	52.50	42.21	5.103	SF
FMM Fed Com 801H - OH - Plan #1	2,000.00	1,998.60	97.59	87.79	9.952	CC, ES
FMM Fed Com 801H - OH - Plan #1	2,200.00	2,194.18	102.94	92.19	9.574	SF
FMM Fed Com 802H - OH - Plan #1	2,163.89	2,162.74	83.71	73.09	7.884	CC
FMM Fed Com 802H - OH - Plan #1	2,200.00	2,198.81	83.72	72.93	7.756	ES
FMM Fed Com 802H - OH - Plan #1	2,300.00	2,296.81	85.15	73.88	7.557	SF
FMM Fed Com 803H - OH - Plan #1	2,822.44	2,819.59	61.21	47.37	4.423	CC
FMM Fed Com 803H - OH - Plan #1	2,900.00	2,896.86	61.58	47.36	4.332	ES
FMM Fed Com 803H - OH - Plan #1	3,000.00	2,996.49	63.09	48.41	4.296	SF
KC7 Fed Com/El Paso Fed Com						
El Paso Fed Com 604H - OH - Plan #1	7,318.75	7,291.72	2,793.05	2,756.61	76.661	CC
El Paso Fed Com 604H - OH - Plan #1	9,450.00	9,464.22	2,798.14	2,751.20	59.613	ES
El Paso Fed Com 604H - OH - Plan #1	20,118.82	22,160.64	3,032.31	2,801.56	13.141	SF
El Paso Fed Com 705H - OH - Plan #3	9,613.19	9,814.69	2,282.90	2,234.58	47.243	CC, ES
El Paso Fed Com 705H - OH - Plan #3	20,118.82	22,482.46	2,676.06	2,462.77	12.546	SF
El Paso Fed Com 706H - OH - Plan #1	7,054.46	6,836.73	2,920.41	2,885.67	84.060	CC, ES
El Paso Fed Com 706H - OH - Plan #1	20,118.82	22,304.88	3,367.61	3,137.42	14.630	SF
KC7 Fed Com 603H - OH - Plan #1	9,674.24	9,988.67	1,876.05	1,826.86	38.138	CC, ES
KC7 Fed Com 603H - OH - Plan #1	20,118.82	22,310.90	2,165.78	1,956.35	10.341	SF

Offset Design FMM Fed Com - FMM 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
1,843.00	1,843.00	1,839.73	1,839.73	6.37	6.36	-90.56	-0.73	-75.09	75.10	66.10	9.00	8.342	CC, ES
1,900.00	1,900.00	1,895.62	1,895.61	6.58	6.55	-90.65	-0.86	-76.07	76.10	66.82	9.28	8.198	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
2,000.00	2,000.00	1,993.57	1,993.48	6.94	6.89	-90.98	-1.36	-79.74	79.86	70.09	9.76	8.180	SF
2,100.00	2,099.99	2,091.17	2,090.89	7.28	7.22	150.49	-2.19	-85.88	87.29	77.07	10.23	8.535	
2,200.00	2,199.91	2,188.06	2,187.39	7.62	7.56	150.91	-3.34	-94.40	99.52	88.84	10.68	9.320	
2,300.00	2,299.69	2,283.91	2,282.62	7.95	7.90	151.64	-4.80	-105.22	116.50	105.37	11.12	10.475	
2,400.00	2,399.27	2,378.39	2,376.18	8.30	8.24	152.47	-6.55	-118.20	138.19	126.63	11.56	11.958	
2,476.18	2,474.95	2,449.26	2,446.14	8.56	8.50	153.08	-8.07	-129.44	157.83	145.95	11.88	13.283	
2,500.00	2,498.58	2,471.22	2,467.77	8.65	8.59	153.30	-8.58	-133.18	164.46	152.48	11.98	13.723	
2,600.00	2,597.81	2,566.16	2,561.17	9.00	8.95	154.04	-10.86	-150.06	193.01	180.57	12.44	15.510	
2,700.00	2,697.03	2,661.95	2,655.40	9.36	9.32	154.59	-13.17	-167.15	221.64	208.72	12.92	17.155	
2,800.00	2,796.25	2,757.75	2,749.63	9.72	9.70	155.01	-15.48	-184.24	250.29	236.89	13.40	18.680	
2,900.00	2,895.48	2,853.55	2,843.86	10.09	10.08	155.35	-17.79	-201.33	278.94	265.06	13.88	20.096	
3,000.00	2,994.70	2,949.34	2,938.09	10.46	10.47	155.63	-20.10	-218.42	307.60	293.24	14.36	21.415	
3,100.00	3,093.93	3,045.14	3,032.32	10.83	10.86	155.86	-22.41	-235.50	336.27	321.42	14.85	22.644	
3,200.00	3,193.15	3,140.93	3,126.55	11.21	11.26	156.05	-24.72	-252.59	364.94	349.60	15.34	23.792	
3,300.00	3,292.37	3,236.73	3,220.78	11.59	11.65	156.21	-27.02	-269.68	393.61	377.79	15.83	24.867	
3,400.00	3,391.60	3,332.52	3,315.01	11.97	12.06	156.35	-29.33	-286.77	422.29	405.97	16.32	25.874	
3,500.00	3,490.82	3,428.32	3,409.24	12.35	12.46	156.48	-31.64	-303.86	450.97	434.16	16.81	26.820	
3,600.00	3,590.05	3,524.11	3,503.47	12.73	12.87	156.59	-33.95	-320.94	479.65	462.34	17.31	27.710	
3,700.00	3,689.27	3,619.91	3,597.70	13.12	13.28	156.68	-36.26	-338.03	508.33	490.53	17.81	28.547	
3,800.00	3,788.49	3,715.70	3,691.93	13.51	13.69	156.77	-38.57	-355.12	537.02	518.71	18.30	29.338	
3,900.00	3,887.72	3,811.50	3,786.16	13.89	14.11	156.85	-40.88	-372.21	565.70	546.90	18.80	30.084	
4,000.00	3,986.94	3,907.29	3,880.39	14.28	14.52	156.92	-43.19	-389.30	594.39	575.08	19.30	30.791	
4,100.00	4,086.17	4,003.09	3,974.63	14.68	14.94	156.98	-45.50	-406.38	623.07	603.27	19.81	31.460	
4,200.00	4,185.39	4,098.88	4,068.86	15.07	15.36	157.04	-47.81	-423.47	651.76	631.45	20.31	32.094	
4,300.00	4,284.61	4,194.68	4,163.09	15.46	15.78	157.09	-50.12	-440.56	680.45	659.64	20.81	32.697	
4,400.00	4,383.84	4,290.47	4,257.32	15.86	16.20	157.14	-52.43	-457.65	709.13	687.82	21.32	33.269	
4,500.00	4,483.06	4,386.27	4,351.55	16.25	16.62	157.19	-54.74	-474.74	737.82	716.00	21.82	33.814	
4,600.00	4,582.29	4,482.06	4,445.78	16.65	17.05	157.23	-57.04	-491.82	766.51	744.18	22.33	34.333	
4,700.00	4,681.51	4,577.86	4,540.01	17.04	17.47	157.27	-59.35	-508.91	795.20	772.37	22.83	34.829	
4,800.00	4,780.73	4,673.65	4,634.24	17.44	17.90	157.30	-61.66	-526.00	823.89	800.55	23.34	35.301	
4,900.00	4,879.96	4,769.45	4,728.47	17.84	18.32	157.34	-63.97	-543.09	852.58	828.73	23.85	35.753	
5,000.00	4,979.18	4,865.24	4,822.70	18.24	18.75	157.37	-66.28	-560.18	881.27	856.91	24.35	36.185	
5,100.00	5,078.41	4,961.04	4,916.93	18.64	19.18	157.40	-68.59	-577.27	909.96	885.09	24.86	36.599	
5,200.00	5,177.63	5,056.83	5,011.16	19.03	19.61	157.43	-70.90	-594.35	938.65	913.27	25.37	36.995	
5,300.00	5,276.85	5,152.63	5,105.39	19.43	20.04	157.45	-73.21	-611.44	967.34	941.46	25.88	37.375	
5,400.00	5,376.08	5,248.42	5,199.62	19.84	20.47	157.48	-75.52	-628.53	996.03	969.64	26.39	37.739	
5,500.00	5,475.30	5,344.22	5,293.85	20.24	20.90	157.50	-77.83	-645.62	1,024.72	997.82	26.90	38.090	
5,600.00	5,574.53	5,440.01	5,388.08	20.64	21.33	157.52	-80.14	-662.71	1,053.41	1,025.99	27.41	38.426	
5,700.00	5,673.75	5,535.81	5,482.31	21.04	21.76	157.54	-82.45	-679.79	1,082.10	1,054.17	27.93	38.750	
5,800.00	5,772.97	5,631.60	5,576.54	21.44	22.19	157.56	-84.75	-696.88	1,110.79	1,082.35	28.44	39.061	
5,900.00	5,872.20	5,727.40	5,670.77	21.84	22.63	157.58	-87.06	-713.97	1,139.48	1,110.53	28.95	39.361	
6,000.00	5,971.42	5,823.19	5,765.00	22.25	23.06	157.60	-89.37	-731.06	1,168.17	1,138.71	29.46	39.650	
6,100.00	6,070.65	5,918.99	5,859.23	22.65	23.49	157.61	-91.68	-748.15	1,196.86	1,166.89	29.98	39.929	
6,200.00	6,169.87	6,014.78	5,953.46	23.05	23.93	157.63	-93.99	-765.23	1,225.56	1,195.07	30.49	40.197	
6,300.00	6,269.09	6,110.58	6,047.69	23.46	24.36	157.65	-96.30	-782.32	1,254.25	1,223.24	31.00	40.457	
6,400.00	6,368.32	6,206.37	6,141.92	23.86	24.80	157.66	-98.61	-799.41	1,282.94	1,251.42	31.52	40.707	
6,500.00	6,467.54	6,302.17	6,236.15	24.26	25.23	157.67	-100.92	-816.50	1,311.63	1,279.60	32.03	40.950	
6,600.00	6,566.77	6,397.96	6,330.38	24.67	25.67	157.69	-103.23	-833.59	1,340.32	1,307.78	32.54	41.184	
6,700.00	6,665.99	6,493.76	6,424.61	25.07	26.10	157.70	-105.54	-850.67	1,369.01	1,335.95	33.06	41.410	
6,800.00	6,765.21	6,589.55	6,518.85	25.48	26.54	157.71	-107.85	-867.76	1,397.71	1,364.13	33.57	41.630	
6,900.62	6,865.05	6,685.94	6,613.66	25.89	26.98	157.72	-110.17	-884.96	1,426.58	1,392.48	34.09	41.843	
7,000.00	6,963.81	6,784.57	6,710.67	26.28	27.42	157.88	-112.55	-902.54	1,453.93	1,419.31	34.62	41.994	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
7,100.00	7,063.44	6,939.48	6,863.63	26.66	28.10	157.97	-115.82	-926.77	1,477.03	1,441.59	35.44	41.676	
7,200.00	7,163.26	7,097.71	7,020.76	27.03	28.74	158.02	-118.31	-945.16	1,493.85	1,457.64	36.21	41.252	
7,300.00	7,263.21	7,258.26	7,180.84	27.38	29.33	158.04	-119.93	-957.21	1,504.26	1,467.33	36.93	40.732	
7,376.80	7,340.00	7,382.46	7,304.94	27.64	29.75	-83.55	-120.57	-961.95	1,507.85	1,470.41	37.44	40.274	
7,400.00	7,363.20	7,420.04	7,342.52	27.71	29.87	-83.55	-120.66	-962.59	1,508.24	1,470.66	37.58	40.130	
7,500.00	7,463.20	7,538.23	7,460.70	28.03	30.24	-83.56	-120.70	-962.89	1,508.42	1,470.32	38.09	39.598	
7,600.00	7,563.20	7,638.23	7,560.70	28.36	30.54	-83.56	-120.70	-962.89	1,508.42	1,469.85	38.56	39.114	
7,700.00	7,663.20	7,738.23	7,660.70	28.68	30.85	-83.56	-120.70	-962.89	1,508.42	1,469.38	39.04	38.641	
7,800.00	7,763.20	7,838.23	7,760.70	29.00	31.15	-83.56	-120.70	-962.89	1,508.42	1,468.91	39.51	38.178	
7,900.00	7,863.20	7,938.23	7,860.70	29.33	31.46	-83.56	-120.70	-962.89	1,508.42	1,468.43	39.98	37.725	
8,000.00	7,963.20	8,038.23	7,960.70	29.65	31.77	-83.56	-120.70	-962.89	1,508.42	1,467.96	40.46	37.283	
8,010.48	7,973.68	8,048.71	7,971.18	29.69	31.80	-83.56	-120.70	-962.89	1,508.42	1,467.91	40.51	37.237	
8,100.00	8,063.20	8,134.41	8,056.89	29.98	32.07	-83.55	-120.58	-962.89	1,508.44	1,467.51	40.93	36.857	
8,200.00	8,163.20	8,209.42	8,131.56	30.31	32.29	-83.31	-114.13	-962.95	1,509.51	1,468.17	41.34	36.512	
8,300.00	8,263.20	8,281.55	8,201.99	30.64	32.50	-82.73	-98.79	-963.10	1,512.39	1,470.66	41.73	36.239	
8,400.00	8,363.20	8,350.00	8,266.55	30.97	32.68	-81.88	-76.15	-963.33	1,517.43	1,475.33	42.09	36.051	
8,500.00	8,463.20	8,410.22	8,320.76	31.29	32.83	-80.91	-50.00	-963.59	1,525.11	1,482.71	42.39	35.976	
8,600.00	8,563.20	8,465.13	8,367.56	31.62	32.95	-79.84	-21.31	-963.87	1,535.94	1,493.31	42.63	36.026	
8,700.00	8,663.20	8,513.72	8,406.51	31.96	33.04	-78.78	7.70	-964.16	1,550.40	1,507.60	42.80	36.225	
8,800.00	8,763.20	8,550.00	8,433.92	32.29	33.11	-77.91	31.47	-964.40	1,568.86	1,526.01	42.85	36.611	
8,900.00	8,863.20	8,600.00	8,469.11	32.62	33.19	-76.62	66.96	-964.75	1,591.55	1,548.64	42.91	37.092	
9,000.00	8,963.20	8,626.69	8,486.59	32.95	33.24	-75.90	87.13	-964.95	1,618.60	1,575.81	42.79	37.828	
9,100.00	9,063.20	8,650.00	8,501.08	33.28	33.27	-75.24	105.39	-965.13	1,650.12	1,607.54	42.59	38.746	
9,200.00	9,163.20	8,680.93	8,519.13	33.62	33.31	-74.35	130.50	-965.38	1,686.00	1,643.62	42.38	39.785	
9,300.00	9,263.20	8,700.00	8,529.57	33.95	33.34	-73.79	146.45	-965.54	1,726.17	1,684.12	42.05	41.051	
9,400.00	9,363.20	8,723.36	8,541.63	34.29	33.38	-73.09	166.45	-965.74	1,770.44	1,728.72	41.72	42.440	
9,424.84	9,388.04	8,727.97	8,543.92	34.37	33.38	-72.95	170.46	-965.78	1,782.05	1,740.43	41.62	42.815	
9,450.00	9,413.19	8,732.69	8,546.22	34.45	33.39	-70.97	174.58	-965.82	1,793.90	1,752.38	41.52	43.202	
9,500.00	9,462.98	8,750.00	8,554.38	34.61	33.41	-68.02	189.84	-965.97	1,817.24	1,775.87	41.37	43.928	
9,550.00	9,512.21	8,750.00	8,554.38	34.76	33.41	-65.68	189.84	-965.97	1,839.98	1,798.89	41.10	44.774	
9,600.00	9,560.48	8,750.00	8,554.38	34.90	33.41	-63.44	189.84	-965.97	1,862.21	1,821.39	40.81	45.627	
9,650.00	9,607.45	8,776.78	8,566.08	35.03	33.45	-60.80	213.92	-966.21	1,883.19	1,842.49	40.70	46.270	
9,700.00	9,652.74	8,800.00	8,575.31	35.14	33.49	-58.48	235.23	-966.43	1,903.37	1,862.81	40.56	46.930	
9,750.00	9,696.02	8,800.00	8,575.31	35.24	33.49	-56.77	235.23	-966.43	1,922.13	1,881.85	40.28	47.722	
9,800.00	9,736.96	8,800.00	8,575.31	35.33	33.49	-55.20	235.23	-966.43	1,939.79	1,899.79	40.01	48.488	
9,850.00	9,775.24	8,829.13	8,585.65	35.40	33.53	-53.46	262.45	-966.70	1,955.57	1,915.65	39.92	48.989	
9,900.00	9,810.58	8,850.00	8,592.21	35.46	33.56	-52.05	282.27	-966.89	1,969.94	1,930.15	39.79	49.509	
9,950.00	9,842.70	8,850.00	8,592.21	35.51	33.56	-51.03	282.27	-966.89	1,982.56	1,943.00	39.57	50.109	
10,000.00	9,871.35	8,871.62	8,598.23	35.54	33.60	-50.01	303.03	-967.10	1,993.32	1,953.84	39.48	50.490	
10,050.00	9,896.33	8,900.00	8,604.94	35.56	33.65	-49.15	330.60	-967.37	2,002.39	1,962.94	39.45	50.762	
10,100.00	9,917.45	8,900.00	8,604.94	35.57	33.65	-48.64	330.60	-967.37	2,009.19	1,969.89	39.30	51.120	
10,150.00	9,934.53	8,900.00	8,604.94	35.57	33.65	-48.25	330.60	-967.37	2,014.36	1,975.16	39.20	51.391	
10,200.00	9,947.45	8,930.47	8,610.61	35.57	33.71	-47.97	360.53	-967.67	2,017.09	1,977.83	39.26	51.375	
10,250.00	9,956.12	8,950.00	8,613.41	35.58	33.76	-47.89	379.86	-967.86	2,017.99	1,978.68	39.31	51.337	
10,300.00	9,960.46	8,950.00	8,613.41	35.65	33.76	-47.97	379.86	-967.86	2,016.89	1,977.57	39.32	51.294	
10,324.84	9,961.00	8,967.58	8,615.36	35.71	33.80	-48.10	397.33	-968.04	2,015.47	1,976.06	39.41	51.146	
10,400.00	9,961.00	9,000.00	8,617.55	35.94	33.88	-48.15	429.67	-968.36	2,011.71	1,972.10	39.61	50.786	
10,500.00	9,961.00	9,022.57	8,618.00	36.32	33.94	-48.16	452.23	-968.58	2,009.57	1,969.70	39.87	50.401	
10,536.76	9,961.00	9,050.28	8,618.00	36.49	34.02	-48.16	479.94	-968.86	2,009.55	1,969.51	40.04	50.190	
10,600.00	9,961.00	9,113.53	8,618.00	36.77	34.24	-48.16	543.18	-969.49	2,009.55	1,969.18	40.37	49.776	
10,700.00	9,961.00	9,213.53	8,618.00	37.29	34.66	-48.16	643.18	-970.48	2,009.55	1,968.58	40.97	49.047	
10,800.00	9,961.00	9,313.53	8,618.00	37.86	35.16	-48.16	743.17	-971.48	2,009.55	1,967.90	41.65	48.251	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
10,900.00	9,961.00	9,413.53	8,618.00	38.50	35.76	-48.16	843.17	-972.47	2,009.55	1,967.15	42.40	47.398	
11,000.00	9,961.00	9,513.53	8,618.00	39.19	36.42	-48.16	943.16	-973.47	2,009.55	1,966.33	43.22	46.500	
11,100.00	9,961.00	9,613.53	8,618.00	39.94	37.16	-48.16	1,043.16	-974.46	2,009.55	1,965.45	44.10	45.569	
11,200.00	9,961.00	9,713.53	8,618.00	40.73	37.95	-48.16	1,143.15	-975.46	2,009.55	1,964.50	45.04	44.614	
11,300.00	9,961.00	9,813.53	8,618.00	41.58	38.81	-48.16	1,243.15	-976.45	2,009.55	1,963.50	46.04	43.644	
11,400.00	9,961.00	9,913.53	8,618.00	42.47	39.71	-48.16	1,343.14	-977.45	2,009.55	1,962.45	47.10	42.667	
11,500.00	9,961.00	10,013.53	8,618.00	43.41	40.67	-48.16	1,443.14	-978.44	2,009.54	1,961.34	48.20	41.689	
11,600.00	9,961.00	10,113.53	8,618.00	44.39	41.67	-48.16	1,543.13	-979.44	2,009.54	1,960.19	49.35	40.717	
11,700.00	9,961.00	10,213.53	8,618.00	45.40	42.71	-48.16	1,643.13	-980.43	2,009.54	1,958.99	50.55	39.754	
11,800.00	9,961.00	10,313.53	8,618.00	46.45	43.79	-48.16	1,743.13	-981.43	2,009.54	1,957.76	51.79	38.805	
11,900.00	9,961.00	10,413.53	8,618.00	47.54	44.91	-48.16	1,843.12	-982.42	2,009.54	1,956.48	53.06	37.874	
12,000.00	9,961.00	10,513.53	8,618.00	48.66	46.05	-48.16	1,943.12	-983.41	2,009.54	1,955.17	54.37	36.963	
12,100.00	9,961.00	10,613.53	8,618.00	49.80	47.23	-48.16	2,043.11	-984.41	2,009.54	1,953.83	55.71	36.074	
12,200.00	9,961.00	10,713.53	8,618.00	50.98	48.44	-48.16	2,143.11	-985.40	2,009.54	1,952.46	57.07	35.209	
12,300.00	9,961.00	10,813.53	8,618.00	52.18	49.67	-48.16	2,243.10	-986.40	2,009.54	1,951.07	58.47	34.367	
12,400.00	9,961.00	10,913.53	8,618.00	53.40	50.92	-48.16	2,343.10	-987.39	2,009.54	1,949.64	59.90	33.550	
12,500.00	9,961.00	11,013.53	8,618.00	54.65	52.20	-48.16	2,443.09	-988.39	2,009.54	1,948.19	61.34	32.759	
12,600.00	9,961.00	11,113.53	8,618.00	55.91	53.50	-48.16	2,543.09	-989.38	2,009.54	1,946.72	62.81	31.994	
12,700.00	9,961.00	11,213.53	8,618.00	57.20	54.81	-48.16	2,643.08	-990.38	2,009.53	1,945.23	64.30	31.253	
12,800.00	9,961.00	11,313.53	8,618.00	58.51	56.15	-48.16	2,743.08	-991.37	2,009.53	1,943.72	65.81	30.535	
12,900.00	9,961.00	11,413.53	8,618.00	59.83	57.50	-48.16	2,843.07	-992.37	2,009.53	1,942.19	67.34	29.842	
13,000.00	9,961.00	11,513.53	8,618.00	61.16	58.86	-48.16	2,943.07	-993.36	2,009.53	1,940.65	68.88	29.174	
13,100.00	9,961.00	11,613.53	8,618.00	62.52	60.24	-48.16	3,043.06	-994.36	2,009.53	1,939.09	70.44	28.528	
13,200.00	9,961.00	11,713.53	8,618.00	63.88	61.64	-48.16	3,143.06	-995.35	2,009.53	1,937.52	72.01	27.905	
13,300.00	9,961.00	11,813.53	8,618.00	65.26	63.04	-48.16	3,243.05	-996.35	2,009.53	1,935.93	73.60	27.303	
13,400.00	9,961.00	11,913.53	8,618.00	66.66	64.46	-48.16	3,343.05	-997.34	2,009.53	1,934.33	75.20	26.722	
13,500.00	9,961.00	12,013.53	8,618.00	68.06	65.89	-48.16	3,443.04	-998.33	2,009.53	1,932.72	76.81	26.162	
13,600.00	9,961.00	12,113.53	8,618.00	69.47	67.33	-48.16	3,543.04	-999.33	2,009.53	1,931.09	78.43	25.621	
13,700.00	9,961.00	12,213.53	8,618.00	70.90	68.78	-48.16	3,643.03	-1,000.32	2,009.53	1,929.46	80.06	25.099	
13,800.00	9,961.00	12,313.53	8,618.00	72.33	70.23	-48.16	3,743.03	-1,001.32	2,009.52	1,927.82	81.71	24.594	
13,900.00	9,961.00	12,413.53	8,618.00	73.78	71.70	-48.16	3,843.02	-1,002.31	2,009.52	1,926.17	83.36	24.107	
14,000.00	9,961.00	12,513.53	8,618.00	75.23	73.17	-48.16	3,943.02	-1,003.31	2,009.52	1,924.51	85.02	23.637	
14,100.00	9,961.00	12,613.53	8,618.00	76.69	74.65	-48.16	4,043.01	-1,004.30	2,009.52	1,922.84	86.68	23.182	
14,200.00	9,961.00	12,713.53	8,618.00	78.16	76.14	-48.16	4,143.01	-1,005.30	2,009.52	1,921.16	88.36	22.743	
14,300.00	9,961.00	12,813.53	8,618.00	79.63	77.64	-48.16	4,243.00	-1,006.29	2,009.52	1,919.48	90.04	22.318	
14,400.00	9,961.00	12,913.53	8,618.00	81.12	79.14	-48.16	4,343.00	-1,007.29	2,009.52	1,917.79	91.73	21.908	
14,500.00	9,961.00	13,013.53	8,618.00	82.60	80.64	-48.16	4,442.99	-1,008.28	2,009.52	1,916.10	93.42	21.510	
14,600.00	9,961.00	13,113.53	8,618.00	84.10	82.16	-48.16	4,542.99	-1,009.28	2,009.52	1,914.40	95.12	21.126	
14,700.00	9,961.00	13,213.53	8,618.00	85.60	83.67	-48.16	4,642.98	-1,010.27	2,009.52	1,912.69	96.83	20.754	
14,800.00	9,961.00	13,313.53	8,618.00	87.10	85.20	-48.16	4,742.98	-1,011.27	2,009.52	1,910.98	98.54	20.394	
14,900.00	9,961.00	13,413.53	8,618.00	88.61	86.72	-48.16	4,842.97	-1,012.26	2,009.52	1,909.26	100.25	20.045	
15,000.00	9,961.00	13,513.53	8,618.00	90.13	88.26	-48.16	4,942.97	-1,013.25	2,009.51	1,907.54	101.97	19.707	
15,100.00	9,961.00	13,613.53	8,618.00	91.65	89.79	-48.16	5,042.96	-1,014.25	2,009.51	1,905.82	103.70	19.379	
15,200.00	9,961.00	13,713.53	8,618.00	93.18	91.33	-48.16	5,142.96	-1,015.24	2,009.51	1,904.09	105.42	19.062	
15,300.00	9,961.00	13,813.53	8,618.00	94.71	92.88	-48.16	5,242.95	-1,016.24	2,009.51	1,902.36	107.15	18.753	
15,400.00	9,961.00	13,913.53	8,618.00	96.24	94.42	-48.16	5,342.95	-1,017.23	2,009.51	1,900.62	108.89	18.454	
15,500.00	9,961.00	14,013.53	8,618.00	97.78	95.98	-48.16	5,442.94	-1,018.23	2,009.51	1,898.88	110.63	18.165	
15,600.00	9,961.00	14,113.53	8,618.00	99.32	97.53	-48.16	5,542.94	-1,019.22	2,009.51	1,897.14	112.37	17.883	
15,700.00	9,961.00	14,213.53	8,618.00	100.86	99.09	-48.16	5,642.93	-1,020.22	2,009.51	1,895.39	114.11	17.610	
15,800.00	9,961.00	14,313.53	8,618.00	102.41	100.65	-48.16	5,742.93	-1,021.21	2,009.51	1,893.64	115.86	17.344	
15,900.00	9,961.00	14,413.53	8,618.00	103.96	102.21	-48.16	5,842.92	-1,022.21	2,009.51	1,891.89	117.61	17.086	
16,000.00	9,961.00	14,513.53	8,618.00	105.51	103.78	-48.16	5,942.92	-1,023.20	2,009.51	1,890.14	119.37	16.835	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
16,100.00	9,961.00	14,613.53	8,618.00	107.07	105.35	-48.16	6,042.91	-1,024.20	2,009.50	1,888.38	121.12	16.591	
16,200.00	9,961.00	14,713.53	8,618.00	108.63	106.92	-48.16	6,142.91	-1,025.19	2,009.50	1,886.62	122.88	16.353	
16,300.00	9,961.00	14,813.53	8,618.00	110.19	108.49	-48.16	6,242.90	-1,026.19	2,009.50	1,884.87	124.64	16.123	
16,400.00	9,961.00	14,913.53	8,618.00	111.76	110.07	-48.16	6,342.90	-1,027.18	2,009.50	1,883.10	126.40	15.898	
16,500.00	9,961.00	15,013.53	8,618.00	113.33	111.65	-48.16	6,442.89	-1,028.17	2,009.50	1,881.34	128.16	15.679	
16,600.00	9,961.00	15,113.53	8,618.00	114.90	113.23	-48.16	6,542.89	-1,029.17	2,009.50	1,879.57	129.93	15.466	
16,700.00	9,961.00	15,213.53	8,618.00	116.47	114.81	-48.16	6,642.88	-1,030.16	2,009.50	1,877.80	131.70	15.259	
16,800.00	9,961.00	15,313.53	8,618.00	118.04	116.39	-48.16	6,742.88	-1,031.16	2,009.50	1,876.03	133.46	15.056	
16,900.00	9,961.00	15,413.53	8,618.00	119.62	117.98	-48.16	6,842.87	-1,032.15	2,009.50	1,874.26	135.24	14.859	
17,000.00	9,961.00	15,513.53	8,618.00	121.20	119.57	-48.16	6,942.87	-1,033.15	2,009.50	1,872.49	137.01	14.667	
17,100.00	9,961.00	15,613.53	8,618.00	122.78	121.16	-48.16	7,042.86	-1,034.14	2,009.50	1,870.72	138.78	14.480	
17,200.00	9,961.00	15,713.53	8,618.00	124.36	122.75	-48.16	7,142.86	-1,035.14	2,009.50	1,868.94	140.55	14.297	
17,300.00	9,961.00	15,813.53	8,618.00	125.95	124.34	-48.16	7,242.85	-1,036.13	2,009.49	1,867.17	142.33	14.119	
17,400.00	9,961.00	15,913.53	8,618.00	127.53	125.94	-48.16	7,342.85	-1,037.13	2,009.49	1,865.39	144.11	13.945	
17,500.00	9,961.00	16,013.53	8,618.00	129.12	127.53	-48.16	7,442.84	-1,038.12	2,009.49	1,863.61	145.88	13.775	
17,600.00	9,961.00	16,113.53	8,618.00	130.71	129.13	-48.16	7,542.84	-1,039.12	2,009.49	1,861.83	147.66	13.609	
17,700.00	9,961.00	16,213.53	8,618.00	132.30	130.73	-48.16	7,642.83	-1,040.11	2,009.49	1,860.05	149.44	13.447	
17,800.00	9,961.00	16,313.53	8,618.00	133.89	132.33	-48.16	7,742.83	-1,041.11	2,009.49	1,858.27	151.22	13.289	
17,900.00	9,961.00	16,413.53	8,618.00	135.48	133.93	-48.16	7,842.82	-1,042.10	2,009.49	1,856.49	153.00	13.134	
18,000.00	9,961.00	16,513.53	8,618.00	137.08	135.53	-48.16	7,942.82	-1,043.09	2,009.49	1,854.71	154.78	12.983	
18,100.00	9,961.00	16,613.53	8,618.00	138.68	137.14	-48.16	8,042.81	-1,044.09	2,009.49	1,852.92	156.57	12.835	
18,200.00	9,961.00	16,713.53	8,618.00	140.27	138.74	-48.16	8,142.81	-1,045.08	2,009.49	1,851.14	158.35	12.690	
18,300.00	9,961.00	16,813.53	8,618.00	141.87	140.35	-48.16	8,242.80	-1,046.08	2,009.49	1,849.35	160.13	12.549	
18,400.00	9,961.00	16,913.53	8,618.00	143.47	141.95	-48.16	8,342.80	-1,047.07	2,009.48	1,847.57	161.92	12.411	
18,500.00	9,961.00	17,013.53	8,618.00	145.07	143.56	-48.16	8,442.79	-1,048.07	2,009.48	1,845.78	163.70	12.275	
18,600.00	9,961.00	17,113.53	8,618.00	146.68	145.17	-48.16	8,542.79	-1,049.06	2,009.48	1,844.00	165.49	12.143	
18,700.00	9,961.00	17,213.53	8,618.00	148.28	146.78	-48.16	8,642.78	-1,050.06	2,009.48	1,842.21	167.27	12.013	
18,800.00	9,961.00	17,313.53	8,618.00	149.88	148.39	-48.16	8,742.78	-1,051.05	2,009.48	1,840.42	169.06	11.886	
18,900.00	9,961.00	17,413.53	8,618.00	151.49	150.00	-48.16	8,842.77	-1,052.05	2,009.48	1,838.63	170.85	11.762	
19,000.00	9,961.00	17,513.53	8,618.00	153.10	151.62	-48.16	8,942.77	-1,053.04	2,009.48	1,836.85	172.63	11.640	
19,100.00	9,961.00	17,613.53	8,618.00	154.70	153.23	-48.16	9,042.76	-1,054.04	2,009.48	1,835.06	174.42	11.521	
19,200.00	9,961.00	17,713.53	8,618.00	156.31	154.85	-48.16	9,142.76	-1,055.03	2,009.48	1,833.27	176.21	11.404	
19,300.00	9,961.00	17,813.53	8,618.00	157.92	156.46	-48.16	9,242.75	-1,056.03	2,009.48	1,831.48	178.00	11.290	
19,400.00	9,961.00	17,913.53	8,618.00	159.53	158.08	-48.16	9,342.75	-1,057.02	2,009.48	1,829.69	179.78	11.177	
19,500.00	9,961.00	18,013.53	8,618.00	161.14	159.69	-48.16	9,442.74	-1,058.02	2,009.48	1,827.90	181.57	11.067	
19,600.00	9,961.00	18,113.53	8,618.00	162.76	161.31	-48.16	9,542.74	-1,059.01	2,009.47	1,826.11	183.36	10.959	
19,700.00	9,961.00	18,213.53	8,618.00	164.37	162.93	-48.16	9,642.73	-1,060.00	2,009.47	1,824.32	185.15	10.853	
19,800.00	9,961.00	18,313.53	8,618.00	165.98	164.55	-48.16	9,742.73	-1,061.00	2,009.47	1,822.54	186.94	10.749	
19,900.00	9,961.00	18,413.53	8,618.00	167.60	166.17	-48.16	9,842.72	-1,061.99	2,009.47	1,820.74	188.73	10.648	
20,000.00	9,961.00	18,513.53	8,618.00	169.21	167.79	-48.16	9,942.72	-1,062.99	2,009.47	1,818.96	190.51	10.548	
20,100.00	9,961.00	18,613.53	8,618.00	170.83	169.41	-48.16	10,042.71	-1,063.98	2,009.47	1,817.17	192.30	10.450	
20,118.50	9,961.00	18,632.03	8,618.00	171.13	169.71	-48.16	10,061.22	-1,064.17	2,009.47	1,816.84	192.63	10.432	
20,118.82	9,961.00	18,632.34	8,618.00	171.14	169.71	-48.16	10,061.53	-1,064.17	2,009.47	1,816.83	192.64	10.431	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
1,843.00	1,843.00	1,842.40	1,842.40	6.37	6.37	-90.54	-0.23	-25.06	25.07	16.05	9.01	2.781	
1,900.00	1,900.00	1,899.40	1,899.40	6.58	6.58	-90.54	-0.23	-25.06	25.07	15.76	9.30	2.695	
2,000.00	2,000.00	1,999.40	1,999.40	6.94	6.93	-90.54	-0.23	-25.06	25.07	15.26	9.81	2.556	
2,100.00	2,099.99	2,100.01	2,100.00	7.28	7.28	151.44	-0.69	-23.84	25.00	14.70	10.29	2.428	
2,200.00	2,199.91	2,200.63	2,200.54	7.62	7.62	152.61	-2.07	-20.13	24.76	14.01	10.76	2.302	
2,300.00	2,299.69	2,301.24	2,300.93	7.95	7.96	154.59	-4.36	-13.93	24.39	13.18	11.21	2.176	
2,400.00	2,399.27	2,401.84	2,401.10	8.30	8.31	157.45	-7.58	-5.26	23.91	12.26	11.65	2.052	
2,476.18	2,474.95	2,478.40	2,477.15	8.56	8.58	160.29	-10.63	2.97	23.53	11.54	11.98	1.963	
2,500.00	2,498.58	2,502.22	2,500.79	8.65	8.66	161.30	-11.64	5.69	23.48	11.38	12.10	1.941	
2,600.00	2,597.81	2,602.20	2,600.03	9.00	9.02	165.57	-15.88	17.12	23.34	10.77	12.58	1.856	
2,653.08	2,650.48	2,655.28	2,652.71	9.19	9.21	167.85	-18.12	23.18	23.32	10.49	12.83	1.818	CC
2,700.00	2,697.03	2,702.19	2,699.27	9.36	9.38	169.87	-20.11	28.54	23.34	10.28	13.06	1.787	
2,800.00	2,796.25	2,802.17	2,798.51	9.72	9.74	174.14	-24.35	39.97	23.46	9.92	13.55	1.732	
2,900.00	2,895.48	2,902.16	2,897.75	10.09	10.11	178.35	-28.58	51.40	23.72	9.68	14.04	1.690	
3,000.00	2,994.70	3,002.14	2,996.99	10.46	10.48	-177.55	-32.82	62.82	24.10	9.56	14.54	1.658	
3,100.00	3,093.93	3,102.13	3,096.23	10.83	10.86	-173.61	-37.06	74.25	24.60	9.56	15.04	1.635	ES
3,200.00	3,193.15	3,202.11	3,195.47	11.21	11.23	-169.83	-41.29	85.67	25.21	9.66	15.55	1.621	
3,300.00	3,292.37	3,302.10	3,294.71	11.59	11.61	-166.25	-45.53	97.10	25.93	9.86	16.07	1.614	
3,400.00	3,391.60	3,402.08	3,393.95	11.97	11.99	-162.88	-49.76	108.52	26.74	10.15	16.59	1.612	SF
3,500.00	3,490.82	3,502.07	3,493.19	12.35	12.37	-159.71	-54.00	119.95	27.64	10.52	17.11	1.615	
3,600.00	3,590.05	3,602.05	3,592.43	12.73	12.76	-156.75	-58.24	131.37	28.61	10.97	17.64	1.622	
3,700.00	3,689.27	3,702.04	3,691.67	13.12	13.14	-153.99	-62.47	142.80	29.66	11.49	18.18	1.632	
3,800.00	3,788.49	3,802.02	3,790.91	13.51	13.53	-151.43	-66.71	154.22	30.77	12.06	18.71	1.644	
3,900.00	3,887.72	3,902.00	3,890.15	13.89	13.91	-149.05	-70.95	165.65	31.94	12.69	19.26	1.659	
4,000.00	3,986.94	4,001.99	3,989.38	14.28	14.30	-146.84	-75.18	177.08	33.17	13.37	19.80	1.675	
4,100.00	4,086.17	4,101.97	4,088.62	14.68	14.69	-144.79	-79.42	188.50	34.43	14.09	20.35	1.692	
4,200.00	4,185.39	4,201.96	4,187.86	15.07	15.08	-142.89	-83.65	199.93	35.74	14.84	20.90	1.710	
4,300.00	4,284.61	4,301.94	4,287.10	15.46	15.48	-141.12	-87.89	211.35	37.08	15.64	21.45	1.729	
4,400.00	4,383.84	4,401.93	4,386.34	15.86	15.87	-139.48	-92.13	222.78	38.46	16.46	22.00	1.748	
4,500.00	4,483.06	4,501.91	4,485.58	16.25	16.26	-137.96	-96.36	234.20	39.87	17.31	22.56	1.767	
4,600.00	4,582.29	4,601.90	4,584.82	16.65	16.66	-136.54	-100.60	245.63	41.30	18.19	23.11	1.787	
4,700.00	4,681.51	4,701.88	4,684.06	17.04	17.05	-135.21	-104.83	257.05	42.75	19.09	23.67	1.806	
4,800.00	4,780.73	4,801.87	4,783.30	17.44	17.45	-133.97	-109.07	268.48	44.23	20.00	24.23	1.826	
4,900.00	4,879.96	4,901.85	4,882.54	17.84	17.84	-132.82	-113.31	279.90	45.73	20.94	24.79	1.845	
5,000.00	4,979.18	5,001.84	4,981.78	18.24	18.24	-131.73	-117.54	291.33	47.24	21.89	25.35	1.864	
5,100.00	5,078.41	5,101.82	5,081.02	18.64	18.64	-130.72	-121.78	302.76	48.77	22.86	25.91	1.882	
5,200.00	5,177.63	5,201.81	5,180.26	19.03	19.04	-129.77	-126.02	314.18	50.32	23.84	26.48	1.901	
5,300.00	5,276.85	5,301.79	5,279.50	19.43	19.44	-128.87	-130.25	325.61	51.88	24.84	27.04	1.919	
5,400.00	5,376.08	5,401.78	5,378.74	19.84	19.83	-128.03	-134.49	337.03	53.44	25.84	27.60	1.936	
5,500.00	5,475.30	5,501.76	5,477.97	20.24	20.23	-127.23	-138.72	348.46	55.02	26.86	28.17	1.953	
5,600.00	5,574.53	5,601.74	5,577.21	20.64	20.63	-126.48	-142.96	359.88	56.62	27.88	28.73	1.970	
5,700.00	5,673.75	5,701.73	5,676.45	21.04	21.03	-125.77	-147.20	371.31	58.21	28.91	29.30	1.987	
5,800.00	5,772.97	5,801.71	5,775.69	21.44	21.43	-125.10	-151.43	382.73	59.82	29.96	29.87	2.003	
5,900.00	5,872.20	5,901.70	5,874.93	21.84	21.83	-124.46	-155.67	394.16	61.44	31.00	30.43	2.019	
6,000.00	5,971.42	6,001.68	5,974.17	22.25	22.23	-123.86	-159.91	405.58	63.06	32.06	31.00	2.034	
6,100.00	6,070.65	6,101.67	6,073.41	22.65	22.64	-123.28	-164.14	417.01	64.69	33.12	31.57	2.049	
6,200.00	6,169.87	6,201.65	6,172.65	23.05	23.04	-122.74	-168.38	428.44	66.33	34.19	32.14	2.064	
6,300.00	6,269.09	6,301.64	6,271.89	23.46	23.44	-122.22	-172.61	439.86	67.97	35.26	32.71	2.078	
6,400.00	6,368.32	6,401.62	6,371.13	23.86	23.84	-121.72	-176.85	451.29	69.62	36.34	33.28	2.092	
6,500.00	6,467.54	6,501.61	6,470.37	24.26	24.24	-121.25	-181.09	462.71	71.27	37.42	33.85	2.106	
6,600.00	6,566.77	6,601.59	6,569.61	24.67	24.65	-120.80	-185.32	474.14	72.92	38.51	34.42	2.119	
6,700.00	6,665.99	6,701.58	6,668.85	25.07	25.05	-120.37	-189.56	485.56	74.58	39.60	34.99	2.132	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
6,800.00	6,765.21	6,801.56	6,768.09	25.48	25.45	-119.96	-193.79	496.99	76.25	40.69	35.56	2.144	
6,900.62	6,865.05	6,902.17	6,867.94	25.89	25.86	-119.57	-198.06	508.49	77.93	41.80	36.13	2.157	
7,000.00	6,963.81	7,000.84	6,966.01	26.28	26.25	-119.15	-201.85	518.73	79.36	42.67	36.69	2.163	
7,100.00	7,063.44	7,100.00	7,064.81	26.66	26.63	-118.84	-204.78	526.63	80.47	43.24	37.23	2.161	
7,200.00	7,163.26	7,199.35	7,163.98	27.03	26.99	-118.62	-206.82	532.13	81.24	43.49	37.75	2.152	
7,300.00	7,263.21	7,298.61	7,263.18	27.38	27.34	-118.50	-207.97	535.21	81.67	43.43	38.24	2.136	
7,376.80	7,340.00	7,374.84	7,339.40	27.64	27.59	-0.05	-208.23	535.94	81.77	43.17	38.59	2.119	
7,384.74	7,347.94	7,382.77	7,347.34	27.66	27.62	-0.05	-208.23	535.94	81.77	43.14	38.63	2.117	
7,400.00	7,363.20	7,398.03	7,362.60	27.71	27.67	-0.05	-208.23	535.94	81.77	43.07	38.70	2.113	
7,500.00	7,463.20	7,498.03	7,462.60	28.03	27.99	-0.05	-208.23	535.94	81.77	42.60	39.16	2.088	
7,600.00	7,563.20	7,598.03	7,562.60	28.36	28.32	-0.05	-208.23	535.94	81.77	42.14	39.62	2.063	
7,700.00	7,663.20	7,698.03	7,662.60	28.68	28.64	-0.05	-208.23	535.94	81.77	41.68	40.09	2.040	
7,800.00	7,763.20	7,798.03	7,762.60	29.00	28.97	-0.05	-208.23	535.94	81.77	41.21	40.56	2.016	
7,900.00	7,863.20	7,898.03	7,862.60	29.33	29.30	-0.05	-208.23	535.94	81.77	40.74	41.02	1.993	
7,903.18	7,866.38	7,901.22	7,865.78	29.34	29.31	-0.05	-208.23	535.94	81.77	40.73	41.04	1.992	
8,000.00	7,963.20	7,990.19	7,954.68	29.65	29.60	-0.06	-205.72	535.91	84.65	43.56	41.10	2.060	
8,100.00	8,063.20	8,075.09	8,038.31	29.98	29.85	-0.14	-191.55	535.77	101.40	61.21	40.19	2.523	
8,200.00	8,163.20	8,150.00	8,109.66	30.31	30.05	-0.22	-168.91	535.54	132.16	93.86	38.30	3.451	
8,300.00	8,263.20	8,225.56	8,178.02	30.64	30.23	-0.29	-136.84	535.22	174.96	137.65	37.31	4.690	
8,400.00	8,363.20	8,288.30	8,231.17	30.97	30.35	-0.34	-103.57	534.89	228.10	192.36	35.74	6.381	
8,500.00	8,463.20	8,350.00	8,279.59	31.29	30.45	-0.38	-65.38	534.50	289.74	254.93	34.81	8.324	
8,600.00	8,563.20	8,389.45	8,308.28	31.62	30.51	-0.40	-38.32	534.23	357.81	324.92	32.89	10.880	
8,700.00	8,663.20	8,429.61	8,335.51	31.96	30.55	-0.42	-8.81	533.93	431.35	399.66	31.69	13.614	
8,800.00	8,763.20	8,464.15	8,357.22	32.29	30.59	-0.43	18.05	533.67	509.14	478.49	30.65	16.609	
8,900.00	8,863.20	8,500.00	8,378.01	32.62	30.62	-0.45	47.25	533.37	590.40	560.37	30.03	19.663	
9,000.00	8,963.20	8,519.83	8,388.71	32.95	30.64	-0.45	63.94	533.20	674.27	645.21	29.06	23.202	
9,100.00	9,063.20	8,550.00	8,403.86	33.28	30.66	-0.46	90.02	532.94	760.50	731.81	28.70	26.501	
9,200.00	9,163.20	8,550.00	8,403.86	33.62	30.66	-0.46	90.02	532.94	848.59	820.93	27.66	30.676	
9,300.00	9,263.20	8,579.66	8,417.40	33.95	30.68	-0.47	116.41	532.68	937.84	910.24	27.60	33.978	
9,400.00	9,363.20	8,600.00	8,425.89	34.29	30.69	-0.47	134.89	532.49	1,028.58	1,001.18	27.40	37.539	
9,424.84	9,388.04	8,600.00	8,425.89	34.37	30.69	-0.47	134.89	532.49	1,051.25	1,023.99	27.26	38.562	
9,450.00	9,413.19	8,600.00	8,425.89	34.45	30.69	0.09	134.89	532.49	1,074.09	1,046.96	27.12	39.603	
9,500.00	9,462.98	8,600.00	8,425.89	34.61	30.69	0.08	134.89	532.49	1,118.35	1,091.53	26.82	41.695	
9,550.00	9,512.21	8,619.42	8,433.37	34.76	30.70	0.06	152.80	532.31	1,160.52	1,133.68	26.84	43.239	
9,600.00	9,560.48	8,629.07	8,436.87	34.90	30.71	0.06	161.80	532.22	1,200.84	1,174.19	26.64	45.069	
9,650.00	9,607.45	8,650.00	8,443.92	35.03	30.73	0.05	181.50	532.03	1,239.14	1,212.53	26.60	46.576	
9,700.00	9,652.74	8,650.00	8,443.92	35.14	30.73	0.04	181.50	532.03	1,274.84	1,248.62	26.22	48.627	
9,750.00	9,696.02	8,650.00	8,443.92	35.24	30.73	0.04	181.50	532.03	1,308.42	1,282.58	25.84	50.641	
9,800.00	9,736.96	8,673.61	8,451.01	35.33	30.75	0.04	204.02	531.80	1,339.09	1,313.32	25.77	51.959	
9,850.00	9,775.24	8,700.00	8,457.82	35.40	30.78	0.04	229.51	531.54	1,367.52	1,341.80	25.72	53.168	
9,900.00	9,810.58	8,700.00	8,457.82	35.46	30.78	0.03	229.51	531.54	1,392.69	1,367.33	25.35	54.931	
9,950.00	9,842.70	8,700.00	8,457.82	35.51	30.78	0.03	229.51	531.54	1,415.41	1,390.39	25.02	56.566	
10,000.00	9,871.35	8,724.62	8,463.12	35.54	30.81	0.03	253.56	531.30	1,434.89	1,409.94	24.95	57.514	
10,050.00	9,896.33	8,750.00	8,467.48	35.56	30.86	0.03	278.55	531.05	1,451.73	1,426.85	24.88	58.347	
10,100.00	9,917.45	8,750.00	8,467.48	35.57	30.86	0.03	278.55	531.05	1,465.18	1,440.55	24.63	59.486	
10,150.00	9,934.53	8,750.00	8,467.48	35.57	30.86	0.03	278.55	531.05	1,476.01	1,451.57	24.44	60.395	
10,200.00	9,947.45	8,779.08	8,471.13	35.57	30.93	0.03	307.40	530.76	1,483.16	1,458.71	24.45	60.658	
10,250.00	9,956.12	8,800.00	8,472.84	35.58	30.99	0.03	328.25	530.55	1,487.52	1,463.08	24.44	60.864	
10,300.00	9,960.46	8,800.00	8,472.84	35.65	30.99	0.03	328.25	530.55	1,488.68	1,464.29	24.39	61.045	
10,324.84	9,961.00	8,813.74	8,473.55	35.71	31.03	0.03	341.97	530.42	1,488.02	1,463.60	24.42	60.940	
10,400.00	9,961.00	8,836.47	8,474.00	35.94	31.11	0.03	364.69	530.19	1,486.41	1,461.89	24.53	60.602	
10,435.69	9,961.00	8,865.56	8,474.00	36.07	31.21	0.03	393.78	529.90	1,486.40	1,461.77	24.63	60.354	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
10,500.00	9,961.00	8,929.87	8,474.00	36.32	31.48	0.03	458.09	529.25	1,486.40	1,461.57	24.83	59.874	
10,600.00	9,961.00	9,029.87	8,474.00	36.77	31.96	0.03	558.08	528.25	1,486.40	1,461.23	25.17	59.049	
10,700.00	9,961.00	9,129.87	8,474.00	37.29	32.53	0.03	658.08	527.24	1,486.40	1,460.84	25.56	58.148	
10,800.00	9,961.00	9,229.87	8,474.00	37.86	33.16	0.03	758.07	526.24	1,486.40	1,460.41	25.99	57.182	
10,900.00	9,961.00	9,329.87	8,474.00	38.50	33.86	0.03	858.07	525.24	1,486.40	1,459.93	26.47	56.163	
11,000.00	9,961.00	9,429.87	8,474.00	39.19	34.63	0.03	958.06	524.24	1,486.40	1,459.43	26.97	55.104	
11,100.00	9,961.00	9,529.87	8,474.00	39.94	35.45	0.03	1,058.06	523.23	1,486.40	1,458.88	27.52	54.014	
11,200.00	9,961.00	9,629.87	8,474.00	40.73	36.33	0.03	1,158.05	522.23	1,486.40	1,458.30	28.10	52.904	
11,300.00	9,961.00	9,729.87	8,474.00	41.58	37.26	0.02	1,258.05	521.23	1,486.40	1,457.69	28.71	51.781	
11,400.00	9,961.00	9,829.87	8,474.00	42.47	38.24	0.02	1,358.04	520.22	1,486.40	1,457.06	29.34	50.655	
11,500.00	9,961.00	9,929.87	8,474.00	43.41	39.26	0.02	1,458.04	519.22	1,486.40	1,456.39	30.01	49.531	
11,600.00	9,961.00	10,029.87	8,474.00	44.39	40.32	0.02	1,558.03	518.22	1,486.40	1,455.70	30.70	48.416	
11,700.00	9,961.00	10,129.87	8,474.00	45.40	41.43	0.02	1,658.03	517.21	1,486.40	1,454.98	31.42	47.313	
11,800.00	9,961.00	10,229.87	8,474.00	46.45	42.56	0.02	1,758.02	516.21	1,486.40	1,454.25	32.15	46.227	
11,900.00	9,961.00	10,329.87	8,474.00	47.54	43.73	0.02	1,858.02	515.21	1,486.40	1,453.49	32.91	45.161	
12,000.00	9,961.00	10,429.87	8,474.00	48.66	44.93	0.02	1,958.01	514.20	1,486.40	1,452.71	33.69	44.118	
12,100.00	9,961.00	10,529.87	8,474.00	49.80	46.16	0.02	2,058.01	513.20	1,486.40	1,451.91	34.49	43.099	
12,200.00	9,961.00	10,629.87	8,474.00	50.98	47.41	0.02	2,158.00	512.20	1,486.40	1,451.10	35.30	42.106	
12,300.00	9,961.00	10,729.87	8,474.00	52.18	48.68	0.02	2,258.00	511.19	1,486.40	1,450.27	36.13	41.140	
12,400.00	9,961.00	10,829.87	8,474.00	53.40	49.98	0.02	2,357.99	510.19	1,486.40	1,449.43	36.97	40.201	
12,500.00	9,961.00	10,929.87	8,474.00	54.65	51.30	0.02	2,457.99	509.19	1,486.40	1,448.57	37.83	39.289	
12,600.00	9,961.00	11,029.87	8,474.00	55.91	52.64	0.02	2,557.98	508.19	1,486.40	1,447.70	38.70	38.405	
12,700.00	9,961.00	11,129.87	8,474.00	57.20	53.99	0.02	2,657.98	507.18	1,486.40	1,446.81	39.59	37.549	
12,800.00	9,961.00	11,229.87	8,474.00	58.51	55.36	0.02	2,757.97	506.18	1,486.40	1,445.92	40.48	36.720	
12,900.00	9,961.00	11,329.87	8,474.00	59.83	56.74	0.02	2,857.97	505.18	1,486.40	1,445.02	41.38	35.918	
13,000.00	9,961.00	11,429.87	8,474.00	61.16	58.14	0.02	2,957.96	504.17	1,486.40	1,444.10	42.30	35.142	
13,100.00	9,961.00	11,529.87	8,474.00	62.52	59.56	0.02	3,057.96	503.17	1,486.40	1,443.18	43.22	34.391	
13,200.00	9,961.00	11,629.87	8,474.00	63.88	60.98	0.02	3,157.95	502.17	1,486.40	1,442.25	44.15	33.665	
13,300.00	9,961.00	11,729.87	8,474.00	65.26	62.41	0.02	3,257.95	501.16	1,486.40	1,441.31	45.09	32.964	
13,400.00	9,961.00	11,829.87	8,474.00	66.66	63.86	0.02	3,357.94	500.16	1,486.40	1,440.36	46.04	32.285	
13,500.00	9,961.00	11,929.87	8,474.00	68.06	65.31	0.02	3,457.94	499.16	1,486.40	1,439.41	46.99	31.630	
13,600.00	9,961.00	12,029.87	8,474.00	69.47	66.78	0.02	3,557.93	498.15	1,486.40	1,438.45	47.95	30.996	
13,700.00	9,961.00	12,129.87	8,474.00	70.90	68.25	0.02	3,657.93	497.15	1,486.40	1,437.48	48.92	30.383	
13,800.00	9,961.00	12,229.87	8,474.00	72.33	69.73	0.02	3,757.92	496.15	1,486.40	1,436.50	49.90	29.790	
13,900.00	9,961.00	12,329.87	8,474.00	73.78	71.22	0.02	3,857.92	495.14	1,486.40	1,435.53	50.87	29.217	
14,000.00	9,961.00	12,429.87	8,474.00	75.23	72.72	0.02	3,957.91	494.14	1,486.40	1,434.54	51.86	28.662	
14,100.00	9,961.00	12,529.87	8,474.00	76.69	74.22	0.02	4,057.91	493.14	1,486.40	1,433.55	52.85	28.126	
14,200.00	9,961.00	12,629.87	8,474.00	78.16	75.73	0.02	4,157.90	492.14	1,486.40	1,432.56	53.84	27.606	
14,300.00	9,961.00	12,729.87	8,474.00	79.63	77.24	0.02	4,257.90	491.13	1,486.40	1,431.56	54.84	27.104	
14,400.00	9,961.00	12,829.87	8,474.00	81.12	78.76	0.02	4,357.89	490.13	1,486.40	1,430.56	55.84	26.617	
14,500.00	9,961.00	12,929.87	8,474.00	82.60	80.29	0.02	4,457.89	489.13	1,486.40	1,429.55	56.85	26.146	
14,600.00	9,961.00	13,029.87	8,474.00	84.10	81.82	0.02	4,557.88	488.12	1,486.40	1,428.54	57.86	25.689	
14,700.00	9,961.00	13,129.87	8,474.00	85.60	83.35	0.02	4,657.88	487.12	1,486.40	1,427.53	58.87	25.247	
14,800.00	9,961.00	13,229.87	8,474.00	87.10	84.89	0.01	4,757.87	486.12	1,486.40	1,426.51	59.89	24.818	
14,900.00	9,961.00	13,329.87	8,474.00	88.61	86.43	0.01	4,857.87	485.11	1,486.40	1,425.49	60.91	24.402	
15,000.00	9,961.00	13,429.87	8,474.00	90.13	87.98	0.01	4,957.86	484.11	1,486.40	1,424.46	61.94	23.999	
15,100.00	9,961.00	13,529.87	8,474.00	91.65	89.53	0.01	5,057.86	483.11	1,486.40	1,423.44	62.96	23.608	
15,200.00	9,961.00	13,629.87	8,474.00	93.18	91.08	0.01	5,157.85	482.10	1,486.40	1,422.41	63.99	23.228	
15,300.00	9,961.00	13,729.87	8,474.00	94.71	92.64	0.01	5,257.85	481.10	1,486.40	1,421.38	65.02	22.859	
15,400.00	9,961.00	13,829.87	8,474.00	96.24	94.20	0.01	5,357.84	480.10	1,486.40	1,420.34	66.06	22.501	
15,500.00	9,961.00	13,929.87	8,474.00	97.78	95.77	0.01	5,457.84	479.09	1,486.40	1,419.30	67.10	22.153	
15,600.00	9,961.00	14,029.87	8,474.00	99.32	97.33	0.01	5,557.83	478.09	1,486.40	1,418.27	68.13	21.816	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM 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
15,700.00	9,961.00	14,129.87	8,474.00	100.86	98.90	0.01	5,657.83	477.09	1,486.40	1,417.22	69.18	21.487	
15,800.00	9,961.00	14,229.87	8,474.00	102.41	100.48	0.01	5,757.82	476.09	1,486.40	1,416.18	70.22	21.168	
15,900.00	9,961.00	14,329.87	8,474.00	103.96	102.05	0.01	5,857.82	475.08	1,486.40	1,415.13	71.27	20.857	
16,000.00	9,961.00	14,429.87	8,474.00	105.51	103.63	0.01	5,957.81	474.08	1,486.40	1,414.09	72.31	20.555	
16,100.00	9,961.00	14,529.87	8,474.00	107.07	105.21	0.01	6,057.81	473.08	1,486.40	1,413.04	73.36	20.261	
16,200.00	9,961.00	14,629.87	8,474.00	108.63	106.79	0.01	6,157.80	472.07	1,486.40	1,411.99	74.41	19.975	
16,300.00	9,961.00	14,729.87	8,474.00	110.19	108.37	0.01	6,257.80	471.07	1,486.40	1,410.93	75.47	19.696	
16,400.00	9,961.00	14,829.87	8,474.00	111.76	109.96	0.01	6,357.79	470.07	1,486.40	1,409.88	76.52	19.425	
16,500.00	9,961.00	14,929.87	8,474.00	113.33	111.55	0.01	6,457.79	469.06	1,486.40	1,408.82	77.58	19.161	
16,600.00	9,961.00	15,029.87	8,474.00	114.90	113.14	0.01	6,557.78	468.06	1,486.40	1,407.77	78.63	18.903	
16,700.00	9,961.00	15,129.87	8,474.00	116.47	114.73	0.01	6,657.78	467.06	1,486.40	1,406.71	79.69	18.652	
16,800.00	9,961.00	15,229.87	8,474.00	118.04	116.32	0.01	6,757.77	466.05	1,486.40	1,405.65	80.75	18.407	
16,900.00	9,961.00	15,329.87	8,474.00	119.62	117.92	0.01	6,857.77	465.05	1,486.40	1,404.59	81.81	18.168	
17,000.00	9,961.00	15,429.87	8,474.00	121.20	119.51	0.01	6,957.76	464.05	1,486.40	1,403.52	82.88	17.935	
17,100.00	9,961.00	15,529.87	8,474.00	122.78	121.11	0.01	7,057.76	463.04	1,486.40	1,402.46	83.94	17.708	
17,200.00	9,961.00	15,629.87	8,474.00	124.36	122.71	0.01	7,157.75	462.04	1,486.40	1,401.39	85.01	17.486	
17,300.00	9,961.00	15,729.87	8,474.00	125.95	124.31	0.01	7,257.75	461.04	1,486.40	1,400.33	86.07	17.269	
17,400.00	9,961.00	15,829.87	8,474.00	127.53	125.91	0.01	7,357.74	460.04	1,486.40	1,399.26	87.14	17.058	
17,500.00	9,961.00	15,929.87	8,474.00	129.12	127.52	0.01	7,457.74	459.03	1,486.40	1,398.19	88.21	16.851	
17,600.00	9,961.00	16,029.87	8,474.00	130.71	129.12	0.01	7,557.73	458.03	1,486.40	1,397.12	89.28	16.649	
17,700.00	9,961.00	16,129.87	8,474.00	132.30	130.73	0.01	7,657.73	457.03	1,486.40	1,396.05	90.35	16.452	
17,800.00	9,961.00	16,229.87	8,474.00	133.89	132.33	0.01	7,757.72	456.02	1,486.40	1,394.98	91.42	16.259	
17,900.00	9,961.00	16,329.87	8,474.00	135.48	133.94	0.01	7,857.72	455.02	1,486.40	1,393.91	92.49	16.071	
18,000.00	9,961.00	16,429.87	8,474.00	137.08	135.55	0.01	7,957.71	454.02	1,486.40	1,392.84	93.56	15.886	
18,100.00	9,961.00	16,529.87	8,474.00	138.68	137.16	0.01	8,057.71	453.01	1,486.40	1,391.76	94.64	15.706	
18,200.00	9,961.00	16,629.87	8,474.00	140.27	138.77	0.01	8,157.70	452.01	1,486.40	1,390.69	95.71	15.530	
18,300.00	9,961.00	16,729.87	8,474.00	141.87	140.38	0.01	8,257.70	451.01	1,486.40	1,389.61	96.79	15.357	
18,400.00	9,961.00	16,829.87	8,474.00	143.47	142.00	0.00	8,357.69	450.00	1,486.40	1,388.53	97.87	15.188	
18,500.00	9,961.00	16,929.87	8,474.00	145.07	143.61	0.00	8,457.69	449.00	1,486.40	1,387.46	98.94	15.023	
18,600.00	9,961.00	17,029.87	8,474.00	146.68	145.23	0.00	8,557.68	448.00	1,486.40	1,386.38	100.02	14.861	
18,700.00	9,961.00	17,129.87	8,474.00	148.28	146.84	0.00	8,657.68	447.00	1,486.40	1,385.30	101.10	14.702	
18,800.00	9,961.00	17,229.87	8,474.00	149.88	148.46	0.00	8,757.67	445.99	1,486.40	1,384.22	102.18	14.547	
18,900.00	9,961.00	17,329.87	8,474.00	151.49	150.07	0.00	8,857.67	444.99	1,486.40	1,383.14	103.26	14.395	
19,000.00	9,961.00	17,429.87	8,474.00	153.10	151.69	0.00	8,957.66	443.99	1,486.40	1,382.06	104.34	14.246	
19,100.00	9,961.00	17,529.87	8,474.00	154.70	153.31	0.00	9,057.66	442.98	1,486.40	1,380.98	105.42	14.100	
19,200.00	9,961.00	17,629.87	8,474.00	156.31	154.93	0.00	9,157.65	441.98	1,486.40	1,379.90	106.50	13.957	
19,300.00	9,961.00	17,729.87	8,474.00	157.92	156.55	0.00	9,257.65	440.98	1,486.40	1,378.82	107.58	13.816	
19,400.00	9,961.00	17,829.87	8,474.00	159.53	158.17	0.00	9,357.64	439.97	1,486.40	1,377.73	108.67	13.679	
19,500.00	9,961.00	17,929.87	8,474.00	161.14	159.79	0.00	9,457.64	438.97	1,486.40	1,376.65	109.75	13.544	
19,600.00	9,961.00	18,029.87	8,474.00	162.76	161.42	0.00	9,557.63	437.97	1,486.40	1,375.57	110.83	13.411	
19,700.00	9,961.00	18,129.87	8,474.00	164.37	163.04	0.00	9,657.63	436.96	1,486.40	1,374.48	111.92	13.281	
19,800.00	9,961.00	18,229.87	8,474.00	165.98	164.66	0.00	9,757.62	435.96	1,486.40	1,373.40	113.00	13.154	
19,900.00	9,961.00	18,329.87	8,474.00	167.60	166.28	0.00	9,857.62	434.96	1,486.40	1,372.31	114.09	13.029	
20,000.00	9,961.00	18,429.87	8,474.00	169.21	167.91	0.00	9,957.61	433.95	1,486.40	1,371.23	115.17	12.906	
20,100.00	9,961.00	18,529.87	8,474.00	170.83	169.53	0.00	10,057.60	432.95	1,486.40	1,370.14	116.26	12.785	
20,112.41	9,961.00	18,542.28	8,474.00	171.03	169.74	0.00	10,070.02	432.83	1,486.40	1,370.01	116.39	12.770	
20,118.50	9,961.00	18,548.37	8,474.00	171.13	169.83	0.00	10,076.11	432.77	1,486.40	1,369.94	116.46	12.763	
20,118.82	9,961.00	18,548.37	8,474.00	171.14	169.83	0.00	10,076.11	432.77	1,486.40	1,369.93	116.47	12.762	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 301H - 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
1,843.00	1,843.00	1,841.30	1,841.30	6.37	6.37	-90.54	-0.47	-50.13	50.13	41.12	9.01	5.564	
1,900.00	1,900.00	1,898.30	1,898.30	6.58	6.57	-90.54	-0.47	-50.13	50.13	40.83	9.30	5.392	
2,000.00	2,000.00	1,998.30	1,998.30	6.94	6.93	-90.54	-0.47	-50.13	50.13	40.33	9.81	5.113	CC, ES
2,100.00	2,099.99	2,097.00	2,096.99	7.28	7.27	151.43	-0.74	-51.33	52.50	42.21	10.29	5.103	SF
2,200.00	2,199.91	2,195.33	2,195.24	7.62	7.61	152.38	-1.55	-55.00	59.69	48.94	10.75	5.552	
2,300.00	2,299.69	2,292.96	2,292.68	7.95	7.94	153.52	-2.91	-61.09	71.70	60.49	11.21	6.398	
2,400.00	2,399.27	2,389.58	2,388.90	8.30	8.28	154.58	-4.78	-69.51	88.49	76.83	11.66	7.592	
2,476.18	2,474.95	2,462.29	2,461.16	8.56	8.53	155.25	-6.54	-77.40	104.45	92.46	11.99	8.709	
2,500.00	2,498.58	2,484.86	2,483.56	8.65	8.61	155.45	-7.15	-80.13	109.94	97.84	12.10	9.087	
2,600.00	2,597.81	2,578.95	2,576.73	9.00	8.95	155.93	-9.98	-92.87	134.38	121.85	12.53	10.725	
2,700.00	2,697.03	2,671.89	2,668.43	9.36	9.29	156.01	-13.28	-107.66	161.10	148.14	12.95	12.436	
2,800.00	2,796.25	2,763.72	2,758.64	9.72	9.64	155.86	-17.00	-124.41	190.03	176.65	13.37	14.210	
2,900.00	2,895.48	2,859.12	2,852.16	10.09	10.01	155.65	-21.10	-142.83	219.98	206.14	13.85	15.885	
3,000.00	2,994.70	2,954.53	2,945.68	10.46	10.39	155.50	-25.21	-161.26	249.94	235.62	14.33	17.445	
3,100.00	3,093.93	3,049.93	3,039.20	10.83	10.77	155.37	-29.31	-179.68	279.91	265.10	14.81	18.900	
3,200.00	3,193.15	3,145.34	3,132.71	11.21	11.16	155.27	-33.41	-198.11	309.87	294.57	15.29	20.260	
3,300.00	3,292.37	3,240.74	3,226.23	11.59	11.55	155.19	-37.51	-216.54	339.83	324.05	15.78	21.533	
3,400.00	3,391.60	3,336.15	3,319.75	11.97	11.95	155.12	-41.61	-234.96	369.80	353.52	16.27	22.727	
3,500.00	3,490.82	3,431.55	3,413.27	12.35	12.36	155.07	-45.71	-253.39	399.76	383.00	16.76	23.848	
3,600.00	3,590.05	3,526.96	3,506.79	12.73	12.76	155.02	-49.81	-271.82	429.72	412.47	17.26	24.903	
3,700.00	3,689.27	3,622.36	3,600.31	13.12	13.18	154.97	-53.92	-290.24	459.69	441.94	17.75	25.896	
3,800.00	3,788.49	3,717.76	3,693.82	13.51	13.59	154.93	-58.02	-308.67	489.65	471.41	18.25	26.834	
3,900.00	3,887.72	3,813.17	3,787.34	13.89	14.01	154.90	-62.12	-327.09	519.62	500.87	18.75	27.719	
4,000.00	3,986.94	3,908.57	3,880.86	14.28	14.43	154.87	-66.22	-345.52	549.58	530.34	19.25	28.556	
4,100.00	4,086.17	4,003.98	3,974.38	14.68	14.85	154.84	-70.32	-363.95	579.55	559.80	19.75	29.349	
4,200.00	4,185.39	4,099.38	4,067.90	15.07	15.27	154.82	-74.42	-382.37	609.51	589.27	20.25	30.101	
4,300.00	4,284.61	4,194.79	4,161.42	15.46	15.70	154.80	-78.52	-400.80	639.48	618.73	20.75	30.815	
4,400.00	4,383.84	4,290.19	4,254.93	15.86	16.13	154.78	-82.63	-419.23	669.45	648.19	21.26	31.494	
4,500.00	4,483.06	4,385.60	4,348.45	16.25	16.56	154.76	-86.73	-437.65	699.41	677.65	21.76	32.139	
4,600.00	4,582.29	4,481.00	4,441.97	16.65	16.99	154.74	-90.83	-456.08	729.38	707.11	22.27	32.754	
4,700.00	4,681.51	4,576.40	4,535.49	17.04	17.43	154.73	-94.93	-474.50	759.34	736.57	22.78	33.341	
4,800.00	4,780.73	4,671.81	4,629.01	17.44	17.86	154.71	-99.03	-492.93	789.31	766.03	23.28	33.900	
4,900.00	4,879.96	4,767.21	4,722.52	17.84	18.30	154.70	-103.13	-511.36	819.28	795.48	23.79	34.435	
5,000.00	4,979.18	4,862.62	4,816.04	18.24	18.73	154.69	-107.23	-529.78	849.24	824.94	24.30	34.946	
5,100.00	5,078.41	4,958.02	4,909.56	18.64	19.17	154.68	-111.34	-548.21	879.21	854.40	24.81	35.435	
5,200.00	5,177.63	5,053.43	5,003.08	19.03	19.61	154.66	-115.44	-566.63	909.17	883.85	25.32	35.904	
5,300.00	5,276.85	5,148.83	5,096.60	19.43	20.05	154.65	-119.54	-585.06	939.14	913.31	25.83	36.353	
5,400.00	5,376.08	5,244.24	5,190.12	19.84	20.49	154.65	-123.64	-603.49	969.11	942.76	26.35	36.784	
5,500.00	5,475.30	5,339.64	5,283.63	20.24	20.94	154.64	-127.74	-621.91	999.07	972.21	26.86	37.198	
5,600.00	5,574.53	5,435.04	5,377.15	20.64	21.38	154.63	-131.84	-640.34	1,029.04	1,001.67	27.37	37.595	
5,700.00	5,673.75	5,530.45	5,470.67	21.04	21.82	154.62	-135.94	-658.77	1,059.00	1,031.12	27.89	37.977	
5,800.00	5,772.97	5,625.85	5,564.19	21.44	22.27	154.61	-140.05	-677.19	1,088.97	1,060.57	28.40	38.345	
5,900.00	5,872.20	5,721.26	5,657.71	21.84	22.71	154.61	-144.15	-695.62	1,118.94	1,090.02	28.91	38.699	
6,000.00	5,971.42	5,816.66	5,751.23	22.25	23.16	154.60	-148.25	-714.04	1,148.90	1,119.47	29.43	39.040	
6,100.00	6,070.65	5,912.07	5,844.74	22.65	23.61	154.59	-152.35	-732.47	1,178.87	1,148.92	29.94	39.369	
6,200.00	6,169.87	6,007.47	5,938.26	23.05	24.05	154.59	-156.45	-750.90	1,208.83	1,178.37	30.46	39.686	
6,300.00	6,269.09	6,102.88	6,031.78	23.46	24.50	154.58	-160.55	-769.32	1,238.80	1,207.82	30.98	39.992	
6,400.00	6,368.32	6,198.28	6,125.30	23.86	24.95	154.58	-164.65	-787.75	1,268.77	1,237.27	31.49	40.287	
6,500.00	6,467.54	6,293.68	6,218.82	24.26	25.40	154.57	-168.76	-806.17	1,298.73	1,266.72	32.01	40.573	
6,600.00	6,566.77	6,389.09	6,312.34	24.67	25.85	154.57	-172.86	-824.60	1,328.70	1,296.17	32.53	40.849	
6,700.00	6,665.99	6,484.49	6,405.85	25.07	26.29	154.56	-176.96	-843.03	1,358.67	1,325.62	33.05	41.116	
6,800.00	6,765.21	6,579.90	6,499.37	25.48	26.74	154.56	-181.06	-861.45	1,388.63	1,355.07	33.56	41.374	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 301H - 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
6,900.62	6,865.05	6,675.90	6,593.47	25.89	27.20	154.55	-185.19	-879.99	1,418.78	1,384.70	34.08	41.625	
7,000.00	6,963.81	6,800.58	6,715.85	26.28	27.78	154.71	-190.36	-903.25	1,446.92	1,412.15	34.77	41.613	
7,100.00	7,063.44	6,954.45	6,867.80	26.66	28.45	154.82	-195.62	-926.85	1,469.65	1,434.07	35.58	41.306	
7,200.00	7,163.26	7,111.51	7,023.78	27.03	29.08	154.88	-199.60	-944.76	1,486.21	1,449.87	36.34	40.895	
7,300.00	7,263.21	7,270.80	7,182.60	27.38	29.67	154.91	-202.22	-956.52	1,496.48	1,459.43	37.05	40.390	
7,376.80	7,340.00	7,394.00	7,305.70	27.64	30.08	-86.68	-203.26	-961.18	1,500.04	1,462.49	37.55	39.946	
7,400.00	7,363.20	7,431.28	7,342.97	27.71	30.20	-86.69	-203.40	-961.82	1,500.44	1,462.74	37.69	39.806	
7,500.00	7,463.20	7,549.81	7,461.50	28.03	30.56	-86.69	-203.47	-962.13	1,500.63	1,462.43	38.20	39.283	
7,600.00	7,563.20	7,649.81	7,561.50	28.36	30.86	-86.69	-203.47	-962.13	1,500.63	1,461.96	38.67	38.806	
7,700.00	7,663.20	7,749.81	7,661.50	28.68	31.16	-86.69	-203.47	-962.13	1,500.63	1,461.49	39.14	38.340	
7,800.00	7,763.20	7,849.81	7,761.50	29.00	31.47	-86.69	-203.47	-962.13	1,500.63	1,461.02	39.61	37.884	
7,900.00	7,863.20	7,949.81	7,861.50	29.33	31.77	-86.69	-203.47	-962.13	1,500.63	1,460.54	40.08	37.437	
8,000.00	7,963.20	8,049.81	7,961.50	29.65	32.08	-86.69	-203.47	-962.13	1,500.63	1,460.07	40.56	37.001	
8,100.00	8,063.20	8,149.81	8,061.50	29.98	32.38	-86.69	-203.47	-962.13	1,500.63	1,459.60	41.03	36.574	
8,200.00	8,163.20	8,249.81	8,161.50	30.31	32.69	-86.69	-203.47	-962.13	1,500.63	1,459.12	41.50	36.156	
8,300.00	8,263.20	8,349.81	8,261.50	30.64	33.00	-86.69	-203.47	-962.13	1,500.63	1,458.65	41.98	35.746	
8,400.00	8,363.20	8,449.81	8,361.50	30.97	33.31	-86.69	-203.47	-962.13	1,500.63	1,458.17	42.46	35.345	
8,500.00	8,463.20	8,549.81	8,461.50	31.29	33.62	-86.69	-203.47	-962.13	1,500.63	1,457.69	42.93	34.953	
8,600.00	8,563.20	8,649.81	8,561.50	31.62	33.93	-86.69	-203.47	-962.13	1,500.63	1,457.22	43.41	34.569	
8,700.00	8,663.20	8,749.81	8,661.50	31.96	34.24	-86.69	-203.47	-962.13	1,500.63	1,456.74	43.89	34.192	
8,800.00	8,763.20	8,849.81	8,761.50	32.29	34.55	-86.69	-203.47	-962.13	1,500.63	1,456.26	44.37	33.823	
8,900.00	8,863.20	8,949.81	8,861.50	32.62	34.87	-86.69	-203.47	-962.13	1,500.63	1,455.78	44.85	33.462	
9,000.00	8,963.20	9,049.81	8,961.50	32.95	35.18	-86.69	-203.47	-962.13	1,500.63	1,455.30	45.33	33.107	
9,100.00	9,063.20	9,149.81	9,061.50	33.28	35.50	-86.69	-203.47	-962.13	1,500.63	1,454.82	45.81	32.760	
9,200.00	9,163.20	9,249.81	9,161.50	33.62	35.81	-86.69	-203.47	-962.13	1,500.63	1,454.34	46.29	32.420	
9,300.00	9,263.20	9,349.81	9,261.50	33.95	36.13	-86.69	-203.47	-962.13	1,500.63	1,453.86	46.77	32.086	
9,400.00	9,363.20	9,449.81	9,361.50	34.29	36.45	-86.69	-203.47	-962.13	1,500.63	1,453.38	47.25	31.758	
9,424.84	9,388.04	9,474.65	9,386.34	34.37	36.53	-86.69	-203.47	-962.13	1,500.63	1,453.26	47.37	31.678	
9,450.00	9,413.19	9,499.80	9,411.49	34.45	36.61	-86.15	-203.47	-962.13	1,500.59	1,453.10	47.49	31.597	
9,500.00	9,462.98	9,549.59	9,461.28	34.61	36.77	-86.34	-203.47	-962.13	1,500.30	1,452.58	47.73	31.436	
9,550.00	9,512.21	9,597.42	9,509.11	34.76	36.92	-86.71	-203.40	-962.13	1,499.77	1,451.83	47.95	31.279	
9,600.00	9,560.48	9,640.16	9,551.78	34.90	37.05	-87.10	-201.13	-962.15	1,499.20	1,451.05	48.15	31.136	
9,650.00	9,607.45	9,683.49	9,594.75	35.03	37.18	-87.52	-195.59	-962.21	1,498.67	1,450.33	48.34	31.002	
9,700.00	9,652.74	9,727.48	9,637.81	35.14	37.31	-87.95	-186.66	-962.30	1,498.21	1,449.68	48.52	30.875	
9,750.00	9,696.02	9,772.19	9,680.75	35.24	37.43	-88.40	-174.23	-962.42	1,497.81	1,449.11	48.70	30.757	
9,800.00	9,736.96	9,817.70	9,723.32	35.33	37.55	-88.86	-158.18	-962.58	1,497.51	1,448.64	48.87	30.645	
9,850.00	9,775.24	9,864.09	9,765.26	35.40	37.66	-89.34	-138.39	-962.78	1,497.30	1,448.27	49.03	30.540	
9,900.00	9,810.58	9,911.42	9,806.27	35.46	37.76	-89.82	-114.77	-963.01	1,497.20	1,448.02	49.18	30.441	
9,918.86	9,823.08	9,929.54	9,821.43	35.48	37.79	-90.00	-104.85	-963.11	1,497.19	1,447.95	49.24	30.406	
9,950.00	9,842.70	9,959.80	9,846.01	35.51	37.85	-90.31	-87.23	-963.29	1,497.21	1,447.88	49.34	30.348	
10,000.00	9,871.35	10,009.30	9,884.13	35.54	37.93	-90.80	-55.67	-963.60	1,497.35	1,447.86	49.49	30.259	
10,050.00	9,896.33	10,060.00	9,920.20	35.56	38.00	-91.29	-20.06	-963.95	1,497.60	1,447.96	49.63	30.173	
10,100.00	9,917.45	10,112.00	9,953.78	35.57	38.06	-91.77	19.62	-964.35	1,497.96	1,448.18	49.78	30.090	
10,150.00	9,934.53	10,165.38	9,984.36	35.57	38.12	-92.25	63.35	-964.78	1,498.43	1,448.49	49.93	30.008	
10,200.00	9,947.45	10,220.22	10,011.40	35.57	38.17	-92.72	111.02	-965.26	1,498.99	1,448.90	50.09	29.926	
10,250.00	9,956.12	10,276.56	10,034.30	35.58	38.21	-93.18	162.47	-965.77	1,499.64	1,449.39	50.25	29.845	
10,300.00	9,960.46	10,334.47	10,052.46	35.65	38.26	-93.62	217.43	-966.31	1,500.34	1,449.92	50.41	29.760	
10,324.84	9,961.00	10,363.82	10,059.52	35.71	38.29	-93.83	245.92	-966.60	1,500.70	1,450.20	50.50	29.718	
10,400.00	9,961.00	10,455.62	10,072.06	35.94	38.41	-94.31	336.76	-967.50	1,501.44	1,450.64	50.79	29.559	
10,500.00	9,961.00	10,562.09	10,073.00	36.32	38.61	-94.34	443.20	-968.56	1,501.49	1,450.22	51.27	29.284	
10,600.00	9,961.00	10,662.09	10,073.00	36.77	38.88	-94.34	543.19	-969.55	1,501.49	1,449.65	51.84	28.964	
10,700.00	9,961.00	10,762.09	10,073.00	37.29	39.25	-94.34	643.19	-970.55	1,501.49	1,448.99	52.50	28.599	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 301H - 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
10,800.00	9,961.00	10,862.09	10,073.00	37.86	39.70	-94.34	743.18	-971.54	1,501.49	1,448.23	53.26	28.193	
10,900.00	9,961.00	10,962.09	10,073.00	38.50	40.22	-94.34	843.18	-972.53	1,501.49	1,447.38	54.10	27.752	
11,000.00	9,961.00	11,062.09	10,073.00	39.19	40.82	-94.34	943.17	-973.53	1,501.48	1,446.45	55.04	27.282	
11,100.00	9,961.00	11,162.09	10,073.00	39.94	41.48	-94.34	1,043.17	-974.52	1,501.48	1,445.43	56.05	26.788	
11,200.00	9,961.00	11,262.09	10,073.00	40.73	42.21	-94.34	1,143.16	-975.52	1,501.48	1,444.34	57.14	26.277	
11,300.00	9,961.00	11,362.09	10,073.00	41.58	42.98	-94.34	1,243.16	-976.51	1,501.48	1,443.17	58.31	25.752	
11,400.00	9,961.00	11,462.09	10,073.00	42.47	43.81	-94.34	1,343.15	-977.50	1,501.48	1,441.94	59.54	25.219	
11,500.00	9,961.00	11,562.09	10,073.00	43.41	44.69	-94.34	1,443.15	-978.50	1,501.48	1,440.64	60.83	24.681	
11,600.00	9,961.00	11,662.09	10,073.00	44.39	45.60	-94.34	1,543.14	-979.49	1,501.47	1,439.28	62.19	24.143	
11,700.00	9,961.00	11,762.09	10,073.00	45.40	46.57	-94.34	1,643.14	-980.49	1,501.47	1,437.87	63.61	23.606	
11,800.00	9,961.00	11,862.09	10,073.00	46.45	47.56	-94.34	1,743.13	-981.48	1,501.47	1,436.40	65.07	23.074	
11,900.00	9,961.00	11,962.09	10,073.00	47.54	48.60	-94.34	1,843.13	-982.47	1,501.47	1,434.88	66.59	22.549	
12,000.00	9,961.00	12,062.09	10,073.00	48.66	49.67	-94.34	1,943.12	-983.47	1,501.47	1,433.32	68.15	22.032	
12,100.00	9,961.00	12,162.09	10,073.00	49.80	50.77	-94.34	2,043.12	-984.46	1,501.46	1,431.71	69.75	21.525	
12,200.00	9,961.00	12,262.09	10,073.00	50.98	51.90	-94.34	2,143.11	-985.46	1,501.46	1,430.06	71.40	21.029	
12,300.00	9,961.00	12,362.09	10,073.00	52.18	53.06	-94.34	2,243.11	-986.45	1,501.46	1,428.38	73.08	20.545	
12,400.00	9,961.00	12,462.09	10,073.00	53.40	54.24	-94.34	2,343.10	-987.44	1,501.46	1,426.66	74.80	20.073	
12,500.00	9,961.00	12,562.09	10,073.00	54.65	55.44	-94.34	2,443.10	-988.44	1,501.46	1,424.91	76.55	19.614	
12,600.00	9,961.00	12,662.09	10,073.00	55.91	56.67	-94.34	2,543.09	-989.43	1,501.46	1,423.13	78.33	19.169	
12,700.00	9,961.00	12,762.09	10,073.00	57.20	57.92	-94.34	2,643.09	-990.43	1,501.45	1,421.32	80.14	18.736	
12,800.00	9,961.00	12,862.09	10,073.00	58.51	59.19	-94.34	2,743.08	-991.42	1,501.45	1,419.48	81.97	18.317	
12,900.00	9,961.00	12,962.09	10,073.00	59.83	60.48	-94.34	2,843.08	-992.41	1,501.45	1,417.62	83.83	17.911	
13,000.00	9,961.00	13,062.09	10,073.00	61.16	61.79	-94.34	2,943.07	-993.41	1,501.45	1,415.74	85.71	17.517	
13,100.00	9,961.00	13,162.09	10,073.00	62.52	63.11	-94.34	3,043.07	-994.40	1,501.45	1,413.83	87.62	17.137	
13,200.00	9,961.00	13,262.09	10,073.00	63.88	64.44	-94.34	3,143.06	-995.40	1,501.44	1,411.90	89.54	16.768	
13,300.00	9,961.00	13,362.09	10,073.00	65.26	65.80	-94.34	3,243.06	-996.39	1,501.44	1,409.96	91.48	16.412	
13,400.00	9,961.00	13,462.09	10,073.00	66.66	67.16	-94.34	3,343.06	-997.38	1,501.44	1,408.00	93.44	16.068	
13,500.00	9,961.00	13,562.09	10,073.00	68.06	68.54	-94.34	3,443.05	-998.38	1,501.44	1,406.02	95.42	15.735	
13,600.00	9,961.00	13,662.09	10,073.00	69.47	69.93	-94.34	3,543.05	-999.37	1,501.44	1,404.02	97.42	15.413	
13,700.00	9,961.00	13,762.09	10,073.00	70.90	71.33	-94.34	3,643.04	-1,000.37	1,501.44	1,402.01	99.42	15.102	
13,800.00	9,961.00	13,862.09	10,073.00	72.33	72.74	-94.34	3,743.04	-1,001.36	1,501.43	1,399.99	101.44	14.801	
13,900.00	9,961.00	13,962.09	10,073.00	73.78	74.16	-94.34	3,843.03	-1,002.35	1,501.43	1,397.95	103.48	14.509	
14,000.00	9,961.00	14,062.09	10,073.00	75.23	75.59	-94.34	3,943.03	-1,003.35	1,501.43	1,395.90	105.53	14.228	
14,100.00	9,961.00	14,162.09	10,073.00	76.69	77.03	-94.34	4,043.02	-1,004.34	1,501.43	1,393.84	107.59	13.956	
14,200.00	9,961.00	14,262.09	10,073.00	78.16	78.47	-94.34	4,143.02	-1,005.34	1,501.43	1,391.77	109.65	13.692	
14,300.00	9,961.00	14,362.09	10,073.00	79.63	79.93	-94.34	4,243.01	-1,006.33	1,501.42	1,389.69	111.73	13.437	
14,400.00	9,961.00	14,462.09	10,073.00	81.12	81.39	-94.34	4,343.01	-1,007.32	1,501.42	1,387.60	113.82	13.191	
14,500.00	9,961.00	14,562.09	10,073.00	82.60	82.86	-94.34	4,443.00	-1,008.32	1,501.42	1,385.50	115.92	12.952	
14,600.00	9,961.00	14,662.09	10,073.00	84.10	84.34	-94.34	4,543.00	-1,009.31	1,501.42	1,383.39	118.03	12.721	
14,700.00	9,961.00	14,762.09	10,073.00	85.60	85.82	-94.34	4,642.99	-1,010.31	1,501.42	1,381.27	120.14	12.497	
14,800.00	9,961.00	14,862.09	10,073.00	87.10	87.31	-94.34	4,742.99	-1,011.30	1,501.42	1,379.15	122.27	12.280	
14,900.00	9,961.00	14,962.09	10,073.00	88.61	88.80	-94.34	4,842.98	-1,012.29	1,501.41	1,377.01	124.40	12.069	
15,000.00	9,961.00	15,062.09	10,073.00	90.13	90.30	-94.34	4,942.98	-1,013.29	1,501.41	1,374.87	126.54	11.865	
15,100.00	9,961.00	15,162.09	10,073.00	91.65	91.81	-94.34	5,042.97	-1,014.28	1,501.41	1,372.73	128.68	11.668	
15,200.00	9,961.00	15,262.09	10,073.00	93.18	93.32	-94.34	5,142.97	-1,015.28	1,501.41	1,370.58	130.83	11.476	
15,300.00	9,961.00	15,362.09	10,073.00	94.71	94.83	-94.34	5,242.96	-1,016.27	1,501.41	1,368.42	132.99	11.290	
15,400.00	9,961.00	15,462.09	10,073.00	96.24	96.35	-94.34	5,342.96	-1,017.26	1,501.40	1,366.25	135.15	11.109	
15,500.00	9,961.00	15,562.09	10,073.00	97.78	97.88	-94.34	5,442.95	-1,018.26	1,501.40	1,364.08	137.32	10.934	
15,600.00	9,961.00	15,662.09	10,073.00	99.32	99.41	-94.34	5,542.95	-1,019.25	1,501.40	1,361.91	139.49	10.763	
15,700.00	9,961.00	15,762.09	10,073.00	100.86	100.94	-94.34	5,642.94	-1,020.25	1,501.40	1,359.73	141.67	10.598	
15,800.00	9,961.00	15,862.09	10,073.00	102.41	102.47	-94.34	5,742.94	-1,021.24	1,501.40	1,357.54	143.86	10.437	
15,900.00	9,961.00	15,962.09	10,073.00	103.96	104.01	-94.34	5,842.93	-1,022.23	1,501.40	1,355.35	146.04	10.280	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 301H - 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
16,000.00	9,961.00	16,062.09	10,073.00	105.51	105.56	-94.34	5,942.93	-1,023.23	1,501.39	1,353.16	148.24	10.128	
16,100.00	9,961.00	16,162.09	10,073.00	107.07	107.10	-94.34	6,042.92	-1,024.22	1,501.39	1,350.96	150.43	9.981	
16,200.00	9,961.00	16,262.09	10,073.00	108.63	108.65	-94.34	6,142.92	-1,025.22	1,501.39	1,348.76	152.63	9.837	
16,300.00	9,961.00	16,362.09	10,073.00	110.19	110.20	-94.34	6,242.91	-1,026.21	1,501.39	1,346.55	154.84	9.697	
16,400.00	9,961.00	16,462.09	10,073.00	111.76	111.76	-94.34	6,342.91	-1,027.20	1,501.39	1,344.34	157.04	9.560	
16,500.00	9,961.00	16,562.09	10,073.00	113.33	113.31	-94.34	6,442.90	-1,028.20	1,501.38	1,342.13	159.26	9.428	
16,600.00	9,961.00	16,662.09	10,073.00	114.90	114.88	-94.34	6,542.90	-1,029.19	1,501.38	1,339.91	161.47	9.298	
16,700.00	9,961.00	16,762.09	10,073.00	116.47	116.44	-94.34	6,642.89	-1,030.19	1,501.38	1,337.69	163.69	9.172	
16,800.00	9,961.00	16,862.09	10,073.00	118.04	118.00	-94.34	6,742.89	-1,031.18	1,501.38	1,335.47	165.91	9.049	
16,900.00	9,961.00	16,962.09	10,073.00	119.62	119.57	-94.34	6,842.88	-1,032.17	1,501.38	1,333.24	168.13	8.930	
17,000.00	9,961.00	17,062.09	10,073.00	121.20	121.14	-94.34	6,942.88	-1,033.17	1,501.38	1,331.02	170.36	8.813	
17,100.00	9,961.00	17,162.09	10,073.00	122.78	122.71	-94.34	7,042.87	-1,034.16	1,501.37	1,328.78	172.59	8.699	
17,200.00	9,961.00	17,262.09	10,073.00	124.36	124.29	-94.34	7,142.87	-1,035.16	1,501.37	1,326.55	174.82	8.588	
17,300.00	9,961.00	17,362.09	10,073.00	125.95	125.86	-94.34	7,242.86	-1,036.15	1,501.37	1,324.31	177.06	8.480	
17,400.00	9,961.00	17,462.09	10,073.00	127.53	127.44	-94.34	7,342.86	-1,037.14	1,501.37	1,322.08	179.29	8.374	
17,500.00	9,961.00	17,562.09	10,073.00	129.12	129.02	-94.34	7,442.85	-1,038.14	1,501.37	1,319.83	181.53	8.271	
17,600.00	9,961.00	17,662.09	10,073.00	130.71	130.60	-94.34	7,542.85	-1,039.13	1,501.36	1,317.59	183.77	8.170	
17,700.00	9,961.00	17,762.09	10,073.00	132.30	132.19	-94.34	7,642.84	-1,040.13	1,501.36	1,315.35	186.02	8.071	
17,800.00	9,961.00	17,862.09	10,073.00	133.89	133.77	-94.34	7,742.84	-1,041.12	1,501.36	1,313.10	188.26	7.975	
17,900.00	9,961.00	17,962.09	10,073.00	135.48	135.36	-94.34	7,842.83	-1,042.12	1,501.36	1,310.85	190.51	7.881	
18,000.00	9,961.00	18,062.09	10,073.00	137.08	136.95	-94.34	7,942.83	-1,043.11	1,501.36	1,308.60	192.76	7.789	
18,100.00	9,961.00	18,162.09	10,073.00	138.68	138.53	-94.34	8,042.82	-1,044.10	1,501.36	1,306.34	195.01	7.699	
18,200.00	9,961.00	18,262.09	10,073.00	140.27	140.13	-94.34	8,142.82	-1,045.10	1,501.35	1,304.09	197.27	7.611	
18,300.00	9,961.00	18,362.09	10,073.00	141.87	141.72	-94.34	8,242.81	-1,046.09	1,501.35	1,301.83	199.52	7.525	
18,400.00	9,961.00	18,462.09	10,073.00	143.47	143.31	-94.34	8,342.81	-1,047.09	1,501.35	1,299.57	201.78	7.441	
18,500.00	9,961.00	18,562.09	10,073.00	145.07	144.91	-94.34	8,442.80	-1,048.08	1,501.35	1,297.31	204.04	7.358	
18,600.00	9,961.00	18,662.09	10,073.00	146.68	146.50	-94.34	8,542.80	-1,049.07	1,501.35	1,295.05	206.30	7.278	
18,700.00	9,961.00	18,762.09	10,073.00	148.28	148.10	-94.34	8,642.79	-1,050.07	1,501.34	1,292.79	208.56	7.199	
18,800.00	9,961.00	18,862.09	10,073.00	149.88	149.70	-94.34	8,742.79	-1,051.06	1,501.34	1,290.52	210.82	7.121	
18,900.00	9,961.00	18,962.09	10,073.00	151.49	151.30	-94.34	8,842.78	-1,052.06	1,501.34	1,288.25	213.09	7.046	
19,000.00	9,961.00	19,062.09	10,073.00	153.10	152.90	-94.34	8,942.78	-1,053.05	1,501.34	1,285.99	215.35	6.972	
19,100.00	9,961.00	19,162.09	10,073.00	154.70	154.50	-94.34	9,042.77	-1,054.04	1,501.34	1,283.72	217.62	6.899	
19,200.00	9,961.00	19,262.09	10,073.00	156.31	156.11	-94.34	9,142.77	-1,055.04	1,501.34	1,281.45	219.89	6.828	
19,300.00	9,961.00	19,362.09	10,073.00	157.92	157.71	-94.34	9,242.76	-1,056.03	1,501.33	1,279.18	222.16	6.758	
19,400.00	9,961.00	19,462.09	10,073.00	159.53	159.32	-94.34	9,342.76	-1,057.03	1,501.33	1,276.90	224.43	6.690	
19,500.00	9,961.00	19,562.09	10,073.00	161.14	160.92	-94.34	9,442.75	-1,058.02	1,501.33	1,274.63	226.70	6.623	
19,600.00	9,961.00	19,662.09	10,073.00	162.76	162.53	-94.34	9,542.75	-1,059.01	1,501.33	1,272.35	228.97	6.557	
19,700.00	9,961.00	19,762.09	10,073.00	164.37	164.14	-94.34	9,642.74	-1,060.01	1,501.33	1,270.08	231.25	6.492	
19,800.00	9,961.00	19,862.09	10,073.00	165.98	165.75	-94.34	9,742.74	-1,061.00	1,501.32	1,267.80	233.52	6.429	
19,900.00	9,961.00	19,962.09	10,073.00	167.60	167.36	-94.34	9,842.73	-1,062.00	1,501.32	1,265.52	235.80	6.367	
20,000.00	9,961.00	20,062.09	10,073.00	169.21	168.97	-94.34	9,942.73	-1,062.99	1,501.32	1,263.24	238.08	6.306	
20,100.00	9,961.00	20,162.09	10,073.00	170.83	170.58	-94.34	10,042.72	-1,063.98	1,501.32	1,260.96	240.36	6.246	
20,118.50	9,961.00	20,180.59	10,073.00	171.13	170.88	-94.34	10,061.22	-1,064.17	1,501.32	1,260.54	240.78	6.235	
20,118.82	9,961.00	20,180.90	10,073.00	171.14	170.88	-94.34	10,061.54	-1,064.17	1,501.32	1,260.53	240.79	6.235	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 801H - 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
1,843.00	1,843.00	1,841.60	1,841.60	6.37	6.37	-140.71	-75.53	-61.81	97.59	88.58	9.01	10.832	
1,900.00	1,900.00	1,898.60	1,898.60	6.58	6.57	-140.71	-75.53	-61.81	97.59	88.29	9.30	10.495	
2,000.00	2,000.00	1,998.60	1,998.60	6.94	6.93	-140.71	-75.53	-61.81	97.59	87.79	9.81	9.952	CC, ES
2,100.00	2,099.99	2,096.57	2,096.56	7.28	7.27	102.02	-75.82	-62.99	98.86	88.57	10.29	9.608	
2,200.00	2,199.91	2,194.18	2,194.09	7.62	7.60	105.26	-76.70	-66.60	102.94	92.19	10.75	9.574	SF
2,300.00	2,299.69	2,291.11	2,290.82	7.95	7.93	110.06	-78.16	-72.58	110.45	99.24	11.21	9.852	
2,400.00	2,399.27	2,387.03	2,386.37	8.30	8.27	115.67	-80.18	-80.84	122.12	110.46	11.66	10.473	
2,476.18	2,474.95	2,459.25	2,458.14	8.56	8.52	120.01	-82.08	-88.59	134.18	122.19	12.00	11.186	
2,500.00	2,498.58	2,481.66	2,480.39	8.65	8.60	121.37	-82.73	-91.27	138.51	126.42	12.10	11.448	
2,600.00	2,597.81	2,575.13	2,572.95	9.00	8.93	126.34	-85.79	-103.79	158.92	146.39	12.53	12.685	
2,700.00	2,697.03	2,667.47	2,664.07	9.36	9.27	130.25	-89.34	-118.31	182.63	169.68	12.95	14.105	
2,800.00	2,796.25	2,758.60	2,753.62	9.72	9.62	133.29	-93.36	-134.74	209.32	195.96	13.36	15.670	
2,900.00	2,895.48	2,853.80	2,846.94	10.09	9.98	135.77	-97.84	-153.08	237.73	223.90	13.83	17.189	
3,000.00	2,994.70	2,949.23	2,940.47	10.46	10.36	137.73	-102.33	-171.46	266.46	252.15	14.31	18.622	
3,100.00	3,093.93	3,044.65	3,034.00	10.83	10.75	139.31	-106.83	-189.85	295.43	280.63	14.79	19.974	
3,200.00	3,193.15	3,140.08	3,127.53	11.21	11.13	140.61	-111.32	-208.23	324.56	309.29	15.27	21.248	
3,300.00	3,292.37	3,235.50	3,221.05	11.59	11.53	141.69	-115.82	-226.61	353.82	338.06	15.76	22.449	
3,400.00	3,391.60	3,330.93	3,314.58	11.97	11.93	142.61	-120.31	-245.00	383.19	366.94	16.25	23.580	
3,500.00	3,490.82	3,426.35	3,408.11	12.35	12.33	143.40	-124.80	-263.38	412.63	395.88	16.74	24.646	
3,600.00	3,590.05	3,521.78	3,501.64	12.73	12.74	144.08	-129.30	-281.77	442.13	424.89	17.24	25.652	
3,700.00	3,689.27	3,617.20	3,595.17	13.12	13.15	144.68	-133.79	-300.15	471.68	453.95	17.73	26.603	
3,800.00	3,788.49	3,712.63	3,688.70	13.51	13.57	145.21	-138.28	-318.53	501.27	483.05	18.23	27.502	
3,900.00	3,887.72	3,808.05	3,782.23	13.89	13.98	145.68	-142.78	-336.92	530.90	512.18	18.72	28.353	
4,000.00	3,986.94	3,903.48	3,875.76	14.28	14.40	146.10	-147.27	-355.30	560.56	541.33	19.22	29.159	
4,100.00	4,086.17	3,998.90	3,969.29	14.68	14.83	146.47	-151.77	-373.68	590.24	570.51	19.72	29.924	
4,200.00	4,185.39	4,094.33	4,062.82	15.07	15.25	146.81	-156.26	-392.07	619.94	599.71	20.23	30.649	
4,300.00	4,284.61	4,189.75	4,156.35	15.46	15.68	147.12	-160.75	-410.45	649.66	628.93	20.73	31.339	
4,400.00	4,383.84	4,285.18	4,249.88	15.86	16.11	147.41	-165.25	-428.84	679.40	658.16	21.23	31.995	
4,500.00	4,483.06	4,380.60	4,343.41	16.25	16.54	147.67	-169.74	-447.22	709.15	687.41	21.74	32.620	
4,600.00	4,582.29	4,476.03	4,436.94	16.65	16.97	147.90	-174.23	-465.60	738.91	716.67	22.25	33.215	
4,700.00	4,681.51	4,571.45	4,530.47	17.04	17.41	148.12	-178.73	-483.99	768.69	745.93	22.75	33.783	
4,800.00	4,780.73	4,666.88	4,624.00	17.44	17.84	148.33	-183.22	-502.37	798.47	775.21	23.26	34.326	
4,900.00	4,879.96	4,762.30	4,717.52	17.84	18.28	148.52	-187.72	-520.75	828.26	804.49	23.77	34.844	
5,000.00	4,979.18	4,857.73	4,811.05	18.24	18.71	148.69	-192.21	-539.14	858.06	833.78	24.28	35.340	
5,100.00	5,078.41	4,953.15	4,904.58	18.64	19.15	148.86	-196.70	-557.52	887.87	863.08	24.79	35.815	
5,200.00	5,177.63	5,048.58	4,998.11	19.03	19.59	149.01	-201.20	-575.91	917.68	892.38	25.30	36.270	
5,300.00	5,276.85	5,144.00	5,091.64	19.43	20.03	149.15	-205.69	-594.29	947.50	921.68	25.81	36.707	
5,400.00	5,376.08	5,239.43	5,185.17	19.84	20.48	149.29	-210.18	-612.67	977.32	950.99	26.32	37.125	
5,500.00	5,475.30	5,334.85	5,278.70	20.24	20.92	149.42	-214.68	-631.06	1,007.15	980.31	26.84	37.527	
5,600.00	5,574.53	5,430.28	5,372.23	20.64	21.36	149.54	-219.17	-649.44	1,036.98	1,009.63	27.35	37.914	
5,700.00	5,673.75	5,525.70	5,465.76	21.04	21.81	149.65	-223.67	-667.82	1,066.82	1,038.95	27.87	38.285	
5,800.00	5,772.97	5,621.13	5,559.29	21.44	22.25	149.76	-228.16	-686.21	1,096.66	1,068.28	28.38	38.643	
5,900.00	5,872.20	5,716.55	5,652.82	21.84	22.70	149.86	-232.65	-704.59	1,126.50	1,097.60	28.89	38.987	
6,000.00	5,971.42	5,811.97	5,746.35	22.25	23.14	149.95	-237.15	-722.97	1,156.34	1,126.93	29.41	39.318	
6,100.00	6,070.65	5,907.40	5,839.88	22.65	23.59	150.04	-241.64	-741.36	1,186.19	1,156.27	29.93	39.638	
6,200.00	6,169.87	6,002.82	5,933.41	23.05	24.04	150.13	-246.14	-759.74	1,216.04	1,185.60	30.44	39.947	
6,300.00	6,269.09	6,098.25	6,026.94	23.46	24.49	150.21	-250.63	-778.13	1,245.90	1,214.94	30.96	40.244	
6,400.00	6,368.32	6,193.67	6,120.47	23.86	24.93	150.29	-255.12	-796.51	1,275.75	1,244.28	31.48	40.532	
6,500.00	6,467.54	6,289.10	6,214.00	24.26	25.38	150.37	-259.62	-814.89	1,305.61	1,273.62	31.99	40.810	
6,600.00	6,566.77	6,384.52	6,307.52	24.67	25.83	150.44	-264.11	-833.28	1,335.47	1,302.96	32.51	41.078	
6,700.00	6,665.99	6,479.95	6,401.05	25.07	26.28	150.51	-268.60	-851.66	1,365.33	1,332.30	33.03	41.338	
6,800.00	6,765.21	6,575.37	6,494.58	25.48	26.73	150.57	-273.10	-870.04	1,395.20	1,361.65	33.55	41.589	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 801H - 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
6,900.62	6,865.05	6,672.69	6,589.97	25.89	27.19	150.64	-277.68	-888.79	1,425.25	1,391.17	34.08	41.824	
7,000.00	6,963.81	6,823.75	6,738.61	26.28	27.88	150.92	-284.06	-914.91	1,451.93	1,417.03	34.90	41.598	
7,100.00	7,063.44	6,979.57	6,892.92	26.66	28.53	151.13	-289.18	-935.84	1,472.77	1,437.08	35.69	41.260	
7,200.00	7,163.26	7,138.30	7,050.88	27.03	29.15	151.28	-292.85	-950.86	1,487.42	1,450.99	36.43	40.824	
7,300.00	7,263.21	7,298.95	7,211.27	27.38	29.71	151.36	-294.98	-959.57	1,495.75	1,458.63	37.12	40.295	
7,376.80	7,340.00	7,422.98	7,335.27	27.64	30.11	-90.21	-295.53	-961.80	1,497.81	1,460.21	37.60	39.838	
7,400.00	7,363.20	7,449.51	7,361.80	27.71	30.19	-90.21	-295.53	-961.81	1,497.82	1,460.10	37.71	39.716	
7,500.00	7,463.20	7,549.51	7,461.80	28.03	30.49	-90.21	-295.53	-961.81	1,497.82	1,459.63	38.18	39.229	
7,600.00	7,563.20	7,649.51	7,561.80	28.36	30.79	-90.21	-295.53	-961.81	1,497.82	1,459.17	38.65	38.753	
7,700.00	7,663.20	7,749.51	7,661.80	28.68	31.09	-90.21	-295.53	-961.81	1,497.82	1,458.69	39.12	38.287	
7,800.00	7,763.20	7,849.51	7,761.80	29.00	31.40	-90.21	-295.53	-961.81	1,497.82	1,458.22	39.59	37.831	
7,900.00	7,863.20	7,949.51	7,861.80	29.33	31.70	-90.21	-295.53	-961.81	1,497.82	1,457.75	40.06	37.385	
8,000.00	7,963.20	8,049.51	7,961.80	29.65	32.01	-90.21	-295.53	-961.81	1,497.82	1,457.28	40.54	36.949	
8,100.00	8,063.20	8,149.51	8,061.80	29.98	32.31	-90.21	-295.53	-961.81	1,497.82	1,456.80	41.01	36.522	
8,200.00	8,163.20	8,249.51	8,161.80	30.31	32.62	-90.21	-295.53	-961.81	1,497.82	1,456.33	41.49	36.104	
8,300.00	8,263.20	8,349.51	8,261.80	30.64	32.93	-90.21	-295.53	-961.81	1,497.82	1,455.85	41.96	35.695	
8,400.00	8,363.20	8,449.51	8,361.80	30.97	33.24	-90.21	-295.53	-961.81	1,497.82	1,455.38	42.44	35.295	
8,500.00	8,463.20	8,549.51	8,461.80	31.29	33.55	-90.21	-295.53	-961.81	1,497.82	1,454.90	42.91	34.902	
8,600.00	8,563.20	8,649.51	8,561.80	31.62	33.86	-90.21	-295.53	-961.81	1,497.82	1,454.42	43.39	34.518	
8,700.00	8,663.20	8,749.51	8,661.80	31.96	34.17	-90.21	-295.53	-961.81	1,497.82	1,453.95	43.87	34.142	
8,800.00	8,763.20	8,849.51	8,761.80	32.29	34.49	-90.21	-295.53	-961.81	1,497.82	1,453.47	44.35	33.774	
8,900.00	8,863.20	8,949.51	8,861.80	32.62	34.80	-90.21	-295.53	-961.81	1,497.82	1,452.99	44.83	33.412	
9,000.00	8,963.20	9,049.51	8,961.80	32.95	35.12	-90.21	-295.53	-961.81	1,497.82	1,452.51	45.31	33.058	
9,100.00	9,063.20	9,149.51	9,061.80	33.28	35.43	-90.21	-295.53	-961.81	1,497.82	1,452.03	45.79	32.711	
9,200.00	9,163.20	9,249.51	9,161.80	33.62	35.75	-90.21	-295.53	-961.81	1,497.82	1,451.55	46.27	32.371	
9,300.00	9,263.20	9,349.51	9,261.80	33.95	36.07	-90.21	-295.53	-961.81	1,497.82	1,451.06	46.75	32.038	
9,400.00	9,363.20	9,449.51	9,361.80	34.29	36.39	-90.21	-295.53	-961.81	1,497.82	1,450.58	47.23	31.711	
9,424.84	9,388.04	9,474.35	9,386.64	34.37	36.46	-90.21	-295.53	-961.81	1,497.82	1,450.46	47.35	31.630	
9,450.00	9,413.19	9,499.50	9,411.79	34.45	36.54	-89.66	-295.53	-961.81	1,497.81	1,450.34	47.47	31.550	
9,500.00	9,462.98	9,549.29	9,461.58	34.61	36.70	-89.83	-295.53	-961.81	1,497.79	1,450.08	47.71	31.395	
9,528.70	9,491.33	9,577.64	9,489.93	34.70	36.79	-90.00	-295.53	-961.81	1,497.79	1,449.95	47.84	31.310	
9,550.00	9,512.21	9,598.52	9,510.81	34.76	36.86	-90.16	-295.53	-961.81	1,497.79	1,449.86	47.93	31.247	
9,600.00	9,560.48	9,646.79	9,559.08	34.90	37.02	-90.63	-295.53	-961.81	1,497.89	1,449.74	48.15	31.109	
9,650.00	9,607.45	9,693.76	9,606.05	35.03	37.17	-91.21	-295.53	-961.81	1,498.18	1,449.82	48.36	30.982	
9,700.00	9,652.74	9,739.05	9,651.34	35.14	37.31	-91.88	-295.53	-961.81	1,498.81	1,450.26	48.55	30.871	
9,750.00	9,696.02	9,782.33	9,694.62	35.24	37.45	-92.59	-295.53	-961.81	1,499.94	1,451.21	48.74	30.777	
9,800.00	9,736.96	9,823.27	9,735.56	35.33	37.58	-93.31	-295.53	-961.81	1,501.76	1,452.84	48.91	30.704	
9,850.00	9,775.24	9,861.55	9,773.84	35.40	37.70	-93.98	-295.53	-961.81	1,504.43	1,455.36	49.08	30.656	
9,900.00	9,810.58	9,896.89	9,809.18	35.46	37.82	-94.55	-295.53	-961.81	1,508.16	1,458.93	49.23	30.635	
9,950.00	9,842.70	9,929.00	9,841.30	35.51	37.92	-94.99	-295.53	-961.81	1,513.13	1,463.75	49.37	30.646	
10,000.00	9,871.35	9,957.66	9,869.95	35.54	38.01	-95.24	-295.53	-961.81	1,519.48	1,469.97	49.51	30.691	
10,050.00	9,896.33	9,982.64	9,894.93	35.56	38.09	-95.27	-295.53	-961.81	1,527.37	1,477.74	49.63	30.773	
10,100.00	9,917.45	10,003.75	9,916.05	35.57	38.16	-95.03	-295.53	-961.81	1,536.88	1,487.14	49.75	30.893	
10,150.00	9,934.53	10,020.84	9,933.13	35.57	38.22	-94.49	-295.53	-961.81	1,548.09	1,498.24	49.85	31.053	
10,200.00	9,947.45	10,033.76	9,946.05	35.57	38.26	-93.63	-295.53	-961.81	1,561.00	1,511.05	49.95	31.254	
10,250.00	9,956.12	10,042.43	9,954.72	35.58	38.29	-92.43	-295.53	-961.81	1,575.57	1,525.55	50.03	31.494	
10,300.00	9,960.46	10,046.77	9,959.06	35.65	38.30	-90.89	-295.53	-961.81	1,591.73	1,541.63	50.10	31.773	
10,324.84	9,961.00	10,047.31	9,959.60	35.71	38.30	-90.00	-295.53	-961.81	1,600.31	1,550.18	50.13	31.926	
10,400.00	9,961.00	10,047.31	9,959.60	35.94	38.30	-90.00	-295.53	-961.81	1,628.29	1,578.08	50.22	32.424	
10,500.00	9,961.00	10,047.31	9,959.60	36.32	38.30	-90.00	-295.53	-961.81	1,670.06	1,619.69	50.36	33.160	
10,600.00	9,961.00	10,047.31	9,959.60	36.77	38.30	-90.00	-295.53	-961.81	1,716.63	1,666.11	50.53	33.974	
10,700.00	9,961.00	10,047.31	9,959.60	37.29	38.30	-90.00	-295.53	-961.81	1,767.65	1,716.94	50.70	34.862	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 801H - 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
10,800.00	9,961.00	10,047.31	9,959.60	37.86	38.30	-90.00	-295.53	-961.81	1,822.72	1,771.84	50.89	35.818	
10,900.00	9,961.00	10,047.31	9,959.60	38.50	38.30	-90.00	-295.53	-961.81	1,881.51	1,830.43	51.07	36.838	
11,000.00	9,961.00	10,047.31	9,959.60	39.19	38.30	-90.00	-295.53	-961.81	1,943.66	1,892.40	51.26	37.917	
11,100.00	9,961.00	10,047.31	9,959.60	39.94	38.30	-90.00	-295.53	-961.81	2,008.87	1,957.43	51.44	39.050	
11,200.00	9,961.00	10,047.31	9,959.60	40.73	38.30	-90.00	-295.53	-961.81	2,076.85	2,025.23	51.62	40.231	
11,300.00	9,961.00	10,047.31	9,959.60	41.58	38.30	-90.00	-295.53	-961.81	2,147.34	2,095.54	51.79	41.458	
11,400.00	9,961.00	10,047.31	9,959.60	42.47	38.30	-90.00	-295.53	-961.81	2,220.09	2,168.13	51.96	42.726	
11,500.00	9,961.00	10,047.31	9,959.60	43.41	38.30	-90.00	-295.53	-961.81	2,294.90	2,242.78	52.12	44.032	
11,600.00	9,961.00	10,047.31	9,959.60	44.39	38.30	-90.00	-295.53	-961.81	2,371.56	2,319.29	52.27	45.372	
11,700.00	9,961.00	10,047.31	9,959.60	45.40	38.30	-90.00	-295.53	-961.81	2,449.91	2,397.49	52.41	46.742	
11,800.00	9,961.00	10,047.31	9,959.60	46.45	38.30	-90.00	-295.53	-961.81	2,529.78	2,477.23	52.55	48.141	
11,900.00	9,961.00	10,047.31	9,959.60	47.54	38.30	-90.00	-295.53	-961.81	2,611.04	2,558.36	52.68	49.567	
12,000.00	9,961.00	10,047.31	9,959.60	48.66	38.30	-90.00	-295.53	-961.81	2,693.56	2,640.76	52.80	51.016	
12,100.00	9,961.00	10,047.31	9,959.60	49.80	38.30	-90.00	-295.53	-961.81	2,777.23	2,724.32	52.91	52.487	
12,200.00	9,961.00	14,672.63	12,392.00	50.98	58.41	-148.38	2,143.19	-985.91	2,856.46	2,803.29	53.18	53.715	
12,300.00	9,961.00	14,772.63	12,392.00	52.18	59.47	-148.38	2,243.19	-986.90	2,856.46	2,802.26	54.20	52.706	
12,400.00	9,961.00	14,872.63	12,392.00	53.40	60.56	-148.38	2,343.18	-987.89	2,856.46	2,801.22	55.24	51.712	
12,500.00	9,961.00	14,972.63	12,392.00	54.65	61.67	-148.38	2,443.18	-988.87	2,856.45	2,800.15	56.30	50.734	
12,600.00	9,961.00	15,072.63	12,392.00	55.91	62.81	-148.38	2,543.18	-989.86	2,856.45	2,799.06	57.39	49.775	
12,700.00	9,961.00	15,172.63	12,392.00	57.20	63.97	-148.38	2,643.17	-990.85	2,856.44	2,797.95	58.49	48.834	
12,800.00	9,961.00	15,272.63	12,392.00	58.51	65.15	-148.38	2,743.17	-991.84	2,856.44	2,796.82	59.62	47.913	
12,900.00	9,961.00	15,372.63	12,392.00	59.83	66.35	-148.38	2,843.16	-992.83	2,856.44	2,795.68	60.76	47.012	
13,000.00	9,961.00	15,472.63	12,392.00	61.16	67.57	-148.38	2,943.16	-993.82	2,856.43	2,794.51	61.92	46.132	
13,100.00	9,961.00	15,572.63	12,392.00	62.52	68.81	-148.38	3,043.15	-994.80	2,856.43	2,793.33	63.09	45.272	
13,200.00	9,961.00	15,672.63	12,392.00	63.88	70.06	-148.38	3,143.15	-995.79	2,856.42	2,792.14	64.28	44.434	
13,300.00	9,961.00	15,772.63	12,392.00	65.26	71.33	-148.38	3,243.14	-996.78	2,856.42	2,790.93	65.49	43.617	
13,400.00	9,961.00	15,872.63	12,392.00	66.66	72.62	-148.38	3,343.14	-997.77	2,856.42	2,789.71	66.70	42.822	
13,500.00	9,961.00	15,972.63	12,392.00	68.06	73.92	-148.38	3,443.13	-998.76	2,856.41	2,788.48	67.93	42.047	
13,600.00	9,961.00	16,072.63	12,392.00	69.47	75.23	-148.38	3,543.13	-999.75	2,856.41	2,787.24	69.17	41.295	
13,700.00	9,961.00	16,172.63	12,392.00	70.90	76.56	-148.38	3,643.12	-1,000.73	2,856.40	2,785.98	70.42	40.562	
13,800.00	9,961.00	16,272.63	12,392.00	72.33	77.90	-148.38	3,743.12	-1,001.72	2,856.40	2,784.72	71.68	39.849	
13,900.00	9,961.00	16,372.63	12,392.00	73.78	79.25	-148.38	3,843.11	-1,002.71	2,856.40	2,783.44	72.95	39.155	
14,000.00	9,961.00	16,472.63	12,392.00	75.23	80.62	-148.38	3,943.11	-1,003.70	2,856.39	2,782.16	74.23	38.479	
14,100.00	9,961.00	16,572.63	12,392.00	76.69	81.99	-148.38	4,043.10	-1,004.69	2,856.39	2,780.87	75.52	37.822	
14,200.00	9,961.00	16,672.63	12,392.00	78.16	83.38	-148.38	4,143.10	-1,005.68	2,856.38	2,779.57	76.82	37.183	
14,300.00	9,961.00	16,772.63	12,392.00	79.63	84.77	-148.38	4,243.09	-1,006.66	2,856.38	2,778.25	78.13	36.561	
14,400.00	9,961.00	16,872.63	12,392.00	81.12	86.17	-148.38	4,343.09	-1,007.65	2,856.38	2,776.94	79.44	35.956	
14,500.00	9,961.00	16,972.63	12,392.00	82.60	87.58	-148.38	4,443.08	-1,008.64	2,856.37	2,775.61	80.76	35.368	
14,600.00	9,961.00	17,072.63	12,392.00	84.10	89.00	-148.38	4,543.08	-1,009.63	2,856.37	2,774.28	82.09	34.797	
14,700.00	9,961.00	17,172.63	12,392.00	85.60	90.43	-148.38	4,643.07	-1,010.62	2,856.37	2,772.95	83.42	34.241	
14,800.00	9,961.00	17,272.63	12,392.00	87.10	91.86	-148.38	4,743.07	-1,011.61	2,856.36	2,771.60	84.76	33.701	
14,900.00	9,961.00	17,372.63	12,392.00	88.61	93.31	-148.38	4,843.06	-1,012.59	2,856.36	2,770.26	86.10	33.175	
15,000.00	9,961.00	17,472.63	12,392.00	90.13	94.75	-148.38	4,943.06	-1,013.58	2,856.35	2,768.90	87.45	32.663	
15,100.00	9,961.00	17,572.63	12,392.00	91.65	96.21	-148.38	5,043.05	-1,014.57	2,856.35	2,767.54	88.80	32.164	
15,200.00	9,961.00	17,672.63	12,392.00	93.18	97.67	-148.38	5,143.05	-1,015.56	2,856.35	2,766.18	90.16	31.679	
15,300.00	9,961.00	17,772.63	12,392.00	94.71	99.14	-148.38	5,243.04	-1,016.55	2,856.34	2,764.81	91.53	31.207	
15,400.00	9,961.00	17,872.63	12,392.00	96.24	100.61	-148.38	5,343.04	-1,017.53	2,856.34	2,763.44	92.90	30.746	
15,500.00	9,961.00	17,972.63	12,392.00	97.78	102.09	-148.38	5,443.03	-1,018.52	2,856.33	2,762.06	94.28	30.298	
15,600.00	9,961.00	18,072.63	12,392.00	99.32	103.58	-148.38	5,543.03	-1,019.51	2,856.33	2,760.68	95.65	29.861	
15,700.00	9,961.00	18,172.63	12,392.00	100.86	105.06	-148.38	5,643.02	-1,020.50	2,856.33	2,759.29	97.03	29.437	
15,800.00	9,961.00	18,272.63	12,392.00	102.41	106.56	-148.38	5,743.02	-1,021.49	2,856.32	2,757.91	98.42	29.023	
15,900.00	9,961.00	18,372.63	12,392.00	103.96	108.06	-148.38	5,843.01	-1,022.48	2,856.32	2,756.51	99.80	28.619	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 801H - 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
16,000.00	9,961.00	18,472.63	12,392.00	105.51	109.56	-148.38	5,943.01	-1,023.46	2,856.31	2,755.12	101.20	28.225	
16,100.00	9,961.00	18,572.63	12,392.00	107.07	111.07	-148.38	6,043.00	-1,024.45	2,856.31	2,753.72	102.59	27.841	
16,200.00	9,961.00	18,672.63	12,392.00	108.63	112.58	-148.38	6,143.00	-1,025.44	2,856.31	2,752.32	103.99	27.467	
16,300.00	9,961.00	18,772.63	12,392.00	110.19	114.09	-148.39	6,242.99	-1,026.43	2,856.30	2,750.91	105.39	27.102	
16,400.00	9,961.00	18,872.63	12,392.00	111.76	115.61	-148.39	6,342.99	-1,027.42	2,856.30	2,749.50	106.79	26.746	
16,500.00	9,961.00	18,972.63	12,392.00	113.33	117.14	-148.39	6,442.98	-1,028.41	2,856.29	2,748.10	108.20	26.399	
16,600.00	9,961.00	19,072.63	12,392.00	114.90	118.66	-148.39	6,542.98	-1,029.39	2,856.29	2,746.69	109.61	26.060	
16,700.00	9,961.00	19,172.63	12,392.00	116.47	120.19	-148.39	6,642.97	-1,030.38	2,856.29	2,745.27	111.02	25.729	
16,800.00	9,961.00	19,272.63	12,392.00	118.04	121.72	-148.39	6,742.97	-1,031.37	2,856.28	2,743.85	112.43	25.405	
16,900.00	9,961.00	19,372.63	12,392.00	119.62	123.26	-148.39	6,842.97	-1,032.36	2,856.28	2,742.43	113.85	25.089	
17,000.00	9,961.00	19,472.63	12,392.00	121.20	124.80	-148.39	6,942.96	-1,033.35	2,856.27	2,741.01	115.26	24.781	
17,100.00	9,961.00	19,572.63	12,392.00	122.78	126.34	-148.39	7,042.96	-1,034.34	2,856.27	2,739.59	116.68	24.480	
17,200.00	9,961.00	19,672.63	12,392.00	124.36	127.88	-148.39	7,142.95	-1,035.32	2,856.27	2,738.17	118.10	24.186	
17,300.00	9,961.00	19,772.63	12,392.00	125.95	129.43	-148.39	7,242.95	-1,036.31	2,856.26	2,736.74	119.52	23.898	
17,400.00	9,961.00	19,872.63	12,392.00	127.53	130.98	-148.39	7,342.94	-1,037.30	2,856.26	2,735.31	120.94	23.616	
17,500.00	9,961.00	19,972.63	12,392.00	129.12	132.53	-148.39	7,442.94	-1,038.29	2,856.25	2,733.88	122.37	23.341	
17,600.00	9,961.00	20,072.63	12,392.00	130.71	134.09	-148.39	7,542.93	-1,039.28	2,856.25	2,732.45	123.80	23.072	
17,700.00	9,961.00	20,172.63	12,392.00	132.30	135.64	-148.39	7,642.93	-1,040.27	2,856.25	2,731.02	125.23	22.808	
17,800.00	9,961.00	20,272.63	12,392.00	133.89	137.20	-148.39	7,742.92	-1,041.25	2,856.24	2,729.58	126.66	22.551	
17,900.00	9,961.00	20,372.63	12,392.00	135.48	138.76	-148.39	7,842.92	-1,042.24	2,856.24	2,728.15	128.09	22.299	
18,000.00	9,961.00	20,472.63	12,392.00	137.08	140.33	-148.39	7,942.91	-1,043.23	2,856.23	2,726.71	129.52	22.052	
18,100.00	9,961.00	20,572.63	12,392.00	138.68	141.89	-148.39	8,042.91	-1,044.22	2,856.23	2,725.28	130.96	21.811	
18,200.00	9,961.00	20,672.63	12,392.00	140.27	143.46	-148.39	8,142.90	-1,045.21	2,856.23	2,723.84	132.39	21.574	
18,300.00	9,961.00	20,772.63	12,392.00	141.87	145.03	-148.39	8,242.90	-1,046.20	2,856.22	2,722.39	133.83	21.342	
18,400.00	9,961.00	20,872.63	12,392.00	143.47	146.60	-148.39	8,342.89	-1,047.18	2,856.22	2,720.95	135.26	21.116	
18,500.00	9,961.00	20,972.63	12,392.00	145.07	148.17	-148.39	8,442.89	-1,048.17	2,856.22	2,719.51	136.70	20.893	
18,600.00	9,961.00	21,072.63	12,392.00	146.68	149.74	-148.39	8,542.88	-1,049.16	2,856.21	2,718.07	138.14	20.676	
18,700.00	9,961.00	21,172.63	12,392.00	148.28	151.32	-148.39	8,642.88	-1,050.15	2,856.21	2,716.63	139.58	20.463	
18,800.00	9,961.00	21,272.63	12,392.00	149.88	152.90	-148.39	8,742.87	-1,051.14	2,856.20	2,715.18	141.02	20.254	
18,900.00	9,961.00	21,372.63	12,392.00	151.49	154.48	-148.39	8,842.87	-1,052.13	2,856.20	2,713.74	142.46	20.049	
19,000.00	9,961.00	21,472.63	12,392.00	153.10	156.06	-148.39	8,942.86	-1,053.11	2,856.20	2,712.29	143.91	19.847	
19,100.00	9,961.00	21,572.63	12,392.00	154.70	157.64	-148.39	9,042.86	-1,054.10	2,856.19	2,710.84	145.35	19.650	
19,200.00	9,961.00	21,672.63	12,392.00	156.31	159.22	-148.39	9,142.85	-1,055.09	2,856.19	2,709.40	146.79	19.457	
19,300.00	9,961.00	21,772.63	12,392.00	157.92	160.81	-148.39	9,242.85	-1,056.08	2,856.18	2,707.95	148.24	19.268	
19,400.00	9,961.00	21,872.63	12,392.00	159.53	162.39	-148.39	9,342.84	-1,057.07	2,856.18	2,706.50	149.68	19.082	
19,500.00	9,961.00	21,972.63	12,392.00	161.14	163.98	-148.39	9,442.84	-1,058.06	2,856.18	2,705.05	151.13	18.899	
19,600.00	9,961.00	22,072.63	12,392.00	162.76	165.57	-148.39	9,542.83	-1,059.04	2,856.17	2,703.60	152.57	18.720	
19,700.00	9,961.00	22,172.63	12,392.00	164.37	167.16	-148.39	9,642.83	-1,060.03	2,856.17	2,702.15	154.02	18.544	
19,800.00	9,961.00	22,272.63	12,392.00	165.98	168.75	-148.39	9,742.82	-1,061.02	2,856.16	2,700.69	155.47	18.371	
19,900.00	9,961.00	22,372.63	12,392.00	167.60	170.34	-148.39	9,842.82	-1,062.01	2,856.16	2,699.24	156.92	18.202	
20,000.00	9,961.00	22,472.63	12,392.00	169.21	171.94	-148.39	9,942.81	-1,063.00	2,856.16	2,697.79	158.37	18.035	
20,100.00	9,961.00	22,572.63	12,392.00	170.83	173.53	-148.39	10,042.81	-1,063.99	2,856.15	2,696.34	159.81	17.872	
20,118.50	9,961.00	22,591.14	12,392.00	171.13	173.83	-148.39	10,061.31	-1,064.17	2,856.15	2,696.07	160.08	17.842	
20,118.82	9,961.00	22,591.45	12,392.00	171.14	173.83	-148.39	10,061.62	-1,064.17	2,856.15	2,696.06	160.09	17.841	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 802H - 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
1,843.00	1,843.00	1,841.90	1,841.90	6.37	6.37	-153.99	-75.29	-36.74	83.78	74.77	9.01	9.298	
1,900.00	1,900.00	1,898.90	1,898.90	6.58	6.57	-153.99	-75.29	-36.74	83.78	74.48	9.30	9.009	
2,000.00	2,000.00	1,998.90	1,998.90	6.94	6.93	-153.99	-75.29	-36.74	83.78	73.97	9.81	8.543	
2,100.00	2,099.99	2,098.89	2,098.89	7.28	7.29	88.49	-75.29	-36.74	83.74	73.43	10.30	8.126	
2,163.89	2,163.84	2,162.74	2,162.74	7.50	7.52	90.00	-75.29	-36.74	83.71	73.09	10.62	7.884	CC
2,200.00	2,199.91	2,198.81	2,198.81	7.62	7.65	91.18	-75.29	-36.74	83.72	72.93	10.79	7.756	ES
2,300.00	2,299.69	2,296.81	2,296.80	7.95	7.98	95.06	-76.52	-36.74	85.15	73.88	11.27	7.557	SF
2,400.00	2,399.27	2,394.68	2,394.60	8.30	8.30	99.40	-80.25	-36.72	89.40	77.68	11.73	7.624	
2,476.18	2,474.95	2,469.10	2,468.88	8.56	8.54	102.73	-84.77	-36.70	94.65	82.57	12.08	7.836	
2,500.00	2,498.58	2,492.35	2,492.06	8.65	8.62	103.74	-86.48	-36.69	96.63	84.44	12.19	7.928	
2,600.00	2,597.81	2,589.87	2,589.19	9.00	8.94	106.94	-95.17	-36.65	106.35	93.70	12.65	8.405	
2,700.00	2,697.03	2,687.88	2,686.58	9.36	9.27	108.75	-106.25	-36.60	117.93	104.81	13.13	8.984	
2,800.00	2,796.25	2,787.12	2,785.11	9.72	9.61	110.08	-117.99	-36.55	129.96	116.34	13.62	9.543	
2,900.00	2,895.48	2,886.35	2,883.65	10.09	9.95	111.19	-129.73	-36.49	142.04	127.93	14.12	10.063	
3,000.00	2,994.70	2,985.58	2,982.19	10.46	10.30	112.12	-141.47	-36.44	154.17	139.56	14.62	10.548	
3,100.00	3,093.93	3,084.82	3,080.72	10.83	10.65	112.92	-153.21	-36.39	166.33	151.21	15.12	11.000	
3,200.00	3,193.15	3,184.05	3,179.26	11.21	11.01	113.60	-164.95	-36.33	178.53	162.89	15.63	11.422	
3,300.00	3,292.37	3,283.28	3,277.79	11.59	11.36	114.20	-176.69	-36.28	190.74	174.59	16.14	11.816	
3,400.00	3,391.60	3,382.51	3,376.33	11.97	11.73	114.73	-188.43	-36.23	202.97	186.31	16.66	12.184	
3,500.00	3,490.82	3,481.75	3,474.87	12.35	12.09	115.20	-200.17	-36.17	215.21	198.04	17.18	12.530	
3,600.00	3,590.05	3,580.98	3,573.40	12.73	12.46	115.61	-211.91	-36.12	227.47	209.77	17.70	12.854	
3,700.00	3,689.27	3,680.21	3,671.94	13.12	12.83	115.99	-223.65	-36.07	239.74	221.52	18.22	13.158	
3,800.00	3,788.49	3,779.45	3,770.47	13.51	13.20	116.33	-235.39	-36.01	252.02	233.27	18.75	13.444	
3,900.00	3,887.72	3,878.68	3,869.01	13.89	13.57	116.63	-247.13	-35.96	264.30	245.03	19.27	13.714	
4,000.00	3,986.94	3,977.91	3,967.55	14.28	13.95	116.91	-258.87	-35.91	276.60	256.79	19.80	13.968	
4,100.00	4,086.17	4,077.94	4,066.88	14.68	14.33	117.18	-270.66	-35.85	288.87	268.53	20.34	14.203	
4,200.00	4,185.39	4,181.68	4,170.09	15.07	14.71	117.73	-281.02	-35.81	300.16	279.27	20.90	14.365	
4,300.00	4,284.61	4,285.56	4,273.70	15.46	15.09	118.68	-288.58	-35.77	310.03	288.58	21.44	14.457	
4,400.00	4,383.84	4,389.45	4,377.47	15.86	15.47	120.01	-293.33	-35.75	318.56	296.58	21.98	14.491	
4,500.00	4,483.06	4,493.17	4,481.17	16.25	15.83	121.69	-295.25	-35.74	325.91	303.40	22.51	14.478	
4,600.00	4,582.29	4,593.18	4,581.19	16.65	16.17	123.51	-295.29	-35.74	332.67	309.65	23.02	14.452	
4,700.00	4,681.51	4,692.41	4,680.41	17.04	16.50	125.25	-295.29	-35.74	339.73	316.20	23.52	14.442	
4,800.00	4,780.73	4,791.63	4,779.63	17.44	16.84	126.91	-295.29	-35.74	347.09	323.06	24.03	14.445	
4,900.00	4,879.96	4,890.85	4,878.86	17.84	17.18	128.51	-295.29	-35.74	354.73	330.20	24.53	14.461	
5,000.00	4,979.18	4,990.08	4,978.08	18.24	17.52	130.04	-295.29	-35.74	362.64	337.61	25.03	14.487	
5,100.00	5,078.41	5,089.30	5,077.31	18.64	17.86	131.51	-295.29	-35.74	370.80	345.26	25.53	14.522	
5,200.00	5,177.63	5,188.53	5,176.53	19.03	18.20	132.91	-295.29	-35.74	379.19	353.15	26.03	14.565	
5,300.00	5,276.85	5,287.75	5,275.75	19.43	18.54	134.25	-295.29	-35.74	387.79	361.26	26.53	14.614	
5,400.00	5,376.08	5,386.97	5,374.98	19.84	18.88	135.53	-295.29	-35.74	396.60	369.57	27.03	14.670	
5,500.00	5,475.30	5,486.20	5,474.20	20.24	19.22	136.76	-295.29	-35.74	405.60	378.07	27.53	14.731	
5,600.00	5,574.53	5,585.42	5,573.43	20.64	19.56	137.93	-295.29	-35.74	414.78	386.75	28.03	14.796	
5,700.00	5,673.75	5,684.65	5,672.65	21.04	19.91	139.05	-295.29	-35.74	424.12	395.59	28.53	14.865	
5,800.00	5,772.97	5,783.87	5,771.87	21.44	20.25	140.13	-295.29	-35.74	433.62	404.59	29.03	14.937	
5,900.00	5,872.20	5,883.09	5,871.10	21.84	20.59	141.15	-295.29	-35.74	443.27	413.74	29.53	15.011	
6,000.00	5,971.42	5,982.32	5,970.32	22.25	20.94	142.14	-295.29	-35.74	453.05	423.02	30.03	15.087	
6,100.00	6,070.65	6,081.54	6,069.55	22.65	21.28	143.08	-295.29	-35.74	462.95	432.43	30.53	15.165	
6,200.00	6,169.87	6,180.77	6,168.77	23.05	21.63	143.98	-295.29	-35.74	472.98	441.95	31.03	15.245	
6,300.00	6,269.09	6,279.99	6,267.99	23.46	21.97	144.85	-295.29	-35.74	483.12	451.59	31.52	15.325	
6,400.00	6,368.32	6,379.21	6,367.22	23.86	22.32	145.67	-295.29	-35.74	493.36	461.34	32.02	15.406	
6,500.00	6,467.54	6,478.44	6,466.44	24.26	22.66	146.47	-295.29	-35.74	503.71	471.18	32.52	15.488	
6,600.00	6,566.77	6,577.66	6,565.67	24.67	23.01	147.23	-295.29	-35.74	514.14	481.12	33.02	15.570	
6,700.00	6,665.99	6,676.89	6,664.89	25.07	23.36	147.97	-295.29	-35.74	524.66	491.14	33.52	15.652	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 802H - 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
6,800.00	6,765.21	6,776.11	6,764.11	25.48	23.70	148.67	-295.29	-35.74	535.27	501.25	34.02	15.734	
6,900.62	6,865.05	6,875.95	6,863.95	25.89	24.05	149.35	-295.29	-35.74	546.01	511.49	34.52	15.816	
7,000.00	6,963.81	6,974.71	6,962.71	26.28	24.40	150.01	-295.29	-35.74	555.59	520.57	35.02	15.865	
7,100.00	7,063.44	7,074.34	7,062.34	26.66	24.75	150.50	-295.29	-35.74	563.01	527.50	35.52	15.852	
7,200.00	7,163.26	7,174.16	7,162.16	27.03	25.10	150.83	-295.29	-35.74	568.19	532.17	36.01	15.777	
7,300.00	7,263.21	7,274.10	7,262.11	27.38	25.45	151.01	-295.29	-35.74	571.09	534.58	36.51	15.642	
7,376.80	7,340.00	7,350.90	7,338.90	27.64	25.72	-90.53	-295.29	-35.74	571.77	534.88	36.89	15.501	
7,400.00	7,363.20	7,374.10	7,362.10	27.71	25.80	-90.53	-295.29	-35.74	571.77	534.77	37.00	15.454	
7,500.00	7,463.20	7,474.10	7,462.10	28.03	26.15	-90.53	-295.29	-35.74	571.77	534.28	37.48	15.255	
7,600.00	7,563.20	7,574.10	7,562.10	28.36	26.50	-90.53	-295.29	-35.74	571.77	533.80	37.96	15.061	
7,700.00	7,663.20	7,674.10	7,662.10	28.68	26.85	-90.53	-295.29	-35.74	571.77	533.32	38.45	14.871	
7,800.00	7,763.20	7,774.10	7,762.10	29.00	27.20	-90.53	-295.29	-35.74	571.77	532.83	38.93	14.685	
7,900.00	7,863.20	7,874.10	7,862.10	29.33	27.55	-90.53	-295.29	-35.74	571.77	532.35	39.42	14.505	
8,000.00	7,963.20	7,974.10	7,962.10	29.65	27.91	-90.53	-295.29	-35.74	571.77	531.86	39.91	14.328	
8,100.00	8,063.20	8,074.10	8,062.10	29.98	28.26	-90.53	-295.29	-35.74	571.77	531.37	40.39	14.155	
8,200.00	8,163.20	8,174.10	8,162.10	30.31	28.61	-90.53	-295.29	-35.74	571.77	530.89	40.88	13.987	
8,300.00	8,263.20	8,274.10	8,262.10	30.64	28.96	-90.53	-295.29	-35.74	571.77	530.40	41.37	13.822	
8,400.00	8,363.20	8,374.10	8,362.10	30.97	29.32	-90.53	-295.29	-35.74	571.77	529.91	41.86	13.660	
8,500.00	8,463.20	8,474.10	8,462.10	31.29	29.67	-90.53	-295.29	-35.74	571.77	529.42	42.34	13.503	
8,600.00	8,563.20	8,574.10	8,562.10	31.62	30.02	-90.53	-295.29	-35.74	571.77	528.93	42.83	13.349	
8,700.00	8,663.20	8,674.10	8,662.10	31.96	30.37	-90.53	-295.29	-35.74	571.77	528.44	43.32	13.198	
8,800.00	8,763.20	8,774.10	8,762.10	32.29	30.73	-90.53	-295.29	-35.74	571.77	527.95	43.81	13.050	
8,900.00	8,863.20	8,874.10	8,862.10	32.62	31.08	-90.53	-295.29	-35.74	571.77	527.46	44.30	12.906	
9,000.00	8,963.20	8,974.10	8,962.10	32.95	31.43	-90.53	-295.29	-35.74	571.77	526.97	44.79	12.765	
9,100.00	9,063.20	9,074.10	9,062.10	33.28	31.79	-90.53	-295.29	-35.74	571.77	526.48	45.28	12.626	
9,200.00	9,163.20	9,174.10	9,162.10	33.62	32.14	-90.53	-295.29	-35.74	571.77	525.99	45.77	12.491	
9,300.00	9,263.20	9,274.10	9,262.10	33.95	32.49	-90.53	-295.29	-35.74	571.77	525.50	46.27	12.358	
9,400.00	9,363.20	9,374.10	9,362.10	34.29	32.85	-90.53	-295.29	-35.74	571.77	525.01	46.76	12.228	
9,424.84	9,388.04	9,398.94	9,386.94	34.37	32.94	-90.53	-295.29	-35.74	571.77	524.88	46.88	12.196	
9,446.13	9,409.32	9,420.22	9,408.22	34.44	33.01	-90.00	-295.29	-35.74	571.77	524.78	46.99	12.169	
9,450.00	9,413.19	9,424.09	9,412.09	34.45	33.03	-90.02	-295.29	-35.74	571.77	524.76	47.00	12.164	
9,500.00	9,462.98	9,473.88	9,461.88	34.61	33.20	-90.45	-295.29	-35.74	571.78	524.53	47.25	12.101	
9,550.00	9,512.21	9,523.10	9,511.11	34.76	33.38	-91.29	-295.29	-35.74	571.92	524.42	47.49	12.042	
9,600.00	9,560.48	9,571.38	9,559.38	34.90	33.55	-92.50	-295.29	-35.74	572.36	524.63	47.73	11.991	
9,650.00	9,607.45	9,618.35	9,606.35	35.03	33.71	-94.00	-295.29	-35.74	573.40	525.43	47.97	11.953	
9,700.00	9,652.74	9,663.64	9,651.64	35.14	33.87	-95.71	-295.29	-35.74	575.38	527.18	48.20	11.938	
9,750.00	9,696.02	9,706.92	9,694.92	35.24	34.03	-97.51	-295.29	-35.74	578.71	530.30	48.42	11.952	
9,800.00	9,736.96	9,747.86	9,735.86	35.33	34.17	-99.30	-295.29	-35.74	583.83	535.20	48.63	12.006	
9,850.00	9,775.24	9,786.14	9,774.14	35.40	34.31	-100.96	-295.29	-35.74	591.17	542.34	48.83	12.107	
9,900.00	9,810.58	9,821.47	9,809.48	35.46	34.43	-102.37	-295.29	-35.74	601.13	552.12	49.01	12.265	
9,950.00	9,842.70	9,853.59	9,841.60	35.51	34.55	-103.40	-295.29	-35.74	614.04	564.86	49.18	12.485	
10,000.00	9,871.35	9,882.25	9,870.25	35.54	34.65	-103.97	-295.29	-35.74	630.12	580.80	49.33	12.774	
10,050.00	9,896.33	9,907.23	9,895.23	35.56	34.74	-103.97	-295.29	-35.74	649.51	600.06	49.45	13.134	
10,100.00	9,917.45	9,928.34	9,916.35	35.57	34.81	-103.30	-295.29	-35.74	672.19	622.63	49.56	13.564	
10,150.00	9,934.53	9,945.42	9,933.43	35.57	34.87	-101.88	-295.29	-35.74	698.03	648.40	49.63	14.064	
10,200.00	9,947.45	9,958.35	9,946.35	35.57	34.92	-99.63	-295.29	-35.74	726.81	677.12	49.69	14.627	
10,250.00	9,956.12	9,967.01	9,955.02	35.58	34.95	-96.47	-295.29	-35.74	758.19	708.47	49.72	15.249	
10,300.00	9,960.46	9,971.36	9,959.36	35.65	34.96	-92.38	-295.29	-35.74	791.78	742.05	49.73	15.922	
10,324.84	9,961.00	9,971.89	9,959.90	35.71	34.97	-90.00	-295.29	-35.74	809.16	759.43	49.73	16.272	
10,400.00	9,961.00	9,971.89	9,959.90	35.94	34.97	-90.00	-295.29	-35.74	863.98	814.26	49.72	17.379	
10,500.00	9,961.00	9,971.89	9,959.90	36.32	34.97	-90.00	-295.29	-35.74	941.27	891.57	49.70	18.939	
10,600.00	9,961.00	9,971.89	9,959.90	36.77	34.97	-90.00	-295.29	-35.74	1,022.52	972.83	49.69	20.579	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 802H - 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
10,700.00	9,961.00	9,971.89	9,959.90	37.29	34.97	-90.00	-295.29	-35.74	1,106.84	1,057.16	49.68	22.281	
10,800.00	9,961.00	9,971.89	9,959.90	37.86	34.97	-90.00	-295.29	-35.74	1,193.58	1,143.91	49.67	24.031	
10,900.00	9,961.00	9,971.89	9,959.90	38.50	34.97	-90.00	-295.29	-35.74	1,282.25	1,232.59	49.66	25.819	
11,000.00	9,961.00	9,971.90	9,959.90	39.19	34.97	-90.00	-295.29	-35.74	1,372.48	1,322.83	49.66	27.638	
11,100.00	9,961.00	9,971.90	9,959.90	39.94	34.97	-90.00	-295.29	-35.74	1,463.99	1,414.33	49.66	29.481	
11,200.00	9,961.00	9,971.90	9,959.90	40.73	34.97	-90.00	-295.29	-35.74	1,556.54	1,506.88	49.66	31.345	
11,300.00	9,961.00	9,971.90	9,959.90	41.58	34.97	-90.00	-295.29	-35.74	1,649.95	1,600.29	49.66	33.224	
11,400.00	9,961.00	9,971.90	9,959.90	42.47	34.97	-90.00	-295.29	-35.74	1,744.10	1,694.44	49.66	35.117	
11,500.00	9,961.00	9,971.90	9,959.90	43.41	34.97	-90.00	-295.29	-35.74	1,838.87	1,789.20	49.67	37.022	
11,600.00	9,961.00	9,971.90	9,959.90	44.39	34.97	-90.00	-295.29	-35.74	1,934.16	1,884.48	49.68	38.935	
11,700.00	9,961.00	9,971.90	9,959.90	45.40	34.97	-90.00	-295.29	-35.74	2,029.91	1,980.22	49.68	40.856	
11,800.00	9,961.00	9,971.90	9,959.90	46.45	34.97	-90.00	-295.29	-35.74	2,126.04	2,076.35	49.69	42.783	
11,900.00	9,961.00	9,971.90	9,959.90	47.54	34.97	-90.00	-295.29	-35.74	2,222.52	2,172.82	49.70	44.715	
12,000.00	9,961.00	9,971.90	9,959.90	48.66	34.97	-90.00	-295.29	-35.74	2,319.30	2,269.58	49.72	46.652	
12,100.00	9,961.00	14,389.83	12,276.00	49.80	55.98	-166.14	2,052.35	-58.97	2,385.59	2,341.23	44.36	53.779	
12,200.00	9,961.00	14,489.83	12,276.00	50.98	57.05	-166.14	2,152.34	-59.96	2,385.59	2,340.47	45.13	52.865	
12,300.00	9,961.00	14,589.83	12,276.00	52.18	58.15	-166.14	2,252.34	-60.94	2,385.59	2,339.68	45.91	51.961	
12,400.00	9,961.00	14,689.83	12,276.00	53.40	59.27	-166.14	2,352.33	-61.93	2,385.59	2,338.88	46.71	51.068	
12,500.00	9,961.00	14,789.83	12,276.00	54.65	60.42	-166.14	2,452.33	-62.92	2,385.59	2,338.06	47.53	50.188	
12,600.00	9,961.00	14,889.83	12,276.00	55.91	61.59	-166.14	2,552.32	-63.91	2,385.59	2,337.22	48.37	49.322	
12,700.00	9,961.00	14,989.83	12,276.00	57.20	62.78	-166.14	2,652.32	-64.90	2,385.58	2,336.37	49.22	48.470	
12,800.00	9,961.00	15,089.83	12,276.00	58.51	63.99	-166.14	2,752.31	-65.89	2,385.58	2,335.50	50.08	47.633	
12,900.00	9,961.00	15,189.83	12,276.00	59.83	65.22	-166.14	2,852.31	-66.88	2,385.58	2,334.62	50.96	46.812	
13,000.00	9,961.00	15,289.83	12,276.00	61.16	66.47	-166.14	2,952.30	-67.87	2,385.58	2,333.73	51.85	46.006	
13,100.00	9,961.00	15,389.83	12,276.00	62.52	67.74	-166.14	3,052.30	-68.86	2,385.58	2,332.82	52.76	45.218	
13,200.00	9,961.00	15,489.83	12,276.00	63.88	69.02	-166.14	3,152.29	-69.85	2,385.58	2,331.90	53.67	44.446	
13,300.00	9,961.00	15,589.83	12,276.00	65.26	70.32	-166.14	3,252.29	-70.84	2,385.58	2,330.97	54.60	43.691	
13,400.00	9,961.00	15,689.83	12,276.00	66.66	71.64	-166.14	3,352.28	-71.83	2,385.57	2,330.03	55.54	42.952	
13,500.00	9,961.00	15,789.83	12,276.00	68.06	72.96	-166.14	3,452.28	-72.82	2,385.57	2,329.08	56.49	42.231	
13,600.00	9,961.00	15,889.83	12,276.00	69.47	74.30	-166.14	3,552.27	-73.81	2,385.57	2,328.12	57.45	41.527	
13,700.00	9,961.00	15,989.83	12,276.00	70.90	75.65	-166.14	3,652.27	-74.79	2,385.57	2,327.16	58.41	40.841	
13,800.00	9,961.00	16,089.83	12,276.00	72.33	77.02	-166.14	3,752.26	-75.78	2,385.57	2,326.18	59.39	40.171	
13,900.00	9,961.00	16,189.83	12,276.00	73.78	78.39	-166.14	3,852.26	-76.77	2,385.57	2,325.20	60.37	39.517	
14,000.00	9,961.00	16,289.83	12,276.00	75.23	79.78	-166.14	3,952.25	-77.76	2,385.56	2,324.21	61.36	38.879	
14,100.00	9,961.00	16,389.83	12,276.00	76.69	81.18	-166.14	4,052.25	-78.75	2,385.56	2,323.21	62.35	38.258	
14,200.00	9,961.00	16,489.83	12,276.00	78.16	82.58	-166.14	4,152.24	-79.74	2,385.56	2,322.20	63.36	37.652	
14,300.00	9,961.00	16,589.83	12,276.00	79.63	84.00	-166.14	4,252.24	-80.73	2,385.56	2,321.19	64.37	37.061	
14,400.00	9,961.00	16,689.83	12,276.00	81.12	85.42	-166.14	4,352.23	-81.72	2,385.56	2,320.17	65.39	36.484	
14,500.00	9,961.00	16,789.83	12,276.00	82.60	86.85	-166.14	4,452.23	-82.71	2,385.56	2,319.15	66.41	35.922	
14,600.00	9,961.00	16,889.83	12,276.00	84.10	88.29	-166.14	4,552.22	-83.70	2,385.55	2,318.12	67.44	35.373	
14,700.00	9,961.00	16,989.83	12,276.00	85.60	89.73	-166.14	4,652.22	-84.69	2,385.55	2,317.08	68.47	34.839	
14,800.00	9,961.00	17,089.83	12,276.00	87.10	91.19	-166.14	4,752.21	-85.68	2,385.55	2,316.04	69.51	34.317	
14,900.00	9,961.00	17,189.83	12,276.00	88.61	92.65	-166.14	4,852.21	-86.67	2,385.55	2,314.99	70.56	33.809	
15,000.00	9,961.00	17,289.83	12,276.00	90.13	94.11	-166.14	4,952.20	-87.65	2,385.55	2,313.94	71.61	33.313	
15,100.00	9,961.00	17,389.83	12,276.00	91.65	95.59	-166.14	5,052.20	-88.64	2,385.55	2,312.88	72.67	32.829	
15,200.00	9,961.00	17,489.83	12,276.00	93.18	97.06	-166.14	5,152.19	-89.63	2,385.55	2,311.82	73.73	32.357	
15,300.00	9,961.00	17,589.83	12,276.00	94.71	98.55	-166.14	5,252.19	-90.62	2,385.54	2,310.76	74.79	31.898	
15,400.00	9,961.00	17,689.83	12,276.00	96.24	100.04	-166.14	5,352.18	-91.61	2,385.54	2,309.69	75.85	31.449	
15,500.00	9,961.00	17,789.83	12,276.00	97.78	101.53	-166.14	5,452.18	-92.60	2,385.54	2,308.62	76.92	31.012	
15,600.00	9,961.00	17,889.83	12,276.00	99.32	103.03	-166.14	5,552.17	-93.59	2,385.54	2,307.54	78.00	30.586	
15,700.00	9,961.00	17,989.83	12,276.00	100.86	104.53	-166.14	5,652.17	-94.58	2,385.54	2,306.47	79.07	30.169	
15,800.00	9,961.00	18,089.83	12,276.00	102.41	106.04	-166.14	5,752.16	-95.57	2,385.54	2,305.38	80.15	29.763	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 802H - 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
15,900.00	9,961.00	18,189.83	12,276.00	103.96	107.55	-166.14	5,852.16	-96.56	2,385.53	2,304.30	81.23	29.366	
16,000.00	9,961.00	18,289.83	12,276.00	105.51	109.07	-166.14	5,952.16	-97.55	2,385.53	2,303.21	82.32	28.978	
16,100.00	9,961.00	18,389.83	12,276.00	107.07	110.59	-166.14	6,052.15	-98.54	2,385.53	2,302.12	83.41	28.600	
16,200.00	9,961.00	18,489.83	12,276.00	108.63	112.11	-166.14	6,152.15	-99.53	2,385.53	2,301.03	84.50	28.230	
16,300.00	9,961.00	18,589.83	12,276.00	110.19	113.64	-166.14	6,252.14	-100.52	2,385.53	2,299.93	85.60	27.869	
16,400.00	9,961.00	18,689.83	12,276.00	111.76	115.17	-166.14	6,352.14	-101.50	2,385.53	2,298.83	86.70	27.516	
16,500.00	9,961.00	18,789.83	12,276.00	113.33	116.70	-166.14	6,452.13	-102.49	2,385.52	2,297.73	87.80	27.171	
16,600.00	9,961.00	18,889.83	12,276.00	114.90	118.24	-166.14	6,552.13	-103.48	2,385.52	2,296.62	88.90	26.834	
16,700.00	9,961.00	18,989.83	12,276.00	116.47	119.78	-166.14	6,652.12	-104.47	2,385.52	2,295.52	90.01	26.504	
16,800.00	9,961.00	19,089.83	12,276.00	118.04	121.33	-166.14	6,752.12	-105.46	2,385.52	2,294.41	91.11	26.182	
16,900.00	9,961.00	19,189.83	12,276.00	119.62	122.87	-166.14	6,852.11	-106.45	2,385.52	2,293.30	92.22	25.867	
17,000.00	9,961.00	19,289.83	12,276.00	121.20	124.42	-166.14	6,952.11	-107.44	2,385.52	2,292.19	93.33	25.560	
17,100.00	9,961.00	19,389.83	12,276.00	122.78	125.97	-166.14	7,052.10	-108.43	2,385.52	2,291.07	94.44	25.259	
17,200.00	9,961.00	19,489.83	12,276.00	124.36	127.53	-166.14	7,152.10	-109.42	2,385.51	2,289.96	95.56	24.965	
17,300.00	9,961.00	19,589.83	12,276.00	125.95	129.08	-166.14	7,252.09	-110.41	2,385.51	2,288.84	96.67	24.676	
17,400.00	9,961.00	19,689.83	12,276.00	127.53	130.64	-166.14	7,352.09	-111.40	2,385.51	2,287.72	97.79	24.395	
17,500.00	9,961.00	19,789.83	12,276.00	129.12	132.20	-166.14	7,452.08	-112.39	2,385.51	2,286.60	98.91	24.118	
17,600.00	9,961.00	19,889.83	12,276.00	130.71	133.77	-166.14	7,552.08	-113.38	2,385.51	2,285.48	100.03	23.848	
17,700.00	9,961.00	19,989.83	12,276.00	132.30	135.33	-166.15	7,652.07	-114.37	2,385.51	2,284.35	101.15	23.584	
17,800.00	9,961.00	20,089.83	12,276.00	133.89	136.90	-166.15	7,752.07	-115.35	2,385.50	2,283.23	102.28	23.324	
17,900.00	9,961.00	20,189.83	12,276.00	135.48	138.47	-166.15	7,852.06	-116.34	2,385.50	2,282.10	103.40	23.070	
18,000.00	9,961.00	20,289.83	12,276.00	137.08	140.04	-166.15	7,952.06	-117.33	2,385.50	2,280.97	104.53	22.821	
18,100.00	9,961.00	20,389.83	12,276.00	138.68	141.61	-166.15	8,052.05	-118.32	2,385.50	2,279.84	105.66	22.578	
18,200.00	9,961.00	20,489.83	12,276.00	140.27	143.19	-166.15	8,152.05	-119.31	2,385.50	2,278.71	106.79	22.339	
18,300.00	9,961.00	20,589.83	12,276.00	141.87	144.77	-166.15	8,252.04	-120.30	2,385.50	2,277.58	107.92	22.104	
18,400.00	9,961.00	20,689.83	12,276.00	143.47	146.34	-166.15	8,352.04	-121.29	2,385.49	2,276.44	109.05	21.875	
18,500.00	9,961.00	20,789.83	12,276.00	145.07	147.92	-166.15	8,452.03	-122.28	2,385.49	2,275.31	110.18	21.650	
18,600.00	9,961.00	20,889.83	12,276.00	146.68	149.51	-166.15	8,552.03	-123.27	2,385.49	2,274.17	111.32	21.430	
18,700.00	9,961.00	20,989.83	12,276.00	148.28	151.09	-166.15	8,652.02	-124.26	2,385.49	2,273.04	112.45	21.214	
18,800.00	9,961.00	21,089.83	12,276.00	149.88	152.67	-166.15	8,752.02	-125.25	2,385.49	2,271.90	113.59	21.002	
18,900.00	9,961.00	21,189.83	12,276.00	151.49	154.26	-166.15	8,852.01	-126.24	2,385.49	2,270.77	114.72	20.794	
19,000.00	9,961.00	21,289.83	12,276.00	153.10	155.85	-166.15	8,952.01	-127.23	2,385.49	2,269.63	115.86	20.590	
19,100.00	9,961.00	21,389.83	12,276.00	154.70	157.44	-166.15	9,052.00	-128.21	2,385.48	2,268.49	117.00	20.389	
19,200.00	9,961.00	21,489.83	12,276.00	156.31	159.03	-166.15	9,152.00	-129.20	2,385.48	2,267.35	118.14	20.193	
19,300.00	9,961.00	21,589.83	12,276.00	157.92	160.62	-166.15	9,251.99	-130.19	2,385.48	2,266.20	119.28	19.999	
19,400.00	9,961.00	21,689.83	12,276.00	159.53	162.21	-166.15	9,351.99	-131.18	2,385.48	2,265.06	120.42	19.810	
19,500.00	9,961.00	21,789.83	12,276.00	161.14	163.80	-166.15	9,451.98	-132.17	2,385.48	2,263.92	121.56	19.624	
19,600.00	9,961.00	21,889.83	12,276.00	162.76	165.40	-166.15	9,551.98	-133.16	2,385.48	2,262.77	122.70	19.441	
19,700.00	9,961.00	21,989.83	12,276.00	164.37	166.99	-166.15	9,651.97	-134.15	2,385.47	2,261.63	123.85	19.261	
19,800.00	9,961.00	22,089.83	12,276.00	165.98	168.59	-166.15	9,751.97	-135.14	2,385.47	2,260.48	124.99	19.085	
19,900.00	9,961.00	22,189.83	12,276.00	167.60	170.19	-166.15	9,851.96	-136.13	2,385.47	2,259.33	126.14	18.911	
20,000.00	9,961.00	22,289.83	12,276.00	169.21	171.79	-166.15	9,951.96	-137.12	2,385.47	2,258.18	127.29	18.741	
20,100.00	9,961.00	22,389.83	12,276.00	170.83	173.39	-166.15	10,051.95	-138.11	2,385.47	2,257.04	128.43	18.574	
20,118.50	9,961.00	22,408.34	12,276.00	171.13	173.68	-166.15	10,070.46	-138.29	2,385.47	2,256.82	128.64	18.543	
20,118.82	9,961.00	22,408.65	12,276.00	171.14	173.69	-166.15	10,070.77	-138.29	2,385.47	2,256.82	128.65	18.542	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 803H - 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
1,843.00	1,843.00	1,842.50	1,842.50	6.37	6.37	-171.16	-75.06	-11.68	75.96	66.95	9.01	8.429	
1,900.00	1,900.00	1,899.50	1,899.50	6.58	6.58	-171.16	-75.06	-11.68	75.96	66.66	9.30	8.167	
2,000.00	2,000.00	1,999.50	1,999.50	6.94	6.93	-171.16	-75.06	-11.68	75.96	66.15	9.81	7.745	
2,100.00	2,099.99	2,099.35	2,099.34	7.28	7.28	70.39	-75.35	-10.42	75.62	65.32	10.30	7.343	
2,200.00	2,199.91	2,199.19	2,199.10	7.62	7.62	70.25	-76.24	-6.62	74.60	63.83	10.77	6.924	
2,300.00	2,299.69	2,299.02	2,298.72	7.95	7.96	70.01	-77.72	-0.29	72.90	61.65	11.25	6.478	
2,400.00	2,399.27	2,398.83	2,398.10	8.30	8.31	69.64	-79.80	8.58	70.53	58.79	11.74	6.007	
2,476.18	2,474.95	2,474.84	2,473.62	8.56	8.58	69.27	-81.77	17.03	68.27	56.16	12.12	5.634	
2,500.00	2,498.58	2,498.61	2,497.19	8.65	8.66	69.06	-82.46	19.97	67.52	55.28	12.24	5.518	
2,600.00	2,597.81	2,598.32	2,595.88	9.00	9.02	66.72	-85.71	33.86	64.55	51.82	12.74	5.068	
2,700.00	2,697.03	2,697.85	2,693.97	9.36	9.39	61.81	-89.54	50.22	62.24	49.01	13.24	4.702	
2,800.00	2,796.25	2,797.24	2,791.49	9.72	9.77	54.41	-93.91	68.91	61.24	47.51	13.73	4.461	
2,822.44	2,818.52	2,819.59	2,813.39	9.80	9.85	52.61	-94.92	73.23	61.21	47.37	13.84	4.423	CC
2,900.00	2,895.48	2,896.86	2,889.13	10.09	10.16	46.41	-98.42	88.18	61.58	47.36	14.21	4.332	ES
3,000.00	2,994.70	2,996.49	2,986.77	10.46	10.55	38.64	-102.93	107.46	63.09	48.41	14.69	4.296	SF
3,100.00	3,093.93	3,096.12	3,084.41	10.83	10.96	31.36	-107.44	126.74	65.71	50.56	15.15	4.337	
3,200.00	3,193.15	3,195.75	3,182.05	11.21	11.37	24.74	-111.95	146.02	69.30	53.69	15.61	4.439	
3,300.00	3,292.37	3,295.38	3,279.70	11.59	11.78	18.83	-116.46	165.30	73.73	57.65	16.08	4.585	
3,400.00	3,391.60	3,395.01	3,377.34	11.97	12.20	13.63	-120.97	184.58	78.86	62.31	16.55	4.765	
3,500.00	3,490.82	3,494.64	3,474.98	12.35	12.63	9.10	-125.48	203.86	84.55	67.52	17.03	4.965	
3,600.00	3,590.05	3,594.27	3,572.62	12.73	13.06	5.16	-129.99	223.14	90.70	73.19	17.51	5.179	
3,700.00	3,689.27	3,693.89	3,670.26	13.12	13.49	1.73	-134.50	242.42	97.23	79.22	18.00	5.401	
3,800.00	3,788.49	3,793.52	3,767.90	13.51	13.92	-1.25	-139.01	261.70	104.05	85.55	18.50	5.625	
3,900.00	3,887.72	3,893.15	3,865.55	13.89	14.36	-3.87	-143.52	280.98	111.13	92.13	19.00	5.849	
4,000.00	3,986.94	3,992.78	3,963.19	14.28	14.80	-6.17	-148.03	300.26	118.41	98.90	19.51	6.070	
4,100.00	4,086.17	4,092.41	4,060.83	14.68	15.25	-8.20	-152.54	319.54	125.86	105.84	20.02	6.287	
4,200.00	4,185.39	4,192.04	4,158.47	15.07	15.69	-10.00	-157.05	338.82	133.44	112.91	20.53	6.499	
4,300.00	4,284.61	4,291.67	4,256.11	15.46	16.14	-11.61	-161.56	358.10	141.15	120.10	21.05	6.705	
4,400.00	4,383.84	4,391.30	4,353.75	15.86	16.59	-13.05	-166.07	377.37	148.95	127.38	21.57	6.905	
4,500.00	4,483.06	4,490.93	4,451.39	16.25	17.04	-14.34	-170.58	396.65	156.84	134.74	22.09	7.099	
4,600.00	4,582.29	4,590.55	4,549.04	16.65	17.50	-15.51	-175.09	415.93	164.80	142.18	22.62	7.286	
4,700.00	4,681.51	4,690.18	4,646.68	17.04	17.95	-16.58	-179.60	435.21	172.82	149.67	23.15	7.467	
4,800.00	4,780.73	4,789.81	4,744.32	17.44	18.41	-17.54	-184.11	454.49	180.89	157.22	23.67	7.641	
4,900.00	4,879.96	4,889.44	4,841.96	17.84	18.86	-18.43	-188.62	473.77	189.02	164.81	24.20	7.809	
5,000.00	4,979.18	4,989.07	4,939.60	18.24	19.32	-19.24	-193.13	493.05	197.18	172.44	24.74	7.972	
5,100.00	5,078.41	5,088.70	5,037.24	18.64	19.78	-19.99	-197.64	512.33	205.38	180.11	25.27	8.128	
5,200.00	5,177.63	5,188.33	5,134.89	19.03	20.24	-20.68	-202.15	531.61	213.61	187.81	25.80	8.279	
5,300.00	5,276.85	5,287.96	5,232.53	19.43	20.71	-21.32	-206.66	550.89	221.87	195.53	26.34	8.424	
5,400.00	5,376.08	5,387.59	5,330.17	19.84	21.17	-21.91	-211.17	570.17	230.16	203.28	26.87	8.564	
5,500.00	5,475.30	5,487.21	5,427.81	20.24	21.63	-22.46	-215.68	589.45	238.47	211.06	27.41	8.700	
5,600.00	5,574.53	5,586.84	5,525.45	20.64	22.10	-22.98	-220.19	608.73	246.80	218.85	27.95	8.830	
5,700.00	5,673.75	5,686.47	5,623.09	21.04	22.56	-23.46	-224.70	628.01	255.14	226.66	28.49	8.956	
5,800.00	5,772.97	5,786.10	5,720.73	21.44	23.03	-23.91	-229.21	647.29	263.51	234.48	29.03	9.078	
5,900.00	5,872.20	5,885.73	5,818.38	21.84	23.49	-24.33	-233.72	666.57	271.89	242.32	29.57	9.195	
6,000.00	5,971.42	5,985.36	5,916.02	22.25	23.96	-24.73	-238.23	685.84	280.28	250.17	30.11	9.309	
6,100.00	6,070.65	6,084.99	6,013.66	22.65	24.43	-25.10	-242.74	705.12	288.69	258.04	30.65	9.418	
6,200.00	6,169.87	6,184.62	6,111.30	23.05	24.90	-25.46	-247.25	724.40	297.11	265.91	31.19	9.525	
6,300.00	6,269.09	6,284.24	6,208.94	23.46	25.36	-25.79	-251.76	743.68	305.53	273.80	31.74	9.627	
6,400.00	6,368.32	6,383.87	6,306.58	23.86	25.83	-26.11	-256.27	762.96	313.97	281.69	32.28	9.727	
6,500.00	6,467.54	6,483.50	6,404.23	24.26	26.30	-26.41	-260.78	782.24	322.42	289.60	32.82	9.823	
6,600.00	6,566.77	6,583.13	6,501.87	24.67	26.77	-26.69	-265.29	801.52	330.87	297.51	33.37	9.916	
6,700.00	6,665.99	6,685.05	6,601.78	25.07	27.25	-26.97	-269.88	821.16	339.26	305.32	33.94	9.997	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 803H - 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
6,800.00	6,765.21	6,794.42	6,709.39	25.48	27.75	-27.33	-274.31	840.10	345.66	311.09	34.57	9.999	
6,900.62	6,865.05	6,904.75	6,818.48	25.89	28.23	-27.80	-278.07	856.16	349.29	314.11	35.18	9.928	
7,000.00	6,963.81	7,013.82	6,926.75	26.28	28.67	-28.27	-281.08	869.02	351.26	315.50	35.76	9.823	
7,100.00	7,063.44	7,123.64	7,036.09	26.66	29.08	-28.63	-283.39	878.92	352.76	316.46	36.30	9.718	
7,200.00	7,163.26	7,233.51	7,145.73	27.03	29.48	-28.88	-284.99	885.76	353.78	316.97	36.81	9.612	
7,300.00	7,263.21	7,343.40	7,255.55	27.38	29.84	-29.02	-285.87	889.52	354.29	317.02	37.27	9.505	
7,376.80	7,340.00	7,427.36	7,339.50	27.64	30.11	89.36	-286.06	890.32	354.35	316.74	37.60	9.423	
7,400.00	7,363.20	7,450.56	7,362.70	27.71	30.18	89.36	-286.06	890.32	354.35	316.63	37.71	9.396	
7,500.00	7,463.20	7,550.56	7,462.70	28.03	30.48	89.36	-286.06	890.32	354.35	316.17	38.18	9.281	
7,600.00	7,563.20	7,650.56	7,562.70	28.36	30.78	89.36	-286.06	890.32	354.35	315.70	38.65	9.168	
7,700.00	7,663.20	7,750.56	7,662.70	28.68	31.08	89.36	-286.06	890.32	354.35	315.22	39.12	9.058	
7,800.00	7,763.20	7,850.56	7,762.70	29.00	31.39	89.36	-286.06	890.32	354.35	314.75	39.59	8.950	
7,900.00	7,863.20	7,950.56	7,862.70	29.33	31.69	89.36	-286.06	890.32	354.35	314.28	40.07	8.844	
8,000.00	7,963.20	8,050.56	7,962.70	29.65	32.00	89.36	-286.06	890.32	354.35	313.81	40.54	8.741	
8,100.00	8,063.20	8,150.56	8,062.70	29.98	32.30	89.36	-286.06	890.32	354.35	313.33	41.01	8.640	
8,200.00	8,163.20	8,250.56	8,162.70	30.31	32.61	89.36	-286.06	890.32	354.35	312.86	41.49	8.541	
8,300.00	8,263.20	8,350.56	8,262.70	30.64	32.92	89.36	-286.06	890.32	354.35	312.38	41.96	8.444	
8,400.00	8,363.20	8,450.56	8,362.70	30.97	33.23	89.36	-286.06	890.32	354.35	311.91	42.44	8.349	
8,500.00	8,463.20	8,550.56	8,462.70	31.29	33.54	89.36	-286.06	890.32	354.35	311.43	42.92	8.257	
8,600.00	8,563.20	8,650.56	8,562.70	31.62	33.86	89.36	-286.06	890.32	354.35	310.95	43.39	8.166	
8,700.00	8,663.20	8,750.56	8,662.70	31.96	34.17	89.36	-286.06	890.32	354.35	310.47	43.87	8.077	
8,800.00	8,763.20	8,850.56	8,762.70	32.29	34.48	89.36	-286.06	890.32	354.35	309.99	44.35	7.989	
8,900.00	8,863.20	8,950.56	8,862.70	32.62	34.80	89.36	-286.06	890.32	354.35	309.51	44.83	7.904	
9,000.00	8,963.20	9,050.56	8,962.70	32.95	35.11	89.36	-286.06	890.32	354.35	309.03	45.31	7.820	
9,100.00	9,063.20	9,150.56	9,062.70	33.28	35.43	89.36	-286.06	890.32	354.35	308.55	45.79	7.738	
9,200.00	9,163.20	9,250.56	9,162.70	33.62	35.75	89.36	-286.06	890.32	354.35	308.07	46.27	7.658	
9,300.00	9,263.20	9,350.56	9,262.70	33.95	36.06	89.36	-286.06	890.32	354.35	307.59	46.76	7.579	
9,400.00	9,363.20	9,450.56	9,362.70	34.29	36.38	89.36	-286.06	890.32	354.35	307.11	47.24	7.501	
9,424.84	9,388.04	9,475.40	9,387.54	34.37	36.46	89.36	-286.06	890.32	354.35	306.99	47.36	7.482	
9,446.57	9,409.77	9,497.13	9,409.27	34.44	36.53	90.00	-286.06	890.32	354.35	306.89	47.46	7.466	
9,450.00	9,413.19	9,500.55	9,412.69	34.45	36.54	90.02	-286.06	890.32	354.35	306.87	47.48	7.464	
9,500.00	9,462.98	9,550.34	9,462.48	34.61	36.70	90.72	-286.06	890.32	354.37	306.69	47.69	7.431	
9,550.00	9,512.21	9,599.57	9,511.71	34.76	36.86	92.08	-286.06	890.32	354.59	306.72	47.87	7.407	
9,600.00	9,560.48	9,647.84	9,559.98	34.90	37.01	94.03	-286.06	890.32	355.31	307.28	48.03	7.397	
9,650.00	9,607.45	9,694.81	9,606.95	35.03	37.17	96.43	-286.06	890.32	356.98	308.80	48.18	7.409	
9,700.00	9,652.74	9,740.10	9,652.24	35.14	37.31	99.16	-286.06	890.32	360.15	311.82	48.33	7.452	
9,750.00	9,696.02	9,783.38	9,695.52	35.24	37.45	102.01	-286.06	890.32	365.45	316.97	48.48	7.538	
9,800.00	9,736.96	9,824.32	9,736.46	35.33	37.58	104.81	-286.06	890.32	373.50	324.84	48.66	7.675	
9,850.00	9,775.24	9,862.60	9,774.74	35.40	37.70	107.35	-286.06	890.32	384.87	336.00	48.87	7.875	
9,900.00	9,810.58	9,897.94	9,810.08	35.46	37.82	109.48	-286.06	890.32	400.00	350.88	49.12	8.143	
9,950.00	9,842.70	9,930.05	9,842.20	35.51	37.92	111.03	-286.06	890.32	419.14	369.75	49.40	8.485	
10,000.00	9,871.35	9,958.71	9,870.85	35.54	38.01	111.87	-286.06	890.32	442.38	392.69	49.69	8.903	
10,050.00	9,896.33	9,983.69	9,895.83	35.56	38.10	111.87	-286.06	890.32	469.58	419.59	49.99	9.394	
10,100.00	9,917.45	10,004.80	9,916.95	35.57	38.16	110.88	-286.06	890.32	500.47	450.20	50.28	9.955	
10,150.00	9,934.53	10,021.89	9,934.03	35.57	38.22	108.75	-286.06	890.32	534.68	484.14	50.55	10.578	
10,200.00	9,947.45	10,034.81	9,946.95	35.57	38.26	105.31	-286.06	890.32	571.74	520.95	50.79	11.257	
10,250.00	9,956.12	10,043.48	9,955.62	35.58	38.29	100.37	-286.06	890.32	611.13	560.13	51.00	11.983	
10,300.00	9,960.46	10,047.82	9,959.96	35.65	38.30	93.83	-286.06	890.32	652.34	601.16	51.18	12.746	
10,324.84	9,961.00	10,048.36	9,960.50	35.71	38.30	90.00	-286.06	890.32	673.33	622.07	51.26	13.135	
10,400.00	9,961.00	10,048.36	9,960.50	35.94	38.30	90.00	-286.06	890.32	738.30	686.83	51.47	14.344	
10,500.00	9,961.00	10,048.36	9,960.50	36.32	38.30	90.00	-286.06	890.32	827.42	775.72	51.70	16.004	
10,600.00	9,961.00	10,048.36	9,960.50	36.77	38.30	90.00	-286.06	890.32	918.78	866.90	51.88	17.708	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
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Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 803H - 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
10,700.00	9,961.00	10,048.36	9,960.50	37.29	38.30	90.00	-286.06	890.32	1,011.78	959.75	52.04	19.444	
10,800.00	9,961.00	10,048.36	9,960.50	37.86	38.30	90.00	-286.06	890.32	1,106.01	1,053.84	52.16	21.204	
10,900.00	9,961.00	10,048.36	9,960.50	38.50	38.30	90.00	-286.06	890.32	1,201.16	1,148.90	52.27	22.982	
11,000.00	9,961.00	10,048.36	9,960.50	39.19	38.30	90.00	-286.06	890.32	1,297.05	1,244.69	52.36	24.773	
11,100.00	9,961.00	10,048.36	9,960.50	39.94	38.30	90.00	-286.06	890.32	1,393.51	1,341.08	52.43	26.576	
11,200.00	9,961.00	10,048.36	9,960.50	40.73	38.30	90.00	-286.06	890.32	1,490.44	1,437.94	52.50	28.388	
11,300.00	9,961.00	10,048.36	9,960.50	41.58	38.30	90.00	-286.06	890.32	1,587.75	1,535.19	52.56	30.206	
11,400.00	9,961.00	10,048.36	9,960.50	42.47	38.30	90.00	-286.06	890.32	1,685.38	1,632.76	52.62	32.030	
11,500.00	9,961.00	10,048.36	9,960.50	43.41	38.30	90.00	-286.06	890.32	1,783.27	1,730.60	52.67	33.858	
11,600.00	9,961.00	10,048.36	9,960.50	44.39	38.30	90.00	-286.06	890.32	1,881.38	1,828.66	52.72	35.689	
11,700.00	9,961.00	10,048.36	9,960.50	45.40	38.30	90.00	-286.06	890.32	1,979.68	1,926.92	52.76	37.523	
11,800.00	9,961.00	10,048.36	9,960.50	46.45	38.30	90.00	-286.06	890.32	2,078.14	2,025.34	52.80	39.359	
11,900.00	9,961.00	10,048.36	9,960.50	47.54	38.30	90.00	-286.06	890.32	2,176.74	2,123.90	52.84	41.197	
12,000.00	9,961.00	14,225.63	12,136.00	48.66	55.69	170.75	1,961.52	868.05	2,204.19	2,163.53	40.66	54.215	
12,100.00	9,961.00	14,325.63	12,136.00	49.80	56.71	170.75	2,061.51	867.06	2,204.19	2,162.82	41.36	53.287	
12,200.00	9,961.00	14,425.63	12,136.00	50.98	57.76	170.75	2,161.51	866.07	2,204.19	2,162.09	42.09	52.364	
12,300.00	9,961.00	14,525.63	12,136.00	52.18	58.84	170.75	2,261.50	865.07	2,204.19	2,161.35	42.84	51.450	
12,400.00	9,961.00	14,625.63	12,136.00	53.40	59.94	170.75	2,361.50	864.08	2,204.19	2,160.58	43.61	50.545	
12,500.00	9,961.00	14,725.63	12,136.00	54.65	61.07	170.75	2,461.49	863.09	2,204.19	2,159.80	44.39	49.655	
12,600.00	9,961.00	14,825.63	12,136.00	55.91	62.23	170.75	2,561.49	862.10	2,204.19	2,159.00	45.19	48.779	
12,700.00	9,961.00	14,925.63	12,136.00	57.20	63.40	170.75	2,661.48	861.11	2,204.19	2,158.19	46.00	47.917	
12,800.00	9,961.00	15,025.63	12,136.00	58.51	64.60	170.75	2,761.48	860.12	2,204.19	2,157.37	46.83	47.071	
12,900.00	9,961.00	15,125.63	12,136.00	59.83	65.81	170.75	2,861.47	859.13	2,204.19	2,156.53	47.67	46.240	
13,000.00	9,961.00	15,225.63	12,136.00	61.16	67.05	170.74	2,961.47	858.14	2,204.19	2,155.67	48.52	45.427	
13,100.00	9,961.00	15,325.63	12,136.00	62.52	68.30	170.74	3,061.46	857.15	2,204.19	2,154.81	49.39	44.631	
13,200.00	9,961.00	15,425.63	12,136.00	63.88	69.57	170.74	3,161.46	856.16	2,204.20	2,153.93	50.27	43.851	
13,300.00	9,961.00	15,525.63	12,136.00	65.26	70.85	170.74	3,261.45	855.16	2,204.20	2,153.04	51.15	43.090	
13,400.00	9,961.00	15,625.63	12,136.00	66.66	72.15	170.74	3,361.45	854.17	2,204.20	2,152.14	52.05	42.345	
13,500.00	9,961.00	15,725.63	12,136.00	68.06	73.46	170.74	3,461.44	853.18	2,204.20	2,151.24	52.96	41.619	
13,600.00	9,961.00	15,825.63	12,136.00	69.47	74.79	170.74	3,561.44	852.19	2,204.20	2,150.32	53.88	40.909	
13,700.00	9,961.00	15,925.63	12,136.00	70.90	76.13	170.74	3,661.44	851.20	2,204.20	2,149.39	54.81	40.217	
13,800.00	9,961.00	16,025.63	12,136.00	72.33	77.48	170.74	3,761.43	850.21	2,204.20	2,148.46	55.74	39.542	
13,900.00	9,961.00	16,125.63	12,136.00	73.78	78.84	170.74	3,861.43	849.22	2,204.20	2,147.51	56.69	38.883	
14,000.00	9,961.00	16,225.63	12,136.00	75.23	80.22	170.74	3,961.42	848.23	2,204.20	2,146.56	57.64	38.243	
14,100.00	9,961.00	16,325.63	12,136.00	76.69	81.60	170.74	4,061.42	847.24	2,204.20	2,145.61	58.59	37.618	
14,200.00	9,961.00	16,425.63	12,136.00	78.16	82.99	170.74	4,161.41	846.24	2,204.20	2,144.64	59.56	37.009	
14,300.00	9,961.00	16,525.63	12,136.00	79.63	84.40	170.74	4,261.41	845.25	2,204.20	2,143.67	60.53	36.415	
14,400.00	9,961.00	16,625.63	12,136.00	81.12	85.81	170.74	4,361.40	844.26	2,204.20	2,142.70	61.51	35.836	
14,500.00	9,961.00	16,725.63	12,136.00	82.60	87.23	170.74	4,461.40	843.27	2,204.21	2,141.71	62.49	35.272	
14,600.00	9,961.00	16,825.63	12,136.00	84.10	88.66	170.74	4,561.39	842.28	2,204.21	2,140.72	63.48	34.722	
14,700.00	9,961.00	16,925.63	12,136.00	85.60	90.09	170.74	4,661.39	841.29	2,204.21	2,139.73	64.48	34.186	
14,800.00	9,961.00	17,025.63	12,136.00	87.10	91.54	170.74	4,761.38	840.30	2,204.21	2,138.73	65.48	33.664	
14,900.00	9,961.00	17,125.63	12,136.00	88.61	92.99	170.74	4,861.38	839.31	2,204.21	2,137.73	66.48	33.155	
15,000.00	9,961.00	17,225.63	12,136.00	90.13	94.44	170.74	4,961.37	838.32	2,204.21	2,136.72	67.49	32.660	
15,100.00	9,961.00	17,325.63	12,136.00	91.65	95.91	170.74	5,061.37	837.32	2,204.21	2,135.71	68.50	32.177	
15,200.00	9,961.00	17,425.63	12,136.00	93.18	97.38	170.74	5,161.36	836.33	2,204.21	2,134.69	69.52	31.706	
15,300.00	9,961.00	17,525.63	12,136.00	94.71	98.85	170.74	5,261.36	835.34	2,204.21	2,133.67	70.54	31.247	
15,400.00	9,961.00	17,625.63	12,136.00	96.24	100.33	170.74	5,361.35	834.35	2,204.21	2,132.65	71.57	30.799	
15,500.00	9,961.00	17,725.63	12,136.00	97.78	101.82	170.74	5,461.35	833.36	2,204.21	2,131.62	72.60	30.362	
15,600.00	9,961.00	17,825.63	12,136.00	99.32	103.31	170.74	5,561.34	832.37	2,204.21	2,130.58	73.63	29.936	
15,700.00	9,961.00	17,925.63	12,136.00	100.86	104.80	170.74	5,661.34	831.38	2,204.21	2,129.55	74.67	29.520	
15,800.00	9,961.00	18,025.63	12,136.00	102.41	106.30	170.74	5,761.33	830.39	2,204.22	2,128.51	75.71	29.115	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
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Reference Well:	FMM Fed Com 302H	**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 FMM Fed Com - FMM Fed Com 803H - 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
15,900.00	9,961.00	18,125.63	12,136.00	103.96	107.81	170.74	5,861.33	829.40	2,204.22	2,127.47	76.75	28.720	
16,000.00	9,961.00	18,225.63	12,136.00	105.51	109.32	170.74	5,961.32	828.41	2,204.22	2,126.42	77.79	28.334	
16,100.00	9,961.00	18,325.63	12,136.00	107.07	110.83	170.74	6,061.32	827.41	2,204.22	2,125.37	78.84	27.957	
16,200.00	9,961.00	18,425.63	12,136.00	108.63	112.35	170.74	6,161.31	826.42	2,204.22	2,124.32	79.89	27.589	
16,300.00	9,961.00	18,525.63	12,136.00	110.19	113.87	170.74	6,261.31	825.43	2,204.22	2,123.27	80.95	27.230	
16,400.00	9,961.00	18,625.63	12,136.00	111.76	115.39	170.74	6,361.30	824.44	2,204.22	2,122.22	82.00	26.879	
16,500.00	9,961.00	18,725.63	12,136.00	113.33	116.92	170.74	6,461.30	823.45	2,204.22	2,121.16	83.06	26.537	
16,600.00	9,961.00	18,825.63	12,136.00	114.90	118.45	170.74	6,561.29	822.46	2,204.22	2,120.10	84.12	26.202	
16,700.00	9,961.00	18,925.63	12,136.00	116.47	119.98	170.74	6,661.29	821.47	2,204.22	2,119.03	85.19	25.875	
16,800.00	9,961.00	19,025.63	12,136.00	118.04	121.52	170.74	6,761.28	820.48	2,204.22	2,117.97	86.25	25.555	
16,900.00	9,961.00	19,125.63	12,136.00	119.62	123.06	170.74	6,861.28	819.49	2,204.22	2,116.90	87.32	25.243	
17,000.00	9,961.00	19,225.63	12,136.00	121.20	124.60	170.74	6,961.27	818.49	2,204.22	2,115.83	88.39	24.937	
17,100.00	9,961.00	19,325.63	12,136.00	122.78	126.15	170.74	7,061.27	817.50	2,204.23	2,114.76	89.46	24.639	
17,200.00	9,961.00	19,425.63	12,136.00	124.36	127.70	170.74	7,161.26	816.51	2,204.23	2,113.69	90.53	24.347	
17,300.00	9,961.00	19,525.63	12,136.00	125.95	129.25	170.74	7,261.26	815.52	2,204.23	2,112.62	91.61	24.061	
17,400.00	9,961.00	19,625.63	12,136.00	127.53	130.80	170.74	7,361.25	814.53	2,204.23	2,111.54	92.69	23.782	
17,500.00	9,961.00	19,725.63	12,136.00	129.12	132.36	170.74	7,461.25	813.54	2,204.23	2,110.46	93.76	23.508	
17,600.00	9,961.00	19,825.63	12,136.00	130.71	133.92	170.74	7,561.24	812.55	2,204.23	2,109.38	94.84	23.240	
17,700.00	9,961.00	19,925.63	12,136.00	132.30	135.48	170.74	7,661.24	811.56	2,204.23	2,108.30	95.93	22.978	
17,800.00	9,961.00	20,025.63	12,136.00	133.89	137.04	170.74	7,761.23	810.57	2,204.23	2,107.22	97.01	22.722	
17,900.00	9,961.00	20,125.63	12,136.00	135.48	138.61	170.74	7,861.23	809.57	2,204.23	2,106.14	98.09	22.471	
18,000.00	9,961.00	20,225.63	12,136.00	137.08	140.17	170.74	7,961.22	808.58	2,204.23	2,105.05	99.18	22.225	
18,100.00	9,961.00	20,325.63	12,136.00	138.68	141.74	170.74	8,061.22	807.59	2,204.23	2,103.97	100.27	21.984	
18,200.00	9,961.00	20,425.63	12,136.00	140.27	143.31	170.74	8,161.21	806.60	2,204.23	2,102.88	101.35	21.748	
18,300.00	9,961.00	20,525.63	12,136.00	141.87	144.89	170.74	8,261.21	805.61	2,204.23	2,101.79	102.44	21.517	
18,400.00	9,961.00	20,625.63	12,136.00	143.47	146.46	170.74	8,361.20	804.62	2,204.24	2,100.70	103.53	21.290	
18,500.00	9,961.00	20,725.63	12,136.00	145.07	148.04	170.74	8,461.20	803.63	2,204.24	2,099.61	104.63	21.068	
18,600.00	9,961.00	20,825.63	12,136.00	146.68	149.61	170.74	8,561.19	802.64	2,204.24	2,098.52	105.72	20.850	
18,700.00	9,961.00	20,925.63	12,136.00	148.28	151.19	170.74	8,661.19	801.65	2,204.24	2,097.42	106.81	20.636	
18,800.00	9,961.00	21,025.63	12,136.00	149.88	152.77	170.74	8,761.18	800.66	2,204.24	2,096.33	107.91	20.427	
18,900.00	9,961.00	21,125.63	12,136.00	151.49	154.35	170.74	8,861.18	799.66	2,204.24	2,095.23	109.01	20.221	
19,000.00	9,961.00	21,225.63	12,136.00	153.10	155.94	170.74	8,961.17	798.67	2,204.24	2,094.14	110.10	20.020	
19,100.00	9,961.00	21,325.63	12,136.00	154.70	157.52	170.74	9,061.17	797.68	2,204.24	2,093.04	111.20	19.822	
19,200.00	9,961.00	21,425.63	12,136.00	156.31	159.11	170.74	9,161.17	796.69	2,204.24	2,091.94	112.30	19.629	
19,300.00	9,961.00	21,525.63	12,136.00	157.92	160.70	170.74	9,261.16	795.70	2,204.24	2,090.85	113.40	19.438	
19,400.00	9,961.00	21,625.63	12,136.00	159.53	162.29	170.74	9,361.16	794.71	2,204.24	2,089.75	114.50	19.251	
19,500.00	9,961.00	21,725.63	12,136.00	161.14	163.88	170.74	9,461.15	793.72	2,204.24	2,088.64	115.60	19.068	
19,600.00	9,961.00	21,825.63	12,136.00	162.76	165.47	170.74	9,561.15	792.73	2,204.24	2,087.54	116.70	18.888	
19,700.00	9,961.00	21,925.63	12,136.00	164.37	167.06	170.74	9,661.14	791.74	2,204.25	2,086.44	117.80	18.711	
19,800.00	9,961.00	22,025.63	12,136.00	165.98	168.65	170.74	9,761.14	790.74	2,204.25	2,085.34	118.91	18.537	
19,900.00	9,961.00	22,125.63	12,136.00	167.60	170.25	170.74	9,861.13	789.75	2,204.25	2,084.23	120.01	18.367	
20,000.00	9,961.00	22,225.63	12,136.00	169.21	171.85	170.74	9,961.13	788.76	2,204.25	2,083.13	121.12	18.199	
20,100.00	9,961.00	22,325.63	12,136.00	170.83	173.44	170.74	10,061.12	787.77	2,204.25	2,082.02	122.22	18.035	
20,101.52	9,961.00	22,327.15	12,136.00	170.85	173.47	170.74	10,062.65	787.76	2,204.25	2,082.01	122.24	18.032	
20,118.50	9,961.00	22,343.71	12,136.00	171.13	173.75	170.74	10,079.20	787.59	2,204.25	2,081.82	122.43	18.005	
20,118.82	9,961.00	22,343.71	12,136.00	171.14	173.75	170.74	10,079.20	787.59	2,204.25	2,081.82	122.43	18.005	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - 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
1,843.00	1,843.00	1,886.80	1,886.80	6.37	6.53	99.98	-579.63	3,293.52	3,344.13	3,335.01	9.13	366.466	
1,900.00	1,900.00	1,943.80	1,943.80	6.58	6.73	99.98	-579.63	3,293.52	3,344.13	3,334.72	9.41	355.218	
2,000.00	2,000.00	2,043.80	2,043.80	6.94	7.09	99.98	-579.63	3,293.52	3,344.13	3,334.21	9.92	337.069	
2,100.00	2,099.99	2,143.79	2,143.79	7.28	7.45	-18.45	-579.63	3,293.52	3,342.89	3,332.47	10.42	320.854	
2,200.00	2,199.91	2,243.71	2,243.71	7.62	7.81	-18.49	-579.63	3,293.52	3,339.17	3,328.26	10.91	306.119	
2,300.00	2,299.69	2,343.49	2,343.49	7.95	8.17	-18.55	-579.63	3,293.52	3,332.97	3,321.57	11.40	292.404	
2,400.00	2,399.27	2,443.07	2,443.07	8.30	8.52	-18.64	-579.63	3,293.52	3,324.29	3,312.40	11.89	279.595	
2,476.18	2,474.95	2,518.75	2,518.75	8.56	8.80	-18.73	-579.63	3,293.52	3,316.03	3,303.76	12.26	270.380	
2,500.00	2,498.58	2,542.38	2,542.38	8.65	8.88	-18.75	-579.63	3,293.52	3,313.22	3,300.84	12.38	267.590	
2,600.00	2,597.81	2,641.61	2,641.61	9.00	9.24	-18.82	-579.63	3,293.52	3,301.44	3,288.56	12.87	256.450	
2,700.00	2,697.03	2,740.83	2,740.83	9.36	9.59	-18.89	-579.63	3,293.52	3,289.66	3,276.29	13.37	246.097	
2,800.00	2,796.25	2,840.05	2,840.05	9.72	9.95	-18.96	-579.63	3,293.52	3,277.89	3,264.03	13.86	236.455	
2,900.00	2,895.48	2,939.28	2,939.28	10.09	10.30	-19.03	-579.63	3,293.52	3,266.12	3,251.76	14.36	227.456	
3,000.00	2,994.70	3,038.50	3,038.50	10.46	10.66	-19.10	-579.63	3,293.52	3,254.36	3,239.50	14.86	219.040	
3,100.00	3,093.93	3,137.73	3,137.73	10.83	11.01	-19.17	-579.63	3,293.52	3,242.60	3,227.25	15.36	211.154	
3,200.00	3,193.15	3,236.95	3,236.95	11.21	11.37	-19.24	-579.63	3,293.52	3,230.85	3,215.00	15.86	203.752	
3,300.00	3,292.37	3,336.17	3,336.17	11.59	11.73	-19.32	-579.63	3,293.52	3,219.11	3,202.75	16.36	196.790	
3,400.00	3,391.60	3,435.40	3,435.40	11.97	12.08	-19.39	-579.63	3,293.52	3,207.36	3,190.50	16.86	190.233	
3,500.00	3,490.82	3,534.62	3,534.62	12.35	12.44	-19.46	-579.63	3,293.52	3,195.63	3,178.26	17.36	184.047	
3,600.00	3,590.05	3,633.85	3,633.85	12.73	12.79	-19.54	-579.63	3,293.52	3,183.90	3,166.03	17.87	178.202	
3,700.00	3,689.27	3,733.07	3,733.07	13.12	13.15	-19.61	-579.63	3,293.52	3,172.17	3,153.80	18.37	172.670	
3,800.00	3,788.49	3,832.29	3,832.29	13.51	13.50	-19.69	-579.63	3,293.52	3,160.45	3,141.57	18.88	167.429	
3,900.00	3,887.72	3,931.52	3,931.52	13.89	13.86	-19.76	-579.63	3,293.52	3,148.74	3,129.35	19.38	162.457	
4,000.00	3,986.94	4,030.74	4,030.74	14.28	14.22	-19.84	-579.63	3,293.52	3,137.03	3,117.14	19.89	157.732	
4,100.00	4,086.17	4,129.97	4,129.97	14.68	14.57	-19.92	-579.63	3,293.52	3,125.32	3,104.93	20.40	153.239	
4,200.00	4,185.39	4,229.19	4,229.19	15.07	14.93	-20.00	-579.63	3,293.52	3,113.63	3,092.72	20.90	148.960	
4,300.00	4,284.61	4,328.41	4,328.41	15.46	15.28	-20.08	-579.63	3,293.52	3,101.93	3,080.52	21.41	144.882	
4,400.00	4,383.84	4,427.64	4,427.64	15.86	15.64	-20.15	-579.63	3,293.52	3,090.25	3,068.33	21.92	140.989	
4,500.00	4,483.06	4,526.86	4,526.86	16.25	15.99	-20.23	-579.63	3,293.52	3,078.57	3,056.14	22.43	137.271	
4,600.00	4,582.29	4,626.09	4,626.09	16.65	16.35	-20.31	-579.63	3,293.52	3,066.89	3,043.96	22.94	133.715	
4,700.00	4,681.51	4,725.31	4,725.31	17.04	16.71	-20.40	-579.63	3,293.52	3,055.22	3,031.78	23.45	130.312	
4,800.00	4,780.73	4,824.53	4,824.53	17.44	17.06	-20.48	-579.63	3,293.52	3,043.56	3,019.61	23.96	127.052	
4,900.00	4,879.96	4,923.76	4,923.76	17.84	17.42	-20.56	-579.63	3,293.52	3,031.91	3,007.44	24.47	123.927	
5,000.00	4,979.18	5,022.98	5,022.98	18.24	17.77	-20.64	-579.63	3,293.52	3,020.25	2,995.28	24.98	120.927	
5,100.00	5,078.41	5,122.21	5,122.21	18.64	18.13	-20.72	-579.63	3,293.52	3,008.61	2,983.12	25.49	118.047	
5,200.00	5,177.63	5,221.43	5,221.43	19.03	18.48	-20.81	-579.63	3,293.52	2,996.97	2,970.98	26.00	115.279	
5,300.00	5,276.85	5,320.65	5,320.65	19.43	18.84	-20.89	-579.63	3,293.52	2,985.34	2,958.83	26.51	112.616	
5,400.00	5,376.08	5,419.88	5,419.88	19.84	19.20	-20.98	-579.63	3,293.52	2,973.72	2,946.70	27.02	110.053	
5,500.00	5,475.30	5,517.23	5,517.23	20.24	19.54	-21.06	-579.67	3,293.52	2,962.11	2,934.58	27.53	107.611	
5,600.00	5,574.53	5,606.88	5,606.87	20.64	19.85	-21.11	-581.13	3,293.53	2,950.72	2,922.71	28.00	105.371	
5,700.00	5,673.75	5,700.00	5,699.91	21.04	20.15	-21.12	-584.87	3,293.57	2,939.66	2,911.18	28.48	103.231	
5,800.00	5,772.97	5,786.49	5,786.22	21.44	20.42	-21.09	-590.37	3,293.62	2,928.92	2,899.98	28.94	101.218	
5,900.00	5,872.20	5,880.85	5,880.25	21.84	20.73	-21.02	-598.31	3,293.69	2,918.47	2,889.06	29.41	99.222	
6,000.00	5,971.42	5,980.22	5,979.24	22.25	21.05	-20.94	-606.97	3,293.77	2,908.07	2,878.17	29.90	97.254	
6,100.00	6,070.65	6,079.59	6,078.23	22.65	21.38	-20.85	-615.63	3,293.85	2,897.68	2,867.29	30.39	95.344	
6,200.00	6,169.87	6,178.96	6,177.23	23.05	21.70	-20.77	-624.30	3,293.93	2,887.30	2,856.41	30.88	93.490	
6,300.00	6,269.09	6,278.34	6,276.22	23.46	22.03	-20.69	-632.96	3,294.01	2,876.92	2,845.54	31.38	91.691	
6,400.00	6,368.32	6,377.71	6,375.21	23.86	22.36	-20.60	-641.62	3,294.09	2,866.55	2,834.68	31.87	89.944	
6,500.00	6,467.54	6,477.08	6,474.20	24.26	22.69	-20.52	-650.28	3,294.18	2,856.18	2,823.82	32.37	88.247	
6,600.00	6,566.77	6,576.45	6,573.20	24.67	23.03	-20.43	-658.95	3,294.26	2,845.82	2,812.96	32.86	86.598	
6,700.00	6,665.99	6,675.82	6,672.19	25.07	23.36	-20.34	-667.61	3,294.34	2,835.47	2,802.11	33.36	84.996	
6,800.00	6,765.21	6,775.19	6,771.18	25.48	23.70	-20.26	-676.27	3,294.42	2,825.12	2,791.26	33.86	83.438	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - 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
6,900.62	6,865.05	6,875.18	6,870.79	25.89	24.04	-20.17	-684.99	3,294.50	2,814.72	2,780.35	34.36	81.914	
7,000.00	6,963.81	6,974.03	6,969.26	26.28	24.38	-20.02	-693.61	3,294.58	2,805.66	2,770.80	34.86	80.487	
7,100.00	7,063.44	7,073.64	7,068.49	26.66	24.72	-19.87	-702.29	3,294.66	2,798.99	2,763.64	35.36	79.167	
7,200.00	7,163.26	7,173.33	7,167.81	27.03	25.06	-19.72	-710.98	3,294.74	2,794.80	2,758.95	35.85	77.957	
7,300.00	7,263.21	7,273.03	7,267.13	27.38	25.41	-19.56	-719.67	3,294.82	2,793.09	2,756.75	36.34	76.854	
7,318.75	7,281.95	7,291.72	7,285.74	27.44	25.47	-19.52	-721.30	3,294.84	2,793.05	2,756.61	36.43	76.661	CC
7,376.80	7,340.00	7,349.57	7,343.37	27.64	25.67	98.99	-726.34	3,294.88	2,793.47	2,756.75	36.72	76.085	
7,400.00	7,363.20	7,372.68	7,366.39	27.71	25.75	99.03	-728.36	3,294.90	2,793.80	2,756.98	36.83	75.864	
7,500.00	7,463.20	7,472.30	7,465.63	28.03	26.10	99.20	-737.04	3,294.98	2,795.27	2,757.97	37.31	74.929	
7,600.00	7,563.20	7,580.78	7,573.76	28.36	26.48	99.38	-745.86	3,295.06	2,796.67	2,758.86	37.80	73.976	
7,700.00	7,663.20	7,695.17	7,687.98	28.68	26.87	99.51	-752.03	3,295.12	2,797.60	2,759.29	38.32	73.015	
7,800.00	7,763.20	7,809.83	7,802.60	29.00	27.26	99.56	-754.78	3,295.15	2,798.02	2,759.20	38.82	72.068	
7,900.00	7,863.20	7,914.23	7,907.00	29.33	27.63	99.56	-754.93	3,295.15	2,798.05	2,758.73	39.32	71.160	
8,000.00	7,963.20	8,014.23	8,007.00	29.65	27.98	99.56	-754.93	3,295.15	2,798.05	2,758.24	39.81	70.286	
8,100.00	8,063.20	8,114.23	8,107.00	29.98	28.34	99.56	-754.93	3,295.15	2,798.05	2,757.75	40.30	69.433	
8,200.00	8,163.20	8,214.23	8,207.00	30.31	28.69	99.56	-754.93	3,295.15	2,798.05	2,757.26	40.79	68.600	
8,300.00	8,263.20	8,314.23	8,307.00	30.64	29.04	99.56	-754.93	3,295.15	2,798.05	2,756.77	41.28	67.785	
8,400.00	8,363.20	8,414.23	8,407.00	30.97	29.40	99.56	-754.93	3,295.15	2,798.05	2,756.28	41.77	66.989	
8,500.00	8,463.20	8,514.23	8,507.00	31.29	29.75	99.56	-754.93	3,295.15	2,798.05	2,755.79	42.26	66.211	
8,600.00	8,563.20	8,614.23	8,607.00	31.62	30.11	99.56	-754.93	3,295.15	2,798.05	2,755.29	42.75	65.450	
8,700.00	8,663.20	8,714.23	8,707.00	31.96	30.46	99.56	-754.93	3,295.15	2,798.05	2,754.80	43.24	64.706	
8,800.00	8,763.20	8,814.23	8,807.00	32.29	30.81	99.56	-754.93	3,295.15	2,798.05	2,754.31	43.73	63.978	
8,900.00	8,863.20	8,914.23	8,907.00	32.62	31.17	99.56	-754.93	3,295.15	2,798.05	2,753.82	44.23	63.266	
9,000.00	8,963.20	9,014.23	9,007.00	32.95	31.52	99.56	-754.93	3,295.15	2,798.05	2,753.33	44.72	62.569	
9,100.00	9,063.20	9,114.23	9,107.00	33.28	31.88	99.56	-754.93	3,295.15	2,798.05	2,752.83	45.21	61.887	
9,200.00	9,163.20	9,214.23	9,207.00	33.62	32.23	99.56	-754.93	3,295.15	2,798.05	2,752.34	45.71	61.219	
9,300.00	9,263.20	9,314.23	9,307.00	33.95	32.59	99.56	-754.93	3,295.15	2,798.05	2,751.85	46.20	60.565	
9,400.00	9,363.20	9,414.23	9,407.00	34.29	32.94	99.56	-754.93	3,295.15	2,798.05	2,751.35	46.69	59.925	
9,424.84	9,388.04	9,439.07	9,431.84	34.37	33.03	99.56	-754.93	3,295.15	2,798.05	2,751.23	46.82	59.768	
9,450.00	9,413.19	9,464.22	9,456.99	34.45	33.12	100.14	-754.93	3,295.15	2,798.14	2,751.20	46.94	59.613	ES
9,500.00	9,462.98	9,514.02	9,506.78	34.61	33.29	100.15	-754.93	3,295.15	2,798.92	2,751.74	47.18	59.325	
9,550.00	9,512.21	9,563.24	9,556.01	34.76	33.47	100.17	-754.93	3,295.15	2,800.47	2,753.06	47.41	59.066	
9,600.00	9,560.48	9,611.52	9,604.28	34.90	33.64	100.19	-754.93	3,295.15	2,802.84	2,755.21	47.64	58.838	
9,650.00	9,607.45	9,658.48	9,651.25	35.03	33.81	100.19	-754.93	3,295.15	2,806.06	2,758.21	47.85	58.640	
9,700.00	9,652.74	9,703.78	9,696.54	35.14	33.97	100.17	-754.93	3,295.15	2,810.18	2,762.12	48.06	58.475	
9,750.00	9,696.02	9,747.06	9,739.82	35.24	34.12	100.11	-754.93	3,295.15	2,815.24	2,766.99	48.25	58.342	
9,800.00	9,736.96	9,787.99	9,780.76	35.33	34.27	99.98	-754.93	3,295.15	2,821.31	2,772.87	48.44	58.241	
9,850.00	9,775.24	9,826.28	9,819.04	35.40	34.40	99.76	-754.93	3,295.15	2,828.44	2,779.82	48.62	58.173	
9,900.00	9,810.58	9,861.61	9,854.38	35.46	34.53	99.44	-754.93	3,295.15	2,836.69	2,787.90	48.79	58.138	
9,950.00	9,842.70	9,893.73	9,886.50	35.51	34.64	99.00	-754.93	3,295.15	2,846.09	2,797.14	48.96	58.135	
10,000.00	9,871.35	9,922.39	9,915.15	35.54	34.74	98.40	-754.93	3,295.15	2,856.68	2,807.57	49.11	58.165	
10,050.00	9,896.33	9,947.37	9,940.13	35.56	34.83	97.64	-754.93	3,295.15	2,868.46	2,819.20	49.26	58.225	
10,100.00	9,917.45	9,968.48	9,961.25	35.57	34.91	96.70	-754.93	3,295.15	2,881.44	2,832.03	49.41	58.316	
10,150.00	9,934.53	9,985.56	9,978.33	35.57	34.97	95.56	-754.93	3,295.15	2,895.59	2,846.04	49.55	58.437	
10,200.00	9,947.45	9,998.48	9,991.25	35.57	35.01	94.23	-754.93	3,295.15	2,910.84	2,861.16	49.69	58.586	
10,250.00	9,956.12	10,007.15	9,999.92	35.58	35.04	92.68	-754.93	3,295.15	2,927.14	2,877.32	49.81	58.762	
10,300.00	9,960.46	10,011.49	10,004.26	35.65	35.06	90.94	-754.93	3,295.15	2,944.36	2,894.43	49.94	58.962	
10,324.84	9,961.00	10,012.03	10,004.80	35.71	35.06	90.00	-754.93	3,295.15	2,953.23	2,903.24	49.99	59.071	
10,400.00	9,961.00	10,012.03	10,004.80	35.94	35.06	90.00	-754.93	3,295.15	2,981.17	2,930.99	50.18	59.407	
10,500.00	9,961.00	10,012.03	10,004.80	36.32	35.06	90.00	-754.93	3,295.15	3,020.84	2,970.37	50.47	59.853	
10,600.00	9,961.00	10,012.03	10,004.80	36.77	35.06	90.00	-754.93	3,295.15	3,063.26	3,012.46	50.80	60.304	
10,700.00	9,961.00	10,012.03	10,004.80	37.29	35.06	90.00	-754.93	3,295.15	3,108.32	3,057.17	51.16	60.762	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - 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
10,800.00	9,961.00	12,887.41	11,517.23	37.86	46.93	118.76	825.89	3,280.17	3,143.23	3,088.82	54.41	57.770	
10,900.00	9,961.00	12,987.37	11,514.48	38.50	47.79	118.72	925.81	3,279.22	3,141.95	3,086.59	55.36	56.754	
11,000.00	9,961.00	13,087.33	11,511.72	39.19	48.69	118.68	1,025.73	3,278.27	3,140.66	3,084.29	56.38	55.709	
11,100.00	9,961.00	13,187.29	11,508.96	39.94	49.63	118.63	1,125.65	3,277.33	3,139.38	3,081.93	57.45	54.644	
11,200.00	9,961.00	13,287.26	11,506.21	40.73	50.61	118.59	1,225.57	3,276.38	3,138.11	3,079.52	58.59	53.565	
11,300.00	9,961.00	13,387.22	11,503.45	41.58	51.62	118.54	1,325.49	3,275.43	3,136.83	3,077.06	59.77	52.478	
11,400.00	9,961.00	13,487.18	11,500.70	42.47	52.66	118.50	1,425.41	3,274.48	3,135.56	3,074.54	61.01	51.391	
11,500.00	9,961.00	13,587.14	11,497.94	43.41	53.74	118.45	1,525.33	3,273.54	3,134.28	3,071.98	62.30	50.307	
11,600.00	9,961.00	13,687.10	11,495.18	44.39	54.84	118.41	1,625.25	3,272.59	3,133.01	3,069.37	63.64	49.233	
11,700.00	9,961.00	13,787.07	11,492.43	45.40	55.97	118.36	1,725.17	3,271.64	3,131.74	3,066.73	65.01	48.170	
11,800.00	9,961.00	13,887.03	11,489.67	46.45	57.13	118.32	1,825.09	3,270.70	3,130.48	3,064.04	66.43	47.122	
11,900.00	9,961.00	13,986.99	11,486.91	47.54	58.30	118.27	1,925.01	3,269.75	3,129.21	3,061.32	67.89	46.092	
12,000.00	9,961.00	14,086.95	11,484.16	48.66	59.51	118.23	2,024.93	3,268.80	3,127.95	3,058.56	69.38	45.082	
12,100.00	9,961.00	14,186.91	11,481.40	49.80	60.73	118.18	2,124.85	3,267.86	3,126.69	3,055.78	70.91	44.095	
12,200.00	9,961.00	14,286.88	11,478.65	50.98	61.97	118.14	2,224.76	3,266.91	3,125.43	3,052.96	72.47	43.130	
12,300.00	9,961.00	14,386.84	11,475.89	52.18	63.23	118.09	2,324.68	3,265.96	3,124.17	3,050.12	74.05	42.188	
12,400.00	9,961.00	14,486.80	11,473.13	53.40	64.51	118.05	2,424.60	3,265.01	3,122.91	3,047.25	75.67	41.272	
12,500.00	9,961.00	14,586.76	11,470.38	54.65	65.81	118.00	2,524.52	3,264.07	3,121.66	3,044.35	77.31	40.380	
12,600.00	9,961.00	14,686.72	11,467.62	55.91	67.12	117.96	2,624.44	3,263.12	3,120.41	3,041.44	78.97	39.513	
12,700.00	9,961.00	14,786.69	11,464.86	57.20	68.45	117.91	2,724.36	3,262.17	3,119.16	3,038.50	80.66	38.671	
12,800.00	9,961.00	14,886.65	11,462.11	58.51	69.79	117.87	2,824.28	3,261.23	3,117.91	3,035.54	82.37	37.852	
12,900.00	9,961.00	14,986.61	11,459.35	59.83	71.14	117.82	2,924.20	3,260.28	3,116.67	3,032.56	84.10	37.058	
13,000.00	9,961.00	15,086.57	11,456.60	61.16	72.50	117.78	3,024.12	3,259.33	3,115.42	3,029.57	85.85	36.288	
13,100.00	9,961.00	15,186.53	11,453.84	62.52	73.88	117.73	3,124.04	3,258.39	3,114.18	3,026.56	87.62	35.541	
13,200.00	9,961.00	15,286.50	11,451.08	63.88	75.27	117.69	3,223.96	3,257.44	3,112.94	3,023.53	89.41	34.816	
13,300.00	9,961.00	15,386.46	11,448.33	65.26	76.67	117.64	3,323.88	3,256.49	3,111.70	3,020.49	91.21	34.114	
13,400.00	9,961.00	15,486.42	11,445.57	66.66	78.08	117.60	3,423.80	3,255.54	3,110.47	3,017.43	93.03	33.434	
13,500.00	9,961.00	15,586.38	11,442.81	68.06	79.49	117.55	3,523.72	3,254.60	3,109.23	3,014.37	94.87	32.775	
13,600.00	9,961.00	15,686.34	11,440.06	69.47	80.92	117.51	3,623.64	3,253.65	3,108.00	3,011.29	96.71	32.136	
13,700.00	9,961.00	15,786.31	11,437.30	70.90	82.36	117.46	3,723.56	3,252.70	3,106.77	3,008.20	98.57	31.518	
13,800.00	9,961.00	15,886.27	11,434.55	72.33	83.80	117.41	3,823.48	3,251.76	3,105.54	3,005.10	100.45	30.918	
13,900.00	9,961.00	15,986.23	11,431.79	73.78	85.25	117.37	3,923.40	3,250.81	3,104.32	3,001.99	102.33	30.336	
14,000.00	9,961.00	16,086.19	11,429.03	75.23	86.71	117.32	4,023.32	3,249.86	3,103.09	2,998.87	104.23	29.772	
14,100.00	9,961.00	16,186.15	11,426.28	76.69	88.17	117.28	4,123.23	3,248.92	3,101.87	2,995.74	106.13	29.226	
14,200.00	9,961.00	16,286.11	11,423.52	78.16	89.64	117.23	4,223.15	3,247.97	3,100.65	2,992.60	108.05	28.696	
14,300.00	9,961.00	16,386.08	11,420.76	79.63	91.12	117.19	4,323.07	3,247.02	3,099.43	2,989.45	109.98	28.182	
14,400.00	9,961.00	16,486.04	11,418.01	81.12	92.61	117.14	4,422.99	3,246.08	3,098.21	2,986.30	111.92	27.683	
14,500.00	9,961.00	16,586.00	11,415.25	82.60	94.09	117.09	4,522.91	3,245.13	3,097.00	2,983.14	113.86	27.199	
14,600.00	9,961.00	16,685.96	11,412.50	84.10	95.59	117.05	4,622.83	3,244.18	3,095.79	2,979.97	115.82	26.729	
14,700.00	9,961.00	16,785.92	11,409.74	85.60	97.09	117.00	4,722.75	3,243.23	3,094.58	2,976.79	117.78	26.273	
14,800.00	9,961.00	16,885.89	11,406.98	87.10	98.59	116.96	4,822.67	3,242.29	3,093.37	2,973.61	119.76	25.831	
14,900.00	9,961.00	16,985.85	11,404.23	88.61	100.10	116.91	4,922.59	3,241.34	3,092.16	2,970.43	121.73	25.401	
15,000.00	9,961.00	17,085.81	11,401.47	90.13	101.62	116.86	5,022.51	3,240.39	3,090.96	2,967.24	123.72	24.984	
15,100.00	9,961.00	17,185.77	11,398.71	91.65	103.13	116.82	5,122.43	3,239.45	3,089.76	2,964.05	125.71	24.578	
15,200.00	9,961.00	17,285.73	11,395.96	93.18	104.65	116.77	5,222.35	3,238.50	3,088.56	2,960.84	127.71	24.184	
15,300.00	9,961.00	17,385.70	11,393.20	94.71	106.18	116.73	5,322.27	3,237.55	3,087.36	2,957.64	129.72	23.801	
15,400.00	9,961.00	17,485.66	11,390.45	96.24	107.71	116.68	5,422.19	3,236.61	3,086.16	2,954.43	131.73	23.428	
15,500.00	9,961.00	17,585.62	11,387.69	97.78	109.24	116.63	5,522.11	3,235.66	3,084.97	2,951.22	133.75	23.066	
15,600.00	9,961.00	17,685.58	11,384.93	99.32	110.78	116.59	5,622.03	3,234.71	3,083.77	2,948.00	135.77	22.713	
15,700.00	9,961.00	17,785.54	11,382.18	100.86	112.32	116.54	5,721.95	3,233.76	3,082.58	2,944.78	137.80	22.370	
15,800.00	9,961.00	17,885.51	11,379.42	102.41	113.86	116.50	5,821.87	3,232.82	3,081.39	2,941.56	139.83	22.036	
15,900.00	9,961.00	17,985.47	11,376.66	103.96	115.41	116.45	5,921.79	3,231.87	3,080.21	2,938.34	141.87	21.711	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - 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
16,000.00	9,961.00	18,085.43	11,373.91	105.51	116.96	116.40	6,021.70	3,230.92	3,079.02	2,935.11	143.92	21.394	
16,100.00	9,961.00	18,185.39	11,371.15	107.07	118.51	116.36	6,121.62	3,229.98	3,077.84	2,931.87	145.97	21.086	
16,200.00	9,961.00	18,285.35	11,368.40	108.63	120.06	116.31	6,221.54	3,229.03	3,076.66	2,928.64	148.02	20.785	
16,300.00	9,961.00	18,385.32	11,365.64	110.19	121.62	116.26	6,321.46	3,228.08	3,075.48	2,925.40	150.08	20.492	
16,400.00	9,961.00	18,485.28	11,362.88	111.76	123.18	116.22	6,421.38	3,227.14	3,074.31	2,922.16	152.15	20.206	
16,500.00	9,961.00	18,585.24	11,360.13	113.33	124.74	116.17	6,521.30	3,226.19	3,073.13	2,918.92	154.21	19.928	
16,600.00	9,961.00	18,685.20	11,357.37	114.90	126.30	116.12	6,621.22	3,225.24	3,071.96	2,915.67	156.29	19.656	
16,700.00	9,961.00	18,785.16	11,354.61	116.47	127.87	116.08	6,721.14	3,224.29	3,070.79	2,912.43	158.36	19.391	
16,800.00	9,961.00	18,885.13	11,351.86	118.04	129.44	116.03	6,821.06	3,223.35	3,069.62	2,909.18	160.44	19.133	
16,900.00	9,961.00	18,985.09	11,349.10	119.62	131.01	115.98	6,920.98	3,222.40	3,068.45	2,905.93	162.52	18.880	
17,000.00	9,961.00	19,085.05	11,346.35	121.20	132.58	115.94	7,020.90	3,221.45	3,067.29	2,902.68	164.61	18.634	
17,100.00	9,961.00	19,185.01	11,343.59	122.78	134.15	115.89	7,120.82	3,220.51	3,066.13	2,899.42	166.70	18.393	
17,200.00	9,961.00	19,284.97	11,340.83	124.36	135.73	115.84	7,220.74	3,219.56	3,064.97	2,896.17	168.80	18.157	
17,300.00	9,961.00	19,384.94	11,338.08	125.95	137.31	115.80	7,320.66	3,218.61	3,063.81	2,892.91	170.90	17.928	
17,400.00	9,961.00	19,484.90	11,335.32	127.53	138.89	115.75	7,420.58	3,217.67	3,062.65	2,889.66	173.00	17.703	
17,500.00	9,961.00	19,584.86	11,332.56	129.12	140.47	115.70	7,520.50	3,216.72	3,061.50	2,886.40	175.10	17.484	
17,600.00	9,961.00	19,684.82	11,329.81	130.71	142.05	115.66	7,620.42	3,215.77	3,060.35	2,883.14	177.21	17.270	
17,700.00	9,961.00	19,784.78	11,327.05	132.30	143.64	115.61	7,720.34	3,214.83	3,059.20	2,879.88	179.32	17.060	
17,800.00	9,961.00	19,884.75	11,324.30	133.89	145.22	115.56	7,820.26	3,213.88	3,058.05	2,876.62	181.43	16.855	
17,900.00	9,961.00	19,984.71	11,321.54	135.48	146.81	115.52	7,920.17	3,212.93	3,056.91	2,873.35	183.55	16.654	
18,000.00	9,961.00	20,084.67	11,318.78	137.08	148.40	115.47	8,020.09	3,211.98	3,055.76	2,870.09	185.67	16.458	
18,100.00	9,961.00	20,184.63	11,316.03	138.68	149.99	115.42	8,120.01	3,211.04	3,054.62	2,866.82	187.80	16.266	
18,200.00	9,961.00	20,284.59	11,313.27	140.27	151.58	115.38	8,219.93	3,210.09	3,053.48	2,863.56	189.92	16.078	
18,300.00	9,961.00	20,384.56	11,310.51	141.87	153.17	115.33	8,319.85	3,209.14	3,052.34	2,860.29	192.05	15.893	
18,400.00	9,961.00	20,484.52	11,307.76	143.47	154.77	115.28	8,419.77	3,208.20	3,051.21	2,857.03	194.18	15.713	
18,500.00	9,961.00	20,584.48	11,305.00	145.07	156.36	115.23	8,519.69	3,207.25	3,050.07	2,853.76	196.31	15.537	
18,600.00	9,961.00	20,684.44	11,302.24	146.68	157.96	115.19	8,619.61	3,206.30	3,048.94	2,850.49	198.45	15.364	
18,700.00	9,961.00	20,784.40	11,299.49	148.28	159.56	115.14	8,719.53	3,205.36	3,047.81	2,847.22	200.59	15.194	
18,800.00	9,961.00	20,884.37	11,296.73	149.88	161.15	115.09	8,819.45	3,204.41	3,046.69	2,843.96	202.73	15.028	
18,900.00	9,961.00	20,984.33	11,293.98	151.49	162.75	115.04	8,919.37	3,203.46	3,045.56	2,840.69	204.88	14.865	
19,000.00	9,961.00	21,084.29	11,291.22	153.10	164.35	115.00	9,019.29	3,202.51	3,044.44	2,837.42	207.02	14.706	
19,100.00	9,961.00	21,184.25	11,288.46	154.70	165.96	114.95	9,119.21	3,201.57	3,043.32	2,834.15	209.17	14.549	
19,200.00	9,961.00	21,284.21	11,285.71	156.31	167.56	114.90	9,219.13	3,200.62	3,042.20	2,830.88	211.32	14.396	
19,300.00	9,961.00	21,384.18	11,282.95	157.92	169.16	114.85	9,319.05	3,199.67	3,041.08	2,827.61	213.48	14.246	
19,400.00	9,961.00	21,484.14	11,280.19	159.53	170.77	114.81	9,418.97	3,198.73	3,039.97	2,824.34	215.63	14.098	
19,500.00	9,961.00	21,584.10	11,277.44	161.14	172.37	114.76	9,518.89	3,197.78	3,038.86	2,821.07	217.79	13.953	
19,600.00	9,961.00	21,684.06	11,274.68	162.76	173.98	114.71	9,618.81	3,196.83	3,037.74	2,817.80	219.95	13.811	
19,700.00	9,961.00	21,784.02	11,271.93	164.37	175.59	114.66	9,718.73	3,195.89	3,036.64	2,814.53	222.11	13.672	
19,800.00	9,961.00	21,883.99	11,269.17	165.98	177.19	114.62	9,818.64	3,194.94	3,035.53	2,811.26	224.27	13.535	
19,900.00	9,961.00	21,983.95	11,266.41	167.60	178.80	114.57	9,918.56	3,193.99	3,034.43	2,807.99	226.44	13.401	
20,000.00	9,961.00	22,083.91	11,263.66	169.21	180.41	114.52	10,018.48	3,193.04	3,033.32	2,804.71	228.61	13.269	
20,100.00	9,961.00	22,160.64	11,261.54	170.83	181.65	114.48	10,095.18	3,192.32	3,032.31	2,801.77	230.54	13.153	
20,110.10	9,961.00	22,160.64	11,261.54	170.99	181.65	114.48	10,095.18	3,192.32	3,032.30	2,801.64	230.65	13.147	
20,118.50	9,961.00	22,160.64	11,261.54	171.13	181.65	114.48	10,095.18	3,192.32	3,032.31	2,801.56	230.74	13.141	
20,118.82	9,961.00	22,160.64	11,261.54	171.14	181.65	114.48	10,095.18	3,192.32	3,032.31	2,801.56	230.75	13.141	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

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
1,843.00	1,843.00	1,887.20	1,887.20	6.37	6.53	100.09	-579.92	3,258.52	3,309.72	3,300.59	9.13	362.654	
1,900.00	1,900.00	1,944.20	1,944.20	6.58	6.74	100.09	-579.92	3,258.52	3,309.72	3,300.30	9.42	351.524	
2,000.00	2,000.00	2,044.20	2,044.20	6.94	7.09	100.09	-579.92	3,258.52	3,309.72	3,299.80	9.92	333.565	
2,100.00	2,099.99	2,144.19	2,144.19	7.28	7.45	-18.34	-579.92	3,258.52	3,308.48	3,298.06	10.42	317.519	
2,200.00	2,199.91	2,244.11	2,244.11	7.62	7.81	-18.38	-579.92	3,258.52	3,304.75	3,293.84	10.91	302.935	
2,300.00	2,299.69	2,343.89	2,343.89	7.95	8.17	-18.44	-579.92	3,258.52	3,298.54	3,287.14	11.40	289.358	
2,400.00	2,399.27	2,443.47	2,443.47	8.30	8.53	-18.53	-579.92	3,258.52	3,289.86	3,277.97	11.89	276.675	
2,476.18	2,474.95	2,519.15	2,519.15	8.56	8.80	-18.62	-579.92	3,258.52	3,281.59	3,269.33	12.27	267.550	
2,500.00	2,498.58	2,542.78	2,542.78	8.65	8.88	-18.64	-579.92	3,258.52	3,278.79	3,266.40	12.38	264.787	
2,600.00	2,597.81	2,642.01	2,642.01	9.00	9.24	-18.71	-579.92	3,258.52	3,267.00	3,254.12	12.87	253.754	
2,700.00	2,697.03	2,741.23	2,741.23	9.36	9.59	-18.78	-579.92	3,258.52	3,255.21	3,241.84	13.37	243.502	
2,800.00	2,796.25	2,840.45	2,840.45	9.72	9.95	-18.85	-579.92	3,258.52	3,243.43	3,229.57	13.86	233.953	
2,900.00	2,895.48	2,939.68	2,939.68	10.09	10.30	-18.92	-579.92	3,258.52	3,231.66	3,217.30	14.36	225.041	
3,000.00	2,994.70	3,038.90	3,038.90	10.46	10.66	-18.99	-579.92	3,258.52	3,219.89	3,205.03	14.86	216.706	
3,100.00	3,093.93	3,138.13	3,138.13	10.83	11.02	-19.06	-579.92	3,258.52	3,208.12	3,192.77	15.36	208.897	
3,200.00	3,193.15	3,237.35	3,237.35	11.21	11.37	-19.14	-579.92	3,258.52	3,196.37	3,180.51	15.86	201.566	
3,300.00	3,292.37	3,336.57	3,336.57	11.59	11.73	-19.21	-579.92	3,258.52	3,184.61	3,168.25	16.36	194.671	
3,400.00	3,391.60	3,435.80	3,435.80	11.97	12.08	-19.28	-579.92	3,258.52	3,172.86	3,156.00	16.86	188.178	
3,500.00	3,490.82	3,545.21	3,545.21	12.35	12.47	-19.36	-580.16	3,258.41	3,161.06	3,143.68	17.38	181.844	
3,600.00	3,590.05	3,673.23	3,673.17	12.73	12.89	-19.39	-583.48	3,256.86	3,148.55	3,130.62	17.93	175.584	
3,700.00	3,689.27	3,800.93	3,800.61	13.12	13.31	-19.35	-590.66	3,253.51	3,135.13	3,116.66	18.47	169.714	
3,800.00	3,788.49	3,980.21	3,979.29	13.51	13.90	-19.25	-602.40	3,244.98	3,119.60	3,100.47	19.13	163.111	
3,900.00	3,887.72	4,176.65	4,175.04	13.89	14.58	-19.23	-609.02	3,230.07	3,100.31	3,080.50	19.81	156.477	
4,000.00	3,986.94	4,274.73	4,272.74	14.28	14.92	-19.23	-611.44	3,221.87	3,080.80	3,060.50	20.30	151.745	
4,100.00	4,086.17	4,372.81	4,370.45	14.68	15.26	-19.24	-613.87	3,213.67	3,061.30	3,040.50	20.79	147.226	
4,200.00	4,185.39	4,470.89	4,468.15	15.07	15.61	-19.24	-616.30	3,205.47	3,041.79	3,020.50	21.29	142.907	
4,300.00	4,284.61	4,568.96	4,565.86	15.46	15.96	-19.25	-618.72	3,197.27	3,022.28	3,000.50	21.78	138.775	
4,400.00	4,383.84	4,667.04	4,663.56	15.86	16.30	-19.26	-621.15	3,189.07	3,002.77	2,980.50	22.27	134.820	
4,500.00	4,483.06	4,765.12	4,761.27	16.25	16.65	-19.26	-623.58	3,180.87	2,983.26	2,960.50	22.77	131.031	
4,600.00	4,582.29	4,863.20	4,858.97	16.65	17.00	-19.27	-626.00	3,172.67	2,963.76	2,940.49	23.26	127.397	
4,700.00	4,681.51	4,961.28	4,956.68	17.04	17.35	-19.27	-628.43	3,164.47	2,944.25	2,920.49	23.76	123.911	
4,800.00	4,780.73	5,059.36	5,054.38	17.44	17.71	-19.28	-630.86	3,156.27	2,924.74	2,900.48	24.26	120.563	
4,900.00	4,879.96	5,157.43	5,152.09	17.84	18.06	-19.28	-633.28	3,148.07	2,905.23	2,880.47	24.76	117.346	
5,000.00	4,979.18	5,255.51	5,249.79	18.24	18.42	-19.29	-635.71	3,139.88	2,885.72	2,860.47	25.26	114.253	
5,100.00	5,078.41	5,353.59	5,347.50	18.64	18.77	-19.30	-638.14	3,131.68	2,866.22	2,840.46	25.76	111.276	
5,200.00	5,177.63	5,451.67	5,445.20	19.03	19.13	-19.30	-640.56	3,123.48	2,846.71	2,820.45	26.26	108.410	
5,300.00	5,276.85	5,549.75	5,542.91	19.43	19.49	-19.31	-642.99	3,115.28	2,827.20	2,800.44	26.76	105.649	
5,400.00	5,376.08	5,647.83	5,640.61	19.84	19.84	-19.32	-645.42	3,107.08	2,807.69	2,780.43	27.26	102.987	
5,500.00	5,475.30	5,745.90	5,738.32	20.24	20.20	-19.32	-647.84	3,098.88	2,788.19	2,760.42	27.77	100.420	
5,600.00	5,574.53	5,843.98	5,836.02	20.64	20.56	-19.33	-650.27	3,090.68	2,768.68	2,740.41	28.27	97.942	
5,700.00	5,673.75	5,942.06	5,933.73	21.04	20.92	-19.34	-652.69	3,082.48	2,749.17	2,720.40	28.77	95.548	
5,800.00	5,772.97	6,040.14	6,031.43	21.44	21.28	-19.34	-655.12	3,074.28	2,729.66	2,700.39	29.28	93.236	
5,900.00	5,872.20	6,138.22	6,129.14	21.84	21.64	-19.35	-657.55	3,066.08	2,710.16	2,680.37	29.78	91.000	
6,000.00	5,971.42	6,236.30	6,226.84	22.25	22.01	-19.36	-659.97	3,057.88	2,690.65	2,660.36	30.29	88.838	
6,100.00	6,070.65	6,334.37	6,324.55	22.65	22.37	-19.36	-662.40	3,049.69	2,671.14	2,640.35	30.79	86.745	
6,200.00	6,169.87	6,432.45	6,422.25	23.05	22.73	-19.37	-664.83	3,041.49	2,651.63	2,620.34	31.30	84.719	
6,300.00	6,269.09	6,530.53	6,519.96	23.46	23.09	-19.38	-667.25	3,033.29	2,632.13	2,600.32	31.81	82.756	
6,400.00	6,368.32	6,628.61	6,617.66	23.86	23.46	-19.39	-669.68	3,025.09	2,612.62	2,580.31	32.31	80.854	
6,500.00	6,467.54	6,726.69	6,715.37	24.26	23.82	-19.39	-672.11	3,016.89	2,593.11	2,560.29	32.82	79.010	
6,600.00	6,566.77	6,824.77	6,813.07	24.67	24.19	-19.40	-674.53	3,008.69	2,573.61	2,540.28	33.33	77.221	
6,700.00	6,665.99	6,922.84	6,910.77	25.07	24.55	-19.41	-676.96	3,000.49	2,554.10	2,520.26	33.84	75.485	
6,800.00	6,765.21	7,020.92	7,008.48	25.48	24.92	-19.42	-679.39	2,992.29	2,534.59	2,500.25	34.34	73.800	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

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
6,900.62	6,865.05	7,119.61	7,106.79	25.89	25.29	-19.42	-681.83	2,984.04	2,514.96	2,480.11	34.86	72.153	
7,000.00	6,963.81	7,217.31	7,204.12	26.28	25.65	-19.33	-684.25	2,975.87	2,496.78	2,461.41	35.36	70.608	
7,100.00	7,063.44	7,316.03	7,302.47	26.66	26.02	-19.23	-686.69	2,967.62	2,480.90	2,445.03	35.87	69.168	
7,200.00	7,163.26	7,415.11	7,401.16	27.03	26.39	-19.12	-689.14	2,959.34	2,467.47	2,431.10	36.37	67.839	
7,300.00	7,263.21	7,514.46	7,500.14	27.38	26.76	-19.00	-691.60	2,951.03	2,456.50	2,419.62	36.88	66.616	
7,376.80	7,340.00	7,590.92	7,576.30	27.64	27.05	99.51	-693.49	2,944.64	2,449.75	2,412.49	37.26	65.753	
7,400.00	7,363.20	7,614.03	7,599.33	27.71	27.14	99.53	-694.06	2,942.71	2,447.93	2,410.56	37.37	65.504	
7,500.00	7,463.20	7,713.65	7,698.57	28.03	27.51	99.62	-696.53	2,934.38	2,440.09	2,402.23	37.86	64.447	
7,600.00	7,563.20	7,813.27	7,797.81	28.36	27.88	99.71	-698.99	2,926.05	2,432.26	2,393.91	38.35	63.416	
7,700.00	7,663.20	7,912.89	7,897.05	28.68	28.26	99.80	-701.46	2,917.73	2,424.43	2,385.59	38.85	62.411	
7,800.00	7,763.20	8,012.51	7,996.29	29.00	28.63	99.89	-703.92	2,909.40	2,416.62	2,377.28	39.34	61.429	
7,900.00	7,863.20	8,112.13	8,095.53	29.33	29.01	99.98	-706.39	2,901.07	2,408.80	2,368.97	39.83	60.472	
8,000.00	7,963.20	8,211.75	8,194.77	29.65	29.38	100.08	-708.85	2,892.74	2,401.00	2,360.67	40.33	59.537	
8,100.00	8,063.20	8,311.36	8,294.01	29.98	29.76	100.17	-711.31	2,884.41	2,393.19	2,352.37	40.82	58.624	
8,200.00	8,163.20	8,410.98	8,393.25	30.31	30.13	100.26	-713.78	2,876.09	2,385.40	2,344.08	41.32	57.733	
8,300.00	8,263.20	8,510.60	8,492.49	30.64	30.51	100.36	-716.24	2,867.76	2,377.61	2,335.80	41.81	56.862	
8,400.00	8,363.20	8,610.22	8,591.73	30.97	30.88	100.45	-718.71	2,859.43	2,369.83	2,327.52	42.31	56.011	
8,500.00	8,463.20	8,709.84	8,690.97	31.29	31.26	100.55	-721.17	2,851.10	2,362.06	2,319.25	42.81	55.179	
8,600.00	8,563.20	8,809.46	8,790.21	31.62	31.63	100.65	-723.64	2,842.78	2,354.29	2,310.98	43.30	54.366	
8,700.00	8,663.20	8,909.08	8,889.45	31.96	32.01	100.74	-726.10	2,834.45	2,346.53	2,302.72	43.80	53.571	
8,800.00	8,763.20	9,008.70	8,988.69	32.29	32.39	100.84	-728.57	2,826.12	2,338.77	2,294.47	44.30	52.793	
8,900.00	8,863.20	9,108.32	9,087.93	32.62	32.76	100.94	-731.03	2,817.79	2,331.02	2,286.22	44.80	52.033	
9,000.00	8,963.20	9,207.94	9,187.17	32.95	33.14	101.04	-733.50	2,809.46	2,323.28	2,277.98	45.30	51.289	
9,100.00	9,063.20	9,307.56	9,286.41	33.28	33.52	101.14	-735.96	2,801.14	2,315.55	2,269.75	45.80	50.561	
9,200.00	9,163.20	9,407.18	9,385.65	33.62	33.90	101.24	-738.43	2,792.81	2,307.82	2,261.52	46.30	49.848	
9,300.00	9,263.20	9,506.80	9,484.89	33.95	34.27	101.34	-740.89	2,784.48	2,300.10	2,253.30	46.80	49.150	
9,400.00	9,363.20	9,606.41	9,584.13	34.29	34.65	101.44	-743.36	2,776.15	2,292.39	2,245.09	47.30	48.467	
9,424.84	9,388.04	9,631.16	9,608.78	34.37	34.74	101.47	-743.97	2,774.08	2,290.47	2,243.05	47.42	48.299	
9,450.00	9,413.19	9,656.20	9,633.73	34.45	34.84	102.25	-744.59	2,771.99	2,288.65	2,241.10	47.55	48.134	
9,500.00	9,462.98	9,705.70	9,683.04	34.61	35.03	102.70	-745.81	2,767.85	2,285.73	2,237.94	47.79	47.826	
9,550.00	9,512.21	9,754.53	9,731.68	34.76	35.21	103.14	-747.02	2,763.77	2,283.81	2,235.78	48.03	47.548	
9,600.00	9,560.48	9,802.31	9,779.28	34.90	35.39	103.58	-748.20	2,759.78	2,282.94	2,234.68	48.26	47.302	
9,613.19	9,573.01	9,814.69	9,791.61	34.93	35.44	103.69	-748.51	2,758.74	2,282.90	2,234.58	48.32	47.243	CC, ES
9,650.00	9,607.45	9,848.69	9,825.48	35.03	35.57	103.98	-749.35	2,755.90	2,283.23	2,234.74	48.49	47.089	
9,700.00	9,652.74	9,893.31	9,869.93	35.14	35.74	104.34	-750.45	2,752.17	2,284.75	2,236.05	48.70	46.912	
9,750.00	9,696.02	9,935.82	9,912.28	35.24	35.90	104.62	-751.51	2,748.61	2,287.61	2,238.70	48.91	46.771	
9,800.00	9,736.96	9,975.92	9,952.23	35.33	36.05	104.80	-752.50	2,745.26	2,291.91	2,242.80	49.11	46.668	
9,850.00	9,775.24	10,013.29	9,989.45	35.40	36.19	104.85	-753.42	2,742.14	2,297.74	2,248.44	49.30	46.604	
9,900.00	9,810.58	10,047.64	10,023.67	35.46	36.32	104.74	-754.27	2,739.27	2,305.19	2,255.70	49.49	46.580	
9,950.00	9,842.70	10,078.72	10,054.64	35.51	36.44	104.45	-755.04	2,736.67	2,314.32	2,264.65	49.67	46.595	
10,000.00	9,871.35	10,106.29	10,082.10	35.54	36.55	103.95	-755.72	2,734.36	2,325.18	2,275.34	49.84	46.651	
10,050.00	9,896.33	10,121.24	10,096.99	35.56	36.60	103.01	-756.09	2,733.11	2,337.80	2,287.81	50.00	46.759	
10,100.00	9,917.45	10,140.57	10,116.25	35.57	36.68	101.98	-756.56	2,731.54	2,352.20	2,302.04	50.16	46.896	
10,150.00	9,934.53	10,151.29	10,126.94	35.57	36.72	100.57	-756.80	2,730.71	2,368.33	2,318.03	50.30	47.080	
10,200.00	9,947.45	10,159.25	10,134.88	35.57	36.75	98.89	-756.98	2,730.12	2,386.10	2,335.65	50.45	47.298	
10,250.00	9,956.12	10,164.38	10,139.99	35.58	36.77	96.96	-757.09	2,729.74	2,405.37	2,354.78	50.59	47.550	
10,300.00	9,960.46	10,166.61	10,142.21	35.65	36.77	94.76	-757.14	2,729.58	2,425.98	2,375.26	50.72	47.832	
10,324.84	9,961.00	10,166.63	10,142.23	35.71	36.77	93.58	-757.14	2,729.58	2,436.67	2,385.89	50.78	47.983	
10,400.00	9,961.00	10,165.57	10,141.18	35.94	36.77	93.55	-757.12	2,729.65	2,470.35	2,419.37	50.98	48.455	
10,500.00	9,961.00	10,164.15	10,139.76	36.32	36.76	93.52	-757.09	2,729.76	2,517.95	2,466.67	51.28	49.103	
10,600.00	9,961.00	10,162.72	10,138.34	36.77	36.76	93.48	-757.06	2,729.86	2,568.55	2,516.95	51.60	49.776	
10,700.00	9,961.00	10,161.28	10,136.90	37.29	36.75	93.44	-757.02	2,729.97	2,621.99	2,570.05	51.95	50.474	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

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
10,800.00	9,961.00	10,159.82	10,135.44	37.86	36.75	93.40	-756.99	2,730.07	2,678.10	2,625.80	52.31	51.199	
10,900.00	9,961.00	10,158.35	10,133.97	38.50	36.74	93.37	-756.96	2,730.18	2,736.72	2,684.04	52.68	51.951	
11,000.00	9,961.00	10,156.86	10,132.49	39.19	36.74	93.33	-756.93	2,730.29	2,797.68	2,744.62	53.05	52.732	
11,100.00	9,961.00	13,517.73	11,809.85	39.94	51.09	129.63	1,130.60	2,701.26	2,829.97	2,775.28	54.69	51.749	
11,200.00	9,961.00	13,617.69	11,806.97	40.73	52.04	129.58	1,230.51	2,700.32	2,828.17	2,772.46	55.72	50.761	
11,300.00	9,961.00	13,717.65	11,804.10	41.58	53.04	129.54	1,330.43	2,699.37	2,826.38	2,769.59	56.79	49.768	
11,400.00	9,961.00	13,817.61	11,801.23	42.47	54.06	129.49	1,430.34	2,698.43	2,824.59	2,766.67	57.91	48.773	
11,500.00	9,961.00	13,917.56	11,798.35	43.41	55.12	129.45	1,530.25	2,697.48	2,822.79	2,763.72	59.08	47.781	
11,600.00	9,961.00	14,017.52	11,795.48	44.39	56.20	129.40	1,630.16	2,696.53	2,821.01	2,760.72	60.28	46.795	
11,700.00	9,961.00	14,117.48	11,792.60	45.40	57.31	129.35	1,730.08	2,695.59	2,819.22	2,757.69	61.53	45.818	
11,800.00	9,961.00	14,217.44	11,789.73	46.45	58.44	129.31	1,829.99	2,694.64	2,817.43	2,754.62	62.81	44.854	
11,900.00	9,961.00	14,317.40	11,786.85	47.54	59.60	129.26	1,929.90	2,693.70	2,815.65	2,751.52	64.13	43.905	
12,000.00	9,961.00	14,417.36	11,783.98	48.66	60.78	129.22	2,029.82	2,692.75	2,813.87	2,748.39	65.48	42.973	
12,100.00	9,961.00	14,517.32	11,781.10	49.80	61.99	129.17	2,129.73	2,691.80	2,812.09	2,745.23	66.86	42.061	
12,200.00	9,961.00	14,617.27	11,778.23	50.98	63.21	129.12	2,229.64	2,690.86	2,810.31	2,742.05	68.26	41.168	
12,300.00	9,961.00	14,717.23	11,775.36	52.18	64.45	129.08	2,329.55	2,689.91	2,808.53	2,738.84	69.70	40.295	
12,400.00	9,961.00	14,817.19	11,772.48	53.40	65.71	129.03	2,429.47	2,688.97	2,806.76	2,735.60	71.16	39.443	
12,500.00	9,961.00	14,917.15	11,769.61	54.65	66.99	128.99	2,529.38	2,688.02	2,804.99	2,732.34	72.64	38.613	
12,600.00	9,961.00	15,017.11	11,766.73	55.91	68.28	128.94	2,629.29	2,687.07	2,803.22	2,729.07	74.15	37.803	
12,700.00	9,961.00	15,117.07	11,763.86	57.20	69.59	128.89	2,729.21	2,686.13	2,801.45	2,725.77	75.68	37.016	
12,800.00	9,961.00	15,217.03	11,760.98	58.51	70.92	128.85	2,829.12	2,685.18	2,799.68	2,722.45	77.23	36.250	
12,900.00	9,961.00	15,316.98	11,758.11	59.83	72.25	128.80	2,929.03	2,684.24	2,797.92	2,719.11	78.80	35.505	
13,000.00	9,961.00	15,416.94	11,755.23	61.16	73.60	128.75	3,028.94	2,683.29	2,796.15	2,715.76	80.39	34.781	
13,100.00	9,961.00	15,516.90	11,752.36	62.52	74.96	128.71	3,128.86	2,682.34	2,794.39	2,712.39	82.00	34.078	
13,200.00	9,961.00	15,616.86	11,749.49	63.88	76.34	128.66	3,228.77	2,681.40	2,792.63	2,709.01	83.62	33.396	
13,300.00	9,961.00	15,716.82	11,746.61	65.26	77.72	128.61	3,328.68	2,680.45	2,790.87	2,705.62	85.26	32.734	
13,400.00	9,961.00	15,816.78	11,743.74	66.66	79.11	128.57	3,428.59	2,679.51	2,789.12	2,702.21	86.91	32.092	
13,500.00	9,961.00	15,916.74	11,740.86	68.06	80.52	128.52	3,528.51	2,678.56	2,787.36	2,698.79	88.57	31.469	
13,600.00	9,961.00	16,016.70	11,737.99	69.47	81.93	128.47	3,628.42	2,677.61	2,785.61	2,695.36	90.25	30.864	
13,700.00	9,961.00	16,116.65	11,735.11	70.90	83.35	128.43	3,728.33	2,676.67	2,783.86	2,691.92	91.94	30.278	
13,800.00	9,961.00	16,216.61	11,732.24	72.33	84.78	128.38	3,828.25	2,675.72	2,782.11	2,688.47	93.65	29.708	
13,900.00	9,961.00	16,316.57	11,729.36	73.78	86.22	128.33	3,928.16	2,674.77	2,780.37	2,685.00	95.36	29.155	
14,000.00	9,961.00	16,416.53	11,726.49	75.23	87.66	128.28	4,028.07	2,673.83	2,778.62	2,681.53	97.09	28.618	
14,100.00	9,961.00	16,516.49	11,723.61	76.69	89.12	128.24	4,127.98	2,672.88	2,776.88	2,678.05	98.83	28.098	
14,200.00	9,961.00	16,616.45	11,720.74	78.16	90.57	128.19	4,227.90	2,671.94	2,775.14	2,674.56	100.58	27.592	
14,300.00	9,961.00	16,716.41	11,717.87	79.63	92.04	128.14	4,327.81	2,670.99	2,773.40	2,671.06	102.34	27.101	
14,400.00	9,961.00	16,816.36	11,714.99	81.12	93.51	128.10	4,427.72	2,670.04	2,771.66	2,667.56	104.11	26.624	
14,500.00	9,961.00	16,916.32	11,712.12	82.60	94.99	128.05	4,527.64	2,669.10	2,769.93	2,664.05	105.88	26.161	
14,600.00	9,961.00	17,016.28	11,709.24	84.10	96.47	128.00	4,627.55	2,668.15	2,768.19	2,660.53	107.67	25.711	
14,700.00	9,961.00	17,116.24	11,706.37	85.60	97.96	127.95	4,727.46	2,667.21	2,766.46	2,657.01	109.46	25.275	
14,800.00	9,961.00	17,216.20	11,703.49	87.10	99.46	127.91	4,827.37	2,666.26	2,764.73	2,653.48	111.25	24.850	
14,900.00	9,961.00	17,316.16	11,700.62	88.61	100.96	127.86	4,927.29	2,665.31	2,763.01	2,649.94	113.06	24.438	
15,000.00	9,961.00	17,416.12	11,697.74	90.13	102.46	127.81	5,027.20	2,664.37	2,761.28	2,646.40	114.88	24.037	
15,100.00	9,961.00	17,516.07	11,694.87	91.65	103.97	127.76	5,127.11	2,663.42	2,759.56	2,642.86	116.70	23.647	
15,200.00	9,961.00	17,616.03	11,692.00	93.18	105.48	127.71	5,227.03	2,662.48	2,757.83	2,639.31	118.53	23.268	
15,300.00	9,961.00	17,715.99	11,689.12	94.71	107.00	127.67	5,326.94	2,661.53	2,756.11	2,635.75	120.36	22.899	
15,400.00	9,961.00	17,815.95	11,686.25	96.24	108.52	127.62	5,426.85	2,660.58	2,754.40	2,632.19	122.20	22.539	
15,500.00	9,961.00	17,915.91	11,683.37	97.78	110.04	127.57	5,526.76	2,659.64	2,752.68	2,628.63	124.05	22.190	
15,600.00	9,961.00	18,015.87	11,680.50	99.32	111.57	127.52	5,626.68	2,658.69	2,750.97	2,625.06	125.91	21.849	
15,700.00	9,961.00	18,115.83	11,677.62	100.86	113.10	127.47	5,726.59	2,657.75	2,749.25	2,621.49	127.77	21.518	
15,800.00	9,961.00	18,215.79	11,674.75	102.41	114.63	127.43	5,826.50	2,656.80	2,747.54	2,617.91	129.63	21.195	
15,900.00	9,961.00	18,315.74	11,671.87	103.96	116.17	127.38	5,926.42	2,655.85	2,745.84	2,614.34	131.50	20.881	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

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
16,000.00	9,961.00	18,415.70	11,669.00	105.51	117.71	127.33	6,026.33	2,654.91	2,744.13	2,610.75	133.38	20.574	
16,100.00	9,961.00	18,515.66	11,666.12	107.07	119.26	127.28	6,126.24	2,653.96	2,742.43	2,607.17	135.26	20.276	
16,200.00	9,961.00	18,615.62	11,663.25	108.63	120.80	127.23	6,226.15	2,653.02	2,740.72	2,603.58	137.14	19.985	
16,300.00	9,961.00	18,715.58	11,660.38	110.19	122.35	127.18	6,326.07	2,652.07	2,739.02	2,599.99	139.03	19.701	
16,400.00	9,961.00	18,815.54	11,657.50	111.76	123.91	127.14	6,425.98	2,651.12	2,737.32	2,596.40	140.93	19.424	
16,500.00	9,961.00	18,915.50	11,654.63	113.33	125.46	127.09	6,525.89	2,650.18	2,735.63	2,592.80	142.82	19.154	
16,600.00	9,961.00	19,015.45	11,651.75	114.90	127.02	127.04	6,625.80	2,649.23	2,733.93	2,589.21	144.73	18.890	
16,700.00	9,961.00	19,115.41	11,648.88	116.47	128.58	126.99	6,725.72	2,648.29	2,732.24	2,585.61	146.63	18.633	
16,800.00	9,961.00	19,215.37	11,646.00	118.04	130.14	126.94	6,825.63	2,647.34	2,730.55	2,582.00	148.55	18.382	
16,900.00	9,961.00	19,315.33	11,643.13	119.62	131.70	126.89	6,925.54	2,646.39	2,728.86	2,578.40	150.46	18.136	
17,000.00	9,961.00	19,415.29	11,640.25	121.20	133.27	126.84	7,025.46	2,645.45	2,727.17	2,574.79	152.38	17.897	
17,100.00	9,961.00	19,515.25	11,637.38	122.78	134.84	126.79	7,125.37	2,644.50	2,725.49	2,571.19	154.30	17.663	
17,200.00	9,961.00	19,615.21	11,634.51	124.36	136.41	126.75	7,225.28	2,643.56	2,723.81	2,567.58	156.23	17.435	
17,300.00	9,961.00	19,715.16	11,631.63	125.95	137.98	126.70	7,325.19	2,642.61	2,722.13	2,563.97	158.16	17.211	
17,400.00	9,961.00	19,815.12	11,628.76	127.53	139.55	126.65	7,425.11	2,641.66	2,720.45	2,560.35	160.09	16.993	
17,500.00	9,961.00	19,915.08	11,625.88	129.12	141.13	126.60	7,525.02	2,640.72	2,718.77	2,556.74	162.03	16.779	
17,600.00	9,961.00	20,015.04	11,623.01	130.71	142.71	126.55	7,624.93	2,639.77	2,717.10	2,553.12	163.97	16.570	
17,700.00	9,961.00	20,115.00	11,620.13	132.30	144.28	126.50	7,724.85	2,638.82	2,715.42	2,549.50	165.92	16.366	
17,800.00	9,961.00	20,214.96	11,617.26	133.89	145.87	126.45	7,824.76	2,637.88	2,713.75	2,545.88	167.87	16.166	
17,900.00	9,961.00	20,314.92	11,614.38	135.48	147.45	126.40	7,924.67	2,636.93	2,712.09	2,542.26	169.82	15.970	
18,000.00	9,961.00	20,414.88	11,611.51	137.08	149.03	126.35	8,024.58	2,635.99	2,710.42	2,538.64	171.78	15.778	
18,100.00	9,961.00	20,514.83	11,608.64	138.68	150.62	126.30	8,124.50	2,635.04	2,708.75	2,535.02	173.74	15.591	
18,200.00	9,961.00	20,614.79	11,605.76	140.27	152.20	126.25	8,224.41	2,634.09	2,707.09	2,531.39	175.70	15.408	
18,300.00	9,961.00	20,714.75	11,602.89	141.87	153.79	126.20	8,324.32	2,633.15	2,705.43	2,527.77	177.66	15.228	
18,400.00	9,961.00	20,814.71	11,600.01	143.47	155.38	126.15	8,424.24	2,632.20	2,703.77	2,524.14	179.63	15.052	
18,500.00	9,961.00	20,914.67	11,597.14	145.07	156.97	126.10	8,524.15	2,631.26	2,702.12	2,520.52	181.60	14.879	
18,600.00	9,961.00	21,014.63	11,594.26	146.68	158.56	126.05	8,624.06	2,630.31	2,700.46	2,516.89	183.57	14.710	
18,700.00	9,961.00	21,114.59	11,591.39	148.28	160.16	126.00	8,723.97	2,629.36	2,698.81	2,513.26	185.55	14.545	
18,800.00	9,961.00	21,214.54	11,588.51	149.88	161.75	125.95	8,823.89	2,628.42	2,697.16	2,509.63	187.53	14.383	
18,900.00	9,961.00	21,314.50	11,585.64	151.49	163.35	125.90	8,923.80	2,627.47	2,695.51	2,506.00	189.51	14.224	
19,000.00	9,961.00	21,414.46	11,582.76	153.10	164.94	125.85	9,023.71	2,626.53	2,693.87	2,502.37	191.49	14.068	
19,100.00	9,961.00	21,514.42	11,579.89	154.70	166.54	125.80	9,123.63	2,625.58	2,692.22	2,498.74	193.48	13.915	
19,200.00	9,961.00	21,614.38	11,577.02	156.31	168.14	125.75	9,223.54	2,624.63	2,690.58	2,495.11	195.47	13.764	
19,300.00	9,961.00	21,714.34	11,574.14	157.92	169.74	125.70	9,323.45	2,623.69	2,688.94	2,491.47	197.46	13.617	
19,400.00	9,961.00	21,814.30	11,571.27	159.53	171.34	125.65	9,423.36	2,622.74	2,687.30	2,487.84	199.46	13.473	
19,500.00	9,961.00	21,914.25	11,568.39	161.14	172.94	125.60	9,523.28	2,621.80	2,685.67	2,484.21	201.46	13.331	
19,600.00	9,961.00	22,014.21	11,565.52	162.76	174.54	125.55	9,623.19	2,620.85	2,684.03	2,480.58	203.46	13.192	
19,700.00	9,961.00	22,114.17	11,562.64	164.37	176.15	125.50	9,723.10	2,619.90	2,682.40	2,476.94	205.46	13.056	
19,800.00	9,961.00	22,214.13	11,559.77	165.98	177.75	125.45	9,823.01	2,618.96	2,680.77	2,473.31	207.46	12.922	
19,900.00	9,961.00	22,314.09	11,556.89	167.60	179.35	125.40	9,922.93	2,618.01	2,679.14	2,469.67	209.47	12.790	
20,000.00	9,961.00	22,414.05	11,554.02	169.21	180.96	125.35	10,022.84	2,617.07	2,677.52	2,466.04	211.48	12.661	
20,100.00	9,961.00	22,482.46	11,552.05	170.83	182.06	125.31	10,091.22	2,616.42	2,676.08	2,462.94	213.14	12.556	
20,111.87	9,961.00	22,482.46	11,552.05	171.02	182.06	125.31	10,091.22	2,616.42	2,676.06	2,462.82	213.24	12.550	
20,118.50	9,961.00	22,482.46	11,552.05	171.13	182.06	125.31	10,091.22	2,616.42	2,676.06	2,462.77	213.29	12.547	
20,118.82	9,961.00	22,482.46	11,552.05	171.14	182.06	125.31	10,091.22	2,616.42	2,676.06	2,462.77	213.29	12.546	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - 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
1,843.00	1,843.00	1,886.60	1,886.60	6.37	6.53	99.87	-579.33	3,328.51	3,378.55	3,369.42	9.12	370.258	
1,900.00	1,900.00	1,943.60	1,943.60	6.58	6.73	99.87	-579.33	3,328.51	3,378.55	3,369.13	9.41	358.893	
2,000.00	2,000.00	2,043.60	2,043.60	6.94	7.09	99.87	-579.33	3,328.51	3,378.55	3,368.63	9.92	340.555	
2,100.00	2,099.99	2,143.59	2,143.59	7.28	7.45	-18.55	-579.33	3,328.51	3,377.31	3,366.89	10.42	324.173	
2,200.00	2,199.91	2,243.51	2,243.51	7.62	7.81	-18.59	-579.33	3,328.51	3,373.59	3,362.68	10.91	309.288	
2,300.00	2,299.69	2,343.29	2,343.29	7.95	8.17	-18.66	-579.33	3,328.51	3,367.39	3,355.99	11.40	295.437	
2,400.00	2,399.27	2,442.87	2,442.87	8.30	8.52	-18.75	-579.33	3,328.51	3,358.72	3,346.83	11.89	282.502	
2,476.18	2,474.95	2,518.55	2,518.55	8.56	8.80	-18.84	-579.33	3,328.51	3,350.46	3,338.19	12.26	273.199	
2,500.00	2,498.58	2,542.18	2,542.18	8.65	8.88	-18.86	-579.33	3,328.51	3,347.65	3,335.27	12.38	270.382	
2,600.00	2,597.81	2,641.41	2,641.41	9.00	9.24	-18.92	-579.33	3,328.51	3,335.88	3,323.01	12.87	259.135	
2,700.00	2,697.03	2,740.63	2,740.63	9.36	9.59	-18.99	-579.33	3,328.51	3,324.11	3,310.74	13.37	248.683	
2,800.00	2,796.25	2,839.85	2,839.85	9.72	9.95	-19.06	-579.33	3,328.51	3,312.35	3,298.48	13.86	238.949	
2,900.00	2,895.48	2,939.08	2,939.08	10.09	10.30	-19.13	-579.33	3,328.51	3,300.59	3,286.23	14.36	229.863	
3,000.00	2,994.70	3,038.30	3,038.30	10.46	10.66	-19.21	-579.33	3,328.51	3,288.83	3,273.97	14.86	221.367	
3,100.00	3,093.93	3,137.53	3,137.53	10.83	11.01	-19.28	-579.33	3,328.51	3,277.08	3,261.73	15.36	213.405	
3,200.00	3,193.15	3,236.75	3,236.75	11.21	11.37	-19.35	-579.33	3,328.51	3,265.34	3,249.48	15.86	205.932	
3,300.00	3,292.37	3,335.97	3,335.97	11.59	11.73	-19.42	-579.33	3,328.51	3,253.60	3,237.24	16.36	198.904	
3,400.00	3,391.60	3,435.20	3,435.20	11.97	12.08	-19.49	-579.33	3,328.51	3,241.86	3,225.00	16.86	192.283	
3,500.00	3,490.82	3,534.42	3,534.42	12.35	12.44	-19.57	-579.33	3,328.51	3,230.14	3,212.77	17.36	186.038	
3,600.00	3,590.05	3,633.65	3,633.65	12.73	12.79	-19.64	-579.33	3,328.51	3,218.41	3,200.55	17.87	180.136	
3,700.00	3,689.27	3,732.87	3,732.87	13.12	13.15	-19.72	-579.33	3,328.51	3,206.69	3,188.32	18.37	174.552	
3,800.00	3,788.49	3,832.09	3,832.09	13.51	13.50	-19.79	-579.33	3,328.51	3,194.98	3,176.11	18.88	169.261	
3,900.00	3,887.72	3,931.32	3,931.32	13.89	13.86	-19.87	-579.33	3,328.51	3,183.27	3,163.89	19.38	164.240	
4,000.00	3,986.94	4,030.54	4,030.54	14.28	14.22	-19.94	-579.33	3,328.51	3,171.57	3,151.68	19.89	159.471	
4,100.00	4,086.17	4,129.77	4,129.77	14.68	14.57	-20.02	-579.33	3,328.51	3,159.88	3,139.48	20.39	154.934	
4,200.00	4,185.39	4,228.99	4,228.99	15.07	14.93	-20.10	-579.33	3,328.51	3,148.19	3,127.28	20.90	150.615	
4,300.00	4,284.61	4,328.21	4,328.21	15.46	15.28	-20.18	-579.33	3,328.51	3,136.50	3,115.09	21.41	146.497	
4,400.00	4,383.84	4,427.44	4,427.44	15.86	15.64	-20.25	-579.33	3,328.51	3,124.82	3,102.90	21.92	142.567	
4,500.00	4,483.06	4,526.66	4,526.66	16.25	15.99	-20.33	-579.33	3,328.51	3,113.15	3,090.72	22.43	138.813	
4,600.00	4,582.29	4,625.89	4,625.89	16.65	16.35	-20.41	-579.33	3,328.51	3,101.48	3,078.55	22.94	135.223	
4,700.00	4,681.51	4,725.11	4,725.11	17.04	16.71	-20.49	-579.33	3,328.51	3,089.82	3,066.38	23.45	131.787	
4,800.00	4,780.73	4,824.33	4,824.33	17.44	17.06	-20.57	-579.33	3,328.51	3,078.17	3,054.21	23.96	128.496	
4,900.00	4,879.96	4,923.56	4,923.56	17.84	17.42	-20.66	-579.33	3,328.51	3,066.52	3,042.05	24.47	125.341	
5,000.00	4,979.18	5,022.78	5,022.78	18.24	17.77	-20.74	-579.33	3,328.51	3,054.87	3,029.90	24.98	122.313	
5,100.00	5,078.41	5,122.01	5,122.01	18.64	18.13	-20.82	-579.33	3,328.51	3,043.24	3,017.75	25.49	119.405	
5,200.00	5,177.63	5,221.23	5,221.23	19.03	18.48	-20.90	-579.33	3,328.51	3,031.61	3,005.61	26.00	116.610	
5,300.00	5,276.85	5,320.45	5,320.45	19.43	18.84	-20.99	-579.33	3,328.51	3,019.98	2,993.47	26.51	113.922	
5,400.00	5,376.08	5,419.68	5,419.68	19.84	19.19	-21.07	-579.33	3,328.51	3,008.37	2,981.35	27.02	111.335	
5,500.00	5,475.30	5,500.00	5,500.00	20.24	19.48	-21.14	-579.33	3,328.51	2,996.81	2,969.33	27.49	109.018	
5,600.00	5,574.53	5,569.28	5,569.28	20.64	19.72	-21.20	-579.67	3,329.04	2,986.12	2,958.19	27.92	106.937	
5,700.00	5,673.75	5,627.69	5,627.66	21.04	19.92	-21.24	-580.49	3,330.30	2,976.83	2,948.50	28.33	105.080	
5,800.00	5,772.97	5,700.00	5,699.91	21.44	20.16	-21.27	-582.18	3,332.90	2,968.97	2,940.21	28.76	103.230	
5,900.00	5,872.20	5,744.96	5,744.79	21.84	20.31	-21.29	-583.60	3,335.10	2,962.39	2,933.26	29.12	101.715	
6,000.00	5,971.42	5,800.00	5,799.69	22.25	20.49	-21.30	-585.73	3,338.39	2,957.24	2,927.74	29.51	100.219	
6,100.00	6,070.65	5,882.89	5,882.28	22.65	20.77	-21.32	-589.58	3,344.34	2,953.31	2,923.35	29.96	98.574	
6,200.00	6,169.87	5,982.82	5,981.83	23.05	21.11	-21.33	-594.32	3,351.66	2,949.56	2,919.10	30.46	96.840	
6,300.00	6,269.09	6,082.75	6,081.37	23.46	21.44	-21.35	-599.05	3,358.97	2,945.81	2,914.86	30.96	95.159	
6,400.00	6,368.32	6,182.67	6,180.92	23.86	21.78	-21.36	-603.79	3,366.29	2,942.06	2,910.61	31.46	93.528	
6,500.00	6,467.54	6,282.60	6,280.46	24.26	22.12	-21.37	-608.53	3,373.61	2,938.31	2,906.36	31.96	91.946	
6,600.00	6,566.77	6,382.53	6,380.01	24.67	22.46	-21.39	-613.26	3,380.93	2,934.57	2,902.11	32.46	90.410	
6,700.00	6,665.99	6,482.45	6,479.56	25.07	22.81	-21.40	-618.00	3,388.24	2,930.82	2,897.86	32.96	88.919	
6,800.00	6,765.21	6,582.38	6,579.10	25.48	23.15	-21.42	-622.74	3,395.56	2,927.07	2,893.60	33.46	87.470	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - 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
6,900.62	6,865.05	6,682.93	6,679.27	25.89	23.50	-21.43	-627.50	3,402.92	2,923.30	2,889.33	33.97	86.054	
7,000.00	6,963.81	6,782.27	6,778.23	26.28	23.85	-21.42	-632.21	3,410.20	2,920.77	2,886.30	34.47	84.734	
7,054.46	7,018.04	6,836.73	6,832.48	26.49	24.04	-21.42	-634.79	3,414.19	2,920.41	2,885.67	34.74	84.060	CC, ES
7,100.00	7,063.44	6,882.27	6,877.85	26.66	24.19	-21.41	-636.95	3,417.52	2,920.67	2,885.70	34.97	83.520	
7,200.00	7,163.26	6,982.22	6,977.42	27.03	24.54	-21.39	-641.69	3,424.84	2,922.99	2,887.53	35.47	82.418	
7,300.00	7,263.21	7,082.07	7,076.89	27.38	24.89	-21.36	-646.42	3,432.15	2,927.76	2,891.80	35.96	81.422	
7,376.80	7,340.00	7,158.64	7,153.17	27.64	25.16	97.07	-650.05	3,437.76	2,933.08	2,896.75	36.33	80.737	
7,400.00	7,363.20	7,181.75	7,176.19	27.71	25.24	97.09	-651.15	3,439.45	2,934.90	2,898.46	36.44	80.541	
7,500.00	7,463.20	7,281.37	7,275.43	28.03	25.60	97.16	-655.87	3,446.75	2,942.76	2,905.84	36.92	79.713	
7,600.00	7,563.20	7,380.99	7,374.67	28.36	25.95	97.24	-660.59	3,454.04	2,950.62	2,913.23	37.40	78.904	
7,700.00	7,663.20	7,480.61	7,473.91	28.68	26.30	97.31	-665.31	3,461.33	2,958.49	2,920.62	37.87	78.114	
7,800.00	7,763.20	7,580.23	7,573.15	29.00	26.65	97.38	-670.04	3,468.63	2,966.37	2,928.01	38.35	77.342	
7,900.00	7,863.20	7,679.85	7,672.39	29.33	27.01	97.46	-674.76	3,475.92	2,974.25	2,935.41	38.83	76.587	
8,000.00	7,963.20	7,779.47	7,771.63	29.65	27.37	97.53	-679.48	3,483.22	2,982.13	2,942.81	39.32	75.849	
8,100.00	8,063.20	7,879.09	7,870.87	29.98	27.72	97.60	-684.20	3,490.51	2,990.02	2,950.22	39.80	75.128	
8,200.00	8,163.20	7,978.70	7,970.10	30.31	28.08	97.67	-688.93	3,497.81	2,997.91	2,957.63	40.28	74.423	
8,300.00	8,263.20	8,078.32	8,069.34	30.64	28.44	97.74	-693.65	3,505.10	3,005.81	2,965.04	40.77	73.734	
8,400.00	8,363.20	8,177.94	8,168.58	30.97	28.79	97.81	-698.37	3,512.40	3,013.71	2,972.46	41.25	73.059	
8,500.00	8,463.20	8,277.56	8,267.82	31.29	29.15	97.88	-703.09	3,519.69	3,021.62	2,979.88	41.74	72.400	
8,600.00	8,563.20	8,377.18	8,367.06	31.62	29.51	97.95	-707.81	3,526.99	3,029.53	2,987.31	42.22	71.754	
8,700.00	8,663.20	8,476.80	8,466.30	31.96	29.87	98.02	-712.54	3,534.28	3,037.45	2,994.74	42.71	71.122	
8,800.00	8,763.20	8,576.42	8,565.54	32.29	30.24	98.09	-717.26	3,541.58	3,045.37	3,002.17	43.19	70.503	
8,900.00	8,863.20	8,676.04	8,664.78	32.62	30.60	98.16	-721.98	3,548.87	3,053.29	3,009.61	43.68	69.898	
9,000.00	8,963.20	8,775.66	8,764.02	32.95	30.96	98.23	-726.70	3,556.17	3,061.22	3,017.05	44.17	69.305	
9,100.00	9,063.20	8,875.27	8,863.26	33.28	31.32	98.30	-731.42	3,563.46	3,069.15	3,024.49	44.66	68.724	
9,200.00	9,163.20	8,974.89	8,962.49	33.62	31.68	98.36	-736.15	3,570.76	3,077.09	3,031.94	45.15	68.155	
9,300.00	9,263.20	9,074.51	9,061.73	33.95	32.05	98.43	-740.87	3,578.05	3,085.03	3,039.39	45.64	67.598	
9,400.00	9,363.20	9,267.46	9,254.10	34.29	32.75	98.54	-748.88	3,590.43	3,092.48	3,046.10	46.38	66.683	
9,424.84	9,388.04	9,362.11	9,348.67	34.37	33.08	98.57	-751.03	3,593.75	3,093.42	3,046.76	46.66	66.293	
9,450.00	9,413.19	9,458.08	9,444.62	34.45	33.42	99.15	-751.91	3,595.11	3,093.90	3,046.96	46.94	65.917	
9,500.00	9,462.98	9,520.04	9,506.58	34.61	33.64	99.17	-751.93	3,595.14	3,094.60	3,047.41	47.20	65.564	
9,550.00	9,512.21	9,569.26	9,555.81	34.76	33.81	99.19	-751.93	3,595.14	3,096.01	3,048.58	47.43	65.275	
9,600.00	9,560.48	9,617.54	9,604.08	34.90	33.98	99.20	-751.93	3,595.14	3,098.16	3,050.50	47.65	65.015	
9,650.00	9,607.45	9,664.50	9,651.05	35.03	34.14	99.21	-751.93	3,595.14	3,101.07	3,053.20	47.87	64.787	
9,700.00	9,652.74	9,709.80	9,696.34	35.14	34.30	99.19	-751.93	3,595.14	3,104.79	3,056.72	48.07	64.590	
9,750.00	9,696.02	9,753.08	9,739.62	35.24	34.45	99.13	-751.93	3,595.14	3,109.38	3,061.11	48.26	64.426	
9,800.00	9,736.96	9,794.02	9,780.56	35.33	34.59	99.01	-751.93	3,595.14	3,114.87	3,066.43	48.45	64.294	
9,850.00	9,775.24	9,832.30	9,818.84	35.40	34.73	98.82	-751.93	3,595.14	3,121.34	3,072.71	48.62	64.194	
9,900.00	9,810.58	9,867.63	9,854.18	35.46	34.85	98.53	-751.93	3,595.14	3,128.81	3,080.02	48.79	64.126	
9,950.00	9,842.70	9,899.75	9,886.30	35.51	34.96	98.13	-751.93	3,595.14	3,137.34	3,088.38	48.95	64.090	
10,000.00	9,871.35	9,928.41	9,914.95	35.54	35.06	97.59	-751.93	3,595.14	3,146.94	3,097.84	49.11	64.085	
10,050.00	9,896.33	9,953.39	9,939.93	35.56	35.15	96.90	-751.93	3,595.14	3,157.65	3,108.39	49.25	64.110	
10,100.00	9,917.45	9,974.50	9,961.05	35.57	35.23	96.05	-751.93	3,595.14	3,169.44	3,120.05	49.40	64.165	
10,150.00	9,934.53	9,991.58	9,978.13	35.57	35.29	95.02	-751.93	3,595.14	3,182.30	3,132.77	49.53	64.247	
10,200.00	9,947.45	10,004.51	9,991.05	35.57	35.33	93.81	-751.93	3,595.14	3,196.19	3,146.53	49.66	64.357	
10,250.00	9,956.12	10,013.17	9,999.72	35.58	35.36	92.42	-751.93	3,595.14	3,211.04	3,161.25	49.79	64.492	
10,300.00	9,960.46	10,017.51	10,004.06	35.65	35.38	90.85	-751.93	3,595.14	3,226.75	3,176.84	49.91	64.651	
10,324.84	9,961.00	10,018.05	10,004.60	35.71	35.38	90.00	-751.93	3,595.14	3,234.84	3,184.87	49.97	64.739	
10,400.00	9,961.00	10,018.05	10,004.60	35.94	35.38	90.00	-751.93	3,595.14	3,260.37	3,210.21	50.15	65.008	
10,500.00	9,961.00	10,018.05	10,004.60	36.32	35.38	90.00	-751.93	3,595.14	3,296.68	3,246.24	50.44	65.356	
10,600.00	9,961.00	10,018.05	10,004.60	36.77	35.38	90.00	-751.93	3,595.14	3,335.59	3,284.82	50.77	65.697	
10,700.00	9,961.00	10,018.05	10,004.60	37.29	35.38	90.00	-751.93	3,595.14	3,377.02	3,325.88	51.14	66.036	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - 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
10,800.00	9,961.00	10,018.05	10,004.60	37.86	35.38	90.00	-751.93	3,595.14	3,420.87	3,369.34	51.54	66.377	
10,900.00	9,961.00	10,018.05	10,004.60	38.50	35.38	90.00	-751.93	3,595.14	3,467.06	3,415.10	51.96	66.725	
11,000.00	9,961.00	13,234.77	11,652.18	39.19	49.11	118.34	1,030.73	3,578.24	3,471.42	3,415.01	56.41	61.541	
11,100.00	9,961.00	13,334.73	11,649.53	39.94	50.04	118.30	1,130.65	3,577.29	3,470.21	3,412.73	57.47	60.380	
11,200.00	9,961.00	13,434.70	11,646.88	40.73	51.00	118.26	1,230.58	3,576.34	3,468.99	3,410.40	58.59	59.204	
11,300.00	9,961.00	13,534.66	11,644.23	41.58	52.00	118.22	1,330.50	3,575.39	3,467.78	3,408.01	59.77	58.018	
11,400.00	9,961.00	13,634.63	11,641.57	42.47	53.04	118.18	1,430.43	3,574.45	3,466.57	3,405.57	61.00	56.829	
11,500.00	9,961.00	13,734.59	11,638.92	43.41	54.10	118.14	1,530.35	3,573.50	3,465.36	3,403.08	62.28	55.643	
11,600.00	9,961.00	13,834.56	11,636.27	44.39	55.19	118.10	1,630.28	3,572.55	3,464.15	3,400.55	63.60	54.465	
11,700.00	9,961.00	13,934.52	11,633.62	45.40	56.31	118.06	1,730.20	3,571.60	3,462.94	3,397.97	64.97	53.299	
11,800.00	9,961.00	14,034.49	11,630.97	46.45	57.46	118.02	1,830.13	3,570.66	3,461.74	3,395.36	66.38	52.149	
11,900.00	9,961.00	14,134.45	11,628.32	47.54	58.63	117.99	1,930.05	3,569.71	3,460.53	3,392.70	67.83	51.017	
12,000.00	9,961.00	14,234.41	11,625.67	48.66	59.82	117.95	2,029.98	3,568.76	3,459.33	3,390.02	69.32	49.906	
12,100.00	9,961.00	14,334.38	11,623.02	49.80	61.03	117.91	2,129.90	3,567.81	3,458.13	3,387.30	70.84	48.819	
12,200.00	9,961.00	14,434.34	11,620.37	50.98	62.27	117.87	2,229.83	3,566.87	3,456.93	3,384.55	72.39	47.756	
12,300.00	9,961.00	14,534.31	11,617.72	52.18	63.52	117.83	2,329.75	3,565.92	3,455.74	3,381.77	73.97	46.719	
12,400.00	9,961.00	14,634.27	11,615.07	53.40	64.79	117.79	2,429.68	3,564.97	3,454.54	3,378.97	75.58	45.710	
12,500.00	9,961.00	14,734.24	11,612.42	54.65	66.08	117.75	2,529.60	3,564.02	3,453.35	3,376.14	77.21	44.727	
12,600.00	9,961.00	14,834.20	11,609.76	55.91	67.38	117.71	2,629.53	3,563.08	3,452.16	3,373.29	78.87	43.770	
12,700.00	9,961.00	14,934.17	11,607.11	57.20	68.70	117.67	2,729.45	3,562.13	3,450.97	3,370.41	80.55	42.840	
12,800.00	9,961.00	15,034.13	11,604.46	58.51	70.03	117.63	2,829.38	3,561.18	3,449.78	3,367.52	82.26	41.937	
12,900.00	9,961.00	15,134.10	11,601.81	59.83	71.38	117.59	2,929.30	3,560.23	3,448.59	3,364.60	83.99	41.060	
13,000.00	9,961.00	15,234.06	11,599.16	61.16	72.73	117.55	3,029.23	3,559.29	3,447.40	3,361.67	85.73	40.210	
13,100.00	9,961.00	15,334.03	11,596.51	62.52	74.10	117.51	3,129.16	3,558.34	3,446.22	3,358.72	87.50	39.386	
13,200.00	9,961.00	15,433.99	11,593.86	63.88	75.49	117.47	3,229.08	3,557.39	3,445.04	3,355.76	89.28	38.587	
13,300.00	9,961.00	15,533.96	11,591.21	65.26	76.88	117.43	3,329.01	3,556.44	3,443.86	3,352.78	91.08	37.812	
13,400.00	9,961.00	15,633.92	11,588.56	66.66	78.28	117.40	3,428.93	3,555.50	3,442.68	3,349.79	92.89	37.061	
13,500.00	9,961.00	15,733.89	11,585.91	68.06	79.69	117.36	3,528.86	3,554.55	3,441.50	3,346.78	94.72	36.332	
13,600.00	9,961.00	15,833.85	11,583.26	69.47	81.11	117.32	3,628.78	3,553.60	3,440.33	3,343.76	96.57	35.627	
13,700.00	9,961.00	15,933.82	11,580.61	70.90	82.54	117.28	3,728.71	3,552.65	3,439.15	3,340.73	98.42	34.943	
13,800.00	9,961.00	16,033.78	11,577.96	72.33	83.98	117.24	3,828.63	3,551.71	3,437.98	3,337.69	100.29	34.279	
13,900.00	9,961.00	16,133.75	11,575.30	73.78	85.42	117.20	3,928.56	3,550.76	3,436.81	3,334.63	102.18	33.636	
14,000.00	9,961.00	16,233.71	11,572.65	75.23	86.88	117.16	4,028.48	3,549.81	3,435.64	3,331.57	104.07	33.013	
14,100.00	9,961.00	16,333.68	11,570.00	76.69	88.34	117.12	4,128.41	3,548.86	3,434.47	3,328.50	105.97	32.409	
14,200.00	9,961.00	16,433.64	11,567.35	78.16	89.80	117.08	4,228.33	3,547.92	3,433.31	3,325.42	107.89	31.823	
14,300.00	9,961.00	16,533.61	11,564.70	79.63	91.28	117.04	4,328.26	3,546.97	3,432.14	3,322.33	109.81	31.255	
14,400.00	9,961.00	16,633.57	11,562.05	81.12	92.76	117.00	4,428.18	3,546.02	3,430.98	3,319.24	111.74	30.704	
14,500.00	9,961.00	16,733.54	11,559.40	82.60	94.24	116.96	4,528.11	3,545.07	3,429.82	3,316.13	113.68	30.170	
14,600.00	9,961.00	16,833.50	11,556.75	84.10	95.73	116.92	4,628.03	3,544.13	3,428.66	3,313.02	115.64	29.651	
14,700.00	9,961.00	16,933.47	11,554.10	85.60	97.22	116.88	4,727.96	3,543.18	3,427.50	3,309.91	117.59	29.147	
14,800.00	9,961.00	17,033.43	11,551.45	87.10	98.73	116.84	4,827.88	3,542.23	3,426.35	3,306.78	119.56	28.658	
14,900.00	9,961.00	17,133.39	11,548.80	88.61	100.23	116.80	4,927.81	3,541.28	3,425.19	3,303.66	121.54	28.182	
15,000.00	9,961.00	17,233.36	11,546.15	90.13	101.74	116.76	5,027.73	3,540.34	3,424.04	3,300.52	123.52	27.721	
15,100.00	9,961.00	17,333.32	11,543.49	91.65	103.25	116.72	5,127.66	3,539.39	3,422.89	3,297.38	125.51	27.272	
15,200.00	9,961.00	17,433.29	11,540.84	93.18	104.77	116.68	5,227.58	3,538.44	3,421.74	3,294.24	127.50	26.836	
15,300.00	9,961.00	17,533.25	11,538.19	94.71	106.29	116.64	5,327.51	3,537.49	3,420.59	3,291.09	129.50	26.413	
15,400.00	9,961.00	17,633.22	11,535.54	96.24	107.82	116.60	5,427.43	3,536.55	3,419.45	3,287.93	131.51	26.001	
15,500.00	9,961.00	17,733.18	11,532.89	97.78	109.35	116.56	5,527.36	3,535.60	3,418.30	3,284.78	133.52	25.601	
15,600.00	9,961.00	17,833.15	11,530.24	99.32	110.88	116.52	5,627.28	3,534.65	3,417.16	3,281.62	135.54	25.211	
15,700.00	9,961.00	17,933.11	11,527.59	100.86	112.42	116.48	5,727.21	3,533.70	3,416.02	3,278.45	137.57	24.831	
15,800.00	9,961.00	18,033.08	11,524.94	102.41	113.96	116.44	5,827.14	3,532.76	3,414.88	3,275.28	139.60	24.462	
15,900.00	9,961.00	18,133.04	11,522.29	103.96	115.50	116.40	5,927.06	3,531.81	3,413.74	3,272.11	141.63	24.103	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - 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
16,000.00	9,961.00	18,233.01	11,519.64	105.51	117.05	116.36	6,026.99	3,530.86	3,412.61	3,268.93	143.67	23.752	
16,100.00	9,961.00	18,332.97	11,516.99	107.07	118.60	116.32	6,126.91	3,529.91	3,411.47	3,265.75	145.72	23.411	
16,200.00	9,961.00	18,432.94	11,514.34	108.63	120.15	116.28	6,226.84	3,528.97	3,410.34	3,262.57	147.77	23.079	
16,300.00	9,961.00	18,532.90	11,511.68	110.19	121.70	116.24	6,326.76	3,528.02	3,409.21	3,259.39	149.82	22.755	
16,400.00	9,961.00	18,632.87	11,509.03	111.76	123.26	116.20	6,426.69	3,527.07	3,408.08	3,256.20	151.88	22.439	
16,500.00	9,961.00	18,732.83	11,506.38	113.33	124.82	116.16	6,526.61	3,526.12	3,406.95	3,253.01	153.94	22.131	
16,600.00	9,961.00	18,832.80	11,503.73	114.90	126.38	116.12	6,626.54	3,525.18	3,405.83	3,249.82	156.01	21.831	
16,700.00	9,961.00	18,932.76	11,501.08	116.47	127.94	116.08	6,726.46	3,524.23	3,404.70	3,246.62	158.08	21.538	
16,800.00	9,961.00	19,032.73	11,498.43	118.04	129.51	116.04	6,826.39	3,523.28	3,403.58	3,243.43	160.15	21.252	
16,900.00	9,961.00	19,132.69	11,495.78	119.62	131.08	116.00	6,926.31	3,522.33	3,402.46	3,240.23	162.23	20.973	
17,000.00	9,961.00	19,232.66	11,493.13	121.20	132.65	115.95	7,026.24	3,521.39	3,401.34	3,237.03	164.31	20.700	
17,100.00	9,961.00	19,332.62	11,490.48	122.78	134.22	115.91	7,126.16	3,520.44	3,400.22	3,233.82	166.40	20.434	
17,200.00	9,961.00	19,432.59	11,487.83	124.36	135.79	115.87	7,226.09	3,519.49	3,399.11	3,230.62	168.49	20.174	
17,300.00	9,961.00	19,532.55	11,485.18	125.95	137.37	115.83	7,326.01	3,518.54	3,397.99	3,227.42	170.58	19.920	
17,400.00	9,961.00	19,632.52	11,482.53	127.53	138.94	115.79	7,425.94	3,517.60	3,396.88	3,224.21	172.67	19.672	
17,500.00	9,961.00	19,732.48	11,479.88	129.12	140.52	115.75	7,525.86	3,516.65	3,395.77	3,221.00	174.77	19.430	
17,600.00	9,961.00	19,832.45	11,477.22	130.71	142.10	115.71	7,625.79	3,515.70	3,394.66	3,217.79	176.87	19.193	
17,700.00	9,961.00	19,932.41	11,474.57	132.30	143.69	115.67	7,725.71	3,514.75	3,393.56	3,214.58	178.98	18.961	
17,800.00	9,961.00	20,032.37	11,471.92	133.89	145.27	115.63	7,825.64	3,513.81	3,392.45	3,211.37	181.08	18.734	
17,900.00	9,961.00	20,132.34	11,469.27	135.48	146.86	115.59	7,925.56	3,512.86	3,391.35	3,208.15	183.19	18.512	
18,000.00	9,961.00	20,232.30	11,466.62	137.08	148.44	115.55	8,025.49	3,511.91	3,390.25	3,204.94	185.31	18.295	
18,100.00	9,961.00	20,332.27	11,463.97	138.68	150.03	115.51	8,125.41	3,510.96	3,389.15	3,201.72	187.42	18.083	
18,200.00	9,961.00	20,432.23	11,461.32	140.27	151.62	115.47	8,225.34	3,510.02	3,388.05	3,198.51	189.54	17.875	
18,300.00	9,961.00	20,532.20	11,458.67	141.87	153.21	115.43	8,325.26	3,509.07	3,386.95	3,195.29	191.66	17.671	
18,400.00	9,961.00	20,632.16	11,456.02	143.47	154.80	115.38	8,425.19	3,508.12	3,385.86	3,192.07	193.78	17.472	
18,500.00	9,961.00	20,732.13	11,453.37	145.07	156.40	115.34	8,525.12	3,507.17	3,384.76	3,188.85	195.91	17.277	
18,600.00	9,961.00	20,832.09	11,450.72	146.68	157.99	115.30	8,625.04	3,506.23	3,383.67	3,185.63	198.04	17.086	
18,700.00	9,961.00	20,932.06	11,448.07	148.28	159.59	115.26	8,724.97	3,505.28	3,382.58	3,182.41	200.17	16.899	
18,800.00	9,961.00	21,032.02	11,445.41	149.88	161.19	115.22	8,824.89	3,504.33	3,381.49	3,179.19	202.30	16.715	
18,900.00	9,961.00	21,131.99	11,442.76	151.49	162.78	115.18	8,924.82	3,503.38	3,380.41	3,175.97	204.44	16.535	
19,000.00	9,961.00	21,231.95	11,440.11	153.10	164.38	115.14	9,024.74	3,502.44	3,379.32	3,172.75	206.58	16.359	
19,100.00	9,961.00	21,331.92	11,437.46	154.70	165.98	115.10	9,124.67	3,501.49	3,378.24	3,169.52	208.72	16.186	
19,200.00	9,961.00	21,431.88	11,434.81	156.31	167.58	115.06	9,224.59	3,500.54	3,377.16	3,166.30	210.86	16.016	
19,300.00	9,961.00	21,531.85	11,432.16	157.92	169.19	115.02	9,324.52	3,499.59	3,376.08	3,163.08	213.00	15.850	
19,400.00	9,961.00	21,631.81	11,429.51	159.53	170.79	114.97	9,424.44	3,498.65	3,375.00	3,159.85	215.15	15.687	
19,500.00	9,961.00	21,731.78	11,426.86	161.14	172.39	114.93	9,524.37	3,497.70	3,373.93	3,156.63	217.30	15.527	
19,600.00	9,961.00	21,831.74	11,424.21	162.76	174.00	114.89	9,624.29	3,496.75	3,372.85	3,153.40	219.45	15.370	
19,700.00	9,961.00	21,931.71	11,421.56	164.37	175.60	114.85	9,724.22	3,495.81	3,371.78	3,150.18	221.60	15.216	
19,800.00	9,961.00	22,031.67	11,418.91	165.98	177.21	114.81	9,824.14	3,494.86	3,370.71	3,146.95	223.75	15.064	
19,900.00	9,961.00	22,131.64	11,416.26	167.60	178.82	114.77	9,924.07	3,493.91	3,369.64	3,143.73	225.91	14.916	
20,000.00	9,961.00	22,231.60	11,413.60	169.21	180.43	114.73	10,023.99	3,492.96	3,368.57	3,140.50	228.07	14.770	
20,100.00	9,961.00	22,304.88	11,411.66	170.83	181.61	114.70	10,097.24	3,492.27	3,367.61	3,137.64	229.98	14.643	
20,109.17	9,961.00	22,304.88	11,411.66	170.98	181.61	114.70	10,097.24	3,492.27	3,367.60	3,137.52	230.08	14.637	
20,118.50	9,961.00	22,304.88	11,411.66	171.13	181.61	114.70	10,097.24	3,492.27	3,367.61	3,137.43	230.19	14.630	
20,118.82	9,961.00	22,304.88	11,411.66	171.14	181.61	114.70	10,097.24	3,492.27	3,367.61	3,137.42	230.19	14.630	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - 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
1,843.00	1,843.00	1,886.90	1,886.90	6.37	6.53	100.20	-580.22	3,223.53	3,275.33	3,266.20	9.13	358.916	
1,900.00	1,900.00	1,943.90	1,943.90	6.58	6.74	100.20	-580.22	3,223.53	3,275.33	3,265.92	9.41	347.900	
2,000.00	2,000.00	2,043.90	2,043.90	6.94	7.09	100.20	-580.22	3,223.53	3,275.33	3,265.41	9.92	330.125	
2,100.00	2,099.99	2,143.89	2,143.89	7.28	7.45	-18.22	-580.22	3,223.53	3,274.09	3,263.67	10.42	314.242	
2,200.00	2,199.91	2,243.81	2,243.81	7.62	7.81	-18.26	-580.22	3,223.53	3,270.36	3,259.45	10.91	299.803	
2,300.00	2,299.69	2,343.59	2,343.59	7.95	8.17	-18.33	-580.22	3,223.53	3,264.15	3,252.75	11.40	286.360	
2,400.00	2,399.27	2,443.17	2,443.17	8.30	8.53	-18.42	-580.22	3,223.53	3,255.46	3,243.57	11.89	273.800	
2,476.18	2,474.95	2,518.85	2,518.85	8.56	8.80	-18.51	-580.22	3,223.53	3,247.19	3,234.92	12.26	264.762	
2,500.00	2,498.58	2,542.48	2,542.48	8.65	8.88	-18.53	-580.22	3,223.53	3,244.38	3,231.99	12.38	262.025	
2,600.00	2,597.81	2,641.71	2,641.71	9.00	9.24	-18.60	-580.22	3,223.53	3,232.58	3,219.70	12.87	251.097	
2,700.00	2,697.03	2,740.93	2,740.93	9.36	9.59	-18.67	-580.22	3,223.53	3,220.79	3,207.42	13.37	240.941	
2,800.00	2,796.25	2,840.15	2,840.15	9.72	9.95	-18.74	-580.22	3,223.53	3,209.00	3,195.14	13.86	231.483	
2,900.00	2,895.48	2,939.38	2,939.38	10.09	10.30	-18.81	-580.22	3,223.53	3,197.22	3,182.86	14.36	222.656	
3,000.00	2,994.70	3,038.60	3,038.60	10.46	10.66	-18.88	-580.22	3,223.53	3,185.44	3,170.58	14.86	214.400	
3,100.00	3,093.93	3,137.83	3,137.83	10.83	11.02	-18.95	-580.22	3,223.53	3,173.67	3,158.31	15.36	206.665	
3,200.00	3,193.15	3,237.05	3,237.05	11.21	11.37	-19.03	-580.22	3,223.53	3,161.90	3,146.04	15.86	199.404	
3,300.00	3,292.37	3,336.27	3,336.27	11.59	11.73	-19.10	-580.22	3,223.53	3,150.14	3,133.78	16.36	192.575	
3,400.00	3,391.60	3,435.50	3,435.50	11.97	12.08	-19.17	-580.22	3,223.53	3,138.38	3,121.52	16.86	186.143	
3,500.00	3,490.82	3,650.05	3,650.01	12.35	12.83	-19.32	-580.77	3,220.63	3,125.99	3,108.37	17.63	177.357	
3,600.00	3,590.05	4,068.65	4,066.55	12.73	14.27	-19.39	-588.13	3,182.02	3,105.50	3,086.76	18.75	165.660	
3,700.00	3,689.27	4,163.98	4,160.84	13.12	14.61	-19.37	-590.77	3,168.18	3,080.08	3,060.85	19.22	160.230	
3,800.00	3,788.49	4,260.69	4,256.48	13.51	14.96	-19.35	-593.45	3,154.13	3,054.65	3,034.94	19.70	155.027	
3,900.00	3,887.72	4,357.40	4,352.13	13.89	15.31	-19.33	-596.12	3,140.09	3,029.22	3,009.04	20.19	150.057	
4,000.00	3,986.94	4,454.11	4,447.77	14.28	15.66	-19.32	-598.80	3,126.04	3,003.80	2,983.12	20.67	145.308	
4,100.00	4,086.17	4,550.82	4,543.42	14.68	16.02	-19.30	-601.48	3,112.00	2,978.37	2,957.21	21.16	140.765	
4,200.00	4,185.39	4,647.53	4,639.06	15.07	16.38	-19.28	-604.16	3,097.95	2,952.94	2,931.30	21.65	136.416	
4,300.00	4,284.61	4,744.23	4,734.71	15.46	16.74	-19.26	-606.83	3,083.90	2,927.52	2,905.38	22.14	132.251	
4,400.00	4,383.84	4,840.94	4,830.36	15.86	17.11	-19.24	-609.51	3,069.86	2,902.09	2,879.47	22.63	128.258	
4,500.00	4,483.06	4,937.65	4,926.00	16.25	17.47	-19.22	-612.19	3,055.81	2,876.67	2,853.55	23.12	124.427	
4,600.00	4,582.29	5,034.36	5,021.65	16.65	17.84	-19.20	-614.87	3,041.77	2,851.25	2,827.63	23.61	120.751	
4,700.00	4,681.51	5,131.07	5,117.29	17.04	18.22	-19.17	-617.54	3,027.72	2,825.82	2,801.71	24.11	117.219	
4,800.00	4,780.73	5,227.78	5,212.94	17.44	18.59	-19.15	-620.22	3,013.67	2,800.40	2,775.80	24.60	113.824	
4,900.00	4,879.96	5,324.49	5,308.59	17.84	18.96	-19.13	-622.90	2,999.63	2,774.98	2,749.88	25.10	110.559	
5,000.00	4,979.18	5,421.20	5,404.23	18.24	19.34	-19.11	-625.57	2,985.58	2,749.55	2,723.96	25.60	107.416	
5,100.00	5,078.41	5,517.90	5,499.88	18.64	19.72	-19.09	-628.25	2,971.53	2,724.13	2,698.03	26.10	104.390	
5,200.00	5,177.63	5,614.61	5,595.52	19.03	20.10	-19.06	-630.93	2,957.49	2,698.71	2,672.11	26.60	101.474	
5,300.00	5,276.85	5,711.32	5,691.17	19.43	20.48	-19.04	-633.61	2,943.44	2,673.29	2,646.19	27.10	98.663	
5,400.00	5,376.08	5,808.03	5,786.82	19.84	20.86	-19.01	-636.28	2,929.40	2,647.87	2,620.27	27.60	95.950	
5,500.00	5,475.30	5,904.74	5,882.46	20.24	21.25	-18.99	-638.96	2,915.35	2,622.45	2,594.35	28.10	93.332	
5,600.00	5,574.53	6,001.45	5,978.11	20.64	21.63	-18.96	-641.64	2,901.30	2,597.03	2,568.43	28.60	90.804	
5,700.00	5,673.75	6,098.16	6,073.75	21.04	22.02	-18.94	-644.31	2,887.26	2,571.61	2,542.50	29.10	88.361	
5,800.00	5,772.97	6,194.87	6,169.40	21.44	22.41	-18.91	-646.99	2,873.21	2,546.19	2,516.58	29.61	85.999	
5,900.00	5,872.20	6,291.58	6,265.05	21.84	22.80	-18.89	-649.67	2,859.17	2,520.77	2,490.66	30.11	83.714	
6,000.00	5,971.42	6,388.28	6,360.69	22.25	23.19	-18.86	-652.35	2,845.12	2,495.35	2,464.73	30.62	81.503	
6,100.00	6,070.65	6,484.99	6,456.34	22.65	23.58	-18.83	-655.02	2,831.07	2,469.93	2,438.81	31.12	79.363	
6,200.00	6,169.87	6,581.70	6,551.98	23.05	23.97	-18.80	-657.70	2,817.03	2,444.52	2,412.89	31.63	77.289	
6,300.00	6,269.09	6,678.41	6,647.63	23.46	24.36	-18.77	-660.38	2,802.98	2,419.10	2,386.96	32.13	75.280	
6,400.00	6,368.32	6,775.12	6,743.27	23.86	24.75	-18.75	-663.06	2,788.94	2,393.68	2,361.04	32.64	73.332	
6,500.00	6,467.54	6,871.83	6,838.92	24.26	25.15	-18.72	-665.73	2,774.89	2,368.27	2,335.12	33.15	71.443	
6,600.00	6,566.77	6,968.54	6,934.57	24.67	25.54	-18.68	-668.41	2,760.84	2,342.85	2,309.20	33.66	69.609	
6,700.00	6,665.99	7,065.25	7,030.21	25.07	25.94	-18.65	-671.09	2,746.80	2,317.44	2,283.27	34.17	67.829	
6,800.00	6,765.21	7,161.95	7,125.86	25.48	26.33	-18.62	-673.76	2,732.75	2,292.03	2,257.35	34.67	66.101	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - 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
6,900.62	6,865.05	7,259.27	7,222.10	25.89	26.73	-18.59	-676.46	2,718.62	2,266.46	2,231.27	35.19	64.412	
7,000.00	6,963.81	7,355.67	7,317.44	26.28	27.13	-18.43	-679.13	2,704.62	2,242.39	2,206.70	35.69	62.824	
7,100.00	7,063.44	7,453.23	7,413.93	26.66	27.53	-18.25	-681.83	2,690.45	2,220.58	2,184.38	36.20	61.339	
7,200.00	7,163.26	7,551.27	7,510.89	27.03	27.93	-18.07	-684.54	2,676.21	2,201.22	2,164.51	36.71	59.961	
7,300.00	7,263.21	7,649.73	7,608.27	27.38	28.34	-17.88	-687.27	2,661.91	2,184.30	2,147.09	37.22	58.689	
7,376.80	7,340.00	7,725.59	7,683.30	27.64	28.65	100.69	-689.37	2,650.89	2,172.99	2,135.39	37.60	57.786	
7,400.00	7,363.20	7,748.54	7,706.00	27.71	28.75	100.73	-690.00	2,647.56	2,169.79	2,132.08	37.72	57.525	
7,500.00	7,463.20	7,847.44	7,803.81	28.03	29.16	100.87	-692.74	2,633.19	2,156.03	2,117.81	38.22	56.415	
7,600.00	7,563.20	7,946.34	7,901.62	28.36	29.57	101.02	-695.48	2,618.83	2,142.27	2,103.55	38.72	55.332	
7,700.00	7,663.20	8,045.24	7,999.44	28.68	29.98	101.16	-698.22	2,604.46	2,128.53	2,089.31	39.22	54.277	
7,800.00	7,763.20	8,144.14	8,097.25	29.00	30.39	101.31	-700.95	2,590.10	2,114.80	2,075.09	39.72	53.247	
7,900.00	7,863.20	8,243.04	8,195.07	29.33	30.80	101.47	-703.69	2,575.73	2,101.09	2,060.87	40.22	52.242	
8,000.00	7,963.20	8,341.95	8,292.88	29.65	31.21	101.62	-706.43	2,561.37	2,087.39	2,046.67	40.72	51.261	
8,100.00	8,063.20	8,440.85	8,390.69	29.98	31.62	101.77	-709.17	2,547.00	2,073.71	2,032.48	41.22	50.303	
8,200.00	8,163.20	8,539.75	8,488.51	30.31	32.03	101.93	-711.91	2,532.64	2,060.04	2,018.31	41.73	49.369	
8,300.00	8,263.20	8,638.65	8,586.32	30.64	32.45	102.09	-714.64	2,518.28	2,046.39	2,004.16	42.23	48.456	
8,400.00	8,363.20	8,737.55	8,684.13	30.97	32.86	102.25	-717.38	2,503.91	2,032.75	1,990.01	42.74	47.564	
8,500.00	8,463.20	8,836.45	8,781.95	31.29	33.27	102.42	-720.12	2,489.55	2,019.13	1,975.89	43.24	46.693	
8,600.00	8,563.20	8,935.35	8,879.76	31.62	33.69	102.58	-722.86	2,475.18	2,005.53	1,961.78	43.75	45.841	
8,700.00	8,663.20	9,034.25	8,977.58	31.96	34.10	102.75	-725.60	2,460.82	1,991.94	1,947.68	44.26	45.009	
8,800.00	8,763.20	9,133.15	9,075.39	32.29	34.51	102.92	-728.33	2,446.45	1,978.37	1,933.61	44.76	44.195	
8,900.00	8,863.20	9,232.05	9,173.20	32.62	34.93	103.10	-731.07	2,432.09	1,964.82	1,919.54	45.27	43.399	
9,000.00	8,963.20	9,330.95	9,271.02	32.95	35.34	103.27	-733.81	2,417.72	1,951.28	1,905.50	45.78	42.621	
9,100.00	9,063.20	9,429.85	9,368.83	33.28	35.76	103.45	-736.55	2,403.36	1,937.77	1,891.47	46.29	41.859	
9,200.00	9,163.20	9,528.76	9,466.65	33.62	36.17	103.63	-739.29	2,389.00	1,924.27	1,877.47	46.80	41.114	
9,300.00	9,263.20	9,627.66	9,564.46	33.95	36.59	103.81	-742.02	2,374.63	1,910.79	1,863.48	47.31	40.385	
9,400.00	9,363.20	9,726.56	9,662.27	34.29	37.01	104.00	-744.76	2,360.27	1,897.33	1,849.51	47.83	39.671	
9,424.84	9,388.04	9,751.12	9,686.57	34.37	37.11	104.04	-745.44	2,356.70	1,893.99	1,846.04	47.95	39.496	
9,450.00	9,413.19	9,775.99	9,711.16	34.45	37.21	104.99	-746.13	2,353.09	1,890.75	1,842.67	48.08	39.323	
9,500.00	9,462.98	9,825.12	9,759.75	34.61	37.42	105.76	-747.49	2,345.95	1,885.17	1,836.83	48.34	39.001	
9,550.00	9,512.21	9,873.57	9,807.67	34.76	37.62	106.52	-748.83	2,338.91	1,880.82	1,832.23	48.59	38.710	
9,600.00	9,560.48	9,920.98	9,854.56	34.90	37.82	107.26	-750.14	2,332.03	1,877.80	1,828.97	48.83	38.453	
9,650.00	9,607.45	9,966.98	9,900.05	35.03	38.02	107.95	-751.42	2,325.35	1,876.24	1,827.17	49.08	38.232	
9,674.24	9,629.64	9,988.67	9,921.50	35.08	38.11	108.27	-752.02	2,322.20	1,876.05	1,826.86	49.19	38.138	CC, ES
9,700.00	9,652.74	10,011.22	9,943.81	35.14	38.20	108.58	-752.64	2,318.92	1,876.27	1,826.96	49.31	38.048	
9,750.00	9,696.02	10,053.37	9,985.49	35.24	38.38	109.10	-753.81	2,312.80	1,878.03	1,828.48	49.55	37.905	
9,800.00	9,736.96	10,093.10	10,024.79	35.33	38.55	109.49	-754.91	2,307.03	1,881.64	1,831.87	49.77	37.804	
9,850.00	9,775.24	10,130.12	10,061.40	35.40	38.70	109.72	-755.93	2,301.65	1,887.24	1,837.24	50.00	37.747	
9,900.00	9,810.58	10,159.27	10,090.23	35.46	38.83	109.63	-756.74	2,297.42	1,894.93	1,844.71	50.21	37.738	
9,950.00	9,842.70	10,184.31	10,115.01	35.51	38.93	109.27	-757.42	2,293.86	1,904.88	1,854.45	50.42	37.777	
10,000.00	9,871.35	10,200.00	10,130.54	35.54	39.00	108.47	-757.83	2,291.71	1,917.17	1,866.54	50.62	37.870	
10,050.00	9,896.33	10,220.29	10,150.65	35.56	39.08	107.56	-758.34	2,289.03	1,931.76	1,880.93	50.83	38.008	
10,100.00	9,917.45	10,234.33	10,164.57	35.57	39.14	106.25	-758.68	2,287.23	1,948.59	1,897.57	51.02	38.194	
10,150.00	9,934.53	10,245.57	10,175.72	35.57	39.18	104.61	-758.95	2,285.83	1,967.56	1,916.35	51.20	38.426	
10,200.00	9,947.45	10,253.91	10,183.99	35.57	39.22	102.62	-759.14	2,284.81	1,988.53	1,937.15	51.38	38.700	
10,250.00	9,956.12	10,259.26	10,189.30	35.58	39.24	100.27	-759.27	2,284.17	2,011.34	1,959.79	51.55	39.014	
10,300.00	9,960.46	10,261.56	10,191.59	35.65	39.25	97.58	-759.32	2,283.89	2,035.79	1,984.07	51.72	39.364	
10,324.84	9,961.00	10,261.56	10,191.59	35.71	39.25	96.11	-759.32	2,283.89	2,048.47	1,996.68	51.79	39.551	
10,400.00	9,961.00	10,260.41	10,190.44	35.94	39.24	96.08	-759.29	2,284.03	2,088.34	2,036.32	52.03	40.139	
10,500.00	9,961.00	10,258.86	10,188.90	36.32	39.24	96.02	-759.26	2,284.22	2,144.33	2,091.97	52.36	40.955	
10,600.00	9,961.00	10,257.30	10,187.36	36.77	39.23	95.97	-759.22	2,284.40	2,203.43	2,150.72	52.70	41.809	
10,700.00	9,961.00	10,255.73	10,185.80	37.29	39.22	95.92	-759.18	2,284.59	2,265.40	2,212.35	53.05	42.701	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - 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
10,800.00	9,961.00	10,254.16	10,184.24	37.86	39.22	95.87	-759.15	2,284.78	2,330.01	2,276.61	53.40	43.630	
10,900.00	9,961.00	13,140.29	11,594.83	38.50	49.95	132.81	921.96	2,240.22	2,339.96	2,287.97	52.00	45.001	
11,000.00	9,961.00	13,240.25	11,591.83	39.19	50.81	132.76	1,021.86	2,239.27	2,337.96	2,285.05	52.91	44.184	
11,100.00	9,961.00	13,340.20	11,588.84	39.94	51.72	132.70	1,121.77	2,238.33	2,335.97	2,282.09	53.88	43.355	
11,200.00	9,961.00	13,440.16	11,585.84	40.73	52.66	132.65	1,221.68	2,237.38	2,333.97	2,279.08	54.89	42.517	
11,300.00	9,961.00	13,540.11	11,582.85	41.58	53.63	132.59	1,321.58	2,236.44	2,331.98	2,276.02	55.96	41.676	
11,400.00	9,961.00	13,640.07	11,579.85	42.47	54.64	132.54	1,421.49	2,235.49	2,329.99	2,272.93	57.06	40.835	
11,500.00	9,961.00	13,740.02	11,576.86	43.41	55.68	132.48	1,521.39	2,234.55	2,328.00	2,269.80	58.20	39.998	
11,600.00	9,961.00	13,839.98	11,573.86	44.39	56.74	132.43	1,621.30	2,233.60	2,326.01	2,266.63	59.39	39.168	
11,700.00	9,961.00	13,939.93	11,570.87	45.40	57.84	132.37	1,721.21	2,232.66	2,324.03	2,263.42	60.60	38.347	
11,800.00	9,961.00	14,039.89	11,567.87	46.45	58.96	132.32	1,821.11	2,231.71	2,322.05	2,260.19	61.86	37.538	
11,900.00	9,961.00	14,139.84	11,564.88	47.54	60.11	132.26	1,921.02	2,230.77	2,320.07	2,256.92	63.15	36.741	
12,000.00	9,961.00	14,239.80	11,561.88	48.66	61.27	132.21	2,020.92	2,229.82	2,318.09	2,253.62	64.47	35.959	
12,100.00	9,961.00	14,339.75	11,558.89	49.80	62.46	132.15	2,120.83	2,228.88	2,316.11	2,250.30	65.81	35.193	
12,200.00	9,961.00	14,439.71	11,555.89	50.98	63.67	132.09	2,220.73	2,227.93	2,314.14	2,246.95	67.19	34.443	
12,300.00	9,961.00	14,539.66	11,552.90	52.18	64.90	132.04	2,320.64	2,226.98	2,312.17	2,243.58	68.59	33.711	
12,400.00	9,961.00	14,639.62	11,549.90	53.40	66.15	131.98	2,420.55	2,226.04	2,310.20	2,240.19	70.01	32.996	
12,500.00	9,961.00	14,739.57	11,546.91	54.65	67.42	131.93	2,520.45	2,225.09	2,308.23	2,236.77	71.46	32.299	
12,600.00	9,961.00	14,839.53	11,543.91	55.91	68.70	131.87	2,620.36	2,224.15	2,306.27	2,233.33	72.94	31.620	
12,700.00	9,961.00	14,939.48	11,540.92	57.20	69.99	131.81	2,720.26	2,223.20	2,304.31	2,229.88	74.43	30.960	
12,800.00	9,961.00	15,039.44	11,537.92	58.51	71.31	131.76	2,820.17	2,222.26	2,302.34	2,226.41	75.94	30.318	
12,900.00	9,961.00	15,139.39	11,534.93	59.83	72.63	131.70	2,920.07	2,221.31	2,300.39	2,222.92	77.47	29.694	
13,000.00	9,961.00	15,239.35	11,531.93	61.16	73.97	131.64	3,019.98	2,220.37	2,298.43	2,219.41	79.02	29.087	
13,100.00	9,961.00	15,339.30	11,528.94	62.52	75.32	131.59	3,119.89	2,219.42	2,296.48	2,215.89	80.59	28.497	
13,200.00	9,961.00	15,439.26	11,525.94	63.88	76.68	131.53	3,219.79	2,218.48	2,294.53	2,212.36	82.17	27.925	
13,300.00	9,961.00	15,539.21	11,522.95	65.26	78.06	131.47	3,319.70	2,217.53	2,292.58	2,208.81	83.76	27.369	
13,400.00	9,961.00	15,639.17	11,519.95	66.66	79.44	131.42	3,419.60	2,216.59	2,290.63	2,205.26	85.38	26.830	
13,500.00	9,961.00	15,739.12	11,516.96	68.06	80.83	131.36	3,519.51	2,215.64	2,288.69	2,201.68	87.00	26.306	
13,600.00	9,961.00	15,839.08	11,513.96	69.47	82.24	131.30	3,619.41	2,214.70	2,286.74	2,198.10	88.64	25.798	
13,700.00	9,961.00	15,939.03	11,510.97	70.90	83.65	131.25	3,719.32	2,213.75	2,284.80	2,194.51	90.29	25.304	
13,800.00	9,961.00	16,038.99	11,507.97	72.33	85.07	131.19	3,819.23	2,212.80	2,282.87	2,190.91	91.96	24.826	
13,900.00	9,961.00	16,138.94	11,504.98	73.78	86.50	131.13	3,919.13	2,211.86	2,280.93	2,187.30	93.63	24.361	
14,000.00	9,961.00	16,238.90	11,501.98	75.23	87.94	131.07	4,019.04	2,210.91	2,279.00	2,183.68	95.32	23.910	
14,100.00	9,961.00	16,338.85	11,498.99	76.69	89.38	131.02	4,118.94	2,209.97	2,277.07	2,180.05	97.01	23.472	
14,200.00	9,961.00	16,438.81	11,495.99	78.16	90.83	130.96	4,218.85	2,209.02	2,275.14	2,176.42	98.72	23.046	
14,300.00	9,961.00	16,538.76	11,493.00	79.63	92.29	130.90	4,318.75	2,208.08	2,273.21	2,172.78	100.44	22.634	
14,400.00	9,961.00	16,638.72	11,490.00	81.12	93.76	130.84	4,418.66	2,207.13	2,271.29	2,169.13	102.16	22.232	
14,500.00	9,961.00	16,738.67	11,487.01	82.60	95.23	130.78	4,518.57	2,206.19	2,269.37	2,165.47	103.90	21.843	
14,600.00	9,961.00	16,838.63	11,484.01	84.10	96.70	130.73	4,618.47	2,205.24	2,267.45	2,161.81	105.64	21.464	
14,700.00	9,961.00	16,938.58	11,481.02	85.60	98.19	130.67	4,718.38	2,204.30	2,265.53	2,158.14	107.39	21.096	
14,800.00	9,961.00	17,038.54	11,478.02	87.10	99.67	130.61	4,818.28	2,203.35	2,263.62	2,154.47	109.15	20.739	
14,900.00	9,961.00	17,138.49	11,475.03	88.61	101.17	130.55	4,918.19	2,202.41	2,261.71	2,150.79	110.92	20.391	
15,000.00	9,961.00	17,238.45	11,472.03	90.13	102.66	130.49	5,018.09	2,201.46	2,259.80	2,147.10	112.69	20.053	
15,100.00	9,961.00	17,338.41	11,469.04	91.65	104.17	130.43	5,118.00	2,200.52	2,257.89	2,143.41	114.47	19.724	
15,200.00	9,961.00	17,438.36	11,466.04	93.18	105.67	130.38	5,217.91	2,199.57	2,255.98	2,139.72	116.26	19.404	
15,300.00	9,961.00	17,538.32	11,463.05	94.71	107.18	130.32	5,317.81	2,198.63	2,254.08	2,136.02	118.06	19.093	
15,400.00	9,961.00	17,638.27	11,460.05	96.24	108.70	130.26	5,417.72	2,197.68	2,252.18	2,132.32	119.86	18.790	
15,500.00	9,961.00	17,738.23	11,457.06	97.78	110.22	130.20	5,517.62	2,196.73	2,250.28	2,128.62	121.67	18.495	
15,600.00	9,961.00	17,838.18	11,454.06	99.32	111.74	130.14	5,617.53	2,195.79	2,248.39	2,124.91	123.48	18.208	
15,700.00	9,961.00	17,938.14	11,451.07	100.86	113.27	130.08	5,717.43	2,194.84	2,246.50	2,121.19	125.30	17.929	
15,800.00	9,961.00	18,038.09	11,448.07	102.41	114.79	130.02	5,817.34	2,193.90	2,244.60	2,117.48	127.13	17.656	
15,900.00	9,961.00	18,138.05	11,445.08	103.96	116.33	129.96	5,917.25	2,192.95	2,242.72	2,113.76	128.96	17.391	

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 FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - 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
16,000.00	9,961.00	18,238.00	11,442.08	105.51	117.86	129.90	6,017.15	2,192.01	2,240.83	2,110.03	130.80	17.132	
16,100.00	9,961.00	18,337.96	11,439.09	107.07	119.40	129.84	6,117.06	2,191.06	2,238.95	2,106.31	132.64	16.880	
16,200.00	9,961.00	18,437.91	11,436.09	108.63	120.94	129.78	6,216.96	2,190.12	2,237.07	2,102.58	134.49	16.634	
16,300.00	9,961.00	18,537.87	11,433.10	110.19	122.49	129.72	6,316.87	2,189.17	2,235.19	2,098.85	136.34	16.394	
16,400.00	9,961.00	18,637.82	11,430.10	111.76	124.04	129.66	6,416.77	2,188.23	2,233.31	2,095.11	138.20	16.160	
16,500.00	9,961.00	18,737.78	11,427.11	113.33	125.59	129.60	6,516.68	2,187.28	2,231.44	2,091.38	140.06	15.932	
16,600.00	9,961.00	18,837.73	11,424.11	114.90	127.14	129.54	6,616.59	2,186.34	2,229.57	2,087.64	141.92	15.710	
16,700.00	9,961.00	18,937.69	11,421.11	116.47	128.70	129.48	6,716.49	2,185.39	2,227.70	2,083.90	143.80	15.492	
16,800.00	9,961.00	19,037.64	11,418.12	118.04	130.25	129.42	6,816.40	2,184.45	2,225.83	2,080.16	145.67	15.280	
16,900.00	9,961.00	19,137.60	11,415.12	119.62	131.81	129.36	6,916.30	2,183.50	2,223.97	2,076.41	147.55	15.072	
17,000.00	9,961.00	19,237.55	11,412.13	121.20	133.38	129.30	7,016.21	2,182.55	2,222.11	2,072.67	149.44	14.870	
17,100.00	9,961.00	19,337.51	11,409.13	122.78	134.94	129.24	7,116.11	2,181.61	2,220.25	2,068.92	151.33	14.672	
17,200.00	9,961.00	19,437.46	11,406.14	124.36	136.51	129.18	7,216.02	2,180.66	2,218.39	2,065.17	153.22	14.478	
17,300.00	9,961.00	19,537.42	11,403.14	125.95	138.08	129.12	7,315.93	2,179.72	2,216.54	2,061.42	155.12	14.289	
17,400.00	9,961.00	19,637.37	11,400.15	127.53	139.65	129.06	7,415.83	2,178.77	2,214.69	2,057.67	157.02	14.105	
17,500.00	9,961.00	19,737.33	11,397.15	129.12	141.22	129.00	7,515.74	2,177.83	2,212.84	2,053.91	158.92	13.924	
17,600.00	9,961.00	19,837.28	11,394.16	130.71	142.79	128.94	7,615.64	2,176.88	2,210.99	2,050.16	160.83	13.747	
17,700.00	9,961.00	19,937.24	11,391.16	132.30	144.37	128.87	7,715.55	2,175.94	2,209.15	2,046.40	162.75	13.574	
17,800.00	9,961.00	20,037.19	11,388.17	133.89	145.94	128.81	7,815.45	2,174.99	2,207.31	2,042.64	164.66	13.405	
17,900.00	9,961.00	20,137.15	11,385.17	135.48	147.52	128.75	7,915.36	2,174.05	2,205.47	2,038.89	166.58	13.240	
18,000.00	9,961.00	20,237.10	11,382.18	137.08	149.10	128.69	8,015.27	2,173.10	2,203.63	2,035.13	168.51	13.077	
18,100.00	9,961.00	20,337.06	11,379.18	138.68	150.69	128.63	8,115.17	2,172.16	2,201.80	2,031.36	170.43	12.919	
18,200.00	9,961.00	20,437.01	11,376.19	140.27	152.27	128.57	8,215.08	2,171.21	2,199.97	2,027.60	172.37	12.763	
18,300.00	9,961.00	20,536.97	11,373.19	141.87	153.85	128.50	8,314.98	2,170.27	2,198.14	2,023.84	174.30	12.611	
18,400.00	9,961.00	20,636.92	11,370.20	143.47	155.44	128.44	8,414.89	2,169.32	2,196.31	2,020.08	176.24	12.462	
18,500.00	9,961.00	20,736.88	11,367.20	145.07	157.03	128.38	8,514.79	2,168.37	2,194.49	2,016.31	178.18	12.316	
18,600.00	9,961.00	20,836.83	11,364.21	146.68	158.62	128.32	8,614.70	2,167.43	2,192.67	2,012.55	180.12	12.173	
18,700.00	9,961.00	20,936.79	11,361.21	148.28	160.21	128.26	8,714.61	2,166.48	2,190.85	2,008.78	182.07	12.033	
18,800.00	9,961.00	21,036.74	11,358.22	149.88	161.80	128.19	8,814.51	2,165.54	2,189.03	2,005.01	184.02	11.896	
18,900.00	9,961.00	21,136.70	11,355.22	151.49	163.39	128.13	8,914.42	2,164.59	2,187.22	2,001.25	185.98	11.761	
19,000.00	9,961.00	21,236.65	11,352.23	153.10	164.99	128.07	9,014.32	2,163.65	2,185.41	1,997.48	187.93	11.629	
19,100.00	9,961.00	21,336.61	11,349.23	154.70	166.58	128.01	9,114.23	2,162.70	2,183.60	1,993.71	189.89	11.499	
19,200.00	9,961.00	21,436.56	11,346.24	156.31	168.18	127.94	9,214.13	2,161.76	2,181.80	1,989.94	191.86	11.372	
19,300.00	9,961.00	21,536.52	11,343.24	157.92	169.77	127.88	9,314.04	2,160.81	2,180.00	1,986.17	193.82	11.247	
19,400.00	9,961.00	21,636.47	11,340.25	159.53	171.37	127.82	9,413.95	2,159.87	2,178.20	1,982.40	195.79	11.125	
19,500.00	9,961.00	21,736.43	11,337.25	161.14	172.97	127.75	9,513.85	2,158.92	2,176.40	1,978.63	197.77	11.005	
19,600.00	9,961.00	21,836.38	11,334.26	162.76	174.57	127.69	9,613.76	2,157.98	2,174.60	1,974.86	199.74	10.887	
19,700.00	9,961.00	21,936.34	11,331.26	164.37	176.17	127.63	9,713.66	2,157.03	2,172.81	1,971.09	201.72	10.771	
19,800.00	9,961.00	22,036.29	11,328.27	165.98	177.78	127.56	9,813.57	2,156.09	2,171.02	1,967.32	203.70	10.658	
19,900.00	9,961.00	22,136.25	11,325.27	167.60	179.38	127.50	9,913.47	2,155.14	2,169.24	1,963.55	205.69	10.546	
20,000.00	9,961.00	22,236.20	11,322.28	169.21	180.98	127.44	10,013.38	2,154.19	2,167.45	1,959.78	207.67	10.437	
20,100.00	9,961.00	22,310.90	11,320.04	170.83	182.18	127.39	10,088.04	2,153.49	2,165.82	1,956.49	209.33	10.347	
20,113.30	9,961.00	22,310.90	11,320.04	171.04	182.18	127.39	10,088.04	2,153.49	2,165.78	1,956.37	209.40	10.343	
20,118.50	9,961.00	22,310.90	11,320.04	171.13	182.18	127.39	10,088.04	2,153.49	2,165.78	1,956.35	209.43	10.341	
20,118.82	9,961.00	22,310.90	11,320.04	171.14	182.18	127.39	10,088.04	2,153.49	2,165.78	1,956.35	209.44	10.341	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

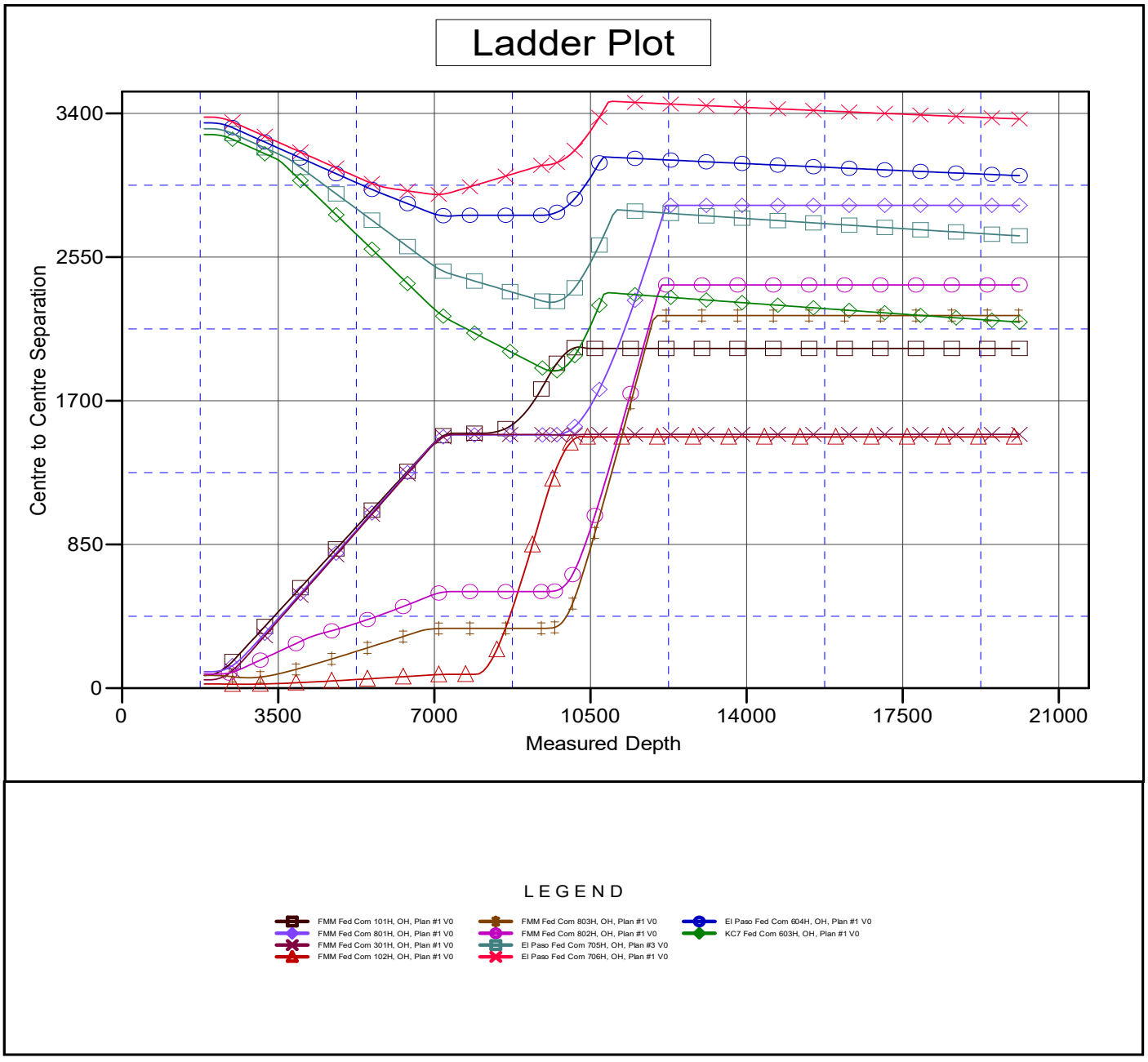
Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 3290.3' GE + 30' KB @ 3320.30usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: FMM Fed Com 302H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°



FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

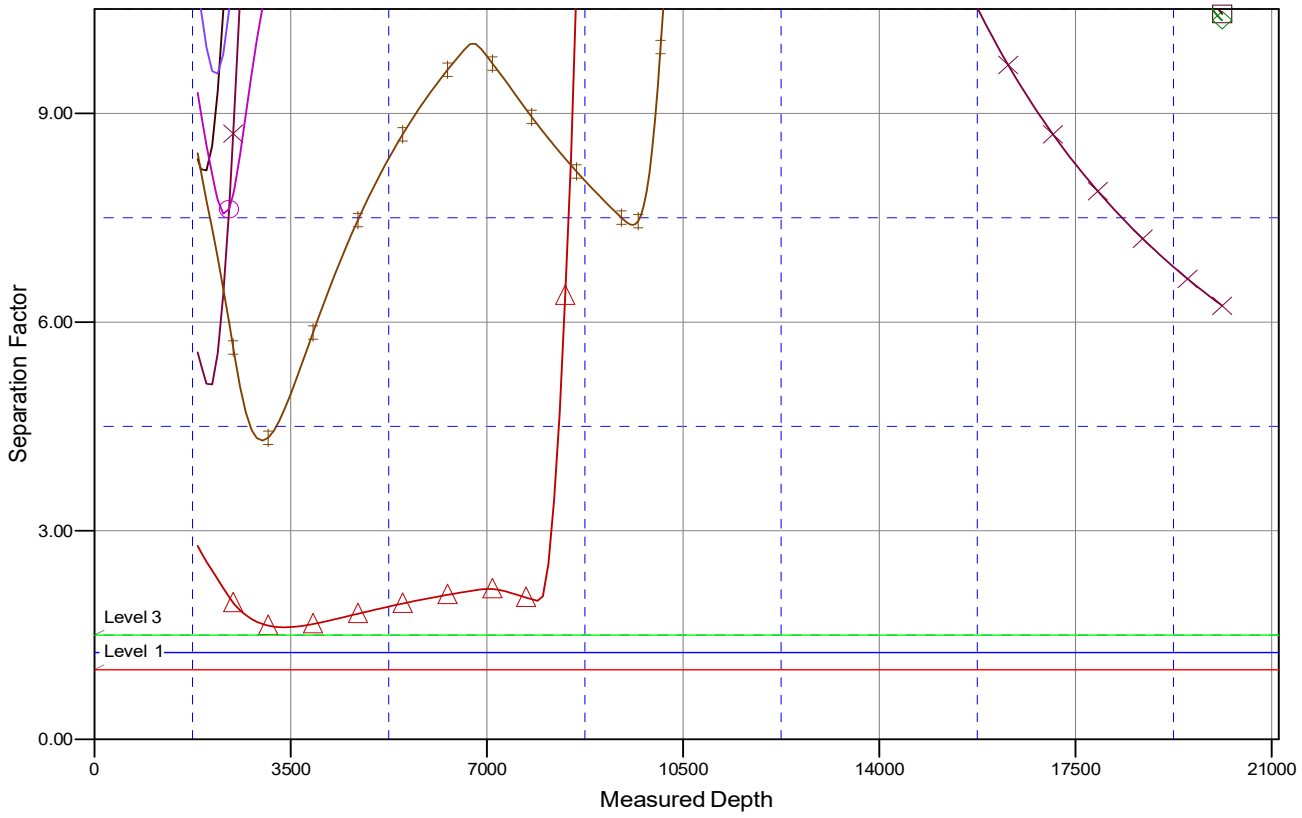
total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 302H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Reference Site:	FMM Fed Com	**MD Reference:**	3290.3' GE + 30' KB @ 3320.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 302H	**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 3290.3' GE + 30' KB @ 3320.30usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: FMM Fed Com 302H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

FMM Fed Com 101H, OH, Plan #1 V0
FMM Fed Com 801H, OH, Plan #1 V0
FMM Fed Com 301H, OH, Plan #1 V0
FMM Fed Com 102H, OH, Plan #1 V0
FMM Fed Com 803H, OH, Plan #1 V0
FMM Fed Com 802H, OH, Plan #1 V0
El Paso Fed Com 705H, OH, Plan #3 V0
El Paso Fed Com 706H, OH, Plan #1 V0
El Paso Fed Com 604H, OH, Plan #1 V0
KC7 Fed Com 603H, OH, Plan #1 V0

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM132081**
LOCATION:	Section 36, T.24 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico
Sundry ID:	**N/A**

WELL NAME & NO.:	**FMM Fed Com 302H**
SURFACE HOLE FOOTAGE:	345'/S & 1344'/W
BOTTOM HOLE FOOTAGE	150'/N & 1877'/W

WELL NAME & NO.:	**FMM Fed Com 803H**
SURFACE HOLE FOOTAGE:	270'/S & 1331'/W
BOTTOM HOLE FOOTAGE	150'/N & 2232'/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
Wellhead Variance	○ Diverter		
Other	☑ 4 String Area	☑ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

Approval Date: 02/11/2022

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1500 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 shall be set at approximately **5200 feet** is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**

    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.
      Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

  - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

  - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to 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 **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement might be required.

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 **9-5/8** intermediate casing shoe shall be **5000 (5M)** psi.

a. 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:

a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch 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.**

i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
ii. 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.
iii. Manufacturer representative shall install the test plug for the initial BOP test.
iv. 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.
v. 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: 02/11/2022

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: 02/11/2022

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

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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

Operator:	OGRID:
Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	373910
	Action Number: 85957
	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	3/7/2022
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	3/7/2022
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	3/7/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2022