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.

[332687]

2. Name of Operator

[373910]

9. API Well No. **30-025-49858**

3a. Address

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

10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

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

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

12. County or Parish

13. State

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

24. Attachments

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

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

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

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

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

NGMP Rec 03/08/2022

NSL

APPROVED WITH CONDITIONS

KZ
03/14/2022

REQUIRES NSL

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 03/07/2022

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

Approval Date: 03/07/2022

Additional Operator Remarks

Location of Well

0. SHL: TR C / 575 FNL / 1331 FWL / TWSP: 26S / RANGE: 35E / SECTION: 1 / LAT: 32.077993 / LONG: -103.325482 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 0 FNL / 2633 FWL / TWSP: 26S / RANGE: 35E / SECTION: 12 / LAT: 32.05778 / LONG: -103.321102 (TVD: 12517 feet, MD: 20300 feet)

PPP: NWNE / 0 FNL / 2600 FWL / TWSP: 26S / RANGE: 35E / SECTION: 12 / LAT: 32.065041 / LONG: -103.321106 (TVD: 12517 feet, MD: 17700 feet)

PPP: TR C / 618 FNL / 2624 FWL / TWSP: 26S / RANGE: 35E / SECTION: 1 / LAT: 32.077875 / LONG: -103.32119 (TVD: 12517 feet, MD: 13015 feet)

BHL: TR B / 1170 FNL / 2600 FEL / TWSP: 26S / RANGE: 35E / SECTION: 13 / LAT: 32.047329 / LONG: -103.321096 (TVD: 12517 feet, MD: 24130 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
30-025-49858	98228	WC-025 G-09 S253536D; UPR WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
332687	PF FED COM	803H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC	3052.7'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	1	26S	35E		575	NORTH	1331	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
B	13	26S	35E		1170	NORTH	2600	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
720			

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°04'40.78" (32.077993°)
LONGITUDE = 103°19'31.73" (103.325482°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°04'40.32" (32.077866°)
LONGITUDE = 103°19'30.07" (103.325021°)
STATE PLANE NAD 83 (N.M. EAST)
N: 393569.32' E: 853501.86'
STATE PLANE NAD 27 (N.M. EAST)
N: 393511.40' E: 812314.17'

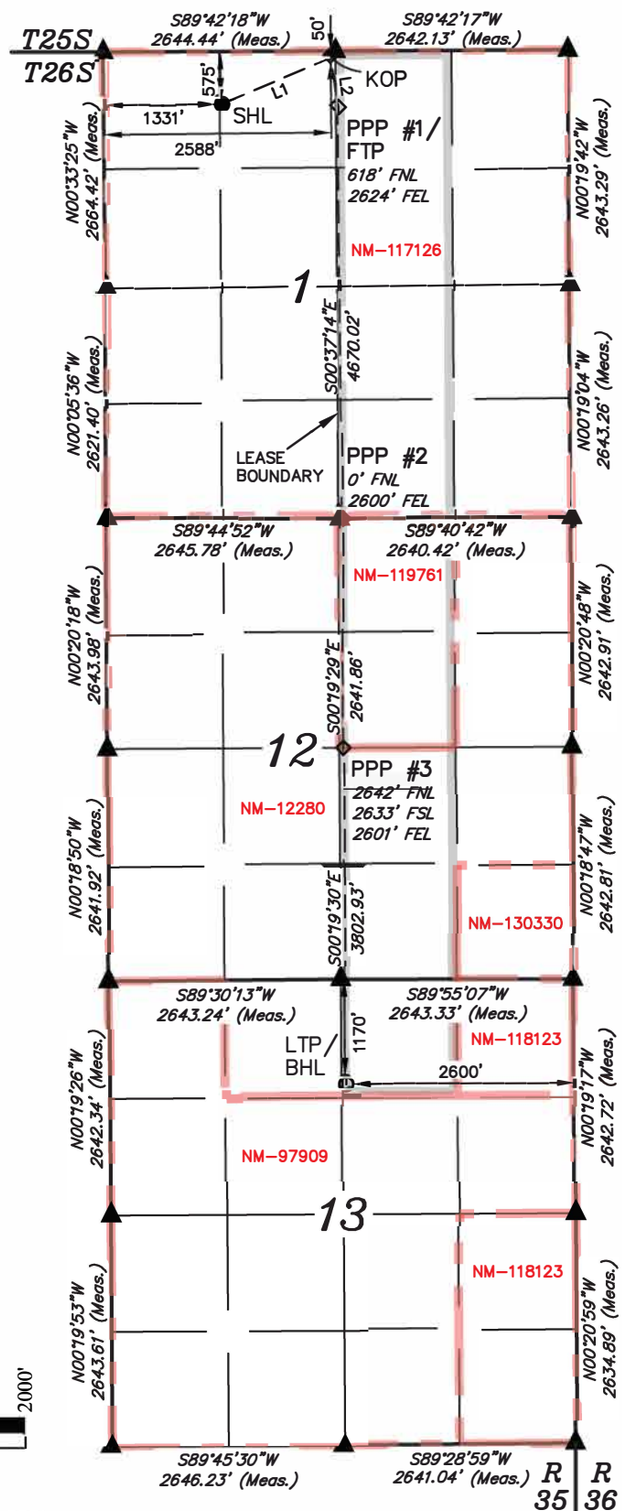
NAD 83 (KOP)
LATITUDE = 32°04'45.97" (32.079437°)
LONGITUDE = 103°19'17.15" (103.321431°)
NAD 27 (KOP)
LATITUDE = 32°04'45.52" (32.079310°)
LONGITUDE = 103°19'15.49" (103.320970°)
STATE PLANE NAD 83 (N.M. EAST)
N: 394106.24' E: 854751.71'
STATE PLANE NAD 27 (N.M. EAST)
N: 394048.30' E: 813564.02'

NAD 83 (PPP #1/FTP)
LATITUDE = 32°04'40.35" (32.077875°)
LONGITUDE = 103°19'16.29" (103.321190°)
NAD 27 (PPP #1/FTP)
LATITUDE = 32°04'39.89" (32.077748°)
LONGITUDE = 103°19'14.63" (103.320730°)
STATE PLANE NAD 83 (N.M. EAST)
N: 393538.86' E: 854831.45'
STATE PLANE NAD 27 (N.M. EAST)
N: 393480.93' E: 813643.74'

NAD 83 (PPP #2)
LATITUDE = 32°03'54.15" (32.065041°)
LONGITUDE = 103°19'15.98" (103.321106°)
NAD 27 (PPP #2)
LATITUDE = 32°03'53.69" (32.064914°)
LONGITUDE = 103°19'14.32" (103.320646°)
STATE PLANE NAD 83 (N.M. EAST)
N: 388870.04' E: 854901.48'
STATE PLANE NAD 27 (N.M. EAST)
N: 388812.24' E: 813713.59'

NAD 83 (PPP #3)
LATITUDE = 32°03'28.01" (32.057780°)
LONGITUDE = 103°19'15.97" (103.321102°)
NAD 27 (PPP #3)
LATITUDE = 32°03'27.55" (32.057653°)
LONGITUDE = 103°19'14.31" (103.320642°)
STATE PLANE NAD 83 (N.M. EAST)
N: 386228.69' E: 854927.47'
STATE PLANE NAD 27 (N.M. EAST)
N: 386170.97' E: 813739.47'

NAD 83 (LTP/BHL)
LATITUDE = 32°02'50.38" (32.047329°)
LONGITUDE = 103°19'15.95" (103.321096°)
NAD 27 (LTP/BHL)
LATITUDE = 32°02'49.93" (32.047202°)
LONGITUDE = 103°19'14.29" (103.320637°)
STATE PLANE NAD 83 (N.M. EAST)
N: 382426.50' E: 854964.89'
STATE PLANE NAD 27 (N.M. EAST)
N: 382368.87' E: 813776.74'



2000' 1000' 0' 2000'

SCALE
DRAWN BY: R.J. 05-06-21
REV: 1 07-28-21 R.J. (ADD KOP & PPP)

[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 8/3/2021 Date

Shelly Albrecht
Printed Name

salbrecht@fmellc.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

April 28, 2021
Date of Survey
Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 07-28-21

Certificate Number:

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N66°59'28"E	1360.50'
L2	S07°45'40"E	573.04'

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

● = SURFACE HOLE LOCATION
◇ = KOP/PPP/FTP
○ = LTP/BHL
▲ = SECTION CORNER LOCATED

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: ___Franklin Mountain Energy, LLC_____ **OGRID:** ____373910_____ **Date:** __03/_08_/_2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See Attached Well List						

IV. Central Delivery Point Name: ___Paul Foster CTB: (f#) fAPP2125739207_____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See Attached Well List						

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

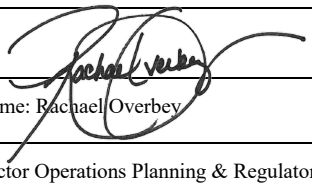
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Rachael Overbey
Title: Director Operations Planning & Regulatory
E-mail Address: roverbey@fmellc.com
Date: 3/8/2022
Phone: 720-414-7868

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

NATURAL GAS MANAGEMENT PLAN

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API 14 Digit	ULSTR	Surface Location FTG	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
PF Fed Com 101H	TBD	D-1-26S-35E	650 FNL 1268 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 102H	TBD	C-1-26S-35E	650 FNL 1343 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 501H	TBD	D-1-26S-35E	650 FNL 1293 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 502H	TBD	D-1-26S-35E	650 FNL 1318 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 801H	TBD	D-1-26S-35E	575 FNL 1281 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 802H	TBD	D-1-26S-35E	575 FNL 1306 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 803H	TBD **30-025-49858**	C-1-26S-35E	575 FNL 1331 FWL	800 +/-	700 +/-	600 +/-
PF Fed Com 103H	TBD	A-1-26S-35E	285 FNL 1125 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 104H	TBD	A-1-26S-35E	285 FNL 1050 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 503H	TBD	A-1-26S-35E	285 FNL 1100 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 504H	TBD	A-1-26S-35E	285 FNL 1075 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 804H	TBD	A-1-26S-35E	210 FNL 1112 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 805H	TBD	A-1-26S-35E	210 FNL 1087 FEL	800 +/-	700 +/-	600 +/-
PF Fed Com 806H	TBD	A-1-26S-35E	210 FNL 1062 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
PF Fed Com 101H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 102H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 501H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 502H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 801H	TBD	10/20/2022	12/20/2022	1/5/2023	1/25/2023	1/27/2023
PF Fed Com 802H	TBD	10/20/2022	12/20/2022	1/5/2023	1/25/2023	1/27/2023
PF Fed Com 803H	TBD **30-025-49858**	10/20/2022	12/20/2022	1/5/2023	1/25/2023	1/27/2023
PF Fed Com 103H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 104H	TBD	9/28/2022	10/20/2022	12/20/2022	1/1/2023	1/3/2023
PF Fed Com 503H	TBD	TBD	TBD	TBD	TBD	TBD
PF Fed Com 504H	TBD	9/6/2022	9/27/2022	12/20/2022	1/1/2023	1/3/2023
PF Fed Com 804H	TBD	7/5/2022	9/5/2022	12/20/2022	1/1/2023	1/3/2023
PF Fed Com 805H	TBD	7/5/2022	9/5/2022	12/20/2022	1/1/2023	1/3/2023
PF Fed Com 806H	TBD	7/5/2022	9/5/2022	12/20/2022	1/1/2023	1/3/2023

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

PF Fed Com 803H

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)	3,053'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,321'	762'			Carbonates
Salado	1,811'	1,272'			Salt, Carbonate & Clastics
Base Salt	-303'	3,386'			Shaley Carbonate & Shale
Lamar	-1,883'	4,966'			Carbonate & Clastics
Bell Canyon	-1,987'	5,070'			Sandstone - oil/gas/water
Cherry Canyon	-2,834'	5,917'			Sandstone - oil/gas/water
Brushy Canyon	-4,306'	7,389'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,496'	8,579'			Shale/Carbonates - oil/gas
Avalon	-5,524'	8,607'			Shale/Carbonates - oil/gas
Chert Zone	-5,715'	8,798'			Carbonate/Chert
First Bone Spring Sand	-6,751'	9,834'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,917'	10,000'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,902'	10,985'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-8,058'	11,141'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,661'	11,744'			Sandstone - oil/gas/water
Wolfcamp	-8,894'	11,977'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,957'	12,040'			Overpressure Shale - Oil/Gas
Wolfcamp B	-9,261'	12,344'			Overpressure Shale - Oil/Gas
HZ Target	-9,434'	12,517'			Overpressure Shale - Oil/Gas
Wolfcamp C	-9,488'	12,571'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,070’	Oil
Bone Spring	9,834’	Oil
Wolfcamp	11,977’	Oil

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

4. **Casing Program:**

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

Casing string	Weight	Grade	Burst	Collapse	Tension	Conn	Length	API design factor			
								Burst	Collapse	Tension	Coupling
Surface 13 3/8"	54.5	J-55	2730	1130	853	BTC 909	1300	1.18	1.67	4.99	5.32
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5025	1.81	1.80	3.04	3.46
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	12000	1.11	1.27	1.81	1.24
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606	24130	1.32	1.29	1.11	0.93
						TVD	12517				1.56

7 5/8"casing will be set at 12,000'MD/11,828' TVD at 0°Inc. Stress calculations on 5 ½" casing performed assuming 24,130' depth. Actual max vertical depth is 12,517'.

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

String Type	Hole Size	Casing Size	Setting Depth	Sacks	Lead Type of cmt	Yield ft3/sk	Water gal/sk	TOC ft	Sacks	Tail Type of cmt	Yield ft3/sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	795	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal 0.125pps Poly-E-Flake	1.747	9.06	0	334	Tail, 14.8 ppg, Class C, 1% CaCl2, 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5025	1462	Lead, 12.8 ppg, Class C 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	1.79	9.74	0	154	Tail, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.33	6.37	4725	100%
Int2	8.75	7.625	12000	375	Lite Fill, 9.5 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	2.13	5.97	4025	94	NeoCem 14.8 ppg, Class C 0.25 pps Cello-Flake, 2% CaICl2	1.33	6.29	11000	50%
Prod	6.75	5.5	24130	980	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	11000						20%

5. Minimum Specifications for Pressure Control:

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on bottom and 4 ½" x 7" variable pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.
Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the second intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The second intermediate casing will be tested to 2000 psi for 30 minutes prior to drillout.
Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

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

FRANKLIN MOUNTAIN ENERGY

6. Types and characteristics of the proposed mud system:

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

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' – 12,000'	Brine	8.8-10.2	28-34	N/c
12,000' – 24,130' Lateral	Oil Base	11.0-12.5	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11-12 ppg. In order to maintain hole stability, mud weights up to 13 ppg may be utilized.
An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.
Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary well control and monitoring equipment:

(A) A kelly cock will be kept in the drill string at all times.
(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
(C) 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 12,517' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,461 psig (based on 13 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H2S training.
B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
C. Required Emergency Equipment
    a. Well Control Equipment
        i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.
        ii. Choke manifold with a remotely operated hydraulic choke.
        iii. Mud/gas separator
    b. Protective equipment for essential personnel
        i. Breathing Apparatus
            1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
            2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity

3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

ii. Auxiliary Rescue Equipment
1. Stretcher
2. Two OSHA full body harnesses
3. 100 feet of 5/8 inches OSHA approved rope
4. 1-20# class ABC fire extinguisher

c. H2S Detection and Monitoring Equipment
i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
1. Rig Floor
2. Below Rig Floor / Near BOPs
3. End of flow line or where well bore fluid is being discharged (near shakers)
ii. If H2S is encountered, measured values and formations will be provided to the BLM.

d. Visual Warning Systems
i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
iii. Two windsocks will be placed in strategic locations, visible from all angles.

e. Mud Program
i. The Mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

f. Metallurgy
i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.

g. Communication
i. Communication will be via cell phones and walkie talkies on location.

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

11. Anticipated starting date and duration of operations:

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

FRANKLIN MOUNTAIN ENERGY

12. Disposal/environmental concerns:

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

13. Wellhead:

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

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

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

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

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

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

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

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

14. Additional variance requests

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

1. Variance is requested to wave the centralizer requirements for the 7 5/8" casing due to the tight clearance with 9 5/8" string.
2. Variance is requested to wave/reduce the centralizer requirements for the 5 ½" casing due to the tight clearance with 6 3/4" hole and 5 ½" casing due to tight clearances.

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: PF Fed Com
Well: PF Fed Com 803H
Wellbore: OH
Design: Plan #1

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

Magnetic Field
Strength: 47425.7nT
Dip Angle: 59.80°
Date: 7/16/2021
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

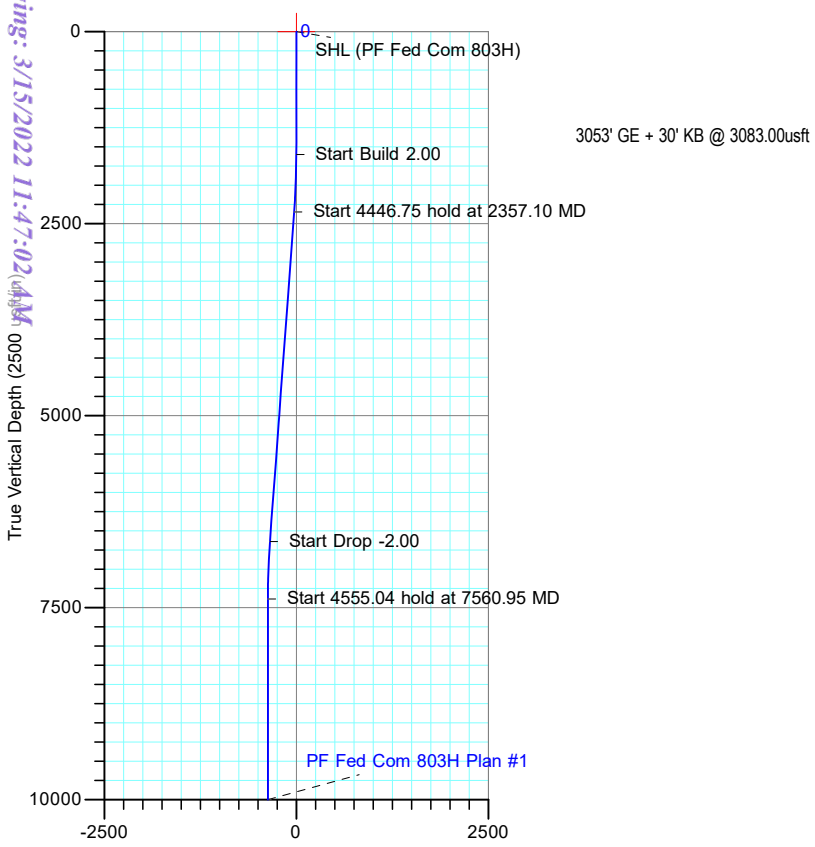
FRANKLIN MOUNTAIN ENERGY

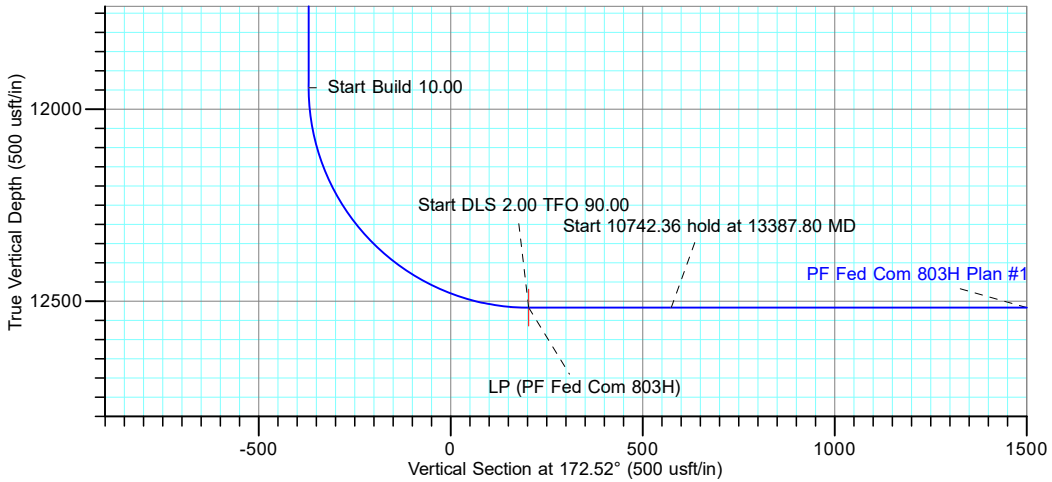
SECTION DETAILS

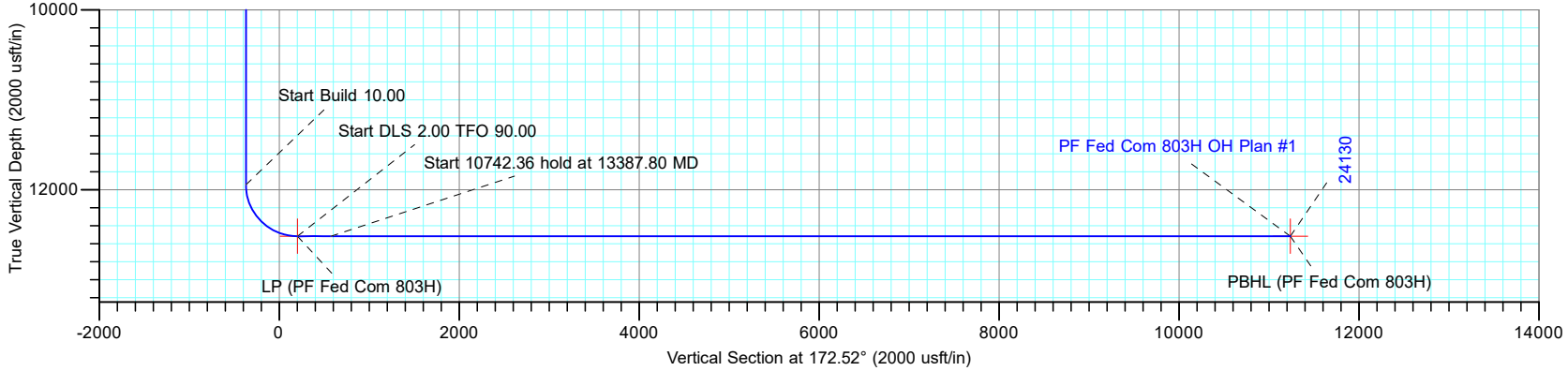
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
2357.10	15.14	66.75	2348.32	39.26	91.39	2.00	66.75	-27.03	Start 4446.75 hold at 2357.10 MD
6803.85	15.14	66.75	6640.68	497.74	1158.61	0.00	0.00	-342.66	Start Drop -2.00
7560.95	0.00	0.00	7389.00	537.00	1250.00	2.00	180.00	-369.69	Start 4555.04 hold at 7560.95 MD
12115.99	0.00	0.00	11944.04	537.00	1250.00	0.00	0.00	-369.69	Start Build 10.00
13015.99	90.00	172.00	12517.00	-30.38	1329.74	10.00	172.00	203.25	Start DLS 2.00 TFO 90.00
13387.80	90.00	179.44	12517.00	-400.90	1357.48	2.00	90.00	574.22	Start 10742.36 hold at 13387.80 MD
24130.17	90.00	179.44	12517.00	-11142.74	1463.18	0.00	0.00	11238.40	TD at 24130.17

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (PF Fed Com 803H)	12517.00	-30.38	1329.74	32.077875	-103.321190
PBHL (PF Fed Com 803H)	12517.00	-11142.74	1463.18	32.047329	-103.321096
SHL (PF Fed Com 803H)	0.00	0.00	0.00	32.077993	-103.325482







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

Plan: Plan #1 (PF Fed Com 803H/OH)
PF Fed Com
Created By: Dustin Ault Date: 22:10, July 16 2021
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: PF Fed Com
Well: PF Fed Com 803H
Wellbore: OH
Design: Plan #1

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

Magnetic Field
Strength: 47425.7nT
Dip Angle: 59.80°
Date: 7/16/2021
Model: IGRF2020

FRANKLIN MOUNTAIN ENERGY

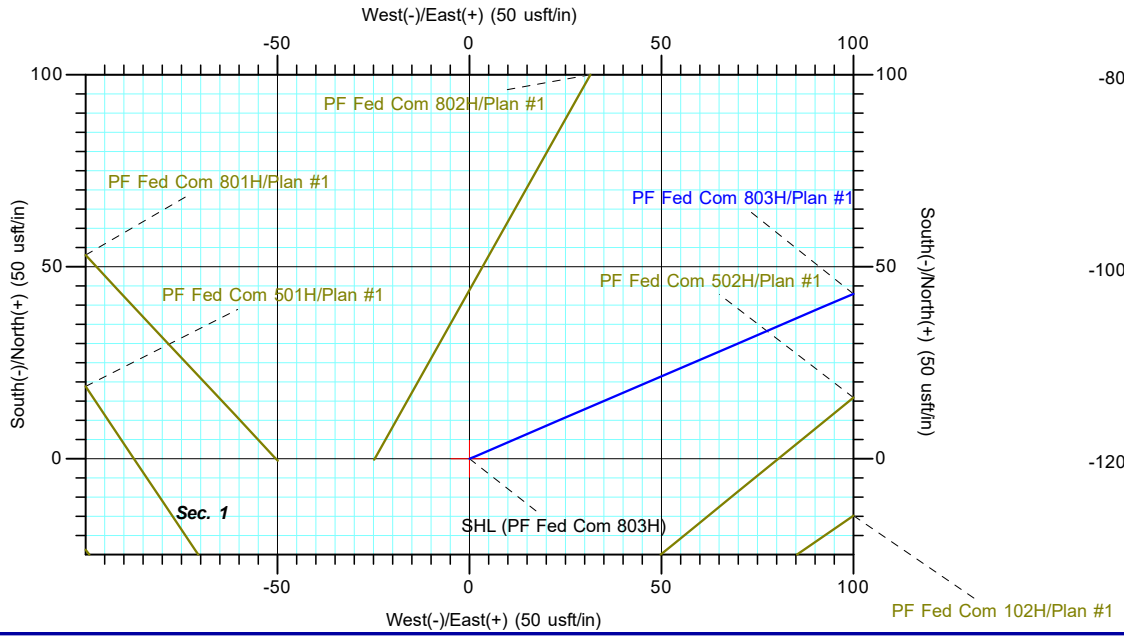
PROJECT DETAILS: Lea County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

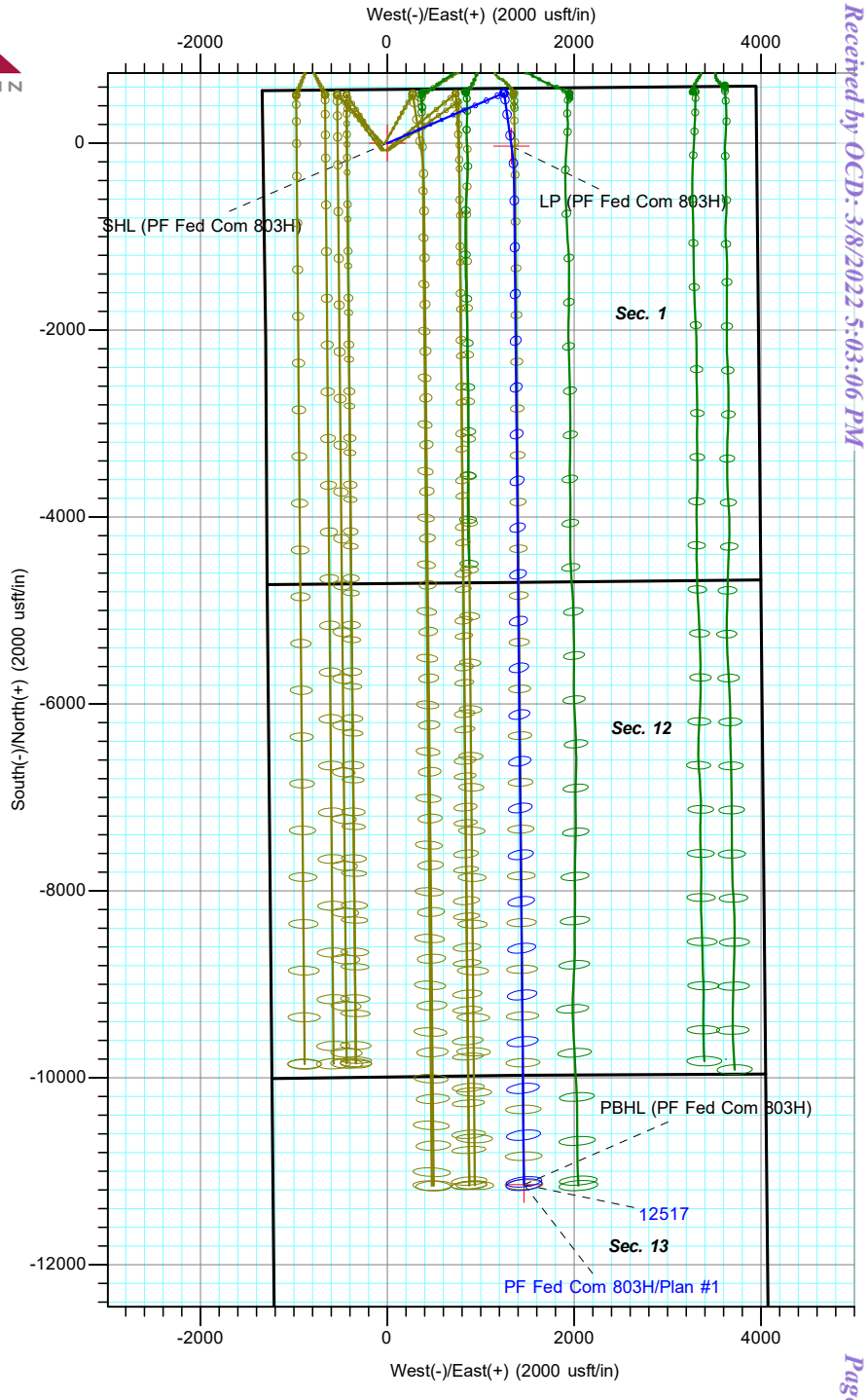
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (PF Fed Com 803H)	12517.00	-30.38	1329.74	393538.86	854831.45	32.077875	-103.321190
PBHL (PF Fed Com 803H)	12517.00	-11142.74	1463.18	382426.50	854964.89	32.047329	-103.321096
SHL (PF Fed Com 803H)	0.00	0.00	0.00	393569.24	853501.71	32.077993	-103.325482

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	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
2357.10	15.14	66.75	2348.32	39.26	91.39	2.00	66.75	-27.03	Start 4446.75 hold at 2357.10 MD
6803.85	15.14	66.75	6640.68	497.74	1158.61	0.00	0.00	-342.66	Start Drop -2.00
7560.95	0.00	0.00	7389.00	537.00	1250.00	2.00	180.00	-369.69	Start 4555.04 hold at 7560.95 MD
12115.99	0.00	0.00	11944.04	537.00	1250.00	0.00	0.00	-369.69	Start Build 10.00
13015.99	90.00	172.00	12517.00	-30.38	1329.74	10.00	172.00	203.25	Start DLS 2.00 TFO 90.00
13387.80	90.00	179.44	12517.00	-400.90	1357.48	2.00	90.00	574.22	Start 10742.36 hold at 13387.80 MD
24130.17	90.00	179.44	12517.00	-11142.74	1463.18	0.00	0.00	11238.40	TD at 24130.17





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

Plan: Plan #1 (PF Fed Com 803H/OH)
PF Fed Com
Created By: Dustin Ault Date: 22:11, July 16 2021
Date:
Approved: Date:

Franklin Mountain Energy

Lea County, NM (NAD83)
PF Fed Com
PF Fed Com 803H

OH

Plan: Plan #1

Standard Planning Report

16 July, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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 PF Fed Com

Site Position:		**Northing:**	393,493.72 usft	**Latitude:**	32.077787
From:	Lat/Long	**Easting:**	853,440.15 usft	**Longitude:**	-103.325683
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.54 °

Well PF Fed Com 803H

Well Position	**+N/-S**	75.52 usft	**Northing:**	393,569.24 usft	**Latitude:**	32.077993
	+E/-W	61.56 usft	**Easting:**	853,501.71 usft	**Longitude:**	-103.325482
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,053.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/16/2021	6.41	59.80	47,425.73225418

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	172.52

Plan Survey Tool Program **Date** 7/16/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	24,129.49	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	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,357.10	15.14	66.75	2,348.32	39.26	91.39	2.00	2.00	0.00	66.75	
6,803.85	15.14	66.75	6,640.68	497.74	1,158.61	0.00	0.00	0.00	0.00	
7,560.95	0.00	0.00	7,389.00	537.00	1,250.00	2.00	-2.00	0.00	180.00	
12,115.99	0.00	0.00	11,944.04	537.00	1,250.00	0.00	0.00	0.00	0.00	
13,015.99	90.00	172.00	12,517.00	-30.38	1,329.74	10.00	10.00	0.00	172.00	
13,387.80	90.00	179.44	12,517.00	-400.90	1,357.48	2.00	0.00	2.00	90.00	
24,130.17	90.00	179.44	12,517.00	-11,142.74	1,463.18	0.00	0.00	0.00	0.00	PBHL (PF Fed Com 8

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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 (PF Fed Com 803H)									
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
Start Build 2.00									
1,700.00	2.00	66.75	1,699.98	0.69	1.60	-0.47	2.00	2.00	0.00
1,800.00	4.00	66.75	1,799.84	2.75	6.41	-1.90	2.00	2.00	0.00
1,900.00	6.00	66.75	1,899.45	6.19	14.42	-4.26	2.00	2.00	0.00
2,000.00	8.00	66.75	1,998.70	11.00	25.62	-7.58	2.00	2.00	0.00
2,100.00	10.00	66.75	2,097.47	17.18	39.99	-11.83	2.00	2.00	0.00
2,200.00	12.00	66.75	2,195.62	24.71	57.52	-17.01	2.00	2.00	0.00
2,300.00	14.00	66.75	2,293.06	33.59	78.19	-23.12	2.00	2.00	0.00
2,357.10	15.14	66.75	2,348.32	39.26	91.39	-27.03	2.00	2.00	0.00
Start 4446.75 hold at 2357.10 MD									
2,400.00	15.14	66.75	2,389.73	43.68	101.68	-30.07	0.00	0.00	0.00
2,500.00	15.14	66.75	2,486.26	53.99	125.68	-37.17	0.00	0.00	0.00
2,600.00	15.14	66.75	2,582.78	64.30	149.68	-44.27	0.00	0.00	0.00
2,700.00	15.14	66.75	2,679.31	74.61	173.68	-51.37	0.00	0.00	0.00
2,800.00	15.14	66.75	2,775.84	84.92	197.68	-58.46	0.00	0.00	0.00
2,900.00	15.14	66.75	2,872.37	95.23	221.68	-65.56	0.00	0.00	0.00
3,000.00	15.14	66.75	2,968.90	105.55	245.68	-72.66	0.00	0.00	0.00
3,100.00	15.14	66.75	3,065.43	115.86	269.68	-79.76	0.00	0.00	0.00
3,200.00	15.14	66.75	3,161.95	126.17	293.68	-86.86	0.00	0.00	0.00
3,300.00	15.14	66.75	3,258.48	136.48	317.68	-93.95	0.00	0.00	0.00
3,400.00	15.14	66.75	3,355.01	146.79	341.68	-101.05	0.00	0.00	0.00
3,500.00	15.14	66.75	3,451.54	157.10	365.68	-108.15	0.00	0.00	0.00
3,600.00	15.14	66.75	3,548.07	167.41	389.68	-115.25	0.00	0.00	0.00
3,700.00	15.14	66.75	3,644.59	177.72	413.68	-122.35	0.00	0.00	0.00
3,800.00	15.14	66.75	3,741.12	188.03	437.68	-129.44	0.00	0.00	0.00
3,900.00	15.14	66.75	3,837.65	198.34	461.68	-136.54	0.00	0.00	0.00
4,000.00	15.14	66.75	3,934.18	208.65	485.68	-143.64	0.00	0.00	0.00
4,100.00	15.14	66.75	4,030.71	218.96	509.69	-150.74	0.00	0.00	0.00
4,200.00	15.14	66.75	4,127.24	229.27	533.69	-157.84	0.00	0.00	0.00
4,300.00	15.14	66.75	4,223.76	239.58	557.69	-164.93	0.00	0.00	0.00
4,400.00	15.14	66.75	4,320.29	249.89	581.69	-172.03	0.00	0.00	0.00
4,500.00	15.14	66.75	4,416.82	260.20	605.69	-179.13	0.00	0.00	0.00
4,600.00	15.14	66.75	4,513.35	270.51	629.69	-186.23	0.00	0.00	0.00
4,700.00	15.14	66.75	4,609.88	280.82	653.69	-193.33	0.00	0.00	0.00
4,800.00	15.14	66.75	4,706.40	291.13	677.69	-200.42	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 PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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	15.14	66.75	4,802.93	301.44	701.69	-207.52	0.00	0.00	0.00
5,000.00	15.14	66.75	4,899.46	311.76	725.69	-214.62	0.00	0.00	0.00
5,100.00	15.14	66.75	4,995.99	322.07	749.69	-221.72	0.00	0.00	0.00
5,200.00	15.14	66.75	5,092.52	332.38	773.69	-228.82	0.00	0.00	0.00
5,300.00	15.14	66.75	5,189.04	342.69	797.69	-235.92	0.00	0.00	0.00
5,400.00	15.14	66.75	5,285.57	353.00	821.69	-243.01	0.00	0.00	0.00
5,500.00	15.14	66.75	5,382.10	363.31	845.69	-250.11	0.00	0.00	0.00
5,600.00	15.14	66.75	5,478.63	373.62	869.69	-257.21	0.00	0.00	0.00
5,700.00	15.14	66.75	5,575.16	383.93	893.69	-264.31	0.00	0.00	0.00
5,800.00	15.14	66.75	5,671.69	394.24	917.69	-271.41	0.00	0.00	0.00
5,900.00	15.14	66.75	5,768.21	404.55	941.69	-278.50	0.00	0.00	0.00
6,000.00	15.14	66.75	5,864.74	414.86	965.69	-285.60	0.00	0.00	0.00
6,100.00	15.14	66.75	5,961.27	425.17	989.69	-292.70	0.00	0.00	0.00
6,200.00	15.14	66.75	6,057.80	435.48	1,013.69	-299.80	0.00	0.00	0.00
6,300.00	15.14	66.75	6,154.33	445.79	1,037.69	-306.90	0.00	0.00	0.00
6,400.00	15.14	66.75	6,250.85	456.10	1,061.69	-313.99	0.00	0.00	0.00
6,500.00	15.14	66.75	6,347.38	466.41	1,085.69	-321.09	0.00	0.00	0.00
6,600.00	15.14	66.75	6,443.91	476.72	1,109.69	-328.19	0.00	0.00	0.00
6,700.00	15.14	66.75	6,540.44	487.03	1,133.69	-335.29	0.00	0.00	0.00
6,803.85	15.14	66.75	6,640.68	497.74	1,158.61	-342.66	0.00	0.00	0.00
Start Drop -2.00									
6,900.00	13.22	66.75	6,733.90	507.04	1,180.26	-349.06	2.00	-2.00	0.00
7,000.00	11.22	66.75	6,831.63	515.39	1,199.70	-354.81	2.00	-2.00	0.00
7,100.00	9.22	66.75	6,930.04	522.39	1,216.00	-359.63	2.00	-2.00	0.00
7,200.00	7.22	66.75	7,029.01	528.04	1,229.14	-363.52	2.00	-2.00	0.00
7,300.00	5.22	66.75	7,128.41	532.31	1,239.09	-366.46	2.00	-2.00	0.00
7,400.00	3.22	66.75	7,228.14	535.22	1,245.85	-368.46	2.00	-2.00	0.00
7,500.00	1.22	66.75	7,328.06	536.74	1,249.40	-369.51	2.00	-2.00	0.00
7,560.95	0.00	0.00	7,389.00	537.00	1,250.00	-369.69	2.00	-2.00	0.00
Start 4555.04 hold at 7560.95 MD									
7,600.00	0.00	0.00	7,428.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
7,700.00	0.00	0.00	7,528.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
7,800.00	0.00	0.00	7,628.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
7,900.00	0.00	0.00	7,728.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,000.00	0.00	0.00	7,828.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,100.00	0.00	0.00	7,928.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,200.00	0.00	0.00	8,028.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,300.00	0.00	0.00	8,128.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,400.00	0.00	0.00	8,228.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,500.00	0.00	0.00	8,328.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,600.00	0.00	0.00	8,428.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,700.00	0.00	0.00	8,528.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,800.00	0.00	0.00	8,628.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
8,900.00	0.00	0.00	8,728.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,000.00	0.00	0.00	8,828.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,100.00	0.00	0.00	8,928.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,200.00	0.00	0.00	9,028.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,300.00	0.00	0.00	9,128.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,400.00	0.00	0.00	9,228.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,500.00	0.00	0.00	9,328.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,600.00	0.00	0.00	9,428.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,700.00	0.00	0.00	9,528.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,800.00	0.00	0.00	9,628.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
9,900.00	0.00	0.00	9,728.05	537.00	1,250.00	-369.69	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

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total

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Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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)
10,000.00	0.00	0.00	9,828.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,100.00	0.00	0.00	9,928.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,200.00	0.00	0.00	10,028.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,300.00	0.00	0.00	10,128.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,400.00	0.00	0.00	10,228.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,500.00	0.00	0.00	10,328.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,600.00	0.00	0.00	10,428.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,700.00	0.00	0.00	10,528.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,800.00	0.00	0.00	10,628.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
10,900.00	0.00	0.00	10,728.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,000.00	0.00	0.00	10,828.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,100.00	0.00	0.00	10,928.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,200.00	0.00	0.00	11,028.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,300.00	0.00	0.00	11,128.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,400.00	0.00	0.00	11,228.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,500.00	0.00	0.00	11,328.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,600.00	0.00	0.00	11,428.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,700.00	0.00	0.00	11,528.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,800.00	0.00	0.00	11,628.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
11,900.00	0.00	0.00	11,728.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
12,000.00	0.00	0.00	11,828.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
12,100.00	0.00	0.00	11,928.05	537.00	1,250.00	-369.69	0.00	0.00	0.00
12,115.99	0.00	0.00	11,944.04	537.00	1,250.00	-369.69	0.00	0.00	0.00
Start Build 10.00									
12,150.00	3.40	172.00	11,978.03	536.00	1,250.14	-368.68	10.00	10.00	0.00
12,200.00	8.40	172.00	12,027.75	530.91	1,250.86	-363.54	10.00	10.00	0.00
12,250.00	13.40	172.00	12,076.83	521.55	1,252.17	-354.09	10.00	10.00	0.00
12,300.00	18.40	172.00	12,124.90	507.99	1,254.08	-340.39	10.00	10.00	0.00
12,350.00	23.40	172.00	12,171.60	490.33	1,256.56	-322.56	10.00	10.00	0.00
12,400.00	28.40	172.00	12,216.56	468.71	1,259.60	-300.73	10.00	10.00	0.00
12,450.00	33.40	172.00	12,259.45	443.29	1,263.17	-275.06	10.00	10.00	0.00
12,500.00	38.40	172.00	12,299.94	414.26	1,267.25	-245.75	10.00	10.00	0.00
12,550.00	43.40	172.00	12,337.72	381.86	1,271.80	-213.02	10.00	10.00	0.00
12,600.00	48.40	172.00	12,372.50	346.31	1,276.80	-177.13	10.00	10.00	0.00
12,650.00	53.40	172.00	12,404.03	307.90	1,282.20	-138.34	10.00	10.00	0.00
12,700.00	58.40	172.00	12,432.05	266.91	1,287.96	-96.95	10.00	10.00	0.00
12,750.00	63.40	172.00	12,456.36	223.66	1,294.04	-53.28	10.00	10.00	0.00
12,800.00	68.40	172.00	12,476.77	178.48	1,300.39	-7.65	10.00	10.00	0.00
12,850.00	73.40	172.00	12,493.12	131.70	1,306.96	39.58	10.00	10.00	0.00
12,900.00	78.40	172.00	12,505.30	83.70	1,313.71	88.05	10.00	10.00	0.00
12,950.00	83.40	172.00	12,513.20	34.82	1,320.58	137.41	10.00	10.00	0.00
13,000.00	88.40	172.00	12,516.77	-14.55	1,327.52	187.26	10.00	10.00	0.00
13,015.99	90.00	172.00	12,517.00	-30.38	1,329.74	203.25	10.00	10.00	0.00
Start DLS 2.00 TFO 90.00 - LP (PF Fed Com 803H)									
13,100.00	90.00	173.68	12,517.00	-113.73	1,340.21	287.25	2.00	0.00	2.00
13,200.00	90.00	175.68	12,517.00	-213.30	1,349.48	387.18	2.00	0.00	2.00
13,300.00	90.00	177.68	12,517.00	-313.13	1,355.27	486.91	2.00	0.00	2.00
13,387.80	90.00	179.44	12,517.00	-400.90	1,357.48	574.22	2.00	0.00	2.00
Start 10742.36 hold at 13387.80 MD									
13,400.00	90.00	179.44	12,517.00	-413.09	1,357.60	586.33	0.00	0.00	0.00
13,500.00	90.00	179.44	12,517.00	-513.09	1,358.59	685.60	0.00	0.00	0.00
13,600.00	90.00	179.44	12,517.00	-613.08	1,359.57	784.87	0.00	0.00	0.00
13,700.00	90.00	179.44	12,517.00	-713.08	1,360.55	884.15	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 PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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)
13,800.00	90.00	179.44	12,517.00	-813.07	1,361.54	983.42	0.00	0.00	0.00
13,900.00	90.00	179.44	12,517.00	-913.07	1,362.52	1,082.69	0.00	0.00	0.00
14,000.00	90.00	179.44	12,517.00	-1,013.07	1,363.51	1,181.96	0.00	0.00	0.00
14,100.00	90.00	179.44	12,517.00	-1,113.06	1,364.49	1,281.24	0.00	0.00	0.00
14,200.00	90.00	179.44	12,517.00	-1,213.06	1,365.47	1,380.51	0.00	0.00	0.00
14,300.00	90.00	179.44	12,517.00	-1,313.05	1,366.46	1,479.78	0.00	0.00	0.00
14,400.00	90.00	179.44	12,517.00	-1,413.05	1,367.44	1,579.05	0.00	0.00	0.00
14,500.00	90.00	179.44	12,517.00	-1,513.04	1,368.42	1,678.32	0.00	0.00	0.00
14,600.00	90.00	179.44	12,517.00	-1,613.04	1,369.41	1,777.60	0.00	0.00	0.00
14,700.00	90.00	179.44	12,517.00	-1,713.03	1,370.39	1,876.87	0.00	0.00	0.00
14,800.00	90.00	179.44	12,517.00	-1,813.03	1,371.38	1,976.14	0.00	0.00	0.00
14,900.00	90.00	179.44	12,517.00	-1,913.02	1,372.36	2,075.41	0.00	0.00	0.00
15,000.00	90.00	179.44	12,517.00	-2,013.02	1,373.34	2,174.69	0.00	0.00	0.00
15,100.00	90.00	179.44	12,517.00	-2,113.01	1,374.33	2,273.96	0.00	0.00	0.00
15,200.00	90.00	179.44	12,517.00	-2,213.01	1,375.31	2,373.23	0.00	0.00	0.00
15,300.00	90.00	179.44	12,517.00	-2,313.00	1,376.30	2,472.50	0.00	0.00	0.00
15,400.00	90.00	179.44	12,517.00	-2,413.00	1,377.28	2,571.77	0.00	0.00	0.00
15,500.00	90.00	179.44	12,517.00	-2,512.99	1,378.26	2,671.05	0.00	0.00	0.00
15,600.00	90.00	179.44	12,517.00	-2,612.99	1,379.25	2,770.32	0.00	0.00	0.00
15,700.00	90.00	179.44	12,517.00	-2,712.98	1,380.23	2,869.59	0.00	0.00	0.00
15,800.00	90.00	179.44	12,517.00	-2,812.98	1,381.22	2,968.86	0.00	0.00	0.00
15,900.00	90.00	179.44	12,517.00	-2,912.97	1,382.20	3,068.13	0.00	0.00	0.00
16,000.00	90.00	179.44	12,517.00	-3,012.97	1,383.18	3,167.41	0.00	0.00	0.00
16,100.00	90.00	179.44	12,517.00	-3,112.96	1,384.17	3,266.68	0.00	0.00	0.00
16,200.00	90.00	179.44	12,517.00	-3,212.96	1,385.15	3,365.95	0.00	0.00	0.00
16,300.00	90.00	179.44	12,517.00	-3,312.95	1,386.14	3,465.22	0.00	0.00	0.00
16,400.00	90.00	179.44	12,517.00	-3,412.95	1,387.12	3,564.50	0.00	0.00	0.00
16,500.00	90.00	179.44	12,517.00	-3,512.94	1,388.10	3,663.77	0.00	0.00	0.00
16,600.00	90.00	179.44	12,517.00	-3,612.94	1,389.09	3,763.04	0.00	0.00	0.00
16,700.00	90.00	179.44	12,517.00	-3,712.93	1,390.07	3,862.31	0.00	0.00	0.00
16,800.00	90.00	179.44	12,517.00	-3,812.93	1,391.06	3,961.58	0.00	0.00	0.00
16,900.00	90.00	179.44	12,517.00	-3,912.92	1,392.04	4,060.86	0.00	0.00	0.00
17,000.00	90.00	179.44	12,517.00	-4,012.92	1,393.02	4,160.13	0.00	0.00	0.00
17,100.00	90.00	179.44	12,517.00	-4,112.92	1,394.01	4,259.40	0.00	0.00	0.00
17,200.00	90.00	179.44	12,517.00	-4,212.91	1,394.99	4,358.67	0.00	0.00	0.00
17,300.00	90.00	179.44	12,517.00	-4,312.91	1,395.98	4,457.94	0.00	0.00	0.00
17,400.00	90.00	179.44	12,517.00	-4,412.90	1,396.96	4,557.22	0.00	0.00	0.00
17,500.00	90.00	179.44	12,517.00	-4,512.90	1,397.94	4,656.49	0.00	0.00	0.00
17,600.00	90.00	179.44	12,517.00	-4,612.89	1,398.93	4,755.76	0.00	0.00	0.00
17,700.00	90.00	179.44	12,517.00	-4,712.89	1,399.91	4,855.03	0.00	0.00	0.00
17,800.00	90.00	179.44	12,517.00	-4,812.88	1,400.89	4,954.31	0.00	0.00	0.00
17,900.00	90.00	179.44	12,517.00	-4,912.88	1,401.88	5,053.58	0.00	0.00	0.00
18,000.00	90.00	179.44	12,517.00	-5,012.87	1,402.86	5,152.85	0.00	0.00	0.00
18,100.00	90.00	179.44	12,517.00	-5,112.87	1,403.85	5,252.12	0.00	0.00	0.00
18,200.00	90.00	179.44	12,517.00	-5,212.86	1,404.83	5,351.39	0.00	0.00	0.00
18,300.00	90.00	179.44	12,517.00	-5,312.86	1,405.81	5,450.67	0.00	0.00	0.00
18,400.00	90.00	179.44	12,517.00	-5,412.85	1,406.80	5,549.94	0.00	0.00	0.00
18,500.00	90.00	179.44	12,517.00	-5,512.85	1,407.78	5,649.21	0.00	0.00	0.00
18,600.00	90.00	179.44	12,517.00	-5,612.84	1,408.77	5,748.48	0.00	0.00	0.00
18,700.00	90.00	179.44	12,517.00	-5,712.84	1,409.75	5,847.75	0.00	0.00	0.00
18,800.00	90.00	179.44	12,517.00	-5,812.83	1,410.73	5,947.03	0.00	0.00	0.00
18,900.00	90.00	179.44	12,517.00	-5,912.83	1,411.72	6,046.30	0.00	0.00	0.00
19,000.00	90.00	179.44	12,517.00	-6,012.82	1,412.70	6,145.57	0.00	0.00	0.00
19,100.00	90.00	179.44	12,517.00	-6,112.82	1,413.69	6,244.84	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 PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**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)
19,200.00	90.00	179.44	12,517.00	-6,212.81	1,414.67	6,344.12	0.00	0.00	0.00
19,300.00	90.00	179.44	12,517.00	-6,312.81	1,415.65	6,443.39	0.00	0.00	0.00
19,400.00	90.00	179.44	12,517.00	-6,412.80	1,416.64	6,542.66	0.00	0.00	0.00
19,500.00	90.00	179.44	12,517.00	-6,512.80	1,417.62	6,641.93	0.00	0.00	0.00
19,600.00	90.00	179.44	12,517.00	-6,612.79	1,418.61	6,741.20	0.00	0.00	0.00
19,700.00	90.00	179.44	12,517.00	-6,712.79	1,419.59	6,840.48	0.00	0.00	0.00
19,800.00	90.00	179.44	12,517.00	-6,812.78	1,420.57	6,939.75	0.00	0.00	0.00
19,900.00	90.00	179.44	12,517.00	-6,912.78	1,421.56	7,039.02	0.00	0.00	0.00
20,000.00	90.00	179.44	12,517.00	-7,012.77	1,422.54	7,138.29	0.00	0.00	0.00
20,100.00	90.00	179.44	12,517.00	-7,112.77	1,423.53	7,237.56	0.00	0.00	0.00
20,200.00	90.00	179.44	12,517.00	-7,212.77	1,424.51	7,336.84	0.00	0.00	0.00
20,300.00	90.00	179.44	12,517.00	-7,312.76	1,425.49	7,436.11	0.00	0.00	0.00
20,400.00	90.00	179.44	12,517.00	-7,412.76	1,426.48	7,535.38	0.00	0.00	0.00
20,500.00	90.00	179.44	12,517.00	-7,512.75	1,427.46	7,634.65	0.00	0.00	0.00
20,600.00	90.00	179.44	12,517.00	-7,612.75	1,428.45	7,733.93	0.00	0.00	0.00
20,700.00	90.00	179.44	12,517.00	-7,712.74	1,429.43	7,833.20	0.00	0.00	0.00
20,800.00	90.00	179.44	12,517.00	-7,812.74	1,430.41	7,932.47	0.00	0.00	0.00
20,900.00	90.00	179.44	12,517.00	-7,912.73	1,431.40	8,031.74	0.00	0.00	0.00
21,000.00	90.00	179.44	12,517.00	-8,012.73	1,432.38	8,131.01	0.00	0.00	0.00
21,100.00	90.00	179.44	12,517.00	-8,112.72	1,433.36	8,230.29	0.00	0.00	0.00
21,200.00	90.00	179.44	12,517.00	-8,212.72	1,434.35	8,329.56	0.00	0.00	0.00
21,300.00	90.00	179.44	12,517.00	-8,312.71	1,435.33	8,428.83	0.00	0.00	0.00
21,400.00	90.00	179.44	12,517.00	-8,412.71	1,436.32	8,528.10	0.00	0.00	0.00
21,500.00	90.00	179.44	12,517.00	-8,512.70	1,437.30	8,627.37	0.00	0.00	0.00
21,600.00	90.00	179.44	12,517.00	-8,612.70	1,438.28	8,726.65	0.00	0.00	0.00
21,700.00	90.00	179.44	12,517.00	-8,712.69	1,439.27	8,825.92	0.00	0.00	0.00
21,800.00	90.00	179.44	12,517.00	-8,812.69	1,440.25	8,925.19	0.00	0.00	0.00
21,900.00	90.00	179.44	12,517.00	-8,912.68	1,441.24	9,024.46	0.00	0.00	0.00
22,000.00	90.00	179.44	12,517.00	-9,012.68	1,442.22	9,123.74	0.00	0.00	0.00
22,100.00	90.00	179.44	12,517.00	-9,112.67	1,443.20	9,223.01	0.00	0.00	0.00
22,200.00	90.00	179.44	12,517.00	-9,212.67	1,444.19	9,322.28	0.00	0.00	0.00
22,300.00	90.00	179.44	12,517.00	-9,312.66	1,445.17	9,421.55	0.00	0.00	0.00
22,400.00	90.00	179.44	12,517.00	-9,412.66	1,446.16	9,520.82	0.00	0.00	0.00
22,500.00	90.00	179.44	12,517.00	-9,512.65	1,447.14	9,620.10	0.00	0.00	0.00
22,600.00	90.00	179.44	12,517.00	-9,612.65	1,448.12	9,719.37	0.00	0.00	0.00
22,700.00	90.00	179.44	12,517.00	-9,712.64	1,449.11	9,818.64	0.00	0.00	0.00
22,800.00	90.00	179.44	12,517.00	-9,812.64	1,450.09	9,917.91	0.00	0.00	0.00
22,900.00	90.00	179.44	12,517.00	-9,912.63	1,451.08	10,017.18	0.00	0.00	0.00
23,000.00	90.00	179.44	12,517.00	-10,012.63	1,452.06	10,116.46	0.00	0.00	0.00
23,100.00	90.00	179.44	12,517.00	-10,112.62	1,453.04	10,215.73	0.00	0.00	0.00
23,200.00	90.00	179.44	12,517.00	-10,212.62	1,454.03	10,315.00	0.00	0.00	0.00
23,300.00	90.00	179.44	12,517.00	-10,312.62	1,455.01	10,414.27	0.00	0.00	0.00
23,400.00	90.00	179.44	12,517.00	-10,412.61	1,456.00	10,513.55	0.00	0.00	0.00
23,500.00	90.00	179.44	12,517.00	-10,512.61	1,456.98	10,612.82	0.00	0.00	0.00
23,600.00	90.00	179.44	12,517.00	-10,612.60	1,457.96	10,712.09	0.00	0.00	0.00
23,700.00	90.00	179.44	12,517.00	-10,712.60	1,458.95	10,811.36	0.00	0.00	0.00
23,800.00	90.00	179.44	12,517.00	-10,812.59	1,459.93	10,910.63	0.00	0.00	0.00
23,900.00	90.00	179.44	12,517.00	-10,912.59	1,460.91	11,009.91	0.00	0.00	0.00
24,000.00	90.00	179.44	12,517.00	-11,012.58	1,461.90	11,109.18	0.00	0.00	0.00
24,100.00	90.00	179.44	12,517.00	-11,112.58	1,462.88	11,208.45	0.00	0.00	0.00
24,130.17	90.00	179.44	12,517.00	-11,142.74	1,463.18	11,238.40	0.00	0.00	0.00

TD at 24130.17 - PBHL (PF Fed Com 803H)

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site:	PF Fed Com	**North Reference:**	Grid
Well:	PF Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (PF Fed Com 803H - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	393,569.24	853,501.71	32.077993	-103.325482
PBHL (PF Fed Com 803 - plan hits target center - Point	0.00	0.00	12,517.00	-11,142.74	1,463.18	382,426.50	854,964.89	32.047329	-103.321096
LP (PF Fed Com 803H) - plan hits target center - Point	0.00	0.00	12,517.00	-30.38	1,329.74	393,538.86	854,831.45	32.077875	-103.321191

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,600.00	1,600.00	0.00	0.00	Start Build 2.00
2,357.10	2,348.32	39.26	91.39	Start 4446.75 hold at 2357.10 MD
6,803.85	6,640.68	497.74	1,158.61	Start Drop -2.00
7,560.95	7,389.00	537.00	1,250.00	Start 4555.04 hold at 7560.95 MD
12,115.99	11,944.04	537.00	1,250.00	Start Build 10.00
13,015.99	12,517.00	-30.38	1,329.74	Start DLS 2.00 TFO 90.00
13,387.80	12,517.00	-400.90	1,357.48	Start 10742.36 hold at 13387.80 MD
24,130.17	12,517.00	-11,142.74	1,463.18	TD at 24130.17

Franklin Mountain Energy

Lea County, NM (NAD83)
PF Fed Com
PF Fed Com 803H

OH
Plan #1

Anticollision Report

16 July, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

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

Survey Tool Program **Date** 7/16/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	24,129.49	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
Bus Driver/Kaston Fed Com						
Bus Driver Fed Com 602H - OH - OH	6,312.16	6,198.89	229.19	195.38	6.779	CC, ES, SF
Bus Driver Fed Com 602H - OH - Plan #6	6,312.16	6,198.89	229.19	195.38	6.779	CC, ES
Bus Driver Fed Com 602H - OH - Plan #6	24,130.17	23,302.33	559.86	302.22	2.173	SF
Bus Driver Fed Com 702H - OH - OH	5,488.48	5,415.30	395.55	366.19	13.470	CC
Bus Driver Fed Com 702H - OH - OH	5,500.00	5,425.66	395.59	366.15	13.439	ES
Bus Driver Fed Com 702H - OH - OH	5,600.00	5,515.69	398.64	368.67	13.300	SF
Bus Driver Fed Com 702H - OH - Plan #5	5,461.77	5,383.58	381.34	352.13	13.059	CC, ES
Bus Driver Fed Com 702H - OH - Plan #5	24,130.17	23,546.42	1,038.01	773.71	3.927	SF
Kaston Fed Com 603H - OH - OH	24,130.17	23,350.00	640.23	383.29	2.492	CC, ES, SF
Kaston Fed Com 703H - OH - OH	11,272.99	11,134.75	97.19	43.35	1.805	CC
Kaston Fed Com 703H - OH - OH	11,600.00	11,461.64	98.26	42.70	1.768	ES, SF
Kaston Fed Com 703H - OH - Plan #9	11,273.56	11,135.30	97.27	43.36	1.804	CC
Kaston Fed Com 703H - OH - Plan #9	11,400.00	11,261.13	97.64	43.07	1.789	ES
Kaston Fed Com 703H - OH - Plan #9	11,700.00	11,559.79	100.26	44.07	1.784	SF
Judge Baylor Fed Com						
Judge Baylor Fed Com 601H - OH - Plan #5	1,600.00	1,617.00	1,181.20	1,173.38	150.953	CC, ES
Judge Baylor Fed Com 601H - OH - Plan #5	22,900.00	22,101.01	2,383.32	2,139.29	9.766	SF
Judge Baylor Fed Com 701H - OH - Plan #5	1,600.00	1,617.00	1,156.41	1,148.59	147.785	CC, ES
Judge Baylor Fed Com 701H - OH - Plan #5	22,900.00	22,390.61	2,035.08	1,787.64	8.225	SF
LHS Wildcat Fed Com						
LHS Wildcat Fed Com 604H - OH - OH	19,534.78	18,569.03	1,962.59	1,790.87	11.429	CC
LHS Wildcat Fed Com 604H - OH - OH	22,700.00	21,694.48	1,987.36	1,746.35	8.246	ES
LHS Wildcat Fed Com 604H - OH - OH	23,000.00	21,860.00	2,001.10	1,750.92	7.999	SF
LHS Wildcat Fed Com 705H - OH - OH	18,355.75	17,655.00	2,249.20	2,100.46	15.122	CC
LHS Wildcat Fed Com 705H - OH - OH	22,600.00	21,857.54	2,270.16	2,028.13	9.380	ES
LHS Wildcat Fed Com 705H - OH - OH	23,100.00	22,230.00	2,294.85	2,039.14	8.974	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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

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
PF Fed Com						
PF Fed Com 101H - OH - Plan #1	1,600.00	1,600.00	97.43	89.65	12.521	CC, ES
PF Fed Com 101H - OH - Plan #1	1,800.00	1,799.84	103.67	94.88	11.800	SF
PF Fed Com 102H - OH - Plan #1	1,600.00	1,600.00	76.01	68.23	9.768	CC
PF Fed Com 102H - OH - Plan #1	1,700.00	1,699.98	76.43	68.14	9.225	ES
PF Fed Com 102H - OH - Plan #1	1,900.00	1,899.45	81.02	71.74	8.723	SF
PF Fed Com 501H - OH - Plan #1	1,600.00	1,600.00	83.80	76.01	10.768	CC, ES
PF Fed Com 501H - OH - Plan #1	1,800.00	1,799.84	89.20	80.42	10.153	SF
PF Fed Com 502H - OH - Plan #1	1,600.00	1,600.00	75.96	68.18	9.762	CC, ES
PF Fed Com 502H - OH - Plan #1	1,800.00	1,799.84	79.89	71.10	9.093	SF
PF Fed Com 801H - OH - Plan #1	1,600.00	1,600.00	49.87	42.09	6.409	CC, ES
PF Fed Com 801H - OH - Plan #1	1,700.00	1,699.98	51.49	43.20	6.214	SF
PF Fed Com 802H - OH - Plan #1	1,600.00	1,600.00	24.78	17.00	3.184	CC, ES, SF

Offset Design Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	4.37	4.37	0.00	0.01	49.97	896.84	1,067.68	1,394.37				
100.00	100.00	101.38	101.38	0.13	0.13	49.97	897.00	1,067.70	1,394.49	1,394.30	0.18	7,622.847	
178.15	178.15	182.65	182.65	0.41	0.39	49.96	897.02	1,067.67	1,394.47	1,393.91	0.56	2,474.132	
200.00	200.00	199.58	199.58	0.48	0.45	49.96	897.07	1,067.67	1,394.52	1,393.86	0.66	2,109.209	
300.00	300.00	303.66	303.65	0.84	0.82	49.92	897.96	1,067.14	1,394.68	1,393.50	1.18	1,185.788	
400.00	400.00	409.50	409.46	1.20	1.20	49.81	899.91	1,065.30	1,394.53	1,392.83	1.70	821.589	
500.00	500.00	527.85	527.77	1.56	1.62	49.70	901.01	1,062.49	1,393.29	1,391.04	2.25	619.341	
600.00	600.00	653.36	653.22	1.92	2.06	49.66	899.59	1,059.38	1,390.65	1,387.84	2.82	493.972	
700.00	700.00	761.16	760.92	2.28	2.44	49.72	895.85	1,057.01	1,386.73	1,383.39	3.33	416.134	
800.00	800.00	883.57	883.01	2.63	2.87	49.99	886.89	1,056.77	1,381.85	1,377.97	3.88	355.835	
900.00	900.00	967.32	966.51	2.99	3.17	50.17	880.60	1,055.86	1,376.28	1,371.93	4.34	316.845	
1,000.00	1,000.00	1,059.61	1,058.63	3.35	3.49	50.34	875.07	1,055.55	1,372.17	1,367.34	4.83	284.256	
1,100.00	1,100.00	1,155.00	1,153.88	3.71	3.84	50.50	869.71	1,055.07	1,368.22	1,362.90	5.32	257.167	
1,200.00	1,200.00	1,245.89	1,244.66	4.07	4.16	50.64	865.38	1,055.10	1,365.19	1,359.38	5.80	235.265	
1,300.00	1,300.00	1,331.18	1,329.89	4.43	4.47	50.74	862.25	1,054.86	1,362.67	1,356.40	6.27	217.285	
1,400.00	1,400.00	1,425.00	1,423.68	4.79	4.68	50.79	860.21	1,054.51	1,361.00	1,354.33	6.67	204.006	
1,500.00	1,500.00	1,519.00	1,517.67	5.14	4.70	50.80	859.27	1,053.66	1,359.68	1,352.73	6.95	195.712	
1,600.00	1,600.00	1,604.57	1,603.24	5.50	4.74	50.75	859.88	1,052.61	1,359.18	1,351.94	7.24	187.691	
1,643.66	1,643.66	1,644.57	1,643.22	5.66	4.77	-16.03	860.55	1,052.19	1,358.97	1,351.60	7.38	184.252	
1,700.00	1,699.98	1,697.43	1,696.07	5.86	4.80	-16.11	861.61	1,051.66	1,357.89	1,350.34	7.55	179.804	
1,800.00	1,799.84	1,795.79	1,794.40	6.21	4.89	-16.29	863.83	1,050.72	1,353.56	1,345.68	7.88	171.761	
1,900.00	1,899.45	1,894.40	1,892.98	6.56	5.00	-16.53	866.06	1,049.86	1,345.97	1,337.74	8.23	163.599	
2,000.00	1,998.70	1,986.64	1,985.20	6.92	5.12	-16.81	868.15	1,049.42	1,335.36	1,326.78	8.58	155.561	
2,100.00	2,097.47	2,078.36	2,076.89	7.29	5.26	-17.14	870.37	1,049.49	1,321.99	1,313.04	8.95	147.654	
2,200.00	2,195.62	2,171.41	2,169.90	7.67	5.42	-17.55	872.87	1,049.94	1,305.83	1,296.50	9.34	139.873	
2,300.00	2,293.06	2,266.52	2,264.98	8.07	5.60	-18.03	875.62	1,050.63	1,286.75	1,277.02	9.73	132.209	
2,357.10	2,348.32	2,320.59	2,319.02	8.31	5.71	-18.35	877.26	1,051.06	1,274.51	1,264.54	9.97	127.888	
2,400.00	2,389.73	2,361.13	2,359.53	8.49	5.79	-18.54	878.55	1,051.38	1,264.97	1,254.83	10.14	124.737	
2,500.00	2,486.26	2,457.50	2,455.85	8.92	6.00	-19.01	881.70	1,052.17	1,242.86	1,232.30	10.56	117.694	
2,600.00	2,582.78	2,561.64	2,559.95	9.37	6.23	-19.48	884.17	1,053.48	1,220.56	1,209.56	11.00	110.960	
2,700.00	2,679.31	2,654.75	2,653.04	9.83	6.45	-19.87	885.64	1,055.24	1,198.27	1,186.84	11.43	104.790	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-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
2,800.00	2,775.84	2,784.51	2,782.79	10.30	6.77	-20.43	886.02	1,056.30	1,174.30	1,162.38	11.92	98.539	
2,900.00	2,872.37	2,877.14	2,875.41	10.78	7.00	-20.85	885.71	1,056.34	1,149.57	1,137.21	12.36	92.978	
3,000.00	2,968.90	2,961.39	2,959.66	11.27	7.22	-21.25	885.87	1,056.92	1,125.70	1,112.89	12.81	87.861	
3,100.00	3,065.43	3,045.94	3,044.19	11.76	7.45	-21.64	886.55	1,058.48	1,103.10	1,089.83	13.27	83.128	
3,200.00	3,161.95	3,151.61	3,149.83	12.25	7.74	-22.12	887.26	1,061.15	1,080.99	1,067.24	13.76	78.572	
3,300.00	3,258.48	3,302.62	3,300.78	12.76	8.16	-22.80	884.24	1,062.20	1,055.88	1,041.60	14.28	73.955	
3,400.00	3,355.01	3,443.53	3,441.35	13.26	8.57	-23.33	874.79	1,060.20	1,026.13	1,011.37	14.76	69.513	
3,500.00	3,451.54	3,561.93	3,559.18	13.77	8.92	-23.91	864.77	1,054.31	992.79	977.56	15.23	65.180	
3,600.00	3,548.07	3,650.52	3,647.28	14.29	9.19	-24.48	857.83	1,048.25	958.84	943.12	15.72	60.996	
3,700.00	3,644.59	3,732.97	3,729.37	14.80	9.44	-25.11	852.78	1,042.46	926.02	909.80	16.22	57.088	
3,800.00	3,741.12	3,829.14	3,825.18	15.32	9.74	-25.98	848.39	1,035.38	894.23	877.51	16.72	53.469	
3,900.00	3,837.65	3,954.85	3,950.17	15.84	10.15	-27.13	839.68	1,025.24	860.57	843.37	17.20	50.045	
4,000.00	3,934.18	4,056.25	4,050.66	16.37	10.48	-27.96	828.92	1,017.10	824.43	806.74	17.69	46.608	
4,100.00	4,030.71	4,134.31	4,128.08	16.90	10.75	-28.65	820.85	1,011.14	788.89	770.66	18.23	43.264	
4,200.00	4,127.24	4,219.33	4,212.57	17.42	11.04	-29.52	813.66	1,005.11	755.17	736.39	18.78	40.212	
4,300.00	4,223.76	4,302.71	4,295.52	17.95	11.32	-30.48	807.44	999.26	722.47	703.13	19.34	37.352	
4,400.00	4,320.29	4,383.70	4,376.23	18.49	11.59	-31.41	802.10	995.14	691.75	671.83	19.92	34.728	
4,500.00	4,416.82	4,470.54	4,462.87	19.02	11.88	-32.45	797.33	991.89	662.86	642.37	20.50	32.341	
4,600.00	4,513.35	4,572.46	4,564.57	19.55	12.23	-33.72	791.37	988.78	634.37	613.32	21.05	30.132	
4,700.00	4,609.88	4,676.29	4,668.01	20.09	12.58	-35.08	783.31	984.96	604.24	582.64	21.61	27.967	
4,800.00	4,706.40	4,769.49	4,760.85	20.62	12.91	-36.49	776.18	980.95	574.22	552.02	22.21	25.860	
4,900.00	4,802.93	4,864.58	4,855.58	21.16	13.24	-38.10	769.07	976.70	544.63	521.81	22.82	23.871	
5,000.00	4,899.46	4,962.96	4,953.55	21.70	13.59	-39.97	761.39	972.02	515.08	491.65	23.43	21.983	
5,100.00	4,995.99	5,056.50	5,046.64	22.24	13.92	-42.00	753.70	967.08	485.48	461.39	24.09	20.152	
5,200.00	5,092.52	5,152.89	5,142.58	22.78	14.27	-44.39	746.16	961.73	456.78	432.02	24.77	18.444	
5,300.00	5,189.04	5,256.77	5,245.82	23.32	14.65	-47.23	736.21	955.95	427.36	401.95	25.41	16.817	
5,400.00	5,285.57	5,353.91	5,342.14	23.86	15.01	-50.08	724.50	951.21	396.86	370.75	26.12	15.196	
5,500.00	5,382.10	5,445.90	5,433.35	24.41	15.35	-53.16	713.34	946.95	367.37	340.47	26.90	13.655	
5,600.00	5,478.63	5,537.63	5,524.36	24.95	15.69	-56.67	702.54	943.14	339.53	311.79	27.74	12.240	
5,700.00	5,575.16	5,630.58	5,616.63	25.49	16.04	-60.75	691.94	939.54	313.59	284.98	28.61	10.960	
5,800.00	5,671.69	5,723.14	5,708.49	26.04	16.39	-65.71	681.70	934.71	289.77	260.22	29.56	9.804	
5,900.00	5,768.21	5,814.26	5,798.98	26.58	16.73	-71.37	672.14	929.71	269.15	238.59	30.56	8.808	
6,000.00	5,864.74	5,906.30	5,890.50	27.13	17.07	-77.65	663.41	925.45	252.68	221.15	31.53	8.014	
6,100.00	5,961.27	5,999.95	5,983.69	27.67	17.42	-84.60	654.93	921.62	240.30	207.89	32.42	7.413	
6,200.00	6,057.80	6,093.66	6,076.96	28.22	17.77	-92.05	646.65	917.92	232.33	199.16	33.18	7.003	
6,300.00	6,154.33	6,187.50	6,170.39	28.76	18.12	-99.78	638.65	914.34	229.23	195.47	33.75	6.792	
6,312.16	6,166.06	6,198.89	6,181.72	28.83	18.16	-100.74	637.66	913.84	229.19	195.38	33.81	6.779	CC, ES, SF
6,400.00	6,250.85	6,281.06	6,263.45	29.31	18.47	-107.80	630.16	909.69	231.23	197.12	34.11	6.779	
6,500.00	6,347.38	6,374.36	6,356.13	29.86	18.83	-115.77	621.06	904.15	238.51	204.26	34.25	6.963	
6,600.00	6,443.91	6,468.27	6,449.43	30.41	19.18	-123.23	611.91	898.59	250.68	216.41	34.27	7.315	
6,700.00	6,540.44	6,562.38	6,542.91	30.95	19.55	-130.02	602.48	893.19	266.78	232.54	34.24	7.791	
6,803.85	6,640.68	6,659.95	6,639.87	31.52	19.92	-136.17	592.98	887.85	287.07	252.84	34.23	8.385	
6,900.00	6,733.90	6,751.10	6,730.56	32.03	20.26	-141.09	584.92	883.30	307.09	272.79	34.31	8.951	
7,000.00	6,831.63	6,846.03	6,825.05	32.53	20.62	-145.13	577.13	878.71	327.06	292.60	34.46	9.492	
7,100.00	6,930.04	6,940.01	6,918.65	32.98	20.97	-148.23	570.27	873.85	345.85	311.19	34.66	9.979	
7,200.00	7,029.01	7,035.76	7,014.07	33.40	21.33	-150.57	564.70	868.21	363.30	328.36	34.94	10.399	
7,300.00	7,128.41	7,135.36	7,113.38	33.78	21.69	-152.36	559.74	862.51	378.08	342.77	35.30	10.710	
7,400.00	7,228.14	7,235.62	7,213.39	34.12	22.06	-153.74	554.91	857.16	389.66	353.96	35.70	10.916	
7,500.00	7,328.06	7,334.54	7,312.08	34.43	22.42	-154.71	550.70	852.07	398.10	362.01	36.09	11.031	
7,560.95	7,389.00	7,395.89	7,373.30	34.59	22.64	-88.40	548.23	848.81	401.86	365.51	36.35	11.056	
7,600.00	7,428.05	7,436.72	7,414.04	34.70	22.79	-88.63	546.64	846.81	403.73	367.20	36.53	11.051	
7,700.00	7,528.05	7,540.82	7,517.99	34.97	23.16	-89.15	543.01	842.51	407.80	370.79	37.01	11.020	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-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
7,800.00	7,628.05	7,648.90	7,626.01	35.24	23.54	-89.44	541.04	839.61	410.47	372.93	37.53	10.936	
7,900.00	7,728.05	7,755.34	7,732.45	35.51	23.88	-89.39	541.37	838.82	411.21	373.16	38.05	10.807	
8,000.00	7,828.05	7,856.15	7,833.26	35.79	24.20	-89.31	541.92	838.87	411.16	372.65	38.51	10.678	
8,100.00	7,928.05	7,958.51	7,935.62	36.06	24.52	-89.31	541.95	839.33	410.71	371.73	38.97	10.538	
8,200.00	8,028.05	8,061.06	8,038.16	36.34	24.85	-89.35	541.66	840.42	409.65	370.20	39.44	10.386	
8,300.00	8,128.05	8,162.71	8,139.79	36.62	25.18	-89.42	541.10	842.07	408.02	368.11	39.90	10.225	
8,400.00	8,228.05	8,259.45	8,236.52	36.90	25.49	-89.50	540.53	843.64	406.39	366.06	40.33	10.077	
8,451.08	8,279.13	8,306.56	8,283.63	37.04	25.65	-89.54	540.25	843.87	406.14	365.61	40.53	10.021	
8,500.00	8,328.05	8,351.34	8,328.41	37.18	25.80	-89.57	540.03	843.64	406.39	365.68	40.71	9.982	
8,600.00	8,428.05	8,447.87	8,424.92	37.46	26.13	-89.59	539.93	841.87	408.22	367.08	41.14	9.923	
8,700.00	8,528.05	8,551.78	8,528.82	37.75	26.47	-89.57	540.07	840.46	409.57	367.93	41.64	9.835	
8,800.00	8,628.05	8,653.15	8,630.18	38.03	26.81	-89.52	540.45	839.81	410.21	368.10	42.12	9.739	
8,900.00	8,728.05	8,753.43	8,730.47	38.32	27.14	-89.46	540.84	839.25	410.77	368.18	42.59	9.646	
9,000.00	8,828.05	8,852.35	8,829.38	38.61	27.47	-89.41	541.21	838.68	411.35	368.31	43.04	9.557	
9,100.00	8,928.05	8,950.48	8,927.51	38.89	27.80	-89.37	541.52	837.71	412.35	368.85	43.49	9.481	
9,200.00	9,028.05	9,049.41	9,026.42	39.18	28.13	-89.30	542.04	836.36	413.72	369.77	43.95	9.413	
9,300.00	9,128.05	9,149.42	9,126.42	39.47	28.46	-89.18	542.93	834.87	415.22	370.79	44.42	9.347	
9,400.00	9,228.05	9,249.27	9,226.25	39.77	28.80	-89.02	544.13	833.40	416.71	371.81	44.90	9.282	
9,500.00	9,328.05	9,348.54	9,325.50	40.06	29.13	-88.84	545.45	831.84	418.30	372.94	45.37	9.221	
9,600.00	9,428.05	9,447.53	9,424.47	40.35	29.46	-88.66	546.85	830.09	420.11	374.27	45.83	9.166	
9,700.00	9,528.05	9,546.65	9,523.55	40.65	29.79	-88.46	548.32	828.10	422.15	375.85	46.30	9.117	
9,800.00	9,628.05	9,647.34	9,624.21	40.95	30.13	-88.28	549.70	826.09	424.18	377.39	46.79	9.066	
9,900.00	9,728.05	9,746.22	9,723.06	41.24	30.46	-88.14	550.86	824.11	426.22	378.96	47.26	9.019	
10,000.00	9,828.05	9,849.25	9,826.05	41.54	30.81	-87.98	552.09	821.63	428.69	380.92	47.77	8.975	
10,100.00	9,928.05	9,966.62	9,943.41	41.84	31.20	-88.05	551.51	822.74	427.64	379.28	48.36	8.843	
10,200.00	10,028.05	10,069.30	10,046.04	42.14	31.53	-88.16	550.63	825.88	424.55	375.72	48.84	8.693	
10,300.00	10,128.05	10,169.33	10,146.02	42.44	31.85	-88.19	550.31	829.03	421.40	372.09	49.30	8.547	
10,400.00	10,228.05	10,268.22	10,244.87	42.74	32.17	-88.18	550.26	832.12	418.27	368.51	49.76	8.406	
10,500.00	10,328.05	10,363.46	10,340.07	43.05	32.48	-88.19	550.14	834.47	415.80	365.61	50.20	8.283	
10,600.00	10,428.05	10,463.55	10,440.14	43.35	32.81	-88.21	549.96	836.11	414.17	363.50	50.67	8.174	
10,700.00	10,528.05	10,563.25	10,539.83	43.65	33.14	-88.29	549.30	837.93	412.31	361.18	51.13	8.064	
10,800.00	10,628.05	10,661.88	10,638.44	43.96	33.47	-88.40	548.47	839.50	410.70	359.12	51.59	7.961	
10,900.00	10,728.05	10,759.64	10,736.19	44.27	33.80	-88.51	547.68	840.62	409.53	357.50	52.04	7.870	
11,000.00	10,828.05	10,859.72	10,836.27	44.57	34.14	-88.61	546.92	841.49	408.65	356.14	52.51	7.783	
11,100.00	10,928.05	10,958.88	10,935.42	44.88	34.47	-88.72	546.13	842.25	407.86	354.89	52.97	7.700	
11,200.00	11,028.05	11,059.62	11,036.15	45.19	34.82	-88.88	544.96	843.11	406.98	353.54	53.45	7.615	
11,273.72	11,101.77	11,129.75	11,106.27	45.42	35.06	-89.07	543.58	843.40	406.66	352.89	53.76	7.564	
11,300.00	11,128.05	11,155.38	11,131.89	45.50	35.15	-89.17	542.92	843.36	406.69	352.81	53.88	7.548	
11,400.00	11,228.05	11,257.75	11,234.19	45.81	35.51	-89.65	539.48	843.15	406.86	352.51	54.36	7.485	
11,500.00	11,328.05	11,370.03	11,345.13	46.12	35.93	-91.95	523.25	845.84	404.59	349.77	54.82	7.381	
11,600.00	11,428.05	11,462.40	11,433.97	46.43	36.29	-95.51	498.33	849.06	402.80	347.70	55.09	7.311	
11,610.94	11,438.99	11,472.40	11,443.39	46.46	36.34	-95.98	495.01	849.42	402.78	347.66	55.12	7.307	
11,700.00	11,528.05	11,547.04	11,511.54	46.74	36.65	-100.28	464.84	852.13	404.90	349.70	55.21	7.334	
11,800.00	11,628.05	11,612.00	11,567.79	47.05	36.94	-104.79	432.44	854.09	414.58	359.73	54.85	7.559	
11,900.00	11,728.05	11,676.77	11,620.73	47.37	37.25	-109.71	395.17	854.17	435.09	380.91	54.18	8.030	
12,000.00	11,828.05	11,737.89	11,667.37	47.68	37.56	-114.62	355.71	854.45	465.42	412.17	53.25	8.741	
12,100.00	11,928.05	11,782.56	11,698.59	48.00	37.79	-118.35	323.78	854.87	506.29	454.52	51.78	9.779	
12,115.99	11,944.04	11,788.84	11,702.76	48.05	37.82	-118.88	319.08	854.89	513.81	462.29	51.52	9.973	
12,150.00	11,978.03	11,801.00	11,710.68	48.15	37.88	66.40	309.86	854.93	530.32	479.38	50.94	10.411	
12,200.00	12,027.75	11,817.51	11,720.98	48.28	37.97	62.60	296.96	854.89	555.35	505.30	50.04	11.097	
12,250.00	12,076.83	11,833.05	11,730.10	48.41	38.06	59.02	284.38	854.77	580.99	531.85	49.14	11.822	
12,300.00	12,124.90	11,848.00	11,738.32	48.53	38.14	55.68	271.89	854.56	606.88	558.62	48.26	12.574	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-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
12,350.00	12,171.60	11,867.46	11,748.35	48.63	38.25	52.39	255.23	854.16	632.59	585.04	47.55	13.303	
12,400.00	12,216.56	11,895.00	11,761.43	48.72	38.40	49.19	231.01	853.36	657.87	610.78	47.09	13.971	
12,450.00	12,259.45	11,908.09	11,767.24	48.80	38.48	46.79	219.29	852.88	682.08	635.76	46.32	14.725	
12,500.00	12,299.94	11,942.00	11,781.46	48.87	38.68	44.27	188.54	851.36	705.28	659.19	46.09	15.303	
12,550.00	12,337.72	11,957.49	11,787.48	48.93	38.77	42.42	174.28	850.67	726.76	681.25	45.51	15.971	
12,600.00	12,372.50	11,989.00	11,798.52	48.97	38.96	40.62	144.79	849.80	746.71	701.43	45.28	16.490	
12,650.00	12,404.03	12,010.13	11,805.07	49.00	39.09	39.19	124.70	849.55	764.79	719.87	44.92	17.027	
12,700.00	12,432.05	12,036.00	11,812.25	49.03	39.25	37.96	99.85	849.49	780.97	736.28	44.68	17.477	
12,750.00	12,456.36	12,061.11	11,818.18	49.05	39.41	36.93	75.46	849.75	795.23	750.74	44.49	17.873	
12,800.00	12,476.77	12,083.00	11,822.40	49.06	39.54	36.10	53.99	850.27	807.59	763.26	44.33	18.218	
12,850.00	12,493.12	12,114.52	11,827.25	49.07	39.75	35.45	22.87	851.33	817.82	773.51	44.31	18.456	
12,900.00	12,505.30	12,143.39	11,830.67	49.09	39.93	34.99	-5.78	852.50	825.79	781.46	44.33	18.628	
12,950.00	12,513.20	12,195.00	11,834.32	49.11	40.26	34.79	-57.19	855.05	831.98	787.46	44.52	18.689	
13,000.00	12,516.77	12,195.00	11,834.32	49.13	40.26	34.63	-57.19	855.05	834.83	790.30	44.54	18.745	
13,015.99	12,517.00	12,212.20	11,834.89	49.14	40.38	34.69	-74.35	855.99	835.35	790.73	44.62	18.722	
13,100.00	12,517.00	12,265.85	11,835.26	49.21	40.74	34.98	-127.93	858.72	838.42	793.46	44.96	18.646	
13,200.00	12,517.00	12,330.08	11,833.17	49.32	41.20	35.18	-192.07	861.21	844.19	798.82	45.37	18.606	
13,300.00	12,517.00	12,402.82	11,829.05	49.47	41.75	35.38	-264.69	861.14	852.06	806.25	45.80	18.603	
13,387.80	12,517.00	12,502.36	11,826.15	49.62	42.54	35.73	-364.08	856.91	857.58	811.32	46.26	18.538	
13,400.00	12,517.00	12,514.75	11,826.04	49.64	42.64	35.77	-376.44	856.15	858.17	811.84	46.33	18.523	
13,500.00	12,517.00	12,639.33	11,826.89	49.86	43.70	36.33	-500.72	847.64	862.38	815.32	47.06	18.323	
13,600.00	12,517.00	12,765.83	11,831.05	50.14	44.85	36.82	-627.04	842.77	862.56	814.67	47.89	18.012	
13,700.00	12,517.00	12,856.00	11,833.60	50.48	45.71	37.04	-717.17	841.52	861.75	813.20	48.55	17.750	
13,722.38	12,517.00	12,879.41	11,834.16	50.56	45.94	37.09	-740.57	841.15	861.67	812.95	48.72	17.686	
13,800.00	12,517.00	12,950.00	11,834.97	50.88	46.63	37.25	-811.14	839.50	862.46	813.20	49.26	17.507	
13,900.00	12,517.00	13,083.45	11,839.51	51.34	48.01	37.59	-944.48	837.78	861.08	810.80	50.27	17.127	
14,000.00	12,517.00	13,180.68	11,843.74	51.86	49.05	37.82	-1,041.61	837.75	858.25	807.13	51.12	16.789	
14,100.00	12,517.00	13,277.41	11,847.41	52.43	50.11	38.00	-1,138.28	838.12	855.63	803.64	51.98	16.460	
14,200.00	12,517.00	13,373.00	11,850.27	53.06	51.19	38.14	-1,233.82	838.52	853.62	800.75	52.86	16.148	
14,300.00	12,517.00	13,488.80	11,853.94	53.74	52.53	38.32	-1,349.56	839.30	851.39	797.46	53.92	15.789	
14,400.00	12,517.00	13,588.60	11,857.60	54.46	53.71	38.36	-1,449.24	842.27	847.28	792.42	54.86	15.444	
14,500.00	12,517.00	13,663.33	11,858.29	55.23	54.61	38.28	-1,523.91	845.14	844.86	789.27	55.59	15.198	
14,518.44	12,517.00	13,676.06	11,858.17	55.38	54.76	38.26	-1,536.63	845.48	844.80	789.08	55.72	15.161	
14,600.00	12,517.00	13,756.08	11,856.86	56.04	55.74	38.18	-1,616.64	846.80	845.50	789.05	56.46	14.977	
14,700.00	12,517.00	13,894.58	11,859.16	56.89	57.47	38.19	-1,755.06	849.78	843.50	785.77	57.73	14.611	
14,800.00	12,517.00	13,980.67	11,861.23	57.77	58.56	38.15	-1,841.07	853.03	839.89	781.26	58.64	14.324	
14,900.00	12,517.00	14,074.93	11,862.64	58.69	59.77	38.11	-1,935.28	855.70	837.58	777.95	59.63	14.047	
14,979.95	12,517.00	14,137.71	11,863.14	59.45	60.59	38.10	-1,998.04	856.89	836.65	776.30	60.35	13.863	
15,000.00	12,517.00	14,152.81	11,863.10	59.64	60.78	38.10	-2,013.15	857.02	836.71	776.18	60.53	13.823	
15,100.00	12,517.00	14,250.12	11,862.42	60.63	62.06	38.14	-2,110.45	856.83	837.97	776.35	61.62	13.598	
15,200.00	12,517.00	14,395.63	11,866.04	61.64	64.01	38.29	-2,255.88	858.28	835.94	772.73	63.21	13.225	
15,300.00	12,517.00	14,489.74	11,869.84	62.68	65.28	38.36	-2,349.88	860.84	831.69	767.33	64.36	12.922	
15,400.00	12,517.00	14,582.66	11,872.77	63.75	66.55	38.43	-2,442.73	862.90	828.45	762.93	65.52	12.645	
15,500.00	12,517.00	14,686.03	11,875.92	64.84	67.98	38.49	-2,546.02	865.32	825.21	758.43	66.78	12.358	
15,600.00	12,517.00	14,779.05	11,878.65	65.96	69.27	38.52	-2,638.97	867.71	821.95	754.00	67.95	12.096	
15,700.00	12,517.00	14,862.99	11,880.05	67.10	70.45	38.58	-2,722.89	868.61	820.55	751.48	69.07	11.879	
15,800.00	12,517.00	14,965.87	11,880.92	68.26	71.90	38.62	-2,825.76	869.50	819.98	749.61	70.37	11.652	
15,900.00	12,517.00	15,075.04	11,883.71	69.44	73.45	38.77	-2,934.90	870.14	818.21	746.39	71.82	11.393	
16,000.00	12,517.00	15,168.15	11,886.32	70.64	74.78	38.91	-3,027.96	870.55	816.37	743.23	73.14	11.162	
16,100.00	12,517.00	15,261.47	11,887.61	71.85	76.12	39.01	-3,121.27	870.65	815.83	741.39	74.45	10.959	
16,200.00	12,517.00	15,371.53	11,891.38	73.09	77.71	39.35	-3,231.25	868.61	814.98	738.86	76.12	10.706	
16,300.00	12,517.00	15,471.09	11,896.42	74.34	79.16	39.74	-3,330.66	866.51	813.05	735.28	77.77	10.454	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-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
16,400.00	12,517.00	15,578.69	11,901.69	75.60	80.73	40.18	-3,438.10	864.01	811.44	731.88	79.56	10.199	
16,500.00	12,517.00	15,690.35	11,907.48	76.88	82.38	40.51	-3,549.61	863.89	808.19	726.87	81.31	9.939	
16,600.00	12,517.00	15,776.83	11,911.60	78.18	83.66	40.73	-3,635.99	864.09	805.06	722.30	82.76	9.727	
16,700.00	12,517.00	15,879.71	11,915.73	79.49	85.18	40.99	-3,738.78	863.84	802.83	718.41	84.42	9.510	
16,800.00	12,517.00	15,985.94	11,920.75	80.81	86.77	41.28	-3,844.90	863.92	799.87	713.73	86.15	9.285	
16,900.00	12,517.00	16,093.99	11,927.02	82.14	88.39	41.63	-3,952.76	864.06	796.08	708.12	87.97	9.050	
17,000.00	12,517.00	16,198.76	11,934.28	83.48	89.97	41.99	-4,057.28	864.82	791.07	701.28	89.79	8.810	
17,100.00	12,517.00	16,287.09	11,939.66	84.84	91.30	42.28	-4,145.45	865.25	786.88	695.47	91.41	8.608	
17,200.00	12,517.00	16,406.22	11,945.60	86.20	93.10	42.59	-4,264.41	866.02	783.66	690.32	93.35	8.395	
17,300.00	12,517.00	16,510.02	11,952.74	87.58	94.68	42.73	-4,367.83	871.11	775.88	680.92	94.96	8.170	
17,400.00	12,517.00	16,583.44	11,954.88	88.96	95.80	42.69	-4,441.14	874.53	771.22	675.07	96.15	8.021	
17,482.65	12,517.00	16,643.00	11,955.45	90.11	96.71	42.67	-4,500.68	876.01	769.85	672.77	97.09	7.930	
17,500.00	12,517.00	16,643.00	11,955.45	90.35	96.71	42.67	-4,500.68	876.01	770.05	672.94	97.11	7.929	
17,600.00	12,517.00	16,643.00	11,955.45	91.75	96.71	42.67	-4,500.68	876.01	778.75	682.05	96.70	8.053	
17,700.00	12,517.00	16,643.00	11,955.45	93.16	96.71	42.67	-4,500.68	876.01	799.95	704.55	95.40	8.385	
17,800.00	12,517.00	16,643.00	11,955.45	94.58	96.71	42.67	-4,500.68	876.01	832.70	739.26	93.44	8.912	
17,900.00	12,517.00	16,643.00	11,955.45	96.01	96.71	42.67	-4,500.68	876.01	875.70	784.61	91.09	9.613	
18,000.00	12,517.00	16,643.00	11,955.45	97.44	96.71	42.67	-4,500.68	876.01	927.54	838.93	88.61	10.468	
18,100.00	12,517.00	16,643.00	11,955.45	98.88	96.71	42.67	-4,500.68	876.01	986.81	900.65	86.16	11.453	
18,200.00	12,517.00	16,643.00	11,955.45	100.32	96.71	42.67	-4,500.68	876.01	1,052.27	968.40	83.87	12.547	
18,300.00	12,517.00	16,643.00	11,955.45	101.78	96.71	42.67	-4,500.68	876.01	1,122.83	1,041.05	81.77	13.731	
18,400.00	12,517.00	16,643.00	11,955.45	103.23	96.71	42.67	-4,500.68	876.01	1,197.59	1,117.68	79.91	14.987	
18,500.00	12,517.00	16,643.00	11,955.45	104.70	96.71	42.67	-4,500.68	876.01	1,275.81	1,197.55	78.26	16.303	
18,600.00	12,517.00	16,643.00	11,955.45	106.17	96.71	42.67	-4,500.68	876.01	1,356.89	1,280.08	76.81	17.665	
18,700.00	12,517.00	16,643.00	11,955.45	107.64	96.71	42.67	-4,500.68	876.01	1,440.35	1,364.81	75.55	19.065	
18,800.00	12,517.00	16,643.00	11,955.45	109.12	96.71	42.67	-4,500.68	876.01	1,525.81	1,451.36	74.45	20.495	
18,900.00	12,517.00	16,643.00	11,955.45	110.60	96.71	42.67	-4,500.68	876.01	1,612.94	1,539.45	73.49	21.949	
19,000.00	12,517.00	16,643.00	11,955.45	112.09	96.71	42.67	-4,500.68	876.01	1,701.48	1,628.83	72.65	23.420	
19,100.00	12,517.00	16,643.00	11,955.45	113.59	96.71	42.67	-4,500.68	876.01	1,791.23	1,719.31	71.92	24.906	
19,200.00	12,517.00	16,643.00	11,955.45	115.08	96.71	42.67	-4,500.68	876.01	1,882.01	1,810.73	71.28	26.403	
19,300.00	12,517.00	16,643.00	11,955.45	116.59	96.71	42.67	-4,500.68	876.01	1,973.69	1,902.97	70.72	27.909	
19,400.00	12,517.00	16,643.00	11,955.45	118.09	96.71	42.67	-4,500.68	876.01	2,066.14	1,995.91	70.23	29.421	
19,500.00	12,517.00	16,643.00	11,955.45	119.60	96.71	42.67	-4,500.68	876.01	2,159.26	2,089.46	69.79	30.937	
19,600.00	12,517.00	16,643.00	11,955.45	121.11	96.71	42.67	-4,500.68	876.01	2,252.97	2,183.55	69.41	32.458	
19,700.00	12,517.00	16,643.00	11,955.45	122.63	96.71	42.67	-4,500.68	876.01	2,347.20	2,278.12	69.07	33.981	
19,800.00	12,517.00	16,643.00	11,955.45	124.15	96.71	42.67	-4,500.68	876.01	2,441.88	2,373.11	68.78	35.504	
19,900.00	12,517.00	16,643.00	11,955.45	125.67	96.71	42.67	-4,500.68	876.01	2,536.98	2,468.46	68.52	37.027	
20,000.00	12,517.00	16,643.00	11,955.45	127.20	96.71	42.67	-4,500.68	876.01	2,632.44	2,564.15	68.29	38.550	
20,100.00	12,517.00	16,643.00	11,955.45	128.73	96.71	42.67	-4,500.68	876.01	2,728.22	2,660.14	68.08	40.074	
20,200.00	12,517.00	16,643.00	11,955.45	130.26	96.71	42.67	-4,500.68	876.01	2,824.30	2,756.40	67.90	41.595	
20,300.00	12,517.00	16,643.00	11,955.45	131.80	96.71	42.67	-4,500.68	876.01	2,920.64	2,852.90	67.74	43.116	
20,400.00	12,517.00	16,643.00	11,955.45	133.34	96.71	42.67	-4,500.68	876.01	3,017.22	2,949.62	67.60	44.634	
20,500.00	12,517.00	16,643.00	11,955.45	134.88	96.71	42.67	-4,500.68	876.01	3,114.02	3,046.54	67.48	46.150	
20,600.00	12,517.00	16,643.00	11,955.45	136.42	96.71	42.67	-4,500.68	876.01	3,211.01	3,143.64	67.37	47.663	
20,700.00	12,517.00	16,643.00	11,955.45	137.97	96.71	42.67	-4,500.68	876.01	3,308.18	3,240.90	67.28	49.174	
20,800.00	12,517.00	16,643.00	11,955.45	139.52	96.71	42.67	-4,500.68	876.01	3,405.51	3,338.32	67.19	50.684	
20,900.00	12,517.00	16,643.00	11,955.45	141.07	96.71	42.67	-4,500.68	876.01	3,502.99	3,435.88	67.12	52.191	
21,000.00	12,517.00	16,643.00	11,955.45	142.62	96.71	42.67	-4,500.68	876.01	3,600.62	3,533.56	67.06	53.694	
21,100.00	12,517.00	16,643.00	11,955.45	144.18	96.71	42.67	-4,500.68	876.01	3,698.37	3,631.36	67.01	55.194	
21,200.00	12,517.00	16,643.00	11,955.45	145.73	96.71	42.67	-4,500.68	876.01	3,796.23	3,729.27	66.97	56.690	
21,300.00	12,517.00	16,643.00	11,955.45	147.29	96.71	42.67	-4,500.68	876.01	3,894.21	3,827.28	66.93	58.182	
21,400.00	12,517.00	16,643.00	11,955.45	148.85	96.71	42.67	-4,500.68	876.01	3,992.28	3,925.38	66.91	59.670	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1352-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
21,500.00	12,517.00	16,643.00	11,955.45	150.42	96.71	42.67	-4,500.68	876.01	4,090.45	4,023.56	66.89	61.155	
21,600.00	12,517.00	16,643.00	11,955.45	151.98	96.71	42.67	-4,500.68	876.01	4,188.71	4,121.83	66.87	62.638	
21,700.00	12,517.00	16,643.00	11,955.45	153.55	96.71	42.67	-4,500.68	876.01	4,287.04	4,220.18	66.86	64.117	
21,800.00	12,517.00	16,643.00	11,955.45	155.12	96.71	42.67	-4,500.68	876.01	4,385.45	4,318.59	66.86	65.592	
21,900.00	12,517.00	16,643.00	11,955.45	156.69	96.71	42.67	-4,500.68	876.01	4,483.94	4,417.07	66.86	67.063	
22,000.00	12,517.00	16,643.00	11,955.45	158.26	96.71	42.67	-4,500.68	876.01	4,582.48	4,515.62	66.87	68.531	
22,100.00	12,517.00	16,643.00	11,955.45	159.84	96.71	42.67	-4,500.68	876.01	4,681.09	4,614.21	66.88	69.994	
22,200.00	12,517.00	16,643.00	11,955.45	161.41	96.71	42.67	-4,500.68	876.01	4,779.76	4,712.86	66.89	71.453	
22,300.00	12,517.00	16,643.00	11,955.45	162.99	96.71	42.67	-4,500.68	876.01	4,878.48	4,811.57	66.91	72.909	
22,400.00	12,517.00	16,643.00	11,955.45	164.57	96.71	42.67	-4,500.68	876.01	4,977.25	4,910.32	66.93	74.361	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	4.37	4.37	0.00	0.01	49.97	896.84	1,067.68	1,394.37				
100.00	100.00	101.38	101.38	0.13	0.13	49.97	897.00	1,067.70	1,394.49	1,394.30	0.18	7,622.847	
178.15	178.15	182.65	182.65	0.41	0.39	49.96	897.02	1,067.67	1,394.47	1,393.91	0.56	2,474.132	
200.00	200.00	199.58	199.58	0.48	0.45	49.96	897.07	1,067.67	1,394.52	1,393.86	0.66	2,109.209	
300.00	300.00	303.66	303.65	0.84	0.82	49.92	897.96	1,067.14	1,394.68	1,393.50	1.18	1,185.788	
400.00	400.00	409.50	409.46	1.20	1.20	49.81	899.91	1,065.30	1,394.53	1,392.83	1.70	821.589	
500.00	500.00	527.85	527.77	1.56	1.62	49.70	901.01	1,062.49	1,393.29	1,391.04	2.25	619.341	
600.00	600.00	653.36	653.22	1.92	2.06	49.66	899.59	1,059.38	1,390.65	1,387.84	2.82	493.972	
700.00	700.00	761.16	760.92	2.28	2.44	49.72	895.85	1,057.01	1,386.73	1,383.39	3.33	416.134	
800.00	800.00	883.57	883.01	2.63	2.87	49.99	886.89	1,056.77	1,381.85	1,377.97	3.88	355.835	
900.00	900.00	967.32	966.51	2.99	3.17	50.17	880.60	1,055.86	1,376.28	1,371.93	4.34	316.845	
1,000.00	1,000.00	1,059.61	1,058.63	3.35	3.49	50.34	875.07	1,055.55	1,372.17	1,367.34	4.83	284.256	
1,100.00	1,100.00	1,155.00	1,153.88	3.71	3.84	50.50	869.71	1,055.07	1,368.22	1,362.90	5.32	257.167	
1,200.00	1,200.00	1,245.89	1,244.66	4.07	4.16	50.64	865.38	1,055.10	1,365.19	1,359.38	5.80	235.265	
1,300.00	1,300.00	1,331.18	1,329.89	4.43	4.47	50.74	862.25	1,054.86	1,362.67	1,356.40	6.27	217.285	
1,400.00	1,400.00	1,425.00	1,423.68	4.79	4.68	50.79	860.21	1,054.51	1,361.00	1,354.33	6.67	204.006	
1,500.00	1,500.00	1,519.00	1,517.67	5.14	4.70	50.80	859.27	1,053.66	1,359.68	1,352.73	6.95	195.712	
1,600.00	1,600.00	1,604.57	1,603.24	5.50	4.74	50.75	859.88	1,052.61	1,359.18	1,351.94	7.24	187.691	
1,643.66	1,643.66	1,644.57	1,643.22	5.66	4.77	-16.03	860.55	1,052.19	1,358.97	1,351.60	7.38	184.252	
1,700.00	1,699.98	1,697.43	1,696.07	5.86	4.80	-16.11	861.61	1,051.66	1,357.89	1,350.34	7.55	179.804	
1,800.00	1,799.84	1,795.79	1,794.40	6.21	4.89	-16.29	863.83	1,050.72	1,353.56	1,345.68	7.88	171.761	
1,900.00	1,899.45	1,894.40	1,892.98	6.56	5.00	-16.53	866.06	1,049.86	1,345.97	1,337.74	8.23	163.599	
2,000.00	1,998.70	1,986.64	1,985.20	6.92	5.12	-16.81	868.15	1,049.42	1,335.36	1,326.78	8.58	155.561	
2,100.00	2,097.47	2,078.36	2,076.89	7.29	5.26	-17.14	870.37	1,049.49	1,321.99	1,313.04	8.95	147.654	
2,200.00	2,195.62	2,171.41	2,169.90	7.67	5.42	-17.55	872.87	1,049.94	1,305.83	1,296.50	9.34	139.873	
2,300.00	2,293.06	2,266.52	2,264.98	8.07	5.60	-18.03	875.62	1,050.63	1,286.75	1,277.02	9.73	132.209	
2,357.10	2,348.32	2,320.59	2,319.02	8.31	5.71	-18.35	877.26	1,051.06	1,274.51	1,264.54	9.97	127.888	
2,400.00	2,389.73	2,361.13	2,359.53	8.49	5.79	-18.54	878.55	1,051.38	1,264.97	1,254.83	10.14	124.737	
2,500.00	2,486.26	2,457.50	2,455.85	8.92	6.00	-19.01	881.70	1,052.17	1,242.86	1,232.30	10.56	117.694	
2,600.00	2,582.78	2,561.64	2,559.95	9.37	6.23	-19.48	884.17	1,053.48	1,220.56	1,209.56	11.00	110.960	
2,700.00	2,679.31	2,654.75	2,653.04	9.83	6.45	-19.87	885.64	1,055.24	1,198.27	1,186.84	11.43	104.790	
2,800.00	2,775.84	2,784.51	2,782.79	10.30	6.77	-20.43	886.02	1,056.30	1,174.30	1,162.38	11.92	98.539	
2,900.00	2,872.37	2,877.14	2,875.41	10.78	7.00	-20.85	885.71	1,056.34	1,149.57	1,137.21	12.36	92.978	
3,000.00	2,968.90	2,961.39	2,959.66	11.27	7.22	-21.25	885.87	1,056.92	1,125.70	1,112.89	12.81	87.861	
3,100.00	3,065.43	3,045.94	3,044.19	11.76	7.45	-21.64	886.55	1,058.48	1,103.10	1,089.83	13.27	83.128	
3,200.00	3,161.95	3,151.61	3,149.83	12.25	7.74	-22.12	887.26	1,061.15	1,080.99	1,067.24	13.76	78.572	
3,300.00	3,258.48	3,302.62	3,300.78	12.76	8.16	-22.80	884.24	1,062.20	1,055.88	1,041.60	14.28	73.955	
3,400.00	3,355.01	3,443.53	3,441.35	13.26	8.57	-23.33	874.79	1,060.20	1,026.13	1,011.37	14.76	69.513	
3,500.00	3,451.54	3,561.93	3,559.18	13.77	8.92	-23.91	864.77	1,054.31	992.79	977.56	15.23	65.180	
3,600.00	3,548.07	3,650.52	3,647.28	14.29	9.19	-24.48	857.83	1,048.25	958.84	943.12	15.72	60.996	
3,700.00	3,644.59	3,732.97	3,729.37	14.80	9.44	-25.11	852.78	1,042.46	926.02	909.80	16.22	57.088	
3,800.00	3,741.12	3,829.14	3,825.18	15.32	9.74	-25.98	848.39	1,035.38	894.23	877.51	16.72	53.469	
3,900.00	3,837.65	3,954.85	3,950.17	15.84	10.15	-27.13	839.68	1,025.24	860.57	843.37	17.20	50.045	
4,000.00	3,934.18	4,056.25	4,050.66	16.37	10.48	-27.96	828.92	1,017.10	824.43	806.74	17.69	46.608	
4,100.00	4,030.71	4,134.31	4,128.08	16.90	10.75	-28.65	820.85	1,011.14	788.89	770.66	18.23	43.264	
4,200.00	4,127.24	4,219.33	4,212.57	17.42	11.04	-29.52	813.66	1,005.11	755.17	736.39	18.78	40.212	
4,300.00	4,223.76	4,302.71	4,295.52	17.95	11.32	-30.48	807.44	999.26	722.47	703.13	19.34	37.352	
4,400.00	4,320.29	4,383.70	4,376.23	18.49	11.59	-31.41	802.10	995.14	691.75	671.83	19.92	34.728	
4,500.00	4,416.82	4,470.54	4,462.87	19.02	11.88	-32.45	797.33	991.89	662.86	642.37	20.50	32.341	
4,600.00	4,513.35	4,572.46	4,564.57	19.55	12.23	-33.72	791.37	988.78	634.37	613.32	21.05	30.132	
4,700.00	4,609.88	4,676.29	4,668.01	20.09	12.58	-35.08	783.31	984.96	604.24	582.64	21.61	27.967	
4,800.00	4,706.40	4,769.49	4,760.85	20.62	12.91	-36.49	776.18	980.95	574.22	552.02	22.21	25.860	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-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
4,900.00	4,802.93	4,864.58	4,855.58	21.16	13.24	-38.10	769.07	976.70	544.63	521.81	22.82	23.871	
5,000.00	4,899.46	4,962.96	4,953.55	21.70	13.59	-39.97	761.39	972.02	515.08	491.65	23.43	21.983	
5,100.00	4,995.99	5,056.50	5,046.64	22.24	13.92	-42.00	753.70	967.08	485.48	461.39	24.09	20.152	
5,200.00	5,092.52	5,152.89	5,142.58	22.78	14.27	-44.39	746.16	961.73	456.78	432.02	24.77	18.444	
5,300.00	5,189.04	5,256.77	5,245.82	23.32	14.65	-47.23	736.21	955.95	427.36	401.95	25.41	16.817	
5,400.00	5,285.57	5,353.91	5,342.14	23.86	15.01	-50.08	724.50	951.21	396.86	370.75	26.12	15.196	
5,500.00	5,382.10	5,445.90	5,433.35	24.41	15.35	-53.16	713.34	946.95	367.37	340.47	26.90	13.655	
5,600.00	5,478.63	5,537.63	5,524.36	24.95	15.69	-56.67	702.54	943.14	339.53	311.79	27.74	12.240	
5,700.00	5,575.16	5,630.58	5,616.63	25.49	16.04	-60.75	691.94	939.54	313.59	284.98	28.61	10.960	
5,800.00	5,671.69	5,723.14	5,708.49	26.04	16.39	-65.71	681.70	934.71	289.77	260.22	29.56	9.804	
5,900.00	5,768.21	5,814.26	5,798.98	26.58	16.73	-71.37	672.14	929.71	269.15	238.59	30.56	8.808	
6,000.00	5,864.74	5,906.30	5,890.50	27.13	17.07	-77.65	663.41	925.45	252.68	221.15	31.53	8.014	
6,100.00	5,961.27	5,999.95	5,983.69	27.67	17.42	-84.60	654.93	921.62	240.30	207.89	32.42	7.413	
6,200.00	6,057.80	6,093.66	6,076.96	28.22	17.77	-92.05	646.65	917.92	232.33	199.16	33.18	7.003	
6,300.00	6,154.33	6,187.50	6,170.39	28.76	18.12	-99.78	638.65	914.34	229.23	195.47	33.75	6.792	
6,312.16	6,166.06	6,198.89	6,181.72	28.83	18.16	-100.74	637.66	913.84	229.19	195.38	33.81	6.779	CC, ES
6,400.00	6,250.85	6,281.06	6,263.45	29.31	18.47	-107.80	630.16	909.69	231.23	197.12	34.11	6.779	
6,500.00	6,347.38	6,374.36	6,356.13	29.86	18.83	-115.77	621.06	904.15	238.51	204.26	34.25	6.963	
6,600.00	6,443.91	6,468.27	6,449.43	30.41	19.18	-123.23	611.91	898.59	250.68	216.41	34.27	7.315	
6,700.00	6,540.44	6,562.38	6,542.91	30.95	19.55	-130.02	602.48	893.19	266.78	232.54	34.24	7.791	
6,803.85	6,640.68	6,659.95	6,639.87	31.52	19.92	-136.17	592.98	887.85	287.07	252.84	34.23	8.385	
6,900.00	6,733.90	6,751.10	6,730.56	32.03	20.26	-141.09	584.92	883.30	307.09	272.79	34.31	8.951	
7,000.00	6,831.63	6,846.03	6,825.05	32.53	20.62	-145.13	577.13	878.71	327.06	292.60	34.46	9.492	
7,100.00	6,930.04	6,940.01	6,918.65	32.98	20.97	-148.23	570.27	873.85	345.85	311.19	34.66	9.979	
7,200.00	7,029.01	7,035.76	7,014.07	33.40	21.33	-150.57	564.70	868.21	363.30	328.36	34.94	10.399	
7,300.00	7,128.41	7,135.36	7,113.38	33.78	21.69	-152.36	559.74	862.51	378.08	342.77	35.30	10.710	
7,400.00	7,228.14	7,235.62	7,213.39	34.12	22.06	-153.74	554.91	857.16	389.66	353.96	35.70	10.916	
7,500.00	7,328.06	7,334.54	7,312.08	34.43	22.42	-154.71	550.70	852.07	398.10	362.01	36.09	11.031	
7,560.95	7,389.00	7,395.89	7,373.30	34.59	22.64	-88.40	548.23	848.81	401.86	365.51	36.35	11.056	
7,600.00	7,428.05	7,436.72	7,414.04	34.70	22.79	-88.63	546.64	846.81	403.73	367.20	36.53	11.051	
7,700.00	7,528.05	7,540.82	7,517.99	34.97	23.16	-89.15	543.01	842.51	407.80	370.79	37.01	11.020	
7,800.00	7,628.05	7,648.90	7,626.01	35.24	23.54	-89.44	541.04	839.61	410.47	372.93	37.53	10.936	
7,900.00	7,728.05	7,755.34	7,732.45	35.51	23.88	-89.39	541.37	838.82	411.21	373.16	38.05	10.807	
8,000.00	7,828.05	7,856.15	7,833.26	35.79	24.20	-89.31	541.92	838.87	411.16	372.65	38.51	10.678	
8,100.00	7,928.05	7,958.51	7,935.62	36.06	24.52	-89.31	541.95	839.33	410.71	371.73	38.97	10.538	
8,200.00	8,028.05	8,061.06	8,038.16	36.34	24.85	-89.35	541.66	840.42	409.65	370.20	39.44	10.386	
8,300.00	8,128.05	8,162.71	8,139.79	36.62	25.18	-89.42	541.10	842.07	408.02	368.11	39.90	10.225	
8,400.00	8,228.05	8,259.45	8,236.52	36.90	25.49	-89.50	540.53	843.64	406.39	366.06	40.33	10.077	
8,451.08	8,279.13	8,306.56	8,283.63	37.04	25.65	-89.54	540.25	843.87	406.14	365.61	40.53	10.021	
8,500.00	8,328.05	8,351.34	8,328.41	37.18	25.80	-89.57	540.03	843.64	406.39	365.68	40.71	9.982	
8,600.00	8,428.05	8,447.87	8,424.92	37.46	26.13	-89.59	539.93	841.87	408.22	367.08	41.14	9.923	
8,700.00	8,528.05	8,551.78	8,528.82	37.75	26.47	-89.57	540.07	840.46	409.57	367.93	41.64	9.835	
8,800.00	8,628.05	8,653.15	8,630.18	38.03	26.81	-89.52	540.45	839.81	410.21	368.10	42.12	9.739	
8,900.00	8,728.05	8,753.43	8,730.47	38.32	27.14	-89.46	540.84	839.25	410.77	368.18	42.59	9.646	
9,000.00	8,828.05	8,852.35	8,829.38	38.61	27.47	-89.41	541.21	838.68	411.35	368.31	43.04	9.557	
9,100.00	8,928.05	8,950.48	8,927.51	38.89	27.80	-89.37	541.52	837.71	412.35	368.85	43.49	9.481	
9,200.00	9,028.05	9,049.41	9,026.42	39.18	28.13	-89.30	542.04	836.36	413.72	369.77	43.95	9.413	
9,300.00	9,128.05	9,149.42	9,126.42	39.47	28.46	-89.18	542.93	834.87	415.22	370.79	44.42	9.347	
9,400.00	9,228.05	9,249.27	9,226.25	39.77	28.80	-89.02	544.13	833.40	416.71	371.81	44.90	9.282	
9,500.00	9,328.05	9,348.54	9,325.50	40.06	29.13	-88.84	545.45	831.84	418.30	372.94	45.37	9.221	
9,600.00	9,428.05	9,447.53	9,424.47	40.35	29.46	-88.66	546.85	830.09	420.11	374.27	45.83	9.166	
9,700.00	9,528.05	9,546.65	9,523.55	40.65	29.79	-88.46	548.32	828.10	422.15	375.85	46.30	9.117	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,628.05	9,647.34	9,624.21	40.95	30.13	-88.28	549.70	826.09	424.18	377.39	46.79	9.066	
9,900.00	9,728.05	9,746.22	9,723.06	41.24	30.46	-88.14	550.86	824.11	426.22	378.96	47.26	9.019	
10,000.00	9,828.05	9,849.25	9,826.05	41.54	30.81	-87.98	552.09	821.63	428.69	380.92	47.77	8.975	
10,100.00	9,928.05	9,966.62	9,943.41	41.84	31.20	-88.05	551.51	822.74	427.64	379.28	48.36	8.843	
10,200.00	10,028.05	10,069.30	10,046.04	42.14	31.53	-88.16	550.63	825.88	424.55	375.72	48.84	8.693	
10,300.00	10,128.05	10,169.33	10,146.02	42.44	31.85	-88.19	550.31	829.03	421.40	372.09	49.30	8.547	
10,400.00	10,228.05	10,268.22	10,244.87	42.74	32.17	-88.18	550.26	832.12	418.27	368.51	49.76	8.406	
10,500.00	10,328.05	10,363.46	10,340.07	43.05	32.48	-88.19	550.14	834.47	415.80	365.61	50.20	8.283	
10,600.00	10,428.05	10,463.55	10,440.14	43.35	32.81	-88.21	549.96	836.11	414.17	363.50	50.67	8.174	
10,700.00	10,528.05	10,563.25	10,539.83	43.65	33.14	-88.29	549.30	837.93	412.31	361.18	51.13	8.064	
10,800.00	10,628.05	10,661.88	10,638.44	43.96	33.47	-88.40	548.47	839.50	410.70	359.12	51.59	7.961	
10,900.00	10,728.05	10,759.64	10,736.19	44.27	33.80	-88.51	547.68	840.62	409.53	357.50	52.04	7.870	
11,000.00	10,828.05	10,859.72	10,836.27	44.57	34.14	-88.61	546.92	841.49	408.65	356.14	52.51	7.783	
11,100.00	10,928.05	10,958.88	10,935.42	44.88	34.47	-88.72	546.13	842.25	407.86	354.89	52.97	7.700	
11,200.00	11,028.05	11,059.62	11,036.15	45.19	34.82	-88.88	544.96	843.11	406.98	353.54	53.45	7.615	
11,273.72	11,101.77	11,129.75	11,106.27	45.42	35.06	-89.07	543.58	843.40	406.66	352.89	53.76	7.564	
11,300.00	11,128.05	11,155.38	11,131.89	45.50	35.15	-89.17	542.92	843.36	406.69	352.81	53.88	7.548	
11,400.00	11,228.05	11,257.75	11,234.19	45.81	35.51	-89.65	539.48	843.15	406.86	352.51	54.36	7.485	
11,500.00	11,328.05	11,370.03	11,345.13	46.12	35.93	-91.95	523.25	845.84	404.59	349.77	54.82	7.381	
11,600.00	11,428.05	11,462.40	11,433.97	46.43	36.29	-95.51	498.33	849.06	402.80	347.70	55.09	7.311	
11,610.94	11,438.99	11,472.40	11,443.39	46.46	36.34	-95.98	495.01	849.42	402.78	347.66	55.12	7.307	
11,700.00	11,528.05	11,547.04	11,511.54	46.74	36.65	-100.28	464.84	852.13	404.90	349.70	55.21	7.334	
11,800.00	11,628.05	11,612.00	11,567.79	47.05	36.94	-104.79	432.44	854.09	414.58	359.73	54.85	7.559	
11,900.00	11,728.05	11,676.77	11,620.73	47.37	37.25	-109.71	395.17	854.17	435.09	380.91	54.18	8.030	
12,000.00	11,828.05	11,737.89	11,667.37	47.68	37.56	-114.62	355.71	854.45	465.42	412.17	53.25	8.741	
12,100.00	11,928.05	11,782.56	11,698.59	48.00	37.79	-118.35	323.78	854.87	506.29	454.52	51.78	9.779	
12,115.99	11,944.04	11,788.84	11,702.76	48.05	37.82	-118.88	319.08	854.89	513.81	462.29	51.52	9.973	
12,150.00	11,978.03	11,801.00	11,710.68	48.15	37.88	66.40	309.86	854.93	530.32	479.38	50.94	10.411	
12,200.00	12,027.75	11,817.51	11,720.98	48.28	37.97	62.60	296.96	854.89	555.35	505.30	50.04	11.097	
12,250.00	12,076.83	11,833.05	11,730.10	48.41	38.06	59.02	284.38	854.77	580.99	531.85	49.14	11.822	
12,300.00	12,124.90	11,848.00	11,738.32	48.53	38.14	55.68	271.89	854.56	606.88	558.62	48.26	12.574	
12,350.00	12,171.60	11,867.46	11,748.35	48.63	38.25	52.39	255.23	854.16	632.59	585.04	47.55	13.303	
12,400.00	12,216.56	11,895.00	11,761.43	48.72	38.40	49.19	231.01	853.36	657.87	610.78	47.09	13.971	
12,450.00	12,259.45	11,908.09	11,767.24	48.80	38.48	46.79	219.29	852.88	682.08	635.76	46.32	14.725	
12,500.00	12,299.94	11,942.00	11,781.46	48.87	38.68	44.27	188.54	851.36	705.28	659.19	46.09	15.303	
12,550.00	12,337.72	11,957.49	11,787.48	48.93	38.77	42.42	174.28	850.67	726.76	681.25	45.51	15.971	
12,600.00	12,372.50	11,989.00	11,798.52	48.97	38.96	40.62	144.79	849.80	746.71	701.43	45.28	16.490	
12,650.00	12,404.03	12,010.13	11,805.07	49.00	39.09	39.19	124.70	849.55	764.79	719.87	44.92	17.027	
12,700.00	12,432.05	12,036.00	11,812.25	49.03	39.25	37.96	99.85	849.49	780.97	736.28	44.68	17.477	
12,750.00	12,456.36	12,061.11	11,818.18	49.05	39.41	36.93	75.46	849.75	795.23	750.74	44.49	17.873	
12,800.00	12,476.77	12,083.00	11,822.40	49.06	39.54	36.10	53.99	850.27	807.59	763.26	44.33	18.218	
12,850.00	12,493.12	12,111.36	11,826.60	49.07	39.72	35.43	25.96	851.39	817.93	773.65	44.28	18.471	
12,900.00	12,505.30	12,140.00	11,829.40	49.09	39.90	34.91	-2.49	853.05	826.18	781.90	44.28	18.658	
12,950.00	12,513.20	12,175.01	11,831.83	49.11	40.13	34.62	-37.35	855.23	831.97	787.59	44.37	18.749	
13,000.00	12,516.77	12,214.15	11,834.26	49.13	40.39	34.63	-76.36	857.26	834.84	790.28	44.56	18.735	
13,015.99	12,517.00	12,226.64	11,834.97	49.14	40.47	34.71	-88.82	857.81	835.13	790.50	44.63	18.710	
13,100.00	12,517.00	12,300.00	11,838.51	49.21	40.98	35.24	-162.05	860.17	836.21	791.13	45.08	18.550	
13,200.00	12,517.00	12,370.35	11,840.90	49.32	41.50	35.67	-232.35	860.99	837.98	792.42	45.56	18.394	
13,300.00	12,517.00	12,448.48	11,842.38	49.47	42.10	36.06	-310.45	860.24	840.39	794.33	46.07	18.243	
13,387.80	12,517.00	12,517.05	11,842.68	49.62	42.65	36.32	-379.00	858.15	842.98	796.47	46.51	18.124	
13,400.00	12,517.00	12,526.58	11,842.65	49.64	42.73	36.35	-388.51	857.75	843.38	796.81	46.57	18.109	
13,500.00	12,517.00	12,614.37	11,841.68	49.86	43.47	36.61	-476.18	853.16	847.92	800.78	47.14	17.986	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	12,517.00	12,730.39	11,840.45	50.14	44.51	36.94	-592.04	847.32	852.45	804.61	47.84	17.820	
13,700.00	12,517.00	12,866.78	11,841.43	50.48	45.79	37.16	-728.40	845.27	853.38	804.74	48.64	17.545	
13,800.00	12,517.00	12,968.98	11,843.38	50.88	46.81	37.24	-830.58	846.15	851.93	802.58	49.34	17.266	
13,900.00	12,517.00	13,068.96	11,845.29	51.34	47.83	37.33	-930.54	847.03	850.47	800.39	50.08	16.982	
14,000.00	12,517.00	13,168.94	11,847.20	51.86	48.90	37.41	-1,030.50	847.91	849.01	798.15	50.86	16.692	
14,100.00	12,517.00	13,268.92	11,849.11	52.43	49.99	37.49	-1,130.46	848.79	847.56	795.87	51.69	16.397	
14,200.00	12,517.00	13,368.90	11,851.02	53.06	51.11	37.58	-1,230.42	849.67	846.10	793.55	52.55	16.100	
14,300.00	12,517.00	13,468.89	11,852.93	53.74	52.26	37.66	-1,330.37	850.55	844.65	791.20	53.46	15.801	
14,400.00	12,517.00	13,568.87	11,854.85	54.46	53.44	37.75	-1,430.33	851.43	843.20	788.80	54.40	15.500	
14,500.00	12,517.00	13,668.85	11,856.76	55.23	54.65	37.83	-1,530.29	852.31	841.76	786.38	55.38	15.200	
14,600.00	12,517.00	13,768.83	11,858.67	56.04	55.87	37.92	-1,630.25	853.19	840.31	783.92	56.39	14.902	
14,700.00	12,517.00	13,868.81	11,860.58	56.89	57.12	38.01	-1,730.21	854.07	838.87	781.44	57.43	14.606	
14,800.00	12,517.00	13,968.79	11,862.49	57.77	58.38	38.09	-1,830.17	854.94	837.43	778.92	58.51	14.313	
14,900.00	12,517.00	14,068.78	11,864.41	58.69	59.67	38.18	-1,930.13	855.82	835.99	776.37	59.61	14.024	
15,000.00	12,517.00	14,168.76	11,866.32	59.64	60.97	38.27	-2,030.09	856.70	834.55	773.80	60.74	13.739	
15,100.00	12,517.00	14,268.74	11,868.23	60.63	62.29	38.35	-2,130.05	857.58	833.11	771.21	61.90	13.458	
15,200.00	12,517.00	14,368.72	11,870.14	61.64	63.63	38.44	-2,230.01	858.46	831.68	768.59	63.09	13.183	
15,300.00	12,517.00	14,468.70	11,872.05	62.68	64.98	38.53	-2,329.97	859.34	830.25	765.95	64.29	12.913	
15,400.00	12,517.00	14,568.68	11,873.96	63.75	66.34	38.62	-2,429.93	860.22	828.82	763.29	65.53	12.649	
15,500.00	12,517.00	14,668.67	11,875.88	64.84	67.72	38.70	-2,529.89	861.10	827.39	760.61	66.78	12.390	
15,600.00	12,517.00	14,768.65	11,877.79	65.96	69.11	38.79	-2,629.85	861.98	825.96	757.91	68.05	12.137	
15,700.00	12,517.00	14,868.63	11,879.70	67.10	70.50	38.88	-2,729.81	862.86	824.54	755.20	69.34	11.891	
15,800.00	12,517.00	14,968.61	11,881.61	68.26	71.91	38.97	-2,829.77	863.74	823.12	752.46	70.66	11.650	
15,900.00	12,517.00	15,068.59	11,883.52	69.44	73.34	39.06	-2,929.73	864.61	821.70	749.71	71.99	11.415	
16,000.00	12,517.00	15,168.57	11,885.44	70.64	74.76	39.15	-3,029.69	865.49	820.28	746.95	73.33	11.186	
16,100.00	12,517.00	15,268.56	11,887.35	71.85	76.20	39.24	-3,129.65	866.37	818.86	744.17	74.70	10.963	
16,200.00	12,517.00	15,381.90	11,890.81	73.09	77.84	39.40	-3,242.93	867.37	816.55	740.30	76.25	10.708	
16,300.00	12,517.00	15,481.82	11,894.84	74.34	79.30	39.59	-3,342.76	868.25	813.51	735.78	77.73	10.466	
16,400.00	12,517.00	15,581.74	11,898.86	75.60	80.77	39.77	-3,442.60	869.12	810.48	731.25	79.23	10.230	
16,500.00	12,517.00	15,681.66	11,902.89	76.88	82.24	39.96	-3,542.43	870.00	807.45	726.71	80.74	10.001	
16,600.00	12,517.00	15,781.57	11,906.91	78.18	83.72	40.15	-3,642.26	870.88	804.44	722.17	82.27	9.778	
16,700.00	12,517.00	15,881.49	11,910.93	79.49	85.21	40.34	-3,742.10	871.76	801.43	717.61	83.82	9.561	
16,800.00	12,517.00	15,981.41	11,914.96	80.81	86.70	40.54	-3,841.93	872.63	798.43	713.05	85.38	9.351	
16,900.00	12,517.00	16,081.33	11,918.98	82.14	88.20	40.73	-3,941.77	873.51	795.44	708.48	86.96	9.147	
17,000.00	12,517.00	16,181.25	11,923.01	83.48	89.70	40.93	-4,041.60	874.39	792.46	703.90	88.56	8.948	
17,100.00	12,517.00	16,281.17	11,927.03	84.84	91.21	41.12	-4,141.43	875.26	789.49	699.32	90.17	8.755	
17,200.00	12,517.00	16,381.09	11,931.05	86.20	92.72	41.32	-4,241.27	876.14	786.53	694.73	91.80	8.568	
17,300.00	12,517.00	16,481.01	11,935.08	87.58	94.24	41.52	-4,341.10	877.02	783.58	690.14	93.44	8.386	
17,400.00	12,517.00	16,580.93	11,939.10	88.96	95.76	41.72	-4,440.94	877.90	780.64	685.54	95.10	8.209	
17,500.00	12,517.00	16,680.84	11,943.12	90.35	97.28	41.93	-4,540.77	878.77	777.71	680.94	96.77	8.037	
17,600.00	12,517.00	16,780.76	11,947.15	91.75	98.81	42.13	-4,640.60	879.65	774.79	676.33	98.46	7.869	
17,700.00	12,517.00	16,880.68	11,951.17	93.16	100.35	42.34	-4,740.44	880.53	771.87	671.72	100.16	7.707	
17,800.00	12,517.00	16,980.60	11,955.20	94.58	101.88	42.54	-4,840.27	881.41	768.97	667.10	101.87	7.549	
17,900.00	12,517.00	17,080.52	11,959.22	96.01	103.42	42.75	-4,940.11	882.28	766.08	662.48	103.60	7.395	
18,000.00	12,517.00	17,180.44	11,963.24	97.44	104.97	42.96	-5,039.94	883.16	763.20	657.86	105.34	7.245	
18,100.00	12,517.00	17,280.36	11,967.27	98.88	106.51	43.18	-5,139.77	884.04	760.33	653.24	107.09	7.100	
18,200.00	12,517.00	17,380.28	11,971.29	100.32	108.06	43.39	-5,239.61	884.92	757.47	648.61	108.86	6.958	
18,300.00	12,517.00	17,480.19	11,975.31	101.78	109.62	43.61	-5,339.44	885.79	754.62	643.98	110.64	6.821	
18,400.00	12,517.00	17,580.11	11,979.34	103.23	111.17	43.82	-5,439.27	886.67	751.78	639.35	112.43	6.687	
18,500.00	12,517.00	17,680.03	11,983.36	104.70	112.73	44.04	-5,539.11	887.55	748.95	634.71	114.24	6.556	
18,600.00	12,517.00	17,779.95	11,987.39	106.17	114.29	44.26	-5,638.94	888.42	746.13	630.08	116.06	6.429	
18,700.00	12,517.00	17,879.87	11,991.41	107.64	115.86	44.49	-5,738.78	889.30	743.33	625.44	117.89	6.305	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-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
18,800.00	12,517.00	17,979.79	11,995.43	109.12	117.42	44.71	-5,838.61	890.18	740.53	620.80	119.73	6.185	
18,900.00	12,517.00	18,079.71	11,999.46	110.60	118.99	44.94	-5,938.44	891.06	737.75	616.16	121.59	6.068	
19,000.00	12,517.00	18,179.63	12,003.48	112.09	120.56	45.16	-6,038.28	891.93	734.98	611.52	123.45	5.953	
19,100.00	12,517.00	18,279.55	12,007.51	113.59	122.13	45.39	-6,138.11	892.81	732.22	606.88	125.34	5.842	
19,200.00	12,517.00	18,379.46	12,011.53	115.08	123.71	45.62	-6,237.95	893.69	729.47	602.24	127.23	5.734	
19,300.00	12,517.00	18,479.38	12,015.55	116.59	125.28	45.86	-6,337.78	894.57	726.73	597.60	129.13	5.628	
19,400.00	12,517.00	18,579.30	12,019.58	118.09	126.86	46.09	-6,437.61	895.44	724.01	592.95	131.05	5.525	
19,500.00	12,517.00	18,679.22	12,023.60	119.60	128.44	46.33	-6,537.45	896.32	721.29	588.31	132.98	5.424	
19,600.00	12,517.00	18,779.14	12,027.62	121.11	130.02	46.57	-6,637.28	897.20	718.59	583.67	134.93	5.326	
19,700.00	12,517.00	18,879.06	12,031.65	122.63	131.61	46.80	-6,737.12	898.08	715.91	579.03	136.88	5.230	
19,800.00	12,517.00	18,978.98	12,035.67	124.15	133.19	47.05	-6,836.95	898.95	713.23	574.39	138.85	5.137	
19,900.00	12,517.00	19,085.50	12,040.95	125.67	134.88	47.36	-6,943.34	899.89	709.93	568.93	141.00	5.035	
20,000.00	12,517.00	19,185.36	12,046.34	127.20	136.47	47.69	-7,043.04	900.76	706.36	563.24	143.12	4.935	
20,100.00	12,517.00	19,285.21	12,051.73	128.73	138.06	48.02	-7,142.75	901.64	702.82	557.56	145.25	4.839	
20,200.00	12,517.00	19,385.06	12,057.12	130.26	139.65	48.36	-7,242.45	902.52	699.29	551.89	147.41	4.744	
20,300.00	12,517.00	19,484.92	12,062.50	131.80	141.24	48.69	-7,342.16	903.39	695.79	546.22	149.58	4.652	
20,400.00	12,517.00	19,584.77	12,067.89	133.34	142.84	49.04	-7,441.86	904.27	692.32	540.55	151.77	4.562	
20,500.00	12,517.00	19,684.63	12,073.28	134.88	144.43	49.38	-7,541.57	905.14	688.87	534.90	153.97	4.474	
20,600.00	12,517.00	19,784.48	12,078.67	136.42	146.03	49.73	-7,641.27	906.02	685.45	529.25	156.20	4.388	
20,700.00	12,517.00	19,884.34	12,084.06	137.97	147.62	50.08	-7,740.98	906.90	682.05	523.61	158.44	4.305	
20,800.00	12,517.00	19,984.19	12,089.45	139.52	149.22	50.43	-7,840.68	907.77	678.68	517.98	160.70	4.223	
20,900.00	12,517.00	20,084.04	12,094.84	141.07	150.82	50.79	-7,940.39	908.65	675.33	512.35	162.98	4.144	
21,000.00	12,517.00	20,183.90	12,100.23	142.62	152.42	51.15	-8,040.09	909.53	672.01	506.74	165.27	4.066	
21,100.00	12,517.00	20,283.75	12,105.62	144.18	154.02	51.52	-8,139.80	910.40	668.72	501.13	167.59	3.990	
21,200.00	12,517.00	20,383.61	12,111.01	145.73	155.62	51.89	-8,239.50	911.28	665.45	495.53	169.92	3.916	
21,300.00	12,517.00	20,483.46	12,116.39	147.29	157.23	52.26	-8,339.21	912.15	662.21	489.94	172.27	3.844	
21,400.00	12,517.00	20,583.31	12,121.78	148.85	158.83	52.64	-8,438.91	913.03	659.01	484.36	174.64	3.773	
21,500.00	12,517.00	20,683.17	12,127.17	150.42	160.44	53.02	-8,538.62	913.91	655.82	478.79	177.03	3.705	
21,600.00	12,517.00	20,783.02	12,132.56	151.98	162.04	53.40	-8,638.32	914.78	652.67	473.23	179.44	3.637	
21,700.00	12,517.00	20,882.88	12,137.95	153.55	163.65	53.79	-8,738.02	915.66	649.55	467.68	181.87	3.572	
21,800.00	12,517.00	20,982.73	12,143.34	155.12	165.26	54.18	-8,837.73	916.53	646.46	462.14	184.32	3.507	
21,900.00	12,517.00	21,082.59	12,148.73	156.69	166.86	54.57	-8,937.43	917.41	643.40	456.62	186.78	3.445	
22,000.00	12,517.00	21,182.44	12,154.12	158.26	168.47	54.97	-9,037.14	918.29	640.37	451.10	189.27	3.383	
22,100.00	12,517.00	21,282.29	12,159.51	159.84	170.08	55.38	-9,136.84	919.16	637.37	445.60	191.77	3.324	
22,200.00	12,517.00	21,382.15	12,164.90	161.41	171.69	55.78	-9,236.55	920.04	634.40	440.11	194.30	3.265	
22,300.00	12,517.00	21,482.00	12,170.29	162.99	173.30	56.19	-9,336.25	920.92	631.47	434.63	196.84	3.208	
22,400.00	12,517.00	21,581.86	12,175.67	164.57	174.92	56.60	-9,435.96	921.79	628.57	429.16	199.40	3.152	
22,500.00	12,517.00	21,681.71	12,181.06	166.14	176.53	57.02	-9,535.66	922.67	625.70	423.71	201.99	3.098	
22,600.00	12,517.00	21,785.97	12,186.94	167.73	178.21	57.48	-9,639.75	923.58	622.74	418.04	204.70	3.042	
22,700.00	12,517.00	21,895.12	12,196.20	169.31	179.98	58.21	-9,748.50	924.54	618.29	410.32	207.96	2.973	
22,800.00	12,517.00	21,994.67	12,205.72	170.89	181.58	58.97	-9,847.58	925.41	613.37	402.12	211.25	2.904	
22,900.00	12,517.00	22,094.21	12,215.24	172.48	183.19	59.75	-9,946.67	926.28	608.58	393.99	214.58	2.836	
23,000.00	12,517.00	22,193.75	12,224.76	174.06	184.80	60.53	-10,045.75	927.15	603.89	385.93	217.95	2.771	
23,100.00	12,517.00	22,293.29	12,234.27	175.65	186.41	61.33	-10,144.83	928.02	599.32	377.95	221.36	2.707	
23,200.00	12,517.00	22,392.83	12,243.79	177.24	188.02	62.14	-10,243.91	928.89	594.87	370.06	224.81	2.646	
23,300.00	12,517.00	22,492.38	12,253.31	178.83	189.63	62.96	-10,342.99	929.77	590.54	362.24	228.29	2.587	
23,400.00	12,517.00	22,591.92	12,262.83	180.42	191.25	63.80	-10,442.08	930.64	586.33	354.52	231.81	2.529	
23,500.00	12,517.00	22,691.46	12,272.34	182.01	192.86	64.64	-10,541.16	931.51	582.25	346.89	235.36	2.474	
23,600.00	12,517.00	22,791.00	12,281.86	183.60	194.47	65.50	-10,640.24	932.38	578.30	339.36	238.94	2.420	
23,700.00	12,517.00	22,890.54	12,291.38	185.20	196.08	66.37	-10,739.32	933.25	574.48	331.93	242.55	2.369	
23,800.00	12,517.00	22,990.08	12,300.90	186.79	197.70	67.25	-10,838.40	934.12	570.80	324.62	246.18	2.319	
23,900.00	12,517.00	23,089.63	12,310.41	188.39	199.31	68.14	-10,937.49	934.99	567.25	317.41	249.84	2.270	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 602H - OH - Plan #6

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1425-OWSG (Rev2) MWD, 12083-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
24,000.00	12,517.00	23,189.17	12,319.93	189.99	200.93	69.04	-11,036.57	935.86	563.84	310.34	253.51	2.224	
24,100.00	12,517.00	23,288.71	12,329.45	191.58	202.54	69.95	-11,135.65	936.73	560.58	303.39	257.19	2.180	
24,130.17	12,517.00	23,302.33	12,330.75	192.05	202.76	70.08	-11,149.21	936.85	559.86	302.22	257.64	2.173 SF	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	49.04	896.51	1,032.69	1,367.55				
100.00	100.00	116.33	116.30	0.13	0.21	48.97	897.67	1,031.49	1,367.45	1,367.22	0.23	5,995.214	
194.82	194.82	199.36	199.32	0.47	0.48	48.92	898.49	1,030.63	1,367.29	1,366.62	0.67	2,039.821	
200.00	200.00	202.97	202.93	0.48	0.50	48.92	898.53	1,030.59	1,367.29	1,366.60	0.69	1,974.485	
300.00	300.00	324.91	324.85	0.84	0.93	48.85	899.03	1,028.88	1,366.48	1,365.23	1.25	1,089.065	
400.00	400.00	430.79	430.70	1.20	1.31	48.79	898.90	1,026.48	1,364.69	1,362.91	1.78	768.698	
500.00	500.00	551.75	551.59	1.56	1.75	48.69	898.51	1,022.38	1,361.91	1,359.57	2.34	582.604	
600.00	600.00	655.10	654.85	1.92	2.12	48.58	898.14	1,018.04	1,358.53	1,355.67	2.85	476.100	
700.00	700.00	740.00	739.68	2.28	2.43	48.49	897.83	1,014.58	1,355.25	1,351.93	3.32	408.085	
800.00	800.00	840.43	840.07	2.63	2.79	48.43	897.30	1,011.84	1,352.87	1,349.04	3.83	353.361	
900.00	900.00	938.81	938.41	2.99	3.14	48.40	896.16	1,009.33	1,350.19	1,345.86	4.33	311.844	
1,000.00	1,000.00	1,038.63	1,038.20	3.35	3.50	48.38	894.95	1,007.27	1,347.84	1,343.00	4.83	278.827	
1,100.00	1,100.00	1,146.56	1,146.08	3.71	3.89	48.37	893.08	1,004.74	1,344.93	1,339.57	5.36	250.984	
1,200.00	1,200.00	1,232.91	1,232.41	4.07	4.20	48.35	892.02	1,002.84	1,342.45	1,336.62	5.83	230.270	
1,300.00	1,300.00	1,327.19	1,326.67	4.43	4.50	48.33	891.27	1,001.24	1,340.65	1,334.35	6.30	212.923	
1,400.00	1,400.00	1,415.28	1,414.76	4.79	4.66	48.30	890.97	1,000.08	1,339.44	1,332.77	6.66	200.979	
1,500.00	1,500.00	1,513.61	1,513.08	5.14	4.71	48.28	890.97	999.20	1,338.77	1,331.82	6.95	192.492	
1,600.00	1,600.00	1,612.21	1,611.68	5.50	4.76	48.26	890.86	998.53	1,338.18	1,330.92	7.26	184.363	
1,700.00	1,699.98	1,708.68	1,708.15	5.86	4.84	-18.54	890.75	998.09	1,336.12	1,328.54	7.58	176.311	
1,800.00	1,799.84	1,806.57	1,806.04	6.21	4.94	-18.65	890.75	997.84	1,330.96	1,323.05	7.91	168.175	
1,900.00	1,899.45	1,905.91	1,905.37	6.56	5.06	-18.83	890.85	997.59	1,322.59	1,314.32	8.27	159.957	
2,000.00	1,998.70	2,004.60	2,004.06	6.92	5.21	-19.09	890.91	997.39	1,310.95	1,302.31	8.64	151.777	
2,100.00	2,097.47	2,099.31	2,098.78	7.29	5.36	-19.41	891.18	997.28	1,296.26	1,287.25	9.01	143.806	
2,200.00	2,195.62	2,196.06	2,195.52	7.67	5.53	-19.83	891.67	997.23	1,278.55	1,269.15	9.40	135.964	
2,300.00	2,293.06	2,291.80	2,291.26	8.07	5.72	-20.34	892.19	997.28	1,257.76	1,247.96	9.80	128.299	
2,357.10	2,348.32	2,344.57	2,344.03	8.31	5.83	-20.66	892.56	997.37	1,244.59	1,234.56	10.04	124.021	
2,400.00	2,389.73	2,384.90	2,384.36	8.49	5.91	-20.85	892.91	997.47	1,234.39	1,224.18	10.21	120.882	
2,500.00	2,486.26	2,480.77	2,480.22	8.92	6.12	-21.30	893.76	997.74	1,210.70	1,200.07	10.63	113.886	
2,600.00	2,582.78	2,584.29	2,583.74	9.37	6.36	-21.81	894.72	998.09	1,187.18	1,176.11	11.07	107.235	
2,700.00	2,679.31	2,719.68	2,719.11	9.83	6.69	-22.52	893.85	996.19	1,161.43	1,149.87	11.55	100.526	
2,800.00	2,775.84	2,816.94	2,816.31	10.30	6.94	-23.09	892.27	993.13	1,133.95	1,121.94	12.01	94.453	
2,900.00	2,872.37	2,906.54	2,905.86	10.78	7.18	-23.63	891.10	990.61	1,107.02	1,094.56	12.46	88.848	
3,000.00	2,968.90	3,024.54	3,023.79	11.27	7.50	-24.36	888.85	987.27	1,079.85	1,066.90	12.94	83.425	
3,100.00	3,065.43	3,187.16	3,185.87	11.76	7.98	-25.55	881.68	976.44	1,048.54	1,035.10	13.44	78.011	
3,200.00	3,161.95	3,329.14	3,326.40	12.25	8.43	-26.87	871.19	959.39	1,011.83	997.93	13.90	72.783	
3,300.00	3,258.48	3,420.94	3,416.95	12.76	8.73	-27.84	863.21	946.54	973.30	958.91	14.39	67.656	
3,400.00	3,355.01	3,500.00	3,495.02	13.26	9.00	-28.74	856.80	935.81	935.67	920.78	14.89	62.840	
3,500.00	3,451.54	3,592.40	3,586.33	13.77	9.32	-29.87	849.78	923.53	898.88	883.48	15.40	58.384	
3,600.00	3,548.07	3,718.30	3,710.12	14.29	9.78	-31.73	839.22	903.25	860.18	844.31	15.87	54.192	
3,700.00	3,644.59	3,817.68	3,807.12	14.80	10.16	-33.58	830.51	883.47	819.64	803.24	16.40	49.988	
3,800.00	3,741.12	3,905.95	3,893.03	15.32	10.51	-35.50	823.28	864.56	779.41	762.45	16.96	45.945	
3,900.00	3,837.65	3,992.92	3,977.61	15.84	10.87	-37.62	816.55	845.42	740.13	722.56	17.56	42.141	
4,000.00	3,934.18	4,080.42	4,062.74	16.37	11.24	-39.95	809.81	826.38	702.04	683.85	18.19	38.595	
4,100.00	4,030.71	4,172.48	4,152.48	16.90	11.63	-42.52	801.58	807.58	664.78	645.96	18.83	35.308	
4,200.00	4,127.24	4,255.00	4,233.20	17.42	11.97	-44.88	793.44	792.47	628.93	609.41	19.51	32.229	
4,300.00	4,223.76	4,330.11	4,307.08	17.95	12.27	-47.04	786.40	780.97	595.88	575.64	20.24	29.440	
4,400.00	4,320.29	4,408.14	4,384.30	18.49	12.58	-49.27	780.13	771.66	566.38	545.41	20.97	27.007	
4,500.00	4,416.82	4,492.83	4,468.39	19.02	12.90	-51.75	774.54	763.29	539.99	518.29	21.70	24.882	
4,600.00	4,513.35	4,581.59	4,556.59	19.55	13.23	-54.58	769.46	754.74	515.83	493.38	22.45	22.977	
4,700.00	4,609.88	4,670.16	4,644.65	20.09	13.56	-57.65	765.14	746.26	494.02	470.79	23.22	21.272	
4,800.00	4,706.40	4,761.83	4,735.91	20.62	13.89	-60.94	761.28	738.61	474.73	450.73	24.01	19.775	
4,900.00	4,802.93	4,858.51	4,832.15	21.16	14.25	-64.67	756.90	730.55	457.04	432.24	24.80	18.431	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,899.46	4,952.44	4,925.58	21.70	14.60	-68.62	752.14	722.06	440.93	415.32	25.61	17.218	
5,100.00	4,995.99	5,049.23	5,021.88	22.24	14.96	-72.90	747.24	713.75	427.23	400.81	26.41	16.174	
5,200.00	5,092.52	5,149.54	5,121.44	22.78	15.35	-77.81	740.44	703.61	414.76	387.55	27.22	15.240	
5,300.00	5,189.04	5,245.11	5,215.76	23.32	15.74	-83.20	731.87	690.81	404.20	376.18	28.02	14.427	
5,400.00	5,285.57	5,335.79	5,304.78	23.86	16.13	-88.85	722.62	676.19	397.50	368.72	28.78	13.814	
5,488.48	5,370.98	5,415.30	5,382.68	24.34	16.48	-94.00	714.17	662.73	395.55	366.19	29.36	13.470	CC
5,500.00	5,382.10	5,425.66	5,392.82	24.41	16.53	-94.67	713.06	660.96	395.59	366.15	29.44	13.439	ES
5,600.00	5,478.63	5,515.69	5,480.99	24.95	16.93	-100.50	703.30	645.60	398.64	368.67	29.97	13.300	SF
5,700.00	5,575.16	5,605.75	5,569.24	25.49	17.33	-106.19	693.49	630.51	406.45	376.06	30.39	13.374	
5,800.00	5,671.69	5,694.71	5,656.36	26.04	17.72	-111.61	683.67	615.44	418.95	388.25	30.70	13.646	
5,900.00	5,768.21	5,784.71	5,744.49	26.58	18.13	-116.80	673.70	600.13	435.77	404.84	30.94	14.086	
6,000.00	5,864.74	5,878.11	5,836.14	27.13	18.54	-121.70	663.76	585.19	455.88	424.72	31.16	14.632	
6,100.00	5,961.27	5,972.36	5,928.89	27.67	18.96	-126.12	654.26	571.32	478.41	447.03	31.37	15.248	
6,200.00	6,057.80	6,068.01	6,023.11	28.22	19.37	-130.20	644.37	558.20	502.63	471.03	31.60	15.904	
6,300.00	6,154.33	6,161.42	6,115.14	28.76	19.77	-133.87	634.16	545.87	528.47	496.64	31.82	16.606	
6,400.00	6,250.85	6,254.46	6,206.85	29.31	20.17	-137.19	623.93	534.04	555.82	523.76	32.06	17.338	
6,500.00	6,347.38	6,345.10	6,296.21	29.86	20.56	-140.15	613.88	522.60	584.73	552.44	32.29	18.107	
6,600.00	6,443.91	6,435.95	6,385.75	30.41	20.95	-142.86	603.75	511.06	615.16	582.61	32.55	18.900	
6,700.00	6,540.44	6,530.00	6,478.61	30.95	21.35	-145.32	594.28	499.58	646.53	613.66	32.86	19.674	
6,803.85	6,640.68	6,621.35	6,568.99	31.52	21.73	-147.35	586.82	488.57	680.22	647.05	33.17	20.509	
6,900.00	6,733.90	6,708.00	6,654.75	32.03	22.09	-149.28	580.84	477.77	711.29	677.80	33.49	21.240	
7,000.00	6,831.63	6,804.10	6,749.90	32.53	22.48	-151.04	574.57	465.80	741.31	707.42	33.89	21.876	
7,100.00	6,930.04	6,908.29	6,853.17	32.98	22.91	-152.59	567.79	453.76	767.91	733.55	34.36	22.350	
7,200.00	7,029.01	7,012.48	6,956.58	33.40	23.33	-153.84	561.33	442.85	790.74	755.90	34.83	22.701	
7,300.00	7,128.41	7,113.81	7,057.29	33.78	23.73	-154.80	555.62	433.19	809.78	774.49	35.29	22.949	
7,400.00	7,228.14	7,207.65	7,150.59	34.12	24.09	-155.46	551.41	423.98	826.11	790.42	35.69	23.149	
7,500.00	7,328.06	7,309.14	7,251.48	34.43	24.49	-155.99	547.09	413.84	839.55	803.40	36.15	23.225	
7,560.95	7,389.00	7,375.92	7,317.89	34.59	24.75	-89.52	544.09	407.60	845.81	809.35	36.46	23.196	
7,600.00	7,428.05	7,420.17	7,361.93	34.70	24.92	-89.65	542.24	403.77	849.18	812.51	36.68	23.154	
7,700.00	7,528.05	7,527.82	7,469.21	34.97	25.32	-89.88	538.79	395.43	856.91	819.73	37.18	23.048	
7,800.00	7,628.05	7,633.78	7,574.88	35.24	25.70	-90.02	536.67	387.95	863.97	826.30	37.68	22.932	
7,900.00	7,728.05	7,745.45	7,686.34	35.51	26.10	-90.10	535.49	381.22	870.01	831.80	38.21	22.770	
8,000.00	7,828.05	7,860.44	7,801.21	35.79	26.49	-90.18	534.27	376.17	874.40	835.64	38.76	22.561	
8,100.00	7,928.05	7,971.38	7,912.09	36.06	26.86	-90.26	532.98	372.84	877.41	838.14	39.27	22.343	
8,200.00	8,028.05	8,079.26	8,019.95	36.34	27.21	-90.24	533.31	370.98	879.12	839.35	39.77	22.106	
8,300.00	8,128.05	8,180.61	8,121.28	36.62	27.53	-90.15	534.64	369.61	880.47	840.23	40.24	21.882	
8,400.00	8,228.05	8,283.63	8,224.29	36.90	27.85	-90.08	535.74	368.42	881.62	840.91	40.71	21.655	
8,500.00	8,328.05	8,389.05	8,329.71	37.18	28.17	-90.04	536.41	367.74	882.26	841.07	41.19	21.418	
8,600.00	8,428.05	8,494.34	8,434.99	37.46	28.49	-90.01	536.81	367.72	882.28	840.61	41.67	21.175	
8,700.00	8,528.05	8,596.38	8,537.04	37.75	28.78	-89.99	537.16	368.13	881.88	839.76	42.12	20.937	
8,800.00	8,628.05	8,699.41	8,640.06	38.03	29.08	-89.98	537.32	368.81	881.22	838.65	42.58	20.697	
8,900.00	8,728.05	8,805.59	8,746.24	38.32	29.38	-90.00	537.01	370.12	879.99	836.94	43.05	20.443	
9,000.00	8,828.05	8,908.55	8,849.18	38.61	29.68	-90.01	536.84	371.92	878.24	834.74	43.50	20.188	
9,100.00	8,928.05	9,009.26	8,949.87	38.89	29.96	-89.97	537.42	373.90	876.27	832.31	43.96	19.935	
9,200.00	9,028.05	9,108.85	9,049.44	39.18	30.25	-89.91	538.38	375.83	874.33	829.93	44.41	19.689	
9,300.00	9,128.05	9,209.78	9,150.34	39.47	30.54	-89.82	539.72	377.82	872.37	827.50	44.86	19.444	
9,400.00	9,228.05	9,312.09	9,252.61	39.77	30.83	-89.73	541.17	380.03	870.21	824.88	45.33	19.198	
9,500.00	9,328.05	9,412.35	9,352.83	40.06	31.12	-89.64	542.44	382.42	867.84	822.05	45.79	18.954	
9,600.00	9,428.05	9,511.71	9,452.16	40.35	31.41	-89.54	543.90	384.70	865.55	819.30	46.24	18.717	
9,700.00	9,528.05	9,595.22	9,535.65	40.65	31.66	-89.46	545.10	386.04	864.01	817.36	46.64	18.523	
9,714.31	9,542.36	9,606.44	9,546.86	40.69	31.69	-89.45	545.26	386.06	863.98	817.28	46.70	18.501	
9,800.00	9,628.05	9,682.49	9,622.90	40.95	31.93	-89.38	546.37	385.48	864.62	817.56	47.06	18.373	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.00	9,728.05	9,783.53	9,723.92	41.24	32.26	-89.27	547.97	384.27	865.84	818.30	47.54	18.214	
10,000.00	9,828.05	9,893.55	9,833.93	41.54	32.61	-89.17	549.48	383.76	866.34	818.28	48.05	18.029	
10,100.00	9,928.05	9,992.41	9,932.78	41.84	32.92	-89.09	550.75	384.01	866.10	817.59	48.51	17.852	
10,105.59	9,933.64	9,997.76	9,938.14	41.86	32.93	-89.09	550.82	384.01	866.10	817.56	48.54	17.843	
10,200.00	10,028.05	10,092.43	10,032.79	42.14	33.23	-89.00	552.13	384.02	866.12	817.13	48.98	17.681	
10,227.12	10,055.17	10,119.32	10,059.68	42.22	33.31	-88.98	552.40	384.03	866.11	817.00	49.11	17.636	
10,300.00	10,128.05	10,190.78	10,131.14	42.44	33.54	-89.00	552.08	383.96	866.17	816.72	49.45	17.518	
10,400.00	10,228.05	10,282.47	10,222.81	42.74	33.85	-89.12	550.34	383.37	866.79	816.91	49.87	17.379	
10,500.00	10,328.05	10,377.91	10,318.22	43.05	34.17	-89.26	548.15	381.99	868.20	817.88	50.32	17.253	
10,600.00	10,428.05	10,482.19	10,422.45	43.35	34.52	-89.44	545.53	380.45	869.65	818.84	50.81	17.116	
10,700.00	10,528.05	10,584.66	10,524.89	43.65	34.87	-89.60	543.03	379.39	870.67	819.38	51.29	16.976	
10,800.00	10,628.05	10,684.80	10,625.01	43.96	35.21	-89.70	541.59	378.59	871.46	819.69	51.76	16.836	
10,900.00	10,728.05	10,777.10	10,717.30	44.27	35.52	-89.74	540.90	377.34	872.80	820.60	52.20	16.719	
11,000.00	10,828.05	10,871.70	10,811.88	44.57	35.85	-89.83	539.57	375.49	874.76	822.11	52.65	16.614	
11,100.00	10,928.05	10,952.00	10,892.13	44.88	36.13	-89.88	538.83	372.94	877.99	824.97	53.02	16.559	
11,200.00	11,028.05	11,046.00	10,986.00	45.19	36.46	-89.98	537.24	368.34	882.89	829.43	53.46	16.514	
11,300.00	11,128.05	11,160.17	11,099.98	45.50	36.88	-90.22	533.53	363.05	887.56	833.53	54.02	16.430	
11,400.00	11,228.05	11,269.38	11,209.04	45.81	37.27	-90.51	529.08	359.63	890.72	836.17	54.54	16.331	
11,500.00	11,328.05	11,377.70	11,317.20	46.12	37.65	-90.86	523.59	357.38	892.86	837.81	55.05	16.219	
11,600.00	11,428.05	11,484.02	11,423.32	46.43	38.02	-91.27	517.19	356.00	894.27	838.73	55.54	16.101	
11,700.00	11,528.05	11,637.10	11,573.28	46.74	38.56	-93.12	488.51	359.24	893.01	836.90	56.11	15.914	
11,800.00	11,628.05	11,716.10	11,648.74	47.05	38.84	-94.60	465.62	363.67	889.35	832.88	56.47	15.750	
11,900.00	11,728.05	11,808.86	11,734.82	47.37	39.19	-96.82	431.48	367.47	888.82	831.99	56.83	15.641	
11,904.42	11,732.47	11,811.26	11,736.97	47.38	39.20	-96.89	430.42	367.60	888.81	831.98	56.84	15.638	
12,000.00	11,828.05	11,860.87	11,780.45	47.68	39.39	-98.42	406.64	369.56	891.56	834.58	56.98	15.646	
12,100.00	11,928.05	11,894.00	11,808.69	48.00	39.53	-99.53	389.32	370.00	900.86	843.99	56.87	15.841	
12,115.99	11,944.04	11,894.00	11,808.69	48.05	39.53	-99.53	389.32	370.00	903.19	846.40	56.79	15.904	
12,150.00	11,978.03	11,929.08	11,837.46	48.15	39.68	86.73	369.28	369.76	907.70	850.81	56.89	15.957	
12,200.00	12,027.75	11,949.75	11,853.60	48.28	39.78	85.18	356.37	369.30	916.25	859.50	56.76	16.144	
12,250.00	12,076.83	11,985.00	11,879.58	48.41	39.94	83.10	332.60	367.99	926.38	869.66	56.72	16.332	
12,300.00	12,124.90	11,985.00	11,879.58	48.53	39.94	82.01	332.60	367.99	937.19	880.83	56.35	16.631	
12,350.00	12,171.60	11,985.00	11,879.58	48.63	39.94	80.70	332.60	367.99	949.92	893.98	55.94	16.980	
12,400.00	12,216.56	11,985.00	11,879.58	48.72	39.94	79.21	332.60	367.99	964.42	908.91	55.51	17.374	
12,450.00	12,259.45	11,985.00	11,879.58	48.80	39.94	77.55	332.60	367.99	980.48	925.40	55.08	17.802	
12,500.00	12,299.94	11,985.00	11,879.58	48.87	39.94	75.74	332.60	367.99	997.92	943.26	54.66	18.257	
12,550.00	12,337.72	11,985.00	11,879.58	48.93	39.94	73.81	332.60	367.99	1,016.53	962.25	54.28	18.727	
12,600.00	12,372.50	11,985.00	11,879.58	48.97	39.94	71.77	332.60	367.99	1,036.12	982.17	53.96	19.203	
12,650.00	12,404.03	11,985.00	11,879.58	49.00	39.94	69.67	332.60	367.99	1,056.49	1,002.80	53.69	19.677	
12,700.00	12,432.05	11,985.00	11,879.58	49.03	39.94	67.52	332.60	367.99	1,077.44	1,023.94	53.50	20.140	
12,750.00	12,456.36	11,985.00	11,879.58	49.05	39.94	65.36	332.60	367.99	1,098.78	1,045.40	53.38	20.584	
12,800.00	12,476.77	11,985.00	11,879.58	49.06	39.94	63.20	332.60	367.99	1,120.33	1,066.99	53.34	21.003	
12,850.00	12,493.12	11,985.00	11,879.58	49.07	39.94	61.09	332.60	367.99	1,141.93	1,088.54	53.38	21.391	
12,900.00	12,505.30	11,985.00	11,879.58	49.09	39.94	59.03	332.60	367.99	1,163.40	1,109.90	53.50	21.746	
12,950.00	12,513.20	11,985.00	11,879.58	49.11	39.94	57.04	332.60	367.99	1,184.61	1,130.92	53.69	22.064	
13,000.00	12,516.77	11,985.00	11,879.58	49.13	39.94	55.14	332.60	367.99	1,205.39	1,151.45	53.94	22.345	
13,015.99	12,517.00	11,985.00	11,879.58	49.14	39.94	54.56	332.60	367.99	1,211.93	1,157.89	54.04	22.427	
13,100.00	12,517.00	11,985.00	11,879.58	49.21	39.94	55.01	332.60	367.99	1,247.59	1,193.04	54.55	22.870	
13,200.00	12,517.00	11,985.00	11,879.58	49.32	39.94	55.60	332.60	367.99	1,293.60	1,238.45	55.15	23.458	
13,300.00	12,517.00	11,985.00	11,879.58	49.47	39.94	56.24	332.60	367.99	1,343.04	1,287.32	55.71	24.107	
13,387.80	12,517.00	11,985.00	11,879.58	49.62	39.94	56.83	332.60	367.99	1,388.95	1,332.76	56.18	24.723	
13,400.00	12,517.00	11,985.00	11,879.58	49.64	39.94	56.83	332.60	367.99	1,395.51	1,339.27	56.24	24.812	
13,500.00	12,517.00	11,985.00	11,879.58	49.86	39.94	56.83	332.60	367.99	1,452.08	1,395.34	56.74	25.591	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	12,517.00	11,985.00	11,879.58	50.14	39.94	56.83	332.60	367.99	1,513.15	1,455.94	57.21	26.450	
13,700.00	12,517.00	11,985.00	11,879.58	50.48	39.94	56.83	332.60	367.99	1,578.19	1,520.56	57.63	27.383	
13,800.00	12,517.00	11,985.00	11,879.58	50.88	39.94	56.83	332.60	367.99	1,646.74	1,588.72	58.02	28.382	
13,900.00	12,517.00	11,985.00	11,879.58	51.34	39.94	56.83	332.60	367.99	1,718.39	1,660.01	58.37	29.437	
14,000.00	12,517.00	11,985.00	11,879.58	51.86	39.94	56.83	332.60	367.99	1,792.74	1,734.05	58.69	30.547	
14,100.00	12,517.00	11,985.00	11,879.58	52.43	39.94	56.83	332.60	367.99	1,869.49	1,810.52	58.97	31.702	
14,200.00	12,517.00	11,985.00	11,879.58	53.06	39.94	56.83	332.60	367.99	1,948.35	1,889.13	59.23	32.897	
14,300.00	12,517.00	11,985.00	11,879.58	53.74	39.94	56.83	332.60	367.99	2,029.08	1,969.63	59.45	34.130	
14,400.00	12,517.00	11,985.00	11,879.58	54.46	39.94	56.83	332.60	367.99	2,111.46	2,051.80	59.66	35.394	
14,500.00	12,517.00	11,985.00	11,879.58	55.23	39.94	56.83	332.60	367.99	2,195.30	2,135.46	59.84	36.686	
14,600.00	12,517.00	11,985.00	11,879.58	56.04	39.94	56.83	332.60	367.99	2,280.44	2,220.43	60.01	38.003	
14,700.00	12,517.00	11,985.00	11,879.58	56.89	39.94	56.83	332.60	367.99	2,366.75	2,306.59	60.16	39.342	
14,800.00	12,517.00	11,985.00	11,879.58	57.77	39.94	56.83	332.60	367.99	2,454.09	2,393.80	60.30	40.701	
14,900.00	12,517.00	11,985.00	11,879.58	58.69	39.94	56.83	332.60	367.99	2,542.37	2,481.95	60.42	42.077	
15,000.00	12,517.00	11,985.00	11,879.58	59.64	39.94	56.83	332.60	367.99	2,631.49	2,570.95	60.54	43.470	
15,100.00	12,517.00	11,985.00	11,879.58	60.63	39.94	56.83	332.60	367.99	2,721.36	2,660.72	60.64	44.877	
15,200.00	12,517.00	11,985.00	11,879.58	61.64	39.94	56.83	332.60	367.99	2,811.92	2,751.18	60.74	46.295	
15,300.00	12,517.00	11,985.00	11,879.58	62.68	39.94	56.83	332.60	367.99	2,903.10	2,842.26	60.83	47.724	
15,400.00	12,517.00	11,985.00	11,879.58	63.75	39.94	56.83	332.60	367.99	2,994.84	2,933.92	60.91	49.164	
15,500.00	12,517.00	11,985.00	11,879.58	64.84	39.94	56.83	332.60	367.99	3,087.09	3,026.10	60.99	50.614	
15,600.00	12,517.00	11,985.00	11,879.58	65.96	39.94	56.83	332.60	367.99	3,179.81	3,118.74	61.07	52.070	
15,700.00	12,517.00	11,985.00	11,879.58	67.10	39.94	56.83	332.60	367.99	3,272.96	3,211.82	61.14	53.534	
15,800.00	12,517.00	11,985.00	11,879.58	68.26	39.94	56.83	332.60	367.99	3,366.51	3,305.30	61.20	55.004	
15,900.00	12,517.00	11,985.00	11,879.58	69.44	39.94	56.83	332.60	367.99	3,460.41	3,399.14	61.27	56.479	
16,000.00	12,517.00	11,985.00	11,879.58	70.64	39.94	56.83	332.60	367.99	3,554.65	3,493.32	61.33	57.959	
16,100.00	12,517.00	11,985.00	11,879.58	71.85	39.94	56.83	332.60	367.99	3,649.19	3,587.80	61.39	59.444	
16,200.00	12,517.00	11,985.00	11,879.58	73.09	39.94	56.83	332.60	367.99	3,744.02	3,682.57	61.45	60.931	
16,300.00	12,517.00	11,985.00	11,879.58	74.34	39.94	56.83	332.60	367.99	3,839.11	3,777.61	61.50	62.423	
16,400.00	12,517.00	11,985.00	11,879.58	75.60	39.94	56.83	332.60	367.99	3,934.44	3,872.89	61.56	63.916	
16,500.00	12,517.00	11,985.00	11,879.58	76.88	39.94	56.83	332.60	367.99	4,030.00	3,968.39	61.61	65.413	
16,600.00	12,517.00	11,985.00	11,879.58	78.18	39.94	56.83	332.60	367.99	4,125.77	4,064.11	61.66	66.911	
16,700.00	12,517.00	11,985.00	11,879.58	79.49	39.94	56.83	332.60	367.99	4,221.74	4,160.03	61.71	68.411	
16,800.00	12,517.00	11,985.00	11,879.58	80.81	39.94	56.83	332.60	367.99	4,317.89	4,256.13	61.76	69.912	
16,900.00	12,517.00	11,985.00	11,879.58	82.14	39.94	56.83	332.60	367.99	4,414.21	4,352.40	61.81	71.414	
17,000.00	12,517.00	11,985.00	11,879.58	83.48	39.94	56.83	332.60	367.99	4,510.69	4,448.83	61.86	72.917	
17,100.00	12,517.00	11,985.00	11,879.58	84.84	39.94	56.83	332.60	367.99	4,607.32	4,545.41	61.91	74.420	
17,200.00	12,517.00	11,985.00	11,879.58	86.20	39.94	56.83	332.60	367.99	4,704.09	4,642.13	61.96	75.923	
17,300.00	12,517.00	11,985.00	11,879.58	87.58	39.94	56.83	332.60	367.99	4,801.00	4,738.99	62.01	77.427	
17,400.00	12,517.00	11,985.00	11,879.58	88.96	39.94	56.83	332.60	367.99	4,898.02	4,835.97	62.06	78.930	
17,500.00	12,517.00	11,985.00	11,879.58	90.35	39.94	56.83	332.60	367.99	4,995.17	4,933.07	62.10	80.433	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD, 2745-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	49.04	896.51	1,032.69	1,367.55				
100.00	100.00	116.33	116.30	0.13	0.21	48.97	897.67	1,031.49	1,367.45	1,367.22	0.23	5,995.214	
194.82	194.82	199.36	199.32	0.47	0.48	48.92	898.49	1,030.63	1,367.29	1,366.62	0.67	2,039.821	
200.00	200.00	202.97	202.93	0.48	0.50	48.92	898.53	1,030.59	1,367.29	1,366.60	0.69	1,974.485	
300.00	300.00	324.91	324.85	0.84	0.93	48.85	899.03	1,028.88	1,366.48	1,365.23	1.25	1,089.065	
400.00	400.00	430.79	430.70	1.20	1.31	48.79	898.90	1,026.48	1,364.69	1,362.91	1.78	768.698	
500.00	500.00	551.75	551.59	1.56	1.75	48.69	898.51	1,022.38	1,361.91	1,359.57	2.34	582.604	
600.00	600.00	655.10	654.85	1.92	2.12	48.58	898.14	1,018.04	1,358.53	1,355.67	2.85	476.100	
700.00	700.00	740.00	739.68	2.28	2.43	48.49	897.83	1,014.58	1,355.25	1,351.93	3.32	408.085	
800.00	800.00	840.43	840.07	2.63	2.79	48.43	897.30	1,011.84	1,352.87	1,349.04	3.83	353.361	
900.00	900.00	938.81	938.41	2.99	3.14	48.40	896.16	1,009.33	1,350.19	1,345.86	4.33	311.844	
1,000.00	1,000.00	1,038.63	1,038.20	3.35	3.50	48.38	894.95	1,007.27	1,347.84	1,343.00	4.83	278.827	
1,100.00	1,100.00	1,146.56	1,146.08	3.71	3.89	48.37	893.08	1,004.74	1,344.93	1,339.57	5.36	250.984	
1,200.00	1,200.00	1,232.91	1,232.41	4.07	4.20	48.35	892.02	1,002.84	1,342.45	1,336.62	5.83	230.270	
1,300.00	1,300.00	1,327.19	1,326.67	4.43	4.50	48.33	891.27	1,001.24	1,340.65	1,334.35	6.30	212.923	
1,400.00	1,400.00	1,415.28	1,414.76	4.79	4.66	48.30	890.97	1,000.08	1,339.44	1,332.77	6.66	200.979	
1,500.00	1,500.00	1,513.61	1,513.08	5.14	4.71	48.28	890.97	999.20	1,338.77	1,331.82	6.95	192.492	
1,600.00	1,600.00	1,612.21	1,611.68	5.50	4.76	48.26	890.86	998.53	1,338.18	1,330.92	7.26	184.363	
1,700.00	1,699.98	1,708.68	1,708.15	5.86	4.84	-18.54	890.75	998.09	1,336.12	1,328.54	7.58	176.311	
1,800.00	1,799.84	1,806.57	1,806.04	6.21	4.94	-18.65	890.75	997.84	1,330.96	1,323.05	7.91	168.175	
1,900.00	1,899.45	1,905.91	1,905.37	6.56	5.06	-18.83	890.85	997.59	1,322.59	1,314.32	8.27	159.957	
2,000.00	1,998.70	2,004.60	2,004.06	6.92	5.21	-19.09	890.91	997.39	1,310.95	1,302.31	8.64	151.777	
2,100.00	2,097.47	2,099.31	2,098.78	7.29	5.36	-19.41	891.18	997.28	1,296.26	1,287.25	9.01	143.806	
2,200.00	2,195.62	2,196.06	2,195.52	7.67	5.53	-19.83	891.67	997.23	1,278.55	1,269.15	9.40	135.964	
2,300.00	2,293.06	2,291.80	2,291.26	8.07	5.72	-20.34	892.19	997.28	1,257.76	1,247.96	9.80	128.299	
2,357.10	2,348.32	2,344.57	2,344.03	8.31	5.83	-20.66	892.56	997.37	1,244.59	1,234.56	10.04	124.021	
2,400.00	2,389.73	2,384.90	2,384.36	8.49	5.91	-20.85	892.91	997.47	1,234.39	1,224.18	10.21	120.882	
2,500.00	2,486.26	2,480.77	2,480.22	8.92	6.12	-21.30	893.76	997.74	1,210.70	1,200.07	10.63	113.886	
2,600.00	2,582.78	2,584.29	2,583.74	9.37	6.36	-21.81	894.72	998.09	1,187.18	1,176.11	11.07	107.235	
2,700.00	2,679.31	2,719.68	2,719.11	9.83	6.69	-22.52	893.85	996.19	1,161.43	1,149.87	11.55	100.526	
2,800.00	2,775.84	2,824.47	2,823.83	10.30	6.96	-23.13	891.98	992.80	1,133.78	1,121.77	12.01	94.391	
2,900.00	2,872.37	2,956.87	2,956.00	10.78	7.32	-23.98	888.24	986.21	1,104.36	1,091.87	12.50	88.378	
3,000.00	2,968.90	3,086.13	3,084.72	11.27	7.70	-24.95	882.31	975.98	1,071.96	1,058.98	12.97	82.629	
3,100.00	3,065.43	3,212.09	3,209.69	11.76	8.08	-26.04	874.38	962.43	1,036.72	1,023.28	13.44	77.117	
3,200.00	3,161.95	3,318.97	3,315.32	12.25	8.43	-27.10	866.14	948.41	999.20	985.28	13.92	71.801	
3,300.00	3,258.48	3,410.25	3,405.48	12.76	8.73	-28.08	858.90	936.09	961.58	947.18	14.40	66.759	
3,400.00	3,355.01	3,501.53	3,495.64	13.26	9.05	-29.15	851.66	923.78	924.24	909.33	14.90	62.022	
3,500.00	3,451.54	3,592.82	3,585.79	13.77	9.37	-30.30	844.42	911.47	887.20	871.79	15.41	57.568	
3,600.00	3,548.07	3,684.10	3,675.95	14.29	9.69	-31.55	837.17	899.15	850.51	834.58	15.93	53.381	
3,700.00	3,644.59	3,775.38	3,766.11	14.80	10.02	-32.90	829.93	886.84	814.22	797.75	16.47	49.444	
3,800.00	3,741.12	3,866.67	3,856.27	15.32	10.36	-34.38	822.69	874.52	778.37	761.36	17.02	45.743	
3,900.00	3,837.65	3,957.95	3,946.43	15.84	10.70	-35.99	815.45	862.21	743.05	725.46	17.58	42.264	
4,000.00	3,934.18	4,049.23	4,036.59	16.37	11.05	-37.75	808.21	849.90	708.31	690.14	18.16	38.994	
4,100.00	4,030.71	4,140.52	4,126.74	16.90	11.39	-39.67	800.96	837.58	674.26	655.49	18.77	35.924	
4,200.00	4,127.24	4,231.80	4,216.90	17.42	11.75	-41.79	793.72	825.27	641.00	621.60	19.40	33.048	
4,300.00	4,223.76	4,323.08	4,307.06	17.95	12.10	-44.13	786.48	812.95	608.66	588.61	20.05	30.358	
4,400.00	4,320.29	4,414.37	4,397.22	18.49	12.46	-46.69	779.24	800.64	577.40	556.67	20.73	27.851	
4,500.00	4,416.82	4,505.65	4,487.38	19.02	12.82	-49.53	771.99	788.33	547.40	525.96	21.45	25.523	
4,600.00	4,513.35	4,596.93	4,577.53	19.55	13.18	-52.65	764.75	776.01	518.89	496.69	22.20	23.376	
4,700.00	4,609.88	4,688.21	4,667.69	20.09	13.55	-56.09	757.51	763.70	492.11	469.13	22.98	21.412	
4,800.00	4,706.40	4,779.50	4,757.85	20.62	13.91	-59.86	750.27	751.38	467.37	443.57	23.80	19.634	
4,900.00	4,802.93	4,870.78	4,848.01	21.16	14.28	-63.99	743.03	739.07	445.01	420.36	24.66	18.049	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD, 2745-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,899.46	4,962.06	4,938.17	21.70	14.65	-68.47	735.78	726.75	425.41	399.88	25.53	16.665	
5,100.00	4,995.99	5,053.35	5,028.33	22.24	15.03	-73.28	728.54	714.44	408.95	382.55	26.40	15.490	
5,200.00	5,092.52	5,144.63	5,118.48	22.78	15.40	-78.41	721.30	702.13	396.03	368.78	27.26	14.531	
5,300.00	5,189.04	5,235.91	5,208.64	23.32	15.77	-83.77	714.06	689.81	387.01	358.95	28.06	13.791	
5,400.00	5,285.57	5,327.20	5,298.80	23.86	16.15	-89.30	706.81	677.50	382.17	353.37	28.80	13.272	
5,461.77	5,345.20	5,383.58	5,354.49	24.20	16.38	-92.76	702.34	669.89	381.34	352.13	29.20	13.059	CC, ES
5,500.00	5,382.10	5,418.48	5,388.96	24.41	16.53	-94.90	699.57	665.18	381.66	352.22	29.43	12.967	
5,600.00	5,478.63	5,509.76	5,479.12	24.95	16.91	-100.45	692.33	652.87	385.49	355.53	29.96	12.866	
5,700.00	5,575.16	5,601.05	5,569.28	25.49	17.29	-105.87	685.09	640.56	393.55	363.16	30.39	12.950	
5,800.00	5,671.69	5,692.33	5,659.43	26.04	17.67	-111.05	677.84	628.24	405.58	374.85	30.73	13.198	
5,900.00	5,768.21	5,783.61	5,749.59	26.58	18.05	-115.95	670.60	615.93	421.23	390.23	31.01	13.586	
6,000.00	5,864.74	5,874.89	5,839.75	27.13	18.43	-120.51	663.36	603.61	440.14	408.90	31.24	14.090	
6,100.00	5,961.27	5,966.18	5,929.91	27.67	18.81	-124.72	656.12	591.30	461.88	430.44	31.45	14.687	
6,200.00	6,057.80	6,057.46	6,020.07	28.22	19.20	-128.57	648.88	578.99	486.09	454.44	31.66	15.356	
6,300.00	6,154.33	6,148.74	6,110.22	28.76	19.58	-132.09	641.63	566.67	512.42	480.55	31.87	16.078	
6,400.00	6,250.85	6,240.03	6,200.38	29.31	19.97	-135.28	634.39	554.36	540.55	508.45	32.10	16.839	
6,500.00	6,347.38	6,331.31	6,290.54	29.86	20.35	-138.18	627.15	542.04	570.22	537.87	32.35	17.627	
6,600.00	6,443.91	6,422.59	6,380.70	30.41	20.74	-140.81	619.91	529.73	601.20	568.58	32.62	18.430	
6,700.00	6,540.44	6,513.88	6,470.86	30.95	21.13	-143.19	612.66	517.42	633.30	600.39	32.91	19.243	
6,803.85	6,640.68	6,608.67	6,564.49	31.52	21.53	-145.44	605.14	504.63	667.64	634.41	33.23	20.089	
6,900.00	6,733.90	6,697.08	6,651.81	32.03	21.91	-147.63	598.13	492.70	698.95	665.39	33.55	20.831	
7,000.00	6,831.63	6,790.32	6,743.90	32.53	22.30	-149.57	590.73	480.12	729.37	695.46	33.91	21.510	
7,100.00	6,930.04	6,884.76	6,837.18	32.98	22.71	-151.22	583.24	467.38	757.37	723.09	34.28	22.091	
7,200.00	7,029.01	6,980.29	6,931.53	33.40	23.11	-152.61	575.66	454.50	782.77	748.10	34.67	22.575	
7,300.00	7,128.41	7,076.79	7,026.84	33.78	23.53	-153.79	568.00	441.48	805.42	770.35	35.08	22.961	
7,400.00	7,228.14	7,174.15	7,122.99	34.12	23.94	-154.78	560.28	428.35	825.20	789.71	35.49	23.251	
7,500.00	7,328.06	7,272.23	7,219.87	34.43	24.36	-155.60	552.50	415.11	842.01	806.10	35.91	23.447	
7,560.95	7,389.00	7,345.96	7,292.79	34.59	24.67	-89.32	546.98	405.74	850.31	814.02	36.29	23.433	
7,600.00	7,428.05	7,393.85	7,340.26	34.70	24.87	-89.54	543.78	400.29	854.73	818.20	36.53	23.398	
7,700.00	7,528.05	7,517.15	7,462.81	34.97	25.35	-90.00	536.93	388.65	864.17	827.02	37.15	23.262	
7,800.00	7,628.05	7,641.20	7,586.49	35.24	25.81	-90.32	532.07	380.38	870.85	833.10	37.75	23.066	
7,900.00	7,728.05	7,765.75	7,710.90	35.51	26.24	-90.51	529.24	375.57	874.74	836.39	38.35	22.812	
8,000.00	7,828.05	7,887.41	7,832.55	35.79	26.62	-90.56	528.45	374.22	875.82	836.92	38.90	22.515	
8,100.00	7,928.05	7,987.41	7,932.55	36.06	26.91	-90.56	528.45	374.22	875.82	836.48	39.34	22.262	
8,200.00	8,028.05	8,087.41	8,032.55	36.34	27.21	-90.56	528.45	374.22	875.82	836.03	39.79	22.013	
8,300.00	8,128.05	8,187.41	8,132.55	36.62	27.50	-90.56	528.45	374.22	875.82	835.58	40.23	21.768	
8,400.00	8,228.05	8,287.41	8,232.55	36.90	27.80	-90.56	528.45	374.22	875.82	835.14	40.68	21.528	
8,500.00	8,328.05	8,387.41	8,332.55	37.18	28.10	-90.56	528.45	374.22	875.82	834.69	41.13	21.293	
8,600.00	8,428.05	8,487.41	8,432.55	37.46	28.40	-90.56	528.45	374.22	875.82	834.24	41.58	21.063	
8,700.00	8,528.05	8,587.41	8,532.55	37.75	28.70	-90.56	528.45	374.22	875.82	833.79	42.03	20.836	
8,800.00	8,628.05	8,687.41	8,632.55	38.03	29.00	-90.56	528.45	374.22	875.82	833.33	42.49	20.614	
8,900.00	8,728.05	8,787.41	8,732.55	38.32	29.31	-90.56	528.45	374.22	875.82	832.88	42.94	20.396	
9,000.00	8,828.05	8,887.41	8,832.55	38.61	29.61	-90.56	528.45	374.22	875.82	832.42	43.40	20.182	
9,100.00	8,928.05	8,987.41	8,932.55	38.89	29.92	-90.56	528.45	374.22	875.82	831.97	43.85	19.972	
9,200.00	9,028.05	9,087.41	9,032.55	39.18	30.23	-90.56	528.45	374.22	875.82	831.51	44.31	19.766	
9,300.00	9,128.05	9,187.41	9,132.55	39.47	30.54	-90.56	528.45	374.22	875.82	831.05	44.77	19.563	
9,400.00	9,228.05	9,287.41	9,232.55	39.77	30.85	-90.56	528.45	374.22	875.82	830.59	45.23	19.364	
9,500.00	9,328.05	9,387.41	9,332.55	40.06	31.16	-90.56	528.45	374.22	875.82	830.13	45.69	19.169	
9,600.00	9,428.05	9,487.41	9,432.55	40.35	31.47	-90.56	528.45	374.22	875.82	829.67	46.15	18.977	
9,700.00	9,528.05	9,587.41	9,532.55	40.65	31.78	-90.56	528.45	374.22	875.82	829.21	46.61	18.789	
9,800.00	9,628.05	9,687.41	9,632.55	40.95	32.10	-90.56	528.45	374.22	875.82	828.74	47.08	18.604	
9,900.00	9,728.05	9,787.41	9,732.55	41.24	32.41	-90.56	528.45	374.22	875.82	828.28	47.54	18.422	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD, 2745-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,828.05	9,887.41	9,832.55	41.54	32.73	-90.56	528.45	374.22	875.82	827.81	48.01	18.244	
10,100.00	9,928.05	9,987.41	9,932.55	41.84	33.05	-90.56	528.45	374.22	875.82	827.35	48.47	18.068	
10,200.00	10,028.05	10,087.41	10,032.55	42.14	33.36	-90.56	528.45	374.22	875.82	826.88	48.94	17.896	
10,300.00	10,128.05	10,187.41	10,132.55	42.44	33.68	-90.56	528.45	374.22	875.82	826.41	49.41	17.726	
10,400.00	10,228.05	10,287.41	10,232.55	42.74	34.00	-90.56	528.45	374.22	875.82	825.94	49.88	17.560	
10,500.00	10,328.05	10,387.41	10,332.55	43.05	34.32	-90.56	528.45	374.22	875.82	825.47	50.35	17.396	
10,600.00	10,428.05	10,487.41	10,432.55	43.35	34.64	-90.56	528.45	374.22	875.82	825.00	50.82	17.235	
10,700.00	10,528.05	10,587.41	10,532.55	43.65	34.96	-90.56	528.45	374.22	875.82	824.53	51.29	17.077	
10,800.00	10,628.05	10,687.41	10,632.55	43.96	35.28	-90.56	528.45	374.22	875.82	824.06	51.76	16.922	
10,900.00	10,728.05	10,787.41	10,732.55	44.27	35.61	-90.56	528.45	374.22	875.82	823.59	52.23	16.769	
11,000.00	10,828.05	10,887.41	10,832.55	44.57	35.93	-90.56	528.45	374.22	875.82	823.12	52.70	16.618	
11,100.00	10,928.05	10,987.41	10,932.55	44.88	36.25	-90.56	528.45	374.22	875.82	822.64	53.18	16.470	
11,200.00	11,028.05	11,087.41	11,032.55	45.19	36.58	-90.56	528.45	374.22	875.82	822.17	53.65	16.325	
11,300.00	11,128.05	11,187.41	11,132.55	45.50	36.90	-90.56	528.45	374.22	875.82	821.69	54.12	16.182	
11,400.00	11,228.05	11,287.41	11,232.55	45.81	37.23	-90.56	528.45	374.22	875.82	821.22	54.60	16.041	
11,500.00	11,328.05	11,387.41	11,332.55	46.12	37.56	-90.56	528.45	374.22	875.82	820.74	55.07	15.902	
11,600.00	11,428.05	11,487.41	11,432.55	46.43	37.88	-90.56	528.45	374.22	875.82	820.27	55.55	15.766	
11,609.76	11,437.81	11,497.17	11,442.31	46.46	37.92	-90.56	528.45	374.22	875.82	820.22	55.60	15.753	
11,700.00	11,528.05	11,587.18	11,532.24	46.74	38.21	-90.72	525.97	374.24	875.82	819.81	56.02	15.634	
11,800.00	11,628.05	11,683.67	11,627.11	47.05	38.56	-91.83	508.97	374.39	876.07	819.64	56.43	15.526	
11,900.00	11,728.05	11,772.25	11,710.58	47.37	38.89	-93.75	479.57	374.65	877.50	820.75	56.75	15.462	
12,000.00	11,828.05	11,850.00	11,779.34	47.68	39.20	-96.10	443.42	374.97	881.63	824.65	56.97	15.474	
12,100.00	11,928.05	11,917.10	11,834.29	48.00	39.47	-98.58	404.99	375.31	890.04	832.99	57.05	15.601	
12,115.99	11,944.04	11,926.79	11,841.85	48.05	39.51	-98.97	398.92	375.36	891.88	834.83	57.05	15.634	
12,150.00	11,978.03	11,950.00	11,859.51	48.15	39.60	87.67	383.86	375.49	896.26	839.22	57.04	15.713	
12,200.00	12,027.75	11,976.47	11,878.88	48.28	39.71	85.91	365.83	375.65	903.74	846.78	56.96	15.866	
12,250.00	12,076.83	12,000.00	11,895.39	48.41	39.81	84.20	349.07	375.80	912.33	855.50	56.83	16.054	
12,300.00	12,124.90	12,034.37	11,918.24	48.53	39.96	82.10	323.40	376.03	921.76	865.00	56.76	16.240	
12,350.00	12,171.60	12,062.93	11,936.02	48.63	40.09	80.21	301.06	376.22	931.91	875.28	56.63	16.457	
12,400.00	12,216.56	12,100.00	11,957.41	48.72	40.26	78.12	270.79	376.49	942.64	886.08	56.56	16.668	
12,450.00	12,259.45	12,119.41	11,967.81	48.80	40.35	76.55	254.40	376.63	953.59	897.25	56.34	16.926	
12,500.00	12,299.94	12,150.00	11,983.07	48.87	40.49	74.77	227.89	376.87	964.78	908.57	56.21	17.164	
12,550.00	12,337.72	12,175.22	11,994.57	48.93	40.61	73.18	205.44	377.06	975.98	919.93	56.05	17.412	
12,600.00	12,372.50	12,200.00	12,004.89	48.97	40.74	71.67	182.92	377.26	987.08	931.17	55.91	17.655	
12,650.00	12,404.03	12,230.54	12,016.26	49.00	40.89	70.19	154.58	377.51	997.92	942.09	55.83	17.874	
12,700.00	12,432.05	12,250.00	12,022.71	49.03	40.99	68.95	136.23	377.67	1,008.45	952.74	55.71	18.102	
12,750.00	12,456.36	12,285.49	12,032.86	49.05	41.18	67.67	102.22	377.97	1,018.39	962.66	55.72	18.276	
12,800.00	12,476.77	12,312.87	12,039.23	49.06	41.32	66.61	75.60	378.21	1,027.81	972.09	55.72	18.445	
12,850.00	12,493.12	12,350.00	12,045.83	49.07	41.53	65.63	39.07	378.53	1,036.67	980.86	55.81	18.576	
12,900.00	12,505.30	12,367.48	12,048.12	49.09	41.63	64.87	21.74	378.68	1,044.64	988.78	55.86	18.702	
12,950.00	12,513.20	12,400.00	12,050.96	49.11	41.81	64.20	-10.65	378.96	1,051.93	995.93	56.00	18.783	
13,000.00	12,516.77	12,426.34	12,051.91	49.13	41.96	63.68	-36.96	379.19	1,058.36	1,002.18	56.18	18.839	
13,015.99	12,517.00	12,434.28	12,052.01	49.14	42.01	63.54	-44.91	379.26	1,060.20	1,003.96	56.24	18.850	
13,100.00	12,517.00	12,517.71	12,053.11	49.21	42.52	63.90	-128.33	380.00	1,068.46	1,011.76	56.70	18.844	
13,200.00	12,517.00	12,617.35	12,054.42	49.32	43.17	64.22	-227.95	380.87	1,075.44	1,018.15	57.29	18.772	
13,300.00	12,517.00	12,717.21	12,055.73	49.47	43.88	64.43	-327.80	381.75	1,079.30	1,021.37	57.93	18.631	
13,387.80	12,517.00	12,804.99	12,056.88	49.62	44.55	64.52	-415.57	382.52	1,080.10	1,021.57	58.53	18.453	
13,400.00	12,517.00	12,817.19	12,057.04	49.64	44.64	64.53	-427.77	382.63	1,080.05	1,021.43	58.62	18.425	
13,500.00	12,517.00	12,917.18	12,058.35	49.86	45.45	64.60	-527.75	383.51	1,079.58	1,020.21	59.37	18.184	
13,600.00	12,517.00	13,017.17	12,059.67	50.14	46.30	64.66	-627.73	384.39	1,079.11	1,018.92	60.19	17.930	
13,700.00	12,517.00	13,117.16	12,060.98	50.48	47.20	64.73	-727.70	385.27	1,078.64	1,017.57	61.07	17.662	
13,800.00	12,517.00	13,217.15	12,062.29	50.88	48.13	64.79	-827.68	386.15	1,078.18	1,016.16	62.02	17.385	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD, 2745-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.00	12,517.00	13,317.15	12,063.61	51.34	49.10	64.86	-927.66	387.03	1,077.71	1,014.69	63.03	17.099	
14,000.00	12,517.00	13,417.14	12,064.92	51.86	50.11	64.92	-1,027.64	387.91	1,077.25	1,013.16	64.09	16.807	
14,100.00	12,517.00	13,517.13	12,066.23	52.43	51.15	64.99	-1,127.62	388.79	1,076.79	1,011.57	65.22	16.511	
14,200.00	12,517.00	13,617.12	12,067.55	53.06	52.22	65.05	-1,227.60	389.66	1,076.33	1,009.94	66.39	16.212	
14,300.00	12,517.00	13,717.11	12,068.86	53.74	53.32	65.12	-1,327.58	390.54	1,075.87	1,008.26	67.62	15.911	
14,400.00	12,517.00	13,817.10	12,070.17	54.46	54.45	65.19	-1,427.56	391.42	1,075.41	1,006.53	68.89	15.611	
14,500.00	12,517.00	13,917.09	12,071.49	55.23	55.61	65.25	-1,527.53	392.30	1,074.96	1,004.75	70.20	15.312	
14,600.00	12,517.00	14,017.08	12,072.80	56.04	56.79	65.32	-1,627.51	393.18	1,074.51	1,002.94	71.56	15.014	
14,700.00	12,517.00	14,117.08	12,074.11	56.89	57.99	65.38	-1,727.49	394.06	1,074.05	1,001.09	72.97	14.720	
14,800.00	12,517.00	14,217.07	12,075.42	57.77	59.21	65.45	-1,827.47	394.94	1,073.60	999.20	74.40	14.429	
14,900.00	12,517.00	14,317.06	12,076.74	58.69	60.46	65.52	-1,927.45	395.82	1,073.15	997.27	75.88	14.143	
15,000.00	12,517.00	14,417.05	12,078.05	59.64	61.72	65.58	-2,027.43	396.70	1,072.70	995.31	77.39	13.861	
15,100.00	12,517.00	14,517.04	12,079.36	60.63	63.00	65.65	-2,127.41	397.58	1,072.26	993.32	78.93	13.585	
15,200.00	12,517.00	14,617.03	12,080.68	61.64	64.30	65.71	-2,227.39	398.46	1,071.81	991.31	80.50	13.314	
15,300.00	12,517.00	14,717.02	12,081.99	62.68	65.62	65.78	-2,327.37	399.34	1,071.37	989.26	82.10	13.049	
15,400.00	12,517.00	14,817.02	12,083.30	63.75	66.95	65.85	-2,427.34	400.21	1,070.92	987.19	83.73	12.790	
15,500.00	12,517.00	14,917.01	12,084.62	64.84	68.29	65.91	-2,527.32	401.09	1,070.48	985.10	85.39	12.537	
15,600.00	12,517.00	15,017.00	12,085.93	65.96	69.65	65.98	-2,627.30	401.97	1,070.04	982.98	87.07	12.290	
15,700.00	12,517.00	15,116.99	12,087.24	67.10	71.02	66.05	-2,727.28	402.85	1,069.60	980.84	88.77	12.049	
15,800.00	12,517.00	15,216.98	12,088.56	68.26	72.40	66.11	-2,827.26	403.73	1,069.17	978.68	90.49	11.815	
15,900.00	12,517.00	15,316.97	12,089.87	69.44	73.79	66.18	-2,927.24	404.61	1,068.73	976.49	92.24	11.587	
16,000.00	12,517.00	15,416.96	12,091.18	70.64	75.19	66.25	-3,027.22	405.49	1,068.30	974.30	94.00	11.365	
16,100.00	12,517.00	15,516.95	12,092.49	71.85	76.60	66.31	-3,127.20	406.37	1,067.87	972.08	95.79	11.149	
16,200.00	12,517.00	15,616.95	12,093.81	73.09	78.02	66.38	-3,227.18	407.25	1,067.43	969.85	97.59	10.938	
16,300.00	12,517.00	15,716.94	12,095.12	74.34	79.46	66.45	-3,327.15	408.13	1,067.01	967.60	99.40	10.734	
16,400.00	12,517.00	15,816.93	12,096.43	75.60	80.89	66.51	-3,427.13	409.01	1,066.58	965.34	101.24	10.535	
16,500.00	12,517.00	15,916.92	12,097.75	76.88	82.34	66.58	-3,527.11	409.89	1,066.15	963.06	103.09	10.342	
16,600.00	12,517.00	16,016.91	12,099.06	78.18	83.80	66.65	-3,627.09	410.76	1,065.73	960.77	104.95	10.154	
16,700.00	12,517.00	16,116.90	12,100.37	79.49	85.26	66.71	-3,727.07	411.64	1,065.30	958.47	106.83	9.972	
16,800.00	12,517.00	16,216.89	12,101.69	80.81	86.73	66.78	-3,827.05	412.52	1,064.88	956.15	108.72	9.794	
16,900.00	12,517.00	16,316.88	12,103.00	82.14	88.20	66.85	-3,927.03	413.40	1,064.46	953.83	110.63	9.622	
17,000.00	12,517.00	16,416.88	12,104.31	83.48	89.68	66.92	-4,027.01	414.28	1,064.04	951.49	112.55	9.454	
17,100.00	12,517.00	16,516.87	12,105.63	84.84	91.17	66.98	-4,126.98	415.16	1,063.62	949.15	114.47	9.291	
17,200.00	12,517.00	16,616.86	12,106.94	86.20	92.66	67.05	-4,226.96	416.04	1,063.20	946.79	116.41	9.133	
17,300.00	12,517.00	16,716.85	12,108.25	87.58	94.16	67.12	-4,326.94	416.92	1,062.79	944.43	118.36	8.979	
17,400.00	12,517.00	16,816.84	12,109.56	88.96	95.66	67.19	-4,426.92	417.80	1,062.38	942.05	120.32	8.829	
17,500.00	12,517.00	16,916.83	12,110.88	90.35	97.17	67.25	-4,526.90	418.68	1,061.96	939.67	122.29	8.684	
17,600.00	12,517.00	17,016.82	12,112.19	91.75	98.68	67.32	-4,626.88	419.56	1,061.55	937.28	124.27	8.542	
17,700.00	12,517.00	17,116.82	12,113.50	93.16	100.20	67.39	-4,726.86	420.44	1,061.14	934.89	126.26	8.405	
17,800.00	12,517.00	17,216.81	12,114.82	94.58	101.72	67.46	-4,826.84	421.31	1,060.74	932.48	128.25	8.271	
17,900.00	12,517.00	17,316.80	12,116.13	96.01	103.24	67.52	-4,926.82	422.19	1,060.33	930.07	130.26	8.140	
18,000.00	12,517.00	17,416.79	12,117.44	97.44	104.77	67.59	-5,026.79	423.07	1,059.93	927.65	132.27	8.013	
18,100.00	12,517.00	17,516.78	12,118.76	98.88	106.31	67.66	-5,126.77	423.95	1,059.52	925.23	134.29	7.890	
18,200.00	12,517.00	17,616.77	12,120.07	100.32	107.84	67.73	-5,226.75	424.83	1,059.12	922.80	136.32	7.769	
18,300.00	12,517.00	17,716.76	12,121.38	101.78	109.38	67.79	-5,326.73	425.71	1,058.72	920.37	138.35	7.652	
18,400.00	12,517.00	17,816.75	12,122.70	103.23	110.92	67.86	-5,426.71	426.59	1,058.32	917.93	140.40	7.538	
18,500.00	12,517.00	17,916.75	12,124.01	104.70	112.47	67.93	-5,526.69	427.47	1,057.92	915.48	142.44	7.427	
18,600.00	12,517.00	18,016.74	12,125.32	106.17	114.02	68.00	-5,626.67	428.35	1,057.53	913.03	144.50	7.319	
18,700.00	12,517.00	18,116.73	12,126.63	107.64	115.57	68.07	-5,726.65	429.23	1,057.13	910.57	146.56	7.213	
18,800.00	12,517.00	18,216.72	12,127.95	109.12	117.12	68.13	-5,826.62	430.11	1,056.74	908.11	148.63	7.110	
18,900.00	12,517.00	18,316.71	12,129.26	110.60	118.68	68.20	-5,926.60	430.99	1,056.35	905.65	150.70	7.010	
19,000.00	12,517.00	18,416.70	12,130.57	112.09	120.24	68.27	-6,026.58	431.86	1,055.96	903.18	152.78	6.912	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Bus Driver Fed Com 702H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 16-OWSG (Rev2) MWD, 1424-OWSG (Rev2) MWD, 2745-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,100.00	12,517.00	18,516.69	12,131.89	113.59	121.80	68.34	-6,126.56	432.74	1,055.57	900.71	154.86	6.816	
19,200.00	12,517.00	18,616.69	12,133.20	115.08	123.36	68.41	-6,226.54	433.62	1,055.19	898.24	156.95	6.723	
19,300.00	12,517.00	18,716.68	12,134.51	116.59	124.93	68.48	-6,326.52	434.50	1,054.80	895.76	159.04	6.632	
19,400.00	12,517.00	18,816.67	12,135.83	118.09	126.50	68.54	-6,426.50	435.38	1,054.42	893.27	161.14	6.543	
19,500.00	12,517.00	18,916.66	12,137.14	119.60	128.07	68.61	-6,526.48	436.26	1,054.03	890.79	163.25	6.457	
19,600.00	12,517.00	19,016.65	12,138.45	121.11	129.64	68.68	-6,626.46	437.14	1,053.65	888.30	165.35	6.372	
19,700.00	12,517.00	19,116.64	12,139.77	122.63	131.22	68.75	-6,726.43	438.02	1,053.27	885.81	167.47	6.289	
19,800.00	12,517.00	19,216.63	12,141.08	124.15	132.79	68.82	-6,826.41	438.90	1,052.90	883.31	169.59	6.209	
19,900.00	12,517.00	19,316.62	12,142.39	125.67	134.37	68.89	-6,926.39	439.78	1,052.52	880.81	171.71	6.130	
20,000.00	12,517.00	19,416.62	12,143.70	127.20	135.95	68.96	-7,026.37	440.66	1,052.15	878.31	173.83	6.053	
20,100.00	12,517.00	19,516.61	12,145.02	128.73	137.53	69.03	-7,126.35	441.54	1,051.77	875.81	175.96	5.977	
20,200.00	12,517.00	19,616.60	12,146.33	130.26	139.12	69.09	-7,226.33	442.42	1,051.40	873.30	178.10	5.904	
20,300.00	12,517.00	19,716.59	12,147.64	131.80	140.70	69.16	-7,326.31	443.29	1,051.03	870.80	180.24	5.831	
20,400.00	12,517.00	19,816.58	12,148.96	133.34	142.29	69.23	-7,426.29	444.17	1,050.66	868.29	182.38	5.761	
20,500.00	12,517.00	19,916.57	12,150.27	134.88	143.87	69.30	-7,526.27	445.05	1,050.30	865.77	184.52	5.692	
20,600.00	12,517.00	20,016.56	12,151.58	136.42	145.46	69.37	-7,626.24	445.93	1,049.93	863.26	186.67	5.624	
20,700.00	12,517.00	20,116.56	12,152.90	137.97	147.05	69.44	-7,726.22	446.81	1,049.57	860.74	188.82	5.558	
20,800.00	12,517.00	20,216.55	12,154.21	139.52	148.65	69.51	-7,826.20	447.69	1,049.20	858.22	190.98	5.494	
20,900.00	12,517.00	20,316.54	12,155.52	141.07	150.24	69.58	-7,926.18	448.57	1,048.84	855.70	193.14	5.430	
21,000.00	12,517.00	20,416.53	12,156.84	142.62	151.83	69.65	-8,026.16	449.45	1,048.48	853.18	195.30	5.368	
21,100.00	12,517.00	20,516.52	12,158.15	144.18	153.43	69.72	-8,126.14	450.33	1,048.12	850.66	197.47	5.308	
21,200.00	12,517.00	20,616.51	12,159.46	145.73	155.03	69.79	-8,226.12	451.21	1,047.77	848.13	199.64	5.248	
21,300.00	12,517.00	20,716.50	12,160.78	147.29	156.62	69.85	-8,326.10	452.09	1,047.41	845.60	201.81	5.190	
21,400.00	12,517.00	20,816.49	12,162.09	148.85	158.22	69.92	-8,426.07	452.97	1,047.06	843.07	203.99	5.133	
21,500.00	12,517.00	20,916.49	12,163.40	150.42	159.82	69.99	-8,526.05	453.84	1,046.71	840.54	206.17	5.077	
21,600.00	12,517.00	21,016.48	12,164.71	151.98	161.42	70.06	-8,626.03	454.72	1,046.36	838.01	208.35	5.022	
21,700.00	12,517.00	21,116.47	12,166.03	153.55	163.03	70.13	-8,726.01	455.60	1,046.01	835.48	210.53	4.968	
21,800.00	12,517.00	21,216.46	12,167.34	155.12	164.63	70.20	-8,825.99	456.48	1,045.66	832.94	212.72	4.916	
21,900.00	12,517.00	21,316.45	12,168.65	156.69	166.23	70.27	-8,925.97	457.36	1,045.32	830.41	214.91	4.864	
22,000.00	12,517.00	21,416.44	12,169.97	158.26	167.84	70.34	-9,025.95	458.24	1,044.97	827.87	217.10	4.813	
22,100.00	12,517.00	21,516.43	12,171.28	159.84	169.44	70.41	-9,125.93	459.12	1,044.63	825.33	219.30	4.763	
22,200.00	12,517.00	21,616.43	12,172.59	161.41	171.05	70.48	-9,225.91	460.00	1,044.29	822.79	221.50	4.715	
22,300.00	12,517.00	21,716.42	12,173.91	162.99	172.66	70.55	-9,325.88	460.88	1,043.95	820.25	223.70	4.667	
22,400.00	12,517.00	21,816.41	12,175.22	164.57	174.27	70.62	-9,425.86	461.76	1,043.61	817.71	225.90	4.620	
22,500.00	12,517.00	21,916.40	12,176.53	166.14	175.88	70.69	-9,525.84	462.64	1,043.28	815.17	228.11	4.574	
22,600.00	12,517.00	22,016.39	12,177.85	167.73	177.49	70.76	-9,625.82	463.52	1,042.94	812.62	230.32	4.528	
22,700.00	12,517.00	22,116.38	12,179.16	169.31	179.10	70.83	-9,725.80	464.39	1,042.61	810.08	232.53	4.484	
22,800.00	12,517.00	22,216.37	12,180.47	170.89	180.71	70.90	-9,825.78	465.27	1,042.28	807.53	234.74	4.440	
22,900.00	12,517.00	22,316.36	12,181.78	172.48	182.32	70.97	-9,925.76	466.15	1,041.95	804.99	236.96	4.397	
23,000.00	12,517.00	22,416.36	12,183.10	174.06	183.93	71.04	-10,025.74	467.03	1,041.62	802.44	239.18	4.355	
23,100.00	12,517.00	22,516.35	12,184.41	175.65	185.55	71.11	-10,125.71	467.91	1,041.29	799.89	241.40	4.314	
23,200.00	12,517.00	22,616.34	12,185.72	177.24	187.16	71.18	-10,225.69	468.79	1,040.97	797.34	243.62	4.273	
23,300.00	12,517.00	22,716.33	12,187.04	178.83	188.77	71.25	-10,325.67	469.67	1,040.64	794.79	245.85	4.233	
23,400.00	12,517.00	22,816.32	12,188.35	180.42	190.39	71.32	-10,425.65	470.55	1,040.32	792.24	248.08	4.194	
23,500.00	12,517.00	22,916.31	12,189.66	182.01	192.01	71.39	-10,525.63	471.43	1,040.00	789.69	250.31	4.155	
23,600.00	12,517.00	23,016.30	12,190.98	183.60	193.62	71.46	-10,625.61	472.31	1,039.68	787.14	252.54	4.117	
23,700.00	12,517.00	23,116.30	12,192.29	185.20	195.24	71.53	-10,725.59	473.19	1,039.36	784.59	254.77	4.080	
23,800.00	12,517.00	23,216.29	12,193.60	186.79	196.86	71.60	-10,825.57	474.07	1,039.05	782.04	257.01	4.043	
23,900.00	12,517.00	23,316.28	12,194.92	188.39	198.48	71.67	-10,925.55	474.94	1,038.73	779.48	259.25	4.007	
24,000.00	12,517.00	23,416.27	12,196.23	189.99	200.09	71.75	-11,025.52	475.82	1,038.42	776.93	261.49	3.971	
24,100.00	12,517.00	23,516.26	12,197.54	191.58	201.69	71.82	-11,125.50	476.70	1,038.11	774.40	263.71	3.937	
24,130.17	12,517.00	23,546.42	12,197.94	192.05	202.13	71.84	-11,155.66	476.97	1,038.01	773.71	264.30	3.927	SF

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	51.73	897.50	1,137.67	1,449.08				
100.00	100.00	83.73	83.72	0.13	0.12	51.70	898.44	1,137.69	1,449.82	1,449.65	0.17	8,445.829	
200.00	200.00	172.54	172.49	0.48	0.37	51.62	901.17	1,137.75	1,451.76	1,451.16	0.60	2,399.992	
300.00	300.00	268.40	268.29	0.84	0.71	51.51	904.76	1,137.81	1,454.13	1,453.03	1.10	1,322.651	
400.00	400.00	364.61	364.39	1.20	1.06	51.36	909.18	1,137.47	1,456.72	1,455.13	1.60	911.377	
500.00	500.00	457.27	456.93	1.56	1.40	51.21	914.01	1,137.13	1,459.70	1,457.61	2.09	698.308	
600.00	600.00	557.29	556.75	1.92	1.76	51.00	920.19	1,136.29	1,462.93	1,460.33	2.60	562.329	
700.00	700.00	692.70	692.01	2.28	2.26	50.80	925.89	1,135.20	1,464.96	1,461.76	3.20	457.899	
800.00	800.00	786.35	785.64	2.63	2.58	50.78	927.07	1,135.99	1,466.39	1,462.70	3.68	397.958	
900.00	900.00	879.23	878.51	2.99	2.90	50.81	927.54	1,137.53	1,467.98	1,463.82	4.16	352.470	
1,000.00	1,000.00	986.70	985.96	3.35	3.27	50.84	927.80	1,139.40	1,469.49	1,464.81	4.68	313.995	
1,100.00	1,100.00	1,080.13	1,079.38	3.71	3.60	50.90	927.69	1,141.39	1,471.05	1,465.89	5.16	284.987	
1,200.00	1,200.00	1,171.89	1,171.11	4.07	3.91	50.95	927.72	1,143.71	1,473.04	1,467.40	5.64	261.121	
1,300.00	1,300.00	1,259.37	1,258.54	4.43	4.22	51.01	928.14	1,146.43	1,475.76	1,469.64	6.11	241.462	
1,400.00	1,400.00	1,390.51	1,389.64	4.79	4.64	51.05	928.97	1,149.18	1,477.78	1,471.12	6.66	221.917	
1,500.00	1,500.00	1,494.25	1,493.38	5.14	4.69	51.06	929.16	1,150.01	1,478.51	1,471.55	6.95	212.613	
1,600.00	1,600.00	1,593.06	1,592.19	5.50	4.73	51.08	929.38	1,150.85	1,479.31	1,472.06	7.25	204.025	
1,700.00	1,699.98	1,700.27	1,699.39	5.86	4.81	-15.68	929.34	1,151.65	1,478.18	1,470.61	7.57	195.266	
1,800.00	1,799.84	1,802.61	1,801.73	6.21	4.91	-15.74	929.07	1,152.22	1,473.41	1,465.50	7.90	186.408	
1,900.00	1,899.45	1,903.17	1,902.29	6.56	5.02	-15.86	928.81	1,152.57	1,465.13	1,456.88	8.25	177.487	
2,000.00	1,998.70	2,003.15	2,002.27	6.92	5.16	-16.06	928.86	1,152.69	1,453.53	1,444.91	8.62	168.621	
2,100.00	2,097.47	2,097.38	2,096.50	7.29	5.31	-16.30	928.79	1,152.88	1,438.61	1,429.61	8.99	159.956	
2,200.00	2,195.62	2,182.84	2,181.95	7.67	5.47	-16.55	928.55	1,153.92	1,421.04	1,411.67	9.37	151.648	
2,300.00	2,293.06	2,265.52	2,264.60	8.07	5.63	-16.81	928.03	1,156.31	1,401.24	1,391.48	9.75	143.655	
2,357.10	2,348.32	2,313.04	2,312.07	8.31	5.72	-16.96	927.50	1,158.39	1,388.93	1,378.95	9.98	139.196	
2,400.00	2,389.73	2,350.34	2,349.31	8.49	5.80	-17.00	926.88	1,160.41	1,379.49	1,369.34	10.15	135.911	
2,500.00	2,486.26	2,439.59	2,438.25	8.92	6.00	-17.01	923.81	1,167.08	1,357.88	1,347.32	10.56	128.609	
2,600.00	2,582.78	2,526.11	2,524.18	9.37	6.21	-16.89	919.04	1,175.90	1,337.04	1,326.07	10.97	121.838	
2,700.00	2,679.31	2,620.72	2,617.99	9.83	6.45	-16.70	913.14	1,186.72	1,316.70	1,305.29	11.41	115.373	
2,800.00	2,775.84	2,713.23	2,709.69	10.30	6.70	-16.51	907.54	1,197.53	1,296.69	1,284.83	11.86	109.345	
2,900.00	2,872.37	2,801.00	2,796.60	10.78	6.95	-16.30	902.21	1,208.58	1,277.34	1,265.04	12.31	103.792	
3,000.00	2,968.90	2,887.96	2,882.50	11.27	7.22	-16.03	896.49	1,220.79	1,258.85	1,246.08	12.76	98.634	
3,100.00	3,065.43	2,984.59	2,977.66	11.76	7.53	-15.63	888.98	1,235.85	1,240.85	1,227.61	13.24	93.691	
3,200.00	3,161.95	3,091.24	3,082.46	12.25	7.89	-15.11	879.28	1,253.10	1,222.59	1,208.83	13.75	88.899	
3,300.00	3,258.48	3,187.12	3,176.76	12.76	8.22	-14.65	870.72	1,268.18	1,204.16	1,189.91	14.25	84.507	
3,400.00	3,355.01	3,284.52	3,272.72	13.26	8.57	-14.23	863.00	1,282.88	1,185.90	1,171.15	14.75	80.384	
3,500.00	3,451.54	3,381.69	3,368.48	13.77	8.92	-13.79	855.34	1,297.52	1,167.70	1,152.44	15.26	76.511	
3,600.00	3,548.07	3,471.42	3,456.49	14.29	9.26	-13.26	846.62	1,312.70	1,150.01	1,134.24	15.76	72.950	
3,700.00	3,644.59	3,560.88	3,543.81	14.80	9.62	-12.61	836.78	1,329.43	1,133.16	1,116.88	16.27	69.633	
3,800.00	3,741.12	3,654.46	3,635.08	15.32	10.01	-11.91	826.66	1,347.44	1,117.01	1,100.22	16.80	66.508	
3,900.00	3,837.65	3,753.35	3,731.71	15.84	10.42	-11.21	816.90	1,366.01	1,101.19	1,083.86	17.33	63.542	
4,000.00	3,934.18	3,858.43	3,834.76	16.37	10.86	-10.53	807.67	1,384.45	1,085.08	1,067.20	17.88	60.694	
4,100.00	4,030.71	3,959.48	3,933.82	16.90	11.28	-9.83	798.25	1,402.01	1,068.69	1,050.27	18.42	58.020	
4,200.00	4,127.24	4,060.77	4,032.87	17.42	11.72	-9.03	787.30	1,420.14	1,052.13	1,033.16	18.97	55.475	
4,300.00	4,223.76	4,156.80	4,126.76	17.95	12.14	-8.23	776.69	1,437.24	1,035.57	1,016.06	19.50	53.096	
4,400.00	4,320.29	4,247.20	4,215.13	18.49	12.54	-7.47	767.07	1,453.70	1,019.75	999.72	20.03	50.910	
4,500.00	4,416.82	4,335.80	4,301.75	19.02	12.93	-6.72	758.32	1,470.15	1,004.84	984.29	20.55	48.892	
4,600.00	4,513.35	4,418.87	4,382.99	19.55	13.31	-6.06	751.45	1,486.07	991.40	970.35	21.06	47.081	
4,700.00	4,609.88	4,503.98	4,466.28	20.09	13.68	-5.46	746.40	1,502.81	979.64	958.08	21.56	45.435	
4,800.00	4,706.40	4,655.21	4,614.85	20.62	14.34	-4.45	737.56	1,529.54	966.52	944.31	22.22	43.502	
4,900.00	4,802.93	4,785.45	4,743.50	21.16	14.88	-3.53	726.74	1,546.66	948.12	925.33	22.80	41.591	
5,000.00	4,899.46	4,876.00	4,833.12	21.70	15.25	-2.92	719.74	1,557.57	929.25	905.94	23.32	39.854	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	4,956.78	4,913.03	22.24	15.58	-2.38	714.31	1,568.04	911.71	887.88	23.82	38.271	
5,200.00	5,092.52	5,053.10	5,008.30	22.78	15.97	-1.77	708.86	1,581.07	895.25	870.91	24.35	36.769	
5,300.00	5,189.04	5,161.95	5,116.04	23.32	16.42	-1.04	702.46	1,595.21	878.34	853.45	24.89	35.288	
5,400.00	5,285.57	5,234.46	5,187.44	23.86	16.73	-0.39	696.27	1,606.19	862.45	837.06	25.39	33.970	
5,500.00	5,382.10	5,317.19	5,268.23	24.41	17.12	0.58	687.31	1,621.59	849.12	823.22	25.90	32.784	
5,600.00	5,478.63	5,408.98	5,357.53	24.95	17.56	1.76	676.83	1,640.06	837.37	810.94	26.43	31.677	
5,700.00	5,575.16	5,504.00	5,449.97	25.49	18.03	2.98	666.38	1,659.41	826.40	799.42	26.98	30.632	
5,800.00	5,671.69	5,599.66	5,543.07	26.04	18.49	4.21	656.42	1,679.00	816.12	788.60	27.52	29.652	
5,900.00	5,768.21	5,695.10	5,636.00	26.58	18.96	5.43	647.07	1,698.61	806.50	778.43	28.07	28.734	
6,000.00	5,864.74	5,794.57	5,732.93	27.13	19.44	6.68	637.95	1,719.03	797.42	768.79	28.62	27.857	
6,100.00	5,961.27	5,904.75	5,840.61	27.67	19.97	8.01	628.81	1,740.47	787.91	758.70	29.21	26.970	
6,200.00	6,057.80	5,998.39	5,932.30	28.22	20.41	9.13	621.39	1,757.98	778.10	748.34	29.75	26.151	
6,300.00	6,154.33	6,094.42	6,026.28	28.76	20.86	10.28	614.25	1,776.35	769.13	738.83	30.30	25.382	
6,400.00	6,250.85	6,190.61	6,120.40	29.31	21.32	11.45	607.27	1,794.97	760.76	729.91	30.85	24.656	
6,500.00	6,347.38	6,312.00	6,239.49	29.86	21.88	12.96	598.11	1,816.60	751.14	719.65	31.49	23.857	
6,600.00	6,443.91	6,411.67	6,337.52	30.41	22.33	14.23	590.44	1,832.83	740.38	708.32	32.06	23.097	
6,700.00	6,540.44	6,506.18	6,430.43	30.95	22.76	15.48	582.96	1,848.51	730.26	697.64	32.62	22.387	
6,803.85	6,640.68	6,605.67	6,528.17	31.52	23.22	16.83	575.19	1,865.38	720.56	687.35	33.22	21.694	
6,900.00	6,733.90	6,714.10	6,634.72	32.03	23.71	18.25	566.66	1,883.57	713.41	679.60	33.81	21.099	
7,000.00	6,831.63	6,836.69	6,755.84	32.53	24.23	19.77	556.87	1,899.70	705.81	671.38	34.43	20.499	
7,100.00	6,930.04	6,970.60	6,888.86	32.98	24.75	21.18	547.92	1,911.99	697.95	662.96	34.99	19.947	
7,200.00	7,029.01	7,075.79	6,993.66	33.40	25.13	22.13	541.52	1,918.44	690.58	655.05	35.53	19.437	
7,300.00	7,128.41	7,174.43	7,092.05	33.78	25.48	22.75	537.88	1,924.33	686.48	650.42	36.05	19.040	
7,380.76	7,208.93	7,256.33	7,173.79	34.05	25.76	23.10	536.02	1,929.15	685.51	649.05	36.46	18.802	
7,400.00	7,228.14	7,276.02	7,193.44	34.12	25.83	23.18	535.59	1,930.28	685.56	649.00	36.55	18.754	
7,500.00	7,328.06	7,376.89	7,294.12	34.43	26.18	23.52	533.22	1,935.93	687.61	650.57	37.04	18.563	
7,560.95	7,389.00	7,438.15	7,355.28	34.59	26.39	90.43	531.81	1,939.35	690.42	653.10	37.33	18.496	
7,600.00	7,428.05	7,478.40	7,395.45	34.70	26.53	90.50	530.99	1,941.53	692.55	655.04	37.51	18.464	
7,700.00	7,528.05	7,596.74	7,513.67	34.97	26.92	90.61	529.52	1,946.67	696.96	659.04	37.92	18.379	
7,800.00	7,628.05	7,708.13	7,625.03	35.24	27.26	90.54	530.45	1,948.64	698.71	660.39	38.32	18.232	
7,900.00	7,728.05	7,806.82	7,723.70	35.51	27.54	90.37	532.46	1,949.81	699.88	661.11	38.76	18.056	
8,000.00	7,828.05	7,904.78	7,821.64	35.79	27.83	90.24	534.01	1,951.21	701.30	662.09	39.21	17.886	
8,100.00	7,928.05	8,003.09	7,919.93	36.06	28.12	90.17	534.88	1,952.80	702.91	663.25	39.66	17.722	
8,200.00	8,028.05	8,097.37	8,014.19	36.34	28.42	90.13	535.39	1,954.92	705.16	665.02	40.14	17.570	
8,300.00	8,128.05	8,199.59	8,116.37	36.62	28.74	90.13	535.38	1,957.65	707.84	667.26	40.59	17.440	
8,400.00	8,228.05	8,313.06	8,229.83	36.90	29.10	90.15	535.11	1,958.99	709.00	668.00	41.00	17.294	
8,500.00	8,328.05	8,413.00	8,329.77	37.18	29.39	90.21	534.34	1,959.13	709.14	667.69	41.46	17.106	
8,600.00	8,428.05	8,520.88	8,437.64	37.46	29.71	90.30	533.24	1,959.43	709.46	667.58	41.88	16.941	
8,700.00	8,528.05	8,619.36	8,536.11	37.75	29.99	90.35	532.66	1,958.43	708.46	666.12	42.33	16.735	
8,800.00	8,628.05	8,725.01	8,641.74	38.03	30.29	90.53	530.39	1,957.75	707.84	665.08	42.77	16.551	
8,900.00	8,728.05	8,824.80	8,741.48	38.32	30.58	90.73	528.04	1,956.34	706.45	663.22	43.23	16.342	
9,000.00	8,828.05	8,924.43	8,841.03	38.61	30.88	91.03	524.28	1,955.06	705.23	661.53	43.70	16.138	
9,100.00	8,928.05	9,022.00	8,938.47	38.89	31.17	91.44	519.29	1,953.99	704.23	660.04	44.19	15.937	
9,200.00	9,028.05	9,124.04	9,040.35	39.18	31.48	91.90	513.66	1,952.84	703.27	658.61	44.66	15.746	
9,300.00	9,128.05	9,221.91	9,138.05	39.47	31.78	92.36	508.14	1,951.70	702.32	657.16	45.16	15.553	
9,400.00	9,228.05	9,318.93	9,234.92	39.77	32.09	92.81	502.64	1,950.92	701.77	656.11	45.66	15.371	
9,500.00	9,328.05	9,417.02	9,332.86	40.06	32.40	93.25	497.20	1,950.44	701.57	655.42	46.15	15.202	
9,510.27	9,338.33	9,427.01	9,342.83	40.09	32.43	93.30	496.66	1,950.40	701.56	655.36	46.20	15.185	
9,600.00	9,428.05	9,514.00	9,429.69	40.35	32.71	93.68	492.00	1,950.29	701.74	655.09	46.65	15.042	
9,700.00	9,528.05	9,610.79	9,526.33	40.65	33.02	94.12	486.51	1,950.57	702.42	655.26	47.15	14.896	
9,800.00	9,628.05	9,710.40	9,625.75	40.95	33.35	94.61	480.44	1,951.07	703.38	655.73	47.65	14.762	
9,900.00	9,728.05	9,811.00	9,726.29	41.24	33.67	94.87	477.19	1,951.68	704.26	656.13	48.13	14.632	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,828.05	9,908.05	9,823.33	41.54	33.98	94.84	477.49	1,952.73	705.30	656.70	48.60	14.511	
10,100.00	9,928.05	10,018.37	9,933.61	41.84	34.32	94.65	479.67	1,954.19	706.52	657.50	49.02	14.414	
10,200.00	10,028.05	10,129.23	10,044.36	42.14	34.63	94.25	484.72	1,953.10	705.14	655.73	49.41	14.272	
10,300.00	10,128.05	10,229.06	10,144.10	42.44	34.91	93.95	488.55	1,951.69	703.46	653.61	49.84	14.113	
10,400.00	10,228.05	10,335.23	10,250.20	42.74	35.21	93.69	491.89	1,949.79	701.47	651.21	50.25	13.958	
10,500.00	10,328.05	10,428.99	10,343.81	43.05	35.47	93.31	496.64	1,948.08	699.34	648.62	50.72	13.788	
10,600.00	10,428.05	10,522.88	10,437.48	43.35	35.74	92.78	503.12	1,947.35	698.19	647.00	51.18	13.641	
10,680.52	10,508.57	10,598.65	10,513.07	43.60	35.95	92.35	508.41	1,947.32	697.90	646.35	51.55	13.537	
10,700.00	10,528.05	10,616.99	10,531.36	43.65	36.01	92.24	509.68	1,947.38	697.92	646.27	51.64	13.514	
10,800.00	10,628.05	10,712.16	10,626.32	43.96	36.29	91.73	515.95	1,948.11	698.46	646.35	52.10	13.405	
10,900.00	10,728.05	10,811.16	10,725.13	44.27	36.59	91.24	521.89	1,949.25	699.46	646.90	52.55	13.310	
11,000.00	10,828.05	10,911.03	10,824.83	44.57	36.89	90.75	527.78	1,950.44	700.54	647.54	53.00	13.218	
11,100.00	10,928.05	11,014.16	10,927.80	44.88	37.20	90.31	533.20	1,951.42	701.44	648.00	53.44	13.126	
11,200.00	11,028.05	11,118.90	11,032.50	45.19	37.52	90.07	536.13	1,951.81	701.81	647.93	53.88	13.026	
11,300.00	11,128.05	11,222.95	11,136.54	45.50	37.84	90.00	537.04	1,951.41	701.42	647.10	54.32	12.912	
11,400.00	11,228.05	11,360.62	11,273.82	45.81	38.26	90.56	530.13	1,947.15	698.41	643.80	54.61	12.789	
11,500.00	11,328.05	11,467.41	11,377.43	46.12	38.60	92.55	506.29	1,939.24	691.38	636.24	55.14	12.539	
11,600.00	11,428.05	11,541.64	11,445.31	46.43	38.86	95.02	476.83	1,934.39	687.14	631.22	55.92	12.287	
11,637.55	11,465.60	11,570.00	11,470.11	46.55	38.96	96.17	463.16	1,932.81	686.79	630.58	56.21	12.217	
11,700.00	11,528.05	11,617.00	11,510.01	46.74	39.13	98.24	438.49	1,930.07	687.54	630.85	56.69	12.129	
11,800.00	11,628.05	11,677.85	11,560.06	47.05	39.37	101.11	404.00	1,927.35	694.08	636.78	57.31	12.111	
11,900.00	11,728.05	11,730.69	11,601.51	47.37	39.59	103.77	371.29	1,926.23	708.46	650.78	57.67	12.284	
12,000.00	11,828.05	11,775.99	11,634.84	47.68	39.79	106.20	340.61	1,926.07	731.25	673.55	57.70	12.673	
12,100.00	11,928.05	11,806.00	11,655.73	48.00	39.92	107.86	319.07	1,926.33	762.59	705.33	57.26	13.319	
12,115.99	11,944.04	11,820.53	11,665.51	48.05	39.99	108.67	308.33	1,926.62	768.25	710.95	57.30	13.407	
12,150.00	11,978.03	11,831.45	11,672.70	48.15	40.05	-61.53	300.13	1,926.95	780.83	723.75	57.09	13.678	
12,200.00	12,027.75	11,853.00	11,686.51	48.28	40.15	-58.75	283.61	1,927.91	799.43	742.64	56.79	14.077	
12,250.00	12,076.83	11,867.94	11,695.76	48.41	40.23	-56.44	271.90	1,928.72	817.75	761.41	56.34	14.516	
12,300.00	12,124.90	11,900.00	11,714.59	48.53	40.40	-53.63	246.02	1,930.53	835.64	779.53	56.11	14.893	
12,350.00	12,171.60	11,913.60	11,722.15	48.63	40.47	-51.75	234.74	1,931.27	852.43	796.87	55.55	15.344	
12,400.00	12,216.56	11,947.00	11,739.56	48.72	40.65	-49.40	206.28	1,932.65	868.17	812.88	55.28	15.704	
12,450.00	12,259.45	11,981.22	11,755.74	48.80	40.83	-47.26	176.14	1,932.93	882.17	827.18	54.99	16.042	
12,500.00	12,299.94	12,020.76	11,772.42	48.87	41.04	-45.19	140.33	1,931.35	893.93	839.19	54.74	16.331	
12,550.00	12,337.72	12,042.00	11,780.50	48.93	41.15	-43.85	120.75	1,929.80	903.70	849.48	54.22	16.667	
12,600.00	12,372.50	12,068.31	11,789.41	48.97	41.28	-42.55	96.09	1,927.60	911.82	858.05	53.77	16.958	
12,650.00	12,404.03	12,089.00	11,795.41	49.00	41.39	-41.57	76.37	1,925.91	918.63	865.36	53.27	17.245	
12,700.00	12,432.05	12,089.00	11,795.41	49.03	41.39	-41.19	76.37	1,925.91	924.31	871.70	52.61	17.570	
12,750.00	12,456.36	12,120.17	11,802.69	49.05	41.55	-40.28	46.16	1,923.59	927.91	875.62	52.29	17.745	
12,800.00	12,476.77	12,136.00	11,805.56	49.06	41.64	-39.83	30.62	1,922.57	930.35	878.45	51.90	17.926	
12,850.00	12,493.12	12,136.00	11,805.56	49.07	41.64	-39.74	30.62	1,922.57	931.74	880.24	51.50	18.093	
12,900.00	12,505.30	12,190.57	11,812.80	49.09	41.95	-39.05	-23.36	1,919.32	929.54	878.07	51.46	18.062	
12,950.00	12,513.20	12,217.31	11,815.12	49.11	42.11	-38.95	-49.95	1,917.78	925.99	874.65	51.34	18.037	
13,000.00	12,516.77	12,262.00	11,817.18	49.13	42.37	-38.87	-94.52	1,915.27	920.65	869.33	51.32	17.939	
13,015.99	12,517.00	12,262.00	11,817.18	49.14	42.37	-39.03	-94.52	1,915.27	918.16	866.86	51.30	17.898	
13,100.00	12,517.00	12,319.08	11,818.09	49.21	42.73	-38.74	-151.51	1,912.20	907.41	856.04	51.37	17.665	
13,200.00	12,517.00	12,397.95	11,818.27	49.32	43.26	-38.33	-230.28	1,908.33	898.41	846.82	51.58	17.417	
13,300.00	12,517.00	12,475.36	11,816.52	49.47	43.81	-37.96	-307.62	1,905.57	894.34	842.41	51.93	17.222	
13,354.67	12,517.00	12,523.78	11,815.41	49.55	44.17	-37.82	-356.03	1,904.91	893.83	841.64	52.19	17.126	
13,387.80	12,517.00	12,547.00	11,815.00	49.62	44.35	-37.78	-379.24	1,904.94	894.04	841.66	52.39	17.066	
13,400.00	12,517.00	12,563.03	11,814.72	49.64	44.48	-37.77	-395.26	1,905.05	894.18	841.73	52.45	17.048	
13,500.00	12,517.00	12,648.48	11,812.54	49.86	45.18	-37.70	-480.67	1,906.31	896.48	843.38	53.10	16.884	
13,600.00	12,517.00	12,759.15	11,811.32	50.14	46.15	-37.79	-591.27	1,910.15	898.87	845.07	53.79	16.709	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.00	12,517.00	12,862.91	11,812.07	50.48	47.11	-38.00	-694.93	1,914.60	900.33	845.73	54.60	16.491	
13,800.00	12,517.00	12,954.06	11,812.48	50.88	47.98	-38.17	-785.99	1,918.56	902.06	846.59	55.47	16.262	
13,900.00	12,517.00	13,038.96	11,811.55	51.34	48.83	-38.30	-870.78	1,922.78	905.37	848.97	56.40	16.053	
14,000.00	12,517.00	13,134.24	11,809.00	51.86	49.81	-38.38	-965.91	1,927.41	909.87	852.56	57.31	15.876	
14,100.00	12,517.00	13,239.06	11,808.23	52.43	50.93	-38.64	-1,070.50	1,934.32	913.93	855.63	58.30	15.676	
14,200.00	12,517.00	13,339.26	11,807.10	53.06	52.03	-38.87	-1,170.47	1,940.83	918.27	858.93	59.34	15.475	
14,300.00	12,517.00	13,443.86	11,803.87	53.74	53.20	-38.82	-1,274.98	1,943.60	921.70	861.45	60.25	15.298	
14,400.00	12,517.00	13,546.69	11,799.72	54.46	54.38	-38.70	-1,377.71	1,945.40	925.34	864.19	61.15	15.132	
14,500.00	12,517.00	13,670.03	11,795.63	55.23	55.81	-38.50	-1,500.97	1,945.63	927.47	865.55	61.91	14.980	
14,600.00	12,517.00	13,762.06	11,793.14	56.04	56.89	-38.32	-1,592.97	1,944.81	928.44	865.55	62.89	14.763	
14,700.00	12,517.00	13,894.62	11,791.48	56.89	58.49	-38.11	-1,725.50	1,943.13	927.96	864.35	63.61	14.588	
14,800.00	12,517.00	13,983.45	11,791.48	57.77	59.57	-38.01	-1,814.31	1,941.95	926.54	861.86	64.69	14.324	
14,840.75	12,517.00	14,017.31	11,791.02	58.14	59.99	-37.95	-1,848.16	1,941.49	926.39	861.25	65.14	14.221	
14,900.00	12,517.00	14,070.36	11,789.55	58.69	60.65	-37.83	-1,901.19	1,940.58	926.69	860.94	65.75	14.094	
15,000.00	12,517.00	14,184.48	11,788.30	59.64	62.09	-37.66	-2,015.29	1,939.25	926.19	859.54	66.65	13.896	
15,095.65	12,517.00	14,272.29	11,788.10	60.59	63.22	-37.61	-2,103.10	1,939.28	925.81	858.06	67.75	13.664	
15,100.00	12,517.00	14,276.37	11,788.09	60.63	63.27	-37.61	-2,107.18	1,939.31	925.81	858.01	67.80	13.654	
15,200.00	12,517.00	14,370.59	11,788.02	61.64	64.50	-37.63	-2,201.38	1,940.71	926.18	857.17	69.00	13.422	
15,300.00	12,517.00	14,468.02	11,788.14	62.68	65.79	-37.71	-2,298.79	1,943.20	927.04	856.80	70.24	13.198	
15,400.00	12,517.00	14,574.28	11,790.39	63.75	67.23	-38.00	-2,404.89	1,948.43	927.79	856.21	71.58	12.962	
15,470.47	12,517.00	14,647.32	11,792.51	64.52	68.23	-38.21	-2,477.82	1,951.71	927.70	855.15	72.55	12.787	
15,500.00	12,517.00	14,672.06	11,792.91	64.84	68.57	-38.25	-2,502.55	1,952.56	927.78	854.80	72.98	12.712	
15,600.00	12,517.00	14,758.11	11,792.23	65.96	69.74	-38.27	-2,588.57	1,954.43	929.12	854.78	74.34	12.498	
15,700.00	12,517.00	14,844.69	11,789.69	67.10	70.93	-38.20	-2,675.10	1,955.73	931.76	856.13	75.64	12.319	
15,800.00	12,517.00	14,929.72	11,785.42	68.26	72.11	-38.07	-2,760.01	1,957.25	936.18	859.26	76.92	12.171	
15,900.00	12,517.00	15,032.29	11,778.95	69.44	73.55	-37.82	-2,862.36	1,958.23	941.14	863.17	77.98	12.070	
16,000.00	12,517.00	15,171.23	11,772.85	70.64	75.50	-37.60	-3,001.15	1,959.69	944.97	866.23	78.74	12.001	
16,100.00	12,517.00	15,311.16	11,774.58	71.85	77.47	-37.56	-3,141.05	1,958.78	942.79	863.21	79.58	11.847	
16,200.00	12,517.00	15,413.62	11,777.19	73.09	78.93	-37.53	-3,243.47	1,957.25	939.26	858.46	80.80	11.624	
16,300.00	12,517.00	15,525.04	11,781.38	74.34	80.52	-37.54	-3,354.80	1,955.41	934.67	852.71	81.96	11.404	
16,400.00	12,517.00	15,633.24	11,786.91	75.60	82.08	-37.63	-3,462.84	1,953.97	929.21	845.98	83.22	11.165	
16,500.00	12,517.00	15,721.13	11,792.62	76.88	83.36	-37.80	-3,550.54	1,953.96	923.51	838.68	84.83	10.886	
16,600.00	12,517.00	15,799.68	11,796.59	78.18	84.51	-37.99	-3,628.98	1,955.37	920.02	833.44	86.58	10.626	
16,700.00	12,517.00	15,880.58	11,798.95	79.49	85.70	-38.15	-3,709.81	1,957.55	918.76	830.48	88.28	10.407	
16,714.78	12,517.00	15,893.04	11,799.14	79.68	85.89	-38.16	-3,722.27	1,957.89	918.74	830.21	88.53	10.378	
16,800.00	12,517.00	15,970.61	11,799.34	80.81	87.03	-38.23	-3,799.81	1,959.76	919.30	829.48	89.82	10.235	
16,900.00	12,517.00	16,090.94	11,799.93	82.14	88.81	-38.26	-3,920.14	1,961.08	918.98	828.00	90.98	10.101	
17,000.00	12,517.00	16,213.92	11,802.14	83.48	90.63	-38.23	-4,043.08	1,960.00	916.43	824.42	92.01	9.960	
17,100.00	12,517.00	16,317.87	11,806.42	84.84	92.17	-38.30	-4,146.94	1,959.19	912.10	818.71	93.39	9.767	
17,200.00	12,517.00	16,415.80	11,810.36	86.20	93.64	-38.37	-4,244.78	1,958.44	907.86	813.01	94.85	9.571	
17,300.00	12,517.00	16,521.00	11,816.00	87.58	95.22	-38.55	-4,349.83	1,958.65	903.16	806.83	96.33	9.375	
17,400.00	12,517.00	16,616.00	11,822.33	88.96	96.66	-38.86	-4,444.60	1,960.61	898.63	800.52	98.11	9.159	
17,500.00	12,517.00	16,703.63	11,827.87	90.35	98.00	-39.20	-4,531.99	1,963.83	895.38	795.31	100.07	8.947	
17,600.00	12,517.00	16,802.02	11,835.30	91.75	99.51	-39.75	-4,629.91	1,969.77	892.76	790.63	102.13	8.742	
17,700.00	12,517.00	16,891.18	11,842.41	93.16	100.89	-40.33	-4,718.53	1,976.46	890.84	786.46	104.38	8.535	
17,800.00	12,517.00	16,994.94	11,849.33	94.58	102.50	-40.90	-4,821.84	1,983.35	889.47	783.02	106.44	8.356	
17,900.00	12,517.00	17,089.00	11,854.09	96.01	103.95	-41.30	-4,915.64	1,988.32	888.46	779.99	108.46	8.191	
18,000.00	12,517.00	17,211.05	11,859.39	97.44	105.83	-41.60	-5,037.54	1,991.08	886.00	776.06	109.94	8.059	
18,100.00	12,517.00	17,302.33	11,863.45	98.88	107.23	-41.81	-5,128.70	1,992.62	883.14	771.32	111.81	7.898	
18,200.00	12,517.00	17,409.07	11,869.04	100.32	108.88	-42.17	-5,235.24	1,995.98	880.72	767.09	113.62	7.751	
18,300.00	12,517.00	17,514.58	11,875.09	101.78	110.52	-42.44	-5,340.57	1,997.13	876.51	761.16	115.35	7.599	
18,400.00	12,517.00	17,615.25	11,880.69	103.23	112.08	-42.74	-5,441.07	1,999.29	873.20	755.98	117.22	7.449	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

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
18,500.00	12,517.00	17,716.68	11,885.74	104.70	113.65	-42.91	-5,542.36	1,999.19	868.81	749.90	118.91	7.306	
18,600.00	12,517.00	17,834.57	11,890.21	106.17	115.46	-42.96	-5,660.15	1,997.19	864.29	744.20	120.10	7.197	
18,700.00	12,517.00	17,935.49	11,897.51	107.64	117.03	-43.22	-5,760.80	1,996.58	857.93	736.02	121.90	7.038	
18,800.00	12,517.00	18,032.85	11,905.82	109.12	118.55	-43.61	-5,857.79	1,997.68	851.81	727.83	123.99	6.870	
18,900.00	12,517.00	18,119.32	11,912.66	110.60	119.90	-43.96	-5,943.97	1,999.21	846.64	720.35	126.29	6.704	
19,000.00	12,517.00	18,214.09	11,919.89	112.09	121.39	-44.40	-6,038.42	2,002.18	842.66	714.11	128.55	6.555	
19,100.00	12,517.00	18,288.53	11,925.23	113.59	122.57	-44.80	-6,112.58	2,005.80	840.32	709.16	131.15	6.407	
19,119.72	12,517.00	18,302.69	11,925.94	113.88	122.79	-44.86	-6,126.70	2,006.59	840.25	708.60	131.65	6.382	
19,200.00	12,517.00	18,376.80	11,928.89	115.08	123.96	-45.18	-6,200.61	2,010.97	840.78	707.30	133.48	6.299	
19,300.00	12,517.00	18,480.15	11,932.48	116.59	125.60	-45.57	-6,303.76	2,016.43	841.41	705.83	135.57	6.206	
19,400.00	12,517.00	18,592.56	11,935.05	118.09	127.37	-45.79	-6,416.09	2,019.64	841.16	703.88	137.28	6.127	
19,500.00	12,517.00	18,706.92	11,939.24	119.60	129.17	-46.05	-6,530.35	2,021.83	839.29	700.33	138.95	6.040	
19,600.00	12,517.00	18,834.67	11,946.64	121.11	131.18	-46.36	-6,657.87	2,021.88	834.52	694.22	140.31	5.948	
19,700.00	12,517.00	18,940.92	11,953.16	122.63	132.84	-46.51	-6,763.90	2,019.31	827.82	685.90	141.92	5.833	
19,800.00	12,517.00	19,051.71	11,960.71	124.15	134.58	-46.70	-6,874.38	2,016.39	820.54	677.10	143.43	5.721	
19,900.00	12,517.00	19,153.34	11,970.53	125.67	136.17	-47.08	-6,975.52	2,014.71	811.99	666.49	145.50	5.581	
20,000.00	12,517.00	19,225.65	11,976.55	127.20	137.31	-47.32	-7,047.57	2,013.95	804.95	656.65	148.29	5.428	
20,100.00	12,517.00	19,308.94	11,981.71	128.73	138.63	-47.65	-7,130.68	2,015.83	801.57	650.72	150.85	5.314	
20,200.00	12,517.00	19,420.63	11,988.46	130.26	140.41	-48.04	-7,242.14	2,017.60	797.97	645.18	152.78	5.223	
20,300.00	12,517.00	19,523.29	11,994.28	131.80	142.03	-48.28	-7,344.64	2,017.21	793.16	638.46	154.71	5.127	
20,400.00	12,517.00	19,634.08	11,999.69	133.34	143.78	-48.43	-7,455.28	2,015.35	787.95	631.73	156.22	5.044	
20,500.00	12,517.00	19,731.12	12,004.12	134.88	145.31	-48.49	-7,552.17	2,012.36	781.88	623.89	157.99	4.949	
20,600.00	12,517.00	19,832.18	12,009.85	136.42	146.91	-48.67	-7,653.05	2,010.56	776.06	616.21	159.85	4.855	
20,700.00	12,517.00	19,929.00	12,016.01	137.97	148.44	-48.91	-7,749.67	2,009.53	770.32	608.34	161.97	4.756	
20,800.00	12,517.00	20,004.54	12,019.06	139.52	149.64	-49.02	-7,825.14	2,008.97	766.37	601.85	164.52	4.658	
20,900.00	12,517.00	20,091.17	12,020.33	141.07	151.02	-49.07	-7,911.75	2,009.46	765.07	598.46	166.61	4.592	
21,000.00	12,517.00	20,201.56	12,022.70	142.62	152.78	-49.24	-8,022.11	2,011.24	764.17	595.87	168.30	4.541	
21,100.00	12,517.00	20,327.99	12,028.88	144.18	154.79	-49.52	-8,148.37	2,010.96	759.98	590.38	169.60	4.481	
21,200.00	12,517.00	20,415.58	12,032.70	145.73	156.19	-49.64	-8,235.87	2,009.75	755.35	583.50	171.85	4.395	
21,300.00	12,517.00	20,497.00	12,033.93	147.29	157.48	-49.60	-8,317.26	2,008.35	752.39	578.42	173.97	4.325	
21,400.00	12,517.00	20,592.00	12,033.97	148.85	158.99	-49.53	-8,412.26	2,007.69	751.10	575.48	175.62	4.277	
21,500.00	12,517.00	20,705.19	12,035.40	150.42	160.80	-49.55	-8,525.44	2,007.64	749.50	572.54	176.96	4.235	
21,600.00	12,517.00	20,813.74	12,039.22	151.98	162.53	-49.76	-8,633.91	2,008.34	747.00	568.28	178.71	4.180	
21,700.00	12,517.00	20,928.01	12,043.55	153.55	164.35	-49.80	-8,748.04	2,005.25	741.63	561.75	179.89	4.123	
21,800.00	12,517.00	21,031.32	12,043.62	155.12	165.98	-49.44	-8,851.15	1,998.96	736.21	555.55	180.66	4.075	
21,900.00	12,517.00	21,143.73	12,047.90	156.69	167.76	-49.37	-8,963.36	1,993.64	729.39	547.85	181.53	4.018	
22,000.00	12,517.00	21,251.53	12,054.29	158.26	169.46	-49.42	-9,070.83	1,988.40	721.09	538.31	182.79	3.945	
22,100.00	12,517.00	21,341.12	12,060.52	159.84	170.89	-49.58	-9,160.13	1,985.01	712.96	527.84	185.13	3.851	
22,200.00	12,517.00	21,431.31	12,066.80	161.41	172.33	-49.83	-9,250.06	1,983.27	706.23	518.61	187.62	3.764	
22,300.00	12,517.00	21,527.33	12,076.50	162.99	173.88	-50.49	-9,345.57	1,985.21	700.53	509.82	190.71	3.673	
22,400.00	12,517.00	21,611.01	12,085.10	164.57	175.23	-51.16	-9,428.74	1,988.32	696.16	501.81	194.35	3.582	
22,500.00	12,517.00	21,692.42	12,091.85	166.14	176.55	-51.78	-9,509.76	1,992.70	694.44	496.52	197.92	3.509	
22,513.10	12,517.00	21,703.08	12,092.51	166.35	176.72	-51.85	-9,520.38	1,993.30	694.41	496.06	198.35	3.501	
22,600.00	12,517.00	21,781.32	12,096.10	167.73	177.99	-52.26	-9,598.41	1,997.69	695.13	494.19	200.93	3.460	
22,700.00	12,517.00	21,877.24	12,098.65	169.31	179.55	-52.63	-9,694.17	2,002.55	696.74	493.22	203.52	3.423	
22,800.00	12,517.00	21,972.44	12,100.35	170.89	181.10	-52.93	-9,789.23	2,007.37	698.91	492.90	206.01	3.393	
22,900.00	12,517.00	22,090.78	12,101.10	172.48	183.01	-53.14	-9,907.47	2,011.82	700.85	493.08	207.77	3.373	
22,921.85	12,517.00	22,120.12	12,102.14	172.82	183.49	-53.24	-9,936.79	2,012.67	700.72	492.60	208.12	3.367	
23,000.00	12,517.00	22,170.04	12,104.14	174.06	184.30	-53.50	-9,986.57	2,015.76	701.87	491.11	210.76	3.330	
23,100.00	12,517.00	22,300.22	12,112.15	175.65	186.43	-54.46	-10,116.06	2,026.18	704.32	490.49	213.83	3.294	
23,200.00	12,517.00	22,419.97	12,122.61	177.24	188.37	-55.32	-10,235.26	2,030.82	701.65	485.05	216.60	3.239	
23,300.00	12,517.00	22,526.97	12,132.32	178.83	190.10	-56.00	-10,341.81	2,032.30	696.83	477.44	219.39	3.176	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 603H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 117-OWSG (Rev2) MWD, 1363-OWSG (Rev2) MWD, 23350-BLIND

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
23,400.00	12,517.00	22,628.88	12,140.42	180.42	191.75	-56.52	-10,443.39	2,032.62	691.85	469.75	222.10	3.115	
23,500.00	12,517.00	22,729.71	12,148.80	182.01	193.37	-57.06	-10,543.88	2,032.50	686.37	461.49	224.88	3.052	
23,600.00	12,517.00	22,832.66	12,157.83	183.60	195.03	-57.66	-10,646.42	2,032.66	680.94	453.25	227.69	2.991	
23,700.00	12,517.00	22,930.26	12,167.05	185.20	196.61	-58.28	-10,743.59	2,032.73	675.15	444.29	230.86	2.925	
23,800.00	12,517.00	23,041.03	12,181.21	186.79	198.40	-59.36	-10,853.42	2,034.79	669.27	435.07	234.20	2.858	
23,900.00	12,517.00	23,161.71	12,205.10	188.39	200.34	-61.23	-10,971.63	2,037.83	660.63	422.34	238.29	2.772	
24,000.00	12,517.00	23,262.81	12,230.76	189.99	201.95	-63.34	-11,069.34	2,041.63	651.03	406.74	244.29	2.665	
24,100.00	12,517.00	23,350.00	12,255.98	191.58	208.02	-65.49	-11,152.70	2,045.67	641.68	387.32	254.36	2.523	
24,130.17	12,517.00	23,350.00	12,255.98	192.05	208.02	-65.49	-11,152.70	2,045.67	640.23	383.29	256.95	2.492	CC, ES, SF

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1431-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	4.62	4.62	0.00	0.01	50.87	897.17	1,102.67	1,421.55				
100.00	100.00	107.35	107.35	0.13	0.14	50.86	897.21	1,102.50	1,421.44	1,421.25	0.19	7,533.044	
200.00	200.00	237.43	237.41	0.48	0.59	50.83	896.77	1,100.86	1,420.27	1,419.50	0.77	1,852.492	
300.00	300.00	343.39	343.33	0.84	0.97	50.79	895.84	1,098.08	1,417.68	1,416.39	1.29	1,101.195	
400.00	400.00	450.53	450.41	1.20	1.36	50.72	895.21	1,094.51	1,414.72	1,412.91	1.81	780.448	
500.00	500.00	555.00	554.80	1.56	1.74	50.65	894.21	1,090.59	1,411.22	1,408.89	2.33	605.345	
600.00	600.00	667.49	667.20	1.92	2.15	50.57	893.05	1,086.07	1,407.49	1,404.62	2.87	490.154	
700.00	700.00	722.00	721.63	2.28	2.35	50.52	892.33	1,083.41	1,403.69	1,400.43	3.26	430.548	
800.00	800.00	858.64	858.17	2.63	2.83	50.48	891.39	1,080.44	1,401.72	1,397.87	3.85	363.692	
900.00	900.00	966.74	966.16	2.99	3.23	50.38	890.39	1,075.54	1,397.63	1,393.25	4.38	318.905	
1,000.00	1,000.00	1,083.67	1,082.93	3.35	3.66	50.33	887.44	1,070.17	1,392.47	1,387.54	4.93	282.299	
1,100.00	1,100.00	1,174.32	1,173.44	3.71	3.99	50.30	885.08	1,065.92	1,387.19	1,381.77	5.42	256.162	
1,200.00	1,200.00	1,272.74	1,271.74	4.07	4.35	50.24	883.14	1,061.37	1,382.37	1,376.45	5.92	233.559	
1,300.00	1,300.00	1,435.78	1,434.36	4.43	4.76	50.12	878.24	1,051.08	1,375.85	1,369.41	6.44	213.797	
1,400.00	1,400.00	1,573.70	1,571.34	4.79	4.95	49.95	871.30	1,036.60	1,364.38	1,357.60	6.78	201.311	
1,500.00	1,500.00	1,654.20	1,651.26	5.14	5.02	49.87	866.63	1,028.19	1,352.69	1,345.61	7.07	191.261	
1,600.00	1,600.00	1,729.25	1,725.93	5.50	5.10	49.86	862.10	1,022.23	1,342.73	1,335.35	7.38	181.881	
1,700.00	1,699.98	1,800.54	1,796.98	5.86	5.19	-16.93	857.78	1,018.34	1,333.01	1,325.31	7.70	173.134	
1,800.00	1,799.84	1,857.00	1,853.32	6.21	5.26	-16.96	854.43	1,016.77	1,322.34	1,314.33	8.01	165.044	
1,900.00	1,899.45	1,929.33	1,925.53	6.56	5.35	-16.96	850.34	1,017.09	1,310.88	1,302.54	8.34	157.177	
2,000.00	1,998.70	1,997.06	1,993.12	6.92	5.43	-16.94	846.80	1,019.78	1,298.86	1,290.19	8.67	149.812	
2,100.00	2,097.47	2,071.65	2,067.46	7.29	5.53	-16.92	843.31	1,024.53	1,285.69	1,276.68	9.01	142.675	
2,200.00	2,195.62	2,157.34	2,152.86	7.67	5.65	-16.92	840.11	1,030.89	1,270.66	1,261.28	9.37	135.547	
2,300.00	2,293.06	2,257.65	2,252.77	8.07	5.81	-16.96	836.26	1,038.96	1,252.75	1,242.98	9.77	128.242	
2,357.10	2,348.32	2,319.57	2,314.38	8.31	5.92	-16.97	833.15	1,044.24	1,240.83	1,230.83	10.01	123.999	
2,400.00	2,389.73	2,362.17	2,356.76	8.49	6.00	-16.93	830.72	1,047.94	1,231.36	1,221.17	10.18	120.910	
2,500.00	2,486.26	2,462.84	2,456.92	8.92	6.20	-16.83	825.25	1,056.40	1,209.22	1,198.61	10.61	114.021	
2,600.00	2,582.78	2,572.82	2,566.34	9.37	6.44	-16.71	818.55	1,065.28	1,186.44	1,175.39	11.05	107.347	
2,700.00	2,679.31	2,681.67	2,674.54	9.83	6.71	-16.52	810.31	1,073.75	1,162.52	1,151.01	11.51	101.000	
2,800.00	2,775.84	2,781.12	2,773.43	10.30	6.96	-16.36	802.50	1,080.93	1,138.02	1,126.05	11.97	95.111	
2,900.00	2,872.37	2,873.71	2,865.65	10.78	7.21	-16.29	796.62	1,086.61	1,113.62	1,101.20	12.42	89.675	
3,000.00	2,968.90	2,950.93	2,942.58	11.27	7.42	-16.24	792.38	1,091.75	1,090.20	1,077.34	12.86	84.782	
3,100.00	3,065.43	3,026.36	3,017.52	11.76	7.64	-16.10	787.99	1,099.10	1,068.85	1,055.55	13.30	80.350	
3,200.00	3,161.95	3,117.38	3,107.58	12.25	7.91	-15.79	781.85	1,110.71	1,049.25	1,035.47	13.77	76.175	
3,300.00	3,258.48	3,248.16	3,237.08	12.76	8.32	-15.33	771.60	1,125.74	1,028.11	1,013.80	14.32	71.807	
3,400.00	3,355.01	3,355.49	3,343.37	13.26	8.67	-14.89	761.12	1,136.40	1,004.61	989.78	14.83	67.745	
3,500.00	3,451.54	3,449.85	3,436.75	13.77	8.99	-14.46	751.46	1,145.88	980.99	965.66	15.33	63.995	
3,600.00	3,548.07	3,558.32	3,544.33	14.29	9.36	-14.05	741.46	1,155.45	957.08	941.24	15.85	60.396	
3,700.00	3,644.59	3,666.35	3,651.72	14.80	9.73	-13.74	732.31	1,162.74	932.02	915.66	16.36	56.971	
3,800.00	3,741.12	3,767.88	3,752.87	15.32	10.07	-13.58	724.72	1,167.07	905.59	888.72	16.86	53.702	
3,900.00	3,837.65	3,842.87	3,827.67	15.84	10.32	-13.53	720.62	1,170.54	880.60	863.25	17.35	50.755	
4,000.00	3,934.18	3,935.71	3,920.14	16.37	10.64	-13.37	715.28	1,176.68	857.03	839.17	17.85	48.002	
4,100.00	4,030.71	4,042.27	4,025.99	16.90	11.02	-12.96	706.42	1,185.21	833.08	814.71	18.38	45.336	
4,200.00	4,127.24	4,135.98	4,119.04	17.42	11.36	-12.56	697.97	1,192.38	808.52	789.63	18.89	42.801	
4,300.00	4,223.76	4,212.00	4,194.60	17.95	11.63	-12.28	692.84	1,198.98	786.02	766.63	19.39	40.533	
4,400.00	4,320.29	4,297.89	4,280.00	18.49	11.93	-12.04	689.00	1,207.26	765.62	745.72	19.90	38.480	
4,500.00	4,416.82	4,388.98	4,370.59	19.02	12.24	-11.83	685.99	1,216.38	746.20	725.80	20.41	36.569	
4,600.00	4,513.35	4,487.11	4,468.05	19.55	12.59	-11.51	682.28	1,227.12	727.30	706.37	20.93	34.756	
4,700.00	4,609.88	4,606.97	4,586.94	20.09	13.04	-10.88	674.52	1,240.15	706.88	685.42	21.47	32.928	
4,800.00	4,706.40	4,713.86	4,693.08	20.62	13.43	-10.28	666.11	1,249.63	684.14	662.14	21.99	31.109	
4,900.00	4,802.93	4,813.00	4,791.76	21.16	13.80	-9.88	659.84	1,256.72	660.87	638.36	22.51	29.359	
5,000.00	4,899.46	4,915.34	4,893.69	21.70	14.17	-9.47	653.41	1,263.29	637.07	614.04	23.02	27.669	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1431-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,016.48	4,994.45	22.24	14.53	-9.06	646.82	1,268.91	612.45	588.91	23.54	26.021	
5,200.00	5,092.52	5,113.32	5,091.02	22.78	14.88	-8.73	641.14	1,273.48	587.51	563.46	24.05	24.428	
5,300.00	5,189.04	5,209.67	5,187.12	23.32	15.23	-8.42	635.90	1,277.98	562.76	538.19	24.57	22.909	
5,400.00	5,285.57	5,305.59	5,282.79	23.86	15.57	-8.07	630.61	1,282.51	538.04	512.96	25.08	21.452	
5,500.00	5,382.10	5,399.86	5,376.79	24.41	15.91	-7.66	625.39	1,287.39	513.70	488.10	25.60	20.066	
5,600.00	5,478.63	5,491.68	5,468.29	24.95	16.25	-7.16	620.18	1,292.97	490.08	463.95	26.13	18.756	
5,700.00	5,575.16	5,588.70	5,564.74	25.49	16.61	-6.31	613.26	1,300.75	467.45	440.81	26.65	17.542	
5,800.00	5,671.69	5,690.25	5,665.69	26.04	17.00	-5.27	605.19	1,308.36	444.11	416.96	27.16	16.354	
5,900.00	5,768.21	5,787.75	5,762.60	26.58	17.37	-4.12	596.96	1,315.20	420.27	392.60	27.67	15.187	
6,000.00	5,864.74	5,883.47	5,857.79	27.13	17.74	-2.93	589.32	1,321.83	396.75	368.55	28.20	14.071	
6,100.00	5,961.27	5,978.94	5,952.74	27.67	18.10	-1.65	582.18	1,328.58	373.72	345.00	28.72	13.011	
6,200.00	6,057.80	6,075.17	6,048.46	28.22	18.47	-0.21	575.15	1,335.66	351.23	321.98	29.25	12.008	
6,300.00	6,154.33	6,171.19	6,143.94	28.76	18.84	1.44	568.14	1,342.94	329.20	299.41	29.78	11.053	
6,400.00	6,250.85	6,270.43	6,242.64	29.31	19.22	3.38	560.90	1,350.42	307.42	277.11	30.31	10.142	
6,500.00	6,347.38	6,371.55	6,343.28	29.86	19.60	5.60	553.46	1,356.81	284.89	254.05	30.83	9.240	
6,600.00	6,443.91	6,471.57	6,442.98	30.41	19.97	7.89	546.96	1,361.42	261.40	230.04	31.36	8.336	
6,700.00	6,540.44	6,570.76	6,542.02	30.95	20.32	10.03	542.51	1,364.29	237.19	205.31	31.88	7.439	
6,803.85	6,640.68	6,671.58	6,642.82	31.52	20.66	11.90	540.74	1,365.91	211.72	179.28	32.45	6.525	
6,900.00	6,733.90	6,765.03	6,736.25	32.03	20.97	13.48	540.26	1,367.07	189.76	156.79	32.97	5.755	
7,000.00	6,831.63	6,862.89	6,834.10	32.53	21.30	15.28	539.73	1,368.32	170.38	136.84	33.54	5.080	
7,100.00	6,930.04	6,961.58	6,932.79	32.98	21.62	17.17	539.22	1,369.53	154.46	120.35	34.10	4.529	
7,200.00	7,029.01	7,061.04	7,032.24	33.40	21.96	19.09	538.62	1,370.71	141.98	107.31	34.67	4.095	
7,300.00	7,128.41	7,162.58	7,133.77	33.78	22.28	20.91	537.91	1,370.87	131.91	96.73	35.18	3.750	
7,400.00	7,228.14	7,263.70	7,234.88	34.12	22.60	22.42	537.12	1,369.52	123.71	88.05	35.67	3.469	
7,500.00	7,328.06	7,363.54	7,334.69	34.43	22.91	23.55	536.15	1,367.59	118.21	82.02	36.18	3.267	
7,560.95	7,389.00	7,423.97	7,395.11	34.59	23.09	90.75	535.48	1,366.62	116.64	80.14	36.50	3.195	
7,600.00	7,428.05	7,462.67	7,433.81	34.70	23.22	90.96	535.05	1,366.14	116.16	79.46	36.70	3.165	
7,700.00	7,528.05	7,562.16	7,533.29	34.97	23.53	91.39	534.21	1,365.34	115.38	78.19	37.19	3.102	
7,800.00	7,628.05	7,661.76	7,632.89	35.24	23.83	91.31	534.38	1,364.83	114.86	77.21	37.64	3.051	
7,900.00	7,728.05	7,761.49	7,732.62	35.51	24.14	91.29	534.41	1,364.72	114.75	76.65	38.10	3.012	
7,958.84	7,786.89	7,820.26	7,791.39	35.67	24.33	91.30	534.39	1,364.69	114.72	76.36	38.36	2.990	
8,000.00	7,828.05	7,861.32	7,832.45	35.79	24.46	91.31	534.39	1,364.71	114.74	76.19	38.55	2.976	
8,100.00	7,928.05	7,961.02	7,932.14	36.06	24.79	91.33	534.33	1,364.92	114.95	75.93	39.02	2.946	
8,200.00	8,028.05	8,061.90	8,033.03	36.34	25.12	91.44	534.10	1,365.01	115.05	75.60	39.45	2.916	
8,300.00	8,128.05	8,162.66	8,133.78	36.62	25.43	91.29	534.43	1,364.23	114.26	74.41	39.86	2.867	
8,400.00	8,228.05	8,261.85	8,232.96	36.90	25.73	90.90	535.22	1,363.46	113.47	73.16	40.31	2.815	
8,472.07	8,300.12	8,333.51	8,304.62	37.10	25.96	90.72	535.57	1,363.34	113.35	72.71	40.64	2.789	
8,500.00	8,328.05	8,361.29	8,332.40	37.18	26.05	90.69	535.64	1,363.36	113.37	72.60	40.77	2.781	
8,600.00	8,428.05	8,461.24	8,432.36	37.46	26.37	90.65	535.72	1,363.47	113.47	72.24	41.23	2.752	
8,700.00	8,528.05	8,558.96	8,530.06	37.75	26.71	90.83	535.34	1,364.73	114.77	72.98	41.79	2.747	
8,800.00	8,628.05	8,660.76	8,631.85	38.03	27.05	91.05	534.88	1,366.10	116.12	73.91	42.21	2.751	
8,900.00	8,728.05	8,761.76	8,732.86	38.32	27.38	90.99	534.99	1,366.16	116.18	73.55	42.62	2.726	
9,000.00	8,828.05	8,861.55	8,832.64	38.61	27.71	91.06	534.86	1,365.97	115.99	72.89	43.09	2.691	
9,025.69	8,853.74	8,887.15	8,858.24	38.68	27.79	91.15	534.67	1,365.95	115.98	72.75	43.22	2.683	
9,100.00	8,928.05	8,961.27	8,932.36	38.89	28.04	91.59	533.77	1,366.01	116.05	72.45	43.60	2.662	
9,200.00	9,028.05	9,062.23	9,033.31	39.18	28.38	92.36	532.22	1,366.00	116.10	72.02	44.07	2.634	
9,300.00	9,128.05	9,163.79	9,134.85	39.47	28.71	92.63	531.76	1,364.37	114.51	70.03	44.48	2.574	
9,400.00	9,228.05	9,263.73	9,234.77	39.77	29.03	92.86	531.38	1,362.29	112.45	67.50	44.95	2.502	
9,500.00	9,328.05	9,363.50	9,334.51	40.06	29.35	93.51	530.22	1,360.38	110.60	65.15	45.46	2.433	
9,600.00	9,428.05	9,463.47	9,434.46	40.35	29.68	94.05	529.30	1,358.57	108.85	62.90	45.95	2.369	
9,700.00	9,528.05	9,563.46	9,534.42	40.65	30.01	95.01	527.65	1,356.68	107.10	60.63	46.47	2.305	
9,800.00	9,628.05	9,663.85	9,634.77	40.95	30.34	95.98	526.04	1,354.64	105.23	58.27	46.97	2.241	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1431-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.00	9,728.05	9,763.09	9,734.00	41.24	30.65	95.90	526.38	1,352.80	103.36	55.91	47.45	2.178	
10,000.00	9,828.05	9,863.06	9,833.96	41.54	30.97	95.39	527.41	1,351.58	102.04	54.16	47.88	2.131	
10,100.00	9,928.05	9,962.13	9,933.02	41.84	31.28	94.98	528.22	1,350.70	101.08	52.72	48.36	2.090	
10,200.00	10,028.05	10,062.13	10,033.01	42.14	31.61	94.87	528.45	1,350.27	100.64	51.82	48.82	2.062	
10,300.00	10,128.05	10,162.28	10,133.15	42.44	31.94	95.33	527.70	1,349.65	100.08	50.77	49.31	2.030	
10,400.00	10,228.05	10,261.74	10,232.60	42.74	32.28	96.35	525.96	1,349.10	99.71	49.85	49.86	2.000	
10,404.74	10,232.79	10,266.43	10,237.29	42.76	32.30	96.40	525.88	1,349.09	99.71	49.82	49.89	1.999	
10,500.00	10,328.05	10,360.91	10,331.76	43.05	32.62	97.09	524.63	1,349.40	100.17	49.76	50.42	1.987	
10,600.00	10,428.05	10,461.19	10,432.04	43.35	32.97	97.22	524.32	1,350.08	100.88	49.99	50.89	1.982	
10,700.00	10,528.05	10,561.85	10,532.69	43.65	33.30	96.97	524.74	1,350.28	101.02	49.71	51.31	1.969	
10,800.00	10,628.05	10,662.32	10,633.16	43.96	33.62	96.46	525.66	1,350.04	100.68	48.95	51.73	1.946	
10,900.00	10,728.05	10,763.11	10,733.94	44.27	33.95	95.62	527.23	1,349.25	99.73	47.63	52.10	1.914	
11,000.00	10,828.05	10,863.07	10,833.87	44.57	34.27	94.71	528.95	1,347.75	98.09	45.57	52.52	1.868	
11,100.00	10,928.05	10,962.06	10,932.85	44.88	34.59	94.05	530.13	1,347.04	97.29	44.28	53.00	1.835	
11,131.91	10,959.96	10,993.67	10,964.46	44.98	34.69	93.93	530.34	1,347.01	97.24	44.08	53.16	1.829	
11,200.00	11,028.05	11,061.82	11,032.61	45.19	34.92	93.86	530.46	1,347.03	97.25	43.77	53.48	1.819	
11,272.99	11,101.04	11,134.75	11,105.54	45.41	35.16	94.08	530.09	1,346.94	97.19	43.35	53.84	1.805	CC
11,300.00	11,128.05	11,161.66	11,132.44	45.50	35.26	94.18	529.92	1,346.94	97.20	43.22	53.98	1.801	
11,400.00	11,228.05	11,261.15	11,231.93	45.81	35.60	94.55	529.26	1,347.24	97.55	43.05	54.50	1.790	
11,500.00	11,328.05	11,361.35	11,332.13	46.12	35.95	95.10	528.28	1,347.79	98.18	43.18	55.00	1.785	
11,600.00	11,428.05	11,461.64	11,432.36	46.43	36.30	96.83	525.32	1,347.56	98.26	42.70	55.56	1.768	ES, SF
11,700.00	11,528.05	11,553.88	11,523.61	46.74	36.65	103.81	512.71	1,348.76	102.10	45.51	56.59	1.804	
11,800.00	11,628.05	11,646.32	11,613.12	47.05	37.03	114.47	490.08	1,353.10	114.93	57.50	57.42	2.001	
11,900.00	11,728.05	11,732.07	11,693.62	47.37	37.41	125.17	461.11	1,357.71	137.39	79.95	57.44	2.392	
12,000.00	11,828.05	11,813.51	11,766.43	47.68	37.77	135.33	424.84	1,360.86	171.01	114.22	56.79	3.011	
12,100.00	11,928.05	11,878.84	11,821.26	48.00	38.08	142.77	389.42	1,362.15	216.20	161.37	54.83	3.943	
12,115.99	11,944.04	11,888.16	11,828.67	48.05	38.13	143.79	383.76	1,362.18	224.58	170.11	54.47	4.123	
12,150.00	11,978.03	11,899.00	11,837.12	48.15	38.18	-26.08	376.98	1,362.15	242.85	189.91	52.94	4.587	
12,200.00	12,027.75	11,899.00	11,837.12	48.28	38.18	-24.52	376.98	1,362.15	272.32	222.78	49.54	5.497	
12,250.00	12,076.83	11,899.00	11,837.12	48.41	38.18	-22.85	376.98	1,362.15	304.36	257.75	46.61	6.531	
12,300.00	12,124.90	11,899.00	11,837.12	48.53	38.18	-21.14	376.98	1,362.15	338.04	293.83	44.21	7.646	
12,350.00	12,171.60	11,899.00	11,837.12	48.63	38.18	-19.47	376.98	1,362.15	372.70	330.36	42.34	8.803	
12,400.00	12,216.56	11,899.00	11,837.12	48.72	38.18	-17.89	376.98	1,362.15	407.85	366.93	40.92	9.967	
12,450.00	12,259.45	11,899.00	11,837.12	48.80	38.18	-16.42	376.98	1,362.15	443.14	403.22	39.92	11.101	
12,500.00	12,299.94	11,899.00	11,837.12	48.87	38.18	-15.08	376.98	1,362.15	478.31	439.03	39.29	12.175	
12,550.00	12,337.72	11,899.00	11,837.12	48.93	38.18	-13.87	376.98	1,362.15	513.14	474.16	38.98	13.166	
12,600.00	12,372.50	11,899.00	11,837.12	48.97	38.18	-12.78	376.98	1,362.15	547.45	508.49	38.95	14.054	
12,650.00	12,404.03	11,899.00	11,837.12	49.00	38.18	-11.81	376.98	1,362.15	581.09	541.91	39.18	14.830	
12,700.00	12,432.05	11,899.00	11,837.12	49.03	38.18	-10.95	376.98	1,362.15	613.95	574.31	39.64	15.489	
12,750.00	12,456.36	11,899.00	11,837.12	49.05	38.18	-10.19	376.98	1,362.15	645.90	605.63	40.28	16.036	
12,800.00	12,476.77	11,899.00	11,837.12	49.06	38.18	-9.52	376.98	1,362.15	676.86	635.78	41.09	16.474	
12,850.00	12,493.12	11,899.00	11,837.12	49.07	38.18	-8.92	376.98	1,362.15	706.73	664.70	42.03	16.816	
12,900.00	12,505.30	11,899.00	11,837.12	49.09	38.18	-8.39	376.98	1,362.15	735.43	692.35	43.08	17.072	
12,950.00	12,513.20	11,899.00	11,837.12	49.11	38.18	-7.93	376.98	1,362.15	762.88	718.67	44.21	17.254	
13,000.00	12,516.77	11,899.00	11,837.12	49.13	38.18	-7.51	376.98	1,362.15	789.03	743.61	45.42	17.373	
13,015.99	12,517.00	11,899.00	11,837.12	49.14	38.18	-7.39	376.98	1,362.15	797.10	751.29	45.81	17.399	
13,100.00	12,517.00	11,899.00	11,837.12	49.21	38.18	-6.32	376.98	1,362.15	842.41	794.55	47.86	17.601	
13,200.00	12,517.00	11,899.00	11,837.12	49.32	38.18	-4.77	376.98	1,362.15	903.86	853.76	50.10	18.042	
13,300.00	12,517.00	11,899.00	11,837.12	49.47	38.18	-2.91	376.98	1,362.15	971.94	919.90	52.04	18.678	
13,387.80	12,517.00	11,899.00	11,837.12	49.62	38.18	-1.03	376.98	1,362.15	1,036.09	982.60	53.49	19.370	
13,400.00	12,517.00	11,899.00	11,837.12	49.64	38.18	-1.03	376.98	1,362.15	1,045.28	991.61	53.67	19.475	
13,500.00	12,517.00	11,899.00	11,837.12	49.86	38.18	-1.03	376.98	1,362.15	1,122.77	1,067.74	55.03	20.402	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1431-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	12,517.00	11,899.00	11,837.12	50.14	38.18	-1.03	376.98	1,362.15	1,203.58	1,147.43	56.16	21.433	
13,700.00	12,517.00	11,899.00	11,837.12	50.48	38.18	-1.03	376.98	1,362.15	1,287.09	1,230.01	57.09	22.546	
13,800.00	12,517.00	11,899.00	11,837.12	50.88	38.18	-1.03	376.98	1,362.15	1,372.81	1,314.95	57.86	23.728	
13,900.00	12,517.00	11,899.00	11,837.12	51.34	38.18	-1.03	376.98	1,362.15	1,460.34	1,401.84	58.50	24.963	
14,000.00	12,517.00	11,899.00	11,837.12	51.86	38.18	-1.03	376.98	1,362.15	1,549.39	1,490.34	59.05	26.241	
14,100.00	12,517.00	11,899.00	11,837.12	52.43	38.18	-1.03	376.98	1,362.15	1,639.70	1,580.19	59.50	27.556	
14,200.00	12,517.00	11,899.00	11,837.12	53.06	38.18	-1.03	376.98	1,362.15	1,731.07	1,671.18	59.89	28.902	
14,300.00	12,517.00	11,899.00	11,837.12	53.74	38.18	-1.03	376.98	1,362.15	1,823.35	1,763.12	60.23	30.273	
14,400.00	12,517.00	11,899.00	11,837.12	54.46	38.18	-1.03	376.98	1,362.15	1,916.40	1,855.88	60.52	31.664	
14,500.00	12,517.00	11,899.00	11,837.12	55.23	38.18	-1.03	376.98	1,362.15	2,010.12	1,949.34	60.78	33.073	
14,600.00	12,517.00	11,899.00	11,837.12	56.04	38.18	-1.03	376.98	1,362.15	2,104.42	2,043.42	61.00	34.498	
14,700.00	12,517.00	11,899.00	11,837.12	56.89	38.18	-1.03	376.98	1,362.15	2,199.23	2,138.03	61.20	35.936	
14,800.00	12,517.00	11,899.00	11,837.12	57.77	38.18	-1.03	376.98	1,362.15	2,294.47	2,233.10	61.37	37.386	
14,900.00	12,517.00	11,899.00	11,837.12	58.69	38.18	-1.03	376.98	1,362.15	2,390.10	2,328.57	61.53	38.845	
15,000.00	12,517.00	11,899.00	11,837.12	59.64	38.18	-1.03	376.98	1,362.15	2,486.08	2,424.41	61.67	40.312	
15,100.00	12,517.00	11,899.00	11,837.12	60.63	38.18	-1.03	376.98	1,362.15	2,582.36	2,520.56	61.80	41.786	
15,200.00	12,517.00	11,899.00	11,837.12	61.64	38.18	-1.03	376.98	1,362.15	2,678.92	2,617.00	61.92	43.265	
15,300.00	12,517.00	11,899.00	11,837.12	62.68	38.18	-1.03	376.98	1,362.15	2,775.71	2,713.69	62.03	44.750	
15,400.00	12,517.00	11,899.00	11,837.12	63.75	38.18	-1.03	376.98	1,362.15	2,872.73	2,810.60	62.13	46.240	
15,500.00	12,517.00	11,899.00	11,837.12	64.84	38.18	-1.03	376.98	1,362.15	2,969.95	2,907.73	62.22	47.733	
15,600.00	12,517.00	11,899.00	11,837.12	65.96	38.18	-1.03	376.98	1,362.15	3,067.34	3,005.03	62.31	49.229	
15,700.00	12,517.00	11,899.00	11,837.12	67.10	38.18	-1.03	376.98	1,362.15	3,164.90	3,102.51	62.39	50.728	
15,800.00	12,517.00	11,899.00	11,837.12	68.26	38.18	-1.03	376.98	1,362.15	3,262.60	3,200.14	62.47	52.229	
15,900.00	12,517.00	11,899.00	11,837.12	69.44	38.18	-1.03	376.98	1,362.15	3,360.44	3,297.90	62.54	53.732	
16,000.00	12,517.00	11,899.00	11,837.12	70.64	38.18	-1.03	376.98	1,362.15	3,458.41	3,395.80	62.61	55.237	
16,100.00	12,517.00	11,899.00	11,837.12	71.85	38.18	-1.03	376.98	1,362.15	3,556.48	3,493.81	62.68	56.744	
16,200.00	12,517.00	11,899.00	11,837.12	73.09	38.18	-1.03	376.98	1,362.15	3,654.66	3,591.92	62.74	58.251	
16,300.00	12,517.00	11,899.00	11,837.12	74.34	38.18	-1.03	376.98	1,362.15	3,752.94	3,690.14	62.80	59.759	
16,400.00	12,517.00	11,899.00	11,837.12	75.60	38.18	-1.03	376.98	1,362.15	3,851.31	3,788.45	62.86	61.267	
16,500.00	12,517.00	11,899.00	11,837.12	76.88	38.18	-1.03	376.98	1,362.15	3,949.76	3,886.84	62.92	62.774	
16,600.00	12,517.00	11,899.00	11,837.12	78.18	38.18	-1.03	376.98	1,362.15	4,048.28	3,985.30	62.98	64.282	
16,700.00	12,517.00	11,899.00	11,837.12	79.49	38.18	-1.03	376.98	1,362.15	4,146.87	4,083.84	63.03	65.789	
16,800.00	12,517.00	11,899.00	11,837.12	80.81	38.18	-1.03	376.98	1,362.15	4,245.53	4,182.45	63.09	67.297	
16,900.00	12,517.00	11,899.00	11,837.12	82.14	38.18	-1.03	376.98	1,362.15	4,344.26	4,281.12	63.14	68.804	
17,000.00	12,517.00	11,899.00	11,837.12	83.48	38.18	-1.03	376.98	1,362.15	4,443.04	4,379.84	63.19	70.310	
17,100.00	12,517.00	11,899.00	11,837.12	84.84	38.18	-1.03	376.98	1,362.15	4,541.87	4,478.62	63.24	71.816	
17,200.00	12,517.00	11,899.00	11,837.12	86.20	38.18	-1.03	376.98	1,362.15	4,640.75	4,577.46	63.29	73.320	
17,300.00	12,517.00	11,899.00	11,837.12	87.58	38.18	-1.03	376.98	1,362.15	4,739.68	4,676.33	63.35	74.823	
17,400.00	12,517.00	11,899.00	11,837.12	88.96	38.18	-1.03	376.98	1,362.15	4,838.65	4,775.26	63.40	76.324	
17,500.00	12,517.00	11,899.00	11,837.12	90.35	38.18	-1.03	376.98	1,362.15	4,937.67	4,874.22	63.45	77.824	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	4.62	4.62	0.00	0.01	50.87	897.17	1,102.67	1,421.55				
100.00	100.00	107.35	107.35	0.13	0.14	50.86	897.21	1,102.50	1,421.44	1,421.25	0.19	7,533.044	
200.00	200.00	237.43	237.41	0.48	0.59	50.83	896.77	1,100.86	1,420.27	1,419.50	0.77	1,852.492	
300.00	300.00	343.39	343.33	0.84	0.97	50.79	895.84	1,098.08	1,417.68	1,416.39	1.29	1,101.195	
400.00	400.00	450.53	450.41	1.20	1.36	50.72	895.21	1,094.51	1,414.72	1,412.91	1.81	780.448	
500.00	500.00	555.00	554.80	1.56	1.74	50.65	894.21	1,090.59	1,411.22	1,408.89	2.33	605.345	
600.00	600.00	667.49	667.20	1.92	2.15	50.57	893.05	1,086.07	1,407.49	1,404.62	2.87	490.154	
700.00	700.00	722.00	721.63	2.28	2.35	50.52	892.33	1,083.41	1,403.69	1,400.43	3.26	430.548	
800.00	800.00	858.64	858.17	2.63	2.83	50.48	891.39	1,080.44	1,401.72	1,397.87	3.85	363.692	
900.00	900.00	966.74	966.16	2.99	3.23	50.38	890.39	1,075.54	1,397.63	1,393.25	4.38	318.905	
1,000.00	1,000.00	1,083.67	1,082.93	3.35	3.66	50.33	887.44	1,070.17	1,392.47	1,387.54	4.93	282.299	
1,100.00	1,100.00	1,174.32	1,173.44	3.71	3.99	50.30	885.08	1,065.92	1,387.19	1,381.77	5.42	256.162	
1,200.00	1,200.00	1,272.74	1,271.74	4.07	4.35	50.24	883.14	1,061.37	1,382.37	1,376.45	5.92	233.559	
1,300.00	1,300.00	1,428.58	1,427.21	4.43	4.71	50.12	878.78	1,051.79	1,376.07	1,369.67	6.40	214.940	
1,400.00	1,400.00	1,573.71	1,571.37	4.79	4.81	49.94	871.65	1,036.71	1,364.69	1,358.01	6.68	204.259	
1,500.00	1,500.00	1,654.21	1,651.29	5.14	4.90	49.87	866.98	1,028.30	1,353.00	1,346.01	6.99	193.653	
1,600.00	1,600.00	1,729.25	1,725.96	5.50	4.99	49.85	862.45	1,022.34	1,343.04	1,335.74	7.31	183.826	
1,700.00	1,699.98	1,800.54	1,797.00	5.86	5.09	-16.94	858.13	1,018.45	1,333.32	1,325.69	7.63	174.720	
1,800.00	1,799.84	1,857.00	1,853.34	6.21	5.16	-16.97	854.78	1,016.89	1,322.65	1,314.70	7.95	166.362	
1,900.00	1,899.45	1,929.33	1,925.55	6.56	5.26	-16.97	850.69	1,017.21	1,311.19	1,302.91	8.29	158.249	
2,000.00	1,998.70	1,997.06	1,993.13	6.92	5.36	-16.95	847.15	1,019.90	1,299.17	1,290.55	8.62	150.688	
2,100.00	2,097.47	2,071.63	2,067.47	7.29	5.46	-16.93	843.66	1,024.64	1,286.00	1,277.03	8.97	143.380	
2,200.00	2,195.62	2,157.32	2,152.86	7.67	5.59	-16.93	840.46	1,031.01	1,270.97	1,261.63	9.34	136.100	
2,300.00	2,293.06	2,257.64	2,252.78	8.07	5.76	-16.97	836.61	1,039.08	1,253.06	1,243.32	9.74	128.657	
2,357.10	2,348.32	2,319.55	2,314.39	8.31	5.88	-16.98	833.50	1,044.35	1,241.15	1,231.16	9.98	124.343	
2,400.00	2,389.73	2,362.16	2,356.77	8.49	5.96	-16.94	831.07	1,048.05	1,231.67	1,221.51	10.16	121.209	
2,500.00	2,486.26	2,462.82	2,456.93	8.92	6.17	-16.84	825.60	1,056.51	1,209.53	1,198.94	10.59	114.231	
2,600.00	2,582.78	2,572.81	2,566.35	9.37	6.42	-16.72	818.90	1,065.39	1,186.75	1,175.71	11.04	107.481	
2,700.00	2,679.31	2,681.67	2,674.56	9.83	6.70	-16.53	810.66	1,073.86	1,162.83	1,151.32	11.50	101.075	
2,800.00	2,775.84	2,781.12	2,773.44	10.30	6.96	-16.37	802.85	1,081.04	1,138.33	1,126.36	11.96	95.143	
2,900.00	2,872.37	2,873.71	2,865.67	10.78	7.22	-16.30	796.97	1,086.72	1,113.93	1,101.51	12.42	89.678	
3,000.00	2,968.90	2,950.92	2,942.59	11.27	7.43	-16.25	792.73	1,091.87	1,090.50	1,077.64	12.86	84.767	
3,100.00	3,065.43	3,026.35	3,017.53	11.76	7.65	-16.11	788.34	1,099.21	1,069.16	1,055.85	13.31	80.323	
3,200.00	3,161.95	3,117.37	3,107.59	12.25	7.93	-15.80	782.20	1,110.82	1,049.55	1,035.77	13.79	76.133	
3,300.00	3,258.48	3,248.15	3,237.10	12.76	8.34	-15.34	771.95	1,125.86	1,028.42	1,014.09	14.33	71.749	
3,400.00	3,355.01	3,355.49	3,343.39	13.26	8.70	-14.90	761.47	1,136.52	1,004.92	990.07	14.85	67.677	
3,500.00	3,451.54	3,449.85	3,436.77	13.77	9.03	-14.47	751.81	1,145.99	981.29	965.94	15.35	63.924	
3,600.00	3,548.07	3,558.32	3,544.35	14.29	9.40	-14.06	741.81	1,155.57	957.38	941.51	15.87	60.321	
3,700.00	3,644.59	3,666.35	3,651.74	14.80	9.78	-13.75	732.66	1,162.86	932.32	915.94	16.39	56.894	
3,800.00	3,741.12	3,767.88	3,752.89	15.32	10.12	-13.60	725.07	1,167.18	905.89	888.99	16.89	53.625	
3,900.00	3,837.65	3,842.86	3,827.68	15.84	10.37	-13.54	720.97	1,170.65	880.90	863.52	17.38	50.681	
4,000.00	3,934.18	3,935.70	3,920.16	16.37	10.69	-13.39	715.63	1,176.79	857.32	839.44	17.89	47.930	
4,100.00	4,030.71	4,042.27	4,026.02	16.90	11.07	-12.98	706.77	1,185.32	833.38	814.97	18.41	45.266	
4,200.00	4,127.24	4,135.98	4,119.06	17.42	11.42	-12.57	698.32	1,192.49	808.82	789.89	18.93	42.733	
4,300.00	4,223.76	4,212.00	4,194.62	17.95	11.69	-12.30	693.19	1,199.09	786.32	766.89	19.43	40.470	
4,400.00	4,320.29	4,297.87	4,280.00	18.49	11.99	-12.06	689.36	1,207.37	765.91	745.97	19.94	38.420	
4,500.00	4,416.82	4,388.96	4,370.59	19.02	12.31	-11.84	686.34	1,216.49	746.49	726.05	20.45	36.512	
4,600.00	4,513.35	4,487.09	4,468.05	19.55	12.66	-11.53	682.63	1,227.24	727.59	706.62	20.97	34.701	
4,700.00	4,609.88	4,606.97	4,586.96	20.09	13.11	-10.90	674.87	1,240.26	707.17	685.66	21.51	32.875	
4,800.00	4,706.40	4,713.86	4,693.10	20.62	13.51	-10.30	666.46	1,249.74	684.42	662.39	22.04	31.059	
4,900.00	4,802.93	4,812.99	4,791.77	21.16	13.87	-9.90	660.19	1,256.83	661.16	638.60	22.56	29.311	
5,000.00	4,899.46	4,915.33	4,893.70	21.70	14.24	-9.49	653.76	1,263.41	637.35	614.28	23.07	27.624	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,016.47	4,994.47	22.24	14.61	-9.09	647.17	1,269.02	612.73	589.15	23.59	25.979	
5,200.00	5,092.52	5,113.32	5,091.04	22.78	14.96	-8.76	641.49	1,273.59	587.79	563.69	24.10	24.389	
5,300.00	5,189.04	5,209.66	5,187.14	23.32	15.31	-8.44	636.25	1,278.09	563.04	538.42	24.62	22.873	
5,400.00	5,285.57	5,305.59	5,282.81	23.86	15.65	-8.09	630.96	1,282.63	538.31	513.18	25.13	21.419	
5,500.00	5,382.10	5,399.85	5,376.80	24.41	15.99	-7.69	625.74	1,287.51	513.98	488.32	25.65	20.035	
5,600.00	5,478.63	5,491.68	5,468.31	24.95	16.33	-7.19	620.53	1,293.08	490.35	464.17	26.18	18.728	
5,700.00	5,575.16	5,588.69	5,564.76	25.49	16.70	-6.34	613.61	1,300.86	467.72	441.02	26.70	17.516	
5,800.00	5,671.69	5,690.25	5,665.71	26.04	17.09	-5.30	605.54	1,308.47	444.38	417.17	27.21	16.331	
5,900.00	5,768.21	5,787.75	5,762.63	26.58	17.46	-4.16	597.31	1,315.31	420.53	392.81	27.73	15.166	
6,000.00	5,864.74	5,883.47	5,857.81	27.13	17.83	-2.97	589.67	1,321.95	397.00	368.75	28.25	14.051	
6,100.00	5,961.27	5,978.93	5,952.76	27.67	18.19	-1.69	582.53	1,328.70	373.97	345.19	28.78	12.994	
6,200.00	6,057.80	6,075.17	6,048.48	28.22	18.56	-0.25	575.50	1,335.78	351.48	322.17	29.31	11.992	
6,300.00	6,154.33	6,171.18	6,143.96	28.76	18.93	1.39	568.49	1,343.06	329.43	299.59	29.84	11.039	
6,400.00	6,250.85	6,270.43	6,242.66	29.31	19.31	3.32	561.25	1,350.53	307.65	277.28	30.37	10.130	
6,500.00	6,347.38	6,371.55	6,343.30	29.86	19.69	5.54	553.81	1,356.93	285.10	254.21	30.89	9.230	
6,600.00	6,443.91	6,471.56	6,442.99	30.41	20.06	7.82	547.31	1,361.53	261.60	230.19	31.42	8.327	
6,700.00	6,540.44	6,570.74	6,542.03	30.95	20.42	9.95	542.86	1,364.40	237.39	205.44	31.94	7.431	
6,803.85	6,640.68	6,671.56	6,642.82	31.52	20.76	11.81	541.09	1,366.03	211.91	179.40	32.51	6.519	
6,900.00	6,733.90	6,765.01	6,736.25	32.03	21.07	13.38	540.61	1,367.19	189.93	156.90	33.03	5.750	
7,000.00	6,831.63	6,862.87	6,834.10	32.53	21.39	15.16	540.08	1,368.43	170.54	136.94	33.60	5.076	
7,100.00	6,930.04	6,961.56	6,932.79	32.98	21.72	17.05	539.57	1,369.64	154.61	120.45	34.16	4.526	
7,200.00	7,029.01	7,061.02	7,032.24	33.40	22.06	18.95	538.97	1,370.83	142.12	107.39	34.73	4.092	
7,300.00	7,128.41	7,162.56	7,133.78	33.78	22.39	20.76	538.26	1,370.99	132.04	96.80	35.23	3.747	
7,400.00	7,228.14	7,263.68	7,234.89	34.12	22.70	22.26	537.47	1,369.64	123.83	88.11	35.72	3.467	
7,500.00	7,328.06	7,363.52	7,334.70	34.43	23.01	23.38	536.50	1,367.70	118.32	82.08	36.24	3.265	
7,560.95	7,389.00	7,423.95	7,395.12	34.59	23.20	90.58	535.83	1,366.73	116.75	80.19	36.56	3.194	
7,600.00	7,428.05	7,462.66	7,433.82	34.70	23.32	90.79	535.40	1,366.25	116.27	79.51	36.76	3.163	
7,700.00	7,528.05	7,562.14	7,533.29	34.97	23.63	91.21	534.56	1,365.46	115.49	78.24	37.25	3.100	
7,800.00	7,628.05	7,661.74	7,632.89	35.24	23.94	91.13	534.73	1,364.94	114.96	77.26	37.70	3.049	
7,900.00	7,728.05	7,761.46	7,732.62	35.51	24.25	91.12	534.76	1,364.83	114.85	76.70	38.16	3.010	
7,958.84	7,786.90	7,820.24	7,791.40	35.67	24.44	91.13	534.74	1,364.81	114.83	76.41	38.42	2.989	
8,000.00	7,828.05	7,861.30	7,832.45	35.79	24.57	91.13	534.74	1,364.82	114.85	76.23	38.61	2.974	
8,100.00	7,928.05	7,960.99	7,932.15	36.06	24.90	91.16	534.68	1,365.03	115.06	75.97	39.08	2.944	
8,200.00	8,028.05	8,061.88	8,033.03	36.34	25.23	91.27	534.45	1,365.12	115.15	75.64	39.51	2.914	
8,300.00	8,128.05	8,162.63	8,133.78	36.62	25.54	91.11	534.78	1,364.34	114.37	74.45	39.92	2.865	
8,400.00	8,228.05	8,261.82	8,232.96	36.90	25.85	90.72	535.57	1,363.57	113.58	73.21	40.37	2.813	
8,471.87	8,299.93	8,333.29	8,304.43	37.10	26.07	90.55	535.92	1,363.46	113.46	72.76	40.70	2.787	
8,500.00	8,328.05	8,361.27	8,332.40	37.18	26.16	90.51	535.99	1,363.47	113.48	72.64	40.83	2.779	
8,600.00	8,428.05	8,461.22	8,432.36	37.46	26.49	90.47	536.07	1,363.58	113.58	72.29	41.29	2.751	
8,700.00	8,528.05	8,558.93	8,530.06	37.75	26.82	90.65	535.69	1,364.84	114.87	73.02	41.85	2.745	
8,800.00	8,628.05	8,660.74	8,631.85	38.03	27.17	90.88	535.22	1,366.21	116.22	73.96	42.27	2.750	
8,900.00	8,728.05	8,761.74	8,732.86	38.32	27.50	90.82	535.34	1,366.27	116.28	73.60	42.69	2.724	
9,000.00	8,828.05	8,861.53	8,832.65	38.61	27.82	90.89	535.21	1,366.08	116.09	72.93	43.16	2.690	
9,026.54	8,854.59	8,887.98	8,859.09	38.68	27.91	90.98	535.02	1,366.07	116.08	72.79	43.29	2.681	
9,100.00	8,928.05	8,961.25	8,932.36	38.89	28.16	91.42	534.12	1,366.12	116.16	72.49	43.67	2.660	
9,200.00	9,028.05	9,062.21	9,033.31	39.18	28.50	92.19	532.57	1,366.11	116.20	72.06	44.14	2.632	
9,300.00	9,128.05	9,163.78	9,134.86	39.47	28.83	92.45	532.11	1,364.48	114.61	70.06	44.55	2.573	
9,400.00	9,228.05	9,263.71	9,234.77	39.77	29.15	92.68	531.73	1,362.40	112.55	67.53	45.02	2.500	
9,500.00	9,328.05	9,363.48	9,334.52	40.06	29.47	93.33	530.57	1,360.49	110.70	65.17	45.52	2.432	
9,600.00	9,428.05	9,463.45	9,434.47	40.35	29.80	93.87	529.65	1,358.68	108.94	62.93	46.02	2.367	
9,700.00	9,528.05	9,563.45	9,534.43	40.65	30.13	94.82	528.00	1,356.79	107.18	60.65	46.53	2.303	
9,800.00	9,628.05	9,663.83	9,634.77	40.95	30.46	95.78	526.39	1,354.75	105.31	58.28	47.03	2.239	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.00	9,728.05	9,763.07	9,733.99	41.24	30.78	95.70	526.73	1,352.92	103.44	55.92	47.52	2.177	
10,000.00	9,828.05	9,863.04	9,833.95	41.54	31.09	95.19	527.76	1,351.70	102.12	54.17	47.95	2.130	
10,100.00	9,928.05	9,962.11	9,933.02	41.84	31.41	94.78	528.57	1,350.81	101.17	52.73	48.43	2.089	
10,200.00	10,028.05	10,062.11	10,033.01	42.14	31.73	94.67	528.80	1,350.39	100.72	51.84	48.89	2.060	
10,300.00	10,128.05	10,162.26	10,133.16	42.44	32.06	95.12	528.05	1,349.76	100.16	50.79	49.37	2.029	
10,400.00	10,228.05	10,261.73	10,232.61	42.74	32.40	96.15	526.31	1,349.22	99.79	49.86	49.93	1.999	
10,405.37	10,233.42	10,267.04	10,237.92	42.76	32.42	96.20	526.22	1,349.20	99.79	49.83	49.96	1.997	
10,500.00	10,328.05	10,360.89	10,331.77	43.05	32.75	96.89	524.98	1,349.52	100.24	49.76	50.48	1.986	
10,600.00	10,428.05	10,461.17	10,432.04	43.35	33.09	97.01	524.67	1,350.19	100.95	49.99	50.96	1.981	
10,700.00	10,528.05	10,561.82	10,532.69	43.65	33.42	96.77	525.09	1,350.39	101.09	49.71	51.38	1.967	
10,800.00	10,628.05	10,662.29	10,633.15	43.96	33.75	96.26	526.01	1,350.15	100.75	48.96	51.80	1.945	
10,900.00	10,728.05	10,763.09	10,733.93	44.27	34.07	95.42	527.58	1,349.36	99.81	47.64	52.18	1.913	
11,000.00	10,828.05	10,863.05	10,833.87	44.57	34.39	94.50	529.30	1,347.87	98.18	45.58	52.59	1.867	
11,100.00	10,928.05	10,962.03	10,932.85	44.88	34.71	93.84	530.48	1,347.16	97.38	44.30	53.08	1.835	
11,131.73	10,959.79	10,993.48	10,964.29	44.98	34.82	93.72	530.69	1,347.12	97.33	44.09	53.23	1.828	
11,200.00	11,028.05	11,061.80	11,032.61	45.19	35.04	93.65	530.81	1,347.14	97.34	43.79	53.55	1.818	
11,273.56	11,101.62	11,135.30	11,106.11	45.42	35.29	93.87	530.44	1,347.05	97.27	43.36	53.92	1.804	CC
11,300.00	11,128.05	11,161.64	11,132.45	45.50	35.38	93.96	530.27	1,347.06	97.29	43.24	54.05	1.800	
11,400.00	11,228.05	11,261.13	11,231.93	45.81	35.73	94.34	529.61	1,347.36	97.64	43.07	54.58	1.789	ES
11,500.00	11,328.05	11,360.98	11,331.78	46.12	36.08	94.70	528.93	1,348.07	98.40	43.32	55.08	1.786	
11,600.00	11,428.05	11,460.98	11,431.77	46.43	36.43	95.06	528.25	1,348.79	99.18	43.60	55.58	1.784	
11,700.00	11,528.05	11,559.79	11,530.51	46.74	36.78	96.62	525.44	1,349.57	100.26	44.07	56.19	1.784	SF
11,800.00	11,628.05	11,654.53	11,623.67	47.05	37.14	105.61	508.87	1,350.69	104.92	47.66	57.26	1.832	
11,900.00	11,728.05	11,741.70	11,705.91	47.37	37.51	119.07	480.27	1,352.05	119.76	61.93	57.83	2.071	
12,000.00	11,828.05	11,818.72	11,774.24	47.68	37.85	131.67	444.88	1,353.50	150.33	93.67	56.66	2.653	
12,100.00	11,928.05	11,884.98	11,828.77	48.00	38.16	141.02	407.33	1,354.92	196.45	141.97	54.47	3.606	
12,115.99	11,944.04	11,900.00	11,840.50	48.05	38.23	142.87	397.96	1,355.25	205.14	150.51	54.63	3.755	
12,150.00	11,978.03	11,914.74	11,851.78	48.15	38.30	-26.50	388.47	1,355.59	223.57	170.25	53.31	4.193	
12,200.00	12,027.75	11,950.00	11,877.72	48.28	38.47	-22.14	364.61	1,356.43	250.36	197.70	52.67	4.754	
12,250.00	12,076.83	11,973.00	11,893.83	48.41	38.59	-19.53	348.21	1,356.99	276.03	225.03	50.99	5.413	
12,300.00	12,124.90	12,000.00	11,911.88	48.53	38.73	-17.15	328.15	1,357.67	300.65	250.93	49.72	6.047	
12,350.00	12,171.60	12,030.18	11,930.92	48.63	38.89	-15.06	304.75	1,358.44	323.94	275.22	48.72	6.649	
12,400.00	12,216.56	12,050.00	11,942.74	48.72	38.99	-13.69	288.85	1,358.96	345.96	298.88	47.08	7.349	
12,450.00	12,259.45	12,086.54	11,963.06	48.80	39.19	-12.01	258.50	1,359.94	366.12	319.59	46.53	7.868	
12,500.00	12,299.94	12,106.19	11,973.17	48.87	39.30	-11.04	241.66	1,360.47	384.99	339.94	45.05	8.545	
12,550.00	12,337.72	12,150.00	11,993.61	48.93	39.55	-9.63	202.94	1,361.61	402.00	357.11	44.89	8.956	
12,600.00	12,372.50	12,170.19	12,002.02	48.97	39.66	-8.92	184.59	1,362.10	417.18	373.61	43.58	9.573	
12,650.00	12,404.03	12,200.00	12,013.24	49.00	39.84	-8.10	156.99	1,362.78	430.72	387.92	42.80	10.064	
12,700.00	12,432.05	12,225.43	12,021.67	49.03	39.99	-7.45	133.00	1,363.32	442.42	400.50	41.92	10.554	
12,750.00	12,456.36	12,250.00	12,028.79	49.05	40.14	-6.87	109.50	1,363.81	452.31	411.17	41.13	10.997	
12,800.00	12,476.77	12,280.34	12,036.19	49.06	40.32	-6.26	80.09	1,364.36	460.29	419.68	40.61	11.335	
12,850.00	12,493.12	12,300.00	12,040.15	49.07	40.44	-5.86	60.83	1,364.68	466.51	426.54	39.97	11.672	
12,900.00	12,505.30	12,335.01	12,045.56	49.09	40.66	-5.25	26.25	1,365.19	470.60	430.88	39.72	11.847	
12,950.00	12,513.20	12,362.28	12,048.30	49.11	40.83	-4.80	-0.88	1,365.54	472.90	433.44	39.46	11.985	
13,000.00	12,516.77	12,400.00	12,049.97	49.13	41.06	-4.21	-38.55	1,365.94	473.48	434.12	39.36	12.030	
13,015.99	12,517.00	12,400.00	12,049.97	49.14	41.06	-4.21	-38.55	1,365.94	472.99	433.68	39.30	12.034	
13,100.00	12,517.00	12,474.95	12,050.00	49.21	41.55	-3.19	-113.50	1,366.59	472.23	432.91	39.32	12.010	
13,200.00	12,517.00	12,574.60	12,050.00	49.32	42.23	-2.18	-213.14	1,367.47	471.84	432.41	39.43	11.966	
13,300.00	12,517.00	12,674.47	12,050.00	49.47	42.97	-1.59	-313.01	1,368.34	471.67	432.04	39.63	11.902	
13,387.80	12,517.00	12,762.26	12,050.00	49.62	43.67	-1.41	-400.79	1,369.11	471.64	431.76	39.88	11.828	
13,400.00	12,517.00	12,774.45	12,050.00	49.64	43.77	-1.41	-412.99	1,369.22	471.64	431.72	39.91	11.816	
13,500.00	12,517.00	12,874.45	12,050.00	49.86	44.60	-1.40	-512.99	1,370.09	471.63	431.39	40.24	11.720	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	12,517.00	12,974.45	12,050.00	50.14	45.48	-1.39	-612.98	1,370.97	471.63	431.03	40.60	11.616	
13,700.00	12,517.00	13,074.45	12,050.00	50.48	46.41	-1.37	-712.98	1,371.85	471.63	430.64	40.99	11.507	
13,800.00	12,517.00	13,174.45	12,050.00	50.88	47.37	-1.36	-812.98	1,372.72	471.63	430.23	41.40	11.393	
13,900.00	12,517.00	13,274.45	12,050.00	51.34	48.37	-1.35	-912.97	1,373.60	471.62	429.79	41.83	11.274	
14,000.00	12,517.00	13,374.45	12,050.00	51.86	49.41	-1.33	-1,012.97	1,374.47	471.62	429.33	42.29	11.151	
14,100.00	12,517.00	13,474.45	12,050.00	52.43	50.48	-1.32	-1,112.97	1,375.35	471.62	428.84	42.78	11.025	
14,200.00	12,517.00	13,574.45	12,050.00	53.06	51.57	-1.31	-1,212.96	1,376.23	471.62	428.33	43.28	10.896	
14,300.00	12,517.00	13,674.45	12,050.00	53.74	52.70	-1.29	-1,312.96	1,377.10	471.61	427.80	43.81	10.765	
14,400.00	12,517.00	13,774.45	12,050.00	54.46	53.86	-1.28	-1,412.95	1,377.98	471.61	427.25	44.36	10.631	
14,500.00	12,517.00	13,874.45	12,050.00	55.23	55.04	-1.27	-1,512.95	1,378.85	471.61	426.68	44.93	10.496	
14,600.00	12,517.00	13,974.45	12,050.00	56.04	56.24	-1.25	-1,612.95	1,379.73	471.61	426.08	45.52	10.360	
14,700.00	12,517.00	14,074.45	12,050.00	56.89	57.46	-1.24	-1,712.94	1,380.61	471.61	425.47	46.13	10.223	
14,800.00	12,517.00	14,174.45	12,050.00	57.77	58.71	-1.23	-1,812.94	1,381.48	471.60	424.84	46.76	10.085	
14,900.00	12,517.00	14,274.45	12,050.00	58.69	59.98	-1.21	-1,912.93	1,382.36	471.60	424.19	47.41	9.948	
15,000.00	12,517.00	14,374.45	12,050.00	59.64	61.26	-1.20	-2,012.93	1,383.23	471.60	423.53	48.07	9.811	
15,100.00	12,517.00	14,474.45	12,050.00	60.63	62.56	-1.19	-2,112.93	1,384.11	471.60	422.85	48.75	9.674	
15,200.00	12,517.00	14,574.45	12,050.00	61.64	63.88	-1.18	-2,212.92	1,384.99	471.59	422.15	49.44	9.538	
15,300.00	12,517.00	14,674.45	12,050.00	62.68	65.21	-1.16	-2,312.92	1,385.86	471.59	421.44	50.15	9.404	
15,400.00	12,517.00	14,774.45	12,050.00	63.75	66.56	-1.15	-2,412.91	1,386.74	471.59	420.72	50.87	9.270	
15,500.00	12,517.00	14,874.45	12,050.00	64.84	67.92	-1.14	-2,512.91	1,387.62	471.59	419.98	51.61	9.138	
15,600.00	12,517.00	14,974.45	12,050.00	65.96	69.29	-1.12	-2,612.91	1,388.49	471.59	419.23	52.36	9.007	
15,700.00	12,517.00	15,074.45	12,050.00	67.10	70.68	-1.11	-2,712.90	1,389.37	471.58	418.46	53.12	8.877	
15,800.00	12,517.00	15,174.45	12,050.00	68.26	72.07	-1.10	-2,812.90	1,390.24	471.58	417.69	53.90	8.750	
15,900.00	12,517.00	15,274.45	12,050.00	69.44	73.48	-1.08	-2,912.89	1,391.12	471.58	416.90	54.68	8.624	
16,000.00	12,517.00	15,374.45	12,050.00	70.64	74.90	-1.07	-3,012.89	1,392.00	471.58	416.10	55.48	8.500	
16,100.00	12,517.00	15,474.45	12,050.00	71.85	76.32	-1.06	-3,112.89	1,392.87	471.58	415.29	56.29	8.378	
16,200.00	12,517.00	15,574.45	12,050.00	73.09	77.76	-1.04	-3,212.88	1,393.75	471.57	414.47	57.10	8.258	
16,300.00	12,517.00	15,674.45	12,050.00	74.34	79.20	-1.03	-3,312.88	1,394.62	471.57	413.64	57.93	8.140	
16,400.00	12,517.00	15,774.45	12,050.00	75.60	80.65	-1.02	-3,412.88	1,395.50	471.57	412.80	58.77	8.024	
16,500.00	12,517.00	15,874.45	12,050.00	76.88	82.11	-1.01	-3,512.87	1,396.38	471.57	411.96	59.61	7.911	
16,600.00	12,517.00	15,974.45	12,050.00	78.18	83.58	-0.99	-3,612.87	1,397.25	471.57	411.10	60.47	7.799	
16,700.00	12,517.00	16,074.45	12,050.00	79.49	85.05	-0.98	-3,712.86	1,398.13	471.56	410.24	61.33	7.689	
16,800.00	12,517.00	16,174.45	12,050.00	80.81	86.53	-0.97	-3,812.86	1,399.00	471.56	409.37	62.20	7.582	
16,900.00	12,517.00	16,274.45	12,050.00	82.14	88.02	-0.95	-3,912.86	1,399.88	471.56	408.49	63.08	7.476	
17,000.00	12,517.00	16,374.45	12,050.00	83.48	89.51	-0.94	-4,012.85	1,400.76	471.56	407.60	63.96	7.373	
17,100.00	12,517.00	16,474.45	12,050.00	84.84	91.01	-0.93	-4,112.85	1,401.63	471.56	406.71	64.85	7.272	
17,200.00	12,517.00	16,574.45	12,050.00	86.20	92.51	-0.91	-4,212.84	1,402.51	471.56	405.81	65.75	7.172	
17,300.00	12,517.00	16,674.45	12,050.00	87.58	94.02	-0.90	-4,312.84	1,403.38	471.55	404.90	66.65	7.075	
17,400.00	12,517.00	16,774.45	12,050.00	88.96	95.53	-0.89	-4,412.84	1,404.26	471.55	403.99	67.56	6.980	
17,500.00	12,517.00	16,874.45	12,050.00	90.35	97.04	-0.87	-4,512.83	1,405.14	471.55	403.07	68.48	6.886	
17,600.00	12,517.00	16,974.45	12,050.00	91.75	98.56	-0.86	-4,612.83	1,406.01	471.55	402.15	69.40	6.795	
17,700.00	12,517.00	17,074.45	12,050.00	93.16	100.09	-0.85	-4,712.82	1,406.89	471.55	401.22	70.33	6.705	
17,800.00	12,517.00	17,174.45	12,050.00	94.58	101.62	-0.83	-4,812.82	1,407.77	471.55	400.29	71.26	6.617	
17,900.00	12,517.00	17,274.45	12,050.00	96.01	103.15	-0.82	-4,912.82	1,408.64	471.54	399.35	72.20	6.531	
18,000.00	12,517.00	17,374.45	12,050.00	97.44	104.69	-0.81	-5,012.81	1,409.52	471.54	398.41	73.14	6.447	
18,100.00	12,517.00	17,474.45	12,050.00	98.88	106.23	-0.80	-5,112.81	1,410.39	471.54	397.46	74.08	6.365	
18,200.00	12,517.00	17,574.45	12,050.00	100.32	107.77	-0.78	-5,212.81	1,411.27	471.54	396.50	75.04	6.284	
18,300.00	12,517.00	17,674.45	12,050.00	101.78	109.32	-0.77	-5,312.80	1,412.15	471.54	395.55	75.99	6.205	
18,400.00	12,517.00	17,774.45	12,050.00	103.23	110.86	-0.76	-5,412.80	1,413.02	471.54	394.59	76.95	6.128	
18,500.00	12,517.00	17,874.45	12,050.00	104.70	112.42	-0.74	-5,512.79	1,413.90	471.54	393.62	77.91	6.052	
18,600.00	12,517.00	17,974.45	12,050.00	106.17	113.97	-0.73	-5,612.79	1,414.77	471.54	392.65	78.88	5.978	
18,700.00	12,517.00	18,074.45	12,050.00	107.64	115.53	-0.72	-5,712.79	1,415.65	471.53	391.68	79.85	5.905	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-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
18,800.00	12,517.00	18,174.45	12,050.00	109.12	117.09	-0.70	-5,812.78	1,416.53	471.53	390.71	80.83	5.834	
18,900.00	12,517.00	18,274.45	12,050.00	110.60	118.65	-0.69	-5,912.78	1,417.40	471.53	389.73	81.80	5.764	
19,000.00	12,517.00	18,374.45	12,050.00	112.09	120.22	-0.68	-6,012.77	1,418.28	471.53	388.74	82.79	5.696	
19,100.00	12,517.00	18,474.45	12,050.00	113.59	121.78	-0.66	-6,112.77	1,419.15	471.53	387.76	83.77	5.629	
19,200.00	12,517.00	18,574.45	12,050.00	115.08	123.35	-0.65	-6,212.77	1,420.03	471.53	386.77	84.76	5.563	
19,300.00	12,517.00	18,674.45	12,050.00	116.59	124.92	-0.64	-6,312.76	1,420.91	471.53	385.78	85.75	5.499	
19,400.00	12,517.00	18,774.45	12,050.00	118.09	126.50	-0.63	-6,412.76	1,421.78	471.53	384.78	86.74	5.436	
19,500.00	12,517.00	18,874.45	12,050.00	119.60	128.07	-0.61	-6,512.75	1,422.66	471.52	383.79	87.74	5.374	
19,600.00	12,517.00	18,974.45	12,050.00	121.11	129.65	-0.60	-6,612.75	1,423.53	471.52	382.79	88.74	5.314	
19,700.00	12,517.00	19,074.45	12,050.00	122.63	131.23	-0.59	-6,712.75	1,424.41	471.52	381.78	89.74	5.254	
19,800.00	12,517.00	19,174.45	12,050.00	124.15	132.81	-0.57	-6,812.74	1,425.29	471.52	380.78	90.74	5.196	
19,900.00	12,517.00	19,274.45	12,050.00	125.67	134.39	-0.56	-6,912.74	1,426.16	471.52	379.77	91.75	5.139	
20,000.00	12,517.00	19,374.45	12,050.00	127.20	135.98	-0.55	-7,012.74	1,427.04	471.52	378.76	92.76	5.083	
20,100.00	12,517.00	19,474.45	12,050.00	128.73	137.56	-0.53	-7,112.73	1,427.92	471.52	377.75	93.77	5.029	
20,200.00	12,517.00	19,574.45	12,050.00	130.26	139.15	-0.52	-7,212.73	1,428.79	471.52	376.74	94.78	4.975	
20,300.00	12,517.00	19,674.45	12,050.00	131.80	140.74	-0.51	-7,312.72	1,429.67	471.52	375.72	95.79	4.922	
20,400.00	12,517.00	19,774.45	12,050.00	133.34	142.33	-0.49	-7,412.72	1,430.54	471.52	374.70	96.81	4.870	
20,500.00	12,517.00	19,874.45	12,050.00	134.88	143.92	-0.48	-7,512.72	1,431.42	471.51	373.68	97.83	4.820	
20,600.00	12,517.00	19,974.45	12,050.00	136.42	145.51	-0.47	-7,612.71	1,432.30	471.51	372.66	98.85	4.770	
20,700.00	12,517.00	20,074.45	12,050.00	137.97	147.11	-0.45	-7,712.71	1,433.17	471.51	371.64	99.87	4.721	
20,800.00	12,517.00	20,174.45	12,050.00	139.52	148.70	-0.44	-7,812.70	1,434.05	471.51	370.61	100.90	4.673	
20,900.00	12,517.00	20,274.45	12,050.00	141.07	150.30	-0.43	-7,912.70	1,434.92	471.51	369.59	101.93	4.626	
21,000.00	12,517.00	20,374.45	12,050.00	142.62	151.90	-0.42	-8,012.70	1,435.80	471.51	368.56	102.95	4.580	
21,100.00	12,517.00	20,474.45	12,050.00	144.18	153.50	-0.40	-8,112.69	1,436.68	471.51	367.53	103.98	4.534	
21,200.00	12,517.00	20,574.45	12,050.00	145.73	155.10	-0.39	-8,212.69	1,437.55	471.51	366.49	105.02	4.490	
21,300.00	12,517.00	20,674.45	12,050.00	147.29	156.70	-0.38	-8,312.68	1,438.43	471.51	365.46	106.05	4.446	
21,400.00	12,517.00	20,774.45	12,050.00	148.85	158.30	-0.36	-8,412.68	1,439.30	471.51	364.42	107.08	4.403	
21,500.00	12,517.00	20,874.45	12,050.00	150.42	159.90	-0.35	-8,512.68	1,440.18	471.51	363.39	108.12	4.361	
21,600.00	12,517.00	20,974.45	12,050.00	151.98	161.51	-0.34	-8,612.67	1,441.06	471.51	362.35	109.16	4.319	
21,700.00	12,517.00	21,074.45	12,050.00	153.55	163.11	-0.32	-8,712.67	1,441.93	471.51	361.31	110.20	4.279	
21,800.00	12,517.00	21,174.45	12,050.00	155.12	164.72	-0.31	-8,812.67	1,442.81	471.51	360.27	111.24	4.239	
21,900.00	12,517.00	21,274.45	12,050.00	156.69	166.32	-0.30	-8,912.66	1,443.68	471.51	359.23	112.28	4.199	
22,000.00	12,517.00	21,374.45	12,050.00	158.26	167.93	-0.28	-9,012.66	1,444.56	471.50	358.18	113.32	4.161	
22,100.00	12,517.00	21,474.45	12,050.00	159.84	169.54	-0.27	-9,112.65	1,445.44	471.50	357.14	114.36	4.123	
22,200.00	12,517.00	21,574.45	12,050.00	161.41	171.15	-0.26	-9,212.65	1,446.31	471.50	356.09	115.41	4.085	
22,300.00	12,517.00	21,674.45	12,050.00	162.99	172.76	-0.25	-9,312.65	1,447.19	471.50	355.05	116.46	4.049	
22,400.00	12,517.00	21,774.45	12,050.00	164.57	174.37	-0.23	-9,412.64	1,448.07	471.50	354.00	117.50	4.013	
22,500.00	12,517.00	21,874.45	12,050.00	166.14	175.98	-0.22	-9,512.64	1,448.94	471.50	352.95	118.55	3.977	
22,600.00	12,517.00	21,974.45	12,050.00	167.73	177.60	-0.21	-9,612.63	1,449.82	471.50	351.90	119.60	3.942	
22,700.00	12,517.00	22,074.45	12,050.00	169.31	179.21	-0.19	-9,712.63	1,450.69	471.50	350.85	120.65	3.908	
22,800.00	12,517.00	22,174.45	12,050.00	170.89	180.82	-0.18	-9,812.63	1,451.57	471.50	349.80	121.71	3.874	
22,900.00	12,517.00	22,274.45	12,050.00	172.48	182.44	-0.17	-9,912.62	1,452.45	471.50	348.74	122.76	3.841	
23,000.00	12,517.00	22,374.45	12,050.00	174.06	184.05	-0.15	-10,012.62	1,453.32	471.50	347.69	123.81	3.808	
23,100.00	12,517.00	22,474.45	12,050.00	175.65	185.67	-0.14	-10,112.61	1,454.20	471.50	346.63	124.87	3.776	
23,200.00	12,517.00	22,574.45	12,050.00	177.24	187.28	-0.13	-10,212.61	1,455.07	471.50	345.58	125.92	3.744	
23,300.00	12,517.00	22,674.45	12,050.00	178.83	188.90	-0.11	-10,312.61	1,455.95	471.50	344.52	126.98	3.713	
23,400.00	12,517.00	22,774.45	12,050.00	180.42	190.52	-0.10	-10,412.60	1,456.83	471.50	343.46	128.04	3.682	
23,500.00	12,517.00	22,874.45	12,050.00	182.01	192.14	-0.09	-10,512.60	1,457.70	471.50	342.40	129.10	3.652	
23,600.00	12,517.00	22,974.45	12,050.00	183.60	193.75	-0.07	-10,612.60	1,458.58	471.50	341.34	130.16	3.623	
23,700.00	12,517.00	23,074.45	12,050.00	185.20	195.37	-0.06	-10,712.59	1,459.45	471.50	340.28	131.22	3.593	
23,800.00	12,517.00	23,174.45	12,050.00	186.79	196.99	-0.05	-10,812.59	1,460.33	471.50	339.22	132.28	3.564	
23,900.00	12,517.00	23,274.45	12,050.00	188.39	198.61	-0.04	-10,912.58	1,461.21	471.50	338.16	133.34	3.536	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Bus Driver/Kaston Fed Com - Kaston Fed Com 703H - OH - Plan #9

Offset Site Error: 0.00 usft

Survey Program: 112-OWSG (Rev2) MWD, 1409-OWSG (Rev2) MWD, 11286-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
23,935.24	12,517.00	23,309.68	12,050.00	188.95	199.18	-0.03	-10,947.82	1,461.51	471.50	337.79	133.71	3.526	
24,000.00	12,517.00	23,374.45	12,050.00	189.99	200.23	-0.02	-11,012.58	1,462.08	471.50	337.10	134.40	3.508	
24,100.00	12,517.00	23,474.45	12,050.00	191.58	201.72	-0.01	-11,112.58	1,462.96	471.50	336.20	135.30	3.485	
24,130.17	12,517.00	23,504.61	12,050.00	192.05	202.16	-0.01	-11,142.74	1,463.22	471.50	336.00	135.50	3.480	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 601H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	17.00	17.00	0.00	0.02	-46.24	816.99	-853.10	1,181.20				
100.00	100.00	117.00	117.00	0.13	0.19	-46.24	816.99	-853.10	1,181.20	1,180.98	0.22	5,256.892	
200.00	200.00	217.00	217.00	0.48	0.54	-46.24	816.99	-853.10	1,181.20	1,180.48	0.73	1,620.850	
300.00	300.00	317.00	317.00	0.84	0.90	-46.24	816.99	-853.10	1,181.20	1,179.97	1.24	956.295	
400.00	400.00	417.00	417.00	1.20	1.26	-46.24	816.99	-853.10	1,181.20	1,179.46	1.74	678.103	
500.00	500.00	517.00	517.00	1.56	1.62	-46.24	816.99	-853.10	1,181.20	1,178.96	2.25	525.269	
600.00	600.00	617.00	617.00	1.92	1.98	-46.24	816.99	-853.10	1,181.20	1,178.45	2.76	428.650	
700.00	700.00	717.00	717.00	2.28	2.34	-46.24	816.99	-853.10	1,181.20	1,177.94	3.26	362.050	
800.00	800.00	817.00	817.00	2.63	2.70	-46.24	816.99	-853.10	1,181.20	1,177.44	3.77	313.362	
900.00	900.00	917.00	917.00	2.99	3.05	-46.24	816.99	-853.10	1,181.20	1,176.93	4.28	276.216	
1,000.00	1,000.00	1,017.00	1,017.00	3.35	3.41	-46.24	816.99	-853.10	1,181.20	1,176.42	4.78	246.943	
1,100.00	1,100.00	1,117.00	1,117.00	3.71	3.77	-46.24	816.99	-853.10	1,181.20	1,175.91	5.29	223.279	
1,200.00	1,200.00	1,217.00	1,217.00	4.07	4.13	-46.24	816.99	-853.10	1,181.20	1,175.41	5.80	203.755	
1,300.00	1,300.00	1,317.00	1,317.00	4.43	4.49	-46.24	816.99	-853.10	1,181.20	1,174.90	6.30	187.370	
1,400.00	1,400.00	1,417.00	1,417.00	4.79	4.85	-46.24	816.99	-853.10	1,181.20	1,174.39	6.81	173.424	
1,500.00	1,500.00	1,517.00	1,517.00	5.14	5.21	-46.24	816.99	-853.10	1,181.20	1,173.89	7.32	161.410	
1,600.00	1,600.00	1,617.00	1,617.00	5.50	5.56	-46.24	816.99	-853.10	1,181.20	1,173.38	7.82	150.953	CC, ES
1,700.00	1,699.98	1,716.98	1,716.98	5.86	5.92	-113.06	816.99	-853.10	1,181.89	1,173.56	8.33	141.915	
1,800.00	1,799.84	1,816.84	1,816.84	6.21	6.28	-113.25	816.99	-853.10	1,183.95	1,175.12	8.83	134.110	
1,900.00	1,899.45	1,916.45	1,916.45	6.56	6.64	-113.57	816.99	-853.10	1,187.42	1,178.09	9.33	127.273	
2,000.00	1,998.70	2,015.70	2,015.70	6.92	6.99	-114.01	816.99	-853.10	1,192.37	1,182.54	9.83	121.256	
2,100.00	2,097.47	2,114.47	2,114.47	7.29	7.35	-114.57	816.99	-853.10	1,198.87	1,188.53	10.34	115.933	
2,200.00	2,195.62	2,212.62	2,212.62	7.67	7.70	-115.24	816.99	-853.10	1,207.03	1,196.18	10.85	111.207	
2,300.00	2,293.06	2,310.06	2,310.06	8.07	8.05	-115.99	816.99	-853.10	1,216.97	1,205.59	11.37	106.996	
2,357.10	2,348.32	2,365.32	2,365.32	8.31	8.25	-116.47	816.99	-853.10	1,223.48	1,211.81	11.67	104.797	
2,400.00	2,389.73	2,406.73	2,406.73	8.49	8.39	-116.92	816.99	-853.10	1,228.66	1,216.76	11.90	103.228	
2,500.00	2,486.26	2,503.26	2,503.26	8.92	8.74	-117.97	816.99	-853.10	1,241.04	1,228.60	12.44	99.781	
2,600.00	2,582.78	2,599.78	2,599.78	9.37	9.09	-118.99	816.99	-853.10	1,253.83	1,240.86	12.98	96.608	
2,700.00	2,679.31	2,696.31	2,696.31	9.83	9.43	-120.00	816.99	-853.10	1,267.04	1,253.52	13.52	93.687	
2,800.00	2,775.84	2,792.84	2,792.84	10.30	9.78	-120.99	816.99	-853.10	1,280.65	1,266.57	14.07	90.999	
2,900.00	2,872.37	2,889.37	2,889.37	10.78	10.12	-121.95	816.99	-853.10	1,294.63	1,280.01	14.62	88.524	
3,000.00	2,968.90	2,985.90	2,985.90	11.27	10.47	-122.90	816.99	-853.10	1,309.00	1,293.82	15.18	86.241	
3,100.00	3,065.43	3,082.43	3,082.43	11.76	10.82	-123.83	816.99	-853.10	1,323.72	1,307.98	15.73	84.136	
3,200.00	3,161.95	3,178.95	3,178.95	12.25	11.16	-124.73	816.99	-853.10	1,338.78	1,322.49	16.29	82.191	
3,300.00	3,258.48	3,275.48	3,275.48	12.76	11.51	-125.62	816.99	-853.10	1,354.19	1,337.34	16.84	80.393	
3,400.00	3,355.01	3,372.01	3,372.01	13.26	11.85	-126.49	816.99	-853.10	1,369.92	1,352.52	17.40	78.728	
3,500.00	3,451.54	3,468.54	3,468.54	13.77	12.20	-127.34	816.99	-853.10	1,385.96	1,368.00	17.96	77.185	
3,600.00	3,548.07	3,565.07	3,565.07	14.29	12.55	-128.17	816.99	-853.10	1,402.31	1,383.79	18.51	75.753	
3,700.00	3,644.59	3,661.59	3,661.59	14.80	12.89	-128.98	816.99	-853.10	1,418.94	1,399.88	19.07	74.422	
3,800.00	3,741.12	3,759.08	3,759.08	15.32	13.24	-129.79	816.80	-853.17	1,435.85	1,416.23	19.62	73.191	
3,900.00	3,837.65	3,857.30	3,857.27	15.84	13.56	-130.67	814.70	-854.03	1,452.93	1,432.78	20.15	72.089	
4,000.00	3,934.18	3,954.37	3,954.23	16.37	13.88	-131.61	810.33	-855.82	1,470.26	1,449.58	20.68	71.094	
4,100.00	4,030.71	4,050.19	4,049.78	16.90	14.19	-132.61	803.79	-858.49	1,487.93	1,466.73	21.20	70.188	
4,200.00	4,127.24	4,144.75	4,143.98	17.42	14.50	-133.63	796.16	-861.61	1,506.06	1,484.34	21.71	69.363	
4,300.00	4,223.76	4,239.29	4,238.16	17.95	14.81	-134.62	788.54	-864.72	1,524.66	1,502.44	22.23	68.600	
4,400.00	4,320.29	4,333.83	4,332.34	18.49	15.13	-135.59	780.92	-867.83	1,543.74	1,521.00	22.74	67.894	
4,500.00	4,416.82	4,428.37	4,426.52	19.02	15.44	-136.53	773.30	-870.95	1,563.26	1,540.01	23.25	67.241	
4,600.00	4,513.35	4,522.91	4,520.70	19.55	15.76	-137.46	765.68	-874.06	1,583.20	1,559.45	23.76	66.636	
4,700.00	4,609.88	4,617.45	4,614.88	20.09	16.09	-138.36	758.06	-877.17	1,603.57	1,579.30	24.27	66.076	
4,800.00	4,706.40	4,711.99	4,709.06	20.62	16.41	-139.24	750.44	-880.29	1,624.33	1,599.55	24.78	65.557	
4,900.00	4,802.93	4,806.53	4,803.24	21.16	16.73	-140.10	742.82	-883.40	1,645.48	1,620.19	25.29	65.077	
5,000.00	4,899.46	4,901.07	4,897.42	21.70	17.06	-140.94	735.20	-886.51	1,666.99	1,641.20	25.79	64.631	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 601H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	4,995.61	4,991.60	22.24	17.39	-141.76	727.58	-889.63	1,688.86	1,662.56	26.30	64.218	
5,200.00	5,092.52	5,090.15	5,085.79	22.78	17.72	-142.56	719.96	-892.74	1,711.07	1,684.27	26.80	63.835	
5,300.00	5,189.04	5,184.69	5,179.97	23.32	18.05	-143.34	712.34	-895.85	1,733.61	1,706.30	27.31	63.480	
5,400.00	5,285.57	5,279.23	5,274.15	23.86	18.38	-144.10	704.72	-898.97	1,756.47	1,728.65	27.81	63.151	
5,500.00	5,382.10	5,373.77	5,368.33	24.41	18.72	-144.84	697.10	-902.08	1,779.62	1,751.31	28.32	62.846	
5,600.00	5,478.63	5,468.31	5,462.51	24.95	19.05	-145.57	689.48	-905.20	1,803.07	1,774.25	28.82	62.562	
5,700.00	5,575.16	5,562.85	5,556.69	25.49	19.39	-146.27	681.86	-908.31	1,826.80	1,797.48	29.32	62.299	
5,800.00	5,671.69	5,657.39	5,650.87	26.04	19.72	-146.96	674.24	-911.42	1,850.80	1,820.98	29.83	62.055	
5,900.00	5,768.21	5,751.93	5,745.05	26.58	20.06	-147.63	666.62	-914.54	1,875.06	1,844.74	30.33	61.828	
6,000.00	5,864.74	5,846.47	5,839.23	27.13	20.40	-148.29	659.00	-917.65	1,899.57	1,868.74	30.83	61.617	
6,100.00	5,961.27	5,941.01	5,933.41	27.67	20.74	-148.93	651.38	-920.76	1,924.32	1,892.99	31.33	61.421	
6,200.00	6,057.80	6,035.55	6,027.60	28.22	21.08	-149.55	643.76	-923.88	1,949.30	1,917.47	31.83	61.239	
6,300.00	6,154.33	6,130.09	6,121.78	28.76	21.42	-150.16	636.13	-926.99	1,974.50	1,942.17	32.33	61.070	
6,400.00	6,250.85	6,224.63	6,215.96	29.31	21.76	-150.76	628.51	-930.10	1,999.92	1,967.08	32.83	60.913	
6,500.00	6,347.38	6,319.17	6,310.14	29.86	22.11	-151.34	620.89	-933.22	2,025.54	1,992.20	33.33	60.767	
6,600.00	6,443.91	6,413.71	6,404.32	30.41	22.45	-151.90	613.27	-936.33	2,051.35	2,017.52	33.83	60.631	
6,700.00	6,540.44	6,508.25	6,498.50	30.95	22.80	-152.46	605.65	-939.44	2,077.36	2,043.03	34.33	60.504	
6,803.85	6,640.68	6,606.43	6,596.31	31.52	23.15	-153.02	597.74	-942.68	2,104.57	2,069.71	34.85	60.382	
6,900.00	6,733.90	6,697.83	6,687.36	32.03	23.49	-153.73	590.37	-945.69	2,128.53	2,093.19	35.33	60.241	
7,000.00	6,831.63	6,793.87	6,783.04	32.53	23.84	-154.38	582.63	-948.85	2,150.60	2,114.78	35.83	60.025	
7,100.00	6,930.04	6,890.80	6,879.60	32.98	24.20	-154.96	574.82	-952.04	2,169.73	2,133.41	36.32	59.740	
7,200.00	7,029.01	6,988.51	6,976.94	33.40	24.55	-155.46	566.94	-955.26	2,185.83	2,149.03	36.81	59.387	
7,300.00	7,128.41	7,086.87	7,074.92	33.78	24.92	-155.90	559.01	-958.50	2,198.88	2,161.59	37.29	58.968	
7,400.00	7,228.14	7,185.75	7,173.43	34.12	25.28	-156.27	551.04	-961.76	2,208.83	2,171.06	37.77	58.487	
7,500.00	7,328.06	7,285.05	7,272.36	34.43	25.65	-156.57	543.04	-965.03	2,215.63	2,177.40	38.24	57.944	
7,560.95	7,389.00	7,345.73	7,332.80	34.59	25.87	-89.97	538.15	-967.03	2,218.23	2,179.71	38.52	57.585	
7,600.00	7,428.05	7,384.63	7,371.55	34.70	26.02	-90.05	535.01	-968.31	2,219.53	2,180.82	38.70	57.351	
7,700.00	7,528.05	7,492.44	7,478.97	34.97	26.41	-90.27	526.48	-971.79	2,222.80	2,183.60	39.20	56.709	
7,800.00	7,628.05	7,621.08	7,607.36	35.24	26.88	-90.46	519.26	-974.75	2,225.14	2,185.36	39.77	55.947	
7,900.00	7,728.05	7,750.10	7,736.33	35.51	27.33	-90.54	516.03	-976.06	2,226.18	2,185.83	40.35	55.178	
8,000.00	7,828.05	7,858.82	7,845.05	35.79	27.71	-90.54	515.85	-976.14	2,226.24	2,185.40	40.84	54.509	
8,100.00	7,928.05	7,958.82	7,945.05	36.06	28.05	-90.54	515.85	-976.14	2,226.24	2,184.93	41.31	53.894	
8,200.00	8,028.05	8,058.82	8,045.05	36.34	28.39	-90.54	515.85	-976.14	2,226.24	2,184.46	41.77	53.292	
8,300.00	8,128.05	8,158.82	8,145.05	36.62	28.73	-90.54	515.85	-976.14	2,226.24	2,184.00	42.24	52.702	
8,400.00	8,228.05	8,258.82	8,245.05	36.90	29.08	-90.54	515.85	-976.14	2,226.24	2,183.53	42.71	52.124	
8,500.00	8,328.05	8,358.82	8,345.05	37.18	29.42	-90.54	515.85	-976.14	2,226.24	2,183.06	43.18	51.558	
8,600.00	8,428.05	8,458.82	8,445.05	37.46	29.76	-90.54	515.85	-976.14	2,226.24	2,182.59	43.65	51.003	
8,700.00	8,528.05	8,558.82	8,545.05	37.75	30.11	-90.54	515.85	-976.14	2,226.24	2,182.12	44.12	50.458	
8,800.00	8,628.05	8,658.82	8,645.05	38.03	30.45	-90.54	515.85	-976.14	2,226.24	2,181.65	44.59	49.924	
8,900.00	8,728.05	8,758.82	8,745.05	38.32	30.80	-90.54	515.85	-976.14	2,226.24	2,181.17	45.06	49.401	
9,000.00	8,828.05	8,858.82	8,845.05	38.61	31.14	-90.54	515.85	-976.14	2,226.24	2,180.70	45.54	48.888	
9,100.00	8,928.05	8,958.82	8,945.05	38.89	31.49	-90.54	515.85	-976.14	2,226.24	2,180.23	46.01	48.384	
9,200.00	9,028.05	9,058.82	9,045.05	39.18	31.83	-90.54	515.85	-976.14	2,226.24	2,179.75	46.49	47.890	
9,300.00	9,128.05	9,158.82	9,145.05	39.47	32.18	-90.54	515.85	-976.14	2,226.24	2,179.28	46.96	47.405	
9,400.00	9,228.05	9,258.82	9,245.05	39.77	32.52	-90.54	515.85	-976.14	2,226.24	2,178.80	47.44	46.930	
9,500.00	9,328.05	9,358.82	9,345.05	40.06	32.87	-90.54	515.85	-976.14	2,226.24	2,178.32	47.91	46.463	
9,600.00	9,428.05	9,458.82	9,445.05	40.35	33.22	-90.54	515.85	-976.14	2,226.24	2,177.85	48.39	46.005	
9,700.00	9,528.05	9,558.82	9,545.05	40.65	33.56	-90.54	515.85	-976.14	2,226.24	2,177.37	48.87	45.555	
9,800.00	9,628.05	9,658.82	9,645.05	40.95	33.91	-90.54	515.85	-976.14	2,226.24	2,176.89	49.35	45.113	
9,900.00	9,728.05	9,758.82	9,745.05	41.24	34.26	-90.54	515.85	-976.14	2,226.24	2,176.41	49.83	44.680	
10,000.00	9,828.05	9,858.82	9,845.05	41.54	34.60	-90.54	515.85	-976.14	2,226.24	2,175.93	50.31	44.254	
10,100.00	9,928.05	9,958.82	9,945.05	41.84	34.95	-90.54	515.85	-976.14	2,226.24	2,175.45	50.79	43.835	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 601H - OH - Plan #5

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
10,200.00	10,028.05	10,058.82	10,045.05	42.14	35.30	-90.54	515.85	-976.14	2,226.24	2,174.97	51.27	43.424	
10,300.00	10,128.05	10,158.82	10,145.05	42.44	35.65	-90.54	515.85	-976.14	2,226.24	2,174.49	51.75	43.021	
10,400.00	10,228.05	10,258.82	10,245.05	42.74	36.00	-90.54	515.85	-976.14	2,226.24	2,174.01	52.23	42.624	
10,500.00	10,328.05	10,358.82	10,345.05	43.05	36.35	-90.54	515.85	-976.14	2,226.24	2,173.53	52.71	42.234	
10,600.00	10,428.05	10,458.82	10,445.05	43.35	36.69	-90.54	515.85	-976.14	2,226.24	2,173.04	53.19	41.851	
10,700.00	10,528.05	10,558.82	10,545.05	43.65	37.04	-90.54	515.85	-976.14	2,226.24	2,172.56	53.68	41.475	
10,800.00	10,628.05	10,658.82	10,645.05	43.96	37.39	-90.54	515.85	-976.14	2,226.24	2,172.08	54.16	41.104	
10,900.00	10,728.05	10,758.82	10,745.05	44.27	37.74	-90.54	515.85	-976.14	2,226.24	2,171.59	54.64	40.741	
11,000.00	10,828.05	10,858.82	10,845.05	44.57	38.09	-90.54	515.85	-976.14	2,226.24	2,171.11	55.13	40.383	
11,100.00	10,928.05	10,958.82	10,945.05	44.88	38.44	-90.54	515.85	-976.14	2,226.24	2,170.62	55.61	40.031	
11,200.00	11,028.05	11,058.82	11,045.05	45.19	38.79	-90.54	515.85	-976.14	2,226.24	2,170.14	56.10	39.685	
11,300.00	11,128.05	11,158.82	11,145.05	45.50	39.14	-90.54	515.85	-976.14	2,226.24	2,169.65	56.58	39.344	
11,400.00	11,228.05	11,258.82	11,245.05	45.81	39.49	-90.54	515.85	-976.14	2,226.24	2,169.17	57.07	39.009	
11,500.00	11,328.05	11,358.82	11,345.05	46.12	39.84	-90.54	515.85	-976.14	2,226.24	2,168.68	57.56	38.680	
11,505.77	11,333.82	11,364.59	11,350.82	46.14	39.86	-90.54	515.85	-976.14	2,226.24	2,168.65	57.58	38.661	
11,600.00	11,428.05	11,458.49	11,444.64	46.43	40.19	-90.61	513.24	-976.11	2,226.24	2,168.20	58.04	38.358	
11,700.00	11,528.05	11,554.76	11,539.25	46.74	40.54	-91.05	496.07	-975.96	2,226.35	2,167.85	58.50	38.056	
11,800.00	11,628.05	11,643.09	11,622.42	47.05	40.89	-91.81	466.59	-975.71	2,226.94	2,168.01	58.93	37.790	
11,900.00	11,728.05	11,720.85	11,691.15	47.37	41.20	-92.74	430.33	-975.39	2,228.60	2,169.29	59.31	37.576	
12,000.00	11,828.05	11,787.50	11,745.68	47.68	41.48	-93.73	392.09	-975.06	2,231.98	2,172.35	59.63	37.431	
12,100.00	11,928.05	11,850.00	11,792.47	48.00	41.75	-94.79	350.69	-974.70	2,237.69	2,177.78	59.91	37.351	
12,115.99	11,944.04	11,850.00	11,792.47	48.05	41.75	-94.79	350.69	-974.70	2,238.84	2,178.93	59.91	37.368	
12,150.00	11,978.03	11,869.00	11,805.77	48.15	41.83	92.60	337.13	-974.58	2,241.59	2,181.60	59.99	37.367	
12,200.00	12,027.75	11,900.00	11,826.48	48.28	41.97	91.59	314.07	-974.38	2,246.40	2,186.30	60.10	37.379	
12,250.00	12,076.83	11,919.08	11,838.60	48.41	42.06	90.72	299.33	-974.25	2,251.99	2,191.85	60.15	37.441	
12,300.00	12,124.90	11,950.00	11,857.17	48.53	42.20	89.62	274.61	-974.03	2,258.32	2,198.09	60.23	37.492	
12,350.00	12,171.60	11,969.08	11,867.95	48.63	42.29	88.65	258.88	-973.90	2,265.24	2,204.98	60.26	37.589	
12,400.00	12,216.56	12,000.00	11,884.30	48.72	42.43	87.49	232.64	-973.67	2,272.70	2,212.37	60.34	37.668	
12,450.00	12,259.45	12,018.99	11,893.63	48.80	42.52	86.47	216.10	-973.52	2,280.56	2,220.21	60.35	37.789	
12,500.00	12,299.94	12,050.00	11,907.67	48.87	42.68	85.30	188.46	-973.28	2,288.77	2,228.36	60.41	37.886	
12,550.00	12,337.72	12,068.82	11,915.46	48.93	42.77	84.26	171.32	-973.13	2,297.17	2,236.75	60.42	38.019	
12,600.00	12,372.50	12,100.00	11,927.10	48.97	42.92	83.13	142.40	-972.88	2,305.74	2,245.26	60.48	38.121	
12,650.00	12,404.03	12,118.60	11,933.30	49.00	43.02	82.12	124.87	-972.73	2,314.32	2,253.82	60.50	38.255	
12,700.00	12,432.05	12,150.00	11,942.45	49.03	43.18	81.06	94.84	-972.46	2,322.88	2,262.31	60.57	38.351	
12,750.00	12,456.36	12,168.33	11,947.02	49.05	43.27	80.12	77.09	-972.31	2,331.27	2,270.68	60.59	38.473	
12,800.00	12,476.77	12,200.00	11,953.59	49.06	43.44	79.17	46.11	-972.04	2,339.49	2,278.81	60.68	38.553	
12,850.00	12,493.12	12,218.02	11,956.55	49.07	43.53	78.33	28.34	-971.88	2,347.39	2,286.66	60.73	38.653	
12,900.00	12,505.30	12,250.00	11,960.44	49.09	43.70	77.51	-3.40	-971.61	2,354.98	2,294.14	60.84	38.707	
12,950.00	12,513.20	12,267.68	11,961.82	49.11	43.79	76.80	-21.02	-971.45	2,362.11	2,301.20	60.91	38.778	
13,000.00	12,516.77	12,297.58	11,962.92	49.13	43.95	76.14	-50.90	-971.19	2,368.81	2,307.77	61.04	38.806	
13,015.99	12,517.00	12,303.31	11,962.99	49.14	43.98	75.95	-56.63	-971.14	2,370.82	2,309.75	61.07	38.819	
13,100.00	12,517.00	12,386.74	11,963.89	49.21	44.45	76.08	-140.06	-970.41	2,380.06	2,318.61	61.46	38.727	
13,200.00	12,517.00	12,486.38	11,964.97	49.32	45.05	76.19	-239.68	-969.55	2,387.97	2,325.98	61.98	38.525	
13,300.00	12,517.00	12,586.25	11,966.04	49.47	45.70	76.26	-339.54	-968.67	2,392.49	2,329.90	62.59	38.227	
13,387.80	12,517.00	12,674.03	11,966.99	49.62	46.32	76.30	-427.31	-967.91	2,393.66	2,330.49	63.18	37.889	
13,400.00	12,517.00	12,686.23	11,967.13	49.64	46.41	76.30	-439.51	-967.80	2,393.65	2,330.39	63.26	37.839	
13,500.00	12,517.00	12,786.22	11,968.21	49.86	47.16	76.33	-539.49	-966.93	2,393.50	2,329.49	64.01	37.395	
13,600.00	12,517.00	12,886.22	11,969.29	50.14	47.96	76.35	-639.48	-966.06	2,393.35	2,328.53	64.82	36.921	
13,700.00	12,517.00	12,986.21	11,970.37	50.48	48.80	76.38	-739.46	-965.19	2,393.21	2,327.49	65.71	36.420	
13,800.00	12,517.00	13,086.20	11,971.45	50.88	49.68	76.40	-839.45	-964.31	2,393.06	2,326.39	66.67	35.896	
13,900.00	12,517.00	13,186.20	11,972.53	51.34	50.60	76.43	-939.43	-963.44	2,392.91	2,325.23	67.69	35.354	
14,000.00	12,517.00	13,286.19	11,973.61	51.86	51.56	76.46	-1,039.42	-962.57	2,392.77	2,324.00	68.77	34.796	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 601H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	12,517.00	13,386.19	11,974.69	52.43	52.55	76.48	-1,139.40	-961.70	2,392.63	2,322.72	69.90	34.228	
14,200.00	12,517.00	13,486.18	11,975.77	53.06	53.57	76.51	-1,239.39	-960.82	2,392.48	2,321.39	71.09	33.652	
14,300.00	12,517.00	13,586.17	11,976.85	53.74	54.62	76.53	-1,339.37	-959.95	2,392.34	2,320.00	72.34	33.071	
14,400.00	12,517.00	13,686.17	11,977.93	54.46	55.71	76.56	-1,439.35	-959.08	2,392.19	2,318.56	73.64	32.487	
14,500.00	12,517.00	13,786.16	11,979.01	55.23	56.82	76.58	-1,539.34	-958.21	2,392.05	2,317.07	74.98	31.903	
14,600.00	12,517.00	13,886.16	11,980.09	56.04	57.95	76.61	-1,639.32	-957.33	2,391.91	2,315.54	76.37	31.320	
14,700.00	12,517.00	13,986.15	11,981.17	56.89	59.11	76.64	-1,739.31	-956.46	2,391.77	2,313.97	77.80	30.742	
14,800.00	12,517.00	14,086.14	11,982.26	57.77	60.30	76.66	-1,839.29	-955.59	2,391.63	2,312.36	79.27	30.170	
14,900.00	12,517.00	14,186.14	11,983.34	58.69	61.50	76.69	-1,939.28	-954.72	2,391.49	2,310.70	80.78	29.604	
15,000.00	12,517.00	14,286.13	11,984.42	59.64	62.73	76.71	-2,039.26	-953.85	2,391.35	2,309.02	82.33	29.046	
15,100.00	12,517.00	14,386.13	11,985.50	60.63	63.97	76.74	-2,139.25	-952.97	2,391.21	2,307.30	83.91	28.498	
15,200.00	12,517.00	14,486.12	11,986.58	61.64	65.23	76.77	-2,239.23	-952.10	2,391.07	2,305.55	85.52	27.958	
15,300.00	12,517.00	14,586.11	11,987.66	62.68	66.51	76.79	-2,339.21	-951.23	2,390.93	2,303.76	87.17	27.430	
15,400.00	12,517.00	14,686.11	11,988.74	63.75	67.81	76.82	-2,439.20	-950.36	2,390.79	2,301.95	88.84	26.912	
15,500.00	12,517.00	14,786.10	11,989.82	64.84	69.12	76.84	-2,539.18	-949.48	2,390.65	2,300.12	90.54	26.405	
15,600.00	12,517.00	14,886.10	11,990.90	65.96	70.44	76.87	-2,639.17	-948.61	2,390.52	2,298.25	92.26	25.910	
15,700.00	12,517.00	14,986.09	11,991.98	67.10	71.78	76.89	-2,739.15	-947.74	2,390.38	2,296.37	94.01	25.426	
15,800.00	12,517.00	15,086.09	11,993.06	68.26	73.13	76.92	-2,839.14	-946.87	2,390.24	2,294.46	95.79	24.954	
15,900.00	12,517.00	15,186.08	11,994.14	69.44	74.50	76.95	-2,939.12	-945.99	2,390.11	2,292.53	97.58	24.493	
16,000.00	12,517.00	15,286.07	11,995.22	70.64	75.87	76.97	-3,039.11	-945.12	2,389.97	2,290.58	99.40	24.045	
16,100.00	12,517.00	15,386.07	11,996.30	71.85	77.26	77.00	-3,139.09	-944.25	2,389.84	2,288.61	101.23	23.608	
16,200.00	12,517.00	15,486.06	11,997.39	73.09	78.65	77.02	-3,239.07	-943.38	2,389.70	2,286.62	103.09	23.182	
16,300.00	12,517.00	15,586.06	11,998.47	74.34	80.06	77.05	-3,339.06	-942.51	2,389.57	2,284.61	104.96	22.767	
16,400.00	12,517.00	15,686.05	11,999.55	75.60	81.47	77.08	-3,439.04	-941.63	2,389.44	2,282.59	106.85	22.363	
16,500.00	12,517.00	15,786.04	12,000.63	76.88	82.90	77.10	-3,539.03	-940.76	2,389.30	2,280.55	108.75	21.970	
16,600.00	12,517.00	15,886.04	12,001.71	78.18	84.33	77.13	-3,639.01	-939.89	2,389.17	2,278.50	110.67	21.588	
16,700.00	12,517.00	15,986.03	12,002.79	79.49	85.77	77.15	-3,739.00	-939.02	2,389.04	2,276.44	112.60	21.217	
16,800.00	12,517.00	16,086.03	12,003.87	80.81	87.22	77.18	-3,838.98	-938.14	2,388.91	2,274.36	114.55	20.855	
16,900.00	12,517.00	16,186.02	12,004.95	82.14	88.67	77.20	-3,938.97	-937.27	2,388.78	2,272.27	116.51	20.503	
17,000.00	12,517.00	16,286.01	12,006.03	83.48	90.13	77.23	-4,038.95	-936.40	2,388.65	2,270.17	118.48	20.161	
17,100.00	12,517.00	16,386.01	12,007.11	84.84	91.60	77.26	-4,138.93	-935.53	2,388.52	2,268.05	120.46	19.827	
17,200.00	12,517.00	16,486.00	12,008.19	86.20	93.07	77.28	-4,238.92	-934.65	2,388.39	2,265.93	122.46	19.503	
17,300.00	12,517.00	16,586.00	12,009.27	87.58	94.55	77.31	-4,338.90	-933.78	2,388.26	2,263.79	124.47	19.188	
17,400.00	12,517.00	16,685.99	12,010.35	88.96	96.04	77.33	-4,438.89	-932.91	2,388.13	2,261.65	126.48	18.881	
17,500.00	12,517.00	16,785.99	12,011.43	90.35	97.53	77.36	-4,538.87	-932.04	2,388.00	2,259.50	128.51	18.583	
17,600.00	12,517.00	16,885.98	12,012.52	91.75	99.02	77.39	-4,638.86	-931.16	2,387.88	2,257.33	130.54	18.292	
17,700.00	12,517.00	16,985.97	12,013.60	93.16	100.53	77.41	-4,738.84	-930.29	2,387.75	2,255.16	132.59	18.009	
17,800.00	12,517.00	17,085.97	12,014.68	94.58	102.03	77.44	-4,838.83	-929.42	2,387.62	2,252.98	134.64	17.734	
17,900.00	12,517.00	17,185.96	12,015.76	96.01	103.54	77.46	-4,938.81	-928.55	2,387.50	2,250.80	136.70	17.465	
18,000.00	12,517.00	17,285.96	12,016.84	97.44	105.05	77.49	-5,038.79	-927.68	2,387.37	2,248.60	138.77	17.204	
18,100.00	12,517.00	17,385.95	12,017.92	98.88	106.57	77.52	-5,138.78	-926.80	2,387.25	2,246.40	140.84	16.950	
18,200.00	12,517.00	17,485.94	12,019.00	100.32	108.09	77.54	-5,238.76	-925.93	2,387.12	2,244.19	142.93	16.702	
18,300.00	12,517.00	17,585.94	12,020.08	101.78	109.62	77.57	-5,338.75	-925.06	2,387.00	2,241.98	145.02	16.460	
18,400.00	12,517.00	17,685.93	12,021.16	103.23	111.15	77.59	-5,438.73	-924.19	2,386.87	2,239.76	147.11	16.225	
18,500.00	12,517.00	17,785.93	12,022.24	104.70	112.68	77.62	-5,538.72	-923.31	2,386.75	2,237.53	149.22	15.995	
18,600.00	12,517.00	17,885.92	12,023.32	106.17	114.22	77.64	-5,638.70	-922.44	2,386.63	2,235.30	151.33	15.772	
18,700.00	12,517.00	17,985.91	12,024.40	107.64	115.76	77.67	-5,738.69	-921.57	2,386.51	2,233.07	153.44	15.553	
18,800.00	12,517.00	18,085.91	12,025.48	109.12	117.30	77.70	-5,838.67	-920.70	2,386.38	2,230.82	155.56	15.341	
18,900.00	12,517.00	18,185.90	12,026.56	110.60	118.84	77.72	-5,938.65	-919.82	2,386.26	2,228.58	157.69	15.133	
19,000.00	12,517.00	18,285.90	12,027.64	112.09	120.39	77.75	-6,038.64	-918.95	2,386.14	2,226.32	159.82	14.930	
19,100.00	12,517.00	18,385.89	12,028.73	113.59	121.94	77.77	-6,138.62	-918.08	2,386.02	2,224.07	161.95	14.733	
19,200.00	12,517.00	18,485.88	12,029.81	115.08	123.50	77.80	-6,238.61	-917.21	2,385.90	2,221.81	164.09	14.540	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 601H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	12,517.00	18,585.88	12,030.89	116.59	125.05	77.83	-6,338.59	-916.34	2,385.78	2,219.55	166.24	14.352	
19,400.00	12,517.00	18,685.87	12,031.97	118.09	126.61	77.85	-6,438.58	-915.46	2,385.66	2,217.28	168.39	14.168	
19,500.00	12,517.00	18,785.87	12,033.05	119.60	128.17	77.88	-6,538.56	-914.59	2,385.55	2,215.01	170.54	13.988	
19,600.00	12,517.00	18,885.86	12,034.13	121.11	129.73	77.90	-6,638.55	-913.72	2,385.43	2,212.73	172.70	13.813	
19,700.00	12,517.00	18,985.86	12,035.21	122.63	131.30	77.93	-6,738.53	-912.85	2,385.31	2,210.45	174.86	13.641	
19,800.00	12,517.00	19,085.85	12,036.29	124.15	132.87	77.96	-6,838.51	-911.97	2,385.19	2,208.17	177.02	13.474	
19,900.00	12,517.00	19,185.84	12,037.37	125.67	134.44	77.98	-6,938.50	-911.10	2,385.08	2,205.89	179.19	13.310	
20,000.00	12,517.00	19,285.84	12,038.45	127.20	136.01	78.01	-7,038.48	-910.23	2,384.96	2,203.60	181.36	13.150	
20,100.00	12,517.00	19,385.83	12,039.53	128.73	137.58	78.03	-7,138.47	-909.36	2,384.85	2,201.31	183.54	12.994	
20,200.00	12,517.00	19,485.83	12,040.61	130.26	139.15	78.06	-7,238.45	-908.48	2,384.73	2,199.01	185.72	12.840	
20,300.00	12,517.00	19,585.82	12,041.69	131.80	140.73	78.09	-7,338.44	-907.61	2,384.62	2,196.72	187.90	12.691	
20,400.00	12,517.00	19,685.81	12,042.77	133.34	142.31	78.11	-7,438.42	-906.74	2,384.50	2,194.42	190.09	12.544	
20,500.00	12,517.00	19,785.81	12,043.86	134.88	143.89	78.14	-7,538.41	-905.87	2,384.39	2,192.11	192.28	12.401	
20,600.00	12,517.00	19,885.80	12,044.94	136.42	145.47	78.16	-7,638.39	-905.00	2,384.28	2,189.81	194.47	12.260	
20,700.00	12,517.00	19,985.80	12,046.02	137.97	147.05	78.19	-7,738.37	-904.12	2,384.17	2,187.50	196.66	12.123	
20,800.00	12,517.00	20,085.79	12,047.10	139.52	148.64	78.22	-7,838.36	-903.25	2,384.05	2,185.19	198.86	11.988	
20,900.00	12,517.00	20,185.78	12,048.18	141.07	150.22	78.24	-7,938.34	-902.38	2,383.94	2,182.88	201.06	11.857	
21,000.00	12,517.00	20,285.78	12,049.26	142.62	151.81	78.27	-8,038.33	-901.51	2,383.83	2,180.57	203.27	11.728	
21,100.00	12,517.00	20,385.77	12,050.34	144.18	153.40	78.29	-8,138.31	-900.63	2,383.72	2,178.25	205.47	11.601	
21,200.00	12,517.00	20,485.77	12,051.42	145.73	154.99	78.32	-8,238.30	-899.76	2,383.61	2,175.93	207.68	11.477	
21,300.00	12,517.00	20,585.76	12,052.50	147.29	156.58	78.35	-8,338.28	-898.89	2,383.50	2,173.61	209.89	11.356	
21,400.00	12,517.00	20,685.76	12,053.58	148.85	158.17	78.37	-8,438.27	-898.02	2,383.39	2,171.29	212.11	11.237	
21,500.00	12,517.00	20,785.75	12,054.66	150.42	159.77	78.40	-8,538.25	-897.14	2,383.29	2,168.96	214.32	11.120	
21,600.00	12,517.00	20,885.74	12,055.74	151.98	161.36	78.42	-8,638.23	-896.27	2,383.18	2,166.64	216.54	11.006	
21,700.00	12,517.00	20,985.74	12,056.82	153.55	162.96	78.45	-8,738.22	-895.40	2,383.07	2,164.31	218.76	10.894	
21,800.00	12,517.00	21,085.73	12,057.90	155.12	164.56	78.48	-8,838.20	-894.53	2,382.96	2,161.98	220.98	10.784	
21,900.00	12,517.00	21,185.73	12,058.99	156.69	166.15	78.50	-8,938.19	-893.66	2,382.86	2,159.65	223.21	10.676	
22,000.00	12,517.00	21,285.72	12,060.07	158.26	167.75	78.53	-9,038.17	-892.78	2,382.75	2,157.32	225.43	10.570	
22,100.00	12,517.00	21,385.71	12,061.15	159.84	169.35	78.55	-9,138.16	-891.91	2,382.65	2,154.98	227.66	10.466	
22,200.00	12,517.00	21,485.71	12,062.23	161.41	170.95	78.58	-9,238.14	-891.04	2,382.54	2,152.65	229.89	10.364	
22,300.00	12,517.00	21,585.70	12,063.31	162.99	172.56	78.61	-9,338.13	-890.17	2,382.44	2,150.31	232.12	10.264	
22,400.00	12,517.00	21,685.70	12,064.39	164.57	174.16	78.63	-9,438.11	-889.29	2,382.33	2,147.98	234.36	10.165	
22,500.00	12,517.00	21,785.69	12,065.47	166.14	175.76	78.66	-9,538.09	-888.42	2,382.23	2,145.64	236.59	10.069	
22,600.00	12,517.00	21,885.68	12,066.55	167.73	177.37	78.68	-9,638.08	-887.55	2,382.13	2,143.30	238.83	9.974	
22,700.00	12,517.00	21,985.68	12,067.63	169.31	178.97	78.71	-9,738.06	-886.68	2,382.02	2,140.96	241.07	9.881	
22,800.00	12,517.00	22,085.67	12,068.71	170.89	180.58	78.74	-9,838.05	-885.80	2,381.92	2,138.62	243.31	9.790	
22,817.76	12,517.00	22,101.01	12,068.88	171.17	180.83	78.74	-9,853.38	-885.67	2,381.90	2,138.24	243.66	9.775	
22,900.00	12,517.00	22,101.01	12,068.88	172.48	180.83	78.74	-9,853.38	-885.67	2,383.32	2,139.29	244.04	9.766	SF
23,000.00	12,517.00	22,101.01	12,068.88	174.06	180.83	78.74	-9,853.38	-885.67	2,388.87	2,144.76	244.10	9.786	
23,100.00	12,517.00	22,101.01	12,068.88	175.65	180.83	78.74	-9,853.38	-885.67	2,398.57	2,154.82	243.75	9.840	
23,200.00	12,517.00	22,101.01	12,068.88	177.24	180.83	78.74	-9,853.38	-885.67	2,412.38	2,169.40	242.98	9.928	
23,300.00	12,517.00	22,101.01	12,068.88	178.83	180.83	78.74	-9,853.38	-885.67	2,430.23	2,188.40	241.83	10.049	
23,400.00	12,517.00	22,101.01	12,068.88	180.42	180.83	78.74	-9,853.38	-885.67	2,452.03	2,211.72	240.32	10.203	
23,500.00	12,517.00	22,101.01	12,068.88	182.01	180.83	78.74	-9,853.38	-885.67	2,477.69	2,239.22	238.47	10.390	
23,600.00	12,517.00	22,101.01	12,068.88	183.60	180.83	78.74	-9,853.38	-885.67	2,507.06	2,270.74	236.32	10.609	
23,700.00	12,517.00	22,101.01	12,068.88	185.20	180.83	78.74	-9,853.38	-885.67	2,540.04	2,306.13	233.91	10.859	
23,800.00	12,517.00	22,101.01	12,068.88	186.79	180.83	78.74	-9,853.38	-885.67	2,576.48	2,345.21	231.28	11.140	
23,900.00	12,517.00	22,101.01	12,068.88	188.39	180.83	78.74	-9,853.38	-885.67	2,616.24	2,387.80	228.45	11.452	
24,000.00	12,517.00	22,101.01	12,068.88	189.99	180.83	78.74	-9,853.38	-885.67	2,659.17	2,433.70	225.46	11.794	
24,100.00	12,517.00	22,101.01	12,068.88	191.58	180.83	78.74	-9,853.38	-885.67	2,705.11	2,482.75	222.36	12.166	
24,130.17	12,517.00	22,101.01	12,068.88	192.05	180.83	78.74	-9,853.38	-885.67	2,719.54	2,497.93	221.61	12.272	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 701H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	17.00	17.00	0.00	0.02	-45.03	817.31	-818.11	1,156.41				
100.00	100.00	117.00	117.00	0.13	0.19	-45.03	817.31	-818.11	1,156.41	1,156.19	0.22	5,146.560	
200.00	200.00	217.00	217.00	0.48	0.54	-45.03	817.31	-818.11	1,156.41	1,155.68	0.73	1,586.832	
300.00	300.00	317.00	317.00	0.84	0.90	-45.03	817.31	-818.11	1,156.41	1,155.18	1.24	936.225	
400.00	400.00	417.00	417.00	1.20	1.26	-45.03	817.31	-818.11	1,156.41	1,154.67	1.74	663.871	
500.00	500.00	517.00	517.00	1.56	1.62	-45.03	817.31	-818.11	1,156.41	1,154.16	2.25	514.245	
600.00	600.00	617.00	617.00	1.92	1.98	-45.03	817.31	-818.11	1,156.41	1,153.66	2.76	419.653	
700.00	700.00	717.00	717.00	2.28	2.34	-45.03	817.31	-818.11	1,156.41	1,153.15	3.26	354.452	
800.00	800.00	817.00	817.00	2.63	2.70	-45.03	817.31	-818.11	1,156.41	1,152.64	3.77	306.785	
900.00	900.00	917.00	917.00	2.99	3.05	-45.03	817.31	-818.11	1,156.41	1,152.14	4.28	270.418	
1,000.00	1,000.00	1,017.00	1,017.00	3.35	3.41	-45.03	817.31	-818.11	1,156.41	1,151.63	4.78	241.760	
1,100.00	1,100.00	1,117.00	1,117.00	3.71	3.77	-45.03	817.31	-818.11	1,156.41	1,151.12	5.29	218.593	
1,200.00	1,200.00	1,217.00	1,217.00	4.07	4.13	-45.03	817.31	-818.11	1,156.41	1,150.62	5.80	199.478	
1,300.00	1,300.00	1,317.00	1,317.00	4.43	4.49	-45.03	817.31	-818.11	1,156.41	1,150.11	6.30	183.437	
1,400.00	1,400.00	1,417.00	1,417.00	4.79	4.85	-45.03	817.31	-818.11	1,156.41	1,149.60	6.81	169.784	
1,500.00	1,500.00	1,517.00	1,517.00	5.14	5.21	-45.03	817.31	-818.11	1,156.41	1,149.10	7.32	158.023	
1,600.00	1,600.00	1,617.00	1,617.00	5.50	5.56	-45.03	817.31	-818.11	1,156.41	1,148.59	7.82	147.785	CC, ES
1,700.00	1,699.98	1,716.98	1,716.98	5.86	5.92	-111.85	817.31	-818.11	1,157.06	1,148.73	8.33	138.934	
1,800.00	1,799.84	1,816.84	1,816.84	6.21	6.28	-112.05	817.31	-818.11	1,159.02	1,150.19	8.83	131.286	
1,900.00	1,899.45	1,916.45	1,916.45	6.56	6.64	-112.39	817.31	-818.11	1,162.33	1,153.00	9.33	124.583	
2,000.00	1,998.70	2,015.70	2,015.70	6.92	6.99	-112.85	817.31	-818.11	1,167.05	1,157.21	9.83	118.678	
2,100.00	2,097.47	2,114.47	2,114.47	7.29	7.35	-113.43	817.31	-818.11	1,173.26	1,162.92	10.34	113.452	
2,200.00	2,195.62	2,212.62	2,212.62	7.67	7.70	-114.13	817.31	-818.11	1,181.07	1,170.22	10.85	108.807	
2,300.00	2,293.06	2,310.06	2,310.06	8.07	8.05	-114.92	817.31	-818.11	1,190.61	1,179.24	11.38	104.666	
2,357.10	2,348.32	2,365.32	2,365.32	8.31	8.25	-115.41	817.31	-818.11	1,196.89	1,185.21	11.68	102.504	
2,400.00	2,389.73	2,406.73	2,406.73	8.49	8.39	-115.88	817.31	-818.11	1,201.88	1,189.97	11.90	100.960	
2,500.00	2,486.26	2,503.26	2,503.26	8.92	8.74	-116.96	817.31	-818.11	1,213.83	1,201.39	12.44	97.570	
2,600.00	2,582.78	2,599.78	2,599.78	9.37	9.09	-118.02	817.31	-818.11	1,226.23	1,213.24	12.98	94.451	
2,700.00	2,679.31	2,696.31	2,696.31	9.83	9.43	-119.06	817.31	-818.11	1,239.05	1,225.52	13.53	91.583	
2,800.00	2,775.84	2,830.98	2,830.96	10.30	9.89	-120.52	815.31	-817.09	1,250.87	1,236.71	14.15	88.370	
2,900.00	2,872.37	2,967.01	2,966.79	10.78	10.33	-122.06	808.99	-813.88	1,260.09	1,245.33	14.76	85.348	
3,000.00	2,968.90	3,063.27	3,062.82	11.27	10.65	-123.17	803.01	-810.83	1,268.31	1,253.01	15.30	82.906	
3,100.00	3,065.43	3,159.68	3,159.00	11.76	10.97	-124.26	797.02	-807.79	1,277.02	1,261.19	15.83	80.646	
3,200.00	3,161.95	3,256.09	3,255.17	12.25	11.29	-125.35	791.03	-804.74	1,286.23	1,269.86	16.37	78.556	
3,300.00	3,258.48	3,352.51	3,351.35	12.76	11.62	-126.41	785.04	-801.69	1,295.91	1,279.00	16.91	76.622	
3,400.00	3,355.01	3,448.92	3,447.53	13.26	11.95	-127.47	779.05	-798.64	1,306.06	1,288.61	17.45	74.831	
3,500.00	3,451.54	3,545.33	3,543.70	13.77	12.28	-128.50	773.06	-795.59	1,316.67	1,298.68	17.99	73.173	
3,600.00	3,548.07	3,641.74	3,639.88	14.29	12.61	-129.52	767.07	-792.55	1,327.73	1,309.19	18.53	71.635	
3,700.00	3,644.59	3,738.15	3,736.06	14.80	12.94	-130.53	761.08	-789.50	1,339.22	1,320.14	19.07	70.209	
3,800.00	3,741.12	3,834.56	3,832.23	15.32	13.28	-131.52	755.09	-786.45	1,351.13	1,331.52	19.61	68.885	
3,900.00	3,837.65	3,930.97	3,928.41	15.84	13.61	-132.49	749.10	-783.40	1,363.46	1,343.31	20.15	67.655	
4,000.00	3,934.18	4,027.39	4,024.59	16.37	13.95	-133.44	743.11	-780.36	1,376.19	1,355.50	20.69	66.512	
4,100.00	4,030.71	4,123.80	4,120.76	16.90	14.29	-134.38	737.12	-777.31	1,389.31	1,368.08	21.23	65.448	
4,200.00	4,127.24	4,220.21	4,216.94	17.42	14.63	-135.30	731.13	-774.26	1,402.81	1,381.04	21.76	64.458	
4,300.00	4,223.76	4,316.62	4,313.12	17.95	14.97	-136.21	725.14	-771.21	1,416.68	1,394.38	22.30	63.536	
4,400.00	4,320.29	4,413.03	4,409.30	18.49	15.32	-137.10	719.15	-768.16	1,430.90	1,408.07	22.83	62.675	
4,500.00	4,416.82	4,509.44	4,505.47	19.02	15.66	-137.97	713.16	-765.12	1,445.48	1,422.11	23.36	61.873	
4,600.00	4,513.35	4,605.85	4,601.65	19.55	16.00	-138.82	707.17	-762.07	1,460.39	1,436.50	23.89	61.123	
4,700.00	4,609.88	4,702.26	4,697.83	20.09	16.35	-139.66	701.18	-759.02	1,475.63	1,451.20	24.42	60.423	
4,800.00	4,706.40	4,798.68	4,794.00	20.62	16.69	-140.48	695.19	-755.97	1,491.18	1,466.23	24.95	59.768	
4,900.00	4,802.93	4,895.09	4,890.18	21.16	17.04	-141.28	689.19	-752.93	1,507.04	1,481.57	25.48	59.154	
5,000.00	4,899.46	4,991.50	4,986.36	21.70	17.39	-142.07	683.20	-749.88	1,523.20	1,497.20	26.00	58.580	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 701H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,087.91	5,082.53	22.24	17.73	-142.85	677.21	-746.83	1,539.65	1,513.13	26.53	58.042	
5,200.00	5,092.52	5,184.32	5,178.71	22.78	18.08	-143.60	671.22	-743.78	1,556.38	1,529.33	27.05	57.537	
5,300.00	5,189.04	5,280.73	5,274.89	23.32	18.43	-144.34	665.23	-740.73	1,573.38	1,545.81	27.57	57.064	
5,400.00	5,285.57	5,377.14	5,371.06	23.86	18.78	-145.07	659.24	-737.69	1,590.64	1,562.54	28.09	56.619	
5,500.00	5,382.10	5,473.56	5,467.24	24.41	19.13	-145.78	653.25	-734.64	1,608.15	1,579.54	28.61	56.201	
5,600.00	5,478.63	5,569.97	5,563.42	24.95	19.48	-146.48	647.26	-731.59	1,625.91	1,596.77	29.13	55.808	
5,700.00	5,575.16	5,666.38	5,659.59	25.49	19.83	-147.16	641.27	-728.54	1,643.90	1,614.25	29.65	55.438	
5,800.00	5,671.69	5,762.79	5,755.77	26.04	20.19	-147.83	635.28	-725.50	1,662.12	1,631.95	30.17	55.090	
5,900.00	5,768.21	5,859.20	5,851.95	26.58	20.54	-148.48	629.29	-722.45	1,680.57	1,649.88	30.69	54.762	
6,000.00	5,864.74	5,955.61	5,948.12	27.13	20.89	-149.12	623.30	-719.40	1,699.23	1,668.02	31.21	54.453	
6,100.00	5,961.27	6,052.02	6,044.30	27.67	21.24	-149.75	617.31	-716.35	1,718.10	1,686.37	31.72	54.161	
6,200.00	6,057.80	6,148.44	6,140.48	28.22	21.60	-150.36	611.32	-713.30	1,737.16	1,704.93	32.24	53.886	
6,300.00	6,154.33	6,244.85	6,236.65	28.76	21.95	-150.96	605.33	-710.26	1,756.43	1,723.67	32.75	53.626	
6,400.00	6,250.85	6,341.26	6,332.83	29.31	22.30	-151.55	599.34	-707.21	1,775.88	1,742.61	33.27	53.380	
6,500.00	6,347.38	6,437.67	6,429.01	29.86	22.66	-152.12	593.35	-704.16	1,795.51	1,761.73	33.78	53.148	
6,600.00	6,443.91	6,534.08	6,525.19	30.41	23.01	-152.68	587.36	-701.11	1,815.32	1,781.02	34.30	52.928	
6,700.00	6,540.44	6,630.49	6,621.36	30.95	23.36	-153.23	581.37	-698.07	1,835.30	1,800.48	34.81	52.719	
6,803.85	6,640.68	6,730.62	6,721.24	31.52	23.73	-153.79	575.15	-694.90	1,856.22	1,820.87	35.35	52.515	
6,900.00	6,733.90	6,823.71	6,814.11	32.03	24.08	-154.44	569.36	-691.96	1,874.32	1,838.48	35.84	52.299	
7,000.00	6,831.63	6,921.30	6,911.46	32.53	24.44	-155.04	563.30	-688.87	1,890.23	1,853.88	36.35	52.007	
7,100.00	6,930.04	7,019.55	7,009.47	32.98	24.80	-155.55	557.19	-685.77	1,903.11	1,866.26	36.85	51.647	
7,200.00	7,029.01	7,118.34	7,108.02	33.40	25.16	-155.99	551.05	-682.64	1,912.92	1,875.58	37.35	51.223	
7,300.00	7,128.41	7,217.55	7,206.99	33.78	25.53	-156.36	544.89	-679.51	1,919.62	1,881.79	37.84	50.735	
7,400.00	7,228.14	7,317.07	7,306.27	34.12	25.90	-156.66	538.71	-676.36	1,923.18	1,884.86	38.32	50.186	
7,500.00	7,328.06	7,416.76	7,405.72	34.43	26.27	-156.89	532.51	-673.21	1,923.58	1,884.78	38.80	49.578	
7,560.95	7,389.00	7,477.56	7,466.37	34.59	26.49	-90.25	528.73	-671.29	1,922.25	1,883.17	39.09	49.180	
7,600.00	7,428.05	7,514.39	7,503.11	34.70	26.63	-90.31	526.46	-670.13	1,921.04	1,881.77	39.26	48.930	
7,700.00	7,528.05	7,600.00	7,588.58	34.97	26.94	-90.44	522.18	-667.95	1,918.50	1,878.83	39.68	48.353	
7,800.00	7,628.05	7,677.52	7,666.06	35.24	27.22	-90.51	519.78	-666.73	1,916.92	1,876.86	40.06	47.849	
7,900.00	7,728.05	7,759.25	7,747.78	35.51	27.50	-90.55	518.77	-666.22	1,916.30	1,875.85	40.46	47.366	
7,939.19	7,767.24	7,795.72	7,784.24	35.62	27.63	-90.55	518.75	-666.21	1,916.29	1,875.67	40.63	47.167	
8,000.00	7,828.05	7,856.53	7,845.05	35.79	27.83	-90.55	518.75	-666.21	1,916.29	1,875.39	40.91	46.844	
8,100.00	7,928.05	7,956.53	7,945.05	36.06	28.17	-90.55	518.75	-666.21	1,916.29	1,874.92	41.37	46.320	
8,200.00	8,028.05	8,056.53	8,045.05	36.34	28.50	-90.55	518.75	-666.21	1,916.29	1,874.46	41.83	45.808	
8,300.00	8,128.05	8,156.53	8,145.05	36.62	28.84	-90.55	518.75	-666.21	1,916.29	1,874.00	42.30	45.305	
8,400.00	8,228.05	8,256.53	8,245.05	36.90	29.18	-90.55	518.75	-666.21	1,916.29	1,873.53	42.76	44.812	
8,500.00	8,328.05	8,356.53	8,345.05	37.18	29.52	-90.55	518.75	-666.21	1,916.29	1,873.06	43.23	44.329	
8,600.00	8,428.05	8,456.53	8,445.05	37.46	29.86	-90.55	518.75	-666.21	1,916.29	1,872.60	43.70	43.855	
8,700.00	8,528.05	8,556.53	8,545.05	37.75	30.19	-90.55	518.75	-666.21	1,916.29	1,872.13	44.16	43.391	
8,800.00	8,628.05	8,656.53	8,645.05	38.03	30.53	-90.55	518.75	-666.21	1,916.29	1,871.66	44.63	42.935	
8,900.00	8,728.05	8,756.53	8,745.05	38.32	30.87	-90.55	518.75	-666.21	1,916.29	1,871.19	45.10	42.488	
9,000.00	8,828.05	8,856.53	8,845.05	38.61	31.22	-90.55	518.75	-666.21	1,916.29	1,870.72	45.57	42.049	
9,100.00	8,928.05	8,956.53	8,945.05	38.89	31.56	-90.55	518.75	-666.21	1,916.29	1,870.25	46.04	41.619	
9,200.00	9,028.05	9,056.53	9,045.05	39.18	31.90	-90.55	518.75	-666.21	1,916.29	1,869.78	46.52	41.197	
9,300.00	9,128.05	9,156.53	9,145.05	39.47	32.24	-90.55	518.75	-666.21	1,916.29	1,869.31	46.99	40.782	
9,400.00	9,228.05	9,256.53	9,245.05	39.77	32.58	-90.55	518.75	-666.21	1,916.29	1,868.83	47.46	40.375	
9,500.00	9,328.05	9,356.53	9,345.05	40.06	32.92	-90.55	518.75	-666.21	1,916.29	1,868.36	47.94	39.976	
9,600.00	9,428.05	9,456.53	9,445.05	40.35	33.27	-90.55	518.75	-666.21	1,916.29	1,867.88	48.41	39.584	
9,700.00	9,528.05	9,556.53	9,545.05	40.65	33.61	-90.55	518.75	-666.21	1,916.29	1,867.41	48.89	39.199	
9,800.00	9,628.05	9,656.53	9,645.05	40.95	33.95	-90.55	518.75	-666.21	1,916.29	1,866.93	49.36	38.821	
9,900.00	9,728.05	9,756.53	9,745.05	41.24	34.30	-90.55	518.75	-666.21	1,916.29	1,866.46	49.84	38.450	
10,000.00	9,828.05	9,856.53	9,845.05	41.54	34.64	-90.55	518.75	-666.21	1,916.29	1,865.98	50.32	38.085	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 701H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	9,928.05	9,956.53	9,945.05	41.84	34.99	-90.55	518.75	-666.21	1,916.29	1,865.50	50.79	37.727	
10,200.00	10,028.05	10,056.53	10,045.05	42.14	35.33	-90.55	518.75	-666.21	1,916.29	1,865.02	51.27	37.375	
10,300.00	10,128.05	10,156.53	10,145.05	42.44	35.67	-90.55	518.75	-666.21	1,916.29	1,864.54	51.75	37.029	
10,400.00	10,228.05	10,256.53	10,245.05	42.74	36.02	-90.55	518.75	-666.21	1,916.29	1,864.06	52.23	36.689	
10,500.00	10,328.05	10,356.53	10,345.05	43.05	36.37	-90.55	518.75	-666.21	1,916.29	1,863.58	52.71	36.355	
10,600.00	10,428.05	10,456.53	10,445.05	43.35	36.71	-90.55	518.75	-666.21	1,916.29	1,863.10	53.19	36.027	
10,700.00	10,528.05	10,556.53	10,545.05	43.65	37.06	-90.55	518.75	-666.21	1,916.29	1,862.62	53.67	35.704	
10,800.00	10,628.05	10,656.53	10,645.05	43.96	37.40	-90.55	518.75	-666.21	1,916.29	1,862.14	54.15	35.387	
10,900.00	10,728.05	10,756.53	10,745.05	44.27	37.75	-90.55	518.75	-666.21	1,916.29	1,861.66	54.64	35.074	
11,000.00	10,828.05	10,856.53	10,845.05	44.57	38.10	-90.55	518.75	-666.21	1,916.29	1,861.18	55.12	34.767	
11,100.00	10,928.05	10,956.53	10,945.05	44.88	38.44	-90.55	518.75	-666.21	1,916.29	1,860.69	55.60	34.466	
11,200.00	11,028.05	11,056.53	11,045.05	45.19	38.79	-90.55	518.75	-666.21	1,916.29	1,860.21	56.08	34.169	
11,300.00	11,128.05	11,156.53	11,145.05	45.50	39.14	-90.55	518.75	-666.21	1,916.29	1,859.73	56.57	33.877	
11,400.00	11,228.05	11,256.53	11,245.05	45.81	39.48	-90.55	518.75	-666.21	1,916.29	1,859.24	57.05	33.589	
11,500.00	11,328.05	11,356.53	11,345.05	46.12	39.83	-90.55	518.75	-666.21	1,916.29	1,858.76	57.54	33.306	
11,600.00	11,428.05	11,456.53	11,445.05	46.43	40.18	-90.55	518.75	-666.21	1,916.29	1,858.27	58.02	33.028	
11,700.00	11,528.05	11,556.53	11,545.05	46.74	40.53	-90.55	518.75	-666.21	1,916.29	1,857.79	58.51	32.754	
11,800.00	11,628.05	11,656.53	11,645.05	47.05	40.88	-90.55	518.75	-666.21	1,916.29	1,857.30	58.99	32.485	
11,803.60	11,631.65	11,660.13	11,648.65	47.07	40.89	-90.55	518.75	-666.21	1,916.29	1,857.29	59.01	32.475	
11,900.00	11,728.05	11,756.12	11,744.53	47.37	41.23	-90.64	515.44	-666.18	1,916.30	1,856.83	59.47	32.222	
12,000.00	11,828.05	11,852.00	11,838.55	47.68	41.58	-91.19	497.23	-666.02	1,916.44	1,856.51	59.93	31.976	
12,100.00	11,928.05	11,939.67	11,920.78	48.00	41.92	-92.09	467.08	-665.76	1,917.19	1,856.83	60.35	31.766	
12,115.99	11,944.04	11,952.73	11,932.60	48.05	41.97	-92.26	461.52	-665.71	1,917.40	1,856.99	60.42	31.737	
12,150.00	11,978.03	11,979.98	11,956.83	48.15	42.08	95.33	449.08	-665.60	1,918.09	1,857.55	60.54	31.682	
12,200.00	12,027.75	12,019.22	11,990.63	48.28	42.24	94.67	429.16	-665.43	1,919.74	1,859.03	60.71	31.620	
12,250.00	12,076.83	12,057.60	12,022.30	48.41	42.40	93.98	407.48	-665.24	1,922.13	1,861.26	60.87	31.576	
12,300.00	12,124.90	12,100.00	12,055.51	48.53	42.58	93.19	381.13	-665.01	1,925.21	1,864.17	61.04	31.539	
12,350.00	12,171.60	12,132.19	12,079.36	48.63	42.72	92.48	359.53	-664.82	1,928.92	1,867.76	61.16	31.537	
12,400.00	12,216.56	12,168.56	12,104.81	48.72	42.88	91.68	333.56	-664.59	1,933.22	1,871.93	61.29	31.540	
12,450.00	12,259.45	12,200.00	12,125.44	48.80	43.02	90.91	309.84	-664.38	1,938.06	1,876.67	61.39	31.567	
12,500.00	12,299.94	12,239.82	12,149.65	48.87	43.21	90.03	278.24	-664.11	1,943.36	1,881.83	61.53	31.584	
12,550.00	12,337.72	12,274.83	12,169.08	48.93	43.37	89.19	249.12	-663.85	1,949.06	1,887.43	61.64	31.621	
12,600.00	12,372.50	12,309.49	12,186.53	48.97	43.53	88.34	219.18	-663.59	1,955.12	1,893.37	61.74	31.664	
12,650.00	12,404.03	12,350.00	12,204.59	49.00	43.73	87.46	182.93	-663.28	1,961.46	1,899.59	61.88	31.699	
12,700.00	12,432.05	12,377.97	12,215.54	49.03	43.87	86.66	157.19	-663.05	1,968.00	1,906.04	61.96	31.765	
12,750.00	12,456.36	12,411.87	12,227.11	49.05	44.04	85.84	125.33	-662.77	1,974.69	1,912.63	62.06	31.817	
12,800.00	12,476.77	12,450.00	12,237.84	49.06	44.23	85.03	88.76	-662.46	1,981.49	1,919.30	62.19	31.860	
12,850.00	12,493.12	12,479.19	12,244.40	49.07	44.38	84.27	60.32	-662.21	1,988.30	1,926.00	62.29	31.918	
12,900.00	12,505.30	12,512.67	12,250.13	49.09	44.55	83.54	27.33	-661.92	1,995.08	1,932.67	62.42	31.964	
12,950.00	12,513.20	12,550.00	12,254.23	49.11	44.74	82.84	-9.76	-661.60	2,001.79	1,939.22	62.56	31.996	
13,000.00	12,516.77	12,579.47	12,255.76	49.13	44.90	82.18	-39.19	-661.34	2,008.34	1,945.65	62.69	32.037	
13,015.99	12,517.00	12,591.05	12,255.95	49.14	44.96	81.98	-50.77	-661.24	2,010.40	1,947.67	62.74	32.045	
13,100.00	12,517.00	12,674.49	12,256.86	49.21	45.41	82.07	-134.19	-660.51	2,019.93	1,956.81	63.12	32.001	
13,200.00	12,517.00	12,774.12	12,257.94	49.32	46.00	82.16	-233.82	-659.64	2,028.10	1,964.45	63.65	31.863	
13,300.00	12,517.00	12,873.99	12,259.02	49.47	46.65	82.22	-333.68	-658.77	2,032.83	1,968.57	64.26	31.636	
13,387.80	12,517.00	12,961.77	12,259.97	49.62	47.25	82.26	-421.45	-658.00	2,034.13	1,969.28	64.85	31.366	
13,400.00	12,517.00	12,973.97	12,260.10	49.64	47.34	82.26	-433.65	-657.90	2,034.13	1,969.19	64.94	31.324	
13,500.00	12,517.00	13,073.96	12,261.18	49.86	48.08	82.29	-533.63	-657.02	2,034.09	1,968.40	65.69	30.964	
13,600.00	12,517.00	13,173.96	12,262.27	50.14	48.86	82.32	-633.62	-656.15	2,034.06	1,967.54	66.52	30.578	
13,700.00	12,517.00	13,273.95	12,263.35	50.48	49.68	82.35	-733.60	-655.28	2,034.02	1,966.61	67.42	30.170	
13,800.00	12,517.00	13,373.95	12,264.43	50.88	50.55	82.38	-833.58	-654.41	2,033.99	1,965.61	68.38	29.744	
13,900.00	12,517.00	13,473.94	12,265.52	51.34	51.45	82.41	-933.57	-653.54	2,033.96	1,964.55	69.41	29.304	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 701H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.00	12,517.00	13,573.94	12,266.60	51.86	52.39	82.45	-1,033.55	-652.66	2,033.93	1,963.43	70.50	28.850	
14,100.00	12,517.00	13,673.93	12,267.68	52.43	53.37	82.48	-1,133.54	-651.79	2,033.89	1,962.25	71.65	28.387	
14,200.00	12,517.00	13,773.92	12,268.76	53.06	54.38	82.51	-1,233.52	-650.92	2,033.86	1,961.01	72.85	27.917	
14,300.00	12,517.00	13,873.92	12,269.85	53.74	55.41	82.54	-1,333.51	-650.05	2,033.83	1,959.72	74.11	27.443	
14,400.00	12,517.00	13,973.91	12,270.93	54.46	56.48	82.57	-1,433.49	-649.17	2,033.80	1,958.39	75.42	26.967	
14,500.00	12,517.00	14,073.91	12,272.01	55.23	57.58	82.60	-1,533.48	-648.30	2,033.77	1,957.00	76.77	26.490	
14,600.00	12,517.00	14,173.90	12,273.10	56.04	58.70	82.63	-1,633.46	-647.43	2,033.75	1,955.57	78.18	26.015	
14,700.00	12,517.00	14,273.89	12,274.18	56.89	59.84	82.66	-1,733.44	-646.56	2,033.72	1,954.10	79.62	25.542	
14,800.00	12,517.00	14,373.89	12,275.26	57.77	61.01	82.69	-1,833.43	-645.68	2,033.69	1,952.58	81.11	25.074	
14,900.00	12,517.00	14,473.88	12,276.34	58.69	62.20	82.72	-1,933.41	-644.81	2,033.66	1,951.03	82.63	24.611	
15,000.00	12,517.00	14,573.88	12,277.43	59.64	63.41	82.75	-2,033.40	-643.94	2,033.64	1,949.44	84.19	24.154	
15,100.00	12,517.00	14,673.87	12,278.51	60.63	64.65	82.78	-2,133.38	-643.07	2,033.61	1,947.82	85.79	23.704	
15,200.00	12,517.00	14,773.86	12,279.59	61.64	65.89	82.81	-2,233.37	-642.19	2,033.59	1,946.16	87.42	23.262	
15,300.00	12,517.00	14,873.86	12,280.68	62.68	67.16	82.84	-2,333.35	-641.32	2,033.56	1,944.48	89.08	22.828	
15,400.00	12,517.00	14,973.85	12,281.76	63.75	68.44	82.87	-2,433.33	-640.45	2,033.54	1,942.77	90.77	22.403	
15,500.00	12,517.00	15,073.85	12,282.84	64.84	69.74	82.91	-2,533.32	-639.58	2,033.51	1,941.03	92.49	21.987	
15,600.00	12,517.00	15,173.84	12,283.92	65.96	71.06	82.94	-2,633.30	-638.70	2,033.49	1,939.26	94.23	21.580	
15,700.00	12,517.00	15,273.83	12,285.01	67.10	72.38	82.97	-2,733.29	-637.83	2,033.47	1,937.47	96.00	21.182	
15,800.00	12,517.00	15,373.83	12,286.09	68.26	73.72	83.00	-2,833.27	-636.96	2,033.45	1,935.65	97.79	20.794	
15,900.00	12,517.00	15,473.82	12,287.17	69.44	75.08	83.03	-2,933.26	-636.09	2,033.42	1,933.82	99.61	20.415	
16,000.00	12,517.00	15,573.82	12,288.26	70.64	76.44	83.06	-3,033.24	-635.21	2,033.40	1,931.96	101.44	20.045	
16,100.00	12,517.00	15,673.81	12,289.34	71.85	77.82	83.09	-3,133.23	-634.34	2,033.38	1,930.09	103.30	19.685	
16,200.00	12,517.00	15,773.80	12,290.42	73.09	79.20	83.12	-3,233.21	-633.47	2,033.36	1,928.19	105.17	19.334	
16,300.00	12,517.00	15,873.80	12,291.50	74.34	80.60	83.15	-3,333.19	-632.60	2,033.35	1,926.28	107.06	18.992	
16,400.00	12,517.00	15,973.79	12,292.59	75.60	82.00	83.18	-3,433.18	-631.72	2,033.33	1,924.35	108.97	18.659	
16,500.00	12,517.00	16,073.79	12,293.67	76.88	83.42	83.21	-3,533.16	-630.85	2,033.31	1,922.41	110.90	18.335	
16,600.00	12,517.00	16,173.78	12,294.75	78.18	84.84	83.24	-3,633.15	-629.98	2,033.29	1,920.45	112.84	18.019	
16,700.00	12,517.00	16,273.78	12,295.84	79.49	86.27	83.27	-3,733.13	-629.11	2,033.28	1,918.48	114.80	17.712	
16,800.00	12,517.00	16,373.77	12,296.92	80.81	87.71	83.30	-3,833.12	-628.24	2,033.26	1,916.50	116.77	17.413	
16,900.00	12,517.00	16,473.76	12,298.00	82.14	89.16	83.33	-3,933.10	-627.36	2,033.25	1,914.50	118.75	17.122	
17,000.00	12,517.00	16,573.76	12,299.08	83.48	90.61	83.37	-4,033.09	-626.49	2,033.23	1,912.49	120.74	16.839	
17,100.00	12,517.00	16,673.75	12,300.17	84.84	92.07	83.40	-4,133.07	-625.62	2,033.22	1,910.47	122.75	16.564	
17,200.00	12,517.00	16,773.75	12,301.25	86.20	93.54	83.43	-4,233.05	-624.75	2,033.20	1,908.43	124.77	16.296	
17,300.00	12,517.00	16,873.74	12,302.33	87.58	95.01	83.46	-4,333.04	-623.87	2,033.19	1,906.39	126.80	16.035	
17,400.00	12,517.00	16,973.73	12,303.42	88.96	96.49	83.49	-4,433.02	-623.00	2,033.18	1,904.34	128.84	15.781	
17,500.00	12,517.00	17,073.73	12,304.50	90.35	97.97	83.52	-4,533.01	-622.13	2,033.17	1,902.28	130.89	15.534	
17,600.00	12,517.00	17,173.72	12,305.58	91.75	99.46	83.55	-4,632.99	-621.26	2,033.15	1,900.21	132.94	15.293	
17,700.00	12,517.00	17,273.72	12,306.66	93.16	100.95	83.58	-4,732.98	-620.38	2,033.14	1,898.13	135.01	15.059	
17,800.00	12,517.00	17,373.71	12,307.75	94.58	102.45	83.61	-4,832.96	-619.51	2,033.13	1,896.05	137.09	14.831	
17,900.00	12,517.00	17,473.70	12,308.83	96.01	103.96	83.64	-4,932.94	-618.64	2,033.12	1,893.95	139.17	14.609	
18,000.00	12,517.00	17,573.70	12,309.91	97.44	105.46	83.67	-5,032.93	-617.77	2,033.12	1,891.85	141.26	14.392	
18,100.00	12,517.00	17,673.69	12,311.00	98.88	106.98	83.70	-5,132.91	-616.89	2,033.11	1,889.75	143.36	14.182	
18,200.00	12,517.00	17,773.69	12,312.08	100.32	108.49	83.73	-5,232.90	-616.02	2,033.10	1,887.63	145.47	13.976	
18,300.00	12,517.00	17,873.68	12,313.16	101.78	110.01	83.76	-5,332.88	-615.15	2,033.09	1,885.51	147.58	13.776	
18,400.00	12,517.00	17,973.67	12,314.24	103.23	111.54	83.79	-5,432.87	-614.28	2,033.09	1,883.38	149.70	13.581	
18,500.00	12,517.00	18,073.67	12,315.33	104.70	113.06	83.83	-5,532.85	-613.40	2,033.08	1,881.25	151.83	13.391	
18,600.00	12,517.00	18,173.66	12,316.41	106.17	114.60	83.86	-5,632.84	-612.53	2,033.07	1,879.11	153.96	13.205	
18,700.00	12,517.00	18,273.66	12,317.49	107.64	116.13	83.89	-5,732.82	-611.66	2,033.07	1,876.97	156.10	13.024	
18,800.00	12,517.00	18,373.65	12,318.58	109.12	117.67	83.92	-5,832.80	-610.79	2,033.07	1,874.82	158.24	12.848	
18,900.00	12,517.00	18,473.64	12,319.66	110.60	119.21	83.95	-5,932.79	-609.91	2,033.06	1,872.67	160.39	12.675	
19,000.00	12,517.00	18,573.64	12,320.74	112.09	120.75	83.98	-6,032.77	-609.04	2,033.06	1,870.51	162.55	12.507	
19,100.00	12,517.00	18,673.63	12,321.83	113.59	122.30	84.01	-6,132.76	-608.17	2,033.06	1,868.35	164.71	12.343	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 Judge Baylor Fed Com - Judge Baylor Fed Com 701H - OH - Plan #5

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	12,517.00	18,773.63	12,322.91	115.08	123.85	84.04	-6,232.74	-607.30	2,033.05	1,866.18	166.87	12.183	
19,300.00	12,517.00	18,873.62	12,323.99	116.59	125.40	84.07	-6,332.73	-606.43	2,033.05	1,864.01	169.04	12.027	
19,400.00	12,517.00	18,973.62	12,325.07	118.09	126.95	84.10	-6,432.71	-605.55	2,033.05	1,861.84	171.22	11.874	
19,476.55	12,517.00	19,050.16	12,325.90	119.25	128.14	84.13	-6,509.25	-604.89	2,033.05	1,860.17	172.88	11.760	
19,500.00	12,517.00	19,073.61	12,326.16	119.60	128.51	84.13	-6,532.70	-604.68	2,033.05	1,859.66	173.40	11.725	
19,600.00	12,517.00	19,173.60	12,327.24	121.11	130.07	84.16	-6,632.68	-603.81	2,033.05	1,857.47	175.58	11.579	
19,700.00	12,517.00	19,273.60	12,328.32	122.63	131.63	84.19	-6,732.66	-602.94	2,033.05	1,855.29	177.76	11.437	
19,800.00	12,517.00	19,373.59	12,329.41	124.15	133.19	84.22	-6,832.65	-602.06	2,033.06	1,853.10	179.95	11.298	
19,900.00	12,517.00	19,473.59	12,330.49	125.67	134.76	84.26	-6,932.63	-601.19	2,033.06	1,850.91	182.15	11.162	
20,000.00	12,517.00	19,573.58	12,331.57	127.20	136.32	84.29	-7,032.62	-600.32	2,033.06	1,848.71	184.35	11.029	
20,100.00	12,517.00	19,673.57	12,332.65	128.73	137.89	84.32	-7,132.60	-599.45	2,033.06	1,846.52	186.55	10.898	
20,200.00	12,517.00	19,773.57	12,333.74	130.26	139.46	84.35	-7,232.59	-598.57	2,033.07	1,844.32	188.75	10.771	
20,300.00	12,517.00	19,873.56	12,334.82	131.80	141.04	84.38	-7,332.57	-597.70	2,033.07	1,842.11	190.96	10.647	
20,400.00	12,517.00	19,973.56	12,335.90	133.34	142.61	84.41	-7,432.56	-596.83	2,033.08	1,839.91	193.17	10.525	
20,500.00	12,517.00	20,073.55	12,336.99	134.88	144.19	84.44	-7,532.54	-595.96	2,033.08	1,837.70	195.38	10.406	
20,600.00	12,517.00	20,173.54	12,338.07	136.42	145.77	84.47	-7,632.52	-595.08	2,033.09	1,835.49	197.60	10.289	
20,700.00	12,517.00	20,273.54	12,339.15	137.97	147.35	84.50	-7,732.51	-594.21	2,033.10	1,833.28	199.82	10.175	
20,800.00	12,517.00	20,373.53	12,340.23	139.52	148.93	84.53	-7,832.49	-593.34	2,033.10	1,831.06	202.04	10.063	
20,900.00	12,517.00	20,473.53	12,341.32	141.07	150.51	84.56	-7,932.48	-592.47	2,033.11	1,828.84	204.27	9.953	
21,000.00	12,517.00	20,573.52	12,342.40	142.62	152.09	84.59	-8,032.46	-591.59	2,033.12	1,826.63	206.49	9.846	
21,100.00	12,517.00	20,673.51	12,343.48	144.18	153.68	84.62	-8,132.45	-590.72	2,033.13	1,824.40	208.72	9.741	
21,200.00	12,517.00	20,773.51	12,344.57	145.73	155.27	84.65	-8,232.43	-589.85	2,033.14	1,822.18	210.96	9.638	
21,300.00	12,517.00	20,873.50	12,345.65	147.29	156.86	84.68	-8,332.41	-588.98	2,033.15	1,819.96	213.19	9.537	
21,400.00	12,517.00	20,973.50	12,346.73	148.85	158.45	84.72	-8,432.40	-588.10	2,033.16	1,817.73	215.43	9.438	
21,500.00	12,517.00	21,073.49	12,347.81	150.42	160.04	84.75	-8,532.38	-587.23	2,033.17	1,815.50	217.67	9.341	
21,600.00	12,517.00	21,173.49	12,348.90	151.98	161.63	84.78	-8,632.37	-586.36	2,033.18	1,813.27	219.91	9.246	
21,700.00	12,517.00	21,273.48	12,349.98	153.55	163.22	84.81	-8,732.35	-585.49	2,033.20	1,811.04	222.15	9.152	
21,800.00	12,517.00	21,373.47	12,351.06	155.12	164.82	84.84	-8,832.34	-584.62	2,033.21	1,808.81	224.40	9.061	
21,900.00	12,517.00	21,473.47	12,352.15	156.69	166.41	84.87	-8,932.32	-583.74	2,033.22	1,806.58	226.65	8.971	
22,000.00	12,517.00	21,573.46	12,353.23	158.26	168.01	84.90	-9,032.31	-582.87	2,033.24	1,804.34	228.90	8.883	
22,100.00	12,517.00	21,673.46	12,354.31	159.84	169.61	84.93	-9,132.29	-582.00	2,033.25	1,802.10	231.15	8.796	
22,200.00	12,517.00	21,773.45	12,355.39	161.41	171.20	84.96	-9,232.27	-581.13	2,033.27	1,799.87	233.40	8.711	
22,300.00	12,517.00	21,873.44	12,356.48	162.99	172.80	84.99	-9,332.26	-580.25	2,033.28	1,797.63	235.66	8.628	
22,400.00	12,517.00	21,973.44	12,357.56	164.57	174.41	85.02	-9,432.24	-579.38	2,033.30	1,795.39	237.91	8.546	
22,500.00	12,517.00	22,073.43	12,358.64	166.14	176.01	85.05	-9,532.23	-578.51	2,033.32	1,793.15	240.17	8.466	
22,600.00	12,517.00	22,173.43	12,359.73	167.73	177.61	85.08	-9,632.21	-577.64	2,033.34	1,790.90	242.43	8.387	
22,700.00	12,517.00	22,273.42	12,360.81	169.31	179.21	85.11	-9,732.20	-576.76	2,033.35	1,788.66	244.69	8.310	
22,800.00	12,517.00	22,373.41	12,361.89	170.89	180.82	85.14	-9,832.18	-575.89	2,033.37	1,786.42	246.96	8.234	
22,900.00	12,517.00	22,390.61	12,362.08	172.48	181.09	85.15	-9,849.37	-575.74	2,035.08	1,787.64	247.44	8.225	SF
23,000.00	12,517.00	22,390.61	12,362.08	174.06	181.09	85.15	-9,849.37	-575.74	2,041.61	1,794.61	247.00	8.266	
23,100.00	12,517.00	22,390.61	12,362.08	175.65	181.09	85.15	-9,849.37	-575.74	2,053.00	1,807.03	245.98	8.346	
23,200.00	12,517.00	22,390.61	12,362.08	177.24	181.09	85.15	-9,849.37	-575.74	2,069.17	1,824.78	244.40	8.466	
23,300.00	12,517.00	22,390.61	12,362.08	178.83	181.09	85.15	-9,849.37	-575.74	2,090.00	1,847.70	242.30	8.626	
23,400.00	12,517.00	22,390.61	12,362.08	180.42	181.09	85.15	-9,849.37	-575.74	2,115.36	1,875.62	239.74	8.824	
23,500.00	12,517.00	22,390.61	12,362.08	182.01	181.09	85.15	-9,849.37	-575.74	2,145.08	1,908.31	236.77	9.060	
23,600.00	12,517.00	22,390.61	12,362.08	183.60	181.09	85.15	-9,849.37	-575.74	2,179.00	1,945.53	233.47	9.333	
23,700.00	12,517.00	22,390.61	12,362.08	185.20	181.09	85.15	-9,849.37	-575.74	2,216.91	1,987.02	229.88	9.644	
23,800.00	12,517.00	22,390.61	12,362.08	186.79	181.09	85.15	-9,849.37	-575.74	2,258.61	2,032.53	226.08	9.990	
23,900.00	12,517.00	22,390.61	12,362.08	188.39	181.09	85.15	-9,849.37	-575.74	2,303.90	2,081.79	222.11	10.373	
24,000.00	12,517.00	22,390.61	12,362.08	189.99	181.09	85.15	-9,849.37	-575.74	2,352.57	2,134.54	218.03	10.790	
24,100.00	12,517.00	22,390.61	12,362.08	191.58	181.09	85.15	-9,849.37	-575.74	2,404.42	2,190.53	213.88	11.242	
24,130.17	12,517.00	22,390.61	12,362.08	192.05	181.09	85.15	-9,849.37	-575.74	2,420.65	2,207.57	213.08	11.360	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	75.94	856.86	3,421.57	3,527.30				
100.00	100.00	78.50	78.50	0.13	0.12	75.94	856.86	3,421.57	3,527.23	3,527.06	0.17	N/A	
200.00	200.00	178.50	178.50	0.48	0.27	75.94	856.86	3,421.57	3,527.23	3,526.68	0.55	6,368.237	
300.00	300.00	312.73	312.73	0.84	0.71	75.95	856.38	3,421.05	3,526.77	3,525.67	1.10	3,195.088	
400.00	400.00	441.04	441.03	1.20	1.16	75.95	855.47	3,419.45	3,525.40	3,523.72	1.67	2,107.298	
500.00	500.00	577.91	577.85	1.56	1.65	75.96	854.24	3,416.60	3,523.17	3,520.90	2.27	1,550.581	
600.00	600.00	708.86	708.72	1.92	2.13	75.99	851.56	3,412.60	3,519.65	3,516.80	2.86	1,230.939	
700.00	700.00	802.24	802.02	2.28	2.46	76.01	849.48	3,409.62	3,516.02	3,512.67	3.35	1,050.168	
800.00	800.00	891.92	891.65	2.63	2.79	76.04	847.16	3,407.08	3,512.65	3,508.82	3.83	917.722	
900.00	900.00	979.46	979.13	2.99	3.10	76.06	845.00	3,405.09	3,509.81	3,505.51	4.30	815.829	
1,000.00	1,000.00	1,116.98	1,116.54	3.35	3.60	76.09	842.08	3,400.53	3,505.97	3,501.06	4.91	714.524	
1,100.00	1,100.00	1,206.36	1,205.85	3.71	3.93	76.11	840.46	3,397.57	3,502.29	3,496.90	5.39	650.206	
1,200.00	1,200.00	1,319.11	1,318.52	4.07	4.34	76.12	838.56	3,393.53	3,498.40	3,492.47	5.93	590.278	
1,300.00	1,300.00	1,407.67	1,407.01	4.43	4.53	76.13	837.27	3,390.33	3,494.55	3,488.25	6.31	554.033	
1,400.00	1,400.00	1,509.17	1,508.44	4.79	4.56	76.13	836.05	3,386.71	3,490.79	3,484.21	6.58	530.334	
1,500.00	1,500.00	1,602.72	1,601.93	5.14	4.62	76.14	835.01	3,383.52	3,487.22	3,480.34	6.88	506.841	
1,600.00	1,600.00	1,699.12	1,698.27	5.50	4.70	76.14	833.92	3,380.24	3,483.64	3,476.44	7.20	483.759	
1,700.00	1,699.98	1,786.20	1,785.30	5.86	4.79	9.41	833.06	3,377.57	3,478.71	3,471.17	7.53	461.927	
1,800.00	1,799.84	1,875.56	1,874.62	6.21	4.91	9.45	832.30	3,375.03	3,470.59	3,462.72	7.87	440.783	
1,900.00	1,899.45	1,958.07	1,957.11	6.56	5.03	9.52	831.16	3,373.16	3,459.47	3,451.25	8.22	420.690	
2,000.00	1,998.70	2,041.27	2,040.28	6.92	5.17	9.62	829.49	3,371.81	3,445.42	3,436.84	8.58	401.387	
2,100.00	2,097.47	2,125.00	2,123.98	7.29	5.32	9.74	827.65	3,370.79	3,428.32	3,419.37	8.95	382.887	
2,200.00	2,195.62	2,200.93	2,199.89	7.67	5.46	9.87	826.24	3,370.21	3,408.38	3,399.05	9.32	365.542	
2,300.00	2,293.06	2,282.07	2,281.03	8.07	5.62	10.02	825.25	3,370.06	3,385.74	3,376.03	9.71	348.819	
2,357.10	2,348.32	2,330.48	2,329.44	8.31	5.72	10.12	824.88	3,370.06	3,371.48	3,361.55	9.93	339.518	
2,400.00	2,389.73	2,367.19	2,366.15	8.49	5.80	10.15	824.64	3,370.11	3,360.44	3,350.34	10.10	332.734	
2,500.00	2,486.26	2,450.24	2,449.19	8.92	5.98	10.23	824.17	3,370.43	3,334.94	3,324.45	10.49	317.842	
2,600.00	2,582.78	2,532.15	2,531.10	9.37	6.16	10.31	823.95	3,371.07	3,309.88	3,298.99	10.89	303.924	
2,700.00	2,679.31	2,634.20	2,633.14	9.83	6.40	10.40	823.84	3,372.18	3,285.17	3,273.85	11.32	290.164	
2,800.00	2,775.84	2,769.53	2,768.43	10.30	6.74	10.57	820.66	3,373.01	3,259.48	3,247.67	11.81	275.976	
2,900.00	2,872.37	2,854.43	2,853.19	10.78	6.97	10.74	815.83	3,373.83	3,233.47	3,221.23	12.24	264.105	
3,000.00	2,968.90	2,920.57	2,919.18	11.27	7.15	10.88	811.64	3,375.00	3,208.11	3,195.46	12.65	253.511	
3,100.00	3,065.43	2,995.19	2,993.66	11.76	7.36	11.03	807.60	3,377.03	3,183.81	3,170.73	13.08	243.357	
3,200.00	3,161.95	3,316.23	3,313.64	12.25	8.33	11.79	782.92	3,375.93	3,156.20	3,142.31	13.88	227.328	
3,300.00	3,258.48	3,391.22	3,388.26	12.76	8.57	11.98	776.02	3,373.30	3,125.49	3,111.15	14.33	218.106	
3,400.00	3,355.01	3,445.00	3,441.85	13.26	8.74	12.11	771.70	3,371.81	3,095.79	3,081.05	14.75	209.909	
3,500.00	3,451.54	3,524.85	3,521.48	13.77	9.00	12.30	766.08	3,370.19	3,066.96	3,051.76	15.21	201.665	
3,600.00	3,548.07	3,701.17	3,697.40	14.29	9.57	12.66	756.35	3,363.95	3,036.82	3,021.02	15.81	192.115	
3,700.00	3,644.59	3,767.81	3,763.92	14.80	9.79	12.77	754.04	3,360.75	3,006.19	2,989.94	16.25	184.998	
3,800.00	3,741.12	3,823.00	3,819.07	15.32	9.96	12.85	753.00	3,358.72	2,976.83	2,960.15	16.68	178.484	
3,900.00	3,837.65	3,883.98	3,880.02	15.84	10.16	12.93	752.05	3,357.21	2,948.68	2,931.57	17.12	172.258	
4,000.00	3,934.18	3,978.49	3,974.47	16.37	10.47	13.10	749.09	3,355.99	2,921.40	2,903.79	17.61	165.901	
4,100.00	4,030.71	4,100.84	4,096.51	16.90	10.88	13.41	740.61	3,354.35	2,893.42	2,875.27	18.15	159.421	
4,200.00	4,127.24	4,173.04	4,168.48	17.42	11.13	13.62	734.85	3,353.46	2,865.43	2,846.81	18.62	153.878	
4,300.00	4,223.76	4,258.89	4,254.15	17.95	11.42	13.84	729.37	3,352.78	2,838.16	2,819.05	19.11	148.488	
4,400.00	4,320.29	4,418.72	4,413.76	18.49	11.96	14.20	721.86	3,349.69	2,810.30	2,790.60	19.71	142.608	
4,500.00	4,416.82	4,534.04	4,528.86	19.02	12.36	14.45	716.48	3,344.97	2,780.23	2,759.99	20.24	137.386	
4,600.00	4,513.35	4,605.10	4,599.82	19.55	12.60	14.60	713.89	3,342.19	2,750.62	2,729.91	20.71	132.804	
4,700.00	4,609.88	4,673.00	4,667.66	20.09	12.83	14.74	711.66	3,340.29	2,722.09	2,700.90	21.18	128.493	
4,800.00	4,706.40	4,743.74	4,738.35	20.62	13.07	14.89	709.45	3,338.99	2,694.51	2,672.85	21.66	124.381	
4,900.00	4,802.93	4,827.17	4,821.74	21.16	13.36	15.06	707.07	3,337.92	2,667.56	2,645.40	22.16	120.379	
5,000.00	4,899.46	4,919.07	4,913.61	21.70	13.67	15.24	705.06	3,336.94	2,640.95	2,618.28	22.67	116.508	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,009.96	5,004.48	22.24	13.98	15.42	703.35	3,336.05	2,614.48	2,591.31	23.18	112.814	
5,200.00	5,092.52	5,235.21	5,229.46	22.78	14.76	15.96	694.93	3,330.91	2,587.65	2,563.82	23.84	108.556	
5,300.00	5,189.04	5,339.99	5,333.81	23.32	15.14	16.30	687.13	3,325.29	2,556.37	2,532.00	24.37	104.894	
5,400.00	5,285.57	5,423.00	5,416.44	23.86	15.44	16.58	680.69	3,320.87	2,525.17	2,500.29	24.89	101.468	
5,500.00	5,382.10	5,509.66	5,502.72	24.41	15.76	16.89	673.83	3,316.59	2,494.39	2,468.98	25.41	98.172	
5,600.00	5,478.63	5,611.96	5,604.56	24.95	16.14	17.27	665.39	3,311.66	2,463.75	2,437.80	25.95	94.945	
5,700.00	5,575.16	5,692.19	5,684.42	25.49	16.43	17.57	658.72	3,307.86	2,433.28	2,406.81	26.47	91.920	
5,800.00	5,671.69	5,772.17	5,764.08	26.04	16.73	17.88	652.43	3,304.50	2,403.44	2,376.44	27.00	89.030	
5,900.00	5,768.21	5,880.12	5,871.58	26.58	17.13	18.30	643.67	3,300.21	2,373.89	2,346.34	27.55	86.167	
6,000.00	5,864.74	5,997.47	5,988.25	27.13	17.57	18.82	632.40	3,294.57	2,343.51	2,315.39	28.12	83.349	
6,100.00	5,961.27	6,085.00	6,075.23	27.67	17.90	19.23	623.53	3,290.19	2,313.00	2,284.34	28.66	80.697	
6,200.00	6,057.80	6,181.38	6,170.98	28.22	18.27	19.69	613.73	3,285.39	2,282.66	2,253.44	29.22	78.121	
6,300.00	6,154.33	6,273.00	6,261.98	28.76	18.62	20.16	604.08	3,280.79	2,252.38	2,222.60	29.78	75.641	
6,400.00	6,250.85	6,348.72	6,337.22	29.31	18.91	20.54	596.39	3,277.30	2,222.66	2,192.34	30.32	73.295	
6,500.00	6,347.38	6,436.07	6,424.16	29.86	19.24	20.96	588.60	3,273.76	2,193.68	2,162.79	30.88	71.035	
6,600.00	6,443.91	6,521.03	6,508.82	30.41	19.55	21.35	582.30	3,270.45	2,165.06	2,133.63	31.43	68.875	
6,700.00	6,540.44	6,604.32	6,591.94	30.95	19.86	21.69	577.83	3,267.58	2,137.06	2,105.08	31.98	66.817	
6,803.85	6,640.68	6,692.67	6,680.15	31.52	20.18	22.05	573.55	3,264.98	2,108.61	2,076.05	32.56	64.768	
6,900.00	6,733.90	6,778.29	6,765.63	32.03	20.49	22.20	569.29	3,262.81	2,084.17	2,051.08	33.09	62.991	
7,000.00	6,831.63	6,867.71	6,854.91	32.53	20.81	22.35	564.76	3,260.76	2,062.14	2,028.50	33.63	61.314	
7,100.00	6,930.04	6,954.63	6,941.71	32.98	21.12	22.50	560.39	3,259.29	2,043.92	2,009.75	34.17	59.821	
7,200.00	7,029.01	7,063.00	7,049.96	33.40	21.51	22.69	555.67	3,257.37	2,028.86	1,994.16	34.70	58.461	
7,300.00	7,128.41	7,160.31	7,147.19	33.78	21.86	22.81	552.11	3,255.25	2,016.66	1,981.44	35.22	57.258	
7,400.00	7,228.14	7,241.69	7,228.52	34.12	22.14	22.87	550.07	3,253.99	2,008.32	1,972.61	35.71	56.240	
7,500.00	7,328.06	7,321.86	7,308.69	34.43	22.42	22.91	548.64	3,253.56	2,004.19	1,968.01	36.18	55.395	
7,557.91	7,385.96	7,375.69	7,362.51	34.59	22.61	22.94	547.80	3,253.56	2,003.59	1,967.14	36.45	54.970	
7,560.95	7,389.00	7,378.52	7,365.33	34.59	22.62	89.69	547.76	3,253.56	2,003.59	1,967.13	36.46	54.949	
7,600.00	7,428.05	7,414.89	7,401.70	34.70	22.74	89.71	547.19	3,253.63	2,003.66	1,967.02	36.64	54.683	
7,700.00	7,528.05	7,509.28	7,496.08	34.97	23.06	89.75	545.77	3,254.01	2,004.06	1,966.96	37.10	54.018	
7,800.00	7,628.05	7,609.47	7,596.26	35.24	23.40	89.79	544.27	3,254.50	2,004.54	1,966.98	37.56	53.365	
7,900.00	7,728.05	7,701.93	7,688.70	35.51	23.72	89.83	542.88	3,255.16	2,005.25	1,967.23	38.02	52.742	
8,000.00	7,828.05	7,796.08	7,782.84	35.79	24.03	89.87	541.69	3,256.13	2,006.27	1,967.80	38.48	52.144	
8,100.00	7,928.05	7,886.03	7,872.77	36.06	24.33	89.89	540.79	3,257.43	2,007.72	1,968.80	38.92	51.580	
8,200.00	8,028.05	7,985.44	7,972.17	36.34	24.65	89.91	540.11	3,259.10	2,009.40	1,970.02	39.38	51.026	
8,300.00	8,128.05	8,078.12	8,064.83	36.62	24.95	89.92	539.75	3,260.87	2,011.31	1,971.48	39.83	50.501	
8,400.00	8,228.05	8,176.87	8,163.56	36.90	25.27	89.92	539.81	3,262.93	2,013.39	1,973.11	40.28	49.989	
8,500.00	8,328.05	8,272.69	8,259.35	37.18	25.57	89.90	540.49	3,265.13	2,015.69	1,974.97	40.72	49.501	
8,600.00	8,428.05	8,380.10	8,366.73	37.46	25.90	89.86	541.79	3,267.34	2,017.74	1,976.56	41.17	49.006	
8,700.00	8,528.05	8,473.17	8,459.77	37.75	26.19	89.82	543.29	3,269.32	2,019.88	1,978.26	41.61	48.540	
8,800.00	8,628.05	8,569.08	8,555.63	38.03	26.49	89.77	545.00	3,271.70	2,022.36	1,980.31	42.05	48.089	
8,900.00	8,728.05	8,699.75	8,686.25	38.32	26.90	89.71	547.41	3,274.37	2,024.50	1,981.97	42.53	47.604	
9,000.00	8,828.05	8,815.50	8,801.99	38.61	27.27	89.68	548.45	3,274.85	2,024.89	1,981.90	42.99	47.102	
9,100.00	8,928.05	8,920.14	8,906.63	38.89	27.60	89.65	549.43	3,274.96	2,025.00	1,981.56	43.44	46.611	
9,200.00	9,028.05	9,026.78	9,013.26	39.18	27.94	89.60	551.26	3,274.72	2,024.78	1,980.88	43.90	46.122	
9,297.99	9,126.04	9,118.08	9,104.54	39.47	28.23	89.55	553.06	3,274.54	2,024.61	1,980.27	44.34	45.663	
9,300.00	9,128.05	9,119.92	9,106.38	39.47	28.23	89.54	553.09	3,274.54	2,024.61	1,980.26	44.35	45.653	
9,400.00	9,228.05	9,211.28	9,197.72	39.77	28.53	89.50	554.73	3,274.74	2,024.83	1,980.04	44.79	45.203	
9,500.00	9,328.05	9,304.42	9,290.84	40.06	28.82	89.44	556.77	3,275.30	2,025.46	1,980.22	45.24	44.770	
9,600.00	9,428.05	9,407.98	9,394.36	40.35	29.15	89.37	559.38	3,276.01	2,026.17	1,980.47	45.70	44.339	
9,700.00	9,528.05	9,511.37	9,497.73	40.65	29.48	89.30	561.80	3,276.45	2,026.62	1,980.47	46.15	43.910	
9,800.00	9,628.05	9,604.85	9,591.17	40.95	29.78	89.23	564.11	3,276.95	2,027.19	1,980.58	46.60	43.498	
9,900.00	9,728.05	9,691.18	9,677.47	41.24	30.06	89.18	566.19	3,277.81	2,028.23	1,981.18	47.05	43.109	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,828.05	9,765.00	9,751.26	41.54	30.30	89.13	567.78	3,279.22	2,030.21	1,982.73	47.48	42.761	
10,100.00	9,928.05	9,846.43	9,832.65	41.84	30.56	89.09	569.32	3,281.68	2,033.28	1,985.36	47.91	42.435	
10,200.00	10,028.05	9,958.69	9,944.83	42.14	30.93	89.07	570.06	3,285.56	2,036.76	1,988.36	48.40	42.083	
10,300.00	10,128.05	10,052.26	10,038.34	42.44	31.25	89.10	568.91	3,288.61	2,040.00	1,991.14	48.86	41.748	
10,400.00	10,228.05	10,175.47	10,161.46	42.74	31.67	89.19	565.69	3,291.95	2,042.64	1,993.26	49.38	41.364	
10,500.00	10,328.05	10,271.48	10,257.40	43.05	32.01	89.28	562.55	3,294.06	2,044.82	1,994.95	49.86	41.009	
10,600.00	10,428.05	10,377.16	10,363.00	43.35	32.37	89.35	560.05	3,296.91	2,047.50	1,997.14	50.35	40.662	
10,700.00	10,528.05	10,490.49	10,476.32	43.65	32.76	89.39	558.98	3,298.55	2,048.89	1,998.04	50.85	40.292	
10,800.00	10,628.05	10,632.13	10,617.94	43.96	33.25	89.42	557.87	3,299.44	2,049.58	1,998.20	51.38	39.894	
10,900.00	10,728.05	10,723.94	10,709.75	44.27	33.57	89.44	556.92	3,299.13	2,049.23	1,997.38	51.85	39.520	
10,960.84	10,788.89	10,781.58	10,767.39	44.45	33.78	89.46	556.37	3,299.09	2,049.18	1,997.04	52.14	39.298	
11,000.00	10,828.05	10,817.84	10,803.65	44.57	33.90	89.47	556.05	3,299.12	2,049.21	1,996.88	52.33	39.159	
11,100.00	10,928.05	10,906.71	10,892.51	44.88	34.21	89.48	555.43	3,299.49	2,049.62	1,996.82	52.80	38.818	
11,200.00	11,028.05	10,995.09	10,980.88	45.19	34.52	89.51	554.49	3,300.36	2,050.59	1,997.32	53.27	38.494	
11,300.00	11,128.05	11,096.42	11,082.20	45.50	34.87	89.55	553.26	3,301.61	2,051.82	1,998.07	53.76	38.169	
11,400.00	11,228.05	11,234.70	11,219.95	45.81	35.37	89.84	542.89	3,302.63	2,052.69	1,998.37	54.31	37.795	
11,500.00	11,328.05	11,361.49	11,341.09	46.12	35.89	90.86	506.39	3,300.38	2,050.90	1,995.97	54.93	37.337	
11,600.00	11,428.05	11,449.12	11,419.33	46.43	36.28	91.95	467.21	3,298.41	2,049.64	1,994.11	55.53	36.912	
11,626.97	11,455.02	11,466.00	11,433.53	46.51	36.36	92.21	458.10	3,298.02	2,049.53	1,993.86	55.68	36.811	
11,700.00	11,528.05	11,502.44	11,463.18	46.74	36.53	92.80	436.94	3,297.36	2,050.26	1,994.21	56.05	36.579	
11,800.00	11,628.05	11,561.00	11,507.84	47.05	36.80	93.85	399.11	3,296.75	2,053.76	1,997.18	56.58	36.299	
11,900.00	11,728.05	11,618.50	11,547.77	47.37	37.09	95.01	357.76	3,296.05	2,060.01	2,002.92	57.09	36.083	
12,000.00	11,828.05	11,677.24	11,584.51	47.68	37.40	96.28	311.97	3,294.91	2,069.20	2,011.61	57.59	35.932	
12,100.00	11,928.05	11,732.46	11,616.18	48.00	37.70	97.53	266.77	3,293.40	2,081.55	2,023.51	58.03	35.868	
12,115.99	11,944.04	11,741.27	11,621.09	48.05	37.75	97.74	259.45	3,293.13	2,083.82	2,025.71	58.10	35.865	
12,150.00	11,978.03	11,757.53	11,630.01	48.15	37.84	-73.43	245.88	3,292.61	2,088.65	2,030.43	58.22	35.874	
12,200.00	12,027.75	11,778.49	11,641.05	48.28	37.96	-72.31	228.06	3,291.89	2,095.45	2,037.09	58.35	35.909	
12,250.00	12,076.83	11,797.00	11,650.29	48.41	38.06	-71.32	212.04	3,291.21	2,101.79	2,043.35	58.44	35.963	
12,300.00	12,124.90	11,815.41	11,658.93	48.53	38.17	-70.40	195.81	3,290.51	2,107.62	2,049.11	58.51	36.024	
12,350.00	12,171.60	11,844.00	11,671.14	48.63	38.34	-69.37	169.98	3,289.44	2,112.97	2,054.37	58.61	36.053	
12,400.00	12,216.56	11,844.00	11,671.14	48.72	38.34	-68.94	169.98	3,289.44	2,117.55	2,059.04	58.51	36.194	
12,450.00	12,259.45	11,864.75	11,679.08	48.80	38.46	-68.23	150.82	3,288.71	2,121.49	2,062.97	58.52	36.255	
12,500.00	12,299.94	11,891.00	11,688.05	48.87	38.62	-67.54	126.17	3,287.88	2,124.74	2,066.19	58.54	36.293	
12,550.00	12,337.72	11,904.27	11,692.17	48.93	38.70	-67.14	113.56	3,287.46	2,127.04	2,068.55	58.48	36.370	
12,600.00	12,372.50	11,938.00	11,701.52	48.97	38.91	-66.59	81.19	3,286.15	2,128.29	2,069.75	58.54	36.356	
12,650.00	12,404.03	11,957.80	11,706.14	49.00	39.03	-66.33	61.95	3,285.24	2,128.42	2,069.91	58.51	36.377	
12,700.00	12,432.05	11,967.00	11,708.02	49.03	39.09	-66.30	52.96	3,284.79	2,127.60	2,069.17	58.42	36.416	
12,750.00	12,456.36	12,003.32	11,713.98	49.05	39.32	-66.10	17.19	3,282.91	2,125.53	2,067.04	58.50	36.336	
12,800.00	12,476.77	12,029.71	11,717.00	49.06	39.48	-66.14	-8.99	3,281.45	2,122.45	2,063.92	58.52	36.267	
12,850.00	12,493.12	12,074.69	11,721.49	49.07	39.78	-66.20	-53.67	3,278.96	2,117.98	2,059.32	58.66	36.104	
12,900.00	12,505.30	12,128.14	11,726.87	49.09	40.15	-66.48	-106.76	3,275.95	2,111.78	2,052.91	58.87	35.873	
12,950.00	12,513.20	12,171.13	11,731.28	49.11	40.45	-67.06	-149.46	3,273.52	2,103.85	2,044.80	59.05	35.631	
13,000.00	12,516.77	12,207.35	11,735.05	49.13	40.72	-67.90	-185.43	3,271.71	2,094.53	2,035.31	59.21	35.372	
13,015.99	12,517.00	12,218.91	11,736.26	49.14	40.80	-68.21	-196.92	3,271.19	2,091.27	2,031.99	59.27	35.282	
13,100.00	12,517.00	12,293.66	11,744.27	49.21	41.37	-68.42	-271.18	3,268.22	2,075.17	2,015.47	59.70	34.760	
13,200.00	12,517.00	12,372.63	11,753.33	49.32	42.01	-68.67	-349.58	3,265.50	2,059.25	1,999.02	60.23	34.190	
13,300.00	12,517.00	12,433.00	11,760.46	49.47	42.51	-68.89	-409.52	3,264.56	2,048.16	1,987.42	60.74	33.720	
13,387.80	12,517.00	12,496.55	11,767.74	49.62	43.06	-69.10	-472.65	3,264.51	2,042.44	1,981.12	61.31	33.311	
13,400.00	12,517.00	12,505.07	11,768.67	49.64	43.14	-69.13	-481.11	3,264.56	2,041.91	1,980.51	61.40	33.258	
13,500.00	12,517.00	12,567.95	11,774.99	49.86	43.70	-69.30	-543.68	3,265.28	2,038.52	1,976.45	62.07	32.844	
13,600.00	12,517.00	12,622.00	11,779.30	50.14	44.19	-69.42	-597.54	3,266.56	2,037.10	1,974.35	62.75	32.466	
13,633.65	12,517.00	12,652.49	11,781.20	50.24	44.47	-69.47	-627.96	3,267.46	2,037.00	1,973.94	63.06	32.304	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.00	12,517.00	12,699.25	11,783.20	50.48	44.91	-69.53	-674.65	3,268.91	2,037.32	1,973.72	63.60	32.033	
13,800.00	12,517.00	12,801.99	11,785.70	50.88	45.90	-69.62	-777.31	3,272.05	2,038.42	1,973.79	64.63	31.542	
13,900.00	12,517.00	12,926.72	11,788.50	51.34	47.15	-69.71	-901.98	3,274.47	2,038.50	1,972.68	65.82	30.969	
13,993.33	12,517.00	13,011.04	11,789.63	51.82	48.03	-69.74	-986.29	3,275.51	2,038.30	1,971.48	66.82	30.503	
14,000.00	12,517.00	13,016.00	11,789.67	51.86	48.08	-69.74	-991.25	3,275.58	2,038.31	1,971.42	66.89	30.473	
14,100.00	12,517.00	13,093.00	11,789.68	52.43	48.90	-69.75	-1,068.23	3,276.99	2,039.08	1,971.14	67.94	30.014	
14,200.00	12,517.00	13,225.16	11,790.95	53.06	50.37	-69.78	-1,200.37	3,278.78	2,038.94	1,969.61	69.33	29.408	
14,223.83	12,517.00	13,242.87	11,791.26	53.22	50.56	-69.79	-1,218.07	3,279.04	2,038.91	1,969.30	69.60	29.293	
14,300.00	12,517.00	13,319.14	11,792.75	53.74	51.44	-69.84	-1,294.31	3,280.60	2,039.16	1,968.57	70.58	28.890	
14,400.00	12,517.00	13,443.37	11,798.60	54.46	52.89	-70.01	-1,418.38	3,282.86	2,038.26	1,966.19	72.07	28.281	
14,500.00	12,517.00	13,536.95	11,804.04	55.23	54.02	-70.16	-1,511.78	3,284.65	2,037.16	1,963.72	73.44	27.739	
14,600.00	12,517.00	13,625.19	11,809.51	56.04	55.10	-70.32	-1,599.83	3,286.94	2,036.58	1,961.76	74.82	27.218	
14,700.00	12,517.00	13,719.82	11,816.01	56.89	56.28	-70.51	-1,694.18	3,290.11	2,036.51	1,960.22	76.29	26.693	
14,703.15	12,517.00	13,722.95	11,816.25	56.91	56.32	-70.52	-1,697.29	3,290.23	2,036.51	1,960.17	76.34	26.676	
14,703.20	12,517.00	13,722.99	11,816.25	56.91	56.32	-70.52	-1,697.34	3,290.23	2,036.51	1,960.17	76.34	26.676	
14,800.00	12,517.00	13,817.93	11,823.94	57.77	57.52	-70.75	-1,791.89	3,293.91	2,036.56	1,958.72	77.83	26.166	
14,900.00	12,517.00	13,891.22	11,830.12	58.69	58.47	-70.93	-1,864.85	3,297.18	2,037.15	1,957.89	79.25	25.704	
15,000.00	12,517.00	13,958.58	11,834.95	59.64	59.34	-71.09	-1,931.92	3,301.19	2,039.48	1,958.82	80.66	25.285	
15,100.00	12,517.00	14,044.76	11,838.18	60.63	60.46	-71.22	-2,017.88	3,306.22	2,042.87	1,960.67	82.20	24.853	
15,200.00	12,517.00	14,237.93	11,840.00	61.64	63.01	-71.29	-2,210.94	3,311.33	2,043.98	1,959.60	84.38	24.224	
15,300.00	12,517.00	14,387.06	11,844.91	62.68	65.03	-71.41	-2,359.99	3,311.23	2,041.92	1,955.59	86.33	23.653	
15,400.00	12,517.00	14,489.63	11,852.69	63.75	66.44	-71.61	-2,462.25	3,310.92	2,038.28	1,950.21	88.07	23.143	
15,500.00	12,517.00	14,570.83	11,861.17	64.84	67.56	-71.84	-2,543.00	3,312.12	2,035.46	1,945.71	89.75	22.680	
15,600.00	12,517.00	14,661.62	11,869.27	65.96	68.83	-72.06	-2,633.40	3,313.63	2,033.33	1,941.84	91.49	22.224	
15,700.00	12,517.00	14,761.33	11,878.14	67.10	70.24	-72.30	-2,732.71	3,315.50	2,031.45	1,938.12	93.32	21.768	
15,800.00	12,517.00	14,883.40	11,891.37	68.26	71.97	-72.67	-2,854.03	3,318.02	2,029.26	1,933.92	95.33	21.286	
15,900.00	12,517.00	15,000.82	11,899.77	69.44	73.64	-72.88	-2,971.12	3,317.46	2,025.71	1,928.43	97.28	20.823	
16,000.00	12,517.00	15,109.95	11,903.62	70.64	75.21	-72.96	-3,080.16	3,315.11	2,021.67	1,922.51	99.16	20.388	
16,100.00	12,517.00	15,166.19	11,906.46	71.85	76.02	-73.03	-3,136.33	3,314.71	2,018.54	1,917.75	100.79	20.027	
16,200.00	12,517.00	15,256.35	11,913.26	73.09	77.33	-73.22	-3,226.21	3,316.40	2,017.15	1,914.50	102.65	19.651	
16,300.00	12,517.00	15,338.79	11,917.82	74.34	78.53	-73.34	-3,308.51	3,317.19	2,015.62	1,911.16	104.46	19.296	
16,337.63	12,517.00	15,361.86	11,918.63	74.81	78.86	-73.37	-3,331.57	3,317.58	2,015.48	1,910.39	105.09	19.179	
16,400.00	12,517.00	15,407.27	11,919.60	75.60	79.53	-73.40	-3,376.96	3,318.59	2,015.82	1,909.65	106.17	18.987	
16,500.00	12,517.00	15,515.15	11,919.57	76.88	81.11	-73.41	-3,484.82	3,320.51	2,016.61	1,908.49	108.11	18.652	
16,600.00	12,517.00	15,698.07	11,919.97	78.18	83.79	-73.40	-3,667.72	3,320.11	2,015.71	1,905.25	110.47	18.247	
16,700.00	12,517.00	15,834.08	11,922.28	79.49	85.80	-73.41	-3,803.59	3,314.65	2,010.18	1,897.64	112.54	17.862	
16,800.00	12,517.00	15,913.70	11,922.15	80.81	86.98	-73.37	-3,883.12	3,311.24	2,005.19	1,890.82	114.37	17.533	
16,900.00	12,517.00	15,994.31	11,928.60	82.14	88.19	-73.53	-3,963.45	3,310.69	2,001.28	1,885.00	116.29	17.210	
17,000.00	12,517.00	16,071.90	11,935.99	83.48	89.36	-73.74	-4,040.69	3,311.15	1,998.26	1,880.04	118.22	16.903	
17,100.00	12,517.00	16,145.00	11,942.60	84.84	90.46	-73.93	-4,113.47	3,312.83	1,996.89	1,876.77	120.12	16.624	
17,200.00	12,517.00	16,272.62	11,948.23	86.20	92.39	-74.07	-4,240.90	3,313.24	1,994.98	1,872.68	122.31	16.311	
17,300.00	12,517.00	16,347.50	11,945.96	87.58	93.52	-74.00	-4,315.73	3,312.02	1,993.29	1,869.16	124.13	16.058	
17,400.00	12,517.00	16,429.00	11,943.29	88.96	94.75	-73.91	-4,397.18	3,311.49	1,992.64	1,866.65	125.99	15.816	
17,434.63	12,517.00	16,460.52	11,942.90	89.44	95.23	-73.90	-4,428.70	3,311.65	1,992.60	1,865.94	126.66	15.732	
17,500.00	12,517.00	16,523.00	11,943.38	90.35	96.18	-73.91	-4,491.17	3,312.56	1,992.75	1,864.79	127.96	15.573	
17,600.00	12,517.00	16,616.74	11,947.36	91.75	97.62	-74.04	-4,584.78	3,315.08	1,993.21	1,863.22	129.99	15.333	
17,700.00	12,517.00	16,725.55	11,952.90	93.16	99.29	-74.20	-4,693.41	3,317.95	1,993.40	1,861.25	132.15	15.084	
17,700.23	12,517.00	16,725.76	11,952.91	93.17	99.29	-74.21	-4,693.62	3,317.95	1,993.40	1,861.25	132.15	15.084	
17,800.00	12,517.00	16,806.00	11,956.05	94.58	100.52	-74.30	-4,773.78	3,319.79	1,993.67	1,859.56	134.10	14.866	
17,900.00	12,517.00	16,900.00	11,959.57	96.01	101.97	-74.41	-4,867.66	3,322.91	1,994.90	1,858.73	136.16	14.651	
18,000.00	12,517.00	16,997.82	11,964.40	97.44	103.48	-74.57	-4,965.27	3,327.00	1,996.65	1,858.38	138.27	14.440	
18,100.00	12,517.00	17,050.80	11,967.31	98.88	104.30	-74.67	-5,018.10	3,329.80	1,999.32	1,859.29	140.03	14.278	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

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
18,200.00	12,517.00	17,121.74	11,970.42	100.32	105.40	-74.79	-5,088.78	3,334.95	2,004.12	1,862.21	141.91	14.122	
18,300.00	12,517.00	17,331.21	11,977.07	101.78	108.66	-75.02	-5,297.88	3,343.19	2,005.59	1,860.70	144.89	13.842	
18,311.68	12,517.00	17,338.81	11,977.39	101.95	108.77	-75.03	-5,305.48	3,343.34	2,005.58	1,860.46	145.12	13.820	
18,400.00	12,517.00	17,410.59	11,981.39	103.23	109.89	-75.15	-5,377.10	3,345.60	2,006.13	1,859.22	146.91	13.655	
18,500.00	12,517.00	17,503.69	11,986.93	104.70	111.35	-75.32	-5,469.98	3,348.80	2,007.00	1,857.96	149.04	13.467	
18,600.00	12,517.00	17,682.91	11,996.89	106.17	114.15	-75.61	-5,648.84	3,351.88	2,006.39	1,854.70	151.69	13.227	
18,700.00	12,517.00	17,750.00	12,000.61	107.64	115.20	-75.71	-5,715.82	3,352.92	2,005.20	1,851.51	153.69	13.047	
18,800.00	12,517.00	17,940.62	12,010.58	109.12	118.18	-75.97	-5,906.13	3,352.21	2,003.30	1,847.05	156.24	12.822	
18,900.00	12,517.00	18,069.02	12,015.94	110.60	120.18	-76.07	-6,034.27	3,346.10	1,996.64	1,838.21	158.43	12.602	
19,000.00	12,517.00	18,152.53	12,019.89	112.09	121.48	-76.14	-6,117.59	3,342.05	1,989.86	1,829.31	160.55	12.394	
19,100.00	12,517.00	18,222.00	12,024.93	113.59	122.57	-76.27	-6,186.84	3,340.12	1,984.46	1,821.79	162.66	12.200	
19,200.00	12,517.00	18,378.07	12,035.21	115.08	125.02	-76.51	-6,342.46	3,334.50	1,978.49	1,813.51	164.98	11.992	
19,300.00	12,517.00	18,458.07	12,039.61	116.59	126.27	-76.60	-6,422.21	3,330.16	1,971.08	1,803.95	167.13	11.794	
19,400.00	12,517.00	18,504.00	12,040.01	118.09	126.99	-76.59	-6,468.09	3,328.00	1,965.67	1,796.53	169.14	11.622	
19,500.00	12,517.00	18,554.73	12,040.24	119.60	127.79	-76.59	-6,518.79	3,326.93	1,962.85	1,791.77	171.08	11.473	
19,534.78	12,517.00	18,569.03	12,040.59	120.13	128.01	-76.60	-6,533.09	3,327.05	1,962.59	1,790.87	171.72	11.429	CC
19,600.00	12,517.00	18,598.00	12,041.65	121.11	128.47	-76.63	-6,562.03	3,327.84	1,963.09	1,790.19	172.90	11.354	
19,700.00	12,517.00	18,662.63	12,044.74	122.63	129.50	-76.74	-6,626.51	3,330.97	1,965.71	1,790.88	174.83	11.244	
19,800.00	12,517.00	18,726.61	12,048.19	124.15	130.51	-76.86	-6,690.25	3,335.21	1,970.01	1,793.30	176.71	11.148	
19,900.00	12,517.00	18,848.89	12,056.20	125.67	132.46	-77.14	-6,811.88	3,344.74	1,975.30	1,796.07	179.23	11.021	
20,000.00	12,517.00	18,953.78	12,061.71	127.20	134.13	-77.32	-6,916.46	3,350.23	1,978.24	1,796.70	181.54	10.897	
20,100.00	12,517.00	19,214.43	12,071.92	128.73	138.27	-77.62	-7,176.71	3,353.96	1,977.39	1,792.63	184.76	10.702	
20,200.00	12,517.00	19,292.01	12,074.88	130.26	139.50	-77.69	-7,254.22	3,352.62	1,973.89	1,786.99	186.90	10.561	
20,300.00	12,517.00	19,381.34	12,077.37	131.80	140.92	-77.75	-7,343.50	3,351.45	1,971.07	1,782.00	189.07	10.425	
20,400.00	12,517.00	19,448.00	12,080.88	133.34	141.98	-77.84	-7,410.07	3,351.35	1,969.03	1,777.88	191.15	10.301	
20,500.00	12,517.00	19,542.00	12,086.95	134.88	143.48	-78.02	-7,503.86	3,352.91	1,968.34	1,774.95	193.39	10.178	
20,510.05	12,517.00	19,542.00	12,086.95	135.03	143.48	-78.02	-7,503.86	3,352.91	1,968.31	1,774.76	193.55	10.169	
20,600.00	12,517.00	19,594.72	12,089.08	136.42	144.32	-78.09	-7,556.51	3,354.53	1,969.30	1,774.00	195.30	10.083	
20,700.00	12,517.00	19,680.73	12,088.77	137.97	145.70	-78.09	-7,642.45	3,357.61	1,971.87	1,774.48	197.39	9.990	
20,800.00	12,517.00	19,818.27	12,085.33	139.52	147.90	-78.01	-7,779.91	3,360.75	1,973.70	1,773.90	199.80	9.878	
20,900.00	12,517.00	19,956.05	12,081.61	141.07	150.09	-77.89	-7,917.64	3,360.57	1,973.08	1,770.94	202.14	9.761	
21,000.00	12,517.00	20,051.06	12,076.93	142.62	151.61	-77.74	-8,012.53	3,359.42	1,971.97	1,767.75	204.22	9.656	
21,100.00	12,517.00	20,142.29	12,073.97	144.18	153.06	-77.65	-8,103.70	3,358.97	1,971.23	1,764.91	206.31	9.555	
21,171.63	12,517.00	20,204.00	12,073.12	145.29	154.05	-77.63	-8,165.40	3,359.20	1,971.01	1,763.19	207.82	9.484	
21,200.00	12,517.00	20,224.99	12,073.01	145.73	154.39	-77.62	-8,186.39	3,359.40	1,971.05	1,762.66	208.39	9.458	
21,300.00	12,517.00	20,298.00	12,073.12	147.29	155.56	-77.63	-8,259.38	3,361.08	1,972.25	1,761.84	210.41	9.373	
21,400.00	12,517.00	20,369.78	12,073.39	148.85	156.71	-77.65	-8,331.11	3,363.79	1,974.84	1,762.45	212.39	9.298	
21,500.00	12,517.00	20,508.49	12,073.19	150.42	158.94	-77.67	-8,469.74	3,368.49	1,977.30	1,762.39	214.91	9.201	
21,600.00	12,517.00	20,607.49	12,073.55	151.98	160.53	-77.68	-8,568.71	3,370.64	1,978.38	1,761.26	217.11	9.112	
21,700.00	12,517.00	20,690.49	12,072.68	153.55	161.86	-77.67	-8,651.68	3,372.78	1,980.14	1,760.96	219.18	9.034	
21,800.00	12,517.00	20,785.87	12,069.39	155.12	163.40	-77.58	-8,746.97	3,375.03	1,982.24	1,760.94	221.30	8.957	
21,900.00	12,517.00	20,864.00	12,065.42	156.69	164.65	-77.48	-8,824.96	3,377.46	1,985.35	1,762.10	223.25	8.893	
22,000.00	12,517.00	20,959.69	12,062.20	158.26	166.20	-77.41	-8,920.50	3,381.47	1,989.20	1,763.83	225.37	8.826	
22,100.00	12,517.00	21,148.84	12,059.45	159.84	169.24	-77.34	-9,109.59	3,384.45	1,989.62	1,761.45	228.16	8.720	
22,200.00	12,517.00	21,262.98	12,056.55	161.41	171.07	-77.24	-9,223.68	3,383.40	1,988.30	1,757.94	230.36	8.631	
22,300.00	12,517.00	21,352.92	12,056.66	162.99	172.52	-77.24	-9,313.62	3,383.17	1,987.06	1,754.54	232.52	8.546	
22,400.00	12,517.00	21,446.79	12,057.48	164.57	174.03	-77.26	-9,407.49	3,383.45	1,986.20	1,751.49	234.72	8.462	
22,500.00	12,517.00	21,537.02	12,057.90	166.14	175.49	-77.27	-9,497.72	3,383.97	1,985.71	1,748.83	236.88	8.383	
22,520.95	12,517.00	21,553.85	12,057.90	166.48	175.76	-77.27	-9,514.54	3,384.12	1,985.69	1,748.36	237.33	8.367	
22,600.00	12,517.00	21,619.00	12,057.54	167.73	176.81	-77.26	-9,579.69	3,384.95	1,986.00	1,747.01	238.99	8.310	
22,700.00	12,517.00	21,694.48	12,056.43	169.31	178.03	-77.23	-9,655.14	3,386.50	1,987.36	1,746.35	241.01	8.246	ES
22,800.00	12,517.00	21,759.28	12,055.08	170.89	179.07	-77.21	-9,719.89	3,388.62	1,990.10	1,747.20	242.89	8.193	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 190-MWD, 1393-OWSG (Rev2) MWD, 21860-BLIND

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
22,900.00	12,517.00	21,830.16	12,053.49	172.48	183.00	-77.18	-9,790.65	3,392.37	1,994.72	1,747.98	246.74	8.084	
23,000.00	12,517.00	21,860.00	12,052.81	174.06	186.65	-77.17	-9,820.44	3,394.09	2,001.10	1,750.92	250.18	7.999	SF
23,100.00	12,517.00	21,860.00	12,052.81	175.65	186.65	-77.17	-9,820.44	3,394.09	2,012.22	1,761.80	250.41	8.036	
23,200.00	12,517.00	21,860.00	12,052.81	177.24	186.65	-77.17	-9,820.44	3,394.09	2,028.21	1,778.17	250.03	8.112	
23,300.00	12,517.00	21,860.00	12,052.81	178.83	186.65	-77.17	-9,820.44	3,394.09	2,048.96	1,799.88	249.08	8.226	
23,400.00	12,517.00	21,860.00	12,052.81	180.42	186.65	-77.17	-9,820.44	3,394.09	2,074.33	1,826.73	247.60	8.378	
23,500.00	12,517.00	21,860.00	12,052.81	182.01	186.65	-77.17	-9,820.44	3,394.09	2,104.16	1,858.51	245.64	8.566	
23,600.00	12,517.00	21,860.00	12,052.81	183.60	186.65	-77.17	-9,820.44	3,394.09	2,138.24	1,894.98	243.27	8.790	
23,700.00	12,517.00	21,860.00	12,052.81	185.20	186.65	-77.17	-9,820.44	3,394.09	2,176.40	1,935.85	240.54	9.048	
23,800.00	12,517.00	21,860.00	12,052.81	186.79	186.65	-77.17	-9,820.44	3,394.09	2,218.40	1,980.88	237.53	9.340	
23,900.00	12,517.00	21,860.00	12,052.81	188.39	186.65	-77.17	-9,820.44	3,394.09	2,264.05	2,029.77	234.28	9.664	
24,000.00	12,517.00	21,860.00	12,052.81	189.99	186.65	-77.17	-9,820.44	3,394.09	2,313.13	2,082.26	230.87	10.019	
24,100.00	12,517.00	21,860.00	12,052.81	191.58	186.65	-77.17	-9,820.44	3,394.09	2,365.41	2,138.09	227.32	10.406	
24,130.17	12,517.00	21,860.00	12,052.81	192.05	186.65	-77.17	-9,820.44	3,394.09	2,381.78	2,155.07	226.71	10.506	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	76.07	857.17	3,456.57	3,561.33				
100.00	100.00	118.86	118.85	0.13	0.17	76.06	857.49	3,455.81	3,560.83	3,560.62	0.21	N/A	
200.00	200.00	190.00	189.99	0.48	0.39	76.06	857.61	3,455.23	3,560.09	3,559.47	0.62	5,749.523	
300.00	300.00	306.00	305.99	0.84	0.80	76.05	858.09	3,454.44	3,559.52	3,558.36	1.16	3,063.011	
400.00	400.00	411.83	411.81	1.20	1.18	76.04	858.35	3,453.66	3,558.87	3,557.19	1.68	2,114.070	
500.00	500.00	540.24	540.21	1.56	1.64	76.03	858.97	3,451.75	3,557.55	3,555.29	2.26	1,571.990	
600.00	600.00	688.55	688.47	1.92	2.17	76.01	858.97	3,448.29	3,555.35	3,552.45	2.90	1,227.463	
700.00	700.00	803.59	803.45	2.28	2.59	76.00	858.72	3,444.31	3,551.93	3,548.49	3.44	1,031.864	
800.00	800.00	912.40	912.19	2.63	2.98	75.99	858.32	3,440.43	3,548.38	3,544.41	3.97	893.493	
900.00	900.00	1,048.56	1,048.22	2.99	3.48	75.98	857.70	3,434.47	3,544.00	3,539.42	4.57	774.815	
1,000.00	1,000.00	1,123.00	1,122.58	3.35	3.75	75.97	857.29	3,431.20	3,539.59	3,534.58	5.01	706.268	
1,100.00	1,100.00	1,215.31	1,214.82	3.71	4.08	75.97	856.46	3,427.59	3,535.58	3,530.09	5.50	643.130	
1,200.00	1,200.00	1,299.43	1,298.88	4.07	4.39	75.97	855.71	3,424.64	3,531.97	3,526.01	5.96	592.390	
1,300.00	1,300.00	1,403.24	1,402.62	4.43	4.64	75.96	855.67	3,420.85	3,528.41	3,522.02	6.39	552.021	
1,400.00	1,400.00	1,483.00	1,482.33	4.79	4.66	75.94	856.02	3,418.04	3,525.12	3,518.46	6.66	529.584	
1,500.00	1,500.00	1,538.90	1,538.22	5.14	4.69	75.93	856.16	3,416.62	3,522.76	3,515.82	6.94	507.912	
1,600.00	1,600.00	1,573.00	1,572.31	5.50	4.71	75.93	856.22	3,416.17	3,521.84	3,514.63	7.22	488.122	
1,643.77	1,643.76	1,606.67	1,605.98	5.66	4.73	9.18	856.29	3,416.09	3,521.49	3,514.14	7.35	479.290	
1,700.00	1,699.98	1,630.70	1,630.01	5.86	4.74	9.18	856.38	3,416.30	3,520.62	3,513.11	7.51	468.798	
1,800.00	1,799.84	1,663.00	1,662.30	6.21	4.76	9.19	856.53	3,416.93	3,517.69	3,509.89	7.79	451.365	
1,900.00	1,899.45	1,752.00	1,751.25	6.56	4.83	9.23	857.15	3,419.97	3,512.56	3,504.44	8.12	432.704	
2,000.00	1,998.70	1,821.06	1,820.23	6.92	4.90	9.28	857.80	3,422.96	3,504.82	3,496.38	8.44	415.130	
2,100.00	2,097.47	1,932.04	1,931.11	7.29	5.03	9.36	859.31	3,427.59	3,493.73	3,484.92	8.81	396.505	
2,200.00	2,195.62	2,029.04	2,028.03	7.67	5.17	9.46	860.15	3,431.55	3,479.01	3,469.83	9.18	378.842	
2,300.00	2,293.06	2,115.41	2,114.28	8.07	5.31	9.61	858.89	3,435.75	3,461.10	3,451.55	9.56	362.189	
2,357.10	2,348.32	2,166.52	2,165.28	8.31	5.40	9.73	857.10	3,438.63	3,449.51	3,439.73	9.78	352.837	
2,400.00	2,389.73	2,205.29	2,203.94	8.49	5.48	9.80	855.48	3,440.91	3,440.43	3,430.49	9.94	346.026	
2,500.00	2,486.26	2,296.27	2,294.66	8.92	5.65	9.96	851.24	3,446.50	3,419.43	3,409.10	10.34	330.752	
2,600.00	2,582.78	2,374.47	2,372.62	9.37	5.82	10.10	847.80	3,451.52	3,398.79	3,388.06	10.73	316.764	
2,700.00	2,679.31	2,462.51	2,460.39	9.83	6.01	10.24	844.57	3,457.52	3,378.69	3,367.55	11.14	303.228	
2,800.00	2,775.84	2,569.77	2,567.31	10.30	6.27	10.43	840.25	3,464.87	3,358.60	3,347.01	11.59	289.797	
2,900.00	2,872.37	2,802.97	2,799.94	10.78	6.87	10.87	828.65	3,475.82	3,336.15	3,323.93	12.22	272.961	
3,000.00	2,968.90	2,880.00	2,876.83	11.27	7.08	11.02	824.47	3,478.09	3,312.15	3,299.50	12.65	261.886	
3,100.00	3,065.43	2,957.40	2,954.10	11.76	7.30	11.16	820.92	3,480.70	3,288.75	3,275.67	13.08	251.452	
3,200.00	3,161.95	3,035.83	3,032.43	12.25	7.52	11.29	818.33	3,483.72	3,266.07	3,252.55	13.52	241.634	
3,300.00	3,258.48	3,123.94	3,120.43	12.76	7.78	11.43	815.86	3,487.41	3,243.83	3,229.86	13.97	232.148	
3,400.00	3,355.01	3,209.01	3,205.32	13.26	8.03	11.59	812.08	3,491.47	3,221.85	3,207.42	14.43	223.261	
3,500.00	3,451.54	3,308.89	3,304.88	13.77	8.34	11.81	806.28	3,496.90	3,200.27	3,185.35	14.92	214.537	
3,600.00	3,548.07	3,576.46	3,571.82	14.29	9.17	12.41	789.67	3,502.13	3,174.35	3,158.70	15.66	202.757	
3,700.00	3,644.59	3,652.19	3,647.46	14.80	9.40	12.55	785.92	3,502.03	3,147.75	3,131.64	16.11	195.389	
3,800.00	3,741.12	3,729.00	3,724.22	15.32	9.64	12.69	783.20	3,502.23	3,121.81	3,105.24	16.57	188.418	
3,900.00	3,837.65	3,788.14	3,783.33	15.84	9.83	12.79	781.52	3,502.85	3,096.76	3,079.75	17.00	182.109	
4,000.00	3,934.18	3,881.35	3,876.46	16.37	10.13	12.96	778.06	3,504.88	3,072.64	3,055.15	17.50	175.626	
4,100.00	4,030.71	4,041.52	4,036.19	16.90	10.66	13.37	766.56	3,507.00	3,047.04	3,028.95	18.09	168.428	
4,200.00	4,127.24	4,120.12	4,114.60	17.42	10.92	13.57	761.15	3,507.49	3,021.00	3,002.44	18.57	162.697	
4,300.00	4,223.76	4,200.00	4,194.37	17.95	11.19	13.75	757.08	3,508.39	2,995.75	2,976.70	19.05	157.271	
4,400.00	4,320.29	4,301.45	4,295.72	18.49	11.52	13.96	752.82	3,509.56	2,970.76	2,951.20	19.56	151.876	
4,500.00	4,416.82	4,403.57	4,397.68	19.02	11.87	14.21	747.27	3,510.46	2,945.33	2,925.25	20.08	146.698	
4,600.00	4,513.35	4,484.00	4,477.97	19.55	12.14	14.41	742.49	3,511.46	2,920.20	2,899.64	20.57	141.986	
4,700.00	4,609.88	4,564.97	4,558.82	20.09	12.42	14.61	738.21	3,512.81	2,895.63	2,874.57	21.06	137.503	
4,800.00	4,706.40	4,664.50	4,658.20	20.62	12.76	14.85	733.22	3,514.64	2,871.32	2,849.74	21.58	133.059	
4,900.00	4,802.93	4,788.56	4,782.02	21.16	13.18	15.18	725.72	3,516.40	2,846.51	2,824.37	22.14	128.584	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,899.46	4,902.41	4,895.64	21.70	13.58	15.49	718.54	3,516.99	2,820.84	2,798.16	22.68	124.367	
5,100.00	4,995.99	4,999.29	4,992.35	22.24	13.91	15.76	712.80	3,517.21	2,795.02	2,771.82	23.20	120.457	
5,200.00	5,092.52	5,111.57	5,104.46	22.78	14.30	16.06	706.68	3,517.16	2,769.08	2,745.34	23.75	116.617	
5,300.00	5,189.04	5,179.29	5,172.08	23.32	14.53	16.24	703.04	3,516.96	2,743.05	2,718.81	24.23	113.196	
5,400.00	5,285.57	5,235.00	5,227.71	23.86	14.73	16.40	700.03	3,517.77	2,718.58	2,693.87	24.71	110.039	
5,500.00	5,382.10	5,311.97	5,304.52	24.41	15.00	16.62	695.57	3,519.79	2,695.26	2,670.05	25.21	106.911	
5,600.00	5,478.63	5,404.69	5,397.02	24.95	15.33	16.91	689.80	3,522.56	2,672.33	2,646.59	25.74	103.820	
5,700.00	5,575.16	5,504.42	5,496.51	25.49	15.69	17.22	683.62	3,525.52	2,649.46	2,623.18	26.28	100.810	
5,800.00	5,671.69	5,568.08	5,560.02	26.04	15.91	17.42	679.62	3,527.67	2,627.10	2,600.32	26.77	98.121	
5,900.00	5,768.21	5,635.11	5,626.84	26.58	16.16	17.64	675.52	3,530.94	2,606.17	2,578.90	27.27	95.565	
6,000.00	5,864.74	5,729.53	5,720.95	27.13	16.50	17.95	669.86	3,535.95	2,585.79	2,557.98	27.81	92.976	
6,100.00	5,961.27	5,826.95	5,818.08	27.67	16.85	18.26	664.38	3,541.16	2,565.56	2,537.21	28.36	90.472	
6,200.00	6,057.80	5,928.73	5,919.57	28.22	17.21	18.59	658.76	3,546.41	2,545.24	2,516.33	28.91	88.035	
6,300.00	6,154.33	6,024.99	6,015.54	28.76	17.56	18.92	653.16	3,551.35	2,524.94	2,495.48	29.46	85.708	
6,400.00	6,250.85	6,122.20	6,112.46	29.31	17.92	19.24	647.77	3,556.35	2,504.76	2,474.74	30.01	83.461	
6,500.00	6,347.38	6,219.82	6,209.81	29.86	18.27	19.58	642.38	3,561.30	2,484.58	2,454.02	30.56	81.290	
6,600.00	6,443.91	6,311.98	6,301.71	30.41	18.60	19.90	637.32	3,566.04	2,464.57	2,433.46	31.11	79.217	
6,700.00	6,540.44	6,403.55	6,393.01	30.95	18.94	20.22	632.21	3,571.01	2,444.91	2,413.25	31.66	77.223	
6,803.85	6,640.68	6,503.16	6,492.31	31.52	19.30	20.58	626.68	3,576.51	2,424.67	2,392.43	32.24	75.209	
6,900.00	6,733.90	6,597.77	6,586.63	32.03	19.65	20.78	621.60	3,581.75	2,407.53	2,374.76	32.78	73.456	
7,000.00	6,831.63	6,743.26	6,731.76	32.53	20.18	21.11	614.26	3,588.74	2,392.38	2,359.00	33.39	71.658	
7,100.00	6,930.04	6,931.83	6,920.28	32.98	20.81	21.36	611.73	3,590.11	2,375.81	2,341.83	33.98	69.916	
7,200.00	7,029.01	7,029.00	7,017.44	33.40	21.11	21.35	613.26	3,589.64	2,362.06	2,327.59	34.47	68.532	
7,300.00	7,128.41	7,124.00	7,112.42	33.78	21.40	21.32	614.88	3,589.27	2,351.64	2,316.70	34.94	67.303	
7,400.00	7,228.14	7,218.00	7,206.41	34.12	21.70	21.30	616.33	3,589.16	2,344.72	2,309.31	35.41	66.224	
7,500.00	7,328.06	7,318.11	7,306.51	34.43	22.01	21.27	617.64	3,589.19	2,341.18	2,305.32	35.86	65.282	
7,557.30	7,385.36	7,373.08	7,361.48	34.58	22.19	21.26	618.24	3,589.21	2,340.62	2,304.50	36.12	64.805	
7,560.95	7,389.00	7,376.58	7,364.98	34.59	22.20	88.01	618.27	3,589.21	2,340.62	2,304.49	36.13	64.776	
7,600.00	7,428.05	7,413.67	7,402.07	34.70	22.32	88.00	618.61	3,589.26	2,340.69	2,304.38	36.31	64.471	
7,700.00	7,528.05	7,504.79	7,493.18	34.97	22.61	87.99	619.16	3,589.61	2,341.09	2,304.34	36.75	63.706	
7,800.00	7,628.05	7,602.66	7,591.05	35.24	22.94	87.98	619.48	3,590.21	2,341.71	2,304.51	37.20	62.949	
7,900.00	7,728.05	7,691.00	7,679.39	35.51	23.24	87.98	619.61	3,590.96	2,342.58	2,304.93	37.65	62.222	
8,000.00	7,828.05	7,785.00	7,773.38	35.79	23.56	87.98	619.80	3,592.17	2,343.87	2,305.77	38.10	61.515	
8,100.00	7,928.05	7,868.04	7,856.40	36.06	23.84	87.97	620.14	3,593.69	2,345.71	2,307.16	38.55	60.854	
8,200.00	8,028.05	7,962.26	7,950.60	36.34	24.16	87.96	620.52	3,595.85	2,348.01	2,309.01	39.00	60.203	
8,300.00	8,128.05	8,060.45	8,048.76	36.62	24.49	87.95	621.13	3,598.23	2,350.46	2,311.00	39.46	59.566	
8,400.00	8,228.05	8,158.61	8,146.88	36.90	24.83	87.93	622.16	3,600.66	2,352.97	2,313.05	39.92	58.946	
8,500.00	8,328.05	8,251.80	8,240.03	37.18	25.14	87.89	623.53	3,603.12	2,355.66	2,315.29	40.37	58.353	
8,600.00	8,428.05	8,355.09	8,343.26	37.46	25.49	87.85	625.49	3,605.93	2,358.45	2,317.62	40.83	57.762	
8,700.00	8,528.05	8,464.32	8,452.45	37.75	25.85	87.80	627.58	3,608.59	2,360.96	2,319.66	41.30	57.168	
8,800.00	8,628.05	8,579.80	8,567.88	38.03	26.24	87.75	629.76	3,610.87	2,363.01	2,321.24	41.77	56.568	
8,900.00	8,728.05	8,702.72	8,690.79	38.32	26.66	87.73	630.52	3,612.24	2,364.15	2,321.89	42.26	55.943	
9,000.00	8,828.05	8,808.46	8,796.52	38.61	27.03	87.76	629.55	3,612.81	2,364.64	2,321.91	42.74	55.328	
9,100.00	8,928.05	8,904.54	8,892.59	38.89	27.36	87.79	628.24	3,613.35	2,365.15	2,321.94	43.21	54.735	
9,200.00	9,028.05	9,000.62	8,988.65	39.18	27.70	87.83	626.49	3,614.08	2,365.84	2,322.16	43.69	54.156	
9,300.00	9,128.05	9,095.64	9,083.65	39.47	28.03	87.88	624.71	3,614.98	2,366.72	2,322.56	44.16	53.594	
9,400.00	9,228.05	9,187.64	9,175.64	39.77	28.36	87.91	623.44	3,616.08	2,367.87	2,323.24	44.63	53.055	
9,500.00	9,328.05	9,282.40	9,270.38	40.06	28.69	87.92	623.05	3,617.46	2,369.31	2,324.21	45.10	52.534	
9,600.00	9,428.05	9,411.87	9,399.84	40.35	29.14	87.93	622.82	3,618.61	2,370.17	2,324.57	45.61	51.970	
9,700.00	9,528.05	9,505.60	9,493.57	40.65	29.46	87.93	622.76	3,618.94	2,370.53	2,324.46	46.08	51.449	
9,800.00	9,628.05	9,596.34	9,584.30	40.95	29.77	87.91	623.55	3,619.78	2,371.47	2,324.93	46.54	50.959	
9,900.00	9,728.05	9,729.05	9,717.01	41.24	30.21	87.91	623.65	3,619.82	2,371.42	2,324.39	47.03	50.421	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,984.99	9,813.05	9,804.01	9,791.96	41.50	30.47	87.94	622.09	3,619.61	2,371.13	2,323.70	47.43	49.993	
10,000.00	9,828.05	9,815.44	9,803.38	41.54	30.51	87.95	621.85	3,619.62	2,371.14	2,323.65	47.50	49.921	
10,100.00	9,928.05	9,931.73	9,919.65	41.84	30.92	88.01	619.51	3,619.99	2,371.46	2,323.46	48.00	49.410	
10,200.00	10,028.05	10,046.89	10,034.76	42.14	31.31	88.08	616.34	3,618.94	2,370.43	2,321.94	48.49	48.885	
10,300.00	10,128.05	10,129.56	10,117.39	42.44	31.60	88.14	614.08	3,618.34	2,369.62	2,320.66	48.96	48.401	
10,400.00	10,228.05	10,224.39	10,212.19	42.74	31.93	88.19	611.71	3,618.15	2,369.33	2,319.90	49.44	47.926	
10,437.43	10,265.48	10,256.59	10,244.38	42.86	32.05	88.21	610.88	3,618.13	2,369.28	2,319.66	49.61	47.755	
10,500.00	10,328.05	10,305.60	10,293.38	43.05	32.22	88.24	609.72	3,618.30	2,369.46	2,319.55	49.90	47.481	
10,600.00	10,428.05	10,391.21	10,378.97	43.35	32.52	88.29	607.87	3,619.16	2,370.39	2,320.01	50.37	47.057	
10,700.00	10,528.05	10,484.76	10,472.48	43.65	32.86	88.34	605.57	3,620.50	2,371.74	2,320.89	50.85	46.639	
10,800.00	10,628.05	10,653.33	10,640.95	43.96	33.45	88.46	600.76	3,622.04	2,373.14	2,321.73	51.41	46.157	
10,900.00	10,728.05	10,819.48	10,806.96	44.27	34.01	88.54	597.39	3,616.64	2,369.52	2,317.59	51.93	45.632	
11,000.00	10,828.05	10,900.00	10,887.40	44.57	34.28	88.59	595.31	3,613.61	2,365.70	2,313.30	52.40	45.148	
11,100.00	10,928.05	10,971.49	10,958.82	44.88	34.53	88.64	593.02	3,611.66	2,362.90	2,310.03	52.87	44.696	
11,200.00	11,028.05	11,042.78	11,030.06	45.19	34.77	88.70	590.55	3,610.59	2,361.31	2,307.98	53.33	44.278	
11,283.32	11,111.37	11,103.03	11,090.27	45.45	34.99	88.75	588.37	3,610.36	2,360.92	2,307.20	53.71	43.953	
11,300.00	11,128.05	11,115.69	11,102.92	45.50	35.03	88.76	587.91	3,610.38	2,360.93	2,307.14	53.79	43.890	
11,400.00	11,228.05	11,193.51	11,180.69	45.81	35.31	88.83	585.06	3,610.97	2,361.61	2,307.35	54.26	43.526	
11,500.00	11,328.05	11,287.62	11,274.73	46.12	35.65	88.91	581.76	3,612.18	2,362.82	2,308.08	54.74	43.162	
11,600.00	11,428.05	11,388.63	11,375.66	46.43	36.01	89.00	578.16	3,613.89	2,364.45	2,309.21	55.24	42.804	
11,700.00	11,528.05	11,500.13	11,485.75	46.74	36.43	89.40	561.75	3,614.66	2,364.89	2,309.11	55.78	42.400	
11,800.00	11,628.05	11,562.00	11,544.86	47.05	36.68	89.84	543.64	3,615.86	2,366.69	2,310.43	56.25	42.072	
11,900.00	11,728.05	11,621.80	11,599.91	47.37	36.93	90.40	520.40	3,617.90	2,370.37	2,313.64	56.73	41.784	
12,000.00	11,828.05	11,693.27	11,662.40	47.68	37.24	91.24	485.89	3,620.73	2,375.68	2,318.44	57.24	41.504	
12,100.00	11,928.05	11,807.91	11,754.17	48.00	37.77	92.88	417.59	3,623.11	2,381.02	2,323.11	57.91	41.114	
12,115.99	11,944.04	11,814.43	11,759.07	48.05	37.80	92.98	413.29	3,623.22	2,382.08	2,324.10	57.98	41.084	
12,150.00	11,978.03	11,828.53	11,769.60	48.15	37.87	-78.57	403.94	3,623.49	2,384.40	2,326.28	58.12	41.027	
12,200.00	12,027.75	11,862.00	11,794.33	48.28	38.03	-77.79	381.39	3,624.39	2,387.70	2,329.36	58.35	40.923	
12,250.00	12,076.83	11,862.00	11,794.33	48.41	38.03	-77.49	381.39	3,624.39	2,390.69	2,332.27	58.42	40.922	
12,300.00	12,124.90	11,898.56	11,820.58	48.53	38.22	-76.81	355.99	3,625.68	2,393.29	2,334.66	58.63	40.821	
12,350.00	12,171.60	11,923.93	11,838.17	48.63	38.35	-76.34	337.72	3,626.72	2,395.52	2,336.74	58.77	40.759	
12,400.00	12,216.56	11,958.00	11,860.92	48.72	38.52	-75.86	312.43	3,628.28	2,397.29	2,338.35	58.94	40.675	
12,450.00	12,259.45	11,979.68	11,874.66	48.80	38.64	-75.58	295.68	3,629.30	2,398.46	2,339.43	59.04	40.626	
12,500.00	12,299.94	12,147.00	11,942.29	48.87	39.55	-73.61	144.40	3,625.48	2,397.36	2,337.56	59.80	40.090	
12,550.00	12,337.72	12,183.93	11,951.08	48.93	39.76	-73.34	108.65	3,622.53	2,394.61	2,334.66	59.95	39.945	
12,600.00	12,372.50	12,209.24	11,955.40	48.97	39.90	-73.30	83.81	3,620.39	2,391.26	2,331.23	60.03	39.835	
12,650.00	12,404.03	12,242.00	11,958.92	49.00	40.08	-73.24	51.38	3,617.50	2,387.30	2,327.17	60.13	39.700	
12,700.00	12,432.05	12,242.00	11,958.92	49.03	40.08	-73.68	51.38	3,617.50	2,382.76	2,322.66	60.09	39.651	
12,750.00	12,456.36	12,242.00	11,958.92	49.05	40.08	-74.13	51.38	3,617.50	2,378.03	2,317.97	60.06	39.596	
12,800.00	12,476.77	12,242.00	11,958.92	49.06	40.08	-74.61	51.38	3,617.50	2,373.16	2,313.13	60.03	39.532	
12,850.00	12,493.12	12,288.03	11,961.35	49.07	40.35	-74.78	5.53	3,614.33	2,366.57	2,306.37	60.21	39.308	
12,900.00	12,505.30	12,301.35	11,961.73	49.09	40.43	-75.30	-7.78	3,613.79	2,360.45	2,300.19	60.26	39.173	
12,950.00	12,513.20	12,336.00	11,962.04	49.11	40.64	-75.79	-42.41	3,613.16	2,354.33	2,293.93	60.40	38.977	
13,000.00	12,516.77	12,336.00	11,962.04	49.13	40.64	-76.49	-42.41	3,613.16	2,347.28	2,286.84	60.43	38.840	
13,015.99	12,517.00	12,336.00	11,962.04	49.14	40.64	-76.71	-42.41	3,613.16	2,345.03	2,284.58	60.45	38.793	
13,100.00	12,517.00	12,336.00	11,962.04	49.21	40.64	-76.75	-42.41	3,613.16	2,335.89	2,275.33	60.56	38.569	
13,200.00	12,517.00	12,397.35	11,962.55	49.32	41.03	-76.76	-103.73	3,614.75	2,329.78	2,268.78	61.00	38.190	
13,300.00	12,517.00	12,564.92	11,964.63	49.47	42.21	-76.81	-271.04	3,622.40	2,328.92	2,267.00	61.92	37.610	
13,387.80	12,517.00	12,715.00	11,964.11	49.62	43.38	-76.79	-421.10	3,622.53	2,326.72	2,263.90	62.82	37.038	
13,400.00	12,517.00	12,715.00	11,964.11	49.64	43.38	-76.79	-421.10	3,622.53	2,326.53	2,263.67	62.86	37.009	
13,475.21	12,517.00	12,759.94	11,965.17	49.80	43.76	-76.81	-466.02	3,622.14	2,325.28	2,261.93	63.35	36.703	
13,500.00	12,517.00	12,767.19	11,965.43	49.86	43.82	-76.81	-473.26	3,622.30	2,325.38	2,261.89	63.49	36.628	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	12,517.00	12,809.00	11,967.32	50.14	44.17	-76.87	-514.97	3,624.41	2,327.77	2,263.64	64.13	36.299	
13,700.00	12,517.00	13,140.44	11,978.11	50.48	47.27	-77.10	-845.74	3,623.04	2,324.77	2,258.61	66.16	35.137	
13,800.00	12,517.00	13,186.00	11,981.49	50.88	47.72	-77.17	-891.16	3,621.66	2,319.24	2,252.30	66.94	34.645	
13,900.00	12,517.00	13,241.55	11,985.47	51.34	48.29	-77.26	-946.56	3,621.15	2,315.83	2,247.99	67.84	34.138	
14,000.00	12,517.00	13,280.00	11,987.55	51.86	48.69	-77.31	-984.95	3,621.33	2,314.52	2,245.82	68.69	33.694	
14,033.06	12,517.00	13,306.69	11,988.84	52.05	48.98	-77.34	-1,011.60	3,621.82	2,314.48	2,245.42	69.06	33.513	
14,100.00	12,517.00	13,335.71	11,990.29	52.43	49.29	-77.38	-1,040.58	3,622.84	2,315.39	2,245.70	69.69	33.224	
14,200.00	12,517.00	13,374.00	11,992.31	53.06	49.70	-77.44	-1,078.75	3,624.94	2,318.80	2,248.16	70.64	32.826	
14,300.00	12,517.00	13,620.70	12,006.08	53.74	52.48	-77.82	-1,324.64	3,636.75	2,322.56	2,249.83	72.73	31.934	
14,400.00	12,517.00	13,726.48	12,006.23	54.46	53.70	-77.82	-1,430.41	3,635.94	2,320.81	2,246.70	74.11	31.316	
14,500.00	12,517.00	13,808.80	12,005.27	55.23	54.67	-77.79	-1,512.72	3,635.35	2,319.41	2,244.00	75.42	30.755	
14,600.00	12,517.00	13,886.06	12,003.91	56.04	55.59	-77.75	-1,589.96	3,635.54	2,319.03	2,242.30	76.74	30.221	
14,644.47	12,517.00	13,947.15	12,002.43	56.41	56.34	-77.71	-1,651.04	3,635.61	2,318.89	2,241.41	77.47	29.931	
14,700.00	12,517.00	14,006.88	12,000.51	56.89	57.07	-77.66	-1,710.73	3,635.24	2,318.39	2,240.08	78.32	29.603	
14,800.00	12,517.00	14,096.96	11,996.79	57.77	58.20	-77.56	-1,800.74	3,634.67	2,317.71	2,237.93	79.77	29.054	
14,900.00	12,517.00	14,191.68	11,994.09	58.69	59.39	-77.49	-1,895.42	3,634.87	2,317.56	2,236.27	81.29	28.509	
15,000.00	12,517.00	14,315.49	11,993.27	59.64	60.98	-77.47	-2,019.22	3,634.95	2,316.80	2,233.80	83.00	27.913	
15,100.00	12,517.00	14,454.33	11,994.70	60.63	62.78	-77.49	-2,158.05	3,633.82	2,314.85	2,230.03	84.82	27.292	
15,200.00	12,517.00	14,490.69	11,995.36	61.64	63.27	-77.50	-2,194.40	3,633.91	2,313.47	2,227.32	86.15	26.855	
15,206.33	12,517.00	14,493.41	11,995.43	61.71	63.30	-77.51	-2,197.11	3,633.95	2,313.47	2,227.23	86.23	26.828	
15,300.00	12,517.00	14,539.00	11,997.12	62.68	63.91	-77.55	-2,242.65	3,635.38	2,314.56	2,227.01	87.55	26.437	
15,400.00	12,517.00	14,588.78	11,999.99	63.75	64.58	-77.63	-2,292.26	3,638.25	2,317.86	2,228.88	88.98	26.048	
15,500.00	12,517.00	14,792.21	12,011.92	64.84	67.36	-77.95	-2,495.07	3,645.92	2,318.79	2,227.42	91.37	25.378	
15,510.38	12,517.00	14,798.21	12,012.19	64.96	67.44	-77.96	-2,501.06	3,646.03	2,318.78	2,227.25	91.53	25.333	
15,600.00	12,517.00	14,853.83	12,014.90	65.96	68.21	-78.03	-2,556.58	3,647.60	2,319.48	2,226.54	92.94	24.958	
15,700.00	12,517.00	15,016.22	12,022.10	67.10	70.47	-78.22	-2,718.72	3,652.86	2,321.50	2,226.40	95.10	24.412	
15,800.00	12,517.00	15,157.52	12,023.28	68.26	72.44	-78.24	-2,859.99	3,651.61	2,319.54	2,222.43	97.11	23.886	
15,900.00	12,517.00	15,250.25	12,021.15	69.44	73.74	-78.17	-2,952.65	3,649.00	2,316.33	2,217.44	98.88	23.425	
16,000.00	12,517.00	15,426.44	12,021.15	70.64	76.23	-78.13	-3,128.69	3,642.88	2,311.93	2,210.88	101.05	22.879	
16,100.00	12,517.00	15,483.00	12,022.38	71.85	77.04	-78.14	-3,185.19	3,640.72	2,306.83	2,204.11	102.72	22.457	
16,200.00	12,517.00	15,546.53	12,025.04	73.09	77.95	-78.20	-3,248.65	3,639.69	2,303.46	2,199.01	104.45	22.054	
16,300.00	12,517.00	15,634.23	12,029.07	74.34	79.22	-78.29	-3,336.27	3,639.70	2,301.52	2,195.22	106.30	21.651	
16,400.00	12,517.00	15,735.80	12,032.25	75.60	80.70	-78.36	-3,437.78	3,639.16	2,299.40	2,191.17	108.24	21.244	
16,500.00	12,517.00	15,810.18	12,033.66	76.88	81.78	-78.39	-3,512.14	3,638.90	2,297.77	2,187.73	110.04	20.881	
16,600.00	12,517.00	15,903.87	12,040.26	78.18	83.16	-78.56	-3,605.57	3,640.93	2,297.49	2,185.50	111.99	20.515	
16,700.00	12,517.00	15,992.50	12,047.21	79.49	84.48	-78.73	-3,693.92	3,642.19	2,296.46	2,182.53	113.93	20.157	
16,706.14	12,517.00	15,995.51	12,047.45	79.57	84.52	-78.74	-3,696.92	3,642.27	2,296.46	2,182.42	114.03	20.139	
16,800.00	12,517.00	16,050.00	12,052.04	80.81	85.33	-78.86	-3,751.17	3,644.39	2,297.47	2,181.79	115.68	19.860	
16,900.00	12,517.00	16,098.98	12,056.62	82.14	86.07	-78.98	-3,799.84	3,647.37	2,300.49	2,183.12	117.37	19.601	
17,000.00	12,517.00	16,279.76	12,076.51	83.48	88.79	-79.51	-3,979.18	3,657.95	2,303.67	2,183.67	120.00	19.197	
17,100.00	12,517.00	16,409.93	12,090.53	84.84	90.75	-79.87	-4,108.52	3,662.01	2,303.95	2,181.69	122.26	18.845	
17,200.00	12,517.00	16,644.86	12,101.76	86.20	94.28	-80.12	-4,342.91	3,658.84	2,301.58	2,176.70	124.88	18.430	
17,300.00	12,517.00	16,782.28	12,101.56	87.58	96.33	-80.07	-4,480.02	3,649.69	2,294.05	2,167.08	126.98	18.067	
17,400.00	12,517.00	16,845.69	12,103.54	88.96	97.28	-80.10	-4,543.26	3,645.60	2,286.33	2,157.41	128.92	17.735	
17,500.00	12,517.00	16,900.00	12,106.54	90.35	98.10	-80.16	-4,597.45	3,643.67	2,280.79	2,149.97	130.83	17.434	
17,600.00	12,517.00	16,971.42	12,111.65	91.75	99.19	-80.28	-4,668.68	3,642.51	2,276.93	2,144.13	132.80	17.146	
17,700.00	12,517.00	17,053.55	12,118.60	93.16	100.44	-80.45	-4,750.51	3,641.99	2,273.91	2,139.08	134.83	16.865	
17,800.00	12,517.00	17,215.85	12,135.17	94.58	102.93	-80.84	-4,911.94	3,639.98	2,270.12	2,132.89	137.23	16.543	
17,900.00	12,517.00	17,313.70	12,147.44	96.01	104.42	-81.14	-5,008.98	3,637.70	2,264.86	2,125.49	139.37	16.251	
18,000.00	12,517.00	17,406.23	12,161.16	97.44	105.85	-81.47	-5,100.47	3,635.95	2,259.74	2,118.23	141.51	15.969	
18,100.00	12,517.00	17,488.29	12,174.57	98.88	107.11	-81.80	-5,181.42	3,635.07	2,255.29	2,111.67	143.62	15.703	
18,200.00	12,517.00	17,560.00	12,185.03	100.32	108.21	-82.06	-5,252.37	3,634.69	2,251.77	2,106.10	145.67	15.458	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

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
18,300.00	12,517.00	17,627.72	12,193.40	101.78	109.26	-82.27	-5,319.57	3,635.00	2,249.62	2,101.94	147.68	15.233	
18,355.75	12,517.00	17,655.00	12,196.45	102.59	109.69	-82.35	-5,346.67	3,635.43	2,249.20	2,100.46	148.73	15.122	CC
18,400.00	12,517.00	17,684.18	12,199.60	103.23	110.14	-82.43	-5,375.67	3,636.16	2,249.27	2,099.67	149.60	15.035	
18,500.00	12,517.00	17,749.00	12,206.60	104.70	111.15	-82.61	-5,440.05	3,639.01	2,251.09	2,099.54	151.55	14.854	
18,600.00	12,517.00	17,821.17	12,214.39	106.17	112.28	-82.82	-5,511.67	3,643.19	2,254.36	2,100.83	153.53	14.683	
18,700.00	12,517.00	17,939.65	12,225.16	107.64	114.14	-83.11	-5,629.48	3,649.51	2,257.60	2,101.73	155.87	14.484	
18,800.00	12,517.00	18,033.00	12,232.26	109.12	115.60	-83.30	-5,722.46	3,653.89	2,260.41	2,102.40	158.01	14.305	
18,900.00	12,517.00	18,088.69	12,236.93	110.60	116.48	-83.42	-5,777.85	3,657.18	2,264.37	2,104.53	159.84	14.167	
19,000.00	12,517.00	18,263.70	12,248.36	112.09	119.23	-83.74	-5,952.10	3,668.02	2,269.68	2,107.05	162.63	13.956	
19,100.00	12,517.00	18,417.66	12,256.09	113.59	121.65	-83.93	-6,105.83	3,670.57	2,269.60	2,104.46	165.14	13.743	
19,200.00	12,517.00	18,513.15	12,259.63	115.08	123.14	-84.02	-6,201.25	3,671.40	2,269.09	2,101.79	167.30	13.563	
19,300.00	12,517.00	18,622.64	12,260.58	116.59	124.86	-84.04	-6,310.73	3,671.53	2,268.12	2,098.60	169.52	13.379	
19,371.92	12,517.00	18,674.45	12,260.93	117.67	125.67	-84.05	-6,362.54	3,671.85	2,267.80	2,096.82	170.98	13.263	
19,400.00	12,517.00	18,696.02	12,261.18	118.09	126.01	-84.06	-6,384.11	3,672.12	2,267.85	2,096.29	171.56	13.219	
19,500.00	12,517.00	18,786.00	12,263.60	119.60	127.43	-84.12	-6,474.04	3,673.54	2,268.18	2,094.49	173.69	13.058	
19,600.00	12,517.00	18,865.25	12,268.59	121.11	128.68	-84.25	-6,553.10	3,675.62	2,269.22	2,093.44	175.78	12.910	
19,700.00	12,517.00	18,980.45	12,279.46	122.63	130.51	-84.53	-6,667.72	3,679.54	2,270.74	2,092.62	178.11	12.749	
19,800.00	12,517.00	19,087.95	12,287.69	124.15	132.21	-84.74	-6,774.87	3,682.16	2,271.47	2,091.08	180.39	12.592	
19,900.00	12,517.00	19,187.96	12,293.74	125.67	133.80	-84.90	-6,874.65	3,684.74	2,272.52	2,089.90	182.62	12.444	
20,000.00	12,517.00	19,315.53	12,292.07	127.20	135.82	-84.85	-7,002.17	3,685.05	2,271.70	2,086.74	184.96	12.282	
20,049.10	12,517.00	19,353.00	12,290.68	127.95	136.41	-84.82	-7,039.62	3,685.21	2,271.59	2,085.61	185.97	12.215	
20,100.00	12,517.00	19,384.07	12,289.48	128.73	136.90	-84.79	-7,070.66	3,685.55	2,271.82	2,084.84	186.98	12.150	
20,200.00	12,517.00	19,447.00	12,286.99	130.26	137.90	-84.73	-7,133.53	3,687.01	2,273.51	2,084.58	188.93	12.034	
20,300.00	12,517.00	19,598.37	12,275.31	131.80	140.30	-84.44	-7,284.40	3,689.64	2,275.04	2,083.63	191.42	11.885	
20,400.00	12,517.00	19,718.23	12,265.03	133.34	142.20	-84.17	-7,403.80	3,689.35	2,274.64	2,080.96	193.68	11.744	
20,500.00	12,517.00	19,811.90	12,258.48	134.88	143.68	-84.01	-7,497.25	3,689.15	2,274.17	2,078.34	195.83	11.613	
20,600.00	12,517.00	19,916.96	12,255.26	136.42	145.35	-83.92	-7,602.21	3,689.46	2,273.80	2,075.76	198.05	11.481	
20,661.07	12,517.00	19,966.32	12,255.98	137.37	146.14	-83.94	-7,651.57	3,689.88	2,273.64	2,074.29	199.35	11.405	
20,700.00	12,517.00	19,997.29	12,255.97	137.97	146.63	-83.94	-7,682.54	3,690.24	2,273.71	2,073.54	200.17	11.359	
20,800.00	12,517.00	20,082.88	12,254.76	139.52	147.99	-83.91	-7,768.10	3,691.55	2,274.40	2,072.10	202.30	11.243	
20,900.00	12,517.00	20,168.26	12,252.90	141.07	149.36	-83.87	-7,853.45	3,693.30	2,275.69	2,071.28	204.41	11.133	
21,000.00	12,517.00	20,230.08	12,251.45	142.62	150.35	-83.84	-7,915.23	3,695.08	2,277.95	2,071.60	206.35	11.039	
21,100.00	12,517.00	20,297.00	12,251.13	144.18	151.42	-83.84	-7,982.02	3,699.09	2,282.65	2,074.36	208.29	10.959	
21,200.00	12,517.00	20,347.19	12,251.73	145.73	152.23	-83.86	-8,032.04	3,703.09	2,288.99	2,078.97	210.02	10.899	
21,300.00	12,517.00	20,553.52	12,256.61	147.29	155.54	-84.01	-8,237.90	3,715.48	2,293.89	2,080.62	213.27	10.756	
21,400.00	12,517.00	20,731.22	12,254.92	148.85	158.39	-83.97	-8,415.54	3,716.68	2,293.07	2,077.13	215.94	10.619	
21,500.00	12,517.00	20,854.85	12,249.88	150.42	160.36	-83.84	-8,539.06	3,715.69	2,291.78	2,073.57	218.22	10.502	
21,600.00	12,517.00	20,953.62	12,245.67	151.98	161.93	-83.72	-8,637.73	3,714.05	2,289.62	2,069.20	220.42	10.388	
21,700.00	12,517.00	21,078.10	12,240.49	153.55	163.92	-83.58	-8,762.06	3,710.92	2,286.50	2,063.83	222.67	10.268	
21,800.00	12,517.00	21,146.00	12,239.08	155.12	165.00	-83.54	-8,829.93	3,709.88	2,284.18	2,059.37	224.81	10.161	
21,900.00	12,517.00	21,241.52	12,239.51	156.69	166.53	-83.55	-8,925.44	3,709.46	2,282.71	2,055.68	227.03	10.055	
22,000.00	12,517.00	21,407.64	12,236.28	158.26	169.18	-83.45	-9,091.43	3,704.66	2,278.65	2,049.28	229.37	9.935	
22,100.00	12,517.00	21,486.52	12,232.42	159.84	170.44	-83.34	-9,170.16	3,701.75	2,274.59	2,043.04	231.55	9.823	
22,200.00	12,517.00	21,563.21	12,227.99	161.41	171.66	-83.22	-9,246.70	3,699.71	2,271.63	2,037.94	233.70	9.720	
22,300.00	12,517.00	21,641.87	12,222.79	162.99	172.92	-83.09	-9,325.16	3,698.26	2,269.61	2,033.78	235.83	9.624	
22,400.00	12,517.00	21,713.00	12,219.22	164.57	174.06	-82.99	-9,396.20	3,697.79	2,268.63	2,030.71	237.92	9.535	
22,438.96	12,517.00	21,746.28	12,217.92	165.18	174.60	-82.96	-9,429.46	3,697.87	2,268.54	2,029.79	238.75	9.502	
22,500.00	12,517.00	21,791.65	12,216.09	166.14	175.33	-82.92	-9,474.79	3,698.25	2,268.75	2,028.72	240.03	9.452	
22,600.00	12,517.00	21,857.54	12,213.38	167.73	176.39	-82.85	-9,540.61	3,699.48	2,270.16	2,028.13	242.03	9.380	ES
22,700.00	12,517.00	21,925.42	12,210.74	169.31	177.48	-82.79	-9,608.39	3,701.87	2,273.13	2,029.13	243.99	9.316	
22,800.00	12,517.00	21,996.00	12,208.11	170.89	178.63	-82.73	-9,678.85	3,705.11	2,277.24	2,031.30	245.94	9.259	
22,900.00	12,517.00	22,079.87	12,204.45	172.48	179.99	-82.65	-9,762.51	3,709.74	2,282.33	2,034.34	247.99	9.203	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 133-MWD, 1394-OWSG (Rev2) MWD, 22230-BLIND

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
23,000.00	12,517.00	22,164.90	12,199.45	174.06	181.36	-82.54	-9,847.23	3,715.02	2,288.28	2,038.25	250.04	9.152	
23,100.00	12,517.00	22,230.00	12,194.93	175.65	187.87	-82.44	-9,912.04	3,719.21	2,294.85	2,039.14	255.72	8.974	SF
23,200.00	12,517.00	22,230.00	12,194.93	177.24	187.87	-82.44	-9,912.04	3,719.21	2,304.78	2,048.44	256.33	8.991	
23,300.00	12,517.00	22,230.00	12,194.93	178.83	187.87	-82.44	-9,912.04	3,719.21	2,318.98	2,062.50	256.48	9.042	
23,400.00	12,517.00	22,230.00	12,194.93	180.42	187.87	-82.44	-9,912.04	3,719.21	2,337.37	2,081.21	256.16	9.125	
23,500.00	12,517.00	22,230.00	12,194.93	182.01	187.87	-82.44	-9,912.04	3,719.21	2,359.87	2,104.47	255.40	9.240	
23,600.00	12,517.00	22,230.00	12,194.93	183.60	187.87	-82.44	-9,912.04	3,719.21	2,386.34	2,132.10	254.24	9.386	
23,700.00	12,517.00	22,230.00	12,194.93	185.20	187.87	-82.44	-9,912.04	3,719.21	2,416.67	2,163.96	252.71	9.563	
23,800.00	12,517.00	22,230.00	12,194.93	186.79	187.87	-82.44	-9,912.04	3,719.21	2,450.70	2,199.85	250.85	9.770	
23,900.00	12,517.00	22,230.00	12,194.93	188.39	187.87	-82.44	-9,912.04	3,719.21	2,488.29	2,239.59	248.70	10.005	
24,000.00	12,517.00	22,230.00	12,194.93	189.99	187.87	-82.44	-9,912.04	3,719.21	2,529.28	2,282.97	246.31	10.269	
24,100.00	12,517.00	22,230.00	12,194.93	191.58	187.87	-82.44	-9,912.04	3,719.21	2,573.50	2,329.79	243.71	10.560	
24,130.17	12,517.00	22,230.00	12,194.93	192.05	187.87	-82.44	-9,912.04	3,719.21	2,587.45	2,344.20	243.25	10.637	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-140.82	-75.52	-61.56	97.43				
100.00	100.00	100.00	100.00	0.13	0.13	-140.82	-75.52	-61.56	97.43	97.26	0.18	549.126	
200.00	200.00	200.00	200.00	0.48	0.48	-140.82	-75.52	-61.56	97.43	96.75	0.68	142.366	
300.00	300.00	300.00	300.00	0.84	0.84	-140.82	-75.52	-61.56	97.43	96.24	1.19	81.785	
400.00	400.00	400.00	400.00	1.20	1.20	-140.82	-75.52	-61.56	97.43	95.74	1.70	57.371	
500.00	500.00	500.00	500.00	1.56	1.56	-140.82	-75.52	-61.56	97.43	95.23	2.21	44.183	
600.00	600.00	600.00	600.00	1.92	1.92	-140.82	-75.52	-61.56	97.43	94.72	2.71	35.924	
700.00	700.00	700.00	700.00	2.28	2.28	-140.82	-75.52	-61.56	97.43	94.21	3.22	30.267	
800.00	800.00	800.00	800.00	2.63	2.63	-140.82	-75.52	-61.56	97.43	93.71	3.73	26.149	
900.00	900.00	900.00	900.00	2.99	2.99	-140.82	-75.52	-61.56	97.43	93.20	4.23	23.017	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-140.82	-75.52	-61.56	97.43	92.69	4.74	20.556	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-140.82	-75.52	-61.56	97.43	92.19	5.25	18.569	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-140.82	-75.52	-61.56	97.43	91.68	5.75	16.933	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-140.82	-75.52	-61.56	97.43	91.17	6.26	15.562	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-140.82	-75.52	-61.56	97.43	90.67	6.77	14.397	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	-140.82	-75.52	-61.56	97.43	90.16	7.27	13.393	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	-140.82	-75.52	-61.56	97.43	89.65	7.78	12.521	CC, ES
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	152.88	-75.52	-61.56	98.98	90.70	8.29	11.947	
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	154.16	-75.52	-61.56	103.67	94.88	8.79	11.800	SF
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	156.05	-75.52	-61.56	111.58	102.30	9.29	12.016	
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	158.27	-75.52	-61.56	122.83	113.04	9.79	12.550	
2,100.00	2,097.47	2,097.80	2,097.79	7.29	7.29	161.12	-74.52	-62.30	137.38	127.09	10.29	13.354	
2,200.00	2,195.62	2,195.95	2,195.86	7.67	7.63	164.69	-71.49	-64.55	155.42	144.64	10.78	14.413	
2,300.00	2,293.06	2,292.82	2,292.54	8.07	7.98	168.55	-66.51	-68.24	177.37	166.10	11.27	15.732	
2,357.10	2,348.32	2,347.46	2,346.98	8.31	8.18	170.75	-62.84	-70.96	191.79	180.23	11.55	16.599	
2,400.00	2,389.73	2,388.24	2,387.57	8.49	8.32	172.39	-59.69	-73.30	203.24	191.48	11.76	17.279	
2,500.00	2,486.26	2,482.73	2,481.44	8.92	8.66	176.00	-51.05	-79.70	230.73	218.49	12.24	18.845	
2,600.00	2,582.78	2,577.66	2,575.61	9.37	9.01	179.15	-41.35	-86.88	259.19	246.46	12.73	20.360	
2,700.00	2,679.31	2,672.64	2,669.82	9.83	9.36	-178.33	-31.65	-94.08	288.23	275.01	13.22	21.801	
2,800.00	2,775.84	2,767.62	2,764.03	10.30	9.71	-176.26	-21.94	-101.27	317.70	303.98	13.72	23.162	
2,900.00	2,872.37	2,862.60	2,858.24	10.78	10.07	-174.54	-12.24	-108.46	347.48	333.27	14.22	24.444	
3,000.00	2,968.90	2,957.59	2,952.45	11.27	10.43	-173.09	-2.54	-115.65	377.51	362.79	14.72	25.648	
3,100.00	3,065.43	3,052.57	3,046.66	11.76	10.79	-171.85	7.17	-122.84	407.73	392.50	15.23	26.779	
3,200.00	3,161.95	3,147.55	3,140.87	12.25	11.15	-170.78	16.87	-130.04	438.09	422.36	15.74	27.841	
3,300.00	3,258.48	3,242.53	3,235.07	12.76	11.51	-169.86	26.58	-137.23	468.58	452.33	16.25	28.839	
3,400.00	3,355.01	3,337.51	3,329.28	13.26	11.88	-169.04	36.28	-144.42	499.17	482.40	16.76	29.776	
3,500.00	3,451.54	3,432.49	3,423.49	13.77	12.24	-168.32	45.99	-151.61	529.84	512.55	17.28	30.658	
3,600.00	3,548.07	3,527.47	3,517.70	14.29	12.61	-167.68	55.69	-158.80	560.57	542.77	17.80	31.488	
3,700.00	3,644.59	3,622.45	3,611.91	14.80	12.98	-167.10	65.39	-165.99	591.37	573.04	18.33	32.270	
3,800.00	3,741.12	3,717.43	3,706.12	15.32	13.35	-166.58	75.10	-173.19	622.21	603.36	18.85	33.009	
3,900.00	3,837.65	3,812.41	3,800.33	15.84	13.72	-166.11	84.80	-180.38	653.09	633.72	19.38	33.706	
4,000.00	3,934.18	3,907.39	3,894.54	16.37	14.09	-165.68	94.51	-187.57	684.01	664.11	19.90	34.366	
4,100.00	4,030.71	4,002.37	3,988.75	16.90	14.47	-165.29	104.21	-194.76	714.96	694.53	20.43	34.990	
4,200.00	4,127.24	4,097.35	4,082.96	17.42	14.84	-164.93	113.92	-201.95	745.94	724.98	20.96	35.582	
4,300.00	4,223.76	4,192.33	4,177.17	17.95	15.22	-164.60	123.62	-209.15	776.95	755.45	21.50	36.143	
4,400.00	4,320.29	4,287.31	4,271.38	18.49	15.59	-164.30	133.32	-216.34	807.97	785.94	22.03	36.677	
4,500.00	4,416.82	4,382.29	4,365.59	19.02	15.97	-164.01	143.03	-223.53	839.02	816.46	22.56	37.184	
4,600.00	4,513.35	4,477.27	4,459.80	19.55	16.34	-163.75	152.73	-230.72	870.08	846.98	23.10	37.666	
4,700.00	4,609.88	4,572.25	4,554.01	20.09	16.72	-163.51	162.44	-237.91	901.16	877.52	23.64	38.126	
4,800.00	4,706.40	4,667.24	4,648.22	20.62	17.10	-163.28	172.14	-245.11	932.25	908.08	24.17	38.565	
4,900.00	4,802.93	4,762.22	4,742.42	21.16	17.48	-163.07	181.85	-252.30	963.35	938.64	24.71	38.983	
5,000.00	4,899.46	4,857.20	4,836.63	21.70	17.85	-162.87	191.55	-259.49	994.47	969.22	25.25	39.383	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	4,952.18	4,930.84	22.24	18.23	-162.68	201.25	-266.68	1,025.59	999.80	25.79	39.765	
5,200.00	5,092.52	5,047.16	5,025.05	22.78	18.61	-162.50	210.96	-273.87	1,056.73	1,030.40	26.33	40.132	
5,300.00	5,189.04	5,142.14	5,119.26	23.32	18.99	-162.34	220.66	-281.07	1,087.87	1,061.00	26.87	40.482	
5,400.00	5,285.57	5,237.12	5,213.47	23.86	19.37	-162.18	230.37	-288.26	1,119.02	1,091.61	27.41	40.818	
5,500.00	5,382.10	5,332.10	5,307.68	24.41	19.75	-162.03	240.07	-295.45	1,150.18	1,122.22	27.96	41.141	
5,600.00	5,478.63	5,427.08	5,401.89	24.95	20.13	-161.89	249.78	-302.64	1,181.35	1,152.85	28.50	41.450	
5,700.00	5,575.16	5,522.06	5,496.10	25.49	20.51	-161.75	259.48	-309.83	1,212.52	1,183.47	29.04	41.747	
5,800.00	5,671.69	5,617.04	5,590.31	26.04	20.89	-161.63	269.18	-317.02	1,243.70	1,214.11	29.59	42.033	
5,900.00	5,768.21	5,712.02	5,684.52	26.58	21.28	-161.51	278.89	-324.22	1,274.88	1,244.74	30.13	42.308	
6,000.00	5,864.74	5,807.00	5,778.73	27.13	21.66	-161.39	288.59	-331.41	1,306.06	1,275.39	30.68	42.573	
6,100.00	5,961.27	5,901.98	5,872.94	27.67	22.04	-161.28	298.30	-338.60	1,337.26	1,306.03	31.22	42.828	
6,200.00	6,057.80	5,996.96	5,967.15	28.22	22.42	-161.18	308.00	-345.79	1,368.45	1,336.68	31.77	43.073	
6,300.00	6,154.33	6,091.94	6,061.36	28.76	22.80	-161.08	317.71	-352.98	1,399.65	1,367.33	32.32	43.310	
6,400.00	6,250.85	6,186.92	6,155.57	29.31	23.19	-160.98	327.41	-360.18	1,430.85	1,397.99	32.86	43.539	
6,500.00	6,347.38	6,281.91	6,249.78	29.86	23.57	-160.89	337.11	-367.37	1,462.06	1,428.65	33.41	43.760	
6,600.00	6,443.91	6,376.89	6,343.98	30.41	23.95	-160.80	346.82	-374.56	1,493.27	1,459.31	33.96	43.973	
6,700.00	6,540.44	6,471.87	6,438.19	30.95	24.33	-160.72	356.52	-381.75	1,524.48	1,489.98	34.51	44.179	
6,803.85	6,640.68	6,570.50	6,536.03	31.52	24.73	-160.63	366.60	-389.22	1,556.90	1,521.83	35.08	44.385	
6,900.00	6,733.90	6,662.27	6,627.06	32.03	25.10	-160.74	375.98	-396.17	1,585.47	1,549.87	35.60	44.532	
7,000.00	6,831.63	6,758.59	6,722.59	32.53	25.49	-160.78	385.82	-403.46	1,612.08	1,575.94	36.15	44.596	
7,100.00	6,930.04	6,855.68	6,818.89	32.98	25.88	-160.77	395.74	-410.81	1,635.52	1,598.83	36.69	44.576	
7,200.00	7,029.01	6,953.92	6,916.33	33.40	26.28	-160.69	405.77	-418.25	1,655.76	1,618.52	37.23	44.472	
7,300.00	7,128.41	7,082.67	7,044.30	33.78	26.79	-160.54	417.14	-426.68	1,671.86	1,633.94	37.92	44.092	
7,400.00	7,228.14	7,212.95	7,174.19	34.12	27.28	-160.44	425.11	-432.58	1,682.90	1,644.32	38.58	43.625	
7,500.00	7,328.06	7,344.19	7,305.31	34.43	27.74	-160.38	429.53	-435.86	1,688.82	1,649.62	39.20	43.080	
7,560.95	7,389.00	7,424.40	7,385.52	34.59	28.02	-93.61	430.45	-436.54	1,689.91	1,650.34	39.57	42.711	
7,600.00	7,428.05	7,466.94	7,428.05	34.70	28.16	-93.61	430.48	-436.56	1,689.92	1,650.16	39.76	42.504	
7,700.00	7,528.05	7,566.94	7,528.05	34.97	28.49	-93.61	430.48	-436.56	1,689.92	1,649.70	40.22	42.015	
7,800.00	7,628.05	7,666.94	7,628.05	35.24	28.83	-93.61	430.48	-436.56	1,689.92	1,649.23	40.68	41.537	
7,900.00	7,728.05	7,766.94	7,728.05	35.51	29.16	-93.61	430.48	-436.56	1,689.92	1,648.77	41.15	41.068	
8,000.00	7,828.05	7,866.94	7,828.05	35.79	29.50	-93.61	430.48	-436.56	1,689.92	1,648.30	41.61	40.609	
8,100.00	7,928.05	7,966.94	7,928.05	36.06	29.83	-93.61	430.48	-436.56	1,689.92	1,647.84	42.08	40.159	
8,108.04	7,936.09	7,974.98	7,936.09	36.09	29.86	-93.61	430.48	-436.56	1,689.92	1,647.80	42.12	40.123	
8,200.00	8,028.05	8,062.02	8,023.12	36.34	30.14	-93.64	429.63	-436.55	1,689.97	1,647.45	42.52	39.744	
8,300.00	8,128.05	8,150.00	8,110.26	36.62	30.37	-94.03	418.15	-436.44	1,690.71	1,647.83	42.88	39.427	
8,400.00	8,228.05	8,226.89	8,184.21	36.90	30.53	-94.74	397.29	-436.23	1,692.58	1,649.42	43.15	39.221	
8,500.00	8,328.05	8,300.00	8,251.33	37.18	30.65	-95.71	368.45	-435.95	1,696.09	1,652.72	43.37	39.107	
8,600.00	8,428.05	8,364.26	8,306.89	37.46	30.73	-96.79	336.22	-435.63	1,701.87	1,658.35	43.52	39.109	
8,700.00	8,528.05	8,420.51	8,352.29	37.75	30.78	-97.90	303.06	-435.31	1,710.52	1,666.93	43.59	39.244	
8,800.00	8,628.05	8,469.06	8,388.71	38.03	30.81	-98.97	270.97	-434.99	1,722.57	1,678.99	43.58	39.524	
8,900.00	8,728.05	8,510.84	8,417.77	38.32	30.82	-99.97	240.98	-434.70	1,738.42	1,694.92	43.50	39.961	
9,000.00	8,828.05	8,550.00	8,442.97	38.61	30.83	-100.95	211.01	-434.40	1,758.35	1,714.99	43.36	40.556	
9,100.00	8,928.05	8,577.85	8,459.61	38.89	30.83	-101.69	188.68	-434.18	1,782.48	1,739.37	43.11	41.345	
9,200.00	9,028.05	8,600.00	8,472.06	39.18	30.84	-102.28	170.36	-434.01	1,810.92	1,768.13	42.79	42.319	
9,300.00	9,128.05	8,628.27	8,486.90	39.47	30.83	-103.06	146.31	-433.77	1,843.58	1,801.13	42.45	43.431	
9,400.00	9,228.05	8,650.00	8,497.50	39.77	30.83	-103.68	127.34	-433.58	1,880.42	1,838.38	42.04	44.727	
9,500.00	9,328.05	8,667.03	8,505.29	40.06	30.83	-104.16	112.20	-433.43	1,921.29	1,879.70	41.59	46.199	
9,600.00	9,428.05	8,683.13	8,512.24	40.35	30.82	-104.63	97.68	-433.29	1,966.01	1,924.90	41.11	47.825	
9,700.00	9,528.05	8,700.00	8,519.09	40.65	30.82	-105.12	82.26	-433.14	2,014.39	1,973.76	40.62	49.586	
9,800.00	9,628.05	8,700.00	8,519.09	40.95	30.82	-105.12	82.26	-433.14	2,066.29	2,026.22	40.07	51.573	
9,900.00	9,728.05	8,721.93	8,527.30	41.24	30.81	-105.76	61.93	-432.94	2,121.27	2,081.66	39.61	53.560	
10,000.00	9,828.05	8,750.00	8,536.67	41.54	30.81	-106.60	35.47	-432.68	2,179.59	2,140.41	39.18	55.627	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
10,100.00	9,928.05	8,750.00	8,536.67	41.84	30.81	-106.60	35.47	-432.68	2,240.29	2,201.62	38.66	57.943	
10,200.00	10,028.05	8,750.00	8,536.67	42.14	30.81	-106.60	35.47	-432.68	2,303.73	2,265.56	38.17	60.356	
10,300.00	10,128.05	8,750.00	8,536.67	42.44	30.81	-106.60	35.47	-432.68	2,369.69	2,331.99	37.70	62.855	
10,400.00	10,228.05	8,750.00	8,536.67	42.74	30.81	-106.60	35.47	-432.68	2,437.97	2,400.71	37.26	65.425	
10,500.00	10,328.05	8,772.50	8,543.23	43.05	30.80	-107.27	13.96	-432.47	2,507.96	2,471.01	36.94	67.885	
10,600.00	10,428.05	8,778.69	8,544.89	43.35	30.80	-107.46	7.99	-432.41	2,580.05	2,543.46	36.59	70.508	
10,700.00	10,528.05	8,800.00	8,550.10	43.65	30.79	-108.10	-12.67	-432.21	2,654.10	2,617.77	36.33	73.061	
10,800.00	10,628.05	8,800.00	8,550.10	43.96	30.79	-108.10	-12.67	-432.21	2,729.44	2,693.42	36.02	75.778	
10,900.00	10,728.05	8,800.00	8,550.10	44.27	30.79	-108.10	-12.67	-432.21	2,806.32	2,770.57	35.74	78.516	
11,000.00	10,828.05	8,800.00	8,550.10	44.57	30.79	-108.10	-12.67	-432.21	2,884.62	2,849.12	35.50	81.261	
11,100.00	10,928.05	8,800.00	8,550.10	44.88	30.79	-108.10	-12.67	-432.21	2,964.22	2,928.93	35.29	84.005	
11,200.00	11,028.05	8,800.00	8,550.10	45.19	30.79	-108.10	-12.67	-432.21	3,045.03	3,009.92	35.11	86.739	
11,300.00	11,128.05	8,800.00	8,550.10	45.50	30.79	-108.10	-12.67	-432.21	3,126.94	3,091.99	34.96	89.455	
11,400.00	11,228.05	8,800.00	8,550.10	45.81	30.79	-108.10	-12.67	-432.21	3,209.89	3,175.05	34.83	92.147	
11,500.00	11,328.05	8,800.00	8,550.10	46.12	30.79	-108.10	-12.67	-432.21	3,293.77	3,259.03	34.74	94.809	
11,600.00	11,428.05	8,821.73	8,554.62	46.43	30.79	-108.75	-33.92	-432.00	3,378.11	3,343.38	34.73	97.255	
11,700.00	11,528.05	8,824.74	8,555.19	46.74	30.79	-108.84	-36.88	-431.97	3,463.57	3,428.87	34.70	99.822	
11,800.00	11,628.05	8,827.60	8,555.71	47.05	30.79	-108.93	-39.69	-431.94	3,549.76	3,515.08	34.68	102.350	
11,900.00	11,728.05	8,850.00	8,559.29	47.37	30.79	-109.60	-61.80	-431.73	3,637.00	3,602.26	34.74	104.694	
12,000.00	11,828.05	8,850.00	8,559.29	47.68	30.79	-109.60	-61.80	-431.73	3,724.45	3,689.69	34.76	107.148	
12,100.00	11,928.05	8,850.00	8,559.29	48.00	30.79	-109.60	-61.80	-431.73	3,812.52	3,777.72	34.80	109.550	
12,115.99	11,944.04	8,850.00	8,559.29	48.05	30.79	-109.60	-61.80	-431.73	3,826.65	3,791.84	34.81	109.930	
12,150.00	11,978.03	8,850.00	8,559.29	48.15	30.79	72.24	-61.80	-431.73	3,856.66	3,821.83	34.83	110.736	
12,200.00	12,027.75	8,850.00	8,559.29	48.28	30.79	63.92	-61.80	-431.73	3,900.33	3,865.48	34.85	111.911	
12,250.00	12,076.83	8,850.00	8,559.29	48.41	30.79	56.69	-61.80	-431.73	3,943.21	3,908.33	34.88	113.063	
12,300.00	12,124.90	8,850.00	8,559.29	48.53	30.79	50.56	-61.80	-431.73	3,984.99	3,950.09	34.90	114.183	
12,350.00	12,171.60	8,850.00	8,559.29	48.63	30.79	45.46	-61.80	-431.73	4,025.41	3,990.49	34.92	115.265	
12,400.00	12,216.56	8,850.00	8,559.29	48.72	30.79	41.24	-61.80	-431.73	4,064.19	4,029.25	34.94	116.303	
12,450.00	12,259.45	8,850.00	8,559.29	48.80	30.79	37.76	-61.80	-431.73	4,101.09	4,066.13	34.97	117.289	
12,500.00	12,299.94	8,850.00	8,559.29	48.87	30.79	34.89	-61.80	-431.73	4,135.89	4,100.91	34.99	118.216	
12,550.00	12,337.72	8,850.00	8,559.29	48.93	30.79	32.52	-61.80	-431.73	4,168.38	4,133.37	35.01	119.075	
12,600.00	12,372.50	8,850.00	8,559.29	48.97	30.79	30.56	-61.80	-431.73	4,198.36	4,163.33	35.03	119.859	
12,650.00	12,404.03	8,874.81	8,562.25	49.00	30.79	28.89	-86.43	-431.48	4,225.10	4,190.01	35.09	120.410	
12,700.00	12,432.05	8,900.00	8,564.16	49.03	30.80	27.54	-111.54	-431.24	4,249.64	4,214.49	35.15	120.901	
12,750.00	12,456.36	8,900.00	8,564.16	49.05	30.80	26.49	-111.54	-431.24	4,270.61	4,235.43	35.18	121.409	
12,800.00	12,476.77	8,900.00	8,564.16	49.06	30.80	25.65	-111.54	-431.24	4,288.48	4,253.28	35.21	121.809	
12,850.00	12,493.12	8,900.00	8,564.16	49.07	30.80	24.99	-111.54	-431.24	4,303.16	4,267.92	35.25	122.092	
12,900.00	12,505.30	8,900.00	8,564.16	49.09	30.80	24.50	-111.54	-431.24	4,314.57	4,279.27	35.29	122.251	
12,950.00	12,513.20	8,900.00	8,564.16	49.11	30.80	24.17	-111.54	-431.24	4,322.64	4,287.29	35.35	122.280	
13,000.00	12,516.77	8,916.92	8,564.83	49.13	30.81	24.00	-128.45	-431.07	4,327.07	4,291.63	35.43	122.121	
13,015.99	12,517.00	8,930.93	8,565.00	49.14	30.82	24.00	-142.45	-430.93	4,327.91	4,292.45	35.47	122.026	
13,100.00	12,517.00	8,930.93	8,565.00	49.21	30.82	24.05	-142.45	-430.93	4,330.83	4,295.22	35.61	121.634	
13,200.00	12,517.00	9,019.25	8,565.00	49.32	31.00	24.20	-230.77	-430.07	4,334.21	4,298.36	35.86	120.877	
13,300.00	12,517.00	9,119.13	8,565.00	49.47	31.31	24.29	-330.65	-429.09	4,336.19	4,300.04	36.15	119.952	
13,387.80	12,517.00	9,206.92	8,565.00	49.62	31.65	24.32	-418.43	-428.22	4,336.74	4,300.31	36.44	119.025	
13,400.00	12,517.00	9,219.12	8,565.00	49.64	31.71	24.32	-430.63	-428.10	4,336.75	4,300.27	36.48	118.885	
13,500.00	12,517.00	9,319.12	8,565.00	49.86	32.19	24.32	-530.62	-427.12	4,336.75	4,299.89	36.85	117.680	
13,600.00	12,517.00	9,419.12	8,565.00	50.14	32.74	24.32	-630.62	-426.14	4,336.75	4,299.47	37.27	116.350	
13,700.00	12,517.00	9,519.12	8,565.00	50.48	33.36	24.32	-730.61	-425.16	4,336.75	4,299.01	37.74	114.907	
13,800.00	12,517.00	9,619.12	8,565.00	50.88	34.04	24.32	-830.61	-424.18	4,336.75	4,298.49	38.25	113.366	
13,900.00	12,517.00	9,719.12	8,565.00	51.34	34.79	24.32	-930.60	-423.20	4,336.75	4,297.94	38.81	111.742	
14,000.00	12,517.00	9,819.12	8,565.00	51.86	35.59	24.32	-1,030.60	-422.21	4,336.75	4,297.34	39.41	110.049	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	12,517.00	9,919.12	8,565.00	52.43	36.46	24.32	-1,130.59	-421.23	4,336.75	4,296.71	40.04	108.300	
14,200.00	12,517.00	10,019.12	8,565.00	53.06	37.37	24.32	-1,230.59	-420.25	4,336.75	4,296.03	40.72	106.507	
14,300.00	12,517.00	10,119.12	8,565.00	53.74	38.33	24.32	-1,330.58	-419.27	4,336.75	4,295.32	41.43	104.682	
14,400.00	12,517.00	10,219.12	8,565.00	54.46	39.34	24.32	-1,430.58	-418.29	4,336.75	4,294.58	42.17	102.835	
14,500.00	12,517.00	10,319.12	8,565.00	55.23	40.39	24.32	-1,530.58	-417.30	4,336.75	4,293.81	42.95	100.978	
14,600.00	12,517.00	10,419.12	8,565.00	56.04	41.48	24.32	-1,630.57	-416.32	4,336.76	4,293.00	43.75	99.117	
14,700.00	12,517.00	10,519.12	8,565.00	56.89	42.60	24.32	-1,730.57	-415.34	4,336.76	4,292.17	44.59	97.260	
14,800.00	12,517.00	10,619.12	8,565.00	57.77	43.76	24.32	-1,830.56	-414.36	4,336.76	4,291.31	45.45	95.415	
14,900.00	12,517.00	10,719.12	8,565.00	58.69	44.94	24.32	-1,930.56	-413.38	4,336.76	4,290.42	46.34	93.587	
15,000.00	12,517.00	10,819.12	8,565.00	59.64	46.16	24.32	-2,030.55	-412.40	4,336.76	4,289.51	47.25	91.780	
15,100.00	12,517.00	10,919.12	8,565.00	60.63	47.40	24.32	-2,130.55	-411.41	4,336.76	4,288.57	48.19	89.999	
15,200.00	12,517.00	11,019.12	8,565.00	61.64	48.67	24.32	-2,230.54	-410.43	4,336.76	4,287.62	49.14	88.247	
15,300.00	12,517.00	11,119.12	8,565.00	62.68	49.96	24.32	-2,330.54	-409.45	4,336.76	4,286.64	50.12	86.527	
15,400.00	12,517.00	11,219.12	8,565.00	63.75	51.26	24.32	-2,430.53	-408.47	4,336.76	4,285.65	51.12	84.841	
15,500.00	12,517.00	11,319.12	8,565.00	64.84	52.59	24.32	-2,530.53	-407.49	4,336.76	4,284.64	52.13	83.195	
15,600.00	12,517.00	11,419.12	8,565.00	65.96	53.94	24.32	-2,630.52	-406.50	4,336.76	4,283.61	53.16	81.585	
15,700.00	12,517.00	11,519.12	8,565.00	67.10	55.30	24.32	-2,730.52	-405.52	4,336.77	4,282.56	54.20	80.013	
15,800.00	12,517.00	11,619.12	8,565.00	68.26	56.68	24.32	-2,830.51	-404.54	4,336.77	4,281.51	55.26	78.479	
15,900.00	12,517.00	11,719.12	8,565.00	69.44	58.07	24.32	-2,930.51	-403.56	4,336.77	4,280.43	56.33	76.984	
16,000.00	12,517.00	11,819.12	8,565.00	70.64	59.48	24.32	-3,030.50	-402.58	4,336.77	4,279.35	57.42	75.526	
16,100.00	12,517.00	11,919.12	8,565.00	71.85	60.89	24.32	-3,130.50	-401.60	4,336.77	4,278.25	58.52	74.107	
16,200.00	12,517.00	12,019.12	8,565.00	73.09	62.32	24.32	-3,230.49	-400.61	4,336.77	4,277.14	59.63	72.725	
16,300.00	12,517.00	12,119.12	8,565.00	74.34	63.76	24.32	-3,330.49	-399.63	4,336.77	4,276.01	60.76	71.380	
16,400.00	12,517.00	12,219.12	8,565.00	75.60	65.21	24.32	-3,430.48	-398.65	4,336.77	4,274.88	61.89	70.071	
16,500.00	12,517.00	12,319.12	8,565.00	76.88	66.67	24.32	-3,530.48	-397.67	4,336.77	4,273.74	63.03	68.800	
16,600.00	12,517.00	12,419.12	8,565.00	78.18	68.14	24.32	-3,630.47	-396.69	4,336.77	4,272.59	64.19	67.566	
16,700.00	12,517.00	12,519.12	8,565.00	79.49	69.61	24.32	-3,730.47	-395.70	4,336.77	4,271.43	65.35	66.364	
16,800.00	12,517.00	12,619.12	8,565.00	80.81	71.10	24.32	-3,830.46	-394.72	4,336.77	4,270.26	66.52	65.198	
16,900.00	12,517.00	12,719.12	8,565.00	82.14	72.59	24.32	-3,930.46	-393.74	4,336.78	4,269.08	67.69	64.065	
17,000.00	12,517.00	12,819.12	8,565.00	83.48	74.09	24.32	-4,030.45	-392.76	4,336.78	4,267.90	68.88	62.964	
17,100.00	12,517.00	12,919.12	8,565.00	84.84	75.59	24.32	-4,130.45	-391.78	4,336.78	4,266.71	70.07	61.893	
17,200.00	12,517.00	13,019.12	8,565.00	86.20	77.10	24.32	-4,230.45	-390.80	4,336.78	4,265.51	71.27	60.851	
17,300.00	12,517.00	13,119.12	8,565.00	87.58	78.62	24.32	-4,330.44	-389.81	4,336.78	4,264.31	72.47	59.839	
17,400.00	12,517.00	13,219.12	8,565.00	88.96	80.14	24.32	-4,430.44	-388.83	4,336.78	4,263.09	73.69	58.855	
17,500.00	12,517.00	13,319.12	8,565.00	90.35	81.66	24.32	-4,530.43	-387.85	4,336.78	4,261.88	74.90	57.898	
17,600.00	12,517.00	13,419.12	8,565.00	91.75	83.19	24.32	-4,630.43	-386.87	4,336.78	4,260.65	76.13	56.967	
17,700.00	12,517.00	13,519.12	8,565.00	93.16	84.73	24.32	-4,730.42	-385.89	4,336.78	4,259.43	77.36	56.063	
17,800.00	12,517.00	13,619.12	8,565.00	94.58	86.27	24.32	-4,830.42	-384.90	4,336.78	4,258.20	78.59	55.185	
17,900.00	12,517.00	13,719.12	8,565.00	96.01	87.81	24.32	-4,930.41	-383.92	4,336.78	4,256.96	79.82	54.331	
18,000.00	12,517.00	13,819.12	8,565.00	97.44	89.36	24.32	-5,030.41	-382.94	4,336.79	4,255.72	81.06	53.500	
18,100.00	12,517.00	13,919.12	8,565.00	98.88	90.91	24.32	-5,130.40	-381.96	4,336.79	4,254.48	82.31	52.690	
18,200.00	12,517.00	14,019.12	8,565.00	100.32	92.47	24.32	-5,230.40	-380.98	4,336.79	4,253.23	83.56	51.903	
18,300.00	12,517.00	14,119.12	8,565.00	101.78	94.02	24.32	-5,330.39	-380.00	4,336.79	4,251.98	84.81	51.136	
18,400.00	12,517.00	14,219.12	8,565.00	103.23	95.59	24.32	-5,430.39	-379.01	4,336.79	4,250.72	86.07	50.389	
18,500.00	12,517.00	14,319.12	8,565.00	104.70	97.15	24.32	-5,530.38	-378.03	4,336.79	4,249.46	87.33	49.661	
18,600.00	12,517.00	14,419.12	8,565.00	106.17	98.72	24.32	-5,630.38	-377.05	4,336.79	4,248.20	88.59	48.953	
18,700.00	12,517.00	14,519.12	8,565.00	107.64	100.29	24.32	-5,730.37	-376.07	4,336.79	4,246.93	89.86	48.262	
18,800.00	12,517.00	14,619.12	8,565.00	109.12	101.86	24.32	-5,830.37	-375.09	4,336.79	4,245.66	91.13	47.589	
18,900.00	12,517.00	14,719.12	8,565.00	110.60	103.43	24.32	-5,930.36	-374.11	4,336.79	4,244.39	92.40	46.933	
19,000.00	12,517.00	14,819.12	8,565.00	112.09	105.01	24.32	-6,030.36	-373.12	4,336.79	4,243.11	93.68	46.293	
19,100.00	12,517.00	14,919.12	8,565.00	113.59	106.59	24.32	-6,130.35	-372.14	4,336.79	4,241.83	94.96	45.669	
19,200.00	12,517.00	15,019.12	8,565.00	115.08	108.17	24.32	-6,230.35	-371.16	4,336.80	4,240.55	96.25	45.060	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	12,517.00	15,119.12	8,565.00	116.59	109.75	24.32	-6,330.34	-370.18	4,336.80	4,239.27	97.53	44.467	
19,400.00	12,517.00	15,219.12	8,565.00	118.09	111.34	24.32	-6,430.34	-369.20	4,336.80	4,237.98	98.81	43.889	
19,500.00	12,517.00	15,319.12	8,565.00	119.60	112.93	24.32	-6,530.33	-368.21	4,336.80	4,236.70	100.10	43.325	
19,600.00	12,517.00	15,419.12	8,565.00	121.11	114.52	24.32	-6,630.33	-367.23	4,336.80	4,235.41	101.39	42.774	
19,700.00	12,517.00	15,519.12	8,565.00	122.63	116.11	24.32	-6,730.32	-366.25	4,336.80	4,234.12	102.68	42.236	
19,800.00	12,517.00	15,619.12	8,565.00	124.15	117.70	24.32	-6,830.32	-365.27	4,336.80	4,232.83	103.98	41.710	
19,900.00	12,517.00	15,719.12	8,565.00	125.67	119.29	24.32	-6,930.31	-364.29	4,336.80	4,231.53	105.27	41.196	
20,000.00	12,517.00	15,819.12	8,565.00	127.20	120.89	24.32	-7,030.31	-363.31	4,336.80	4,230.23	106.57	40.694	
20,100.00	12,517.00	15,919.12	8,565.00	128.73	122.49	24.32	-7,130.31	-362.32	4,336.80	4,228.93	107.87	40.203	
20,200.00	12,517.00	16,019.12	8,565.00	130.26	124.08	24.32	-7,230.30	-361.34	4,336.80	4,227.63	109.17	39.724	
20,300.00	12,517.00	16,119.12	8,565.00	131.80	125.68	24.32	-7,330.30	-360.36	4,336.81	4,226.33	110.48	39.256	
20,400.00	12,517.00	16,219.12	8,565.00	133.34	127.29	24.32	-7,430.29	-359.38	4,336.81	4,225.03	111.78	38.798	
20,500.00	12,517.00	16,319.12	8,565.00	134.88	128.89	24.32	-7,530.29	-358.40	4,336.81	4,223.72	113.08	38.351	
20,600.00	12,517.00	16,419.12	8,565.00	136.42	130.49	24.32	-7,630.28	-357.41	4,336.81	4,222.42	114.39	37.913	
20,700.00	12,517.00	16,519.12	8,565.00	137.97	132.10	24.32	-7,730.28	-356.43	4,336.81	4,221.11	115.70	37.484	
20,800.00	12,517.00	16,619.12	8,565.00	139.52	133.70	24.32	-7,830.27	-355.45	4,336.81	4,219.80	117.01	37.065	
20,900.00	12,517.00	16,719.12	8,565.00	141.07	135.31	24.32	-7,930.27	-354.47	4,336.81	4,218.49	118.32	36.654	
21,000.00	12,517.00	16,819.12	8,565.00	142.62	136.92	24.32	-8,030.26	-353.49	4,336.81	4,217.18	119.63	36.252	
21,100.00	12,517.00	16,919.12	8,565.00	144.18	138.53	24.32	-8,130.26	-352.51	4,336.81	4,215.87	120.94	35.858	
21,200.00	12,517.00	17,019.12	8,565.00	145.73	140.14	24.32	-8,230.25	-351.52	4,336.81	4,214.55	122.26	35.472	
21,300.00	12,517.00	17,119.12	8,565.00	147.29	141.75	24.32	-8,330.25	-350.54	4,336.81	4,213.24	123.57	35.095	
21,400.00	12,517.00	17,219.12	8,565.00	148.85	143.36	24.32	-8,430.24	-349.56	4,336.82	4,211.93	124.89	34.726	
21,500.00	12,517.00	17,319.12	8,565.00	150.42	144.97	24.32	-8,530.24	-348.58	4,336.82	4,210.61	126.20	34.364	
21,600.00	12,517.00	17,419.12	8,565.00	151.98	146.59	24.32	-8,630.23	-347.60	4,336.82	4,209.30	127.52	34.009	
21,700.00	12,517.00	17,519.12	8,565.00	153.55	148.20	24.32	-8,730.23	-346.61	4,336.82	4,207.98	128.84	33.661	
21,800.00	12,517.00	17,619.12	8,565.00	155.12	149.82	24.32	-8,830.22	-345.63	4,336.82	4,206.66	130.16	33.320	
21,900.00	12,517.00	17,719.12	8,565.00	156.69	151.43	24.32	-8,930.22	-344.65	4,336.82	4,205.34	131.48	32.986	
22,000.00	12,517.00	17,819.12	8,565.00	158.26	153.05	24.32	-9,030.21	-343.67	4,336.82	4,204.02	132.80	32.658	
22,100.00	12,517.00	17,919.12	8,565.00	159.84	154.67	24.32	-9,130.21	-342.69	4,336.82	4,202.70	134.12	32.336	
22,200.00	12,517.00	18,019.12	8,565.00	161.41	156.29	24.32	-9,230.20	-341.71	4,336.82	4,201.38	135.44	32.020	
22,300.00	12,517.00	18,119.12	8,565.00	162.99	157.91	24.32	-9,330.20	-340.72	4,336.82	4,200.06	136.77	31.710	
22,400.00	12,517.00	18,219.12	8,565.00	164.57	159.53	24.32	-9,430.19	-339.74	4,336.82	4,198.73	138.09	31.406	
22,500.00	12,517.00	18,319.12	8,565.00	166.14	161.15	24.32	-9,530.19	-338.76	4,336.82	4,197.41	139.42	31.107	
22,600.00	12,517.00	18,419.12	8,565.00	167.73	162.77	24.32	-9,630.18	-337.78	4,336.83	4,196.08	140.74	30.814	
22,700.00	12,517.00	18,519.12	8,565.00	169.31	164.39	24.32	-9,730.18	-336.80	4,336.83	4,194.76	142.07	30.526	
22,800.00	12,517.00	18,619.12	8,565.00	170.89	166.01	24.32	-9,830.18	-335.81	4,336.83	4,193.43	143.40	30.244	
22,900.00	12,517.00	18,634.72	8,565.00	172.48	166.26	24.32	-9,845.78	-335.66	4,337.65	4,193.47	144.17	30.086	
23,000.00	12,517.00	18,634.72	8,565.00	174.06	166.26	24.32	-9,845.78	-335.66	4,340.75	4,195.95	144.79	29.979	
23,100.00	12,517.00	18,634.72	8,565.00	175.65	166.26	24.32	-9,845.78	-335.66	4,346.15	4,200.79	145.36	29.900	
23,200.00	12,517.00	18,634.72	8,565.00	177.24	166.26	24.32	-9,845.78	-335.66	4,353.83	4,207.98	145.86	29.850	
23,300.00	12,517.00	18,634.72	8,565.00	178.83	166.26	24.32	-9,845.78	-335.66	4,363.80	4,217.51	146.29	29.830	
23,400.00	12,517.00	18,634.72	8,565.00	180.42	166.26	24.32	-9,845.78	-335.66	4,376.03	4,229.37	146.66	29.839	
23,500.00	12,517.00	18,634.72	8,565.00	182.01	166.26	24.32	-9,845.78	-335.66	4,390.50	4,243.54	146.97	29.874	
23,600.00	12,517.00	18,634.72	8,565.00	183.60	166.26	24.32	-9,845.78	-335.66	4,407.20	4,259.99	147.21	29.938	
23,700.00	12,517.00	18,634.72	8,565.00	185.20	166.26	24.32	-9,845.78	-335.66	4,426.09	4,278.70	147.39	30.029	
23,800.00	12,517.00	18,634.72	8,565.00	186.79	166.26	24.32	-9,845.78	-335.66	4,447.15	4,299.63	147.52	30.146	
23,900.00	12,517.00	18,634.72	8,565.00	188.39	166.26	24.32	-9,845.78	-335.66	4,470.36	4,322.77	147.58	30.290	
24,000.00	12,517.00	18,634.72	8,565.00	189.99	166.26	24.32	-9,845.78	-335.66	4,495.66	4,348.06	147.60	30.459	
24,100.00	12,517.00	18,634.72	8,565.00	191.58	166.26	24.32	-9,845.78	-335.66	4,523.04	4,375.49	147.54	30.655	
24,130.17	12,517.00	18,634.72	8,565.00	192.05	166.26	24.32	-9,845.78	-335.66	4,531.69	4,384.71	146.98	30.832	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	169.85	-74.82	13.40	76.01				
100.00	100.00	100.00	100.00	0.13	0.13	169.85	-74.82	13.40	76.01	75.84	0.18	428.406	
200.00	200.00	200.00	200.00	0.48	0.48	169.85	-74.82	13.40	76.01	75.33	0.68	111.068	
300.00	300.00	300.00	300.00	0.84	0.84	169.85	-74.82	13.40	76.01	74.82	1.19	63.805	
400.00	400.00	400.00	400.00	1.20	1.20	169.85	-74.82	13.40	76.01	74.32	1.70	44.759	
500.00	500.00	500.00	500.00	1.56	1.56	169.85	-74.82	13.40	76.01	73.81	2.21	34.469	
600.00	600.00	600.00	600.00	1.92	1.92	169.85	-74.82	13.40	76.01	73.30	2.71	28.027	
700.00	700.00	700.00	700.00	2.28	2.28	169.85	-74.82	13.40	76.01	72.79	3.22	23.613	
800.00	800.00	800.00	800.00	2.63	2.63	169.85	-74.82	13.40	76.01	72.29	3.73	20.400	
900.00	900.00	900.00	900.00	2.99	2.99	169.85	-74.82	13.40	76.01	71.78	4.23	17.957	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	169.85	-74.82	13.40	76.01	71.27	4.74	16.037	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	169.85	-74.82	13.40	76.01	70.77	5.25	14.487	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	169.85	-74.82	13.40	76.01	70.26	5.75	13.211	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	169.85	-74.82	13.40	76.01	69.75	6.26	12.141	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	169.85	-74.82	13.40	76.01	69.25	6.77	11.232	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	169.85	-74.82	13.40	76.01	68.74	7.27	10.449	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	169.85	-74.82	13.40	76.01	68.23	7.78	9.768	CC
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	104.36	-74.82	13.40	76.43	68.14	8.29	9.225	ES
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	108.06	-74.82	13.40	77.89	69.11	8.79	8.866	
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	113.85	-74.82	13.40	81.02	71.74	9.29	8.723	SF
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	121.10	-74.82	13.40	86.69	76.90	9.79	8.852	
2,100.00	2,097.47	2,097.47	2,097.47	7.29	7.29	128.94	-74.82	13.40	95.77	85.47	10.30	9.298	
2,200.00	2,195.62	2,195.62	2,195.62	7.67	7.64	136.52	-74.82	13.40	108.87	98.07	10.81	10.076	
2,300.00	2,293.06	2,295.92	2,295.91	8.07	7.99	143.25	-74.14	14.39	125.23	113.92	11.31	11.069	
2,357.10	2,348.32	2,353.42	2,353.38	8.31	8.20	146.53	-73.07	15.93	135.41	123.81	11.60	11.672	
2,400.00	2,389.73	2,396.78	2,396.69	8.49	8.35	148.78	-71.94	17.56	143.15	131.33	11.82	12.115	
2,500.00	2,486.26	2,498.63	2,498.32	8.92	8.71	153.01	-68.18	22.99	160.05	147.74	12.31	12.999	
2,600.00	2,582.78	2,601.48	2,600.74	9.37	9.07	156.24	-62.81	30.72	175.02	162.21	12.81	13.665	
2,700.00	2,679.31	2,705.20	2,703.73	9.83	9.45	158.82	-55.82	40.82	187.78	174.48	13.30	14.120	
2,800.00	2,775.84	2,809.64	2,807.06	10.30	9.83	160.96	-47.16	53.30	198.16	184.38	13.79	14.374	
2,900.00	2,872.37	2,914.66	2,910.50	10.78	10.22	162.81	-36.84	68.18	206.06	191.79	14.27	14.442	
3,000.00	2,968.90	3,016.41	3,010.31	11.27	10.61	164.42	-25.59	84.41	211.95	197.18	14.77	14.350	
3,100.00	3,065.43	3,116.08	3,108.05	11.76	11.00	165.91	-14.46	100.46	217.80	202.51	15.29	14.249	
3,200.00	3,161.95	3,215.75	3,205.79	12.25	11.40	167.32	-3.33	116.51	223.79	207.99	15.80	14.161	
3,300.00	3,258.48	3,315.43	3,303.53	12.76	11.80	168.65	7.79	132.56	229.91	213.59	16.32	14.085	
3,400.00	3,355.01	3,415.10	3,401.27	13.26	12.20	169.91	18.92	148.61	236.15	219.31	16.84	14.019	
3,500.00	3,451.54	3,514.77	3,499.01	13.77	12.61	171.11	30.05	164.66	242.50	225.13	17.37	13.963	
3,600.00	3,548.07	3,614.45	3,596.75	14.29	13.03	172.25	41.18	180.71	248.95	231.05	17.89	13.914	
3,700.00	3,644.59	3,714.12	3,694.50	14.80	13.45	173.33	52.31	196.76	255.49	237.07	18.42	13.871	
3,800.00	3,741.12	3,813.79	3,792.24	15.32	13.87	174.36	63.44	212.81	262.11	243.17	18.95	13.834	
3,900.00	3,837.65	3,913.46	3,889.98	15.84	14.29	175.33	74.56	228.86	268.82	249.34	19.48	13.802	
4,000.00	3,934.18	4,013.14	3,987.72	16.37	14.72	176.26	85.69	244.91	275.60	255.59	20.01	13.773	
4,100.00	4,030.71	4,112.81	4,085.46	16.90	15.15	177.14	96.82	260.96	282.45	261.91	20.54	13.749	
4,200.00	4,127.24	4,212.48	4,183.20	17.42	15.59	177.98	107.95	277.01	289.36	268.28	21.08	13.727	
4,300.00	4,223.76	4,312.15	4,280.94	17.95	16.02	178.78	119.08	293.06	296.34	274.72	21.62	13.708	
4,400.00	4,320.29	4,411.83	4,378.68	18.49	16.46	179.55	130.20	309.11	303.36	281.21	22.16	13.691	
4,500.00	4,416.82	4,511.50	4,476.42	19.02	16.90	-179.72	141.33	325.16	310.44	287.74	22.70	13.676	
4,600.00	4,513.35	4,611.17	4,574.16	19.55	17.34	-179.02	152.46	341.21	317.57	294.33	23.24	13.663	
4,700.00	4,609.88	4,710.85	4,671.90	20.09	17.78	-178.36	163.59	357.26	324.74	300.95	23.79	13.651	
4,800.00	4,706.40	4,810.52	4,769.64	20.62	18.23	-177.72	174.72	373.32	331.95	307.62	24.34	13.640	
4,900.00	4,802.93	4,910.19	4,867.38	21.16	18.67	-177.11	185.85	389.37	339.21	314.32	24.89	13.630	
5,000.00	4,899.46	5,009.86	4,965.12	21.70	19.12	-176.52	196.97	405.42	346.50	321.06	25.44	13.621	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,109.54	5,062.86	22.24	19.57	-175.96	208.10	421.47	353.82	327.83	25.99	13.613	
5,200.00	5,092.52	5,209.21	5,160.60	22.78	20.02	-175.42	219.23	437.52	361.18	334.63	26.54	13.606	
5,300.00	5,189.04	5,308.88	5,258.34	23.32	20.47	-174.91	230.36	453.57	368.56	341.46	27.10	13.600	
5,400.00	5,285.57	5,408.56	5,356.08	23.86	20.92	-174.41	241.49	469.62	375.98	348.32	27.66	13.594	
5,500.00	5,382.10	5,508.23	5,453.82	24.41	21.37	-173.93	252.62	485.67	383.42	355.20	28.22	13.589	
5,600.00	5,478.63	5,607.90	5,551.56	24.95	21.82	-173.48	263.74	501.72	390.89	362.11	28.78	13.584	
5,700.00	5,575.16	5,707.57	5,649.31	25.49	22.28	-173.03	274.87	517.77	398.38	369.04	29.34	13.579	
5,800.00	5,671.69	5,807.25	5,747.05	26.04	22.73	-172.61	286.00	533.82	405.89	375.99	29.90	13.575	
5,900.00	5,768.21	5,906.92	5,844.79	26.58	23.19	-172.20	297.13	549.87	413.43	382.97	30.47	13.571	
6,000.00	5,864.74	6,006.59	5,942.53	27.13	23.64	-171.80	308.26	565.92	420.99	389.96	31.03	13.567	
6,100.00	5,961.27	6,106.26	6,040.27	27.67	24.10	-171.42	319.39	581.97	428.56	396.97	31.60	13.563	
6,200.00	6,057.80	6,205.94	6,138.01	28.22	24.56	-171.05	330.51	598.02	436.16	403.99	32.17	13.560	
6,300.00	6,154.33	6,305.61	6,235.75	28.76	25.01	-170.70	341.64	614.07	443.77	411.03	32.73	13.557	
6,400.00	6,250.85	6,405.28	6,333.49	29.31	25.47	-170.36	352.77	630.12	451.39	418.09	33.30	13.553	
6,500.00	6,347.38	6,504.96	6,431.23	29.86	25.93	-170.02	363.90	646.17	459.04	425.16	33.88	13.551	
6,600.00	6,443.91	6,604.63	6,528.97	30.41	26.39	-169.70	375.03	662.22	466.70	432.25	34.45	13.548	
6,700.00	6,540.44	6,704.30	6,626.71	30.95	26.85	-169.39	386.15	678.27	474.37	439.35	35.02	13.545	
6,803.85	6,640.68	6,807.81	6,728.21	31.52	27.33	-169.08	397.71	694.94	482.35	446.73	35.62	13.542	
6,900.00	6,733.90	6,900.00	6,818.67	32.03	27.75	-168.81	407.86	709.57	488.43	452.27	36.16	13.506	
7,000.00	6,831.63	6,987.86	6,905.20	32.53	28.14	-168.57	416.52	722.07	493.27	456.58	36.70	13.442	
7,100.00	6,930.04	7,077.11	6,993.43	32.98	28.52	-168.34	424.16	733.09	496.87	459.66	37.21	13.353	
7,200.00	7,029.01	7,166.36	7,081.95	33.40	28.89	-168.14	430.62	742.40	499.20	461.51	37.69	13.244	
7,300.00	7,128.41	7,255.61	7,170.73	33.78	29.23	-167.95	435.90	750.02	500.27	462.12	38.15	13.113	
7,400.00	7,228.14	7,344.88	7,259.70	34.12	29.57	-167.77	440.00	755.93	500.08	461.50	38.58	12.962	
7,500.00	7,328.06	7,434.17	7,348.85	34.43	29.88	-167.62	442.91	760.14	498.62	459.64	38.98	12.790	
7,560.95	7,389.00	7,488.61	7,403.24	34.59	30.07	-100.77	444.11	761.86	497.11	457.89	39.21	12.677	
7,600.00	7,428.05	7,523.50	7,438.12	34.70	30.18	-100.73	444.64	762.62	496.15	456.80	39.36	12.607	
7,700.00	7,528.05	7,613.44	7,528.05	34.97	30.47	-100.69	445.18	763.40	495.19	455.48	39.71	12.471	
7,800.00	7,628.05	7,713.44	7,628.05	35.24	30.78	-100.69	445.18	763.40	495.19	455.01	40.17	12.326	
7,900.00	7,728.05	7,813.44	7,728.05	35.51	31.09	-100.69	445.18	763.40	495.19	454.55	40.64	12.185	
8,000.00	7,828.05	7,913.44	7,828.05	35.79	31.41	-100.69	445.18	763.40	495.19	454.08	41.11	12.046	
8,100.00	7,928.05	8,013.44	7,928.05	36.06	31.72	-100.69	445.18	763.40	495.19	453.61	41.58	11.910	
8,200.00	8,028.05	8,113.44	8,028.05	36.34	32.04	-100.69	445.18	763.40	495.19	453.14	42.05	11.778	
8,201.90	8,029.95	8,115.34	8,029.95	36.35	32.04	-100.69	445.18	763.40	495.19	453.13	42.05	11.775	
8,300.00	8,128.05	8,205.66	8,120.21	36.62	32.31	-100.94	442.98	763.42	495.64	453.25	42.39	11.692	
8,400.00	8,228.05	8,290.06	8,203.44	36.90	32.51	-102.47	429.43	763.55	498.81	456.31	42.49	11.738	
8,500.00	8,328.05	8,368.94	8,278.65	37.18	32.66	-105.10	405.85	763.78	506.01	463.64	42.37	11.943	
8,600.00	8,428.05	8,440.20	8,343.23	37.46	32.75	-108.35	375.86	764.08	518.92	476.96	41.96	12.367	
8,700.00	8,528.05	8,500.00	8,394.21	37.75	32.81	-111.61	344.65	764.38	539.20	498.02	41.17	13.097	
8,800.00	8,628.05	8,550.00	8,434.16	38.03	32.84	-114.62	314.60	764.68	567.97	527.96	40.01	14.195	
8,900.00	8,728.05	8,600.00	8,471.33	38.32	32.85	-117.81	281.19	765.01	605.45	566.66	38.79	15.608	
9,000.00	8,828.05	8,650.00	8,505.44	38.61	32.85	-121.10	244.66	765.36	651.47	613.85	37.62	17.316	
9,100.00	8,928.05	8,679.74	8,524.18	38.89	32.84	-123.07	221.57	765.59	705.17	669.13	36.03	19.569	
9,200.00	9,028.05	8,700.00	8,536.25	39.18	32.84	-124.41	205.30	765.75	765.77	731.38	34.39	22.266	
9,300.00	9,128.05	8,735.86	8,556.16	39.47	32.82	-126.76	175.49	766.04	831.84	798.46	33.38	24.922	
9,400.00	9,228.05	8,750.00	8,563.50	39.77	32.81	-127.67	163.40	766.16	902.94	870.89	32.06	28.166	
9,500.00	9,328.05	8,778.59	8,577.41	40.06	32.79	-129.50	138.42	766.40	977.85	946.56	31.29	31.248	
9,600.00	9,428.05	8,800.00	8,587.00	40.35	32.78	-130.83	119.28	766.59	1,056.19	1,025.63	30.56	34.566	
9,700.00	9,528.05	8,800.00	8,587.00	40.65	32.78	-130.83	119.28	766.59	1,137.43	1,107.85	29.58	38.449	
9,800.00	9,628.05	8,825.84	8,597.61	40.95	32.76	-132.40	95.73	766.82	1,220.65	1,191.40	29.25	41.729	
9,900.00	9,728.05	8,850.00	8,606.56	41.24	32.74	-133.84	73.29	767.04	1,306.14	1,277.15	28.99	45.051	
10,000.00	9,828.05	8,850.00	8,606.56	41.54	32.74	-133.84	73.29	767.04	1,392.95	1,364.48	28.46	48.936	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
10,100.00	9,928.05	8,850.00	8,606.56	41.84	32.74	-133.84	73.29	767.04	1,481.42	1,453.35	28.07	52.780	
10,200.00	10,028.05	8,869.15	8,612.98	42.14	32.72	-134.94	55.25	767.22	1,570.85	1,542.85	28.00	56.098	
10,300.00	10,128.05	8,877.62	8,615.63	42.44	32.72	-135.42	47.21	767.30	1,661.42	1,633.55	27.87	59.615	
10,400.00	10,228.05	8,900.00	8,622.05	42.74	32.70	-136.66	25.77	767.51	1,753.12	1,725.17	27.95	62.734	
10,500.00	10,328.05	8,900.00	8,622.05	43.05	32.70	-136.66	25.77	767.51	1,845.16	1,817.33	27.83	66.295	
10,600.00	10,428.05	8,900.00	8,622.05	43.35	32.70	-136.66	25.77	767.51	1,937.99	1,910.22	27.78	69.773	
10,700.00	10,528.05	8,900.00	8,622.05	43.65	32.70	-136.66	25.77	767.51	2,031.51	2,003.74	27.77	73.164	
10,800.00	10,628.05	8,900.00	8,622.05	43.96	32.70	-136.66	25.77	767.51	2,125.61	2,097.81	27.80	76.462	
10,900.00	10,728.05	8,900.00	8,622.05	44.27	32.70	-136.66	25.77	767.51	2,220.23	2,192.36	27.87	79.664	
11,000.00	10,828.05	8,920.85	8,627.26	44.57	32.68	-137.77	5.59	767.71	2,314.84	2,286.73	28.11	82.356	
11,100.00	10,928.05	8,925.39	8,628.31	44.88	32.67	-138.01	1.16	767.75	2,410.09	2,381.84	28.25	85.308	
11,200.00	11,028.05	8,929.65	8,629.25	45.19	32.67	-138.23	-2.99	767.79	2,505.67	2,477.25	28.42	88.180	
11,300.00	11,128.05	8,950.00	8,633.33	45.50	32.66	-139.28	-22.93	767.98	2,601.83	2,573.14	28.69	90.695	
11,400.00	11,228.05	8,950.00	8,633.33	45.81	32.66	-139.28	-22.93	767.98	2,697.86	2,669.00	28.86	93.484	
11,500.00	11,328.05	8,950.00	8,633.33	46.12	32.66	-139.28	-22.93	767.98	2,794.17	2,765.12	29.05	96.191	
11,600.00	11,428.05	8,950.00	8,633.33	46.43	32.66	-139.28	-22.93	767.98	2,890.73	2,861.48	29.25	98.824	
11,700.00	11,528.05	8,950.00	8,633.33	46.74	32.66	-139.28	-22.93	767.98	2,987.52	2,958.05	29.47	101.381	
11,800.00	11,628.05	8,950.00	8,633.33	47.05	32.66	-139.28	-22.93	767.98	3,084.52	3,054.82	29.70	103.860	
11,900.00	11,728.05	8,950.00	8,633.33	47.37	32.66	-139.28	-22.93	767.98	3,181.69	3,151.75	29.94	106.265	
12,000.00	11,828.05	8,950.00	8,633.33	47.68	32.66	-139.28	-22.93	767.98	3,279.04	3,248.85	30.20	108.590	
12,100.00	11,928.05	8,950.00	8,633.33	48.00	32.66	-139.28	-22.93	767.98	3,376.55	3,346.09	30.46	110.849	
12,115.99	11,944.04	8,950.00	8,633.33	48.05	32.66	-139.28	-22.93	767.98	3,392.15	3,361.65	30.50	111.204	
12,150.00	11,978.03	8,950.00	8,633.33	48.15	32.66	39.07	-22.93	767.98	3,425.19	3,394.60	30.59	111.958	
12,200.00	12,027.75	8,950.00	8,633.33	48.28	32.66	29.74	-22.93	767.98	3,473.04	3,442.32	30.72	113.064	
12,250.00	12,076.83	8,950.00	8,633.33	48.41	32.66	23.83	-22.93	767.98	3,519.75	3,488.92	30.83	114.158	
12,300.00	12,124.90	8,950.00	8,633.33	48.53	32.66	19.86	-22.93	767.98	3,565.01	3,534.07	30.94	115.235	
12,350.00	12,171.60	8,950.00	8,633.33	48.63	32.66	17.06	-22.93	767.98	3,608.53	3,577.50	31.03	116.281	
12,400.00	12,216.56	8,974.23	8,637.25	48.72	32.63	14.95	-46.83	768.22	3,649.48	3,618.29	31.19	117.018	
12,450.00	12,259.45	9,000.00	8,640.32	48.80	32.62	13.38	-72.42	768.47	3,689.01	3,657.68	31.33	117.736	
12,500.00	12,299.94	9,000.00	8,640.32	48.87	32.62	12.21	-72.42	768.47	3,725.38	3,693.98	31.40	118.651	
12,550.00	12,337.72	9,000.00	8,640.32	48.93	32.62	11.28	-72.42	768.47	3,759.05	3,727.60	31.46	119.496	
12,600.00	12,372.50	9,000.00	8,640.32	48.97	32.62	10.54	-72.42	768.47	3,789.85	3,758.33	31.51	120.261	
12,650.00	12,404.03	9,000.00	8,640.32	49.00	32.62	9.94	-72.42	768.47	3,817.60	3,786.03	31.57	120.936	
12,700.00	12,432.05	9,000.00	8,640.32	49.03	32.62	9.47	-72.42	768.47	3,842.16	3,810.54	31.62	121.508	
12,750.00	12,456.36	9,000.00	8,640.32	49.05	32.62	9.09	-72.42	768.47	3,863.42	3,831.75	31.68	121.968	
12,800.00	12,476.77	9,000.00	8,640.32	49.06	32.62	8.79	-72.42	768.47	3,881.26	3,849.53	31.73	122.305	
12,850.00	12,493.12	9,022.54	8,642.05	49.07	32.60	8.60	-94.88	768.69	3,895.10	3,863.28	31.82	122.401	
12,900.00	12,505.30	9,050.00	8,642.97	49.09	32.59	8.48	-122.33	768.96	3,905.99	3,874.08	31.91	122.391	
12,950.00	12,513.20	9,050.00	8,642.97	49.11	32.59	8.39	-122.33	768.96	3,912.50	3,880.52	31.98	122.338	
13,000.00	12,516.77	9,050.00	8,642.97	49.13	32.59	8.34	-122.33	768.96	3,915.35	3,883.29	32.06	122.136	
13,015.99	12,517.00	9,050.00	8,642.97	49.14	32.59	8.34	-122.33	768.96	3,915.48	3,883.40	32.08	122.039	
13,032.18	12,517.00	9,050.00	8,642.97	49.15	32.59	8.34	-122.33	768.96	3,915.46	3,883.34	32.11	121.925	
13,100.00	12,517.00	9,055.43	8,643.00	49.21	32.59	8.36	-127.75	769.01	3,915.91	3,883.66	32.25	121.417	
13,200.00	12,517.00	9,146.65	8,643.00	49.32	32.59	8.49	-218.98	769.90	3,917.12	3,884.61	32.50	120.511	
13,300.00	12,517.00	9,246.53	8,643.00	49.47	32.72	8.57	-318.85	770.88	3,917.83	3,885.04	32.79	119.476	
13,387.80	12,517.00	9,334.32	8,643.00	49.62	32.95	8.60	-406.63	771.74	3,918.04	3,884.96	33.07	118.462	
13,400.00	12,517.00	9,346.52	8,643.00	49.64	32.99	8.60	-418.83	771.86	3,918.04	3,884.92	33.12	118.313	
13,500.00	12,517.00	9,446.52	8,643.00	49.86	33.39	8.60	-518.83	772.84	3,918.04	3,884.56	33.48	117.041	
13,600.00	12,517.00	9,546.52	8,643.00	50.14	33.89	8.60	-618.82	773.82	3,918.04	3,884.17	33.87	115.675	
13,700.00	12,517.00	9,646.52	8,643.00	50.48	34.48	8.60	-718.82	774.80	3,918.04	3,883.74	34.30	114.226	
13,800.00	12,517.00	9,746.52	8,643.00	50.88	35.14	8.60	-818.81	775.78	3,918.04	3,883.28	34.76	112.707	
13,900.00	12,517.00	9,846.52	8,643.00	51.34	35.86	8.60	-918.81	776.76	3,918.04	3,882.78	35.26	111.129	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
14,000.00	12,517.00	9,946.52	8,643.00	51.86	36.64	8.60	-1,018.80	777.74	3,918.04	3,882.26	35.78	109.501	
14,100.00	12,517.00	10,046.52	8,643.00	52.43	37.48	8.60	-1,118.80	778.72	3,918.04	3,881.71	36.33	107.835	
14,200.00	12,517.00	10,146.52	8,643.00	53.06	38.37	8.60	-1,218.79	779.70	3,918.04	3,881.13	36.91	106.139	
14,300.00	12,517.00	10,246.52	8,643.00	53.74	39.31	8.60	-1,318.79	780.68	3,918.04	3,880.52	37.52	104.422	
14,400.00	12,517.00	10,346.52	8,643.00	54.46	40.29	8.60	-1,418.78	781.65	3,918.04	3,879.89	38.15	102.693	
14,500.00	12,517.00	10,446.52	8,643.00	55.23	41.32	8.60	-1,518.78	782.63	3,918.04	3,879.23	38.81	100.957	
14,600.00	12,517.00	10,546.52	8,643.00	56.04	42.38	8.60	-1,618.77	783.61	3,918.04	3,878.56	39.49	99.223	
14,700.00	12,517.00	10,646.52	8,643.00	56.89	43.48	8.60	-1,718.77	784.59	3,918.04	3,877.86	40.19	97.494	
14,800.00	12,517.00	10,746.52	8,643.00	57.77	44.61	8.60	-1,818.76	785.57	3,918.04	3,877.14	40.91	95.777	
14,900.00	12,517.00	10,846.52	8,643.00	58.69	45.77	8.60	-1,918.76	786.55	3,918.05	3,876.40	41.65	94.076	
15,000.00	12,517.00	10,946.52	8,643.00	59.64	46.96	8.60	-2,018.75	787.53	3,918.05	3,875.64	42.41	92.394	
15,100.00	12,517.00	11,046.52	8,643.00	60.63	48.18	8.60	-2,118.75	788.51	3,918.05	3,874.87	43.18	90.735	
15,200.00	12,517.00	11,146.52	8,643.00	61.64	49.42	8.60	-2,218.75	789.49	3,918.05	3,874.07	43.97	89.101	
15,300.00	12,517.00	11,246.52	8,643.00	62.68	50.69	8.60	-2,318.74	790.47	3,918.05	3,873.27	44.78	87.494	
15,400.00	12,517.00	11,346.52	8,643.00	63.75	51.98	8.60	-2,418.74	791.45	3,918.05	3,872.45	45.60	85.917	
15,500.00	12,517.00	11,446.52	8,643.00	64.84	53.28	8.60	-2,518.73	792.43	3,918.05	3,871.61	46.44	84.369	
15,600.00	12,517.00	11,546.52	8,643.00	65.96	54.61	8.60	-2,618.73	793.41	3,918.05	3,870.76	47.29	82.854	
15,700.00	12,517.00	11,646.52	8,643.00	67.10	55.95	8.60	-2,718.72	794.39	3,918.05	3,869.90	48.15	81.370	
15,800.00	12,517.00	11,746.52	8,643.00	68.26	57.31	8.60	-2,818.72	795.37	3,918.05	3,869.03	49.02	79.920	
15,900.00	12,517.00	11,846.52	8,643.00	69.44	58.68	8.60	-2,918.71	796.34	3,918.05	3,868.14	49.91	78.503	
16,000.00	12,517.00	11,946.52	8,643.00	70.64	60.07	8.60	-3,018.71	797.32	3,918.05	3,867.25	50.81	77.119	
16,100.00	12,517.00	12,046.52	8,643.00	71.85	61.47	8.60	-3,118.70	798.30	3,918.05	3,866.34	51.71	75.768	
16,200.00	12,517.00	12,146.52	8,643.00	73.09	62.88	8.60	-3,218.70	799.28	3,918.05	3,865.43	52.63	74.450	
16,300.00	12,517.00	12,246.52	8,643.00	74.34	64.30	8.60	-3,318.69	800.26	3,918.06	3,864.50	53.55	73.164	
16,400.00	12,517.00	12,346.52	8,643.00	75.60	65.74	8.60	-3,418.69	801.24	3,918.06	3,863.57	54.48	71.911	
16,500.00	12,517.00	12,446.52	8,643.00	76.88	67.18	8.60	-3,518.68	802.22	3,918.06	3,862.63	55.43	70.690	
16,600.00	12,517.00	12,546.52	8,643.00	78.18	68.63	8.60	-3,618.68	803.20	3,918.06	3,861.68	56.38	69.500	
16,700.00	12,517.00	12,646.52	8,643.00	79.49	70.10	8.60	-3,718.67	804.18	3,918.06	3,860.73	57.33	68.340	
16,800.00	12,517.00	12,746.52	8,643.00	80.81	71.57	8.60	-3,818.67	805.16	3,918.06	3,859.76	58.30	67.210	
16,900.00	12,517.00	12,846.52	8,643.00	82.14	73.04	8.60	-3,918.66	806.14	3,918.06	3,858.79	59.26	66.111	
17,000.00	12,517.00	12,946.52	8,643.00	83.48	74.53	8.60	-4,018.66	807.12	3,918.06	3,857.82	60.24	65.041	
17,100.00	12,517.00	13,046.52	8,643.00	84.84	76.02	8.60	-4,118.65	808.10	3,918.06	3,856.84	61.22	63.998	
17,200.00	12,517.00	13,146.52	8,643.00	86.20	77.52	8.60	-4,218.65	809.08	3,918.06	3,855.85	62.21	62.983	
17,300.00	12,517.00	13,246.52	8,643.00	87.58	79.02	8.60	-4,318.64	810.06	3,918.06	3,854.86	63.20	61.994	
17,400.00	12,517.00	13,346.52	8,643.00	88.96	80.53	8.60	-4,418.64	811.03	3,918.06	3,853.86	64.20	61.031	
17,500.00	12,517.00	13,446.52	8,643.00	90.35	82.05	8.60	-4,518.64	812.01	3,918.06	3,852.86	65.20	60.091	
17,600.00	12,517.00	13,546.52	8,643.00	91.75	83.57	8.60	-4,618.63	812.99	3,918.06	3,851.85	66.21	59.176	
17,700.00	12,517.00	13,646.52	8,643.00	93.16	85.09	8.60	-4,718.63	813.97	3,918.06	3,850.84	67.22	58.284	
17,800.00	12,517.00	13,746.52	8,643.00	94.58	86.62	8.60	-4,818.62	814.95	3,918.07	3,849.82	68.24	57.415	
17,900.00	12,517.00	13,846.52	8,643.00	96.01	88.16	8.60	-4,918.62	815.93	3,918.07	3,848.80	69.26	56.568	
18,000.00	12,517.00	13,946.52	8,643.00	97.44	89.69	8.60	-5,018.61	816.91	3,918.07	3,847.78	70.29	55.743	
18,100.00	12,517.00	14,046.52	8,643.00	98.88	91.24	8.60	-5,118.61	817.89	3,918.07	3,846.75	71.32	54.940	
18,200.00	12,517.00	14,146.52	8,643.00	100.32	92.78	8.60	-5,218.60	818.87	3,918.07	3,845.72	72.35	54.156	
18,300.00	12,517.00	14,246.52	8,643.00	101.78	94.33	8.60	-5,318.60	819.85	3,918.07	3,844.69	73.38	53.393	
18,400.00	12,517.00	14,346.52	8,643.00	103.23	95.88	8.60	-5,418.59	820.83	3,918.07	3,843.65	74.42	52.648	
18,500.00	12,517.00	14,446.52	8,643.00	104.70	97.44	8.60	-5,518.59	821.81	3,918.07	3,842.61	75.46	51.921	
18,600.00	12,517.00	14,546.52	8,643.00	106.17	99.00	8.60	-5,618.58	822.79	3,918.07	3,841.56	76.51	51.212	
18,700.00	12,517.00	14,646.52	8,643.00	107.64	100.56	8.60	-5,718.58	823.77	3,918.07	3,840.52	77.55	50.520	
18,800.00	12,517.00	14,746.52	8,643.00	109.12	102.13	8.60	-5,818.57	824.75	3,918.07	3,839.47	78.60	49.845	
18,900.00	12,517.00	14,846.52	8,643.00	110.60	103.69	8.60	-5,918.57	825.72	3,918.07	3,838.42	79.66	49.186	
19,000.00	12,517.00	14,946.52	8,643.00	112.09	105.26	8.60	-6,018.56	826.70	3,918.07	3,837.36	80.71	48.543	
19,100.00	12,517.00	15,046.52	8,643.00	113.59	106.84	8.60	-6,118.56	827.68	3,918.07	3,836.30	81.77	47.915	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 102H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	12,517.00	15,146.52	8,643.00	115.08	108.41	8.60	-6,218.55	828.66	3,918.08	3,835.24	82.83	47.301	
19,300.00	12,517.00	15,246.52	8,643.00	116.59	109.99	8.60	-6,318.55	829.64	3,918.08	3,834.18	83.89	46.702	
19,400.00	12,517.00	15,346.52	8,643.00	118.09	111.57	8.60	-6,418.54	830.62	3,918.08	3,833.12	84.96	46.117	
19,500.00	12,517.00	15,446.52	8,643.00	119.60	113.15	8.60	-6,518.54	831.60	3,918.08	3,832.05	86.03	45.545	
19,600.00	12,517.00	15,546.52	8,643.00	121.11	114.73	8.60	-6,618.53	832.58	3,918.08	3,830.98	87.10	44.985	
19,700.00	12,517.00	15,646.52	8,643.00	122.63	116.32	8.60	-6,718.53	833.56	3,918.08	3,829.91	88.17	44.439	
19,800.00	12,517.00	15,746.52	8,643.00	124.15	117.90	8.60	-6,818.52	834.54	3,918.08	3,828.84	89.24	43.904	
19,900.00	12,517.00	15,846.52	8,643.00	125.67	119.49	8.60	-6,918.52	835.52	3,918.08	3,827.76	90.32	43.382	
20,000.00	12,517.00	15,946.52	8,643.00	127.20	121.08	8.60	-7,018.52	836.50	3,918.08	3,826.69	91.39	42.870	
20,100.00	12,517.00	16,046.52	8,643.00	128.73	122.68	8.60	-7,118.51	837.48	3,918.08	3,825.61	92.47	42.370	
20,200.00	12,517.00	16,146.52	8,643.00	130.26	124.27	8.60	-7,218.51	838.46	3,918.08	3,824.53	93.55	41.881	
20,300.00	12,517.00	16,246.52	8,643.00	131.80	125.86	8.60	-7,318.50	839.44	3,918.08	3,823.45	94.63	41.402	
20,400.00	12,517.00	16,346.52	8,643.00	133.34	127.46	8.60	-7,418.50	840.41	3,918.08	3,822.37	95.72	40.934	
20,500.00	12,517.00	16,446.52	8,643.00	134.88	129.06	8.60	-7,518.49	841.39	3,918.08	3,821.28	96.80	40.476	
20,600.00	12,517.00	16,546.52	8,643.00	136.42	130.66	8.60	-7,618.49	842.37	3,918.08	3,820.20	97.89	40.027	
20,700.00	12,517.00	16,646.52	8,643.00	137.97	132.26	8.60	-7,718.48	843.35	3,918.09	3,819.11	98.97	39.588	
20,800.00	12,517.00	16,746.52	8,643.00	139.52	133.86	8.60	-7,818.48	844.33	3,918.09	3,818.03	100.06	39.158	
20,900.00	12,517.00	16,846.52	8,643.00	141.07	135.46	8.60	-7,918.47	845.31	3,918.09	3,816.94	101.15	38.736	
21,000.00	12,517.00	16,946.52	8,643.00	142.62	137.07	8.60	-8,018.47	846.29	3,918.09	3,815.85	102.24	38.323	
21,100.00	12,517.00	17,046.52	8,643.00	144.18	138.67	8.60	-8,118.46	847.27	3,918.09	3,814.76	103.33	37.918	
21,200.00	12,517.00	17,146.52	8,643.00	145.73	140.28	8.60	-8,218.46	848.25	3,918.09	3,813.66	104.42	37.521	
21,300.00	12,517.00	17,246.52	8,643.00	147.29	141.88	8.60	-8,318.45	849.23	3,918.09	3,812.57	105.52	37.132	
21,400.00	12,517.00	17,346.52	8,643.00	148.85	143.49	8.60	-8,418.45	850.21	3,918.09	3,811.48	106.61	36.750	
21,500.00	12,517.00	17,446.52	8,643.00	150.42	145.10	8.60	-8,518.44	851.19	3,918.09	3,810.38	107.71	36.376	
21,600.00	12,517.00	17,546.52	8,643.00	151.98	146.71	8.60	-8,618.44	852.17	3,918.09	3,809.28	108.81	36.009	
21,700.00	12,517.00	17,646.52	8,643.00	153.55	148.32	8.60	-8,718.43	853.15	3,918.09	3,808.19	109.91	35.649	
21,800.00	12,517.00	17,746.52	8,643.00	155.12	149.93	8.60	-8,818.43	854.13	3,918.09	3,807.09	111.01	35.296	
21,900.00	12,517.00	17,846.52	8,643.00	156.69	151.55	8.60	-8,918.42	855.10	3,918.09	3,805.99	112.11	34.950	
22,000.00	12,517.00	17,946.52	8,643.00	158.26	153.16	8.60	-9,018.42	856.08	3,918.09	3,804.89	113.21	34.609	
22,100.00	12,517.00	18,046.52	8,643.00	159.84	154.78	8.60	-9,118.41	857.06	3,918.10	3,803.79	114.31	34.276	
22,200.00	12,517.00	18,146.52	8,643.00	161.41	156.39	8.60	-9,218.41	858.04	3,918.10	3,802.68	115.41	33.949	
22,300.00	12,517.00	18,246.52	8,643.00	162.99	158.01	8.60	-9,318.40	859.02	3,918.10	3,801.58	116.51	33.628	
22,400.00	12,517.00	18,346.52	8,643.00	164.57	159.62	8.60	-9,418.40	860.00	3,918.10	3,800.48	117.62	33.312	
22,500.00	12,517.00	18,446.52	8,643.00	166.14	161.24	8.60	-9,518.40	860.98	3,918.10	3,799.38	118.72	33.002	
22,600.00	12,517.00	18,546.52	8,643.00	167.73	162.86	8.60	-9,618.39	861.96	3,918.10	3,798.27	119.83	32.698	
22,700.00	12,517.00	18,646.52	8,643.00	169.31	164.48	8.60	-9,718.39	862.94	3,918.10	3,797.17	120.93	32.399	
22,800.00	12,517.00	18,746.52	8,643.00	170.89	166.10	8.60	-9,818.38	863.92	3,918.10	3,796.06	122.04	32.105	
22,900.00	12,517.00	18,846.52	8,643.00	172.48	167.72	8.60	-9,918.38	864.90	3,918.10	3,794.95	123.15	31.816	
23,000.00	12,517.00	18,946.52	8,643.00	174.06	169.34	8.60	-10,018.37	865.88	3,918.10	3,793.84	124.26	31.532	
23,100.00	12,517.00	19,046.52	8,643.00	175.65	170.96	8.60	-10,118.37	866.86	3,918.10	3,792.73	125.37	31.253	
23,200.00	12,517.00	19,146.52	8,643.00	177.24	172.58	8.60	-10,218.36	867.84	3,918.10	3,791.62	126.48	30.978	
23,300.00	12,517.00	19,246.52	8,643.00	178.83	174.20	8.60	-10,318.36	868.82	3,918.10	3,790.51	127.59	30.709	
23,400.00	12,517.00	19,346.52	8,643.00	180.42	175.82	8.60	-10,418.35	869.79	3,918.10	3,789.41	128.70	30.444	
23,500.00	12,517.00	19,446.52	8,643.00	182.01	177.45	8.61	-10,518.35	870.77	3,918.10	3,788.30	129.81	30.183	
23,600.00	12,517.00	19,546.52	8,643.00	183.60	179.07	8.61	-10,618.34	871.75	3,918.11	3,787.18	130.92	29.927	
23,700.00	12,517.00	19,646.52	8,643.00	185.20	180.70	8.61	-10,718.34	872.73	3,918.11	3,786.07	132.03	29.675	
23,800.00	12,517.00	19,746.52	8,643.00	186.79	182.32	8.61	-10,818.33	873.71	3,918.11	3,784.96	133.15	29.427	
23,900.00	12,517.00	19,846.52	8,643.00	188.39	183.95	8.61	-10,918.33	874.69	3,918.11	3,783.85	134.26	29.183	
24,000.00	12,517.00	19,946.52	8,643.00	189.99	185.57	8.61	-11,018.32	875.67	3,918.11	3,782.74	135.37	28.943	
24,100.00	12,517.00	20,046.52	8,643.00	191.58	187.20	8.61	-11,118.32	876.65	3,918.11	3,781.62	136.49	28.707	
24,130.17	12,517.00	20,076.68	8,643.00	192.05	187.69	8.61	-11,148.48	876.95	3,918.11	3,781.36	136.75	28.652	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-153.97	-75.29	-36.78	83.80				
100.00	100.00	100.00	100.00	0.13	0.13	-153.97	-75.29	-36.78	83.80	83.62	0.18	472.260	
200.00	200.00	200.00	200.00	0.48	0.48	-153.97	-75.29	-36.78	83.80	83.11	0.68	122.438	
300.00	300.00	300.00	300.00	0.84	0.84	-153.97	-75.29	-36.78	83.80	82.60	1.19	70.337	
400.00	400.00	400.00	400.00	1.20	1.20	-153.97	-75.29	-36.78	83.80	82.10	1.70	49.341	
500.00	500.00	500.00	500.00	1.56	1.56	-153.97	-75.29	-36.78	83.80	81.59	2.21	37.998	
600.00	600.00	600.00	600.00	1.92	1.92	-153.97	-75.29	-36.78	83.80	81.08	2.71	30.896	
700.00	700.00	700.00	700.00	2.28	2.28	-153.97	-75.29	-36.78	83.80	80.58	3.22	26.030	
800.00	800.00	800.00	800.00	2.63	2.63	-153.97	-75.29	-36.78	83.80	80.07	3.73	22.489	
900.00	900.00	900.00	900.00	2.99	2.99	-153.97	-75.29	-36.78	83.80	79.56	4.23	19.795	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-153.97	-75.29	-36.78	83.80	79.06	4.74	17.678	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-153.97	-75.29	-36.78	83.80	78.55	5.25	15.970	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-153.97	-75.29	-36.78	83.80	78.04	5.75	14.563	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-153.97	-75.29	-36.78	83.80	77.53	6.26	13.384	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-153.97	-75.29	-36.78	83.80	77.03	6.77	12.381	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	-153.97	-75.29	-36.78	83.80	76.52	7.27	11.519	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	-153.97	-75.29	-36.78	83.80	76.01	7.78	10.768	CC, ES
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	140.03	-75.29	-36.78	85.13	76.84	8.29	10.275	
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	142.14	-75.29	-36.78	89.20	80.42	8.79	10.153	SF
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	145.24	-75.29	-36.78	96.24	86.95	9.29	10.362	
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	148.87	-75.29	-36.78	106.49	96.70	9.79	10.879	
2,100.00	2,097.47	2,097.47	2,097.47	7.29	7.29	152.59	-75.29	-36.78	120.18	109.89	10.29	11.679	
2,200.00	2,195.62	2,196.37	2,196.36	7.67	7.64	156.63	-74.28	-37.46	137.19	126.40	10.79	12.713	
2,300.00	2,293.06	2,294.23	2,294.14	8.07	7.99	161.08	-71.19	-39.53	157.60	146.31	11.29	13.962	
2,357.10	2,348.32	2,349.51	2,349.33	8.31	8.18	163.65	-68.53	-41.32	170.97	159.40	11.57	14.777	
2,400.00	2,389.73	2,390.82	2,390.53	8.49	8.33	165.58	-66.10	-42.95	181.58	169.80	11.78	15.414	
2,500.00	2,486.26	2,486.64	2,485.98	8.92	8.68	169.79	-59.06	-47.67	206.96	194.70	12.27	16.872	
2,600.00	2,582.78	2,581.74	2,580.46	9.37	9.02	173.65	-50.10	-53.69	233.35	220.60	12.75	18.299	
2,700.00	2,679.31	2,676.13	2,673.94	9.83	9.36	177.24	-39.28	-60.95	260.87	247.63	13.24	19.708	
2,800.00	2,775.84	2,770.71	2,767.45	10.30	9.71	-179.60	-27.48	-68.87	289.40	275.68	13.73	21.083	
2,900.00	2,872.37	2,865.42	2,861.08	10.78	10.07	-177.00	-15.67	-76.80	318.62	304.39	14.22	22.402	
3,000.00	2,968.90	2,960.12	2,954.72	11.27	10.43	-174.84	-3.85	-84.73	348.34	333.61	14.72	23.658	
3,100.00	3,065.43	3,054.83	3,048.35	11.76	10.79	-173.01	7.96	-92.66	378.45	363.22	15.23	24.849	
3,200.00	3,161.95	3,149.54	3,141.99	12.25	11.15	-171.45	19.78	-100.59	408.86	393.12	15.74	25.976	
3,300.00	3,258.48	3,244.25	3,235.62	12.76	11.52	-170.11	31.60	-108.52	439.51	423.26	16.25	27.039	
3,400.00	3,355.01	3,338.96	3,329.25	13.26	11.89	-168.93	43.41	-116.45	470.36	453.58	16.77	28.043	
3,500.00	3,451.54	3,433.67	3,422.89	13.77	12.26	-167.91	55.23	-124.38	501.36	484.06	17.29	28.990	
3,600.00	3,548.07	3,528.38	3,516.52	14.29	12.64	-167.00	67.05	-132.31	532.49	514.67	17.82	29.884	
3,700.00	3,644.59	3,623.09	3,610.15	14.80	13.01	-166.19	78.86	-140.24	563.73	545.38	18.35	30.727	
3,800.00	3,741.12	3,717.80	3,703.79	15.32	13.39	-165.47	90.68	-148.17	595.06	576.18	18.88	31.525	
3,900.00	3,837.65	3,812.51	3,797.42	15.84	13.77	-164.81	102.50	-156.10	626.47	607.06	19.41	32.279	
4,000.00	3,934.18	3,907.21	3,891.06	16.37	14.15	-164.22	114.31	-164.03	657.94	638.00	19.94	32.992	
4,100.00	4,030.71	4,001.92	3,984.69	16.90	14.53	-163.69	126.13	-171.96	689.48	669.00	20.48	33.668	
4,200.00	4,127.24	4,096.63	4,078.32	17.42	14.92	-163.20	137.94	-179.89	721.06	700.04	21.02	34.308	
4,300.00	4,223.76	4,191.34	4,171.96	17.95	15.30	-162.75	149.76	-187.82	752.68	731.13	21.56	34.916	
4,400.00	4,320.29	4,286.05	4,265.59	18.49	15.69	-162.34	161.58	-195.75	784.35	762.25	22.10	35.494	
4,500.00	4,416.82	4,380.76	4,359.22	19.02	16.07	-161.96	173.39	-203.68	816.05	793.40	22.64	36.043	
4,600.00	4,513.35	4,475.47	4,452.86	19.55	16.46	-161.60	185.21	-211.61	847.77	824.59	23.19	36.565	
4,700.00	4,609.88	4,570.18	4,546.49	20.09	16.85	-161.28	197.03	-219.54	879.53	855.80	23.73	37.063	
4,800.00	4,706.40	4,664.89	4,640.13	20.62	17.24	-160.97	208.84	-227.47	911.31	887.03	24.28	37.537	
4,900.00	4,802.93	4,759.60	4,733.76	21.16	17.63	-160.69	220.66	-235.40	943.11	918.28	24.82	37.990	
5,000.00	4,899.46	4,854.30	4,827.39	21.70	18.02	-160.43	232.47	-243.33	974.93	949.55	25.37	38.423	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	4,949.01	4,921.03	22.24	18.41	-160.18	244.29	-251.26	1,006.76	980.84	25.92	38.836	
5,200.00	5,092.52	5,043.72	5,014.66	22.78	18.80	-159.94	256.11	-259.19	1,038.62	1,012.14	26.47	39.232	
5,300.00	5,189.04	5,138.43	5,108.29	23.32	19.19	-159.72	267.92	-267.13	1,070.48	1,043.46	27.03	39.610	
5,400.00	5,285.57	5,233.14	5,201.93	23.86	19.58	-159.52	279.74	-275.06	1,102.37	1,074.79	27.58	39.973	
5,500.00	5,382.10	5,327.85	5,295.56	24.41	19.98	-159.32	291.56	-282.99	1,134.26	1,106.13	28.13	40.321	
5,600.00	5,478.63	5,422.56	5,389.20	24.95	20.37	-159.14	303.37	-290.92	1,166.16	1,137.48	28.68	40.655	
5,700.00	5,575.16	5,517.27	5,482.83	25.49	20.77	-158.96	315.19	-298.85	1,198.08	1,168.84	29.24	40.976	
5,800.00	5,671.69	5,611.98	5,576.46	26.04	21.16	-158.80	327.00	-306.78	1,230.00	1,200.21	29.79	41.284	
5,900.00	5,768.21	5,706.69	5,670.10	26.58	21.56	-158.64	338.82	-314.71	1,261.93	1,231.59	30.35	41.580	
6,000.00	5,864.74	5,801.39	5,763.73	27.13	21.95	-158.49	350.64	-322.64	1,293.88	1,262.97	30.91	41.866	
6,100.00	5,961.27	5,896.10	5,857.36	27.67	22.35	-158.35	362.45	-330.57	1,325.82	1,294.36	31.46	42.140	
6,200.00	6,057.80	5,990.81	5,951.00	28.22	22.74	-158.21	374.27	-338.50	1,357.78	1,325.76	32.02	42.405	
6,300.00	6,154.33	6,085.52	6,044.63	28.76	23.14	-158.09	386.09	-346.43	1,389.74	1,357.16	32.58	42.660	
6,400.00	6,250.85	6,180.23	6,138.27	29.31	23.53	-157.96	397.90	-354.36	1,421.71	1,388.57	33.14	42.906	
6,500.00	6,347.38	6,274.94	6,231.90	29.86	23.93	-157.84	409.72	-362.29	1,453.68	1,419.99	33.69	43.143	
6,600.00	6,443.91	6,369.65	6,325.53	30.41	24.33	-157.73	421.53	-370.22	1,485.66	1,451.41	34.25	43.372	
6,700.00	6,540.44	6,464.36	6,419.17	30.95	24.73	-157.62	433.35	-378.15	1,517.65	1,482.83	34.81	43.594	
6,803.85	6,640.68	6,562.71	6,516.41	31.52	25.14	-157.51	445.62	-386.39	1,550.87	1,515.47	35.39	43.816	
6,900.00	6,733.90	6,654.22	6,606.87	32.03	25.52	-157.63	457.04	-394.05	1,580.21	1,544.28	35.93	43.978	
7,000.00	6,831.63	6,750.25	6,701.82	32.53	25.93	-157.68	469.02	-402.09	1,607.71	1,571.22	36.49	44.061	
7,100.00	6,930.04	6,847.05	6,797.52	32.98	26.33	-157.66	481.10	-410.20	1,632.11	1,595.07	37.04	44.062	
7,200.00	7,029.01	6,965.61	6,914.88	33.40	26.82	-157.55	495.02	-419.54	1,652.95	1,615.25	37.70	43.840	
7,300.00	7,128.41	7,094.81	7,043.28	33.78	27.34	-157.44	506.85	-427.48	1,668.93	1,630.54	38.39	43.469	
7,400.00	7,228.14	7,225.48	7,173.57	34.12	27.83	-157.36	515.13	-433.04	1,679.89	1,640.84	39.05	43.020	
7,500.00	7,328.06	7,357.09	7,305.05	34.43	28.29	-157.32	519.73	-436.12	1,685.77	1,646.10	39.67	42.495	
7,560.95	7,389.00	7,437.52	7,385.48	34.59	28.56	-90.55	520.68	-436.76	1,686.85	1,646.82	40.03	42.141	
7,600.00	7,428.05	7,480.10	7,428.05	34.70	28.70	-90.55	520.71	-436.78	1,686.86	1,646.64	40.22	41.941	
7,700.00	7,528.05	7,580.10	7,528.05	34.97	29.03	-90.55	520.71	-436.78	1,686.86	1,646.18	40.68	41.470	
7,800.00	7,628.05	7,680.10	7,628.05	35.24	29.36	-90.55	520.71	-436.78	1,686.86	1,645.72	41.13	41.008	
7,900.00	7,728.05	7,780.10	7,728.05	35.51	29.68	-90.55	520.71	-436.78	1,686.86	1,645.26	41.59	40.555	
8,000.00	7,828.05	7,880.10	7,828.05	35.79	30.01	-90.55	520.71	-436.78	1,686.86	1,644.80	42.05	40.111	
8,100.00	7,928.05	7,980.10	7,928.05	36.06	30.34	-90.55	520.71	-436.78	1,686.86	1,644.34	42.52	39.676	
8,200.00	8,028.05	8,080.10	8,028.05	36.34	30.67	-90.55	520.71	-436.78	1,686.86	1,643.88	42.98	39.249	
8,300.00	8,128.05	8,180.10	8,128.05	36.62	31.01	-90.55	520.71	-436.78	1,686.86	1,643.42	43.44	38.830	
8,400.00	8,228.05	8,280.10	8,228.05	36.90	31.34	-90.55	520.71	-436.78	1,686.86	1,642.95	43.91	38.419	
8,500.00	8,328.05	8,380.10	8,328.05	37.18	31.67	-90.55	520.71	-436.78	1,686.86	1,642.49	44.37	38.016	
8,600.00	8,428.05	8,480.10	8,428.05	37.46	32.00	-90.55	520.71	-436.78	1,686.86	1,642.02	44.84	37.621	
8,700.00	8,528.05	8,580.10	8,528.05	37.75	32.34	-90.55	520.71	-436.78	1,686.86	1,641.55	45.31	37.233	
8,800.00	8,628.05	8,680.10	8,628.05	38.03	32.67	-90.55	520.71	-436.78	1,686.86	1,641.08	45.77	36.852	
8,900.00	8,728.05	8,780.10	8,728.05	38.32	33.01	-90.55	520.71	-436.78	1,686.86	1,640.62	46.24	36.478	
9,000.00	8,828.05	8,880.10	8,828.05	38.61	33.34	-90.55	520.71	-436.78	1,686.86	1,640.15	46.71	36.111	
9,100.00	8,928.05	8,980.10	8,928.05	38.89	33.68	-90.55	520.71	-436.78	1,686.86	1,639.67	47.18	35.751	
9,200.00	9,028.05	9,080.10	9,028.05	39.18	34.01	-90.55	520.71	-436.78	1,686.86	1,639.20	47.65	35.398	
9,300.00	9,128.05	9,180.10	9,128.05	39.47	34.35	-90.55	520.71	-436.78	1,686.86	1,638.73	48.13	35.051	
9,400.00	9,228.05	9,280.10	9,228.05	39.77	34.69	-90.55	520.71	-436.78	1,686.86	1,638.26	48.60	34.710	
9,500.00	9,328.05	9,380.10	9,328.05	40.06	35.02	-90.55	520.71	-436.78	1,686.86	1,637.79	49.07	34.375	
9,600.00	9,428.05	9,480.10	9,428.05	40.35	35.36	-90.55	520.71	-436.78	1,686.86	1,637.31	49.55	34.046	
9,700.00	9,528.05	9,580.10	9,528.05	40.65	35.70	-90.55	520.71	-436.78	1,686.86	1,636.84	50.02	33.723	
9,800.00	9,628.05	9,680.10	9,628.05	40.95	36.04	-90.55	520.71	-436.78	1,686.86	1,636.36	50.50	33.406	
9,900.00	9,728.05	9,780.10	9,728.05	41.24	36.38	-90.55	520.71	-436.78	1,686.86	1,635.89	50.97	33.094	
10,000.00	9,828.05	9,880.10	9,828.05	41.54	36.72	-90.55	520.71	-436.78	1,686.86	1,635.41	51.45	32.787	
10,100.00	9,928.05	9,980.10	9,928.05	41.84	37.06	-90.55	520.71	-436.78	1,686.86	1,634.93	51.93	32.486	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.00	10,028.05	10,080.10	10,028.05	42.14	37.40	-90.55	520.71	-436.78	1,686.86	1,634.45	52.40	32.190	
10,231.57	10,059.62	10,111.67	10,059.62	42.24	37.50	-90.56	520.55	-436.78	1,686.86	1,634.31	52.55	32.100	
10,300.00	10,128.05	10,179.57	10,127.25	42.44	37.69	-90.75	514.92	-436.72	1,686.87	1,634.03	52.84	31.924	
10,400.00	10,228.05	10,274.37	10,219.55	42.74	37.91	-91.47	493.80	-436.52	1,687.09	1,633.89	53.20	31.711	
10,500.00	10,328.05	10,360.21	10,299.12	43.05	38.06	-92.55	461.79	-436.20	1,688.13	1,634.64	53.49	31.562	
10,600.00	10,428.05	10,435.09	10,363.94	43.35	38.16	-93.82	424.43	-435.84	1,690.81	1,637.12	53.69	31.489	
10,700.00	10,528.05	10,500.00	10,415.80	43.65	38.21	-95.14	385.43	-435.46	1,695.98	1,642.15	53.83	31.505	
10,800.00	10,628.05	10,550.00	10,452.53	43.96	38.24	-96.28	351.54	-435.13	1,704.37	1,650.49	53.87	31.637	
10,900.00	10,728.05	10,600.00	10,486.18	44.27	38.26	-97.52	314.58	-434.77	1,716.51	1,662.67	53.84	31.879	
11,000.00	10,828.05	10,635.87	10,508.27	44.57	38.26	-98.46	286.33	-434.49	1,732.81	1,679.10	53.71	32.262	
11,100.00	10,928.05	10,668.08	10,526.56	44.88	38.26	-99.35	259.82	-434.23	1,753.47	1,699.98	53.49	32.780	
11,200.00	11,028.05	10,700.00	10,543.19	45.19	38.26	-100.25	232.58	-433.97	1,778.63	1,725.43	53.20	33.432	
11,300.00	11,128.05	10,719.13	10,552.42	45.50	38.26	-100.80	215.83	-433.81	1,808.23	1,755.42	52.81	34.242	
11,400.00	11,228.05	10,750.00	10,566.12	45.81	38.25	-101.71	188.17	-433.54	1,842.31	1,789.91	52.40	35.157	
11,500.00	11,328.05	10,750.00	10,566.12	46.12	38.25	-101.71	188.17	-433.54	1,880.56	1,828.71	51.85	36.271	
11,600.00	11,428.05	10,772.96	10,575.34	46.43	38.24	-102.39	167.14	-433.33	1,922.89	1,871.55	51.35	37.449	
11,700.00	11,528.05	10,800.00	10,585.10	46.74	38.23	-103.21	141.93	-433.08	1,969.27	1,918.43	50.84	38.733	
11,800.00	11,628.05	10,800.00	10,585.10	47.05	38.23	-103.21	141.93	-433.08	2,019.06	1,968.82	50.24	40.191	
11,900.00	11,728.05	10,800.00	10,585.10	47.37	38.23	-103.21	141.93	-433.08	2,072.49	2,022.85	49.63	41.755	
12,000.00	11,828.05	10,819.89	10,591.51	47.68	38.22	-103.82	123.10	-432.90	2,128.97	2,079.85	49.12	43.342	
12,100.00	11,928.05	10,828.81	10,594.17	48.00	38.22	-104.09	114.60	-432.82	2,188.50	2,139.91	48.59	45.044	
12,115.99	11,944.04	10,830.15	10,594.56	48.05	38.22	-104.13	113.31	-432.81	2,198.28	2,149.78	48.50	45.323	
12,150.00	11,978.03	10,850.00	10,599.97	48.15	38.21	80.64	94.21	-432.62	2,219.44	2,171.06	48.38	45.873	
12,200.00	12,027.75	10,850.00	10,599.97	48.28	38.21	76.82	94.21	-432.62	2,250.19	2,202.08	48.11	46.774	
12,250.00	12,076.83	10,850.00	10,599.97	48.41	38.21	73.07	94.21	-432.62	2,280.85	2,233.01	47.84	47.677	
12,300.00	12,124.90	10,850.00	10,599.97	48.53	38.21	69.46	94.21	-432.62	2,311.19	2,263.61	47.58	48.572	
12,350.00	12,171.60	10,850.00	10,599.97	48.63	38.21	66.02	94.21	-432.62	2,341.00	2,293.66	47.34	49.454	
12,400.00	12,216.56	10,850.00	10,599.97	48.72	38.21	62.80	94.21	-432.62	2,370.07	2,322.96	47.11	50.314	
12,450.00	12,259.45	10,875.98	10,606.04	48.80	38.20	59.43	68.95	-432.37	2,397.66	2,350.70	46.96	51.053	
12,500.00	12,299.94	10,900.00	10,610.62	48.87	38.19	56.44	45.38	-432.14	2,424.42	2,377.59	46.83	51.776	
12,550.00	12,337.72	10,900.00	10,610.62	48.93	38.19	54.08	45.38	-432.14	2,449.39	2,402.75	46.64	52.513	
12,600.00	12,372.50	10,900.00	10,610.62	48.97	38.19	51.95	45.38	-432.14	2,472.91	2,426.42	46.48	53.200	
12,650.00	12,404.03	10,900.00	10,610.62	49.00	38.19	50.05	45.38	-432.14	2,494.83	2,448.48	46.35	53.828	
12,700.00	12,432.05	10,925.87	10,614.45	49.03	38.18	48.25	19.80	-431.89	2,514.48	2,468.20	46.28	54.326	
12,750.00	12,456.36	10,950.00	10,616.98	49.05	38.17	46.74	-4.20	-431.66	2,532.44	2,486.21	46.23	54.774	
12,800.00	12,476.77	10,950.00	10,616.98	49.06	38.17	45.56	-4.20	-431.66	2,547.97	2,501.80	46.18	55.180	
12,850.00	12,493.12	10,950.00	10,616.98	49.07	38.17	44.56	-4.20	-431.66	2,561.48	2,515.33	46.15	55.506	
12,900.00	12,505.30	10,970.41	10,618.33	49.09	38.16	43.75	-24.56	-431.46	2,572.54	2,526.38	46.17	55.721	
12,950.00	12,513.20	10,998.09	10,619.00	49.11	38.16	43.15	-52.22	-431.19	2,581.53	2,535.31	46.22	55.858	
13,000.00	12,516.77	10,998.09	10,619.00	49.13	38.16	42.73	-52.22	-431.19	2,587.67	2,541.39	46.28	55.913	
13,015.99	12,517.00	10,998.09	10,619.00	49.14	38.16	42.63	-52.22	-431.19	2,589.16	2,542.85	46.31	55.913	
13,100.00	12,517.00	11,076.87	10,619.00	49.21	38.18	42.87	-131.01	-430.42	2,595.74	2,549.24	46.49	55.830	
13,200.00	12,517.00	11,176.52	10,619.00	49.32	38.32	43.09	-230.65	-429.45	2,601.40	2,554.65	46.75	55.643	
13,300.00	12,517.00	11,276.40	10,619.00	49.47	38.57	43.21	-330.53	-428.48	2,604.70	2,557.65	47.05	55.358	
13,387.80	12,517.00	11,364.19	10,619.00	49.62	38.86	43.25	-418.31	-427.62	2,605.63	2,558.28	47.35	55.030	
13,400.00	12,517.00	11,376.39	10,619.00	49.64	38.91	43.25	-430.51	-427.50	2,605.63	2,558.24	47.39	54.980	
13,500.00	12,517.00	11,476.39	10,619.00	49.86	39.31	43.25	-530.50	-426.53	2,605.63	2,557.85	47.79	54.526	
13,600.00	12,517.00	11,576.39	10,619.00	50.14	39.78	43.25	-630.50	-425.55	2,605.64	2,557.40	48.24	54.009	
13,700.00	12,517.00	11,676.39	10,619.00	50.48	40.30	43.25	-730.49	-424.57	2,605.65	2,556.88	48.76	53.436	
13,800.00	12,517.00	11,776.39	10,619.00	50.88	40.89	43.25	-830.49	-423.60	2,605.65	2,556.31	49.34	52.812	
13,900.00	12,517.00	11,876.39	10,619.00	51.34	41.52	43.25	-930.48	-422.62	2,605.66	2,555.68	49.97	52.142	
14,000.00	12,517.00	11,976.39	10,619.00	51.86	42.22	43.25	-1,030.48	-421.65	2,605.66	2,555.00	50.66	51.433	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,100.00	12,517.00	12,076.39	10,619.00	52.43	42.96	43.25	-1,130.47	-420.67	2,605.67	2,554.27	51.40	50.691	
14,200.00	12,517.00	12,176.39	10,619.00	53.06	43.75	43.25	-1,230.47	-419.70	2,605.67	2,553.48	52.20	49.922	
14,300.00	12,517.00	12,276.39	10,619.00	53.74	44.59	43.25	-1,330.46	-418.72	2,605.68	2,552.65	53.04	49.131	
14,400.00	12,517.00	12,376.39	10,619.00	54.46	45.47	43.25	-1,430.46	-417.75	2,605.69	2,551.77	53.92	48.324	
14,500.00	12,517.00	12,476.39	10,619.00	55.23	46.40	43.25	-1,530.45	-416.77	2,605.69	2,550.84	54.85	47.505	
14,600.00	12,517.00	12,576.39	10,619.00	56.04	47.36	43.25	-1,630.45	-415.80	2,605.70	2,549.88	55.82	46.679	
14,700.00	12,517.00	12,676.39	10,619.00	56.89	48.36	43.25	-1,730.45	-414.82	2,605.70	2,548.87	56.83	45.851	
14,800.00	12,517.00	12,776.39	10,619.00	57.77	49.39	43.25	-1,830.44	-413.85	2,605.71	2,547.83	57.88	45.023	
14,900.00	12,517.00	12,876.39	10,619.00	58.69	50.46	43.25	-1,930.44	-412.87	2,605.72	2,546.76	58.96	44.198	
15,000.00	12,517.00	12,976.39	10,619.00	59.64	51.55	43.25	-2,030.43	-411.89	2,605.72	2,545.65	60.07	43.379	
15,100.00	12,517.00	13,076.39	10,619.00	60.63	52.68	43.25	-2,130.43	-410.92	2,605.73	2,544.51	61.21	42.568	
15,200.00	12,517.00	13,176.39	10,619.00	61.64	53.83	43.25	-2,230.42	-409.94	2,605.73	2,543.35	62.39	41.766	
15,300.00	12,517.00	13,276.39	10,619.00	62.68	55.01	43.25	-2,330.42	-408.97	2,605.74	2,542.15	63.59	40.977	
15,400.00	12,517.00	13,376.39	10,619.00	63.75	56.21	43.25	-2,430.41	-407.99	2,605.75	2,540.93	64.82	40.200	
15,500.00	12,517.00	13,476.39	10,619.00	64.84	57.43	43.25	-2,530.41	-407.02	2,605.75	2,539.68	66.07	39.437	
15,600.00	12,517.00	13,576.39	10,619.00	65.96	58.68	43.25	-2,630.40	-406.04	2,605.76	2,538.40	67.35	38.689	
15,700.00	12,517.00	13,676.39	10,619.00	67.10	59.94	43.25	-2,730.40	-405.07	2,605.76	2,537.11	68.65	37.956	
15,800.00	12,517.00	13,776.39	10,619.00	68.26	61.22	43.25	-2,830.39	-404.09	2,605.77	2,535.80	69.97	37.240	
15,900.00	12,517.00	13,876.39	10,619.00	69.44	62.52	43.25	-2,930.39	-403.12	2,605.77	2,534.46	71.31	36.539	
16,000.00	12,517.00	13,976.39	10,619.00	70.64	63.84	43.25	-3,030.38	-402.14	2,605.78	2,533.11	72.67	35.857	
16,100.00	12,517.00	14,076.39	10,619.00	71.85	65.17	43.25	-3,130.38	-401.17	2,605.79	2,531.74	74.05	35.191	
16,200.00	12,517.00	14,176.39	10,619.00	73.09	66.52	43.25	-3,230.37	-400.19	2,605.79	2,530.36	75.44	34.543	
16,300.00	12,517.00	14,276.39	10,619.00	74.34	67.87	43.25	-3,330.37	-399.21	2,605.80	2,528.95	76.84	33.910	
16,400.00	12,517.00	14,376.39	10,619.00	75.60	69.25	43.25	-3,430.36	-398.24	2,605.80	2,527.54	78.27	33.294	
16,500.00	12,517.00	14,476.39	10,619.00	76.88	70.63	43.25	-3,530.36	-397.26	2,605.81	2,526.11	79.70	32.694	
16,600.00	12,517.00	14,576.39	10,619.00	78.18	72.02	43.25	-3,630.35	-396.29	2,605.82	2,524.67	81.15	32.111	
16,700.00	12,517.00	14,676.39	10,619.00	79.49	73.43	43.25	-3,730.35	-395.31	2,605.82	2,523.21	82.61	31.544	
16,800.00	12,517.00	14,776.39	10,619.00	80.81	74.84	43.25	-3,830.35	-394.34	2,605.83	2,521.75	84.08	30.992	
16,900.00	12,517.00	14,876.39	10,619.00	82.14	76.27	43.25	-3,930.34	-393.36	2,605.83	2,520.27	85.56	30.455	
17,000.00	12,517.00	14,976.39	10,619.00	83.48	77.70	43.25	-4,030.34	-392.39	2,605.84	2,518.78	87.06	29.932	
17,100.00	12,517.00	15,076.39	10,619.00	84.84	79.15	43.25	-4,130.33	-391.41	2,605.84	2,517.28	88.56	29.424	
17,200.00	12,517.00	15,176.39	10,619.00	86.20	80.60	43.25	-4,230.33	-390.44	2,605.85	2,515.78	90.07	28.930	
17,300.00	12,517.00	15,276.39	10,619.00	87.58	82.05	43.25	-4,330.32	-389.46	2,605.86	2,514.26	91.59	28.450	
17,400.00	12,517.00	15,376.39	10,619.00	88.96	83.52	43.25	-4,430.32	-388.49	2,605.86	2,512.74	93.12	27.983	
17,500.00	12,517.00	15,476.39	10,619.00	90.35	84.99	43.25	-4,530.31	-387.51	2,605.87	2,511.21	94.66	27.529	
17,600.00	12,517.00	15,576.39	10,619.00	91.75	86.47	43.25	-4,630.31	-386.53	2,605.87	2,509.67	96.20	27.087	
17,700.00	12,517.00	15,676.39	10,619.00	93.16	87.95	43.25	-4,730.30	-385.56	2,605.88	2,508.12	97.76	26.657	
17,800.00	12,517.00	15,776.39	10,619.00	94.58	89.44	43.25	-4,830.30	-384.58	2,605.89	2,506.57	99.32	26.239	
17,900.00	12,517.00	15,876.39	10,619.00	96.01	90.94	43.25	-4,930.29	-383.61	2,605.89	2,505.01	100.88	25.831	
18,000.00	12,517.00	15,976.39	10,619.00	97.44	92.44	43.25	-5,030.29	-382.63	2,605.90	2,503.44	102.45	25.435	
18,100.00	12,517.00	16,076.39	10,619.00	98.88	93.95	43.25	-5,130.28	-381.66	2,605.90	2,501.87	104.03	25.049	
18,200.00	12,517.00	16,176.39	10,619.00	100.32	95.46	43.25	-5,230.28	-380.68	2,605.91	2,500.30	105.61	24.674	
18,300.00	12,517.00	16,276.39	10,619.00	101.78	96.97	43.25	-5,330.27	-379.71	2,605.92	2,498.71	107.20	24.309	
18,400.00	12,517.00	16,376.39	10,619.00	103.23	98.49	43.25	-5,430.27	-378.73	2,605.92	2,497.13	108.79	23.953	
18,500.00	12,517.00	16,476.39	10,619.00	104.70	100.02	43.25	-5,530.26	-377.76	2,605.93	2,495.53	110.39	23.606	
18,600.00	12,517.00	16,576.39	10,619.00	106.17	101.54	43.25	-5,630.26	-376.78	2,605.93	2,493.94	112.00	23.268	
18,700.00	12,517.00	16,676.39	10,619.00	107.64	103.08	43.25	-5,730.26	-375.81	2,605.94	2,492.34	113.60	22.939	
18,800.00	12,517.00	16,776.39	10,619.00	109.12	104.61	43.25	-5,830.25	-374.83	2,605.94	2,490.73	115.21	22.619	
18,900.00	12,517.00	16,876.39	10,619.00	110.60	106.15	43.25	-5,930.25	-373.85	2,605.95	2,489.13	116.83	22.306	
19,000.00	12,517.00	16,976.39	10,619.00	112.09	107.69	43.25	-6,030.24	-372.88	2,605.96	2,487.51	118.44	22.002	
19,100.00	12,517.00	17,076.39	10,619.00	113.59	109.24	43.25	-6,130.24	-371.90	2,605.96	2,485.90	120.07	21.704	
19,200.00	12,517.00	17,176.39	10,619.00	115.08	110.79	43.25	-6,230.23	-370.93	2,605.97	2,484.28	121.69	21.414	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 501H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	12,517.00	17,276.39	10,619.00	116.59	112.34	43.25	-6,330.23	-369.95	2,605.97	2,482.65	123.32	21.132	
19,400.00	12,517.00	17,376.39	10,619.00	118.09	113.89	43.25	-6,430.22	-368.98	2,605.98	2,481.03	124.95	20.856	
19,500.00	12,517.00	17,476.39	10,619.00	119.60	115.45	43.25	-6,530.22	-368.00	2,605.99	2,479.40	126.58	20.587	
19,600.00	12,517.00	17,576.39	10,619.00	121.11	117.01	43.25	-6,630.21	-367.03	2,605.99	2,477.77	128.22	20.325	
19,700.00	12,517.00	17,676.39	10,619.00	122.63	118.57	43.25	-6,730.21	-366.05	2,606.00	2,476.14	129.86	20.068	
19,800.00	12,517.00	17,776.39	10,619.00	124.15	120.13	43.25	-6,830.20	-365.08	2,606.00	2,474.50	131.50	19.817	
19,900.00	12,517.00	17,876.39	10,619.00	125.67	121.70	43.25	-6,930.20	-364.10	2,606.01	2,472.86	133.15	19.572	
20,000.00	12,517.00	17,976.39	10,619.00	127.20	123.27	43.25	-7,030.19	-363.13	2,606.01	2,471.22	134.80	19.333	
20,100.00	12,517.00	18,076.39	10,619.00	128.73	124.84	43.25	-7,130.19	-362.15	2,606.02	2,469.58	136.45	19.099	
20,200.00	12,517.00	18,176.39	10,619.00	130.26	126.41	43.25	-7,230.18	-361.17	2,606.03	2,467.93	138.10	18.871	
20,300.00	12,517.00	18,276.39	10,619.00	131.80	127.99	43.26	-7,330.18	-360.20	2,606.03	2,466.28	139.75	18.648	
20,400.00	12,517.00	18,376.39	10,619.00	133.34	129.57	43.26	-7,430.17	-359.22	2,606.04	2,464.64	141.40	18.430	
20,500.00	12,517.00	18,476.39	10,619.00	134.88	131.14	43.26	-7,530.17	-358.25	2,606.04	2,462.99	143.06	18.217	
20,600.00	12,517.00	18,576.39	10,619.00	136.42	132.72	43.26	-7,630.16	-357.27	2,606.05	2,461.33	144.72	18.008	
20,700.00	12,517.00	18,676.39	10,619.00	137.97	134.31	43.26	-7,730.16	-356.30	2,606.06	2,459.68	146.38	17.804	
20,800.00	12,517.00	18,776.39	10,619.00	139.52	135.89	43.26	-7,830.16	-355.32	2,606.06	2,458.02	148.04	17.604	
20,900.00	12,517.00	18,876.39	10,619.00	141.07	137.48	43.26	-7,930.15	-354.35	2,606.07	2,456.36	149.71	17.408	
21,000.00	12,517.00	18,976.39	10,619.00	142.62	139.06	43.26	-8,030.15	-353.37	2,606.07	2,454.70	151.37	17.216	
21,100.00	12,517.00	19,076.39	10,619.00	144.18	140.65	43.26	-8,130.14	-352.40	2,606.08	2,453.04	153.04	17.029	
21,200.00	12,517.00	19,176.39	10,619.00	145.73	142.24	43.26	-8,230.14	-351.42	2,606.09	2,451.38	154.71	16.845	
21,300.00	12,517.00	19,276.39	10,619.00	147.29	143.83	43.26	-8,330.13	-350.45	2,606.09	2,449.72	156.37	16.666	
21,400.00	12,517.00	19,376.39	10,619.00	148.85	145.43	43.26	-8,430.13	-349.47	2,606.10	2,448.05	158.04	16.490	
21,500.00	12,517.00	19,476.39	10,619.00	150.42	147.02	43.26	-8,530.12	-348.49	2,606.10	2,446.39	159.71	16.317	
21,600.00	12,517.00	19,576.39	10,619.00	151.98	148.61	43.26	-8,630.12	-347.52	2,606.11	2,444.72	161.39	16.148	
21,700.00	12,517.00	19,676.39	10,619.00	153.55	150.21	43.26	-8,730.11	-346.54	2,606.11	2,443.05	163.06	15.983	
21,800.00	12,517.00	19,776.39	10,619.00	155.12	151.81	43.26	-8,830.11	-345.57	2,606.12	2,441.39	164.74	15.820	
21,900.00	12,517.00	19,876.39	10,619.00	156.69	153.41	43.26	-8,930.10	-344.59	2,606.13	2,439.71	166.41	15.661	
22,000.00	12,517.00	19,976.39	10,619.00	158.26	155.01	43.26	-9,030.10	-343.62	2,606.13	2,438.04	168.09	15.504	
22,100.00	12,517.00	20,076.39	10,619.00	159.84	156.61	43.26	-9,130.09	-342.64	2,606.14	2,436.37	169.77	15.351	
22,200.00	12,517.00	20,176.39	10,619.00	161.41	158.21	43.26	-9,230.09	-341.67	2,606.14	2,434.70	171.44	15.201	
22,300.00	12,517.00	20,276.39	10,619.00	162.99	159.81	43.26	-9,330.08	-340.69	2,606.15	2,433.03	173.12	15.054	
22,400.00	12,517.00	20,376.39	10,619.00	164.57	161.42	43.26	-9,430.08	-339.72	2,606.16	2,431.35	174.80	14.909	
22,500.00	12,517.00	20,476.39	10,619.00	166.14	163.02	43.26	-9,530.07	-338.74	2,606.16	2,429.68	176.48	14.767	
22,600.00	12,517.00	20,576.39	10,619.00	167.73	164.63	43.26	-9,630.07	-337.77	2,606.17	2,428.00	178.16	14.628	
22,700.00	12,517.00	20,676.39	10,619.00	169.31	166.23	43.26	-9,730.06	-336.79	2,606.17	2,426.33	179.84	14.491	
22,800.00	12,517.00	20,776.39	10,619.00	170.89	167.70	43.26	-9,830.06	-335.81	2,606.18	2,424.79	181.39	14.368	
22,900.00	12,517.00	20,792.10	10,619.00	172.48	167.92	43.26	-9,845.78	-335.66	2,607.55	2,425.40	182.15	14.316	
23,000.00	12,517.00	20,792.10	10,619.00	174.06	167.92	43.26	-9,845.78	-335.66	2,612.70	2,430.15	182.55	14.312	
23,100.00	12,517.00	20,792.10	10,619.00	175.65	167.92	43.26	-9,845.78	-335.66	2,621.66	2,438.95	182.71	14.349	
23,200.00	12,517.00	20,792.10	10,619.00	177.24	167.92	43.26	-9,845.78	-335.66	2,634.38	2,451.74	182.64	14.424	
23,300.00	12,517.00	20,792.10	10,619.00	178.83	167.92	43.26	-9,845.78	-335.66	2,650.82	2,468.48	182.34	14.538	
23,400.00	12,517.00	20,792.10	10,619.00	180.42	167.92	43.26	-9,845.78	-335.66	2,670.91	2,489.09	181.82	14.690	
23,500.00	12,517.00	20,792.10	10,619.00	182.01	167.92	43.26	-9,845.78	-335.66	2,694.55	2,513.46	181.10	14.879	
23,600.00	12,517.00	20,792.10	10,619.00	183.60	167.92	43.26	-9,845.78	-335.66	2,721.67	2,541.49	180.19	15.105	
23,700.00	12,517.00	20,792.10	10,619.00	185.20	167.92	43.26	-9,845.78	-335.66	2,752.16	2,573.05	179.11	15.366	
23,800.00	12,517.00	20,792.10	10,619.00	186.79	167.92	43.26	-9,845.78	-335.66	2,785.91	2,608.03	177.88	15.662	
23,900.00	12,517.00	20,792.10	10,619.00	188.39	167.92	43.26	-9,845.78	-335.66	2,822.80	2,646.29	176.51	15.992	
24,000.00	12,517.00	20,792.10	10,619.00	189.99	167.92	43.26	-9,845.78	-335.66	2,862.70	2,687.68	175.02	16.357	
24,100.00	12,517.00	20,792.10	10,619.00	191.58	167.92	43.26	-9,845.78	-335.66	2,905.50	2,732.08	173.43	16.754	
24,130.17	12,517.00	20,792.10	10,619.00	192.05	167.92	43.26	-9,845.78	-335.66	2,918.96	2,746.33	172.63	16.909	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 502H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-171.15	-75.06	-11.69	75.96				
100.00	100.00	100.00	100.00	0.13	0.13	-171.15	-75.06	-11.69	75.96	75.79	0.18	428.117	
200.00	200.00	200.00	200.00	0.48	0.48	-171.15	-75.06	-11.69	75.96	75.28	0.68	110.993	
300.00	300.00	300.00	300.00	0.84	0.84	-171.15	-75.06	-11.69	75.96	74.77	1.19	63.762	
400.00	400.00	400.00	400.00	1.20	1.20	-171.15	-75.06	-11.69	75.96	74.26	1.70	44.729	
500.00	500.00	500.00	500.00	1.56	1.56	-171.15	-75.06	-11.69	75.96	73.76	2.21	34.446	
600.00	600.00	600.00	600.00	1.92	1.92	-171.15	-75.06	-11.69	75.96	73.25	2.71	28.008	
700.00	700.00	700.00	700.00	2.28	2.28	-171.15	-75.06	-11.69	75.96	72.74	3.22	23.597	
800.00	800.00	800.00	800.00	2.63	2.63	-171.15	-75.06	-11.69	75.96	72.24	3.73	20.387	
900.00	900.00	900.00	900.00	2.99	2.99	-171.15	-75.06	-11.69	75.96	71.73	4.23	17.945	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-171.15	-75.06	-11.69	75.96	71.22	4.74	16.026	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-171.15	-75.06	-11.69	75.96	70.72	5.25	14.477	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-171.15	-75.06	-11.69	75.96	70.21	5.75	13.202	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-171.15	-75.06	-11.69	75.96	69.70	6.26	12.133	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-171.15	-75.06	-11.69	75.96	69.19	6.77	11.224	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	-171.15	-75.06	-11.69	75.96	68.69	7.27	10.442	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	-171.15	-75.06	-11.69	75.96	68.18	7.78	9.762	CC, ES
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	123.19	-75.06	-11.69	76.90	68.62	8.29	9.282	
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	126.28	-75.06	-11.69	79.89	71.10	8.79	9.093	SF
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	130.91	-75.06	-11.69	85.34	76.06	9.29	9.189	
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	136.40	-75.06	-11.69	93.80	84.01	9.79	9.580	
2,100.00	2,097.47	2,097.47	2,097.47	7.29	7.29	142.08	-75.06	-11.69	105.73	95.43	10.29	10.270	
2,200.00	2,195.62	2,195.62	2,195.62	7.67	7.64	147.43	-75.06	-11.69	121.42	110.63	10.80	11.246	
2,300.00	2,293.06	2,293.06	2,293.06	8.07	7.99	152.14	-75.06	-11.69	141.00	129.71	11.30	12.481	
2,357.10	2,348.32	2,350.32	2,350.32	8.31	8.19	154.58	-74.85	-11.43	153.61	142.02	11.59	13.257	
2,400.00	2,389.73	2,393.71	2,393.70	8.49	8.34	156.28	-74.33	-10.80	163.08	151.28	11.80	13.815	
2,500.00	2,486.26	2,495.73	2,495.64	8.92	8.71	159.54	-71.89	-7.80	183.72	171.41	12.31	14.930	
2,600.00	2,582.78	2,598.88	2,598.58	9.37	9.07	162.12	-67.68	-2.63	202.15	189.35	12.81	15.787	
2,700.00	2,679.31	2,703.04	2,702.30	9.83	9.44	164.26	-61.64	4.78	218.22	204.92	13.30	16.405	
2,800.00	2,775.84	2,808.06	2,806.57	10.30	9.82	166.14	-53.75	14.47	231.82	218.03	13.80	16.803	
2,900.00	2,872.37	2,913.79	2,911.15	10.78	10.21	167.85	-43.98	26.46	242.89	228.60	14.29	17.002	
3,000.00	2,968.90	3,020.08	3,015.82	11.27	10.60	169.48	-32.32	40.78	251.38	236.61	14.77	17.020	
3,100.00	3,065.43	3,126.75	3,120.31	11.76	11.01	171.07	-18.77	57.41	257.29	242.04	15.25	16.874	
3,200.00	3,161.95	3,227.01	3,218.18	12.25	11.40	172.54	-5.04	74.27	261.76	246.00	15.76	16.606	
3,300.00	3,258.48	3,326.69	3,315.49	12.76	11.80	173.96	8.62	91.04	266.39	250.11	16.28	16.360	
3,400.00	3,355.01	3,426.37	3,412.79	13.26	12.21	175.32	22.27	107.81	271.18	254.37	16.81	16.135	
3,500.00	3,451.54	3,526.05	3,510.10	13.77	12.63	176.64	35.93	124.58	276.12	258.79	17.33	15.929	
3,600.00	3,548.07	3,625.72	3,607.40	14.29	13.04	177.91	49.59	141.35	281.20	263.33	17.87	15.740	
3,700.00	3,644.59	3,725.40	3,704.70	14.80	13.47	179.14	63.25	158.11	286.41	268.01	18.40	15.567	
3,800.00	3,741.12	3,825.08	3,802.01	15.32	13.90	-179.68	76.91	174.88	291.75	272.82	18.94	15.407	
3,900.00	3,837.65	3,924.76	3,899.31	15.84	14.33	-178.54	90.57	191.65	297.21	277.73	19.48	15.259	
4,000.00	3,934.18	4,024.44	3,996.62	16.37	14.77	-177.44	104.22	208.42	302.79	282.76	20.02	15.122	
4,100.00	4,030.71	4,124.12	4,093.92	16.90	15.21	-176.38	117.88	225.19	308.47	287.89	20.57	14.995	
4,200.00	4,127.24	4,223.80	4,191.23	17.42	15.65	-175.36	131.54	241.96	314.25	293.12	21.12	14.877	
4,300.00	4,223.76	4,323.48	4,288.53	17.95	16.10	-174.38	145.20	258.73	320.12	298.44	21.68	14.766	
4,400.00	4,320.29	4,423.16	4,385.84	18.49	16.55	-173.43	158.86	275.49	326.09	303.85	22.24	14.662	
4,500.00	4,416.82	4,522.84	4,483.14	19.02	17.00	-172.52	172.52	292.26	332.15	309.34	22.80	14.565	
4,600.00	4,513.35	4,622.51	4,580.44	19.55	17.46	-171.64	186.18	309.03	338.28	314.91	23.37	14.474	
4,700.00	4,609.88	4,722.19	4,677.75	20.09	17.91	-170.79	199.83	325.80	344.49	320.55	23.94	14.388	
4,800.00	4,706.40	4,821.87	4,775.05	20.62	18.37	-169.98	213.49	342.57	350.78	326.26	24.52	14.307	
4,900.00	4,802.93	4,921.55	4,872.36	21.16	18.83	-169.19	227.15	359.34	357.13	332.04	25.10	14.231	
5,000.00	4,899.46	5,021.23	4,969.66	21.70	19.29	-168.42	240.81	376.11	363.55	337.87	25.68	14.158	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 502H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,995.99	5,120.91	5,066.97	22.24	19.76	-167.69	254.47	392.88	370.03	343.77	26.26	14.090	
5,200.00	5,092.52	5,220.59	5,164.27	22.78	20.22	-166.98	268.13	409.64	376.57	349.72	26.85	14.025	
5,300.00	5,189.04	5,320.27	5,261.58	23.32	20.69	-166.29	281.78	426.41	383.16	355.72	27.44	13.963	
5,400.00	5,285.57	5,419.95	5,358.88	23.86	21.16	-165.63	295.44	443.18	389.81	361.78	28.04	13.904	
5,500.00	5,382.10	5,519.62	5,456.19	24.41	21.63	-164.99	309.10	459.95	396.51	367.88	28.63	13.847	
5,600.00	5,478.63	5,619.30	5,553.49	24.95	22.10	-164.37	322.76	476.72	403.26	374.02	29.23	13.794	
5,700.00	5,575.16	5,718.98	5,650.79	25.49	22.57	-163.77	336.42	493.49	410.05	380.21	29.84	13.743	
5,800.00	5,671.69	5,818.66	5,748.10	26.04	23.04	-163.20	350.08	510.26	416.88	386.44	30.44	13.694	
5,900.00	5,768.21	5,918.34	5,845.40	26.58	23.51	-162.63	363.73	527.02	423.76	392.71	31.05	13.647	
6,000.00	5,864.74	6,018.02	5,942.71	27.13	23.99	-162.09	377.39	543.79	430.67	399.01	31.66	13.602	
6,100.00	5,961.27	6,117.70	6,040.01	27.67	24.46	-161.57	391.05	560.56	437.62	405.35	32.28	13.559	
6,200.00	6,057.80	6,217.38	6,137.32	28.22	24.94	-161.06	404.71	577.33	444.61	411.72	32.89	13.518	
6,300.00	6,154.33	6,317.06	6,234.62	28.76	25.41	-160.57	418.37	594.10	451.63	418.12	33.51	13.478	
6,400.00	6,250.85	6,416.74	6,331.93	29.31	25.89	-160.09	432.03	610.87	458.69	424.56	34.13	13.440	
6,500.00	6,347.38	6,516.41	6,429.23	29.86	26.37	-159.62	445.68	627.64	465.77	431.02	34.75	13.403	
6,600.00	6,443.91	6,616.09	6,526.53	30.41	26.85	-159.18	459.34	644.41	472.88	437.51	35.37	13.368	
6,700.00	6,540.44	6,715.77	6,623.84	30.95	27.33	-158.74	473.00	661.17	480.03	444.03	36.00	13.334	
6,803.85	6,640.68	6,810.05	6,716.09	31.52	27.77	-158.42	485.25	676.22	488.42	451.80	36.62	13.337	
6,900.00	6,733.90	6,900.00	6,804.54	32.03	28.18	-158.26	495.60	688.92	496.52	459.34	37.18	13.355	
7,000.00	6,831.63	6,987.26	6,890.68	32.53	28.56	-158.13	504.38	699.70	503.60	465.89	37.71	13.355	
7,100.00	6,930.04	7,077.60	6,980.18	32.98	28.93	-157.99	512.15	709.24	509.34	471.11	38.22	13.325	
7,200.00	7,029.01	7,167.94	7,069.94	33.40	29.29	-157.87	518.59	717.14	513.71	475.00	38.71	13.270	
7,300.00	7,128.41	7,258.29	7,159.92	33.78	29.63	-157.75	523.68	723.40	516.72	477.55	39.17	13.191	
7,400.00	7,228.14	7,348.64	7,250.08	34.12	29.95	-157.63	527.43	728.00	518.37	478.76	39.60	13.089	
7,500.00	7,328.06	7,439.01	7,340.36	34.43	30.26	-157.52	529.84	730.95	518.64	478.64	40.01	12.964	
7,560.95	7,389.00	7,494.09	7,395.43	34.59	30.44	-90.70	530.64	731.94	518.14	477.90	40.24	12.876	
7,600.00	7,428.05	7,529.39	7,430.73	34.70	30.55	-90.68	530.89	732.25	517.80	477.42	40.38	12.823	
7,646.26	7,474.31	7,572.98	7,474.31	34.82	30.68	-90.67	530.94	732.31	517.73	477.16	40.56	12.763	
7,700.00	7,528.05	7,626.71	7,528.05	34.97	30.85	-90.67	530.94	732.31	517.73	476.92	40.81	12.687	
7,800.00	7,628.05	7,726.71	7,628.05	35.24	31.16	-90.67	530.94	732.31	517.73	476.46	41.26	12.547	
7,900.00	7,728.05	7,826.71	7,728.05	35.51	31.47	-90.67	530.94	732.31	517.73	476.01	41.72	12.411	
8,000.00	7,828.05	7,926.71	7,828.05	35.79	31.78	-90.67	530.94	732.31	517.73	475.55	42.17	12.276	
8,100.00	7,928.05	8,026.71	7,928.05	36.06	32.09	-90.67	530.94	732.31	517.73	475.09	42.63	12.144	
8,200.00	8,028.05	8,126.71	8,028.05	36.34	32.40	-90.67	530.94	732.31	517.73	474.64	43.09	12.015	
8,300.00	8,128.05	8,226.71	8,128.05	36.62	32.71	-90.67	530.94	732.31	517.73	474.18	43.55	11.888	
8,400.00	8,228.05	8,326.71	8,228.05	36.90	33.03	-90.67	530.94	732.31	517.73	473.71	44.01	11.764	
8,500.00	8,328.05	8,426.71	8,328.05	37.18	33.34	-90.67	530.94	732.31	517.73	473.25	44.47	11.642	
8,600.00	8,428.05	8,526.71	8,428.05	37.46	33.66	-90.67	530.94	732.31	517.73	472.79	44.94	11.522	
8,700.00	8,528.05	8,626.71	8,528.05	37.75	33.97	-90.67	530.94	732.31	517.73	472.33	45.40	11.404	
8,800.00	8,628.05	8,726.71	8,628.05	38.03	34.29	-90.67	530.94	732.31	517.73	471.86	45.86	11.288	
8,900.00	8,728.05	8,826.71	8,728.05	38.32	34.61	-90.67	530.94	732.31	517.73	471.40	46.33	11.175	
9,000.00	8,828.05	8,926.71	8,828.05	38.61	34.93	-90.67	530.94	732.31	517.73	470.93	46.80	11.064	
9,100.00	8,928.05	9,026.71	8,928.05	38.89	35.25	-90.67	530.94	732.31	517.73	470.46	47.26	10.954	
9,200.00	9,028.05	9,126.71	9,028.05	39.18	35.57	-90.67	530.94	732.31	517.73	469.99	47.73	10.847	
9,300.00	9,128.05	9,226.71	9,128.05	39.47	35.89	-90.67	530.94	732.31	517.73	469.52	48.20	10.741	
9,400.00	9,228.05	9,326.71	9,228.05	39.77	36.21	-90.67	530.94	732.31	517.73	469.06	48.67	10.637	
9,500.00	9,328.05	9,426.71	9,328.05	40.06	36.53	-90.67	530.94	732.31	517.73	468.58	49.14	10.536	
9,600.00	9,428.05	9,526.71	9,428.05	40.35	36.85	-90.67	530.94	732.31	517.73	468.11	49.61	10.436	
9,700.00	9,528.05	9,626.71	9,528.05	40.65	37.18	-90.67	530.94	732.31	517.73	467.64	50.08	10.337	
9,800.00	9,628.05	9,726.71	9,628.05	40.95	37.50	-90.67	530.94	732.31	517.73	467.17	50.56	10.241	
9,900.00	9,728.05	9,826.71	9,728.05	41.24	37.83	-90.67	530.94	732.31	517.73	466.70	51.03	10.146	
10,000.00	9,828.05	9,926.71	9,828.05	41.54	38.15	-90.67	530.94	732.31	517.73	466.22	51.50	10.052	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 502H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	9,928.05	10,026.71	9,928.05	41.84	38.48	-90.67	530.94	732.31	517.73	465.75	51.98	9.961	
10,200.00	10,028.05	10,129.78	10,030.71	42.14	38.77	-91.50	523.41	732.74	517.44	465.06	52.38	9.879	
10,273.25	10,101.30	10,202.26	10,101.30	42.36	38.93	-93.30	507.23	733.68	517.18	464.67	52.51	9.849	
10,300.00	10,128.05	10,227.54	10,125.37	42.44	38.98	-94.16	499.50	734.12	517.24	464.72	52.53	9.847	
10,400.00	10,228.05	10,315.07	10,205.58	42.74	39.12	-98.00	464.75	736.13	519.41	467.00	52.41	9.910	
10,500.00	10,328.05	10,390.50	10,269.78	43.05	39.20	-102.32	425.31	738.40	526.88	474.90	51.98	10.136	
10,600.00	10,428.05	10,450.00	10,316.42	43.35	39.23	-106.25	388.47	740.53	542.30	491.23	51.07	10.618	
10,700.00	10,528.05	10,500.00	10,352.48	43.65	39.25	-109.84	353.91	742.52	567.35	517.63	49.72	11.411	
10,800.00	10,628.05	10,550.00	10,385.38	43.96	39.25	-113.59	316.35	744.68	602.43	554.22	48.21	12.497	
10,900.00	10,728.05	10,588.64	10,408.49	44.27	39.24	-116.55	285.44	746.47	647.26	600.83	46.44	13.939	
11,000.00	10,828.05	10,619.92	10,425.64	44.57	39.22	-118.95	259.32	747.97	700.77	656.14	44.63	15.703	
11,100.00	10,928.05	10,650.00	10,440.75	44.88	39.21	-121.24	233.36	749.47	761.70	718.68	43.02	17.707	
11,200.00	11,028.05	10,669.29	10,449.72	45.19	39.20	-122.70	216.32	750.45	828.77	787.32	41.44	19.998	
11,300.00	11,128.05	10,700.00	10,462.80	45.50	39.18	-124.98	188.58	752.05	901.06	860.68	40.38	22.312	
11,400.00	11,228.05	10,700.00	10,462.80	45.81	39.18	-124.98	188.58	752.05	977.22	938.23	38.99	25.062	
11,500.00	11,328.05	10,721.11	10,470.91	46.12	39.16	-126.52	169.13	753.17	1,056.81	1,018.58	38.24	27.638	
11,600.00	11,428.05	10,750.00	10,480.85	46.43	39.13	-128.57	142.04	754.73	1,139.51	1,101.72	37.79	30.155	
11,700.00	11,528.05	10,750.00	10,480.85	46.74	39.13	-128.57	142.04	754.73	1,223.89	1,186.83	37.06	33.022	
11,800.00	11,628.05	10,750.00	10,480.85	47.05	39.13	-128.57	142.04	754.73	1,310.48	1,273.96	36.52	35.889	
11,900.00	11,728.05	10,750.00	10,480.85	47.37	39.13	-128.57	142.04	754.73	1,398.85	1,362.74	36.11	38.734	
12,000.00	11,828.05	10,774.67	10,488.24	47.68	39.11	-130.27	118.55	756.09	1,488.00	1,451.92	36.09	41.236	
12,100.00	11,928.05	10,800.00	10,494.77	48.00	39.09	-131.96	94.12	757.50	1,578.93	1,542.80	36.12	43.712	
12,115.99	11,944.04	10,800.00	10,494.77	48.05	39.09	-131.96	94.12	757.50	1,593.45	1,557.36	36.09	44.150	
12,150.00	11,978.03	10,800.00	10,494.77	48.15	39.09	50.28	94.12	757.50	1,624.20	1,588.17	36.03	45.080	
12,200.00	12,027.75	10,800.00	10,494.77	48.28	39.09	43.25	94.12	757.50	1,668.60	1,632.67	35.93	46.442	
12,250.00	12,076.83	10,800.00	10,494.77	48.41	39.09	37.67	94.12	757.50	1,711.82	1,676.00	35.82	47.789	
12,300.00	12,124.90	10,800.00	10,494.77	48.53	39.09	33.25	94.12	757.50	1,753.63	1,717.92	35.71	49.107	
12,350.00	12,171.60	10,800.00	10,494.77	48.63	39.09	29.72	94.12	757.50	1,793.83	1,758.22	35.61	50.380	
12,400.00	12,216.56	10,800.00	10,494.77	48.72	39.09	26.88	94.12	757.50	1,832.21	1,796.71	35.50	51.607	
12,450.00	12,259.45	10,825.83	10,500.30	48.80	39.06	24.33	68.93	758.95	1,867.88	1,832.32	35.56	52.530	
12,500.00	12,299.94	10,850.00	10,504.45	48.87	39.04	22.34	45.16	760.32	1,901.84	1,866.25	35.59	53.438	
12,550.00	12,337.72	10,850.00	10,504.45	48.93	39.04	20.89	45.16	760.32	1,932.84	1,897.35	35.49	54.459	
12,600.00	12,372.50	10,850.00	10,504.45	48.97	39.04	19.68	45.16	760.32	1,961.39	1,925.98	35.41	55.392	
12,650.00	12,404.03	10,850.00	10,504.45	49.00	39.04	18.68	45.16	760.32	1,987.40	1,952.05	35.35	56.219	
12,700.00	12,432.05	10,873.24	10,507.49	49.03	39.02	17.82	22.16	761.65	2,010.19	1,974.80	35.38	56.811	
12,750.00	12,456.36	10,900.00	10,509.82	49.05	39.00	17.13	-4.45	763.18	2,030.48	1,995.05	35.43	57.315	
12,800.00	12,476.77	10,900.00	10,509.82	49.06	39.00	16.62	-4.45	763.18	2,047.17	2,011.75	35.42	57.795	
12,850.00	12,493.12	10,900.00	10,509.82	49.07	39.00	16.21	-4.45	763.18	2,061.00	2,025.55	35.45	58.135	
12,900.00	12,505.30	10,915.96	10,510.62	49.09	38.99	15.92	-20.36	764.10	2,071.62	2,036.10	35.52	58.315	
12,950.00	12,513.20	10,936.70	10,511.00	49.11	38.97	15.74	-41.07	765.29	2,079.16	2,043.55	35.62	58.378	
13,000.00	12,516.77	10,936.70	10,511.00	49.13	38.97	15.63	-41.07	765.29	2,083.25	2,047.51	35.74	58.292	
13,015.99	12,517.00	10,954.94	10,511.00	49.14	38.96	15.65	-59.27	766.28	2,083.83	2,048.06	35.77	58.260	
13,100.00	12,517.00	11,024.79	10,511.00	49.21	38.93	15.85	-129.07	769.01	2,085.80	2,049.84	35.96	58.004	
13,200.00	12,517.00	11,114.68	10,511.00	49.32	38.94	16.07	-218.95	770.31	2,087.94	2,051.73	36.21	57.662	
13,300.00	12,517.00	11,214.56	10,511.00	49.47	39.05	16.22	-318.82	771.28	2,089.29	2,052.81	36.48	57.274	
13,387.80	12,517.00	11,302.34	10,511.00	49.62	39.26	16.27	-406.61	772.14	2,089.66	2,052.93	36.73	56.886	
13,400.00	12,517.00	11,314.54	10,511.00	49.64	39.30	16.27	-418.81	772.26	2,089.66	2,052.89	36.77	56.827	
13,500.00	12,517.00	11,414.54	10,511.00	49.86	39.65	16.27	-518.80	773.23	2,089.67	2,052.57	37.10	56.325	
13,600.00	12,517.00	11,514.54	10,511.00	50.14	40.10	16.27	-618.80	774.21	2,089.67	2,052.20	37.47	55.775	
13,700.00	12,517.00	11,614.54	10,511.00	50.48	40.61	16.27	-718.79	775.18	2,089.67	2,051.80	37.87	55.181	
13,800.00	12,517.00	11,714.54	10,511.00	50.88	41.19	16.27	-818.79	776.16	2,089.67	2,051.36	38.31	54.548	
13,900.00	12,517.00	11,814.54	10,511.00	51.34	41.83	16.27	-918.78	777.13	2,089.68	2,050.89	38.78	53.880	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 502H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.00	12,517.00	11,914.54	10,511.00	51.86	42.52	16.27	-1,018.78	778.11	2,089.68	2,050.39	39.29	53.183	
14,100.00	12,517.00	12,014.54	10,511.00	52.43	43.26	16.27	-1,118.77	779.08	2,089.68	2,049.85	39.83	52.460	
14,200.00	12,517.00	12,114.54	10,511.00	53.06	44.05	16.27	-1,218.77	780.06	2,089.68	2,049.28	40.41	51.717	
14,300.00	12,517.00	12,214.54	10,511.00	53.74	44.88	16.27	-1,318.76	781.04	2,089.69	2,048.68	41.01	50.958	
14,400.00	12,517.00	12,314.54	10,511.00	54.46	45.75	16.27	-1,418.76	782.01	2,089.69	2,048.05	41.64	50.186	
14,500.00	12,517.00	12,414.54	10,511.00	55.23	46.67	16.27	-1,518.75	782.99	2,089.69	2,047.39	42.30	49.405	
14,600.00	12,517.00	12,514.54	10,511.00	56.04	47.63	16.27	-1,618.75	783.96	2,089.69	2,046.71	42.98	48.619	
14,700.00	12,517.00	12,614.54	10,511.00	56.89	48.62	16.27	-1,718.74	784.94	2,089.69	2,046.01	43.69	47.830	
14,800.00	12,517.00	12,714.54	10,511.00	57.77	49.65	16.27	-1,818.74	785.91	2,089.70	2,045.27	44.42	47.041	
14,900.00	12,517.00	12,814.54	10,511.00	58.69	50.71	16.27	-1,918.73	786.89	2,089.70	2,044.52	45.18	46.255	
15,000.00	12,517.00	12,914.54	10,511.00	59.64	51.79	16.27	-2,018.73	787.87	2,089.70	2,043.75	45.95	45.474	
15,100.00	12,517.00	13,014.54	10,511.00	60.63	52.91	16.27	-2,118.72	788.84	2,089.70	2,042.95	46.75	44.699	
15,200.00	12,517.00	13,114.54	10,511.00	61.64	54.06	16.27	-2,218.72	789.82	2,089.71	2,042.14	47.56	43.934	
15,300.00	12,517.00	13,214.54	10,511.00	62.68	55.23	16.27	-2,318.72	790.79	2,089.71	2,041.31	48.40	43.178	
15,400.00	12,517.00	13,314.54	10,511.00	63.75	56.42	16.27	-2,418.71	791.77	2,089.71	2,040.46	49.25	42.432	
15,500.00	12,517.00	13,414.54	10,511.00	64.84	57.64	16.27	-2,518.71	792.74	2,089.71	2,039.60	50.11	41.698	
15,600.00	12,517.00	13,514.54	10,511.00	65.96	58.87	16.27	-2,618.70	793.72	2,089.72	2,038.72	51.00	40.977	
15,700.00	12,517.00	13,614.54	10,511.00	67.10	60.13	16.27	-2,718.70	794.70	2,089.72	2,037.82	51.89	40.268	
15,800.00	12,517.00	13,714.54	10,511.00	68.26	61.40	16.27	-2,818.69	795.67	2,089.72	2,036.91	52.81	39.573	
15,900.00	12,517.00	13,814.54	10,511.00	69.44	62.70	16.27	-2,918.69	796.65	2,089.72	2,035.99	53.73	38.893	
16,000.00	12,517.00	13,914.54	10,511.00	70.64	64.00	16.27	-3,018.68	797.62	2,089.73	2,035.06	54.67	38.227	
16,100.00	12,517.00	14,014.54	10,511.00	71.85	65.33	16.27	-3,118.68	798.60	2,089.73	2,034.11	55.61	37.576	
16,200.00	12,517.00	14,114.54	10,511.00	73.09	66.67	16.27	-3,218.67	799.57	2,089.73	2,033.16	56.57	36.938	
16,300.00	12,517.00	14,214.54	10,511.00	74.34	68.02	16.27	-3,318.67	800.55	2,089.73	2,032.19	57.54	36.315	
16,400.00	12,517.00	14,314.54	10,511.00	75.60	69.38	16.27	-3,418.66	801.53	2,089.73	2,031.21	58.52	35.707	
16,500.00	12,517.00	14,414.54	10,511.00	76.88	70.76	16.27	-3,518.66	802.50	2,089.74	2,030.22	59.51	35.114	
16,600.00	12,517.00	14,514.54	10,511.00	78.18	72.15	16.27	-3,618.65	803.48	2,089.74	2,029.23	60.51	34.535	
16,700.00	12,517.00	14,614.54	10,511.00	79.49	73.55	16.28	-3,718.65	804.45	2,089.74	2,028.22	61.52	33.970	
16,800.00	12,517.00	14,714.54	10,511.00	80.81	74.96	16.28	-3,818.64	805.43	2,089.74	2,027.21	62.53	33.418	
16,900.00	12,517.00	14,814.54	10,511.00	82.14	76.38	16.28	-3,918.64	806.40	2,089.75	2,026.19	63.56	32.879	
17,000.00	12,517.00	14,914.54	10,511.00	83.48	77.80	16.28	-4,018.63	807.38	2,089.75	2,025.16	64.59	32.355	
17,100.00	12,517.00	15,014.54	10,511.00	84.84	79.24	16.28	-4,118.63	808.35	2,089.75	2,024.13	65.63	31.844	
17,200.00	12,517.00	15,114.54	10,511.00	86.20	80.69	16.28	-4,218.63	809.33	2,089.75	2,023.08	66.67	31.345	
17,300.00	12,517.00	15,214.54	10,511.00	87.58	82.14	16.28	-4,318.62	810.31	2,089.76	2,022.04	67.72	30.859	
17,400.00	12,517.00	15,314.54	10,511.00	88.96	83.60	16.28	-4,418.62	811.28	2,089.76	2,020.98	68.77	30.386	
17,500.00	12,517.00	15,414.54	10,511.00	90.35	85.06	16.28	-4,518.61	812.26	2,089.76	2,019.92	69.84	29.923	
17,600.00	12,517.00	15,514.54	10,511.00	91.75	86.54	16.28	-4,618.61	813.23	2,089.76	2,018.86	70.90	29.473	
17,700.00	12,517.00	15,614.54	10,511.00	93.16	88.02	16.28	-4,718.60	814.21	2,089.76	2,017.79	71.98	29.033	
17,800.00	12,517.00	15,714.54	10,511.00	94.58	89.50	16.28	-4,818.60	815.18	2,089.77	2,016.71	73.06	28.605	
17,900.00	12,517.00	15,814.54	10,511.00	96.01	90.99	16.28	-4,918.59	816.16	2,089.77	2,015.63	74.14	28.188	
18,000.00	12,517.00	15,914.54	10,511.00	97.44	92.49	16.28	-5,018.59	817.14	2,089.77	2,014.55	75.22	27.781	
18,100.00	12,517.00	16,014.54	10,511.00	98.88	93.99	16.28	-5,118.58	818.11	2,089.77	2,013.46	76.32	27.384	
18,200.00	12,517.00	16,114.54	10,511.00	100.32	95.50	16.28	-5,218.58	819.09	2,089.78	2,012.37	77.41	26.996	
18,300.00	12,517.00	16,214.54	10,511.00	101.78	97.01	16.28	-5,318.57	820.06	2,089.78	2,011.27	78.51	26.618	
18,400.00	12,517.00	16,314.54	10,511.00	103.23	98.53	16.28	-5,418.57	821.04	2,089.78	2,010.17	79.61	26.249	
18,500.00	12,517.00	16,414.54	10,511.00	104.70	100.05	16.28	-5,518.56	822.01	2,089.78	2,009.06	80.72	25.889	
18,600.00	12,517.00	16,514.54	10,511.00	106.17	101.57	16.28	-5,618.56	822.99	2,089.79	2,007.96	81.83	25.538	
18,700.00	12,517.00	16,614.54	10,511.00	107.64	103.10	16.28	-5,718.55	823.97	2,089.79	2,006.84	82.94	25.195	
18,800.00	12,517.00	16,714.54	10,511.00	109.12	104.63	16.28	-5,818.55	824.94	2,089.79	2,005.73	84.06	24.861	
18,900.00	12,517.00	16,814.54	10,511.00	110.60	106.17	16.28	-5,918.54	825.92	2,089.79	2,004.62	85.18	24.535	
19,000.00	12,517.00	16,914.54	10,511.00	112.09	107.71	16.28	-6,018.54	826.89	2,089.79	2,003.50	86.30	24.216	
19,100.00	12,517.00	17,014.54	10,511.00	113.59	109.25	16.28	-6,118.53	827.87	2,089.80	2,002.37	87.42	23.904	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF Fed Com 502H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,200.00	12,517.00	17,114.54	10,511.00	115.08	110.79	16.28	-6,218.53	828.84	2,089.80	2,001.25	88.55	23.600	
19,300.00	12,517.00	17,214.54	10,511.00	116.59	112.34	16.28	-6,318.53	829.82	2,089.80	2,000.12	89.68	23.302	
19,400.00	12,517.00	17,314.54	10,511.00	118.09	113.89	16.28	-6,418.52	830.79	2,089.80	1,998.99	90.81	23.012	
19,500.00	12,517.00	17,414.54	10,511.00	119.60	115.45	16.28	-6,518.52	831.77	2,089.81	1,997.86	91.95	22.728	
19,600.00	12,517.00	17,514.54	10,511.00	121.11	117.00	16.28	-6,618.51	832.75	2,089.81	1,996.73	93.08	22.451	
19,700.00	12,517.00	17,614.54	10,511.00	122.63	118.56	16.28	-6,718.51	833.72	2,089.81	1,995.59	94.22	22.180	
19,800.00	12,517.00	17,714.54	10,511.00	124.15	120.12	16.28	-6,818.50	834.70	2,089.81	1,994.45	95.36	21.915	
19,900.00	12,517.00	17,814.54	10,511.00	125.67	121.69	16.28	-6,918.50	835.67	2,089.82	1,993.31	96.50	21.655	
20,000.00	12,517.00	17,914.54	10,511.00	127.20	123.25	16.28	-7,018.49	836.65	2,089.82	1,992.17	97.65	21.401	
20,100.00	12,517.00	18,014.54	10,511.00	128.73	124.82	16.28	-7,118.49	837.62	2,089.82	1,991.02	98.80	21.153	
20,200.00	12,517.00	18,114.54	10,511.00	130.26	126.39	16.28	-7,218.48	838.60	2,089.82	1,989.88	99.95	20.910	
20,300.00	12,517.00	18,214.54	10,511.00	131.80	127.97	16.28	-7,318.48	839.58	2,089.82	1,988.73	101.09	20.672	
20,400.00	12,517.00	18,314.54	10,511.00	133.34	129.54	16.28	-7,418.47	840.55	2,089.83	1,987.58	102.24	20.440	
20,500.00	12,517.00	18,414.54	10,511.00	134.88	131.12	16.28	-7,518.47	841.53	2,089.83	1,986.43	103.40	20.212	
20,600.00	12,517.00	18,514.54	10,511.00	136.42	132.69	16.28	-7,618.46	842.50	2,089.83	1,985.28	104.55	19.989	
20,700.00	12,517.00	18,614.54	10,511.00	137.97	134.27	16.28	-7,718.46	843.48	2,089.83	1,984.13	105.71	19.770	
20,800.00	12,517.00	18,714.54	10,511.00	139.52	135.86	16.28	-7,818.45	844.45	2,089.84	1,982.97	106.86	19.556	
20,900.00	12,517.00	18,814.54	10,511.00	141.07	137.44	16.28	-7,918.45	845.43	2,089.84	1,981.82	108.02	19.346	
21,000.00	12,517.00	18,914.54	10,511.00	142.62	139.02	16.28	-8,018.44	846.41	2,089.84	1,980.66	109.18	19.141	
21,100.00	12,517.00	19,014.54	10,511.00	144.18	140.61	16.28	-8,118.44	847.38	2,089.84	1,979.50	110.34	18.939	
21,200.00	12,517.00	19,114.54	10,511.00	145.73	142.20	16.28	-8,218.43	848.36	2,089.85	1,978.34	111.50	18.742	
21,300.00	12,517.00	19,214.54	10,511.00	147.29	143.79	16.29	-8,318.43	849.33	2,089.85	1,977.18	112.67	18.549	
21,400.00	12,517.00	19,314.54	10,511.00	148.85	145.38	16.29	-8,418.43	850.31	2,089.85	1,976.02	113.83	18.360	
21,500.00	12,517.00	19,414.54	10,511.00	150.42	146.97	16.29	-8,518.42	851.28	2,089.85	1,974.86	114.99	18.174	
21,600.00	12,517.00	19,514.54	10,511.00	151.98	148.56	16.29	-8,618.42	852.26	2,089.86	1,973.69	116.16	17.991	
21,700.00	12,517.00	19,614.54	10,511.00	153.55	150.16	16.29	-8,718.41	853.23	2,089.86	1,972.53	117.33	17.812	
21,800.00	12,517.00	19,714.54	10,511.00	155.12	151.75	16.29	-8,818.41	854.21	2,089.86	1,971.36	118.50	17.637	
21,900.00	12,517.00	19,814.54	10,511.00	156.69	153.35	16.29	-8,918.40	855.19	2,089.86	1,970.20	119.66	17.465	
22,000.00	12,517.00	19,914.54	10,511.00	158.26	154.95	16.29	-9,018.40	856.16	2,089.86	1,969.03	120.83	17.296	
22,100.00	12,517.00	20,014.54	10,511.00	159.84	156.55	16.29	-9,118.39	857.14	2,089.87	1,967.87	122.00	17.130	
22,200.00	12,517.00	20,114.54	10,511.00	161.41	158.15	16.29	-9,218.39	858.11	2,089.87	1,966.70	123.17	16.967	
22,300.00	12,517.00	20,214.54	10,511.00	162.99	159.75	16.29	-9,318.38	859.09	2,089.87	1,965.53	124.34	16.807	
22,400.00	12,517.00	20,314.54	10,511.00	164.57	161.35	16.29	-9,418.38	860.06	2,089.87	1,964.36	125.52	16.650	
22,500.00	12,517.00	20,414.54	10,511.00	166.14	162.96	16.29	-9,518.37	861.04	2,089.88	1,963.18	126.69	16.496	
22,600.00	12,517.00	20,514.54	10,511.00	167.73	164.56	16.29	-9,618.37	862.02	2,089.88	1,962.01	127.86	16.344	
22,700.00	12,517.00	20,614.54	10,511.00	169.31	166.16	16.29	-9,718.36	862.99	2,089.88	1,960.84	129.04	16.196	
22,800.00	12,517.00	20,714.54	10,511.00	170.89	167.77	16.29	-9,818.36	863.97	2,089.88	1,959.67	130.21	16.050	
22,900.00	12,517.00	20,814.54	10,511.00	172.48	169.38	16.29	-9,918.35	864.94	2,089.89	1,958.50	131.39	15.906	
23,000.00	12,517.00	20,914.54	10,511.00	174.06	170.99	16.29	-10,018.35	865.92	2,089.89	1,957.32	132.56	15.765	
23,100.00	12,517.00	21,014.54	10,511.00	175.65	172.59	16.29	-10,118.34	866.89	2,089.89	1,956.15	133.74	15.626	
23,200.00	12,517.00	21,114.54	10,511.00	177.24	174.20	16.29	-10,218.34	867.87	2,089.89	1,954.98	134.92	15.490	
23,300.00	12,517.00	21,214.54	10,511.00	178.83	175.81	16.29	-10,318.33	868.85	2,089.89	1,953.80	136.09	15.356	
23,400.00	12,517.00	21,314.54	10,511.00	180.42	177.42	16.29	-10,418.33	869.82	2,089.90	1,952.62	137.27	15.224	
23,500.00	12,517.00	21,414.54	10,511.00	182.01	179.04	16.29	-10,518.33	870.80	2,089.90	1,951.45	138.45	15.095	
23,600.00	12,517.00	21,514.54	10,511.00	183.60	180.65	16.29	-10,618.32	871.77	2,089.90	1,950.27	139.63	14.967	
23,700.00	12,517.00	21,614.54	10,511.00	185.20	182.26	16.29	-10,718.32	872.75	2,089.90	1,949.09	140.81	14.842	
23,800.00	12,517.00	21,714.54	10,511.00	186.79	183.87	16.29	-10,818.31	873.72	2,089.91	1,947.92	141.99	14.719	
23,900.00	12,517.00	21,814.54	10,511.00	188.39	185.49	16.29	-10,918.31	874.70	2,089.91	1,946.74	143.17	14.597	
24,000.00	12,517.00	21,914.54	10,511.00	189.99	187.10	16.29	-11,018.30	875.67	2,089.91	1,945.56	144.35	14.478	
24,100.00	12,517.00	22,014.54	10,511.00	191.58	188.72	16.29	-11,118.30	876.65	2,089.91	1,944.38	145.53	14.360	
24,130.17	12,517.00	22,044.71	10,511.00	192.05	189.21	16.29	-11,148.46	876.94	2,089.91	1,944.10	145.82	14.333	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
0.00	0.00	0.00	0.00	0.00	0.00	-90.54	-0.47	-49.87	49.87				
100.00	100.00	100.00	100.00	0.13	0.13	-90.54	-0.47	-49.87	49.87	49.69	0.18	281.069	
200.00	200.00	200.00	200.00	0.48	0.48	-90.54	-0.47	-49.87	49.87	49.19	0.68	72.870	
300.00	300.00	300.00	300.00	0.84	0.84	-90.54	-0.47	-49.87	49.87	48.68	1.19	41.861	
400.00	400.00	400.00	400.00	1.20	1.20	-90.54	-0.47	-49.87	49.87	48.17	1.70	29.365	
500.00	500.00	500.00	500.00	1.56	1.56	-90.54	-0.47	-49.87	49.87	47.67	2.21	22.615	
600.00	600.00	600.00	600.00	1.92	1.92	-90.54	-0.47	-49.87	49.87	47.16	2.71	18.388	
700.00	700.00	700.00	700.00	2.28	2.28	-90.54	-0.47	-49.87	49.87	46.65	3.22	15.492	
800.00	800.00	800.00	800.00	2.63	2.63	-90.54	-0.47	-49.87	49.87	46.15	3.73	13.384	
900.00	900.00	900.00	900.00	2.99	2.99	-90.54	-0.47	-49.87	49.87	45.64	4.23	11.781	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-90.54	-0.47	-49.87	49.87	45.13	4.74	10.521	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-90.54	-0.47	-49.87	49.87	44.62	5.25	9.505	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-90.54	-0.47	-49.87	49.87	44.12	5.75	8.667	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-90.54	-0.47	-49.87	49.87	43.61	6.26	7.966	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-90.54	-0.47	-49.87	49.87	43.10	6.77	7.369	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	-90.54	-0.47	-49.87	49.87	42.60	7.27	6.855	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	-90.54	-0.47	-49.87	49.87	42.09	7.78	6.409	CC, ES
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	-158.02	-0.47	-49.87	51.49	43.20	8.28	6.214	SF
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	-159.98	-0.47	-49.87	56.37	47.59	8.78	6.417	
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	-162.58	-0.47	-49.87	64.63	55.35	9.28	6.961	
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	-165.25	-0.47	-49.87	76.35	66.57	9.78	7.804	
2,100.00	2,097.47	2,096.22	2,096.21	7.29	7.28	-167.00	0.42	-50.70	92.23	81.95	10.28	8.975	
2,200.00	2,195.62	2,192.68	2,192.60	7.67	7.62	-167.47	3.08	-53.19	112.84	102.08	10.76	10.485	
2,300.00	2,293.06	2,287.78	2,287.51	8.07	7.96	-167.18	7.44	-57.28	138.07	126.83	11.24	12.281	
2,357.10	2,348.32	2,341.35	2,340.90	8.31	8.15	-166.82	10.66	-60.29	154.52	143.01	11.52	13.419	
2,400.00	2,389.73	2,381.31	2,380.68	8.49	8.29	-166.53	13.41	-62.87	167.56	155.84	11.72	14.299	
2,500.00	2,486.26	2,473.81	2,472.59	8.92	8.63	-165.60	20.96	-69.93	198.85	186.67	12.19	16.319	
2,600.00	2,582.78	2,565.52	2,563.45	9.37	8.96	-164.44	30.03	-78.43	231.48	218.83	12.65	18.296	
2,700.00	2,679.31	2,659.71	2,656.64	9.83	9.31	-163.36	40.07	-87.84	264.76	251.62	13.14	20.144	
2,800.00	2,775.84	2,753.91	2,749.83	10.30	9.66	-162.52	50.12	-97.24	298.11	284.47	13.64	21.856	
2,900.00	2,872.37	2,848.10	2,843.01	10.78	10.02	-161.84	60.16	-106.65	331.50	317.36	14.14	23.443	
3,000.00	2,968.90	2,942.30	2,936.20	11.27	10.38	-161.29	70.20	-116.05	364.93	350.28	14.65	24.917	
3,100.00	3,065.43	3,036.50	3,029.38	11.76	10.74	-160.83	80.24	-125.46	398.38	383.22	15.15	26.288	
3,200.00	3,161.95	3,130.69	3,122.57	12.25	11.11	-160.45	90.29	-134.86	431.85	416.18	15.67	27.565	
3,300.00	3,258.48	3,224.89	3,215.75	12.76	11.48	-160.12	100.33	-144.27	465.33	449.15	16.18	28.757	
3,400.00	3,355.01	3,319.08	3,308.94	13.26	11.85	-159.83	110.37	-153.67	498.83	482.13	16.70	29.872	
3,500.00	3,451.54	3,413.28	3,402.12	13.77	12.22	-159.58	120.41	-163.08	532.33	515.11	17.22	30.915	
3,600.00	3,548.07	3,507.47	3,495.31	14.29	12.59	-159.36	130.46	-172.48	565.85	548.10	17.74	31.894	
3,700.00	3,644.59	3,601.67	3,588.49	14.80	12.96	-159.16	140.50	-181.89	599.37	581.10	18.27	32.814	
3,800.00	3,741.12	3,695.87	3,681.68	15.32	13.34	-158.98	150.54	-191.29	632.89	614.10	18.79	33.679	
3,900.00	3,837.65	3,790.06	3,774.86	15.84	13.72	-158.83	160.59	-200.70	666.42	647.10	19.32	34.494	
4,000.00	3,934.18	3,884.26	3,868.05	16.37	14.10	-158.68	170.63	-210.11	699.96	680.11	19.85	35.263	
4,100.00	4,030.71	3,978.45	3,961.23	16.90	14.48	-158.55	180.67	-219.51	733.50	713.12	20.38	35.990	
4,200.00	4,127.24	4,072.65	4,054.42	17.42	14.86	-158.44	190.71	-228.92	767.04	746.13	20.91	36.678	
4,300.00	4,223.76	4,166.84	4,147.61	17.95	15.24	-158.33	200.76	-238.32	800.58	779.14	21.45	37.329	
4,400.00	4,320.29	4,261.04	4,240.79	18.49	15.62	-158.23	210.80	-247.73	834.13	812.15	21.98	37.947	
4,500.00	4,416.82	4,355.24	4,333.98	19.02	16.01	-158.14	220.84	-257.13	867.68	845.16	22.52	38.534	
4,600.00	4,513.35	4,449.43	4,427.16	19.55	16.39	-158.05	230.88	-266.54	901.23	878.18	23.05	39.092	
4,700.00	4,609.88	4,543.63	4,520.35	20.09	16.78	-157.97	240.93	-275.94	934.78	911.19	23.59	39.623	
4,800.00	4,706.40	4,637.82	4,613.53	20.62	17.16	-157.90	250.97	-285.35	968.34	944.21	24.13	40.129	
4,900.00	4,802.93	4,732.02	4,706.72	21.16	17.55	-157.83	261.01	-294.75	1,001.89	977.22	24.67	40.611	
5,000.00	4,899.46	4,826.21	4,799.90	21.70	17.94	-157.76	271.06	-304.16	1,035.45	1,010.24	25.21	41.072	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
5,100.00	4,995.99	4,920.41	4,893.09	22.24	18.33	-157.70	281.10	-313.56	1,069.00	1,043.25	25.75	41.512	
5,200.00	5,092.52	5,014.60	4,986.27	22.78	18.71	-157.65	291.14	-322.97	1,102.56	1,076.27	26.29	41.933	
5,300.00	5,189.04	5,108.80	5,079.46	23.32	19.10	-157.59	301.18	-332.38	1,136.12	1,109.29	26.84	42.336	
5,400.00	5,285.57	5,203.00	5,172.64	23.86	19.49	-157.54	311.23	-341.78	1,169.68	1,142.30	27.38	42.722	
5,500.00	5,382.10	5,297.19	5,265.83	24.41	19.88	-157.50	321.27	-351.19	1,203.24	1,175.32	27.92	43.092	
5,600.00	5,478.63	5,391.39	5,359.01	24.95	20.27	-157.45	331.31	-360.59	1,236.80	1,208.34	28.47	43.446	
5,700.00	5,575.16	5,485.58	5,452.20	25.49	20.66	-157.41	341.35	-370.00	1,270.37	1,241.35	29.01	43.787	
5,800.00	5,671.69	5,579.78	5,545.39	26.04	21.05	-157.37	351.40	-379.40	1,303.93	1,274.37	29.56	44.115	
5,900.00	5,768.21	5,673.97	5,638.57	26.58	21.45	-157.33	361.44	-388.81	1,337.49	1,307.39	30.10	44.430	
6,000.00	5,864.74	5,768.17	5,731.76	27.13	21.84	-157.30	371.48	-398.21	1,371.06	1,340.41	30.65	44.733	
6,100.00	5,961.27	5,862.37	5,824.94	27.67	22.23	-157.26	381.52	-407.62	1,404.62	1,373.42	31.20	45.025	
6,200.00	6,057.80	5,956.56	5,918.13	28.22	22.62	-157.23	391.57	-417.02	1,438.18	1,406.44	31.74	45.306	
6,300.00	6,154.33	6,050.76	6,011.31	28.76	23.01	-157.20	401.61	-426.43	1,471.75	1,439.46	32.29	45.577	
6,400.00	6,250.85	6,144.95	6,104.50	29.31	23.41	-157.17	411.65	-435.83	1,505.32	1,472.48	32.84	45.838	
6,500.00	6,347.38	6,239.15	6,197.68	29.86	23.80	-157.14	421.70	-445.24	1,538.88	1,505.49	33.39	46.091	
6,600.00	6,443.91	6,333.34	6,290.87	30.41	24.19	-157.11	431.74	-454.64	1,572.45	1,538.51	33.94	46.335	
6,700.00	6,540.44	6,427.54	6,384.05	30.95	24.59	-157.08	441.78	-464.05	1,606.01	1,571.53	34.49	46.570	
6,803.85	6,640.68	6,525.36	6,480.83	31.52	25.00	-157.06	452.21	-473.82	1,640.87	1,605.82	35.06	46.806	
6,900.00	6,733.90	6,616.41	6,570.90	32.03	25.38	-157.26	461.92	-482.91	1,671.74	1,636.16	35.58	46.980	
7,000.00	6,831.63	6,712.04	6,665.50	32.53	25.78	-157.41	472.11	-492.46	1,700.84	1,664.71	36.13	47.076	
7,100.00	6,930.04	6,808.51	6,760.94	32.98	26.18	-157.48	482.40	-502.09	1,726.86	1,690.18	36.67	47.090	
7,200.00	7,029.01	6,918.78	6,870.06	33.40	26.64	-157.46	493.98	-512.94	1,749.64	1,712.36	37.28	46.930	
7,300.00	7,128.41	7,061.26	7,011.56	33.78	27.21	-157.39	506.11	-524.29	1,767.44	1,729.40	38.04	46.465	
7,400.00	7,228.14	7,205.78	7,155.61	34.12	27.75	-157.34	514.46	-532.12	1,779.56	1,740.80	38.76	45.915	
7,500.00	7,328.06	7,351.56	7,301.26	34.43	28.27	-157.31	518.85	-536.23	1,785.92	1,746.49	39.43	45.293	
7,560.95	7,389.00	7,440.69	7,390.39	34.59	28.56	-90.56	519.53	-536.87	1,786.95	1,747.14	39.82	44.881	
7,562.88	7,390.94	7,443.52	7,393.22	34.60	28.57	-90.56	519.53	-536.86	1,786.95	1,747.12	39.83	44.868	
7,600.00	7,428.05	7,478.36	7,428.05	34.70	28.69	-90.56	519.53	-536.87	1,786.95	1,746.97	39.99	44.686	
7,700.00	7,528.05	7,578.36	7,528.05	34.97	29.01	-90.56	519.53	-536.87	1,786.95	1,746.51	40.45	44.179	
7,800.00	7,628.05	7,678.36	7,628.05	35.24	29.34	-90.56	519.53	-536.87	1,786.95	1,746.05	40.91	43.682	
7,900.00	7,728.05	7,778.36	7,728.05	35.51	29.67	-90.56	519.53	-536.87	1,786.95	1,745.59	41.37	43.195	
8,000.00	7,828.05	7,878.36	7,828.05	35.79	30.00	-90.56	519.53	-536.87	1,786.95	1,745.12	41.83	42.718	
8,100.00	7,928.05	7,978.36	7,928.05	36.06	30.33	-90.56	519.53	-536.87	1,786.95	1,744.66	42.29	42.250	
8,200.00	8,028.05	8,078.36	8,028.05	36.34	30.66	-90.56	519.53	-536.87	1,786.95	1,744.20	42.76	41.791	
8,300.00	8,128.05	8,178.36	8,128.05	36.62	30.99	-90.56	519.53	-536.87	1,786.95	1,743.73	43.22	41.342	
8,400.00	8,228.05	8,278.36	8,228.05	36.90	31.32	-90.56	519.53	-536.87	1,786.95	1,743.26	43.69	40.901	
8,500.00	8,328.05	8,378.36	8,328.05	37.18	31.66	-90.56	519.53	-536.87	1,786.95	1,742.80	44.16	40.468	
8,600.00	8,428.05	8,478.36	8,428.05	37.46	31.99	-90.56	519.53	-536.87	1,786.95	1,742.33	44.63	40.044	
8,700.00	8,528.05	8,578.36	8,528.05	37.75	32.32	-90.56	519.53	-536.87	1,786.95	1,741.86	45.09	39.627	
8,800.00	8,628.05	8,678.36	8,628.05	38.03	32.66	-90.56	519.53	-536.87	1,786.95	1,741.39	45.56	39.219	
8,900.00	8,728.05	8,778.36	8,728.05	38.32	32.99	-90.56	519.53	-536.87	1,786.95	1,740.92	46.03	38.818	
9,000.00	8,828.05	8,878.36	8,828.05	38.61	33.33	-90.56	519.53	-536.87	1,786.95	1,740.45	46.50	38.425	
9,100.00	8,928.05	8,978.36	8,928.05	38.89	33.66	-90.56	519.53	-536.87	1,786.95	1,739.98	46.98	38.039	
9,200.00	9,028.05	9,078.36	9,028.05	39.18	34.00	-90.56	519.53	-536.87	1,786.95	1,739.51	47.45	37.660	
9,300.00	9,128.05	9,178.36	9,128.05	39.47	34.33	-90.56	519.53	-536.87	1,786.95	1,739.03	47.92	37.288	
9,400.00	9,228.05	9,278.36	9,228.05	39.77	34.67	-90.56	519.53	-536.87	1,786.95	1,738.56	48.40	36.923	
9,500.00	9,328.05	9,378.36	9,328.05	40.06	35.01	-90.56	519.53	-536.87	1,786.95	1,738.08	48.87	36.565	
9,600.00	9,428.05	9,478.36	9,428.05	40.35	35.35	-90.56	519.53	-536.87	1,786.95	1,737.61	49.35	36.212	
9,700.00	9,528.05	9,578.36	9,528.05	40.65	35.68	-90.56	519.53	-536.87	1,786.95	1,737.13	49.82	35.866	
9,800.00	9,628.05	9,678.36	9,628.05	40.95	36.02	-90.56	519.53	-536.87	1,786.95	1,736.66	50.30	35.527	
9,900.00	9,728.05	9,778.36	9,728.05	41.24	36.36	-90.56	519.53	-536.87	1,786.95	1,736.18	50.78	35.193	
10,000.00	9,828.05	9,878.36	9,828.05	41.54	36.70	-90.56	519.53	-536.87	1,786.95	1,735.70	51.25	34.865	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
10,100.00	9,928.05	9,978.36	9,928.05	41.84	37.04	-90.56	519.53	-536.87	1,786.95	1,735.22	51.73	34.543	
10,200.00	10,028.05	10,078.36	10,028.05	42.14	37.38	-90.56	519.53	-536.87	1,786.95	1,734.74	52.21	34.226	
10,300.00	10,128.05	10,178.36	10,128.05	42.44	37.72	-90.56	519.53	-536.87	1,786.95	1,734.26	52.69	33.915	
10,400.00	10,228.05	10,278.36	10,228.05	42.74	38.06	-90.56	519.53	-536.87	1,786.95	1,733.78	53.17	33.608	
10,500.00	10,328.05	10,378.36	10,328.05	43.05	38.40	-90.56	519.53	-536.87	1,786.95	1,733.30	53.65	33.308	
10,600.00	10,428.05	10,478.36	10,428.05	43.35	38.74	-90.56	519.53	-536.87	1,786.95	1,732.82	54.13	33.012	
10,700.00	10,528.05	10,578.36	10,528.05	43.65	39.08	-90.56	519.53	-536.87	1,786.95	1,732.34	54.61	32.721	
10,800.00	10,628.05	10,678.36	10,628.05	43.96	39.43	-90.56	519.53	-536.87	1,786.95	1,731.86	55.09	32.435	
10,900.00	10,728.05	10,778.36	10,728.05	44.27	39.77	-90.56	519.53	-536.87	1,786.95	1,731.38	55.58	32.153	
11,000.00	10,828.05	10,878.36	10,828.05	44.57	40.11	-90.56	519.53	-536.87	1,786.95	1,730.90	56.06	31.877	
11,100.00	10,928.05	10,978.36	10,928.05	44.88	40.45	-90.56	519.53	-536.87	1,786.95	1,730.41	56.54	31.604	
11,200.00	11,028.05	11,078.36	11,028.05	45.19	40.80	-90.56	519.53	-536.87	1,786.95	1,729.93	57.03	31.336	
11,300.00	11,128.05	11,178.36	11,128.05	45.50	41.14	-90.56	519.53	-536.87	1,786.95	1,729.45	57.51	31.073	
11,400.00	11,228.05	11,278.36	11,228.05	45.81	41.48	-90.56	519.53	-536.87	1,786.95	1,728.96	57.99	30.813	
11,500.00	11,328.05	11,378.36	11,328.05	46.12	41.83	-90.56	519.53	-536.87	1,786.95	1,728.48	58.48	30.558	
11,600.00	11,428.05	11,478.36	11,428.05	46.43	42.17	-90.56	519.53	-536.87	1,786.95	1,727.99	58.96	30.306	
11,700.00	11,528.05	11,578.36	11,528.05	46.74	42.52	-90.56	519.53	-536.87	1,786.95	1,727.51	59.45	30.059	
11,800.00	11,628.05	11,678.36	11,628.05	47.05	42.86	-90.56	519.53	-536.87	1,786.95	1,727.02	59.93	29.815	
11,900.00	11,728.05	11,778.36	11,728.05	47.37	43.21	-90.56	519.53	-536.87	1,786.95	1,726.53	60.42	29.576	
12,000.00	11,828.05	11,878.36	11,828.05	47.68	43.55	-90.56	519.53	-536.87	1,786.95	1,726.05	60.91	29.339	
12,100.00	11,928.05	11,978.36	11,928.05	48.00	43.90	-90.56	519.53	-536.87	1,786.95	1,725.56	61.39	29.107	
12,115.99	11,944.04	11,994.34	11,944.04	48.05	43.95	-90.56	519.53	-536.87	1,786.95	1,725.48	61.47	29.070	
12,150.00	11,978.03	12,028.35	11,978.04	48.15	44.07	97.46	519.49	-536.87	1,787.09	1,725.45	61.63	28.996	
12,200.00	12,027.75	12,078.47	12,028.07	48.28	44.22	97.47	516.69	-536.84	1,787.75	1,725.91	61.85	28.907	
12,250.00	12,076.83	12,128.79	12,077.86	48.41	44.36	97.42	509.49	-536.77	1,788.98	1,726.94	62.04	28.836	
12,300.00	12,124.90	12,179.29	12,126.99	48.53	44.48	97.31	497.90	-536.66	1,790.76	1,728.55	62.22	28.782	
12,350.00	12,171.60	12,229.96	12,175.08	48.63	44.60	97.15	481.97	-536.50	1,793.08	1,730.71	62.38	28.745	
12,400.00	12,216.56	12,280.80	12,221.72	48.72	44.70	96.93	461.79	-536.31	1,795.92	1,733.40	62.52	28.725	
12,450.00	12,259.45	12,331.79	12,266.52	48.80	44.78	96.66	437.47	-536.07	1,799.26	1,736.61	62.65	28.720	
12,500.00	12,299.94	12,382.91	12,309.09	48.87	44.85	96.34	409.19	-535.79	1,803.07	1,740.31	62.76	28.729	
12,550.00	12,337.72	12,434.17	12,349.06	48.93	44.91	95.97	377.14	-535.48	1,807.33	1,744.47	62.86	28.752	
12,600.00	12,372.50	12,485.54	12,386.09	48.97	44.95	95.55	341.57	-535.13	1,811.99	1,749.04	62.95	28.787	
12,650.00	12,404.03	12,537.02	12,419.86	49.00	44.98	95.09	302.73	-534.75	1,817.03	1,754.01	63.02	28.831	
12,700.00	12,432.05	12,588.59	12,450.06	49.03	45.00	94.60	260.95	-534.35	1,822.40	1,759.31	63.09	28.884	
12,750.00	12,456.36	12,640.25	12,476.42	49.05	45.00	94.06	216.54	-533.91	1,828.07	1,764.92	63.16	28.944	
12,800.00	12,476.77	12,691.99	12,498.70	49.06	45.00	93.50	169.87	-533.46	1,834.00	1,770.77	63.22	29.009	
12,850.00	12,493.12	12,743.81	12,516.71	49.07	44.98	92.91	121.31	-532.98	1,840.13	1,776.84	63.28	29.077	
12,900.00	12,505.30	12,795.68	12,530.27	49.09	44.96	92.30	71.25	-532.50	1,846.41	1,783.07	63.35	29.148	
12,950.00	12,513.20	12,847.62	12,539.26	49.11	44.93	91.68	20.12	-532.00	1,852.82	1,789.41	63.41	29.220	
13,000.00	12,516.77	12,899.61	12,543.59	49.13	44.90	91.04	-31.67	-531.49	1,859.28	1,795.81	63.47	29.292	
13,015.99	12,517.00	12,916.25	12,543.98	49.14	44.89	90.84	-48.30	-531.33	1,861.35	1,797.86	63.49	29.316	
13,100.00	12,517.00	12,999.94	12,544.00	49.21	44.86	90.83	-131.98	-530.51	1,871.01	1,807.38	63.63	29.404	
13,200.00	12,517.00	13,099.59	12,544.00	49.32	45.03	90.82	-231.63	-529.54	1,879.31	1,815.43	63.87	29.423	
13,300.00	12,517.00	13,199.47	12,544.00	49.47	45.31	90.82	-331.50	-528.57	1,884.12	1,819.92	64.20	29.348	
13,387.80	12,517.00	13,287.25	12,544.00	49.62	45.59	90.82	-419.29	-527.71	1,885.47	1,820.92	64.56	29.206	
13,400.00	12,517.00	13,299.45	12,544.00	49.64	45.63	90.82	-431.49	-527.59	1,885.48	1,820.87	64.61	29.183	
13,500.00	12,517.00	13,399.45	12,544.00	49.86	46.01	90.82	-531.48	-526.62	1,885.48	1,820.38	65.10	28.963	
13,600.00	12,517.00	13,499.45	12,544.00	50.14	46.44	90.82	-631.48	-525.64	1,885.49	1,819.82	65.67	28.712	
13,700.00	12,517.00	13,599.45	12,544.00	50.48	46.92	90.82	-731.47	-524.66	1,885.50	1,819.18	66.32	28.431	
13,800.00	12,517.00	13,699.45	12,544.00	50.88	47.45	90.82	-831.47	-523.69	1,885.51	1,818.47	67.04	28.125	
13,900.00	12,517.00	13,799.45	12,544.00	51.34	48.03	90.82	-931.46	-522.71	1,885.52	1,817.68	67.84	27.796	
14,000.00	12,517.00	13,899.45	12,544.00	51.86	48.66	90.82	-1,031.46	-521.74	1,885.53	1,816.83	68.70	27.446	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
14,100.00	12,517.00	13,999.45	12,544.00	52.43	49.33	90.82	-1,131.45	-520.76	1,885.53	1,815.90	69.63	27.078	
14,200.00	12,517.00	14,099.45	12,544.00	53.06	50.05	90.82	-1,231.45	-519.79	1,885.54	1,814.91	70.63	26.695	
14,300.00	12,517.00	14,199.45	12,544.00	53.74	50.81	90.82	-1,331.44	-518.81	1,885.55	1,813.86	71.69	26.301	
14,400.00	12,517.00	14,299.45	12,544.00	54.46	51.61	90.82	-1,431.44	-517.84	1,885.56	1,812.75	72.81	25.897	
14,500.00	12,517.00	14,399.45	12,544.00	55.23	52.44	90.82	-1,531.43	-516.86	1,885.57	1,811.58	73.99	25.486	
14,600.00	12,517.00	14,499.45	12,544.00	56.04	53.32	90.82	-1,631.43	-515.89	1,885.58	1,810.36	75.22	25.069	
14,700.00	12,517.00	14,599.45	12,544.00	56.89	54.23	90.82	-1,731.42	-514.91	1,885.59	1,809.09	76.50	24.649	
14,800.00	12,517.00	14,699.45	12,544.00	57.77	55.18	90.82	-1,831.42	-513.93	1,885.59	1,807.77	77.83	24.228	
14,900.00	12,517.00	14,799.45	12,544.00	58.69	56.16	90.82	-1,931.41	-512.96	1,885.60	1,806.40	79.20	23.807	
15,000.00	12,517.00	14,899.45	12,544.00	59.64	57.16	90.82	-2,031.41	-511.98	1,885.61	1,804.99	80.63	23.387	
15,100.00	12,517.00	14,999.45	12,544.00	60.63	58.20	90.82	-2,131.40	-511.01	1,885.62	1,803.53	82.09	22.971	
15,200.00	12,517.00	15,099.45	12,544.00	61.64	59.27	90.82	-2,231.40	-510.03	1,885.63	1,802.04	83.59	22.558	
15,300.00	12,517.00	15,199.45	12,544.00	62.68	60.36	90.82	-2,331.40	-509.06	1,885.64	1,800.51	85.13	22.150	
15,400.00	12,517.00	15,299.45	12,544.00	63.75	61.48	90.82	-2,431.39	-508.08	1,885.64	1,798.94	86.71	21.747	
15,500.00	12,517.00	15,399.45	12,544.00	64.84	62.62	90.82	-2,531.39	-507.11	1,885.65	1,797.34	88.32	21.351	
15,600.00	12,517.00	15,499.45	12,544.00	65.96	63.78	90.82	-2,631.38	-506.13	1,885.66	1,795.70	89.96	20.962	
15,700.00	12,517.00	15,599.45	12,544.00	67.10	64.96	90.82	-2,731.38	-505.15	1,885.67	1,794.04	91.63	20.580	
15,800.00	12,517.00	15,699.45	12,544.00	68.26	66.16	90.82	-2,831.37	-504.18	1,885.68	1,792.35	93.33	20.205	
15,900.00	12,517.00	15,799.45	12,544.00	69.44	67.39	90.82	-2,931.37	-503.20	1,885.69	1,790.63	95.05	19.838	
16,000.00	12,517.00	15,899.45	12,544.00	70.64	68.63	90.82	-3,031.36	-502.23	1,885.69	1,788.89	96.81	19.479	
16,100.00	12,517.00	15,999.45	12,544.00	71.85	69.88	90.82	-3,131.36	-501.25	1,885.70	1,787.12	98.58	19.128	
16,200.00	12,517.00	16,099.45	12,544.00	73.09	71.15	90.82	-3,231.35	-500.28	1,885.71	1,785.33	100.38	18.785	
16,300.00	12,517.00	16,199.45	12,544.00	74.34	72.44	90.82	-3,331.35	-499.30	1,885.72	1,783.52	102.20	18.451	
16,400.00	12,517.00	16,299.45	12,544.00	75.60	73.75	90.82	-3,431.34	-498.33	1,885.73	1,781.68	104.05	18.124	
16,500.00	12,517.00	16,399.45	12,544.00	76.88	75.06	90.82	-3,531.34	-497.35	1,885.74	1,779.83	105.91	17.806	
16,600.00	12,517.00	16,499.45	12,544.00	78.18	76.39	90.82	-3,631.33	-496.37	1,885.75	1,777.96	107.79	17.495	
16,700.00	12,517.00	16,599.45	12,544.00	79.49	77.73	90.82	-3,731.33	-495.40	1,885.75	1,776.07	109.68	17.193	
16,800.00	12,517.00	16,699.45	12,544.00	80.81	79.09	90.82	-3,831.32	-494.42	1,885.76	1,774.16	111.60	16.898	
16,900.00	12,517.00	16,799.45	12,544.00	82.14	80.45	90.82	-3,931.32	-493.45	1,885.77	1,772.24	113.53	16.611	
17,000.00	12,517.00	16,899.45	12,544.00	83.48	81.82	90.82	-4,031.31	-492.47	1,885.78	1,770.31	115.47	16.331	
17,100.00	12,517.00	16,999.45	12,544.00	84.84	83.21	90.82	-4,131.31	-491.50	1,885.79	1,768.36	117.43	16.059	
17,200.00	12,517.00	17,099.45	12,544.00	86.20	84.60	90.82	-4,231.30	-490.52	1,885.80	1,766.39	119.40	15.794	
17,300.00	12,517.00	17,199.45	12,544.00	87.58	86.01	90.82	-4,331.30	-489.55	1,885.80	1,764.42	121.39	15.535	
17,400.00	12,517.00	17,299.45	12,544.00	88.96	87.42	90.82	-4,431.30	-488.57	1,885.81	1,762.43	123.39	15.284	
17,500.00	12,517.00	17,399.45	12,544.00	90.35	88.84	90.82	-4,531.29	-487.59	1,885.82	1,760.43	125.39	15.039	
17,600.00	12,517.00	17,499.45	12,544.00	91.75	90.27	90.82	-4,631.29	-486.62	1,885.83	1,758.41	127.41	14.801	
17,700.00	12,517.00	17,599.45	12,544.00	93.16	91.70	90.82	-4,731.28	-485.64	1,885.84	1,756.39	129.45	14.569	
17,800.00	12,517.00	17,699.45	12,544.00	94.58	93.15	90.82	-4,831.28	-484.67	1,885.85	1,754.36	131.49	14.343	
17,900.00	12,517.00	17,799.45	12,544.00	96.01	94.60	90.82	-4,931.27	-483.69	1,885.85	1,752.32	133.54	14.122	
18,000.00	12,517.00	17,899.45	12,544.00	97.44	96.05	90.82	-5,031.27	-482.72	1,885.86	1,750.27	135.60	13.908	
18,100.00	12,517.00	17,999.45	12,544.00	98.88	97.51	90.82	-5,131.26	-481.74	1,885.87	1,748.21	137.67	13.699	
18,200.00	12,517.00	18,099.45	12,544.00	100.32	98.98	90.82	-5,231.26	-480.77	1,885.88	1,746.14	139.74	13.495	
18,300.00	12,517.00	18,199.45	12,544.00	101.78	100.46	90.82	-5,331.25	-479.79	1,885.89	1,744.06	141.83	13.297	
18,400.00	12,517.00	18,299.45	12,544.00	103.23	101.94	90.82	-5,431.25	-478.82	1,885.90	1,741.98	143.92	13.104	
18,500.00	12,517.00	18,399.45	12,544.00	104.70	103.42	90.82	-5,531.24	-477.84	1,885.90	1,739.88	146.02	12.915	
18,600.00	12,517.00	18,499.45	12,544.00	106.17	104.91	90.82	-5,631.24	-476.86	1,885.91	1,737.79	148.13	12.732	
18,700.00	12,517.00	18,599.45	12,544.00	107.64	106.40	90.82	-5,731.23	-475.89	1,885.92	1,735.68	150.24	12.553	
18,800.00	12,517.00	18,699.45	12,544.00	109.12	107.90	90.82	-5,831.23	-474.91	1,885.93	1,733.57	152.36	12.378	
18,900.00	12,517.00	18,799.45	12,544.00	110.60	109.41	90.82	-5,931.22	-473.94	1,885.94	1,731.45	154.49	12.208	
19,000.00	12,517.00	18,899.45	12,544.00	112.09	110.91	90.82	-6,031.22	-472.96	1,885.95	1,729.33	156.62	12.041	
19,100.00	12,517.00	18,999.45	12,544.00	113.59	112.43	90.82	-6,131.21	-471.99	1,885.96	1,727.20	158.76	11.879	
19,200.00	12,517.00	19,099.45	12,544.00	115.08	113.94	90.82	-6,231.21	-471.01	1,885.96	1,725.06	160.90	11.721	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
19,300.00	12,517.00	19,199.45	12,544.00	116.59	115.46	90.82	-6,331.20	-470.04	1,885.97	1,722.92	163.05	11.567	
19,400.00	12,517.00	19,299.45	12,544.00	118.09	116.98	90.82	-6,431.20	-469.06	1,885.98	1,720.77	165.21	11.416	
19,500.00	12,517.00	19,399.45	12,544.00	119.60	118.51	90.82	-6,531.20	-468.08	1,885.99	1,718.62	167.36	11.269	
19,600.00	12,517.00	19,499.45	12,544.00	121.11	120.04	90.82	-6,631.19	-467.11	1,886.00	1,716.47	169.53	11.125	
19,700.00	12,517.00	19,599.45	12,544.00	122.63	121.57	90.82	-6,731.19	-466.13	1,886.01	1,714.31	171.70	10.985	
19,800.00	12,517.00	19,699.45	12,544.00	124.15	123.11	90.82	-6,831.18	-465.16	1,886.01	1,712.15	173.87	10.847	
19,900.00	12,517.00	19,799.45	12,544.00	125.67	124.65	90.82	-6,931.18	-464.18	1,886.02	1,709.98	176.05	10.713	
20,000.00	12,517.00	19,899.45	12,544.00	127.20	126.19	90.82	-7,031.17	-463.21	1,886.03	1,707.81	178.23	10.582	
20,100.00	12,517.00	19,999.45	12,544.00	128.73	127.73	90.82	-7,131.17	-462.23	1,886.04	1,705.63	180.41	10.454	
20,200.00	12,517.00	20,099.45	12,544.00	130.26	129.28	90.82	-7,231.16	-461.26	1,886.05	1,703.45	182.60	10.329	
20,300.00	12,517.00	20,199.45	12,544.00	131.80	130.83	90.82	-7,331.16	-460.28	1,886.06	1,701.27	184.79	10.206	
20,400.00	12,517.00	20,299.45	12,544.00	133.34	132.38	90.82	-7,431.15	-459.30	1,886.06	1,699.08	186.98	10.087	
20,500.00	12,517.00	20,399.45	12,544.00	134.88	133.93	90.82	-7,531.15	-458.33	1,886.07	1,696.89	189.18	9.970	
20,600.00	12,517.00	20,499.45	12,544.00	136.42	135.49	90.82	-7,631.14	-457.35	1,886.08	1,694.70	191.39	9.855	
20,700.00	12,517.00	20,599.45	12,544.00	137.97	137.05	90.82	-7,731.14	-456.38	1,886.09	1,692.50	193.59	9.743	
20,800.00	12,517.00	20,699.45	12,544.00	139.52	138.61	90.82	-7,831.13	-455.40	1,886.10	1,690.30	195.80	9.633	
20,900.00	12,517.00	20,799.45	12,544.00	141.07	140.17	90.82	-7,931.13	-454.43	1,886.11	1,688.10	198.01	9.525	
21,000.00	12,517.00	20,899.45	12,544.00	142.62	141.74	90.82	-8,031.12	-453.45	1,886.12	1,685.89	200.22	9.420	
21,100.00	12,517.00	20,999.45	12,544.00	144.18	143.30	90.82	-8,131.12	-452.48	1,886.12	1,683.68	202.44	9.317	
21,200.00	12,517.00	21,099.45	12,544.00	145.73	144.87	90.82	-8,231.11	-451.50	1,886.13	1,681.47	204.66	9.216	
21,300.00	12,517.00	21,199.45	12,544.00	147.29	146.44	90.82	-8,331.11	-450.52	1,886.14	1,679.26	206.88	9.117	
21,400.00	12,517.00	21,299.45	12,544.00	148.85	148.02	90.82	-8,431.11	-449.55	1,886.15	1,677.05	209.10	9.020	
21,500.00	12,517.00	21,399.45	12,544.00	150.42	149.59	90.82	-8,531.10	-448.57	1,886.16	1,674.83	211.33	8.925	
21,600.00	12,517.00	21,499.45	12,544.00	151.98	151.17	90.82	-8,631.10	-447.60	1,886.17	1,672.61	213.56	8.832	
21,700.00	12,517.00	21,599.45	12,544.00	153.55	152.74	90.82	-8,731.09	-446.62	1,886.17	1,670.38	215.79	8.741	
21,800.00	12,517.00	21,699.45	12,544.00	155.12	154.32	90.82	-8,831.09	-445.65	1,886.18	1,668.16	218.02	8.651	
21,900.00	12,517.00	21,799.45	12,544.00	156.69	155.90	90.82	-8,931.08	-444.67	1,886.19	1,665.93	220.26	8.564	
22,000.00	12,517.00	21,899.45	12,544.00	158.26	157.48	90.82	-9,031.08	-443.70	1,886.20	1,663.70	222.50	8.477	
22,100.00	12,517.00	21,999.45	12,544.00	159.84	159.07	90.82	-9,131.07	-442.72	1,886.21	1,661.47	224.73	8.393	
22,200.00	12,517.00	22,099.45	12,544.00	161.41	160.65	90.82	-9,231.07	-441.75	1,886.22	1,659.24	226.98	8.310	
22,300.00	12,517.00	22,199.45	12,544.00	162.99	162.24	90.82	-9,331.06	-440.77	1,886.22	1,657.01	229.22	8.229	
22,400.00	12,517.00	22,299.45	12,544.00	164.57	163.83	90.82	-9,431.06	-439.79	1,886.23	1,654.77	231.46	8.149	
22,500.00	12,517.00	22,399.45	12,544.00	166.14	165.41	90.82	-9,531.05	-438.82	1,886.24	1,652.53	233.71	8.071	
22,600.00	12,517.00	22,499.45	12,544.00	167.73	167.00	90.82	-9,631.05	-437.84	1,886.25	1,650.29	235.96	7.994	
22,700.00	12,517.00	22,599.45	12,544.00	169.31	168.59	90.82	-9,731.04	-436.87	1,886.26	1,648.05	238.21	7.918	
22,800.00	12,517.00	22,699.45	12,544.00	170.89	170.19	90.82	-9,831.04	-435.89	1,886.27	1,645.81	240.46	7.844	
22,900.00	12,517.00	22,715.49	12,544.00	172.48	170.44	90.82	-9,847.07	-435.74	1,888.14	1,647.03	241.11	7.831	
23,000.00	12,517.00	22,715.49	12,544.00	174.06	170.44	90.82	-9,847.07	-435.74	1,895.23	1,654.42	240.81	7.870	
23,100.00	12,517.00	22,715.49	12,544.00	175.65	170.44	90.82	-9,847.07	-435.74	1,907.55	1,667.71	239.84	7.953	
23,200.00	12,517.00	22,715.49	12,544.00	177.24	170.44	90.82	-9,847.07	-435.74	1,924.98	1,686.75	238.23	8.080	
23,300.00	12,517.00	22,715.49	12,544.00	178.83	170.44	90.82	-9,847.07	-435.74	1,947.40	1,711.37	236.04	8.250	
23,400.00	12,517.00	22,715.49	12,544.00	180.42	170.44	90.82	-9,847.07	-435.74	1,974.64	1,741.31	233.33	8.463	
23,500.00	12,517.00	22,715.49	12,544.00	182.01	170.44	90.82	-9,847.07	-435.74	2,006.50	1,776.32	230.18	8.717	
23,600.00	12,517.00	22,715.49	12,544.00	183.60	170.44	90.82	-9,847.07	-435.74	2,042.76	1,816.09	226.66	9.012	
23,700.00	12,517.00	22,715.49	12,544.00	185.20	170.44	90.82	-9,847.07	-435.74	2,083.19	1,860.34	222.85	9.348	
23,800.00	12,517.00	22,715.49	12,544.00	186.79	170.44	90.82	-9,847.07	-435.74	2,127.56	1,908.73	218.83	9.723	
23,900.00	12,517.00	22,715.49	12,544.00	188.39	170.44	90.82	-9,847.07	-435.74	2,175.62	1,960.98	214.65	10.136	
24,000.00	12,517.00	22,715.49	12,544.00	189.99	170.44	90.82	-9,847.07	-435.74	2,227.14	2,016.77	210.37	10.587	
24,100.00	12,517.00	22,715.49	12,544.00	191.58	170.44	90.82	-9,847.07	-435.74	2,281.88	2,075.83	206.05	11.074	
24,130.17	12,517.00	22,715.49	12,544.00	192.05	170.44	90.82	-9,847.07	-435.74	2,298.99	2,093.59	205.40	11.193	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
0.00	0.00	0.00	0.00	0.00	0.00	-90.54	-0.23	-24.78	24.78				
100.00	100.00	100.00	100.00	0.13	0.13	-90.54	-0.23	-24.78	24.78	24.60	0.18	139.662	
200.00	200.00	200.00	200.00	0.48	0.48	-90.54	-0.23	-24.78	24.78	24.10	0.68	36.209	
300.00	300.00	300.00	300.00	0.84	0.84	-90.54	-0.23	-24.78	24.78	23.59	1.19	20.801	
400.00	400.00	400.00	400.00	1.20	1.20	-90.54	-0.23	-24.78	24.78	23.08	1.70	14.592	
500.00	500.00	500.00	500.00	1.56	1.56	-90.54	-0.23	-24.78	24.78	22.58	2.21	11.237	
600.00	600.00	600.00	600.00	1.92	1.92	-90.54	-0.23	-24.78	24.78	22.07	2.71	9.137	
700.00	700.00	700.00	700.00	2.28	2.28	-90.54	-0.23	-24.78	24.78	21.56	3.22	7.698	
800.00	800.00	800.00	800.00	2.63	2.63	-90.54	-0.23	-24.78	24.78	21.05	3.73	6.651	
900.00	900.00	900.00	900.00	2.99	2.99	-90.54	-0.23	-24.78	24.78	20.55	4.23	5.854	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-90.54	-0.23	-24.78	24.78	20.04	4.74	5.228	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-90.54	-0.23	-24.78	24.78	19.53	5.25	4.723	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-90.54	-0.23	-24.78	24.78	19.03	5.75	4.307	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-90.54	-0.23	-24.78	24.78	18.52	6.26	3.958	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-90.54	-0.23	-24.78	24.78	18.01	6.77	3.662	
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	-90.54	-0.23	-24.78	24.78	17.51	7.27	3.406	
1,600.00	1,600.00	1,600.00	1,600.00	5.50	5.50	-90.54	-0.23	-24.78	24.78	17.00	7.78	3.184	CC, ES, SF
1,700.00	1,699.98	1,699.98	1,699.98	5.86	5.86	-158.74	-0.23	-24.78	26.40	18.11	8.28	3.186	
1,800.00	1,799.84	1,799.84	1,799.84	6.21	6.22	-162.18	-0.23	-24.78	31.33	22.55	8.78	3.567	
1,900.00	1,899.45	1,899.45	1,899.45	6.56	6.58	-165.99	-0.23	-24.78	39.72	30.44	9.28	4.278	
2,000.00	1,998.70	1,998.70	1,998.70	6.92	6.93	-169.22	-0.23	-24.78	51.63	41.85	9.78	5.277	
2,100.00	2,097.47	2,097.47	2,097.47	7.29	7.29	-171.67	-0.23	-24.78	67.07	56.79	10.28	6.523	
2,200.00	2,195.62	2,195.62	2,195.62	7.67	7.64	-173.47	-0.23	-24.78	86.00	75.22	10.78	7.978	
2,300.00	2,293.06	2,295.02	2,295.01	8.07	7.99	-174.37	0.80	-24.20	107.53	96.25	11.28	9.534	
2,357.10	2,348.32	2,351.87	2,351.83	8.31	8.20	-174.42	2.40	-23.30	120.52	108.95	11.56	10.422	
2,400.00	2,389.73	2,394.67	2,394.59	8.49	8.35	-174.31	4.09	-22.35	130.29	118.51	11.78	11.063	
2,500.00	2,486.26	2,495.03	2,494.74	8.92	8.71	-173.62	9.70	-19.20	151.74	139.47	12.27	12.364	
2,600.00	2,582.78	2,596.10	2,595.39	9.37	9.07	-172.48	17.66	-14.73	171.37	158.60	12.77	13.416	
2,700.00	2,679.31	2,697.35	2,695.95	9.83	9.43	-170.98	27.95	-8.96	189.24	175.96	13.28	14.251	
2,800.00	2,775.84	2,795.73	2,793.53	10.30	9.79	-169.58	38.83	-2.85	206.52	192.73	13.79	14.974	
2,900.00	2,872.37	2,894.11	2,891.12	10.78	10.15	-168.39	49.71	3.26	223.91	209.59	14.31	15.646	
3,000.00	2,968.90	2,992.49	2,988.70	11.27	10.52	-167.37	60.59	9.37	241.37	226.54	14.83	16.273	
3,100.00	3,065.43	3,090.87	3,086.29	11.76	10.88	-166.49	71.47	15.48	258.90	243.54	15.36	16.858	
3,200.00	3,161.95	3,189.25	3,183.87	12.25	11.25	-165.72	82.35	21.58	276.48	260.59	15.89	17.403	
3,300.00	3,258.48	3,287.63	3,281.46	12.76	11.62	-165.04	93.23	27.69	294.10	277.68	16.42	17.913	
3,400.00	3,355.01	3,386.00	3,379.04	13.26	12.00	-164.44	104.11	33.80	311.75	294.80	16.95	18.389	
3,500.00	3,451.54	3,484.38	3,476.63	13.77	12.37	-163.90	114.99	39.91	329.44	311.95	17.49	18.835	
3,600.00	3,548.07	3,582.76	3,574.21	14.29	12.75	-163.42	125.87	46.02	347.15	329.12	18.03	19.253	
3,700.00	3,644.59	3,681.14	3,671.79	14.80	13.13	-162.99	136.75	52.13	364.89	346.31	18.57	19.645	
3,800.00	3,741.12	3,779.52	3,769.38	15.32	13.50	-162.59	147.63	58.24	382.64	363.52	19.12	20.014	
3,900.00	3,837.65	3,877.90	3,866.96	15.84	13.88	-162.23	158.51	64.34	400.41	380.74	19.66	20.362	
4,000.00	3,934.18	3,976.28	3,964.55	16.37	14.27	-161.90	169.39	70.45	418.19	397.98	20.21	20.689	
4,100.00	4,030.71	4,074.66	4,062.13	16.90	14.65	-161.60	180.27	76.56	435.98	415.22	20.76	20.998	
4,200.00	4,127.24	4,173.04	4,159.72	17.42	15.03	-161.32	191.15	82.67	453.79	432.47	21.31	21.290	
4,300.00	4,223.76	4,271.42	4,257.30	17.95	15.42	-161.06	202.03	88.78	471.60	449.73	21.87	21.566	
4,400.00	4,320.29	4,369.80	4,354.89	18.49	15.80	-160.83	212.91	94.89	489.43	467.00	22.42	21.828	
4,500.00	4,416.82	4,468.17	4,452.47	19.02	16.19	-160.60	223.79	101.00	507.26	484.28	22.98	22.076	
4,600.00	4,513.35	4,566.55	4,550.06	19.55	16.58	-160.40	234.67	107.10	525.09	501.56	23.53	22.312	
4,700.00	4,609.88	4,664.93	4,647.64	20.09	16.96	-160.20	245.55	113.21	542.94	518.85	24.09	22.537	
4,800.00	4,706.40	4,763.31	4,745.23	20.62	17.35	-160.02	256.43	119.32	560.79	536.14	24.65	22.750	
4,900.00	4,802.93	4,861.69	4,842.81	21.16	17.74	-159.85	267.31	125.43	578.64	553.43	25.21	22.953	
5,000.00	4,899.46	4,960.07	4,940.39	21.70	18.13	-159.69	278.19	131.54	596.50	570.73	25.77	23.147	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
5,100.00	4,995.99	5,058.45	5,037.98	22.24	18.52	-159.54	289.07	137.65	614.37	588.03	26.33	23.332	
5,200.00	5,092.52	5,156.83	5,135.56	22.78	18.91	-159.40	299.95	143.76	632.23	605.34	26.89	23.508	
5,300.00	5,189.04	5,255.21	5,233.15	23.32	19.30	-159.27	310.83	149.86	650.10	622.65	27.46	23.677	
5,400.00	5,285.57	5,353.59	5,330.73	23.86	19.69	-159.14	321.71	155.97	667.98	639.96	28.02	23.839	
5,500.00	5,382.10	5,451.97	5,428.32	24.41	20.08	-159.02	332.60	162.08	685.86	657.27	28.58	23.994	
5,600.00	5,478.63	5,550.35	5,525.90	24.95	20.47	-158.91	343.48	168.19	703.74	674.59	29.15	24.142	
5,700.00	5,575.16	5,648.72	5,623.49	25.49	20.86	-158.80	354.36	174.30	721.62	691.90	29.72	24.284	
5,800.00	5,671.69	5,747.10	5,721.07	26.04	21.26	-158.69	365.24	180.41	739.50	709.22	30.28	24.421	
5,900.00	5,768.21	5,845.48	5,818.66	26.58	21.65	-158.60	376.12	186.52	757.39	726.54	30.85	24.552	
6,000.00	5,864.74	5,943.86	5,916.24	27.13	22.04	-158.50	387.00	192.62	775.28	743.86	31.42	24.678	
6,100.00	5,961.27	6,042.24	6,013.83	27.67	22.44	-158.41	397.88	198.73	793.17	761.19	31.98	24.800	
6,200.00	6,057.80	6,140.62	6,111.41	28.22	22.83	-158.33	408.76	204.84	811.06	778.51	32.55	24.917	
6,300.00	6,154.33	6,239.00	6,208.99	28.76	23.22	-158.24	419.64	210.95	828.96	795.84	33.12	25.029	
6,400.00	6,250.85	6,337.38	6,306.58	29.31	23.62	-158.17	430.52	217.06	846.85	813.17	33.69	25.138	
6,500.00	6,347.38	6,435.76	6,404.16	29.86	24.01	-158.09	441.40	223.17	864.75	830.49	34.26	25.243	
6,600.00	6,443.91	6,534.14	6,501.75	30.41	24.41	-158.02	452.28	229.28	882.65	847.82	34.83	25.344	
6,700.00	6,540.44	6,632.52	6,599.33	30.95	24.80	-157.95	463.16	235.38	900.55	865.15	35.40	25.441	
6,803.85	6,640.68	6,734.68	6,700.67	31.52	25.21	-157.88	474.46	241.73	919.14	883.15	35.99	25.539	
6,900.00	6,733.90	6,829.52	6,794.74	32.03	25.59	-157.90	484.95	247.62	934.88	898.34	36.54	25.587	
7,000.00	6,831.63	6,928.59	6,893.02	32.53	25.99	-157.82	495.90	253.77	948.12	911.02	37.11	25.551	
7,100.00	6,930.04	7,022.86	6,986.55	32.98	26.37	-157.67	506.15	259.52	958.29	920.64	37.65	25.454	
7,200.00	7,029.01	7,111.23	7,074.43	33.40	26.71	-157.54	514.22	264.05	966.25	928.10	38.14	25.332	
7,300.00	7,128.41	7,200.00	7,162.90	33.78	27.05	-157.43	520.55	267.61	972.16	933.54	38.62	25.172	
7,400.00	7,228.14	7,288.33	7,251.08	34.12	27.37	-157.34	525.07	270.14	976.02	936.95	39.07	24.981	
7,500.00	7,328.06	7,377.00	7,339.69	34.43	27.69	-157.28	527.82	271.69	977.83	938.33	39.50	24.754	
7,560.95	7,389.00	7,431.06	7,393.74	34.59	27.87	-90.49	528.61	272.13	977.92	938.16	39.75	24.600	
7,600.00	7,428.05	7,468.32	7,431.00	34.70	28.00	-90.48	528.77	272.22	977.82	937.90	39.92	24.492	
7,634.35	7,462.40	7,499.72	7,462.40	34.79	28.10	-90.48	528.77	272.22	977.81	937.75	40.06	24.406	
7,700.00	7,528.05	7,565.37	7,528.05	34.97	28.32	-90.48	528.77	272.22	977.81	937.45	40.37	24.223	
7,800.00	7,628.05	7,665.37	7,628.05	35.24	28.66	-90.48	528.77	272.22	977.81	936.98	40.83	23.948	
7,900.00	7,728.05	7,765.37	7,728.05	35.51	29.00	-90.48	528.77	272.22	977.81	936.52	41.29	23.680	
8,000.00	7,828.05	7,865.37	7,828.05	35.79	29.33	-90.48	528.77	272.22	977.81	936.06	41.76	23.416	
8,100.00	7,928.05	7,965.37	7,928.05	36.06	29.67	-90.48	528.77	272.22	977.81	935.59	42.22	23.158	
8,200.00	8,028.05	8,065.37	8,028.05	36.34	30.01	-90.48	528.77	272.22	977.81	935.13	42.69	22.905	
8,300.00	8,128.05	8,165.37	8,128.05	36.62	30.35	-90.48	528.77	272.22	977.81	934.66	43.16	22.657	
8,400.00	8,228.05	8,265.37	8,228.05	36.90	30.69	-90.48	528.77	272.22	977.81	934.19	43.62	22.414	
8,500.00	8,328.05	8,365.37	8,328.05	37.18	31.03	-90.48	528.77	272.22	977.81	933.72	44.09	22.176	
8,600.00	8,428.05	8,465.37	8,428.05	37.46	31.36	-90.48	528.77	272.22	977.81	933.25	44.56	21.942	
8,700.00	8,528.05	8,565.37	8,528.05	37.75	31.71	-90.48	528.77	272.22	977.81	932.78	45.03	21.713	
8,800.00	8,628.05	8,665.37	8,628.05	38.03	32.05	-90.48	528.77	272.22	977.81	932.31	45.51	21.488	
8,900.00	8,728.05	8,765.37	8,728.05	38.32	32.39	-90.48	528.77	272.22	977.81	931.84	45.98	21.267	
9,000.00	8,828.05	8,865.37	8,828.05	38.61	32.73	-90.48	528.77	272.22	977.81	931.36	46.45	21.051	
9,100.00	8,928.05	8,965.37	8,928.05	38.89	33.07	-90.48	528.77	272.22	977.81	930.89	46.92	20.838	
9,200.00	9,028.05	9,065.37	9,028.05	39.18	33.41	-90.48	528.77	272.22	977.81	930.42	47.40	20.630	
9,300.00	9,128.05	9,165.37	9,128.05	39.47	33.75	-90.48	528.77	272.22	977.81	929.94	47.87	20.425	
9,400.00	9,228.05	9,265.37	9,228.05	39.77	34.10	-90.48	528.77	272.22	977.81	929.47	48.35	20.224	
9,500.00	9,328.05	9,365.37	9,328.05	40.06	34.44	-90.48	528.77	272.22	977.81	928.99	48.82	20.027	
9,600.00	9,428.05	9,465.37	9,428.05	40.35	34.78	-90.48	528.77	272.22	977.81	928.51	49.30	19.833	
9,700.00	9,528.05	9,565.37	9,528.05	40.65	35.13	-90.48	528.77	272.22	977.81	928.04	49.78	19.643	
9,800.00	9,628.05	9,665.37	9,628.05	40.95	35.47	-90.48	528.77	272.22	977.81	927.56	50.26	19.456	
9,900.00	9,728.05	9,765.37	9,728.05	41.24	35.82	-90.48	528.77	272.22	977.81	927.08	50.74	19.273	
10,000.00	9,828.05	9,865.37	9,828.05	41.54	36.16	-90.48	528.77	272.22	977.81	926.60	51.21	19.093	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
10,100.00	9,928.05	9,965.37	9,928.05	41.84	36.50	-90.48	528.77	272.22	977.81	926.12	51.69	18.915	
10,200.00	10,028.05	10,065.37	10,028.05	42.14	36.85	-90.48	528.77	272.22	977.81	925.64	52.17	18.741	
10,300.00	10,128.05	10,165.37	10,128.05	42.44	37.19	-90.48	528.77	272.22	977.81	925.16	52.65	18.570	
10,400.00	10,228.05	10,265.37	10,228.05	42.74	37.54	-90.48	528.77	272.22	977.81	924.68	53.14	18.402	
10,500.00	10,328.05	10,365.37	10,328.05	43.05	37.89	-90.48	528.77	272.22	977.81	924.20	53.62	18.237	
10,600.00	10,428.05	10,465.37	10,428.05	43.35	38.23	-90.48	528.77	272.22	977.81	923.71	54.10	18.074	
10,700.00	10,528.05	10,565.37	10,528.05	43.65	38.58	-90.48	528.77	272.22	977.81	923.23	54.58	17.915	
10,800.00	10,628.05	10,665.37	10,628.05	43.96	38.92	-90.48	528.77	272.22	977.81	922.75	55.07	17.757	
10,900.00	10,728.05	10,765.37	10,728.05	44.27	39.27	-90.48	528.77	272.22	977.81	922.27	55.55	17.603	
11,000.00	10,828.05	10,865.37	10,828.05	44.57	39.62	-90.48	528.77	272.22	977.81	921.78	56.03	17.451	
11,100.00	10,928.05	10,965.37	10,928.05	44.88	39.97	-90.48	528.77	272.22	977.81	921.30	56.52	17.301	
11,200.00	11,028.05	11,065.37	11,028.05	45.19	40.31	-90.48	528.77	272.22	977.81	920.81	57.00	17.154	
11,300.00	11,128.05	11,165.37	11,128.05	45.50	40.66	-90.48	528.77	272.22	977.81	920.33	57.49	17.010	
11,400.00	11,228.05	11,265.37	11,228.05	45.81	41.01	-90.48	528.77	272.22	977.81	919.84	57.97	16.867	
11,500.00	11,328.05	11,365.37	11,328.05	46.12	41.36	-90.48	528.77	272.22	977.81	919.36	58.46	16.727	
11,600.00	11,428.05	11,465.37	11,428.05	46.43	41.70	-90.48	528.77	272.22	977.81	918.87	58.94	16.589	
11,700.00	11,528.05	11,565.37	11,528.05	46.74	42.05	-90.48	528.77	272.22	977.81	918.38	59.43	16.453	
11,800.00	11,628.05	11,665.37	11,628.05	47.05	42.40	-90.48	528.77	272.22	977.81	917.90	59.92	16.320	
11,900.00	11,728.05	11,765.37	11,728.05	47.37	42.75	-90.48	528.77	272.22	977.81	917.41	60.40	16.188	
12,000.00	11,828.05	11,865.37	11,828.05	47.68	43.10	-90.48	528.77	272.22	977.81	916.92	60.89	16.058	
12,100.00	11,928.05	11,982.73	11,945.22	48.00	43.48	-90.75	524.26	272.91	977.32	915.89	61.43	15.909	
12,115.99	11,944.04	12,003.44	11,965.71	48.05	43.54	-90.92	521.31	273.36	977.00	915.49	61.52	15.882	
12,150.00	11,978.03	12,046.90	12,008.30	48.15	43.65	96.73	512.76	274.67	976.22	914.55	61.67	15.830	
12,200.00	12,027.75	12,109.50	12,068.20	48.28	43.80	96.16	494.90	277.40	974.96	913.10	61.86	15.762	
12,250.00	12,076.83	12,170.49	12,124.33	48.41	43.93	95.55	471.39	281.00	973.62	911.61	62.01	15.700	
12,300.00	12,124.90	12,229.83	12,176.21	48.53	44.03	94.90	442.99	285.35	972.26	910.12	62.14	15.645	
12,350.00	12,171.60	12,287.52	12,223.54	48.63	44.11	94.22	410.43	290.33	970.92	908.66	62.26	15.596	
12,400.00	12,216.56	12,343.59	12,266.16	48.72	44.18	93.52	374.43	295.84	969.63	907.28	62.35	15.550	
12,450.00	12,259.45	12,398.11	12,303.98	48.80	44.22	92.80	335.64	301.77	968.43	905.99	62.44	15.510	
12,500.00	12,299.94	12,451.15	12,337.04	48.87	44.25	92.07	294.67	308.04	967.35	904.83	62.52	15.474	
12,550.00	12,337.72	12,502.78	12,365.41	48.93	44.27	91.33	252.05	314.56	966.40	903.81	62.58	15.442	
12,600.00	12,372.50	12,553.11	12,389.21	48.97	44.29	90.59	208.24	321.27	965.60	902.96	62.64	15.414	
12,650.00	12,404.03	12,602.21	12,408.60	49.00	44.29	89.86	163.66	328.09	964.96	902.27	62.69	15.392	
12,700.00	12,432.05	12,650.00	12,423.70	49.03	44.30	89.14	118.85	334.95	964.48	901.75	62.74	15.374	
12,750.00	12,456.36	12,697.13	12,434.85	49.05	44.31	88.43	73.60	341.87	964.16	901.39	62.77	15.360	
12,800.00	12,476.77	12,743.12	12,442.06	49.06	44.34	87.73	28.71	348.74	963.99	901.19	62.80	15.350	
12,838.56	12,489.74	12,777.99	12,445.08	49.07	44.37	87.21	-5.62	353.99	963.95	901.13	62.81	15.346	
12,850.00	12,493.12	12,788.24	12,445.57	49.07	44.39	87.06	-15.74	355.54	963.95	901.13	62.82	15.345	
12,900.00	12,505.30	12,828.72	12,446.00	49.09	44.45	86.48	-55.76	361.61	964.09	901.25	62.84	15.342	
12,950.00	12,513.20	12,865.67	12,446.00	49.11	44.52	86.08	-92.35	366.72	964.64	901.76	62.88	15.342	
13,000.00	12,516.77	12,900.00	12,446.00	49.13	44.59	85.83	-126.41	371.06	965.57	902.64	62.93	15.343	
13,015.99	12,517.00	12,914.94	12,446.00	49.14	44.62	85.78	-141.24	372.82	965.94	902.97	62.97	15.340	
13,100.00	12,517.00	12,977.78	12,446.00	49.21	44.77	85.79	-203.74	379.36	967.66	904.52	63.14	15.325	
13,200.00	12,517.00	13,052.57	12,446.00	49.32	44.98	85.80	-278.28	385.36	968.91	905.52	63.39	15.286	
13,300.00	12,517.00	13,127.34	12,446.00	49.47	45.21	85.80	-352.94	389.42	969.28	905.61	63.67	15.225	
13,387.80	12,517.00	13,200.00	12,446.00	49.62	45.46	85.80	-425.57	391.49	968.91	904.94	63.97	15.147	
13,400.00	12,517.00	13,200.00	12,446.00	49.64	45.46	85.80	-425.57	391.49	968.80	904.83	63.97	15.145	
13,420.15	12,517.00	13,217.18	12,446.00	49.68	45.52	85.80	-442.75	391.71	968.74	904.69	64.05	15.125	
13,500.00	12,517.00	13,297.03	12,446.00	49.86	45.83	85.80	-522.59	392.50	968.74	904.30	64.44	15.034	
13,600.00	12,517.00	13,397.03	12,446.00	50.14	46.26	85.80	-622.59	393.48	968.74	903.74	65.00	14.904	
13,700.00	12,517.00	13,497.03	12,446.00	50.48	46.74	85.80	-722.58	394.46	968.74	903.10	65.64	14.758	
13,800.00	12,517.00	13,597.03	12,446.00	50.88	47.27	85.80	-822.58	395.45	968.74	902.39	66.36	14.599	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
13,900.00	12,517.00	13,697.03	12,446.00	51.34	47.85	85.80	-922.57	396.43	968.74	901.60	67.15	14.427	
14,000.00	12,517.00	13,797.03	12,446.00	51.86	48.48	85.80	-1,022.57	397.41	968.74	900.74	68.01	14.245	
14,100.00	12,517.00	13,897.03	12,446.00	52.43	49.16	85.80	-1,122.56	398.40	968.74	899.81	68.93	14.054	
14,200.00	12,517.00	13,997.03	12,446.00	53.06	49.88	85.80	-1,222.56	399.38	968.74	898.82	69.92	13.854	
14,300.00	12,517.00	14,097.03	12,446.00	53.74	50.64	85.80	-1,322.56	400.37	968.74	897.76	70.98	13.648	
14,400.00	12,517.00	14,197.03	12,446.00	54.46	51.44	85.80	-1,422.55	401.35	968.74	896.65	72.09	13.437	
14,500.00	12,517.00	14,297.03	12,446.00	55.23	52.29	85.80	-1,522.55	402.33	968.74	895.48	73.26	13.223	
14,600.00	12,517.00	14,397.03	12,446.00	56.04	53.17	85.80	-1,622.54	403.32	968.74	894.25	74.49	13.005	
14,700.00	12,517.00	14,497.03	12,446.00	56.89	54.08	85.80	-1,722.54	404.30	968.74	892.98	75.77	12.786	
14,800.00	12,517.00	14,597.03	12,446.00	57.77	55.04	85.80	-1,822.53	405.28	968.74	891.65	77.09	12.566	
14,900.00	12,517.00	14,697.03	12,446.00	58.69	56.02	85.80	-1,922.53	406.27	968.74	890.28	78.47	12.346	
15,000.00	12,517.00	14,797.03	12,446.00	59.64	57.03	85.80	-2,022.52	407.25	968.74	888.86	79.89	12.127	
15,100.00	12,517.00	14,897.03	12,446.00	60.63	58.08	85.80	-2,122.52	408.24	968.74	887.40	81.34	11.909	
15,200.00	12,517.00	14,997.03	12,446.00	61.64	59.15	85.80	-2,222.51	409.22	968.74	885.90	82.84	11.694	
15,300.00	12,517.00	15,097.03	12,446.00	62.68	60.24	85.80	-2,322.51	410.20	968.75	884.37	84.38	11.481	
15,400.00	12,517.00	15,197.03	12,446.00	63.75	61.36	85.80	-2,422.50	411.19	968.75	882.79	85.95	11.271	
15,500.00	12,517.00	15,297.03	12,446.00	64.84	62.51	85.80	-2,522.50	412.17	968.75	881.19	87.56	11.064	
15,600.00	12,517.00	15,397.03	12,446.00	65.96	63.68	85.80	-2,622.49	413.15	968.75	879.55	89.19	10.861	
15,700.00	12,517.00	15,497.03	12,446.00	67.10	64.86	85.80	-2,722.49	414.14	968.75	877.88	90.86	10.662	
15,800.00	12,517.00	15,597.03	12,446.00	68.26	66.07	85.80	-2,822.48	415.12	968.75	876.19	92.56	10.466	
15,900.00	12,517.00	15,697.03	12,446.00	69.44	67.30	85.80	-2,922.48	416.11	968.75	874.46	94.28	10.275	
16,000.00	12,517.00	15,797.03	12,446.00	70.64	68.54	85.80	-3,022.47	417.09	968.75	872.71	96.03	10.088	
16,100.00	12,517.00	15,897.03	12,446.00	71.85	69.80	85.80	-3,122.47	418.07	968.75	870.94	97.80	9.905	
16,200.00	12,517.00	15,997.03	12,446.00	73.09	71.08	85.80	-3,222.46	419.06	968.75	869.15	99.60	9.726	
16,300.00	12,517.00	16,097.03	12,446.00	74.34	72.37	85.80	-3,322.46	420.04	968.75	867.33	101.42	9.552	
16,400.00	12,517.00	16,197.03	12,446.00	75.60	73.68	85.80	-3,422.45	421.02	968.75	865.49	103.26	9.382	
16,500.00	12,517.00	16,297.03	12,446.00	76.88	75.00	85.80	-3,522.45	422.01	968.75	863.63	105.11	9.216	
16,600.00	12,517.00	16,397.03	12,446.00	78.18	76.33	85.80	-3,622.44	422.99	968.75	861.76	106.99	9.055	
16,700.00	12,517.00	16,497.03	12,446.00	79.49	77.68	85.80	-3,722.44	423.98	968.75	859.86	108.88	8.897	
16,800.00	12,517.00	16,597.03	12,446.00	80.81	79.04	85.80	-3,822.43	424.96	968.75	857.96	110.79	8.744	
16,900.00	12,517.00	16,697.03	12,446.00	82.14	80.41	85.80	-3,922.43	425.94	968.75	856.03	112.72	8.594	
17,000.00	12,517.00	16,797.03	12,446.00	83.48	81.78	85.80	-4,022.42	426.93	968.75	854.09	114.66	8.449	
17,100.00	12,517.00	16,897.03	12,446.00	84.84	83.17	85.80	-4,122.42	427.91	968.75	852.14	116.61	8.307	
17,200.00	12,517.00	16,997.03	12,446.00	86.20	84.57	85.80	-4,222.41	428.89	968.75	850.17	118.58	8.170	
17,300.00	12,517.00	17,097.03	12,446.00	87.58	85.98	85.80	-4,322.41	429.88	968.75	848.19	120.56	8.035	
17,400.00	12,517.00	17,197.03	12,446.00	88.96	87.39	85.80	-4,422.41	430.86	968.75	846.19	122.55	7.905	
17,500.00	12,517.00	17,297.03	12,446.00	90.35	88.82	85.80	-4,522.40	431.85	968.75	844.19	124.56	7.777	
17,600.00	12,517.00	17,397.03	12,446.00	91.75	90.25	85.80	-4,622.40	432.83	968.75	842.17	126.58	7.654	
17,700.00	12,517.00	17,497.03	12,446.00	93.16	91.69	85.80	-4,722.39	433.81	968.75	840.15	128.60	7.533	
17,800.00	12,517.00	17,597.03	12,446.00	94.58	93.13	85.80	-4,822.39	434.80	968.75	838.11	130.64	7.415	
17,900.00	12,517.00	17,697.03	12,446.00	96.01	94.58	85.80	-4,922.38	435.78	968.75	836.06	132.68	7.301	
18,000.00	12,517.00	17,797.03	12,446.00	97.44	96.04	85.80	-5,022.38	436.76	968.75	834.01	134.74	7.190	
18,100.00	12,517.00	17,897.03	12,446.00	98.88	97.51	85.80	-5,122.37	437.75	968.75	831.95	136.80	7.081	
18,200.00	12,517.00	17,997.03	12,446.00	100.32	98.98	85.80	-5,222.37	438.73	968.75	829.87	138.88	6.976	
18,300.00	12,517.00	18,097.03	12,446.00	101.78	100.45	85.80	-5,322.36	439.72	968.75	827.79	140.96	6.873	
18,400.00	12,517.00	18,197.03	12,446.00	103.23	101.94	85.80	-5,422.36	440.70	968.75	825.71	143.05	6.772	
18,500.00	12,517.00	18,297.03	12,446.00	104.70	103.42	85.80	-5,522.35	441.68	968.75	823.61	145.14	6.675	
18,600.00	12,517.00	18,397.03	12,446.00	106.17	104.92	85.80	-5,622.35	442.67	968.75	821.51	147.24	6.579	
18,700.00	12,517.00	18,497.03	12,446.00	107.64	106.41	85.80	-5,722.34	443.65	968.75	819.40	149.35	6.486	
18,800.00	12,517.00	18,597.03	12,446.00	109.12	107.91	85.80	-5,822.34	444.63	968.75	817.29	151.47	6.396	
18,900.00	12,517.00	18,697.03	12,446.00	110.60	109.42	85.80	-5,922.33	445.62	968.75	815.16	153.59	6.307	
19,000.00	12,517.00	18,797.03	12,446.00	112.09	110.93	85.80	-6,022.33	446.60	968.75	813.04	155.71	6.221	

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 PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 PF Fed Com - PF 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
19,100.00	12,517.00	18,897.03	12,446.00	113.59	112.44	85.80	-6,122.32	447.59	968.75	810.90	157.85	6.137	
19,200.00	12,517.00	18,997.03	12,446.00	115.08	113.96	85.80	-6,222.32	448.57	968.75	808.77	159.99	6.055	
19,300.00	12,517.00	19,097.03	12,446.00	116.59	115.48	85.80	-6,322.31	449.55	968.75	806.62	162.13	5.975	
19,400.00	12,517.00	19,197.03	12,446.00	118.09	117.01	85.80	-6,422.31	450.54	968.75	804.47	164.28	5.897	
19,500.00	12,517.00	19,297.03	12,446.00	119.60	118.53	85.80	-6,522.30	451.52	968.75	802.32	166.43	5.821	
19,600.00	12,517.00	19,397.03	12,446.00	121.11	120.06	85.80	-6,622.30	452.50	968.75	800.16	168.59	5.746	
19,700.00	12,517.00	19,497.03	12,446.00	122.63	121.60	85.80	-6,722.29	453.49	968.75	798.00	170.75	5.673	
19,800.00	12,517.00	19,597.03	12,446.00	124.15	123.14	85.80	-6,822.29	454.47	968.75	795.84	172.92	5.602	
19,900.00	12,517.00	19,697.03	12,446.00	125.67	124.68	85.80	-6,922.28	455.46	968.75	793.66	175.09	5.533	
20,000.00	12,517.00	19,797.03	12,446.00	127.20	126.22	85.80	-7,022.28	456.44	968.75	791.49	177.26	5.465	
20,100.00	12,517.00	19,897.03	12,446.00	128.73	127.77	85.80	-7,122.27	457.42	968.75	789.31	179.44	5.399	
20,200.00	12,517.00	19,997.03	12,446.00	130.26	129.31	85.80	-7,222.27	458.41	968.75	787.13	181.62	5.334	
20,300.00	12,517.00	20,097.03	12,446.00	131.80	130.87	85.80	-7,322.26	459.39	968.75	784.94	183.81	5.270	
20,400.00	12,517.00	20,197.03	12,446.00	133.34	132.42	85.80	-7,422.26	460.37	968.75	782.76	186.00	5.208	
20,500.00	12,517.00	20,297.03	12,446.00	134.88	133.97	85.80	-7,522.26	461.36	968.75	780.56	188.19	5.148	
20,600.00	12,517.00	20,397.03	12,446.00	136.42	135.53	85.80	-7,622.25	462.34	968.75	778.37	190.39	5.088	
20,700.00	12,517.00	20,497.03	12,446.00	137.97	137.09	85.80	-7,722.25	463.33	968.75	776.17	192.58	5.030	
20,800.00	12,517.00	20,597.03	12,446.00	139.52	138.65	85.80	-7,822.24	464.31	968.76	773.97	194.79	4.973	
20,900.00	12,517.00	20,697.03	12,446.00	141.07	140.22	85.80	-7,922.24	465.29	968.76	771.76	196.99	4.918	
21,000.00	12,517.00	20,797.03	12,446.00	142.62	141.79	85.80	-8,022.23	466.28	968.76	769.56	199.20	4.863	
21,100.00	12,517.00	20,897.03	12,446.00	144.18	143.35	85.80	-8,122.23	467.26	968.76	767.35	201.41	4.810	
21,200.00	12,517.00	20,997.03	12,446.00	145.73	144.92	85.80	-8,222.22	468.24	968.76	765.14	203.62	4.758	
21,300.00	12,517.00	21,097.03	12,446.00	147.29	146.50	85.80	-8,322.22	469.23	968.76	762.92	205.83	4.706	
21,400.00	12,517.00	21,197.03	12,446.00	148.85	148.07	85.80	-8,422.21	470.21	968.76	760.70	208.05	4.656	
21,500.00	12,517.00	21,297.03	12,446.00	150.42	149.64	85.80	-8,522.21	471.20	968.76	758.48	210.27	4.607	
21,600.00	12,517.00	21,397.03	12,446.00	151.98	151.22	85.80	-8,622.20	472.18	968.76	756.26	212.49	4.559	
21,700.00	12,517.00	21,497.03	12,446.00	153.55	152.80	85.80	-8,722.20	473.16	968.76	754.04	214.72	4.512	
21,800.00	12,517.00	21,597.03	12,446.00	155.12	154.38	85.80	-8,822.19	474.15	968.76	751.81	216.94	4.465	
21,900.00	12,517.00	21,697.03	12,446.00	156.69	155.96	85.80	-8,922.19	475.13	968.76	749.58	219.17	4.420	
22,000.00	12,517.00	21,797.03	12,446.00	158.26	157.54	85.80	-9,022.18	476.11	968.76	747.35	221.40	4.376	
22,100.00	12,517.00	21,897.03	12,446.00	159.84	159.13	85.80	-9,122.18	477.10	968.76	745.12	223.64	4.332	
22,200.00	12,517.00	21,997.03	12,446.00	161.41	160.71	85.80	-9,222.17	478.08	968.76	742.89	225.87	4.289	
22,300.00	12,517.00	22,097.03	12,446.00	162.99	162.30	85.80	-9,322.17	479.07	968.76	740.65	228.11	4.247	
22,400.00	12,517.00	22,197.03	12,446.00	164.57	163.89	85.80	-9,422.16	480.05	968.76	738.41	230.34	4.206	
22,500.00	12,517.00	22,297.03	12,446.00	166.14	165.48	85.80	-9,522.16	481.03	968.76	736.17	232.58	4.165	
22,600.00	12,517.00	22,397.03	12,446.00	167.73	167.07	85.80	-9,622.15	482.02	968.76	733.93	234.83	4.125	
22,700.00	12,517.00	22,497.03	12,446.00	169.31	168.66	85.80	-9,722.15	483.00	968.76	731.69	237.07	4.086	
22,800.00	12,517.00	22,597.03	12,446.00	170.89	170.26	85.80	-9,822.14	483.98	968.76	729.45	239.31	4.048	
22,900.00	12,517.00	22,697.03	12,446.00	172.48	171.85	85.80	-9,922.14	484.97	968.76	727.20	241.56	4.010	
23,000.00	12,517.00	22,797.03	12,446.00	174.06	173.44	85.80	-10,022.13	485.95	968.76	724.95	243.80	3.974	
23,100.00	12,517.00	22,897.03	12,446.00	175.65	175.04	85.80	-10,122.13	486.94	968.76	722.71	246.05	3.937	
23,200.00	12,517.00	22,997.03	12,446.00	177.24	176.64	85.80	-10,222.12	487.92	968.76	720.46	248.30	3.902	
23,300.00	12,517.00	23,097.03	12,446.00	178.83	178.24	85.80	-10,322.12	488.90	968.76	718.20	250.56	3.866	
23,400.00	12,517.00	23,197.03	12,446.00	180.42	179.84	85.80	-10,422.11	489.89	968.76	715.95	252.81	3.832	
23,500.00	12,517.00	23,297.03	12,446.00	182.01	181.44	85.80	-10,522.11	490.87	968.76	713.70	255.06	3.798	
23,600.00	12,517.00	23,397.03	12,446.00	183.60	183.04	85.80	-10,622.11	491.86	968.76	711.44	257.32	3.765	
23,700.00	12,517.00	23,497.03	12,446.00	185.20	184.64	85.80	-10,722.10	492.84	968.76	709.19	259.57	3.732	
23,800.00	12,517.00	23,597.03	12,446.00	186.79	186.24	85.80	-10,822.10	493.82	968.76	706.93	261.83	3.700	
23,900.00	12,517.00	23,697.03	12,446.00	188.39	187.84	85.80	-10,922.09	494.81	968.76	704.67	264.09	3.668	
24,000.00	12,517.00	23,797.03	12,446.00	189.99	189.45	85.80	-11,022.09	495.79	968.76	702.41	266.35	3.637	
24,100.00	12,517.00	23,897.03	12,446.00	191.58	191.05	85.80	-11,122.08	496.77	968.76	700.15	268.61	3.607	
24,130.17	12,517.00	23,927.19	12,446.00	192.05	191.54	85.80	-11,152.24	497.07	968.76	699.51	269.25	3.598	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

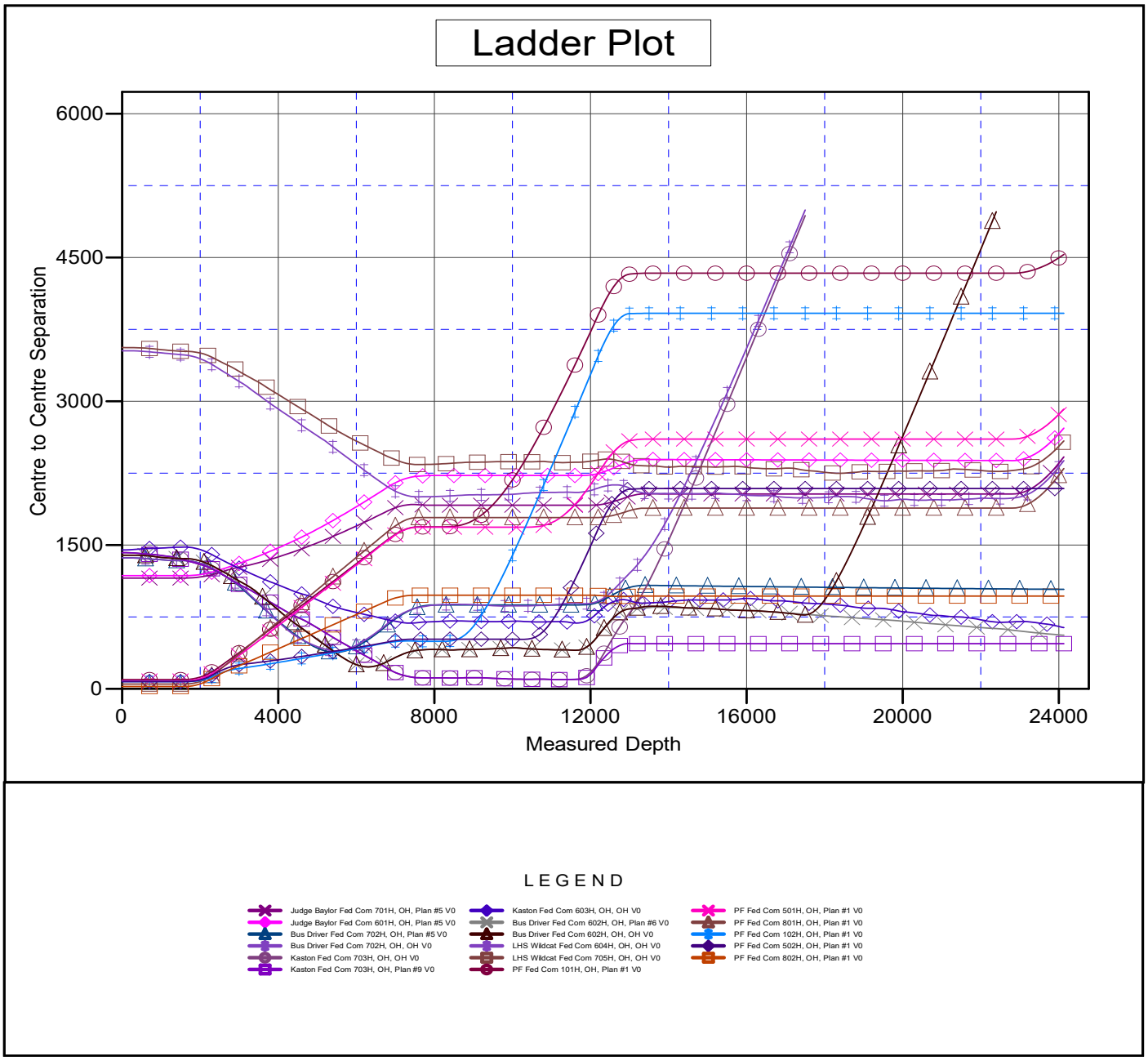
Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 3053' GE + 30' KB @ 3083.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: PF Fed Com 803H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°



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

Total Directional Services

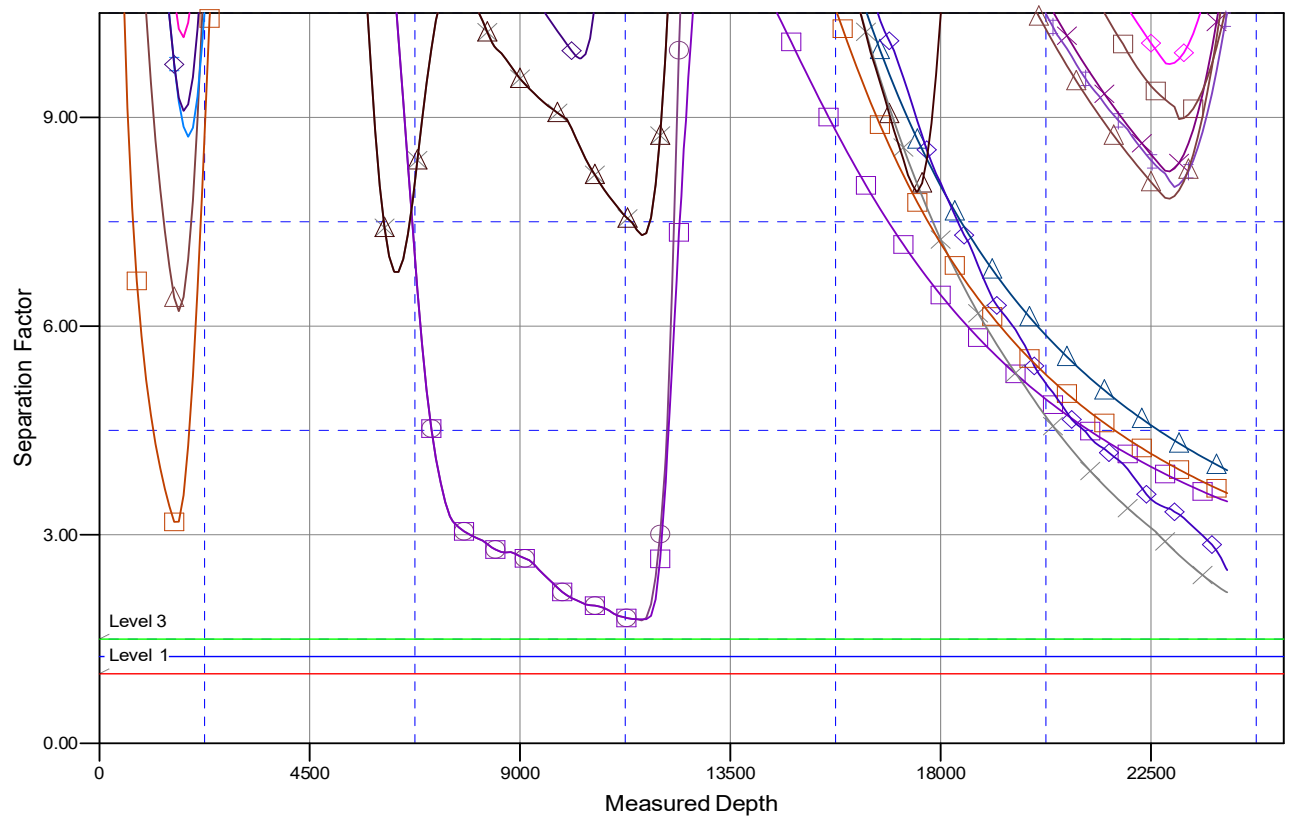
Anticollision Report

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well PF Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3053' GE + 30' KB @ 3083.00usft
Reference Site:	PF Fed Com	**MD Reference:**	3053' GE + 30' KB @ 3083.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	PF Fed Com 803H	**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 3053' GE + 30' KB @ 3083.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: PF Fed Com 803H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

Judge Baylor Fed Com 701H, OH, Plan #5 V0
Judge Baylor Fed Com 601H, OH, Plan #5 V0
Bus Driver Fed Com 702H, OH, Plan #5 V0
Bus Driver Fed Com 702H, OH, OH V0
Kaston Fed Com 703H, OH, OH V0
Kaston Fed Com 703H, OH, Plan #9 V0
Kaston Fed Com 603H, OH, OH V0
Bus Driver Fed Com 602H, OH, Plan #6 V0
Bus Driver Fed Com 602H, OH, OH V0
LHS Wildcat Fed Com 604H, OH, OH V0
LHS Wildcat Fed Com 705H, OH, OH V0
PF Fed Com 101H, OH, Plan #1 V0
PF Fed Com 501H, OH, Plan #1 V0
PF Fed Com 801H, OH, Plan #1 V0
PF Fed Com 102H, OH, Plan #1 V0
PF Fed Com 502H, OH, Plan #1 V0
PF Fed Com 802H, OH, Plan #1 V0

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

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Franklin Mountain Energy, LLC
LEASE NO.:	NMNM117126, NMNM12280, NMNM119761, NMNM130330
COUNTY:	Lea County

Wells:

Paul Foster MH West Pad 1	
Paul Foster Fed Com 101H	**650 FNL, 1,268 FWL**
Paul Foster Fed Com 102H	**650 FNL, 1,343 FWL**
Paul Foster Fed Com 501H	**650 FNL, 1,293 FWL**
Paul Foster Fed Com 502H	**650 FNL, 1,318 FWL**
Paul Foster Fed Com 801H	**575 FNL, 1,281 FWL**
Paul Foster Fed Com 802H	**575 FNL, 1,306 FWL**
Paul Foster Fed Com 803H	**575 FNL, 1,331 FWL**
Paul Foster MH East Pad 2	
Paul Foster Fed Com 103H	**285 FNL, 1,125 FEL**
Paul Foster Fed Com 104H	**285 FNL, 1,050 FEL**
Paul Foster Fed Com 503H	**285 FNL, 1,100 FEL**
Paul Foster Fed Com 504H	**285 FNL, 1,075 FEL**
Paul Foster Fed Com 804H	**210 FNL, 1,112 FEL**
Paul Foster Fed Com 805H	**210 FNL, 1,087 FEL**
Paul Foster Fed Com 806H	**210 FNL, 1,062 FEL**

Approval Date: 03/07/2022

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

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

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

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

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

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

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

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

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

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

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

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

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching:

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

VRM IV:

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

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

Approval Date: 03/07/2022

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

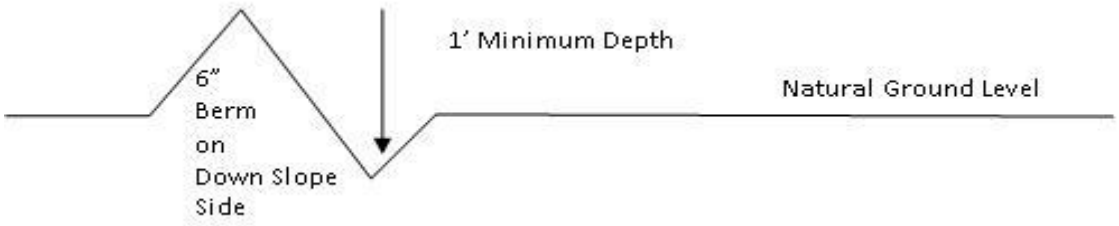
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

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

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

Construction Steps

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

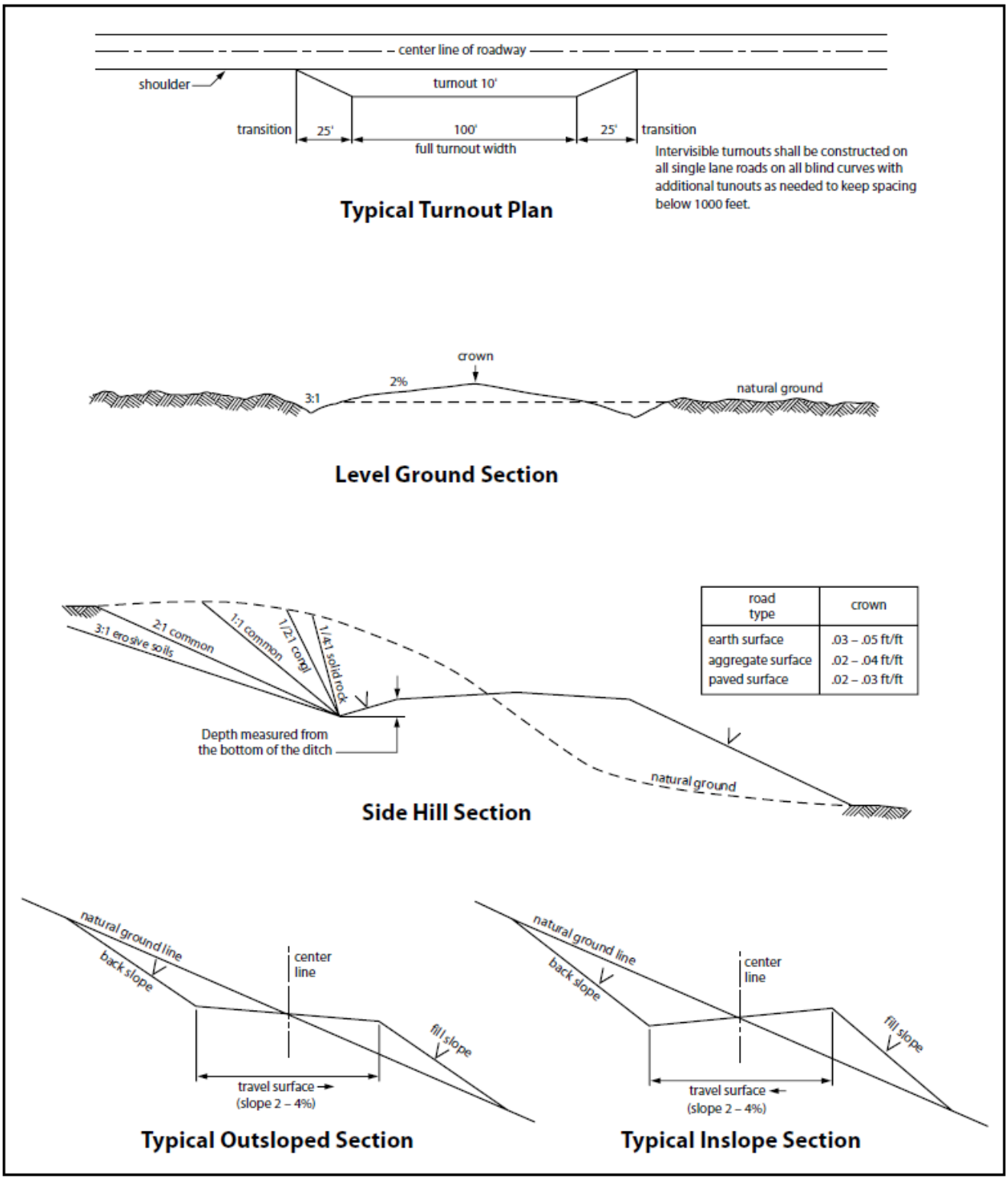


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

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

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

B. PIPELINES

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

BURIED PIPELINE STIPULATIONS

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

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the

Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

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Seed Mixture 2, for Sandy Sites

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

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

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

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

*Pounds of pure live seed:

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

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PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM117126**
LOCATION:	Section 1, T.26 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico
Sundry ID:	**N/A**

WELL NAME & NO.:	**PF Fed Com 101H**
SURFACE HOLE FOOTAGE:	650'/N & 1268'/W
BOTTOM HOLE FOOTAGE	150'/S & 900'/W

WELL NAME & NO.:	**PF Fed Com 102H**
SURFACE HOLE FOOTAGE:	650'/N & 1343'/W
BOTTOM HOLE FOOTAGE	1170'/N & 2100'/W

WELL NAME & NO.:	**PF Fed Com 103H**
SURFACE HOLE FOOTAGE:	285'/N & 1125'/E
BOTTOM HOLE FOOTAGE	1170'/N & 1880'/E

WELL NAME & NO.:	**PF Fed Com 501H**
SURFACE HOLE FOOTAGE:	650'/N & 1293'/W
BOTTOM HOLE FOOTAGE	150'/S & 900'/W

WELL NAME & NO.:	**PF Fed Com 502H**
SURFACE HOLE FOOTAGE:	650'/N & 1318'/W
BOTTOM HOLE FOOTAGE	1170'/N & 2100'/W

WELL NAME & NO.:	**PF Fed Com 504H**
SURFACE HOLE FOOTAGE:	285'/N & 1075'/E
BOTTOM HOLE FOOTAGE	150'/S & 380'/E

WELL NAME & NO.:	**PF Fed Com 801H**
SURFACE HOLE FOOTAGE:	575'/N & 1281'/W
BOTTOM HOLE FOOTAGE	150'/S & 800'/W

WELL NAME & NO.:	**PF Fed Com 802H**
SURFACE HOLE FOOTAGE:	575'/N & 1306'/W
BOTTOM HOLE FOOTAGE	1170'/N & 1720'/W

WELL NAME & NO.:	**PF Fed Com 803H**
SURFACE HOLE FOOTAGE:	575'/N & 1331'/W
BOTTOM HOLE FOOTAGE	1170'/N & 2600'/E

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WELL NAME & NO.:	**PF Fed Com 804H**
SURFACE HOLE FOOTAGE:	210'/N & 1112'/E
BOTTOM HOLE FOOTAGE	1170'/N & 1680'/E

WELL NAME & NO.:	**PF Fed Com 805H**
SURFACE HOLE FOOTAGE:	210'/N & 1087'/E
BOTTOM HOLE FOOTAGE	150'/S & 780'/E

WELL NAME & NO.:	**PF Fed Com 806H**
SURFACE HOLE FOOTAGE:	210'/N & 1062'/E
BOTTOM HOLE FOOTAGE	150'/S & 380'/E

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.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **970 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

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survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

Option 1 (Single Stage):

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

Option 2:

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

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

b. Second stage above DV tool:

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

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

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

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

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

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

C. PRESSURE CONTROL

1.

Option 1:

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **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: 03/07/2022

A. CASING

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

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

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

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

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

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

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

B. PRESSURE CONTROL

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

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.

 Approval Date: 03/07/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 88432

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 88432
	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	3/15/2022
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	3/15/2022
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	3/15/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	3/15/2022