

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

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		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. [333646]
2. Name of Operator [373910]		9. API Well No. 30-025-50905
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory [97779]
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 12/14/2022

SL

(Continued on page 2)



KZ
12/30/2022

*(Instructions on page 2)

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 well, 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 directionally 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 well 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 will 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 connects this information to an 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: TR M / 250 FSL / 1203 FWL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.225474 / LONG: -103.3771 (TVD: 0 feet, MD: 0 feet)
PPP: NWNW / 0 FSL / 388 FWL / TWSP: 24S / RANGE: 35E / SECTION: 4 / LAT: 32.246562 / LONG: -103.379778 (TVD: 8813 feet, MD: 16400 feet)
PPP: SWSW / 0 FSL / 401 FWL / TWSP: 24S / RANGE: 35E / SECTION: 4 / LAT: 32.239306 / LONG: -103.379718 (TVD: 8813 feet, MD: 13800 feet)
PPP: NWNW / 0 FSL / 414 FWL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.235674 / LONG: -103.379688 (TVD: 8813 feet, MD: 12800 feet)
PPP: SWNW / 0 FSL / 414 FWL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.232042 / LONG: -103.379658 (TVD: 8813 feet, MD: 11100 feet)
PPP: TR M / 700 FSL / 426 FWL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.226709 / LONG: -103.379614 (TVD: 8813 feet, MD: 9184 feet)
BHL: LOT 4 / 150 FNL / 380 FWL / TWSP: 24S / RANGE: 35E / SECTION: 4 / LAT: 32.253417 / LONG: -103.379834 (TVD: 8813 feet, MD: 18904 feet)

BLM Point of Contact

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

CONFIDENTIAL

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.

CONFIDENTIAL

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 30-025-50905	² Pool Code 97779	³ Pool Name DOGIE DRAW;DELAWARE
⁴ Property Code 333646	⁵ Property Name COLORADO FED COM	⁶ Well Number 101H
⁷ OGRID No. 373910	⁸ Operator Name FRANKLIN MOUNTAIN ENERGY LLC	⁹ Elevation 3391.5'

¹⁰ Surface Location

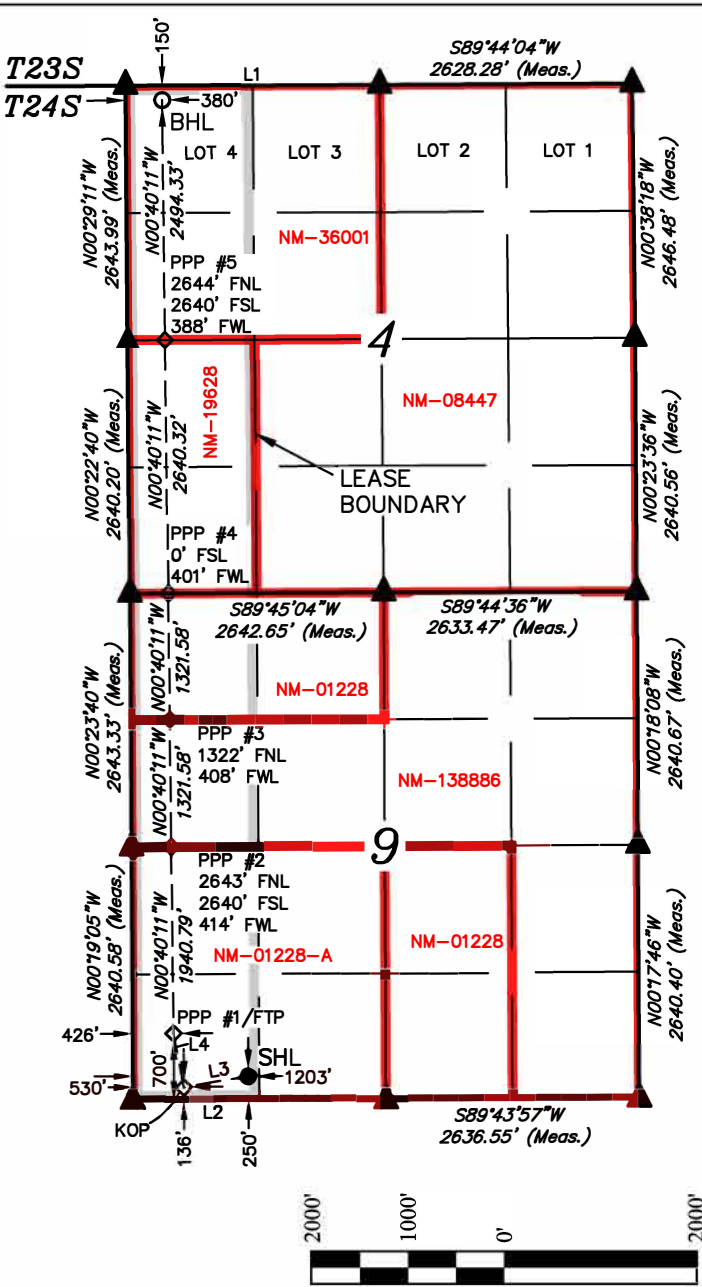
UL or lot no. M	Section 9	Township 24S	Range 35E	Lot Idn	Feet from the 250	North/South line SOUTH	Feet from the 1203	East/West line WEST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. 4	Section 4	Township 24S	Range 35E	Lot Idn	Feet from the 150	North/South line NORTH	Feet from the 380	East/West line WEST	County LEA
¹² Dedicated Acres 320.11	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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

¹⁶	NAD 83 (SURFACE HOLE LOCATION) LATITUDE = 32°13'31.70" (32.225474°) LONGITUDE = 103°22'37.56" (103.377100°) NAD 27 (SURFACE HOLE LOCATION) LATITUDE = 32°13'31.25" (32.225348°) LONGITUDE = 103°22'35.87" (103.376630°) STATE PLANE NAD 83 (N.M. EAST) N: 447076.97' E: 837036.57' STATE PLANE NAD 27 (N.M. EAST) N: 447017.77' E: 795851.38' NAD 83 (KOP) LATITUDE = 32°13'30.58" (32.225160°) LONGITUDE = 103°22'45.40" (103.379277°) NAD 27 (KOP) LATITUDE = 32°13'30.12" (32.225035°) LONGITUDE = 103°22'43.70" (103.378806°) STATE PLANE NAD 83 (N.M. EAST) N: 446956.97' E: 836364.57' STATE PLANE NAD 27 (N.M. EAST) N: 446897.78' E: 795179.39' NAD 83 (PPP #1/FTP) LATITUDE = 32°13'36.15" (32.226709°) LONGITUDE = 103°22'46.61" (103.379614°) NAD 27 (PPP #1/FTP) LATITUDE = 32°13'35.70" (32.226583°) LONGITUDE = 103°22'44.92" (103.379143°) STATE PLANE NAD 83 (N.M. EAST) N: 447519.40' E: 836255.24' STATE PLANE NAD 27 (N.M. EAST) N: 447460.20' E: 795070.09' NAD 83 (PPP #2) LATITUDE = 32°13'55.35" (32.232042°) LONGITUDE = 103°22'46.77" (103.379658°) NAD 27 (PPP #2) LATITUDE = 32°13'54.90" (32.231917°) LONGITUDE = 103°22'45.07" (103.379187°) STATE PLANE NAD 83 (N.M. EAST) N: 449459.65' E: 836224.43' STATE PLANE NAD 27 (N.M. EAST) N: 449400.40' E: 795039.36' NAD 83 (PPP #3) LATITUDE = 32°14'08.43" (32.235674°) LONGITUDE = 103°22'46.88" (103.379688°) NAD 27 (PPP #3) LATITUDE = 32°14'07.97" (32.235549°) LONGITUDE = 103°22'45.18" (103.379217°) STATE PLANE NAD 83 (N.M. EAST) N: 450780.86' E: 836203.45' STATE PLANE NAD 27 (N.M. EAST) N: 450721.57' E: 795018.44' NAD 83 (PPP #4) LATITUDE = 32°14'21.50" (32.239306°) LONGITUDE = 103°22'46.98" (103.379718°) NAD 27 (PPP #4) LATITUDE = 32°14'21.05" (32.239181°) LONGITUDE = 103°22'45.29" (103.379246°) STATE PLANE NAD 83 (N.M. EAST) N: 452102.08' E: 836182.47' STATE PLANE NAD 27 (N.M. EAST) N: 452042.75' E: 794997.52' NAD 83 (PPP #5) LATITUDE = 32°14'47.62" (32.246562°) LONGITUDE = 103°22'47.20" (103.379778°) NAD 27 (PPP #5) LATITUDE = 32°14'47.17" (32.246437°) LONGITUDE = 103°22'45.50" (103.379306°) STATE PLANE NAD 83 (N.M. EAST) N: 454741.66' E: 836140.55' STATE PLANE NAD 27 (N.M. EAST) N: 454682.27' E: 794955.71' NAD 83 (BOTTOM HOLE LOCATION) LATITUDE = 32°15'12.30" (32.253417°) LONGITUDE = 103°22'47.40" (103.379834°) NAD 27 (BOTTOM HOLE LOCATION) LATITUDE = 32°15'11.85" (32.253291°) LONGITUDE = 103°22'45.70" (103.379362°) STATE PLANE NAD 83 (N.M. EAST) N: 457235.30' E: 836100.95' STATE PLANE NAD 27 (N.M. EAST) N: 457175.84' E: 794916.19'
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LINE TABLE		
LINE	DIRECTION	LENGTH
L2	S89°42'02"W	2634.31'
L3	S80°06'55"W	682.73'
L4	N10°45'38"W	573.04'

SCALE
DRAWN BY: D.J.S. 08-12-21
REV: 1 Z.T. 09-28-21 (ADD LEASE INFO, KOP & PPP'S)

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

- = SURFACE HOLE LOCATION
- ◆ = KICK OFF POINT/PPP
- = BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED

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: *Shelly Albrecht* Date: 10/1/2021

Printed Name: Shelly Albrecht

E-mail Address: salbrecht@fmelc.com

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.

MAY 08, 2019

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Franklin Mountain Energy, LLC **OGRID:** 373910 **Date:** 12/13/2022

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: Colorado CTB: (f#) fAPP2125752717 [See 19.15.27.9(D)(1) NMAC]

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

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

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

If Operator checks this box, Operator will select one of the following:

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

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

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

Section 4 - Notices

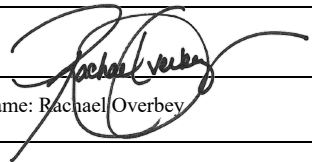
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Rachael Overbey
Title: Director Operations Planning & Regulatory
E-mail Address: roverbey@fmelle.com
Date: 12/13/2022
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
Colorado Fed Com 101H-80-025-50905	TBD	M-9-24S-35E	250 FSL 1203 FWL	750 +/-	1100 +/-	500 +/-
Colorado Fed Com 102H	TBD	M-9-24S-35E	250 FSL 1238 FWL	750 +/-	1100 +/-	500 +/-
Colorado Fed Com 801H	TBD	M-9-24S-35E	250 FSL 1273 FWL	900 +/-	1100 +/-	500 +/-
Colorado Fed Com 802H	TBD	M-9-24S-35E	250 FSL 1308 FWL	900 +/-	1100 +/-	500 +/-
Colorado Fed Com 803H	TBD	M-9-24S-35E	250 FSL 1343 FWL	900 +/-	1100 +/-	500 +/-
Colorado Fed Com 103H	TBD	O-9-24S-35E	400 FSL 1593 FEL	750 +/-	1100 +/-	500 +/-
Colorado Fed Com 104H	TBD	O-9-24S-35E	400 FSL 1568 FEL	750 +/-	1100 +/-	500 +/-
Colorado Fed Com 804H	TBD	O-9-24S-35E	400 FSL 1543 FEL	900 +/-	1100 +/-	500 +/-
Colorado Fed Com 805H	TBD	O-9-24S-35E	400 FSL 1518 FEL	900 +/-	1100 +/-	500 +/-
Colorado Fed Com 806H	TBD	O-9-24S-35E	400 FSL 1493 FEL	900 +/-	1100 +/-	500 +/-

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
Colorado Fed Com 101H-80-025-50905	TBD	6/1/2023	9/21/2023	10/6/2023	10/16/2023	10/18/2023
Colorado Fed Com 102H	TBD	6/1/2023	9/21/2023	10/6/2023	10/16/2023	10/18/2023
Colorado Fed Com 801H	TBD	6/1/2023	9/21/2023	10/6/2023	10/16/2023	10/18/2023
Colorado Fed Com 802H	TBD	6/1/2023	9/21/2023	10/6/2023	10/16/2023	10/18/2023
Colorado Fed Com 803H	TBD	6/1/2023	9/21/2023	10/6/2023	10/16/2023	10/18/2023
Colorado Fed Com 103H	TBD	6/15/2023	10/5/2023	10/20/2023	10/30/2023	11/1/2023
Colorado Fed Com 104H	TBD	6/15/2023	10/5/2023	10/20/2023	10/30/2023	11/1/2023
Colorado Fed Com 804H	TBD	6/15/2023	10/5/2023	10/20/2023	10/30/2023	11/1/2023
Colorado Fed Com 805H	TBD	6/15/2023	10/5/2023	10/20/2023	10/30/2023	11/1/2023
Colorado Fed Com 806H	TBD	6/15/2023	10/5/2023	10/20/2023	10/30/2023	11/1/2023



Natural Gas Management Plan

Items VI-VIII

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

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

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

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



- Weekly AVOs will be performed, and any leaking thief hatches will be cleaned and properly re-sealed.
- **Measurement and Calibration:**
 - All volume that is flared and vented that is not measured will be estimated.
 - When metering is not practical due to low pressure/rate, all vented or flared volumes will be estimated.
 - Measurement will conform to industry standards. Measurement will not be bypassed except for purposes of inspection or calibration.

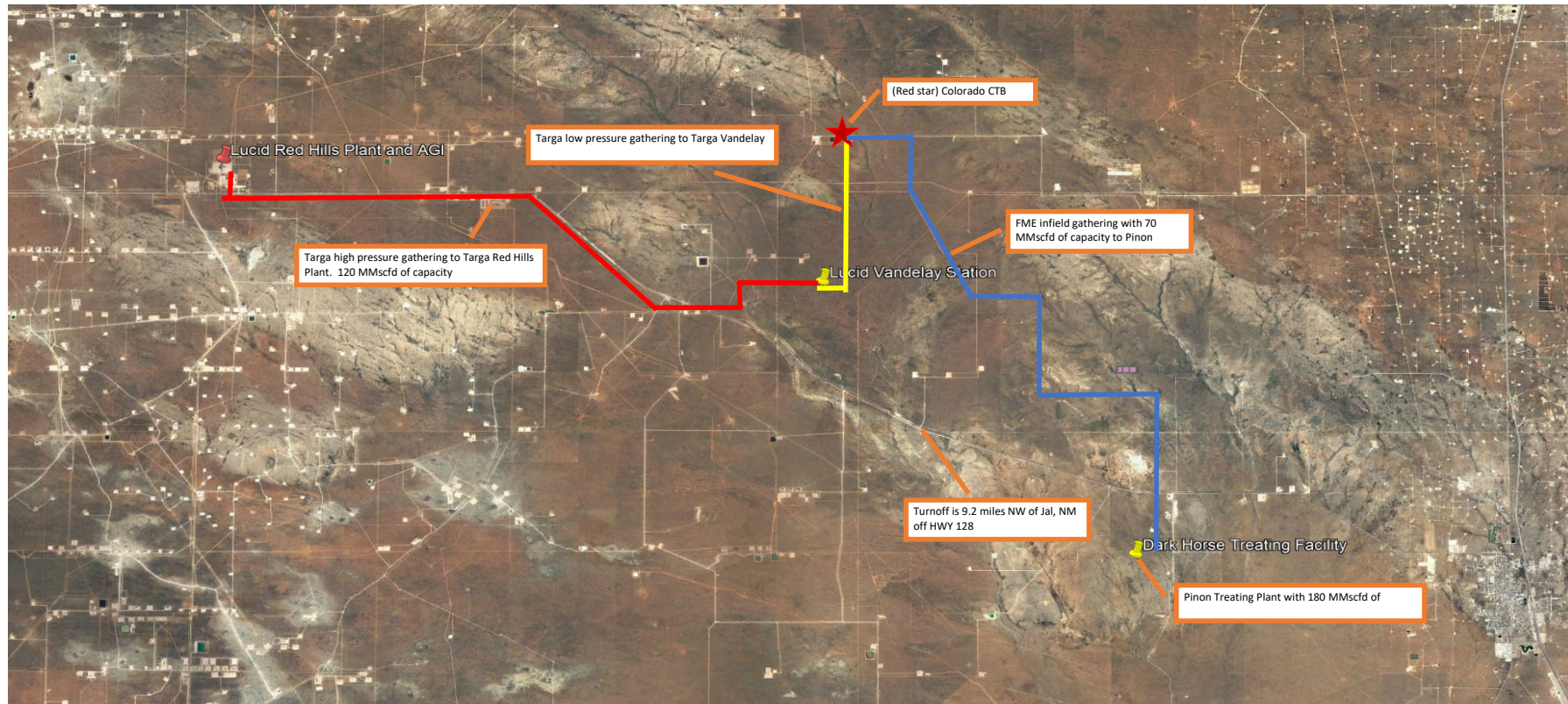
VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

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

Colorado NGMP Map

Dec 2022

- Capacities reflected are FME's understanding of 3rd party midstream system capacities





Colorado Fed Com 101H

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)	3,392'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,569'	853'			Carbonates
Salado	2,231'	1,191'			Salt, Carbonate & Clastics
Base Salt	615'	2,807'			Shaley Carbonate & Shale
Lamar	-1,847'	5,269'			Carbonate & Clastics
Bell Canyon	-1,923'	5,345'			Sandstone - oil/gas/water
Cherry Canyon	-2,845'	6,267'			Sandstone - oil/gas/water
Brushy Canyon	-4,172'	7,594'			Sand/carb/shales - oil/gas/water
Leonard	-5,273'	8,695'			Sand/carb/shales - oil/gas/water
HZ Target at Landing	-5,391'	8,813'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,531'	8,953'			Shale/Carbonates - oil/gas
Avalon	-5,559'	8,981'			Shale/Carbonates - oil/gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	5,345'	Oil
Leonard	8,695'	Oil
Avalon	8,981'	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	5300	1.75	1.71	2.94	3.34
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	9184	1.44	1.66	2.22	1.51
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606 TVD	18904 8813	1.32	1.64	1.36	1.13 2.00

7 5/8" casing will be set at 9,184' MD/8,913' TVD at 90° Inc. Stress calculations on 5 1/2" casing performed assuming 18,904' depth. Actual max vertical depth is 8,813'.



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	Type of cmt	Lead Yield ft ³ /sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Tail Yield ft ³ /sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	803	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	330	Tail, 14.8 ppg, Class C, 1% CaCl ₂ , 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5300	1558	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	5000	100%
Int2	8.75	7.625	9184	207	Lite Fill, 9.5 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	2.13	5.97	4300	94	NeoCem 14.8 ppg, Class C 0.25 pps Cello-Flake, 2% CaCl ₂	1.33	6.29	8184	50%
Prod	6.75	5.5	18904	800	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	8184						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.



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' – 9,184'	Brine	8.8-10.2	28-34	N/c
9,184' – 18,904' Lateral	Oil Base	10.0-12.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 10-11 ppg. In order to maintain hole stability, mud weights up to 12 ppg may be utilized.

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

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

7. Auxiliary well control and monitoring equipment:

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

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

(C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

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

8. Logging, testing and coring program:

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

Open-hole logs are not planned for this well.

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

The estimated bottom-hole temperature at 8,813' TVD (deepest point of the well) is 160F with an estimated maximum bottom-hole pressure (BHP) at the same point of 5,499 psig (based on 12 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H₂S training.

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

C. Required Emergency Equipment

a. Well Control Equipment

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

ii. Choke manifold with a remotely operated hydraulic choke.

iii. Mud/gas separator

b. Protective equipment for essential personnel

i. Breathing Apparatus

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

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



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

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

11. Anticipated starting date and duration of operations:

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

**12. Disposal/environmental concerns:**

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

13. Wellhead:

A multi-bowl wellhead system will be utilized.

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

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

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

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

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

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

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

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

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

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

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

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
 Site: Colorado Fed Com
 Well: Colorado Fed Com 101H
 Wellbore: OH
 Design: Plan #1

3391.5' GE + 30' KB @ 3421.50usft



Azimuths to Grid North
 True North: -0.51°
 Magnetic North: 5.92°

Magnetic Field
 Strength: 47492.4nT
 Dip Angle: 59.92°
 Date: 8/31/2021
 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



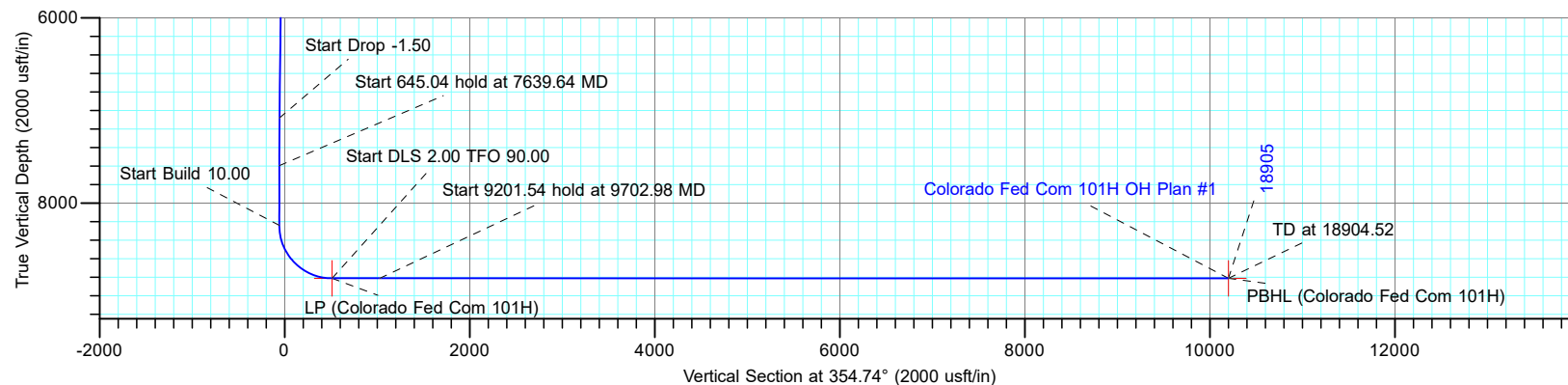
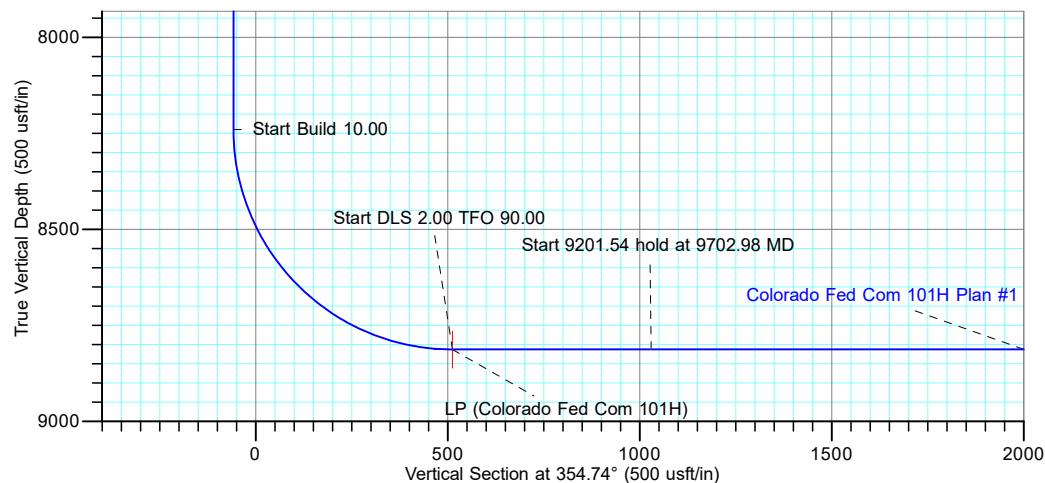
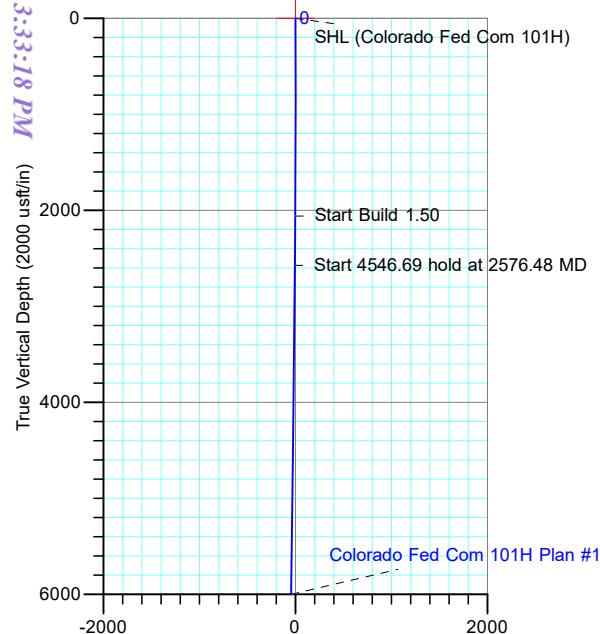
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SECTION DETAILS

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	
2060.00	0.00	0.00	2060.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2576.48	7.75	259.88	2574.90	-6.13	-34.32	1.50	259.88	-2.96	Start 4546.69 hold at 2576.48 MD
7123.17	7.75	259.88	7080.10	-113.87	-637.68	0.00	0.00	-54.91	Start Drop -1.50
7639.64	0.00	0.00	7595.00	-120.00	-672.00	1.50	180.00	-57.86	Start 645.04 hold at 7639.64 MD
8284.68	0.00	0.00	8240.04	-120.00	-672.00	0.00	0.00	-57.86	Start Build 10.00
9184.68	90.00	349.00	8813.00	442.43	-781.33	10.00	349.00	512.23	Start DLS 2.00 TFO 90.00
9702.98	90.00	359.37	8813.00	957.35	-833.78	2.00	90.00	1029.79	Start 9201.54 hold at 9702.98 MD
18904.52	90.00	359.37	8813.00	10158.33	-935.62	0.00	0.00	10201.33	TD at 18904.52

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (Colorado Fed Com 101H)	8813.00	442.43	-781.33	32.226709	-103.379614
PBHL (Colorado Fed Com 101H)	8813.00	10158.33	-935.62	32.253417	-103.379834
SHL (Colorado Fed Com 101H)	0.00	0.00	0.00	32.225474	-103.377100



TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #1 (Colorado Fed Com 101H/OH)
 Colorado Fed Com
 Created By: Dustin Ault Date: 16:27, August 31 2022
 Date: _____
 Approved: _____ Date: _____

Page 19 of 100

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Colorado Fed Com
Well: Colorado Fed Com 101H
Wellbore: OH
Design: Plan #1

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



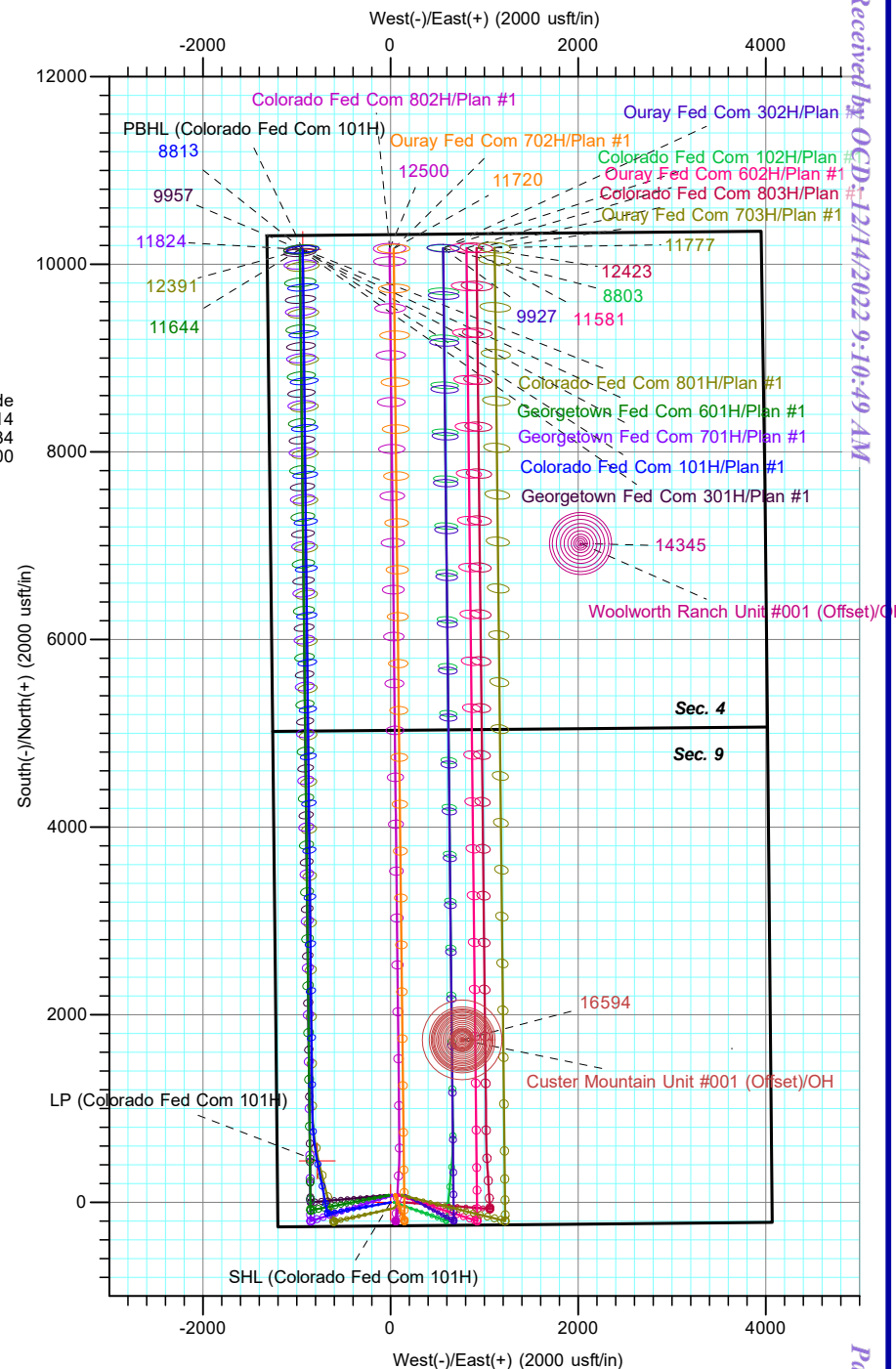
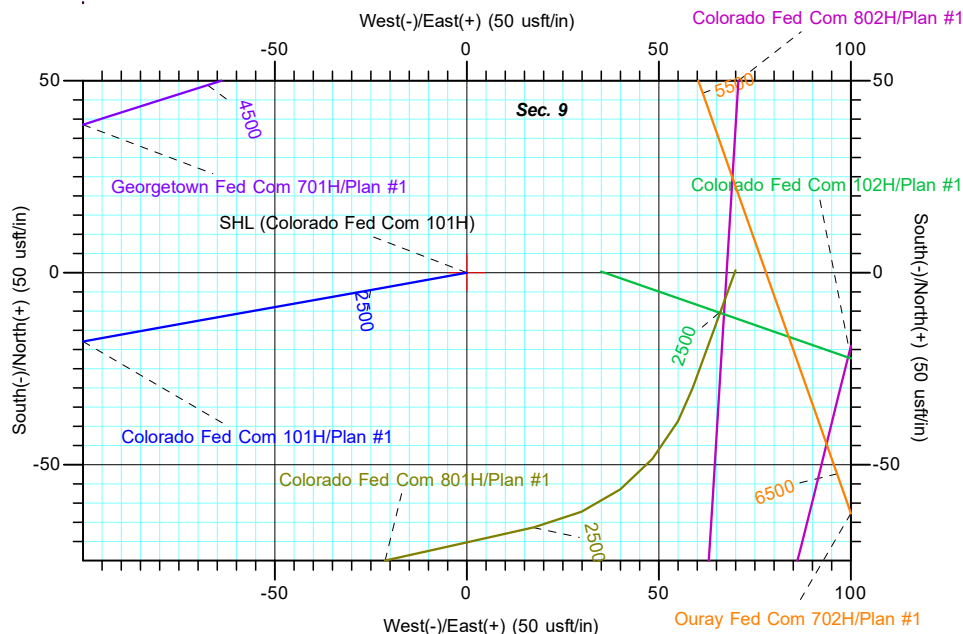
Azimuths to Grid North
True North: -0.51°
Magnetic North: 5.92°
Magnetic Field
Strength: 47492.4nT
Dip Angle: 59.92°
Date: 8/31/2021
Model: IGRF2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (Colorado Fed Com 101H)	8813.00	442.43	-781.33	447519.40	836255.24	32.226709	-103.379614
PBHL (Colorado Fed Com 101H)	8813.00	10158.33	-935.62	457235.30	836100.95	32.253417	-103.379834
SHL (Colorado Fed Com 101H)	0.00	0.00	0.00	447076.97	837036.57	32.225474	-103.377100

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	
2060.00	0.00	0.00	2060.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2576.48	7.75	259.88	2574.90	-6.13	-34.32	1.50	259.88	-2.96	Start 4546.69 hold at 2576.48 MD
7123.17	7.75	259.88	7080.10	-113.87	-637.68	0.00	0.00	-54.91	Start Drop -1.50
7639.64	0.00	0.00	7595.00	-120.00	-672.00	1.50	180.00	-57.86	Start 645.04 hold at 7639.64 MD
8284.68	0.00	0.00	8240.04	-120.00	-672.00	0.00	0.00	-57.86	Start Build 10.00
9184.68	90.00	349.00	8813.00	442.43	-781.33	10.00	349.00	512.23	Start DLS 2.00 TFO 90.00
9702.98	90.00	359.37	8813.00	957.35	-833.78	2.00	90.00	1029.79	Start 9201.54 hold at 9702.98 MD
18904.52	90.00	359.37	8813.00	10158.33	-935.62	0.00	0.00	10201.33	TD at 18904.52



TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #1 (Colorado Fed Com 101H/OH)
Colorado Fed Com
Created By: Dustin Ault
Date: 16:07, September 03 2021
Approved: _____ Date: _____



Franklin Mountain Energy

Lea County, NM (NAD83)

Colorado Fed Com

Colorado Fed Com 101H

OH

Plan: Plan #1

Standard Planning Report

31 August, 2021





Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Company:	Franklin Mountain Energy	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site:	Colorado Fed Com	North Reference:	Grid
Well:	Colorado Fed Com 101H	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	Colorado Fed Com				
Site Position:		Northing:	447,076.97 usft	Latitude:	32.225474
From:	Map	Easting:	837,036.57 usft	Longitude:	-103.377101
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51

Well	Colorado Fed Com 101H					
Well Position	+N/-S	0.00 usft	Northing:	447,076.97 usft	Latitude:	32.225474
	+E/-W	0.00 usft	Easting:	837,036.57 usft	Longitude:	-103.377101
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,391.50 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/31/2021	6.43	59.92	47,492.37652355

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	354.74

Plan Survey Tool Program	Date	8/31/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,904.52 Plan #1 (OH)	OWSG (Rev2) MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,060.00	0.00	0.00	2,060.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,576.48	7.75	259.88	2,574.90	-6.13	-34.32	1.50	1.50	0.00	259.88	
7,123.17	7.75	259.88	7,080.10	-113.87	-637.68	0.00	0.00	0.00	0.00	
7,639.64	0.00	0.00	7,595.00	-120.00	-672.00	1.50	-1.50	0.00	180.00	
8,284.68	0.00	0.00	8,240.04	-120.00	-672.00	0.00	0.00	0.00	0.00	
9,184.68	90.00	349.00	8,813.00	442.43	-781.33	10.00	10.00	0.00	349.00	
9,702.98	90.00	359.37	8,813.00	957.35	-833.78	2.00	0.00	2.00	90.00	
18,904.52	90.00	359.37	8,813.00	10,158.33	-935.62	0.00	0.00	0.00	0.00	PBHL (Colorado Fed



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Company:	Franklin Mountain Energy	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site:	Colorado Fed Com	North Reference:	Grid
Well:	Colorado Fed Com 101H	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 (Colorado Fed Com 101H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,060.00	0.00	0.00	2,060.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
2,100.00	0.60	259.88	2,100.00	-0.04	-0.21	-0.02	1.50	1.50	0.00
2,200.00	2.10	259.88	2,199.97	-0.45	-2.53	-0.22	1.50	1.50	0.00
2,300.00	3.60	259.88	2,299.84	-1.32	-7.42	-0.64	1.50	1.50	0.00
2,400.00	5.10	259.88	2,399.55	-2.66	-14.89	-1.28	1.50	1.50	0.00
2,500.00	6.60	259.88	2,499.03	-4.45	-24.92	-2.15	1.50	1.50	0.00
2,576.48	7.75	259.88	2,574.90	-6.13	-34.32	-2.96	1.50	1.50	0.00
Start 4546.69 hold at 2576.48 MD									
2,600.00	7.75	259.88	2,598.21	-6.69	-37.44	-3.22	0.00	0.00	0.00
2,700.00	7.75	259.88	2,697.30	-9.06	-50.71	-4.37	0.00	0.00	0.00
2,800.00	7.75	259.88	2,796.39	-11.43	-63.98	-5.51	0.00	0.00	0.00
2,900.00	7.75	259.88	2,895.47	-13.80	-77.25	-6.65	0.00	0.00	0.00
3,000.00	7.75	259.88	2,994.56	-16.16	-90.52	-7.79	0.00	0.00	0.00
3,100.00	7.75	259.88	3,093.65	-18.53	-103.79	-8.94	0.00	0.00	0.00
3,200.00	7.75	259.88	3,192.74	-20.90	-117.06	-10.08	0.00	0.00	0.00
3,300.00	7.75	259.88	3,291.82	-23.27	-130.33	-11.22	0.00	0.00	0.00
3,400.00	7.75	259.88	3,390.91	-25.64	-143.60	-12.36	0.00	0.00	0.00
3,500.00	7.75	259.88	3,490.00	-28.01	-156.88	-13.51	0.00	0.00	0.00
3,600.00	7.75	259.88	3,589.09	-30.38	-170.15	-14.65	0.00	0.00	0.00
3,700.00	7.75	259.88	3,688.17	-32.75	-183.42	-15.79	0.00	0.00	0.00
3,800.00	7.75	259.88	3,787.26	-35.12	-196.69	-16.94	0.00	0.00	0.00
3,900.00	7.75	259.88	3,886.35	-37.49	-209.96	-18.08	0.00	0.00	0.00
4,000.00	7.75	259.88	3,985.43	-39.86	-223.23	-19.22	0.00	0.00	0.00
4,100.00	7.75	259.88	4,084.52	-42.23	-236.50	-20.36	0.00	0.00	0.00
4,200.00	7.75	259.88	4,183.61	-44.60	-249.77	-21.51	0.00	0.00	0.00
4,300.00	7.75	259.88	4,282.70	-46.97	-263.04	-22.65	0.00	0.00	0.00
4,400.00	7.75	259.88	4,381.78	-49.34	-276.31	-23.79	0.00	0.00	0.00
4,500.00	7.75	259.88	4,480.87	-51.71	-289.58	-24.93	0.00	0.00	0.00
4,600.00	7.75	259.88	4,579.96	-54.08	-302.85	-26.08	0.00	0.00	0.00
4,700.00	7.75	259.88	4,679.05	-56.45	-316.12	-27.22	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Company:	Franklin Mountain Energy	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site:	Colorado Fed Com	North Reference:	Grid
Well:	Colorado Fed Com 101H	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)
4,800.00	7.75	259.88	4,778.13	-58.82	-329.39	-28.36	0.00	0.00	0.00
4,900.00	7.75	259.88	4,877.22	-61.19	-342.66	-29.50	0.00	0.00	0.00
5,000.00	7.75	259.88	4,976.31	-63.56	-355.93	-30.65	0.00	0.00	0.00
5,100.00	7.75	259.88	5,075.39	-65.93	-369.20	-31.79	0.00	0.00	0.00
5,200.00	7.75	259.88	5,174.48	-68.30	-382.47	-32.93	0.00	0.00	0.00
5,300.00	7.75	259.88	5,273.57	-70.67	-395.74	-34.07	0.00	0.00	0.00
5,400.00	7.75	259.88	5,372.66	-73.04	-409.01	-35.22	0.00	0.00	0.00
5,500.00	7.75	259.88	5,471.74	-75.41	-422.28	-36.36	0.00	0.00	0.00
5,600.00	7.75	259.88	5,570.83	-77.78	-435.55	-37.50	0.00	0.00	0.00
5,700.00	7.75	259.88	5,669.92	-80.15	-448.82	-38.64	0.00	0.00	0.00
5,800.00	7.75	259.88	5,769.01	-82.52	-462.09	-39.79	0.00	0.00	0.00
5,900.00	7.75	259.88	5,868.09	-84.89	-475.36	-40.93	0.00	0.00	0.00
6,000.00	7.75	259.88	5,967.18	-87.26	-488.63	-42.07	0.00	0.00	0.00
6,100.00	7.75	259.88	6,066.27	-89.63	-501.90	-43.22	0.00	0.00	0.00
6,200.00	7.75	259.88	6,165.35	-92.00	-515.17	-44.36	0.00	0.00	0.00
6,300.00	7.75	259.88	6,264.44	-94.36	-528.44	-45.50	0.00	0.00	0.00
6,400.00	7.75	259.88	6,363.53	-96.73	-541.71	-46.64	0.00	0.00	0.00
6,500.00	7.75	259.88	6,462.62	-99.10	-554.98	-47.79	0.00	0.00	0.00
6,600.00	7.75	259.88	6,561.70	-101.47	-568.25	-48.93	0.00	0.00	0.00
6,700.00	7.75	259.88	6,660.79	-103.84	-581.52	-50.07	0.00	0.00	0.00
6,800.00	7.75	259.88	6,759.88	-106.21	-594.79	-51.21	0.00	0.00	0.00
6,900.00	7.75	259.88	6,858.97	-108.58	-608.06	-52.36	0.00	0.00	0.00
7,000.00	7.75	259.88	6,958.05	-110.95	-621.33	-53.50	0.00	0.00	0.00
7,100.00	7.75	259.88	7,057.14	-113.32	-634.60	-54.64	0.00	0.00	0.00
7,123.17	7.75	259.88	7,080.10	-113.87	-637.68	-54.91	0.00	0.00	0.00
Start Drop -1.50									
7,200.00	6.59	259.88	7,156.33	-115.56	-647.12	-55.72	1.50	-1.50	0.00
7,300.00	5.09	259.88	7,255.80	-117.35	-657.14	-56.58	1.50	-1.50	0.00
7,400.00	3.59	259.88	7,355.51	-118.68	-664.60	-57.22	1.50	-1.50	0.00
7,500.00	2.09	259.88	7,455.39	-119.55	-669.49	-57.65	1.50	-1.50	0.00
7,600.00	0.59	259.88	7,555.36	-119.96	-671.80	-57.84	1.50	-1.50	0.00
7,639.64	0.00	0.00	7,595.00	-120.00	-672.00	-57.86	1.50	-1.50	0.00
Start 645.04 hold at 7639.64 MD									
7,700.00	0.00	0.00	7,655.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
7,800.00	0.00	0.00	7,755.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
7,900.00	0.00	0.00	7,855.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
8,000.00	0.00	0.00	7,955.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
8,100.00	0.00	0.00	8,055.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
8,200.00	0.00	0.00	8,155.36	-120.00	-672.00	-57.86	0.00	0.00	0.00
8,284.68	0.00	0.00	8,240.04	-120.00	-672.00	-57.86	0.00	0.00	0.00
Start Build 10.00									
8,300.00	1.53	349.00	8,255.35	-119.80	-672.04	-57.66	10.00	10.00	0.00
8,350.00	6.53	349.00	8,305.21	-116.35	-672.71	-54.16	10.00	10.00	0.00
8,400.00	11.53	349.00	8,354.58	-108.65	-674.21	-46.35	10.00	10.00	0.00
8,450.00	16.53	349.00	8,403.07	-96.75	-676.52	-34.30	10.00	10.00	0.00
8,500.00	21.53	349.00	8,450.32	-80.75	-679.63	-18.08	10.00	10.00	0.00
8,550.00	26.53	349.00	8,495.98	-60.77	-683.51	2.18	10.00	10.00	0.00
8,600.00	31.53	349.00	8,539.68	-36.96	-688.14	26.31	10.00	10.00	0.00
8,650.00	36.53	349.00	8,581.10	-9.50	-693.48	54.14	10.00	10.00	0.00
8,700.00	41.53	349.00	8,619.93	21.40	-699.49	85.46	10.00	10.00	0.00
8,750.00	46.53	349.00	8,655.87	55.50	-706.11	120.03	10.00	10.00	0.00
8,800.00	51.53	349.00	8,688.64	92.55	-713.32	157.58	10.00	10.00	0.00
8,850.00	56.53	349.00	8,718.00	132.26	-721.03	197.84	10.00	10.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Company:	Franklin Mountain Energy	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site:	Colorado Fed Com	North Reference:	Grid
Well:	Colorado Fed Com 101H	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)	
8,900.00	61.53	349.00	8,743.72	174.33	-729.21	240.48	10.00	10.00	0.00	
8,950.00	66.53	349.00	8,765.60	218.45	-737.79	285.19	10.00	10.00	0.00	
9,000.00	71.53	349.00	8,783.49	264.26	-746.69	331.63	10.00	10.00	0.00	
9,050.00	76.53	349.00	8,797.24	311.44	-755.86	379.45	10.00	10.00	0.00	
9,100.00	81.53	349.00	8,806.75	359.60	-765.23	428.27	10.00	10.00	0.00	
9,150.00	86.53	349.00	8,811.95	408.40	-774.71	477.74	10.00	10.00	0.00	
9,184.68	90.00	349.00	8,813.00	442.43	-781.33	512.23	10.00	10.00	0.00	
Start DLS 2.00 TFO 90.00 - LP (Colorado Fed Com 101H)										
9,200.00	90.00	349.31	8,813.00	457.47	-784.21	527.47	2.00	0.00	2.00	
9,300.00	90.00	351.31	8,813.00	556.04	-801.04	627.16	2.00	0.00	2.00	
9,400.00	90.00	353.31	8,813.00	655.14	-814.43	727.07	2.00	0.00	2.00	
9,500.00	90.00	355.31	8,813.00	754.64	-824.35	827.06	2.00	0.00	2.00	
9,600.00	90.00	357.31	8,813.00	854.42	-830.79	927.02	2.00	0.00	2.00	
9,702.98	90.00	359.37	8,813.00	957.35	-833.78	1,029.79	2.00	0.00	2.00	
Start 9201.54 hold at 9702.98 MD										
9,800.00	90.00	359.37	8,813.00	1,054.37	-834.86	1,126.49	0.00	0.00	0.00	
9,900.00	90.00	359.37	8,813.00	1,154.36	-835.96	1,226.17	0.00	0.00	0.00	
10,000.00	90.00	359.37	8,813.00	1,254.36	-837.07	1,325.84	0.00	0.00	0.00	
10,100.00	90.00	359.37	8,813.00	1,354.35	-838.18	1,425.52	0.00	0.00	0.00	
10,200.00	90.00	359.37	8,813.00	1,454.34	-839.28	1,525.19	0.00	0.00	0.00	
10,300.00	90.00	359.37	8,813.00	1,554.34	-840.39	1,624.86	0.00	0.00	0.00	
10,400.00	90.00	359.37	8,813.00	1,654.33	-841.50	1,724.54	0.00	0.00	0.00	
10,500.00	90.00	359.37	8,813.00	1,754.33	-842.61	1,824.21	0.00	0.00	0.00	
10,600.00	90.00	359.37	8,813.00	1,854.32	-843.71	1,923.89	0.00	0.00	0.00	
10,700.00	90.00	359.37	8,813.00	1,954.31	-844.82	2,023.56	0.00	0.00	0.00	
10,800.00	90.00	359.37	8,813.00	2,054.31	-845.93	2,123.23	0.00	0.00	0.00	
10,900.00	90.00	359.37	8,813.00	2,154.30	-847.03	2,222.91	0.00	0.00	0.00	
11,000.00	90.00	359.37	8,813.00	2,254.30	-848.14	2,322.58	0.00	0.00	0.00	
11,100.00	90.00	359.37	8,813.00	2,354.29	-849.25	2,422.26	0.00	0.00	0.00	
11,200.00	90.00	359.37	8,813.00	2,454.28	-850.35	2,521.93	0.00	0.00	0.00	
11,300.00	90.00	359.37	8,813.00	2,554.28	-851.46	2,621.60	0.00	0.00	0.00	
11,400.00	90.00	359.37	8,813.00	2,654.27	-852.57	2,721.28	0.00	0.00	0.00	
11,500.00	90.00	359.37	8,813.00	2,754.26	-853.67	2,820.95	0.00	0.00	0.00	
11,600.00	90.00	359.37	8,813.00	2,854.26	-854.78	2,920.63	0.00	0.00	0.00	
11,700.00	90.00	359.37	8,813.00	2,954.25	-855.89	3,020.30	0.00	0.00	0.00	
11,800.00	90.00	359.37	8,813.00	3,054.25	-856.99	3,119.97	0.00	0.00	0.00	
11,900.00	90.00	359.37	8,813.00	3,154.24	-858.10	3,219.65	0.00	0.00	0.00	
12,000.00	90.00	359.37	8,813.00	3,254.23	-859.21	3,319.32	0.00	0.00	0.00	
12,100.00	90.00	359.37	8,813.00	3,354.23	-860.31	3,418.99	0.00	0.00	0.00	
12,200.00	90.00	359.37	8,813.00	3,454.22	-861.42	3,518.67	0.00	0.00	0.00	
12,300.00	90.00	359.37	8,813.00	3,554.22	-862.53	3,618.34	0.00	0.00	0.00	
12,400.00	90.00	359.37	8,813.00	3,654.21	-863.63	3,718.02	0.00	0.00	0.00	
12,500.00	90.00	359.37	8,813.00	3,754.20	-864.74	3,817.69	0.00	0.00	0.00	
12,600.00	90.00	359.37	8,813.00	3,854.20	-865.85	3,917.36	0.00	0.00	0.00	
12,700.00	90.00	359.37	8,813.00	3,954.19	-866.95	4,017.04	0.00	0.00	0.00	
12,800.00	90.00	359.37	8,813.00	4,054.19	-868.06	4,116.71	0.00	0.00	0.00	
12,900.00	90.00	359.37	8,813.00	4,154.18	-869.17	4,216.39	0.00	0.00	0.00	
13,000.00	90.00	359.37	8,813.00	4,254.17	-870.27	4,316.06	0.00	0.00	0.00	
13,100.00	90.00	359.37	8,813.00	4,354.17	-871.38	4,415.73	0.00	0.00	0.00	
13,200.00	90.00	359.37	8,813.00	4,454.16	-872.49	4,515.41	0.00	0.00	0.00	
13,300.00	90.00	359.37	8,813.00	4,554.15	-873.59	4,615.08	0.00	0.00	0.00	
13,400.00	90.00	359.37	8,813.00	4,654.15	-874.70	4,714.76	0.00	0.00	0.00	
13,500.00	90.00	359.37	8,813.00	4,754.14	-875.81	4,814.43	0.00	0.00	0.00	
13,600.00	90.00	359.37	8,813.00	4,854.14	-876.91	4,914.10	0.00	0.00	0.00	



Total Directional Services

Planning Report



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Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
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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)
13,700.00	90.00	359.37	8,813.00	4,954.13	-878.02	5,013.78	0.00	0.00	0.00
13,800.00	90.00	359.37	8,813.00	5,054.12	-879.13	5,113.45	0.00	0.00	0.00
13,900.00	90.00	359.37	8,813.00	5,154.12	-880.23	5,213.13	0.00	0.00	0.00
14,000.00	90.00	359.37	8,813.00	5,254.11	-881.34	5,312.80	0.00	0.00	0.00
14,100.00	90.00	359.37	8,813.00	5,354.11	-882.45	5,412.47	0.00	0.00	0.00
14,200.00	90.00	359.37	8,813.00	5,454.10	-883.55	5,512.15	0.00	0.00	0.00
14,300.00	90.00	359.37	8,813.00	5,554.09	-884.66	5,611.82	0.00	0.00	0.00
14,400.00	90.00	359.37	8,813.00	5,654.09	-885.77	5,711.50	0.00	0.00	0.00
14,500.00	90.00	359.37	8,813.00	5,754.08	-886.87	5,811.17	0.00	0.00	0.00
14,600.00	90.00	359.37	8,813.00	5,854.08	-887.98	5,910.84	0.00	0.00	0.00
14,700.00	90.00	359.37	8,813.00	5,954.07	-889.09	6,010.52	0.00	0.00	0.00
14,800.00	90.00	359.37	8,813.00	6,054.06	-890.19	6,110.19	0.00	0.00	0.00
14,900.00	90.00	359.37	8,813.00	6,154.06	-891.30	6,209.87	0.00	0.00	0.00
15,000.00	90.00	359.37	8,813.00	6,254.05	-892.41	6,309.54	0.00	0.00	0.00
15,100.00	90.00	359.37	8,813.00	6,354.04	-893.51	6,409.21	0.00	0.00	0.00
15,200.00	90.00	359.37	8,813.00	6,454.04	-894.62	6,508.89	0.00	0.00	0.00
15,300.00	90.00	359.37	8,813.00	6,554.03	-895.73	6,608.56	0.00	0.00	0.00
15,400.00	90.00	359.37	8,813.00	6,654.03	-896.83	6,708.23	0.00	0.00	0.00
15,500.00	90.00	359.37	8,813.00	6,754.02	-897.94	6,807.91	0.00	0.00	0.00
15,600.00	90.00	359.37	8,813.00	6,854.01	-899.05	6,907.58	0.00	0.00	0.00
15,700.00	90.00	359.37	8,813.00	6,954.01	-900.15	7,007.26	0.00	0.00	0.00
15,800.00	90.00	359.37	8,813.00	7,054.00	-901.26	7,106.93	0.00	0.00	0.00
15,900.00	90.00	359.37	8,813.00	7,154.00	-902.37	7,206.60	0.00	0.00	0.00
16,000.00	90.00	359.37	8,813.00	7,253.99	-903.47	7,306.28	0.00	0.00	0.00
16,100.00	90.00	359.37	8,813.00	7,353.98	-904.58	7,405.95	0.00	0.00	0.00
16,200.00	90.00	359.37	8,813.00	7,453.98	-905.69	7,505.63	0.00	0.00	0.00
16,300.00	90.00	359.37	8,813.00	7,553.97	-906.80	7,605.30	0.00	0.00	0.00
16,400.00	90.00	359.37	8,813.00	7,653.96	-907.90	7,704.97	0.00	0.00	0.00
16,500.00	90.00	359.37	8,813.00	7,753.96	-909.01	7,804.65	0.00	0.00	0.00
16,600.00	90.00	359.37	8,813.00	7,853.95	-910.12	7,904.32	0.00	0.00	0.00
16,700.00	90.00	359.37	8,813.00	7,953.95	-911.22	8,004.00	0.00	0.00	0.00
16,800.00	90.00	359.37	8,813.00	8,053.94	-912.33	8,103.67	0.00	0.00	0.00
16,900.00	90.00	359.37	8,813.00	8,153.93	-913.44	8,203.34	0.00	0.00	0.00
17,000.00	90.00	359.37	8,813.00	8,253.93	-914.54	8,303.02	0.00	0.00	0.00
17,100.00	90.00	359.37	8,813.00	8,353.92	-915.65	8,402.69	0.00	0.00	0.00
17,200.00	90.00	359.37	8,813.00	8,453.92	-916.76	8,502.37	0.00	0.00	0.00
17,300.00	90.00	359.37	8,813.00	8,553.91	-917.86	8,602.04	0.00	0.00	0.00
17,400.00	90.00	359.37	8,813.00	8,653.90	-918.97	8,701.71	0.00	0.00	0.00
17,500.00	90.00	359.37	8,813.00	8,753.90	-920.08	8,801.39	0.00	0.00	0.00
17,600.00	90.00	359.37	8,813.00	8,853.89	-921.18	8,901.06	0.00	0.00	0.00
17,700.00	90.00	359.37	8,813.00	8,953.89	-922.29	9,000.74	0.00	0.00	0.00
17,800.00	90.00	359.37	8,813.00	9,053.88	-923.40	9,100.41	0.00	0.00	0.00
17,900.00	90.00	359.37	8,813.00	9,153.87	-924.50	9,200.08	0.00	0.00	0.00
18,000.00	90.00	359.37	8,813.00	9,253.87	-925.61	9,299.76	0.00	0.00	0.00
18,100.00	90.00	359.37	8,813.00	9,353.86	-926.72	9,399.43	0.00	0.00	0.00
18,200.00	90.00	359.37	8,813.00	9,453.85	-927.82	9,499.10	0.00	0.00	0.00
18,300.00	90.00	359.37	8,813.00	9,553.85	-928.93	9,598.78	0.00	0.00	0.00
18,400.00	90.00	359.37	8,813.00	9,653.84	-930.04	9,698.45	0.00	0.00	0.00
18,500.00	90.00	359.37	8,813.00	9,753.84	-931.14	9,798.13	0.00	0.00	0.00
18,600.00	90.00	359.37	8,813.00	9,853.83	-932.25	9,897.80	0.00	0.00	0.00
18,700.00	90.00	359.37	8,813.00	9,953.82	-933.36	9,997.47	0.00	0.00	0.00
18,800.00	90.00	359.37	8,813.00	10,053.82	-934.46	10,097.15	0.00	0.00	0.00
18,904.52	90.00	359.37	8,813.00	10,158.33	-935.62	10,201.33	0.00	0.00	0.00
TD at 18904.52 - PBHL (Colorado Fed Com 101H)									



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Company:	Franklin Mountain Energy	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Project:	Lea County, NM (NAD83)	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site:	Colorado Fed Com	North Reference:	Grid
Well:	Colorado Fed Com 101H	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)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL (Colorado Fed Corr - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	447,076.97	837,036.57	32.225474	-103.377101
PBHL (Colorado Fed Co - plan hits target center - Point	0.00	0.00	8,813.00	10,158.33	-935.62	457,235.30	836,100.95	32.253417	-103.379834
LP (Colorado Fed Com - plan misses target center by 0.01usft at 9184.68usft MD (8813.00 TVD, 442.43 N, -781.33 E) - Point	0.00	0.00	8,813.00	442.43	-781.33	447,519.40	836,255.24	32.226709	-103.379614

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,060.00	2,060.00	0.00	0.00	Start Build 1.50
2,576.48	2,574.90	-6.13	-34.32	Start 4546.69 hold at 2576.48 MD
7,123.17	7,080.10	-113.87	-637.68	Start Drop -1.50
7,639.64	7,595.00	-120.00	-672.00	Start 645.04 hold at 7639.64 MD
8,284.68	8,240.04	-120.00	-672.00	Start Build 10.00
9,184.68	8,813.00	442.43	-781.33	Start DLS 2.00 TFO 90.00
9,702.98	8,813.00	957.35	-833.78	Start 9201.54 hold at 9702.98 MD
18,904.52	8,813.00	10,158.33	-935.62	TD at 18904.52



Franklin Mountain Energy

Lea County, NM (NAD83)

Colorado Fed Com

Colorado Fed Com 101H

OH

Plan #1

Anticollision Report

03 September, 2021





Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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	9/3/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,904.52	Plan #1 (OH)	OWSG (Rev2) MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Colorado Fed Com						
Colorado Fed Com 102H - OH - Plan #1	1,916.53	1,916.93	34.99	25.60	3.727	CC
Colorado Fed Com 102H - OH - Plan #1	2,000.00	2,000.00	34.99	25.18	3.568	ES
Colorado Fed Com 102H - OH - Plan #1	2,060.00	2,059.88	35.44	25.33	3.506	SF
Colorado Fed Com 801H - OH - Plan #1	1,956.81	1,958.54	65.54	56.02	6.885	CC
Colorado Fed Com 801H - OH - Plan #1	2,000.00	2,001.40	65.74	56.00	6.754	ES
Colorado Fed Com 801H - OH - Plan #1	8,284.68	8,286.83	108.40	64.77	2.485	SF
Colorado Fed Com 802H - OH - Plan #1	1,945.52	1,947.74	101.66	92.20	10.743	CC
Colorado Fed Com 802H - OH - Plan #1	2,000.00	2,001.76	101.88	92.15	10.469	ES
Colorado Fed Com 802H - OH - Plan #1	2,100.00	2,100.74	103.89	93.66	10.159	SF
Colorado Fed Com 803H - OH - Plan #1	1,416.12	1,417.72	139.98	133.12	20.424	CC
Colorado Fed Com 803H - OH - Plan #1	1,500.00	1,500.00	139.99	132.71	19.243	ES
Colorado Fed Com 803H - OH - Plan #1	1,800.00	1,790.42	151.41	142.69	17.359	SF
Custer Mountain Unit #001 (Offset) - OH - OH	10,460.76	8,803.55	1,606.18	1,401.00	7.828	CC, ES, SF
Woolworth Ranch Unit #001 (Offset) - OH - OH	15,738.80	8,806.72	2,926.70	2,685.65	12.142	CC, ES
Woolworth Ranch Unit #001 (Offset) - OH - OH	15,900.00	8,806.66	2,931.13	2,689.18	12.114	SF
Georgetown/Ouray						
Georgetown Fed Com 301H - OH - Plan #1	8,680.93	8,635.76	73.85	30.59	1.707	CC, ES, SF
Georgetown Fed Com 601H - OH - Plan #1	2,260.22	2,251.83	77.22	66.13	6.960	CC
Georgetown Fed Com 601H - OH - Plan #1	8,600.00	8,576.98	78.38	35.45	1.826	ES, SF
Georgetown Fed Com 701H - OH - Plan #1	2,060.00	2,051.90	77.14	67.04	7.634	CC
Georgetown Fed Com 701H - OH - Plan #1	8,450.00	8,449.19	87.56	44.90	2.053	ES, SF
Ouray Fed Com 302H - OH - Plan #1	1,315.92	1,318.12	174.05	167.70	27.422	CC
Ouray Fed Com 302H - OH - Plan #1	1,400.00	1,402.16	174.05	167.28	25.697	ES
Ouray Fed Com 302H - OH - Plan #1	18,904.52	20,305.48	1,865.86	1,661.98	9.152	SF
Ouray Fed Com 602H - OH - Plan #1	2,060.00	2,052.60	114.96	104.86	11.375	CC
Ouray Fed Com 602H - OH - Plan #1	2,100.00	2,092.60	115.14	104.84	11.172	ES
Ouray Fed Com 602H - OH - Plan #1	2,300.00	2,292.44	121.47	110.18	10.756	SF
Ouray Fed Com 702H - OH - Plan #1	2,060.00	2,051.90	91.43	81.32	9.048	CC
Ouray Fed Com 702H - OH - Plan #1	2,100.00	2,091.90	91.57	81.27	8.887	ES
Ouray Fed Com 702H - OH - Plan #1	2,300.00	2,291.74	96.83	85.54	8.576	SF
Ouray Fed Com 703H - OH - Plan #1	2,060.00	2,052.60	143.27	133.16	14.176	CC
Ouray Fed Com 703H - OH - Plan #1	2,100.00	2,092.60	143.46	133.15	13.920	ES
Ouray Fed Com 703H - OH - Plan #1	2,300.00	2,292.44	150.28	138.99	13.308	SF

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.40	0.40	0.00	0.00	89.44	0.34	34.99	34.99					
100.00	100.00	100.40	100.40	0.13	0.13	89.44	0.34	34.99	34.99	34.81	0.18	196.085		
200.00	200.00	200.40	200.40	0.48	0.49	89.44	0.34	34.99	34.99	34.31	0.69	51.053		
300.00	300.00	300.40	300.40	0.84	0.84	89.44	0.34	34.99	34.99	33.80	1.19	29.347		
400.00	400.00	400.40	400.40	1.20	1.20	89.44	0.34	34.99	34.99	33.29	1.70	20.592		
500.00	500.00	500.40	500.40	1.56	1.56	89.44	0.34	34.99	34.99	32.79	2.21	15.860		
600.00	600.00	600.40	600.40	1.92	1.92	89.44	0.34	34.99	34.99	32.28	2.71	12.897		
700.00	700.00	700.40	700.40	2.28	2.28	89.44	0.34	34.99	34.99	31.77	3.22	10.866		
800.00	800.00	800.40	800.40	2.63	2.64	89.44	0.34	34.99	34.99	31.26	3.73	9.388		
900.00	900.00	900.40	900.40	2.99	2.99	89.44	0.34	34.99	34.99	30.76	4.23	8.264		
1,000.00	1,000.00	1,000.40	1,000.40	3.35	3.35	89.44	0.34	34.99	34.99	30.25	4.74	7.381		
1,100.00	1,100.00	1,100.40	1,100.40	3.71	3.71	89.44	0.34	34.99	34.99	29.74	5.25	6.668		
1,200.00	1,200.00	1,200.40	1,200.40	4.07	4.07	89.44	0.34	34.99	34.99	29.24	5.75	6.080		
1,300.00	1,300.00	1,300.40	1,300.40	4.43	4.43	89.44	0.34	34.99	34.99	28.73	6.26	5.588		
1,400.00	1,400.00	1,400.40	1,400.40	4.79	4.79	89.44	0.34	34.99	34.99	28.22	6.77	5.169		
1,500.00	1,500.00	1,500.40	1,500.40	5.14	5.15	89.44	0.34	34.99	34.99	27.72	7.28	4.809		
1,600.00	1,600.00	1,600.40	1,600.40	5.50	5.50	89.44	0.34	34.99	34.99	27.21	7.78	4.496		
1,700.00	1,700.00	1,700.40	1,700.40	5.86	5.86	89.44	0.34	34.99	34.99	26.70	8.29	4.221		
1,800.00	1,800.00	1,800.40	1,800.40	6.22	6.22	89.44	0.34	34.99	34.99	26.19	8.80	3.978		
1,900.00	1,900.00	1,900.40	1,900.40	6.58	6.58	89.44	0.34	34.99	34.99	25.69	9.30	3.761		
1,916.53	1,916.53	1,916.93	1,916.93	6.64	6.64	89.44	0.34	34.99	34.99	25.60	9.39	3.727 CC		
2,000.00	2,000.00	2,000.00	2,000.00	6.94	6.94	89.44	0.34	34.99	34.99	25.18	9.81	3.568 ES		
2,060.00	2,060.00	2,059.88	2,059.88	7.15	7.14	89.70	0.19	35.43	35.44	25.33	10.11	3.506 SF		
2,100.00	2,100.00	2,099.51	2,099.50	7.29	7.28	-169.80	-0.09	36.21	36.43	26.13	10.30	3.537		
2,200.00	2,199.97	2,198.36	2,198.27	7.63	7.61	-168.63	-1.35	39.85	42.44	31.68	10.76	3.943		
2,300.00	2,299.84	2,296.57	2,296.27	7.97	7.95	-167.52	-3.44	45.86	53.47	42.25	11.22	4.764		
2,400.00	2,399.55	2,393.78	2,393.08	8.32	8.29	-166.67	-6.32	54.14	69.47	57.79	11.67	5.950		
2,500.00	2,499.03	2,490.54	2,489.22	8.67	8.62	-166.10	-9.92	64.50	90.16	78.03	12.13	7.432		
2,576.48	2,574.90	2,564.91	2,563.08	8.94	8.89	-165.98	-12.79	72.75	107.98	95.48	12.50	8.640		
2,600.00	2,598.21	2,587.73	2,585.74	9.02	8.97	-165.99	-13.67	75.29	113.68	101.07	12.61	9.015		
2,700.00	2,697.30	2,684.75	2,682.09	9.38	9.32	-166.04	-17.42	86.06	137.91	124.83	13.09	10.539		
2,800.00	2,796.39	2,781.77	2,778.43	9.75	9.67	-166.08	-21.17	96.83	162.15	148.58	13.56	11.954		
2,900.00	2,895.47	2,878.79	2,874.78	10.12	10.02	-166.10	-24.91	107.60	186.38	172.34	14.05	13.270		
3,000.00	2,994.56	2,975.81	2,971.12	10.49	10.38	-166.12	-28.66	118.37	210.62	196.09	14.53	14.497		
3,100.00	3,093.65	3,072.83	3,067.47	10.87	10.74	-166.14	-32.40	129.14	234.85	219.84	15.01	15.642		
3,200.00	3,192.74	3,169.85	3,163.82	11.25	11.11	-166.15	-36.15	139.91	259.09	243.59	15.50	16.715		
3,300.00	3,291.82	3,266.87	3,260.16	11.64	11.47	-166.16	-39.89	150.68	283.33	267.34	15.99	17.720		
3,400.00	3,390.91	3,363.88	3,356.51	12.02	11.84	-166.17	-43.64	161.45	307.56	291.08	16.48	18.664		
3,500.00	3,490.00	3,460.90	3,452.86	12.41	12.20	-166.18	-47.38	172.22	331.80	314.83	16.97	19.551		
3,600.00	3,589.09	3,557.92	3,549.20	12.80	12.57	-166.18	-51.13	182.99	356.03	338.57	17.46	20.387		
3,700.00	3,688.17	3,654.94	3,645.55	13.19	12.94	-166.19	-54.88	193.76	380.27	362.31	17.96	21.176		
3,800.00	3,787.26	3,751.96	3,741.90	13.58	13.32	-166.19	-58.62	204.53	404.50	386.05	18.45	21.922		
3,900.00	3,886.35	3,848.98	3,838.24	13.98	13.69	-166.20	-62.37	215.30	428.74	409.79	18.95	22.627		
4,000.00	3,985.43	3,946.00	3,934.59	14.38	14.07	-166.20	-66.11	226.07	452.97	433.53	19.45	23.295		
4,100.00	4,084.52	4,043.02	4,030.93	14.77	14.44	-166.20	-69.86	236.84	477.21	457.27	19.94	23.929		
4,200.00	4,183.61	4,140.03	4,127.28	15.17	14.82	-166.21	-73.60	247.61	501.44	481.00	20.44	24.531		
4,300.00	4,282.70	4,237.05	4,223.63	15.57	15.19	-166.21	-77.35	258.38	525.68	504.74	20.94	25.103		
4,400.00	4,381.78	4,334.07	4,319.97	15.97	15.57	-166.21	-81.09	269.15	549.92	528.47	21.44	25.648		
4,500.00	4,480.87	4,431.09	4,416.32	16.37	15.95	-166.22	-84.84	279.92	574.15	552.21	21.94	26.167		
4,600.00	4,579.96	4,528.11	4,512.67	16.78	16.33	-166.22	-88.59	290.69	598.39	575.94	22.44	26.662		
4,700.00	4,679.05	4,625.13	4,609.01	17.18	16.71	-166.22	-92.33	301.47	622.62	599.68	22.95	27.135		
4,800.00	4,778.13	4,722.15	4,705.36	17.59	17.09	-166.22	-96.08	312.24	646.86	623.41	23.45	27.587		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
4,900.00	4,877.22	4,819.17	4,801.70	17.99	17.47	-166.22	-99.82	323.01	671.09	647.14	23.95	28.019				
5,000.00	4,976.31	4,916.19	4,898.05	18.40	17.86	-166.22	-103.57	333.78	695.33	670.87	24.45	28.433				
5,100.00	5,075.39	5,013.20	4,994.40	18.80	18.24	-166.23	-107.31	344.55	719.56	694.60	24.96	28.830				
5,200.00	5,174.48	5,110.22	5,090.74	19.21	18.62	-166.23	-111.06	355.32	743.80	718.34	25.46	29.211				
5,300.00	5,273.57	5,207.24	5,187.09	19.62	19.00	-166.23	-114.80	366.09	768.03	742.07	25.97	29.576				
5,400.00	5,372.66	5,304.26	5,283.44	20.02	19.39	-166.23	-118.55	376.86	792.27	765.80	26.47	29.927				
5,500.00	5,471.74	5,401.28	5,379.78	20.43	19.77	-166.23	-122.30	387.63	816.50	789.53	26.98	30.265				
5,600.00	5,570.83	5,498.30	5,476.13	20.84	20.16	-166.23	-126.04	398.40	840.74	813.26	27.48	30.589				
5,700.00	5,669.92	5,595.32	5,572.48	21.25	20.54	-166.23	-129.79	409.17	864.98	836.98	27.99	30.902				
5,800.00	5,769.01	5,692.34	5,668.82	21.66	20.93	-166.23	-133.53	419.94	889.21	860.71	28.50	31.202				
5,900.00	5,868.09	5,789.35	5,765.17	22.07	21.31	-166.24	-137.28	430.71	913.45	884.44	29.01	31.493				
6,000.00	5,967.18	5,886.37	5,861.51	22.48	21.70	-166.24	-141.02	441.48	937.68	908.17	29.51	31.772				
6,100.00	6,066.27	5,983.39	5,957.86	22.89	22.08	-166.24	-144.77	452.25	961.92	931.90	30.02	32.042				
6,200.00	6,165.35	6,080.41	6,054.21	23.30	22.47	-166.24	-148.52	463.02	986.15	955.62	30.53	32.303				
6,300.00	6,264.44	6,177.43	6,150.55	23.71	22.86	-166.24	-152.26	473.79	1,010.39	979.35	31.04	32.555				
6,400.00	6,363.53	6,274.45	6,246.90	24.13	23.24	-166.24	-156.01	484.56	1,034.62	1,003.08	31.54	32.799				
6,500.00	6,462.62	6,371.47	6,343.25	24.54	23.63	-166.24	-159.75	495.33	1,058.86	1,026.81	32.05	33.034				
6,600.00	6,561.70	6,468.49	6,439.59	24.95	24.02	-166.24	-163.50	506.10	1,083.09	1,050.53	32.56	33.262				
6,700.00	6,660.79	6,565.50	6,535.94	25.36	24.41	-166.24	-167.24	516.87	1,107.33	1,074.26	33.07	33.483				
6,800.00	6,759.88	6,662.52	6,632.29	25.78	24.79	-166.24	-170.99	527.64	1,131.57	1,097.98	33.58	33.697				
6,900.00	6,858.97	6,759.54	6,728.63	26.19	25.18	-166.24	-174.73	538.41	1,155.80	1,121.71	34.09	33.904				
7,000.00	6,958.05	6,856.56	6,824.98	26.60	25.57	-166.24	-178.48	549.18	1,180.04	1,145.44	34.60	34.105				
7,100.00	7,057.14	6,953.58	6,921.32	27.01	25.96	-166.24	-182.23	559.95	1,204.27	1,169.16	35.11	34.300				
7,123.17	7,080.10	6,976.06	6,943.64	27.11	26.05	-166.24	-183.09	562.45	1,209.89	1,174.66	35.23	34.344				
7,200.00	7,156.33	7,053.84	7,020.89	27.42	26.36	-166.30	-186.09	571.07	1,227.77	1,192.13	35.64	34.452				
7,300.00	7,255.80	7,196.47	7,162.85	27.82	26.91	-166.36	-190.61	584.06	1,246.86	1,210.49	36.37	34.286				
7,400.00	7,355.51	7,341.39	7,307.51	28.19	27.44	-166.41	-193.41	592.11	1,259.87	1,222.81	37.06	33.999				
7,500.00	7,455.39	7,487.73	7,453.81	28.55	27.95	-166.48	-194.41	594.99	1,266.69	1,228.99	37.70	33.600				
7,600.00	7,555.36	7,589.68	7,555.76	28.89	28.28	-166.51	-194.41	594.99	1,268.97	1,230.78	38.19	33.225				
7,639.64	7,595.00	7,629.32	7,595.40	29.02	28.41	93.36	-194.41	594.99	1,269.17	1,230.79	38.38	33.065				
7,700.00	7,655.36	7,689.68	7,655.76	29.22	28.60	93.36	-194.41	594.99	1,269.17	1,230.50	38.67	32.818				
7,800.00	7,755.36	7,789.68	7,755.76	29.54	28.93	93.36	-194.41	594.99	1,269.17	1,230.02	39.15	32.417				
7,900.00	7,855.36	7,889.68	7,855.76	29.86	29.26	93.36	-194.41	594.99	1,269.17	1,229.54	39.63	32.025				
8,000.00	7,955.36	7,989.68	7,955.76	30.19	29.59	93.36	-194.41	594.99	1,269.17	1,229.06	40.11	31.641				
8,100.00	8,055.36	8,089.68	8,055.76	30.51	29.91	93.36	-194.41	594.99	1,269.17	1,228.58	40.59	31.266				
8,200.00	8,155.36	8,189.68	8,155.76	30.84	30.24	93.36	-194.41	594.99	1,269.17	1,228.10	41.07	30.900				
8,210.17	8,165.52	8,199.84	8,165.92	30.87	30.28	93.36	-194.41	594.99	1,269.17	1,228.05	41.12	30.863				
8,284.68	8,240.04	8,273.50	8,239.58	31.11	30.52	93.36	-194.33	595.00	1,269.18	1,227.70	41.48	30.598				
8,300.00	8,255.35	8,287.54	8,253.61	31.16	30.57	104.34	-193.93	595.04	1,269.25	1,227.70	41.55	30.548				
8,350.00	8,305.21	8,333.33	8,299.24	31.33	30.71	104.21	-190.24	595.41	1,270.28	1,228.51	41.77	30.408				
8,400.00	8,354.58	8,379.04	8,344.34	31.49	30.86	103.98	-182.95	596.13	1,272.56	1,230.56	41.99	30.305				
8,450.00	8,403.07	8,424.66	8,388.64	31.65	30.99	103.63	-172.13	597.21	1,276.05	1,233.85	42.20	30.237				
8,500.00	8,450.32	8,470.18	8,431.83	31.80	31.12	103.18	-157.88	598.64	1,280.73	1,238.33	42.40	30.205				
8,550.00	8,495.98	8,515.59	8,473.65	31.95	31.24	102.62	-140.31	600.39	1,286.57	1,243.97	42.59	30.205				
8,600.00	8,539.68	8,560.89	8,513.85	32.09	31.35	101.97	-119.55	602.46	1,293.51	1,250.73	42.78	30.235				
8,650.00	8,581.10	8,606.08	8,552.19	32.22	31.45	101.22	-95.76	604.84	1,301.51	1,258.55	42.96	30.294				
8,700.00	8,619.93	8,650.00	8,587.53	32.35	31.54	100.39	-69.83	607.43	1,310.50	1,267.36	43.14	30.380				
8,750.00	8,655.87	8,696.20	8,622.43	32.48	31.63	99.47	-39.73	610.43	1,320.42	1,277.10	43.32	30.483				
8,800.00	8,688.64	8,741.17	8,653.96	32.60	31.70	98.48	-7.84	613.61	1,331.18	1,287.69	43.49	30.607				
8,850.00	8,718.00	8,786.11	8,682.86	32.72	31.77	97.42	26.40	617.03	1,342.72	1,299.04	43.67	30.746				
8,900.00	8,743.72	8,831.06	8,708.98	32.84	31.83	96.31	62.79	620.66	1,354.93	1,311.07	43.86	30.895				
8,950.00	8,765.60	8,876.07	8,732.18	32.98	31.88	95.14	101.15	624.49	1,367.74	1,323.69	44.05	31.052				

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	8,783.49	8,921.19	8,752.33	33.12	31.94	93.94	141.31	628.50	1,381.04	1,336.79	44.24	31.214		
9,050.00	8,797.24	8,966.47	8,769.30	33.29	32.01	92.72	183.07	632.67	1,394.74	1,350.29	44.45	31.376		
9,100.00	8,806.75	9,011.98	8,782.96	33.48	32.10	91.47	226.25	636.98	1,408.74	1,364.07	44.67	31.536		
9,150.00	8,811.95	9,057.79	8,793.19	33.68	32.20	90.23	270.67	641.41	1,422.93	1,378.04	44.90	31.692		
9,184.68	8,813.00	9,089.77	8,798.20	33.83	32.29	89.37	302.10	644.55	1,432.84	1,387.78	45.06	31.797		
9,200.00	8,813.00	9,103.99	8,799.86	33.91	32.33	89.44	316.15	645.95	1,437.19	1,392.05	45.14	31.841		
9,300.00	8,813.00	9,235.77	8,803.00	34.41	32.81	89.58	447.25	658.13	1,463.26	1,417.46	45.81	31.945		
9,400.00	8,813.00	9,438.39	8,803.00	34.98	33.81	89.59	649.67	666.04	1,480.52	1,433.59	46.93	31.548		
9,500.00	8,813.00	9,559.82	8,803.00	35.60	34.53	89.60	771.10	665.01	1,489.49	1,441.61	47.88	31.106		
9,600.00	8,813.00	9,659.67	8,803.00	36.27	35.20	89.60	870.95	663.91	1,494.83	1,445.99	48.83	30.610		
9,702.98	8,813.00	9,762.63	8,803.00	37.00	35.95	89.60	973.90	662.77	1,496.68	1,446.77	49.91	29.990		
9,800.00	8,813.00	9,859.65	8,803.00	37.74	36.72	89.60	1,070.91	661.70	1,496.68	1,445.69	51.00	29.349		
9,900.00	8,813.00	9,959.65	8,803.00	38.55	37.56	89.60	1,170.91	660.59	1,496.68	1,444.48	52.20	28.672		
10,000.00	8,813.00	10,059.65	8,803.00	39.42	38.46	89.60	1,270.90	659.49	1,496.68	1,443.21	53.48	27.987		
10,100.00	8,813.00	10,159.65	8,803.00	40.34	39.40	89.60	1,370.89	658.38	1,496.69	1,441.86	54.83	27.299		
10,200.00	8,813.00	10,259.65	8,803.00	41.30	40.39	89.60	1,470.89	657.28	1,496.69	1,440.45	56.24	26.613		
10,300.00	8,813.00	10,359.65	8,803.00	42.31	41.42	89.60	1,570.88	656.17	1,496.69	1,438.98	57.71	25.933		
10,400.00	8,813.00	10,459.65	8,803.00	43.35	42.49	89.60	1,670.87	655.06	1,496.69	1,437.45	59.24	25.264		
10,500.00	8,813.00	10,559.65	8,803.00	44.44	43.60	89.60	1,770.87	653.96	1,496.69	1,435.87	60.82	24.607		
10,600.00	8,813.00	10,659.65	8,803.00	45.55	44.74	89.60	1,870.86	652.85	1,496.69	1,434.24	62.45	23.966		
10,700.00	8,813.00	10,759.65	8,803.00	46.70	45.91	89.60	1,970.86	651.75	1,496.69	1,432.57	64.12	23.341		
10,800.00	8,813.00	10,859.65	8,803.00	47.88	47.11	89.60	2,070.85	650.64	1,496.70	1,430.86	65.84	22.734		
10,900.00	8,813.00	10,959.65	8,803.00	49.09	48.33	89.60	2,170.84	649.54	1,496.70	1,429.11	67.59	22.145		
11,000.00	8,813.00	11,059.65	8,803.00	50.32	49.58	89.60	2,270.84	648.43	1,496.70	1,427.33	69.37	21.575		
11,100.00	8,813.00	11,159.65	8,803.00	51.57	50.86	89.60	2,370.83	647.33	1,496.70	1,425.51	71.19	21.025		
11,200.00	8,813.00	11,259.65	8,803.00	52.85	52.15	89.60	2,470.83	646.22	1,496.70	1,423.67	73.04	20.493		
11,300.00	8,813.00	11,359.65	8,803.00	54.15	53.46	89.60	2,570.82	645.12	1,496.70	1,421.79	74.91	19.980		
11,400.00	8,813.00	11,459.65	8,803.00	55.46	54.80	89.60	2,670.81	644.01	1,496.70	1,419.90	76.81	19.486		
11,500.00	8,813.00	11,559.65	8,803.00	56.80	56.15	89.60	2,770.81	642.91	1,496.71	1,417.97	78.73	19.010		
11,600.00	8,813.00	11,659.65	8,803.00	58.15	57.51	89.60	2,870.80	641.80	1,496.71	1,416.03	80.68	18.552		
11,700.00	8,813.00	11,759.65	8,803.00	59.51	58.89	89.60	2,970.80	640.70	1,496.71	1,414.07	82.64	18.111		
11,800.00	8,813.00	11,859.65	8,803.00	60.89	60.29	89.60	3,070.79	639.59	1,496.71	1,412.08	84.63	17.686		
11,900.00	8,813.00	11,959.65	8,803.00	62.29	61.69	89.60	3,170.78	638.48	1,496.71	1,410.08	86.63	17.277		
12,000.00	8,813.00	12,059.65	8,803.00	63.69	63.11	89.60	3,270.78	637.38	1,496.71	1,408.06	88.65	16.884		
12,100.00	8,813.00	12,159.65	8,803.00	65.11	64.54	89.60	3,370.77	636.27	1,496.71	1,406.03	90.68	16.505		
12,200.00	8,813.00	12,259.65	8,803.00	66.54	65.98	89.60	3,470.76	635.17	1,496.72	1,403.99	92.73	16.140		
12,300.00	8,813.00	12,359.65	8,803.00	67.97	67.43	89.60	3,570.76	634.06	1,496.72	1,401.92	94.79	15.789		
12,400.00	8,813.00	12,459.65	8,803.00	69.42	68.89	89.60	3,670.75	632.96	1,496.72	1,399.85	96.87	15.451		
12,500.00	8,813.00	12,559.65	8,803.00	70.88	70.36	89.60	3,770.75	631.85	1,496.72	1,397.77	98.95	15.126		
12,600.00	8,813.00	12,659.65	8,803.00	72.34	71.83	89.60	3,870.74	630.75	1,496.72	1,395.67	101.05	14.812		
12,700.00	8,813.00	12,759.65	8,803.00	73.82	73.32	89.60	3,970.73	629.64	1,496.72	1,393.57	103.16	14.509		
12,800.00	8,813.00	12,859.65	8,803.00	75.30	74.81	89.60	4,070.73	628.54	1,496.72	1,391.45	105.28	14.217		
12,900.00	8,813.00	12,959.65	8,803.00	76.78	76.30	89.60	4,170.72	627.43	1,496.73	1,389.32	107.40	13.936		
13,000.00	8,813.00	13,059.65	8,803.00	78.28	77.81	89.60	4,270.72	626.33	1,496.73	1,387.19	109.54	13.664		
13,100.00	8,813.00	13,159.65	8,803.00	79.78	79.31	89.60	4,370.71	625.22	1,496.73	1,385.05	111.68	13.402		
13,200.00	8,813.00	13,259.65	8,803.00	81.28	80.83	89.60	4,470.70	624.12	1,496.73	1,382.90	113.83	13.149		
13,300.00	8,813.00	13,359.65	8,803.00	82.80	82.35	89.60	4,570.70	623.01	1,496.73	1,380.74	115.99	12.904		
13,400.00	8,813.00	13,459.65	8,803.00	84.31	83.87	89.60	4,670.69	621.91	1,496.73	1,378.58	118.15	12.668		
13,500.00	8,813.00	13,559.65	8,803.00	85.84	85.40	89.60	4,770.69	620.80	1,496.73	1,376.41	120.33	12.439		
13,600.00	8,813.00	13,659.65	8,803.00	87.36	86.94	89.60	4,870.68	619.69	1,496.74	1,374.23	122.50	12.218		
13,700.00	8,813.00	13,759.65	8,803.00	88.89	88.48	89.60	4,970.67	618.59	1,496.74	1,372.05	124.69	12.004		
13,800.00	8,813.00	13,859.65	8,803.00	90.43	90.02	89.60	5,070.67	617.48	1,496.74	1,369.86	126.88	11.797		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	8,813.00	13,959.65	8,803.00	91.97	91.57	89.60	5,170.66	616.38	1,496.74	1,367.67	129.07	11.596		
14,000.00	8,813.00	14,059.65	8,803.00	93.51	93.12	89.60	5,270.66	615.27	1,496.74	1,365.47	131.27	11.402		
14,100.00	8,813.00	14,159.65	8,803.00	95.06	94.67	89.60	5,370.65	614.17	1,496.74	1,363.27	133.47	11.214		
14,200.00	8,813.00	14,259.65	8,803.00	96.61	96.23	89.60	5,470.64	613.06	1,496.74	1,361.06	135.68	11.031		
14,300.00	8,813.00	14,359.65	8,803.00	98.17	97.79	89.60	5,570.64	611.96	1,496.75	1,358.85	137.90	10.854		
14,400.00	8,813.00	14,459.65	8,803.00	99.72	99.35	89.60	5,670.63	610.85	1,496.75	1,356.64	140.11	10.683		
14,500.00	8,813.00	14,559.65	8,803.00	101.29	100.92	89.60	5,770.62	609.75	1,496.75	1,354.42	142.33	10.516		
14,600.00	8,813.00	14,659.65	8,803.00	102.85	102.49	89.60	5,870.62	608.64	1,496.75	1,352.19	144.56	10.354		
14,700.00	8,813.00	14,759.65	8,803.00	104.41	104.06	89.60	5,970.61	607.54	1,496.75	1,349.97	146.79	10.197		
14,800.00	8,813.00	14,859.65	8,803.00	105.98	105.63	89.60	6,070.61	606.43	1,496.75	1,347.74	149.02	10.044		
14,900.00	8,813.00	14,959.65	8,803.00	107.56	107.21	89.60	6,170.60	605.33	1,496.75	1,345.50	151.25	9.896		
15,000.00	8,813.00	15,059.65	8,803.00	109.13	108.79	89.60	6,270.59	604.22	1,496.76	1,343.27	153.49	9.752		
15,100.00	8,813.00	15,159.65	8,803.00	110.71	110.37	89.60	6,370.59	603.12	1,496.76	1,341.03	155.73	9.611		
15,200.00	8,813.00	15,259.65	8,803.00	112.28	111.95	89.60	6,470.58	602.01	1,496.76	1,338.79	157.97	9.475		
15,300.00	8,813.00	15,359.65	8,803.00	113.86	113.54	89.60	6,570.58	600.90	1,496.76	1,336.54	160.22	9.342		
15,400.00	8,813.00	15,459.65	8,803.00	115.45	115.12	89.60	6,670.57	599.80	1,496.76	1,334.29	162.47	9.213		
15,500.00	8,813.00	15,559.65	8,803.00	117.03	116.71	89.60	6,770.56	598.69	1,496.76	1,332.04	164.72	9.087		
15,600.00	8,813.00	15,659.65	8,803.00	118.62	118.30	89.60	6,870.56	597.59	1,496.76	1,329.79	166.97	8.964		
15,700.00	8,813.00	15,759.65	8,803.00	120.21	119.89	89.60	6,970.55	596.48	1,496.77	1,327.54	169.23	8.845		
15,800.00	8,813.00	15,859.65	8,803.00	121.80	121.49	89.60	7,070.55	595.38	1,496.77	1,325.28	171.49	8.728		
15,900.00	8,813.00	15,959.65	8,803.00	123.39	123.08	89.60	7,170.54	594.27	1,496.77	1,323.02	173.75	8.615		
16,000.00	8,813.00	16,059.65	8,803.00	124.98	124.68	89.60	7,270.53	593.17	1,496.77	1,320.76	176.01	8.504		
16,100.00	8,813.00	16,159.65	8,803.00	126.58	126.28	89.60	7,370.53	592.06	1,496.77	1,318.50	178.27	8.396		
16,200.00	8,813.00	16,259.65	8,803.00	128.17	127.88	89.60	7,470.52	590.96	1,496.77	1,316.23	180.54	8.291		
16,300.00	8,813.00	16,359.65	8,803.00	129.77	129.48	89.60	7,570.51	589.85	1,496.77	1,313.97	182.81	8.188		
16,400.00	8,813.00	16,459.65	8,803.00	131.37	131.08	89.60	7,670.51	588.75	1,496.78	1,311.70	185.08	8.087		
16,500.00	8,813.00	16,559.65	8,803.00	132.97	132.69	89.60	7,770.50	587.64	1,496.78	1,309.43	187.35	7.989		
16,600.00	8,813.00	16,659.65	8,803.00	134.57	134.29	89.60	7,870.50	586.54	1,496.78	1,307.16	189.62	7.893		
16,700.00	8,813.00	16,759.65	8,803.00	136.17	135.90	89.60	7,970.49	585.43	1,496.78	1,304.88	191.90	7.800		
16,800.00	8,813.00	16,859.65	8,803.00	137.78	137.50	89.60	8,070.48	584.32	1,496.78	1,302.61	194.17	7.708		
16,900.00	8,813.00	16,959.65	8,803.00	139.38	139.11	89.60	8,170.48	583.22	1,496.78	1,300.33	196.45	7.619		
17,000.00	8,813.00	17,059.65	8,803.00	140.99	140.72	89.60	8,270.47	582.11	1,496.78	1,298.05	198.73	7.532		
17,100.00	8,813.00	17,159.65	8,803.00	142.60	142.33	89.60	8,370.47	581.01	1,496.79	1,295.78	201.01	7.446		
17,200.00	8,813.00	17,259.65	8,803.00	144.20	143.94	89.60	8,470.46	579.90	1,496.79	1,293.49	203.29	7.363		
17,300.00	8,813.00	17,359.65	8,803.00	145.81	145.56	89.60	8,570.45	578.80	1,496.79	1,291.21	205.58	7.281		
17,400.00	8,813.00	17,459.65	8,803.00	147.42	147.17	89.60	8,670.45	577.69	1,496.79	1,288.93	207.86	7.201		
17,500.00	8,813.00	17,559.65	8,803.00	149.04	148.78	89.60	8,770.44	576.59	1,496.79	1,286.65	210.14	7.123		
17,600.00	8,813.00	17,659.65	8,803.00	150.65	150.40	89.60	8,870.44	575.48	1,496.79	1,284.36	212.43	7.046		
17,700.00	8,813.00	17,759.65	8,803.00	152.26	152.01	89.60	8,970.43	574.38	1,496.79	1,282.07	214.72	6.971		
17,800.00	8,813.00	17,859.65	8,803.00	153.88	153.63	89.60	9,070.42	573.27	1,496.80	1,279.79	217.01	6.897		
17,900.00	8,813.00	17,959.65	8,803.00	155.49	155.25	89.60	9,170.42	572.17	1,496.80	1,277.50	219.30	6.825		
18,000.00	8,813.00	18,059.65	8,803.00	157.11	156.87	89.60	9,270.41	571.06	1,496.80	1,275.21	221.59	6.755		
18,100.00	8,813.00	18,159.65	8,803.00	158.72	158.48	89.60	9,370.40	569.96	1,496.80	1,272.92	223.88	6.686		
18,200.00	8,813.00	18,259.65	8,803.00	160.34	160.10	89.60	9,470.40	568.85	1,496.80	1,270.63	226.17	6.618		
18,300.00	8,813.00	18,359.65	8,803.00	161.96	161.72	89.60	9,570.39	567.75	1,496.80	1,268.34	228.47	6.552		
18,400.00	8,813.00	18,459.65	8,803.00	163.58	163.34	89.60	9,670.39	566.64	1,496.80	1,266.04	230.76	6.486		
18,500.00	8,813.00	18,559.65	8,803.00	165.20	164.97	89.60	9,770.38	565.53	1,496.81	1,263.75	233.06	6.422		
18,600.00	8,813.00	18,659.65	8,803.00	166.82	166.59	89.60	9,870.37	564.43	1,496.81	1,261.45	235.35	6.360		
18,700.00	8,813.00	18,759.65	8,803.00	168.44	168.21	89.60	9,970.37	563.32	1,496.81	1,259.16	237.65	6.298		
18,800.00	8,813.00	18,859.65	8,803.00	170.06	169.83	89.60	10,070.36	562.22	1,496.81	1,256.86	239.95	6.238		
18,810.32	8,813.00	18,869.97	8,803.00	170.22	170.00	89.60	10,080.68	562.10	1,496.81	1,256.62	240.19	6.232		
18,904.52	8,813.00	18,961.77	8,803.00	171.75	171.49	89.60	10,172.47	561.09	1,496.81	1,254.49	242.32	6.177		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.80	0.80	0.00	0.00	89.44	0.68	69.99	69.99					
100.00	100.00	100.80	100.80	0.13	0.13	89.44	0.68	69.99	69.99	69.81	0.18	389.992		
200.00	200.00	200.80	200.80	0.48	0.49	89.44	0.68	69.99	69.99	69.31	0.69	101.969		
300.00	300.00	300.80	300.80	0.84	0.85	89.44	0.68	69.99	69.99	68.80	1.19	58.652		
400.00	400.00	400.80	400.80	1.20	1.20	89.44	0.68	69.99	69.99	68.29	1.70	41.165		
500.00	500.00	500.80	500.80	1.56	1.56	89.44	0.68	69.99	69.99	67.79	2.21	31.710		
600.00	600.00	600.80	600.80	1.92	1.92	89.44	0.68	69.99	69.99	67.28	2.71	25.787		
700.00	700.00	700.80	700.80	2.28	2.28	89.44	0.68	69.99	69.99	66.77	3.22	21.729		
800.00	800.00	800.80	800.80	2.63	2.64	89.44	0.68	69.99	69.99	66.27	3.73	18.774		
900.00	900.00	900.80	900.80	2.99	3.00	89.44	0.68	69.99	69.99	65.76	4.24	16.527		
1,000.00	1,000.00	1,000.80	1,000.80	3.35	3.35	89.44	0.68	69.99	69.99	65.25	4.74	14.760		
1,100.00	1,100.00	1,100.80	1,100.80	3.71	3.71	89.44	0.68	69.99	69.99	64.74	5.25	13.335		
1,200.00	1,200.00	1,200.80	1,200.80	4.07	4.07	89.44	0.68	69.99	69.99	64.24	5.76	12.160		
1,300.00	1,300.00	1,300.80	1,300.80	4.43	4.43	89.44	0.68	69.99	69.99	63.73	6.26	11.176		
1,400.00	1,400.00	1,400.80	1,400.80	4.79	4.79	89.44	0.68	69.99	69.99	63.22	6.77	10.339		
1,500.00	1,500.00	1,500.80	1,500.80	5.14	5.15	89.44	0.68	69.99	69.99	62.72	7.28	9.619		
1,600.00	1,600.00	1,601.28	1,601.28	5.50	5.49	90.03	-0.04	69.73	69.73	61.96	7.78	8.969		
1,700.00	1,700.00	1,701.81	1,701.75	5.86	5.82	92.64	-3.16	68.59	68.67	60.41	8.26	8.314		
1,800.00	1,800.00	1,802.10	1,801.86	6.22	6.15	97.50	-8.76	66.55	67.14	58.39	8.75	7.675		
1,900.00	1,900.00	1,902.00	1,901.39	6.58	6.49	104.78	-16.79	63.63	65.81	56.57	9.24	7.124		
1,956.81	1,956.81	1,958.54	1,957.61	6.78	6.68	110.00	-22.41	61.58	65.54	56.02	9.52	6.885 CC		
2,000.00	2,000.00	2,001.40	2,000.16	6.94	6.83	114.44	-27.20	59.84	65.74	56.00	9.73	6.754 ES		
2,060.00	2,060.00	2,061.46	2,059.73	7.15	7.04	121.06	-34.37	57.07	66.63	56.60	10.03	6.641		
2,100.00	2,100.00	2,101.85	2,099.81	7.29	7.18	-134.68	-38.88	54.87	67.40	57.17	10.23	6.588		
2,200.00	2,199.97	2,203.10	2,200.35	7.63	7.54	-126.19	-48.77	48.11	69.99	59.27	10.73	6.526		
2,300.00	2,299.84	2,304.69	2,301.27	7.97	7.91	-120.17	-56.68	39.54	72.59	61.37	11.22	6.467		
2,400.00	2,399.55	2,406.51	2,402.38	8.32	8.28	-116.24	-62.56	29.17	74.38	62.66	11.72	6.344		
2,500.00	2,499.03	2,508.38	2,503.44	8.67	8.66	-114.12	-66.40	17.01	74.89	62.67	12.23	6.125		
2,511.49	2,510.44	2,519.87	2,514.83	8.71	8.70	-113.99	-66.72	15.55	74.89	62.60	12.29	6.095		
2,576.48	2,574.90	2,584.85	2,579.26	8.94	8.94	-113.69	-68.57	7.27	75.11	62.49	12.62	5.951		
2,600.00	2,598.21	2,608.37	2,602.58	9.02	9.03	-113.72	-69.24	4.28	75.27	62.53	12.74	5.907		
2,700.00	2,697.30	2,708.37	2,701.72	9.38	9.41	-113.86	-72.08	-8.46	75.97	62.70	13.26	5.727		
2,800.00	2,796.39	2,808.37	2,800.86	9.75	9.79	-113.99	-74.93	-21.20	76.66	62.87	13.79	5.559		
2,900.00	2,895.47	2,908.36	2,900.01	10.12	10.17	-114.12	-77.77	-33.94	77.35	63.03	14.32	5.401		
3,000.00	2,994.56	3,008.36	2,999.15	10.49	10.55	-114.25	-80.61	-46.68	78.04	63.18	14.86	5.253		
3,100.00	3,093.65	3,108.36	3,098.29	10.87	10.94	-114.38	-83.46	-59.42	78.73	63.34	15.39	5.115		
3,200.00	3,192.74	3,208.36	3,197.43	11.25	11.33	-114.50	-86.30	-72.15	79.43	63.49	15.93	4.985		
3,300.00	3,291.82	3,308.35	3,296.57	11.64	11.72	-114.63	-89.14	-84.89	80.12	63.64	16.48	4.862		
3,400.00	3,390.91	3,408.35	3,395.72	12.02	12.12	-114.75	-91.98	-97.63	80.81	63.79	17.02	4.747		
3,500.00	3,490.00	3,508.35	3,494.86	12.41	12.51	-114.87	-94.83	-110.37	81.51	63.93	17.57	4.638		
3,600.00	3,589.09	3,608.35	3,594.00	12.80	12.91	-114.98	-97.67	-123.11	82.20	64.08	18.12	4.536		
3,700.00	3,688.17	3,708.34	3,693.14	13.19	13.30	-115.10	-100.51	-135.85	82.90	64.22	18.67	4.439		
3,800.00	3,787.26	3,808.34	3,792.28	13.58	13.70	-115.21	-103.36	-148.58	83.59	64.36	19.23	4.347		
3,900.00	3,886.35	3,908.34	3,891.43	13.98	14.10	-115.32	-106.20	-161.32	84.29	64.50	19.78	4.260		
4,000.00	3,985.43	4,008.34	3,990.57	14.38	14.50	-115.43	-109.04	-174.06	84.98	64.64	20.34	4.178		
4,100.00	4,084.52	4,108.33	4,089.71	14.77	14.90	-115.54	-111.88	-186.80	85.68	64.78	20.90	4.100		
4,200.00	4,183.61	4,208.33	4,188.85	15.17	15.30	-115.64	-114.73	-199.54	86.37	64.92	21.46	4.026		
4,300.00	4,282.70	4,308.33	4,287.99	15.57	15.71	-115.75	-117.57	-212.28	87.07	65.05	22.02	3.955		
4,400.00	4,381.78	4,408.33	4,387.14	15.97	16.11	-115.85	-120.41	-225.01	87.77	65.19	22.58	3.887		
4,500.00	4,480.87	4,508.32	4,486.28	16.37	16.51	-115.95	-123.26	-237.75	88.46	65.33	23.14	3.823		
4,600.00	4,579.96	4,608.32	4,585.42	16.78	16.92	-116.05	-126.10	-250.49	89.16	65.46	23.70	3.762		
4,700.00	4,679.05	4,708.32	4,684.56	17.18	17.32	-116.15	-128.94	-263.23	89.86	65.60	24.26	3.703		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
4,800.00	4,778.13	4,808.32	4,783.70	17.59	17.73	-116.24	-131.78	-275.97	90.56	65.73	24.83	3.647				
4,900.00	4,877.22	4,908.31	4,882.85	17.99	18.14	-116.34	-134.63	-288.70	91.26	65.86	25.39	3.594				
5,000.00	4,976.31	5,008.31	4,981.99	18.40	18.54	-116.43	-137.47	-301.44	91.95	66.00	25.96	3.542				
5,100.00	5,075.39	5,108.31	5,081.13	18.80	18.95	-116.52	-140.31	-314.18	92.65	66.13	26.52	3.493				
5,200.00	5,174.48	5,208.31	5,180.27	19.21	19.36	-116.61	-143.16	-326.92	93.35	66.26	27.09	3.446				
5,300.00	5,273.57	5,308.30	5,279.41	19.62	19.77	-116.70	-146.00	-339.66	94.05	66.40	27.66	3.401				
5,400.00	5,372.66	5,408.30	5,378.56	20.02	20.17	-116.79	-148.84	-352.40	94.75	66.53	28.22	3.357				
5,500.00	5,471.74	5,508.30	5,477.70	20.43	20.58	-116.88	-151.69	-365.13	95.45	66.66	28.79	3.315				
5,600.00	5,570.83	5,608.30	5,576.84	20.84	20.99	-116.96	-154.53	-377.87	96.15	66.79	29.36	3.275				
5,700.00	5,669.92	5,708.29	5,675.98	21.25	21.40	-117.05	-157.37	-390.61	96.85	66.92	29.92	3.236				
5,800.00	5,769.01	5,808.29	5,775.12	21.66	21.81	-117.13	-160.21	-403.35	97.55	67.06	30.49	3.199				
5,900.00	5,868.09	5,908.29	5,874.27	22.07	22.22	-117.21	-163.06	-416.09	98.25	67.19	31.06	3.163				
6,000.00	5,967.18	6,008.29	5,973.41	22.48	22.63	-117.29	-165.90	-428.83	98.95	67.32	31.63	3.128				
6,100.00	6,066.27	6,108.28	6,072.55	22.89	23.04	-117.37	-168.74	-441.56	99.65	67.45	32.20	3.095				
6,200.00	6,165.35	6,208.28	6,171.69	23.30	23.45	-117.45	-171.59	-454.30	100.35	67.58	32.77	3.063				
6,300.00	6,264.44	6,308.28	6,270.84	23.71	23.86	-117.53	-174.43	-467.04	101.05	67.72	33.34	3.031				
6,400.00	6,363.53	6,408.28	6,369.98	24.13	24.27	-117.60	-177.27	-479.78	101.75	67.85	33.91	3.001				
6,500.00	6,462.62	6,508.27	6,469.12	24.54	24.68	-117.68	-180.11	-492.52	102.46	67.98	34.48	2.972				
6,600.00	6,561.70	6,608.27	6,568.26	24.95	25.09	-117.75	-182.96	-505.26	103.16	68.11	35.05	2.944				
6,700.00	6,660.79	6,708.27	6,667.40	25.36	25.50	-117.83	-185.80	-517.99	103.86	68.24	35.61	2.916				
6,800.00	6,759.88	6,808.27	6,766.55	25.78	25.92	-117.90	-188.64	-530.73	104.56	68.38	36.18	2.890				
6,900.00	6,858.97	6,908.26	6,865.69	26.19	26.33	-117.97	-191.49	-543.47	105.26	68.51	36.76	2.864				
7,000.00	6,958.05	7,008.26	6,964.83	26.60	26.74	-118.04	-194.33	-556.21	105.97	68.64	37.33	2.839				
7,100.00	7,057.14	7,108.26	7,063.97	27.01	27.15	-118.11	-197.17	-568.95	106.67	68.77	37.90	2.815				
7,123.17	7,080.10	7,131.42	7,086.94	27.11	27.25	-118.12	-197.83	-571.90	106.83	68.80	38.03	2.809				
7,200.00	7,156.33	7,207.45	7,162.39	27.42	27.55	-118.10	-199.87	-581.02	107.26	68.79	38.47	2.788				
7,300.00	7,255.80	7,306.24	7,260.68	27.82	27.94	-118.07	-202.03	-590.70	107.71	68.70	39.01	2.761				
7,400.00	7,355.51	7,405.04	7,359.20	28.19	28.31	-118.05	-203.63	-597.90	108.05	68.51	39.54	2.733				
7,500.00	7,455.39	7,503.83	7,457.87	28.55	28.67	-118.04	-204.68	-602.61	108.27	68.24	40.03	2.705				
7,600.00	7,555.36	7,602.62	7,556.63	28.89	29.01	-118.04	-205.18	-604.82	108.39	67.88	40.50	2.676				
7,639.64	7,595.00	7,641.79	7,595.80	29.02	29.14	141.83	-205.22	-605.01	108.40	67.72	40.68	2.665				
7,700.00	7,655.36	7,702.15	7,656.16	29.22	29.33	141.83	-205.22	-605.01	108.40	67.44	40.95	2.647				
7,800.00	7,755.36	7,802.15	7,756.16	29.54	29.64	141.83	-205.22	-605.01	108.40	66.99	41.41	2.618				
7,900.00	7,855.36	7,902.15	7,856.16	29.86	29.96	141.83	-205.22	-605.01	108.40	66.53	41.86	2.589				
8,000.00	7,955.36	8,002.15	7,956.16	30.19	30.28	141.83	-205.22	-605.01	108.40	66.08	42.32	2.561				
8,100.00	8,055.36	8,102.15	8,056.16	30.51	30.60	141.83	-205.22	-605.01	108.40	65.62	42.78	2.534				
8,200.00	8,155.36	8,202.15	8,156.16	30.84	30.92	141.83	-205.22	-605.01	108.40	65.16	43.24	2.507				
8,284.68	8,240.04	8,286.83	8,240.84	31.11	31.19	141.83	-205.22	-605.01	108.40	64.77	43.63	2.485 SF				
8,300.00	8,255.35	8,302.15	8,256.15	31.16	31.24	152.87	-205.22	-605.01	108.58	64.88	43.70	2.485				
8,350.00	8,305.21	8,352.01	8,306.01	31.33	31.40	153.55	-205.22	-605.01	111.72	67.76	43.96	2.542				
8,400.00	8,354.58	8,401.37	8,355.38	31.49	31.56	154.93	-205.22	-605.01	118.80	74.57	44.23	2.686				
8,450.00	8,403.07	8,449.86	8,403.87	31.65	31.72	156.74	-205.22	-605.01	129.92	85.40	44.52	2.918				
8,500.00	8,450.32	8,497.12	8,451.12	31.80	31.87	158.69	-205.22	-605.01	145.12	100.34	44.79	3.240				
8,550.00	8,495.98	8,542.77	8,496.78	31.95	32.02	160.56	-205.22	-605.01	164.40	119.36	45.04	3.650				
8,600.00	8,539.68	8,586.47	8,540.48	32.09	32.16	162.21	-205.22	-605.01	187.68	142.41	45.27	4.146				
8,650.00	8,581.10	8,627.90	8,581.90	32.22	32.30	163.58	-205.22	-605.01	214.79	169.31	45.48	4.723				
8,700.00	8,619.93	8,666.72	8,620.73	32.35	32.42	164.63	-205.22	-605.01	245.52	199.86	45.66	5.377				
8,750.00	8,655.87	8,702.66	8,656.67	32.48	32.54	165.35	-205.22	-605.01	279.64	233.82	45.82	6.103				
8,800.00	8,688.64	8,735.43	8,689.44	32.60	32.65	165.74	-205.22	-605.01	316.86	270.89	45.96	6.893				
8,850.00	8,718.00	8,764.79	8,718.80	32.72	32.74	165.75	-205.22	-605.01	356.87	310.78	46.09	7.743				
8,900.00	8,743.72	8,790.51	8,744.52	32.84	32.82	165.32	-205.22	-605.01	399.36	353.17	46.19	8.646				
8,950.00	8,765.60	8,812.40	8,766.40	32.98	32.90	164.27	-205.22	-605.01	443.99	397.71	46.27	9.595				

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado 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		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	8,783.49	8,830.28	8,784.29	33.12	32.95	162.24	-205.22	-605.01	490.40	444.06	46.34	10.583		
9,050.00	8,797.24	8,844.03	8,798.04	33.29	33.00	158.37	-205.22	-605.01	538.23	491.84	46.39	11.603		
9,100.00	8,806.75	8,853.54	8,807.55	33.48	33.03	150.12	-205.22	-605.01	587.11	540.69	46.42	12.648		
9,150.00	8,811.95	8,858.74	8,812.75	33.68	33.05	127.80	-205.22	-605.01	636.66	590.22	46.44	13.710		
9,184.68	8,813.00	8,859.79	8,813.80	33.83	33.05	90.00	-205.22	-605.01	671.22	624.78	46.44	14.454		
9,200.00	8,813.00	8,859.79	8,813.80	33.91	33.05	90.00	-205.22	-605.01	686.49	640.05	46.44	14.783		
9,300.00	8,813.00	8,859.79	8,813.80	34.41	33.05	90.00	-205.22	-605.01	786.10	739.66	46.44	16.928		
9,400.00	8,813.00	8,859.79	8,813.80	34.98	33.05	90.00	-205.22	-605.01	885.48	839.04	46.43	19.069		
9,500.00	8,813.00	8,859.79	8,813.80	35.60	33.05	90.00	-205.22	-605.01	984.60	938.17	46.43	21.205		
9,600.00	8,813.00	8,859.79	8,813.80	36.27	33.05	90.00	-205.22	-605.01	1,083.43	1,037.00	46.43	23.336		
9,702.98	8,813.00	8,859.79	8,813.80	37.00	33.05	90.00	-205.22	-605.01	1,184.87	1,138.45	46.42	25.523		
9,800.00	8,813.00	8,859.79	8,813.80	37.74	33.05	90.00	-205.22	-605.01	1,280.39	1,233.97	46.42	27.582		
9,900.00	8,813.00	8,859.79	8,813.80	38.55	33.05	90.00	-205.22	-605.01	1,379.06	1,332.64	46.42	29.709		
10,000.00	8,813.00	8,859.79	8,813.80	39.42	33.05	90.00	-205.22	-605.01	1,477.91	1,431.49	46.42	31.838		
10,100.00	8,813.00	8,859.79	8,813.80	40.34	33.05	90.00	-205.22	-605.01	1,576.90	1,530.48	46.42	33.970		
10,200.00	8,813.00	8,859.79	8,813.80	41.30	33.05	90.00	-205.22	-605.01	1,676.02	1,629.60	46.42	36.103		
10,300.00	8,813.00	8,859.79	8,813.80	42.31	33.05	90.00	-205.22	-605.01	1,775.23	1,728.81	46.43	38.237		
10,400.00	8,813.00	8,859.79	8,813.80	43.35	33.05	90.00	-205.22	-605.01	1,874.53	1,828.10	46.43	40.371		
10,500.00	8,813.00	8,859.79	8,813.80	44.44	33.05	90.00	-205.22	-605.01	1,973.90	1,927.46	46.44	42.505		
10,600.00	8,813.00	8,859.79	8,813.80	45.55	33.05	90.00	-205.22	-605.01	2,073.33	2,026.88	46.45	44.639		
10,700.00	8,813.00	8,859.79	8,813.80	46.70	33.05	90.00	-205.22	-605.01	2,172.81	2,126.35	46.45	46.773		
10,800.00	8,813.00	8,859.79	8,813.80	47.88	33.05	90.00	-205.22	-605.01	2,272.33	2,225.87	46.46	48.905		
10,900.00	8,813.00	8,859.79	8,813.80	49.09	33.05	90.00	-205.22	-605.01	2,371.90	2,325.43	46.47	51.037		
11,000.00	8,813.00	8,859.79	8,813.80	50.32	33.05	90.00	-205.22	-605.01	2,471.50	2,425.02	46.49	53.167		
11,100.00	8,813.00	8,859.79	8,813.80	51.57	33.05	90.00	-205.22	-605.01	2,571.14	2,524.64	46.50	55.295		
11,200.00	8,813.00	8,859.79	8,813.80	52.85	33.05	90.00	-205.22	-605.01	2,670.80	2,624.28	46.51	57.422		
11,300.00	8,813.00	8,859.79	8,813.80	54.15	33.05	90.00	-205.22	-605.01	2,770.48	2,723.95	46.53	59.548		
11,400.00	8,813.00	8,859.79	8,813.80	55.46	33.05	90.00	-205.22	-605.01	2,870.19	2,823.65	46.54	61.671		
11,500.00	8,813.00	8,859.79	8,813.80	56.80	33.05	90.00	-205.22	-605.01	2,969.91	2,923.36	46.56	63.792		
11,600.00	8,813.00	8,859.79	8,813.80	58.15	33.05	90.00	-205.22	-605.01	3,069.66	3,023.08	46.57	65.911		
11,700.00	8,813.00	8,859.79	8,813.80	59.51	33.05	90.00	-205.22	-605.01	3,169.42	3,122.83	46.59	68.028		
11,800.00	8,813.00	8,859.79	8,813.80	60.89	33.05	90.00	-205.22	-605.01	3,269.19	3,222.58	46.61	70.142		
11,900.00	8,813.00	8,859.79	8,813.80	62.29	33.05	90.00	-205.22	-605.01	3,368.98	3,322.35	46.63	72.254		
12,000.00	8,813.00	8,859.79	8,813.80	63.69	33.05	90.00	-205.22	-605.01	3,468.78	3,422.13	46.65	74.363		
12,100.00	8,813.00	8,859.79	8,813.80	65.11	33.05	90.00	-205.22	-605.01	3,568.59	3,521.93	46.67	76.469		
12,200.00	8,813.00	15,876.81	12,392.00	66.54	73.68	-179.99	3,454.22	-861.84	3,578.20	3,527.42	50.78	70.459		
12,300.00	8,813.00	15,976.81	12,392.00	67.97	74.99	-179.99	3,554.21	-862.94	3,578.20	3,526.54	51.66	69.261		
12,400.00	8,813.00	16,076.81	12,392.00	69.42	76.31	-179.99	3,654.20	-864.04	3,578.20	3,525.65	52.55	68.092		
12,500.00	8,813.00	16,176.81	12,392.00	70.88	77.64	-179.99	3,754.20	-865.14	3,578.20	3,524.76	53.44	66.951		
12,600.00	8,813.00	16,276.81	12,392.00	72.34	78.99	-179.99	3,854.19	-866.24	3,578.20	3,523.85	54.35	65.839		
12,700.00	8,813.00	16,376.81	12,392.00	73.82	80.35	-179.99	3,954.19	-867.34	3,578.20	3,522.94	55.26	64.753		
12,800.00	8,813.00	16,476.81	12,392.00	75.30	81.72	-179.99	4,054.18	-868.44	3,578.20	3,522.02	56.18	63.695		
12,900.00	8,813.00	16,576.81	12,392.00	76.78	83.10	-179.99	4,154.17	-869.54	3,578.20	3,521.10	57.10	62.664		
13,000.00	8,813.00	16,676.81	12,392.00	78.28	84.49	-179.99	4,254.17	-870.65	3,578.20	3,520.17	58.03	61.658		
13,100.00	8,813.00	16,776.81	12,392.00	79.78	85.89	-179.99	4,354.16	-871.75	3,578.20	3,519.23	58.97	60.678		
13,200.00	8,813.00	16,876.81	12,392.00	81.28	87.30	-179.99	4,454.16	-872.85	3,578.20	3,518.29	59.91	59.722		
13,300.00	8,813.00	16,976.81	12,392.00	82.80	88.71	-179.99	4,554.15	-873.95	3,578.20	3,517.34	60.86	58.791		
13,400.00	8,813.00	17,076.81	12,392.00	84.31	90.14	-179.99	4,654.14	-875.05	3,578.20	3,516.38	61.82	57.883		
13,500.00	8,813.00	17,176.81	12,392.00	85.84	91.57	-179.99	4,754.14	-876.15	3,578.20	3,515.42	62.78	56.999		
13,600.00	8,813.00	17,276.81	12,392.00	87.36	93.01	-179.99	4,854.13	-877.25	3,578.20	3,514.46	63.74	56.136		
13,700.00	8,813.00	17,376.81	12,392.00	88.89	94.46	-179.99	4,954.13	-878.35	3,578.20	3,513.49	64.71	55.296		
13,800.00	8,813.00	17,476.81	12,392.00	90.43	95.91	-179.99	5,054.12	-879.45	3,578.20	3,512.52	65.68	54.476		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	8,813.00	17,576.81	12,392.00	91.97	97.37	-179.99	5,154.11	-880.55	3,578.20	3,511.54	66.66	53.677		
14,000.00	8,813.00	17,676.81	12,392.00	93.51	98.83	-180.00	5,254.11	-881.65	3,578.20	3,510.56	67.64	52.898		
14,100.00	8,813.00	17,776.81	12,392.00	95.06	100.31	-180.00	5,354.10	-882.75	3,578.20	3,509.57	68.63	52.138		
14,200.00	8,813.00	17,876.81	12,392.00	96.61	101.78	-180.00	5,454.10	-883.85	3,578.20	3,508.58	69.62	51.397		
14,300.00	8,813.00	17,976.81	12,392.00	98.17	103.26	-180.00	5,554.09	-884.95	3,578.20	3,507.59	70.61	50.674		
14,400.00	8,813.00	18,076.81	12,392.00	99.72	104.75	-180.00	5,654.08	-886.05	3,578.20	3,506.59	71.61	49.969		
14,500.00	8,813.00	18,176.81	12,392.00	101.29	106.24	-180.00	5,754.08	-887.15	3,578.20	3,505.59	72.61	49.281		
14,600.00	8,813.00	18,276.81	12,392.00	102.85	107.74	-180.00	5,854.07	-888.25	3,578.20	3,504.59	73.61	48.609		
14,700.00	8,813.00	18,376.81	12,392.00	104.41	109.24	-180.00	5,954.07	-889.35	3,578.20	3,503.58	74.62	47.954		
14,800.00	8,813.00	18,476.81	12,392.00	105.98	110.75	-180.00	6,054.06	-890.45	3,578.20	3,502.57	75.63	47.314		
14,900.00	8,813.00	18,576.81	12,392.00	107.56	112.26	-180.00	6,154.05	-891.55	3,578.20	3,501.56	76.64	46.690		
15,000.00	8,813.00	18,676.81	12,392.00	109.13	113.77	-180.00	6,254.05	-892.65	3,578.20	3,500.55	77.65	46.080		
15,100.00	8,813.00	18,776.81	12,392.00	110.71	115.29	-180.00	6,354.04	-893.75	3,578.20	3,499.53	78.67	45.484		
15,200.00	8,813.00	18,876.81	12,392.00	112.28	116.81	-180.00	6,454.03	-894.85	3,578.20	3,498.51	79.69	44.902		
15,300.00	8,813.00	18,976.81	12,392.00	113.86	118.34	-180.00	6,554.03	-895.95	3,578.20	3,497.49	80.71	44.334		
15,400.00	8,813.00	19,076.81	12,392.00	115.45	119.87	-180.00	6,654.02	-897.06	3,578.20	3,496.47	81.73	43.778		
15,500.00	8,813.00	19,176.81	12,392.00	117.03	121.40	-180.00	6,754.02	-898.16	3,578.20	3,495.44	82.76	43.235		
15,600.00	8,813.00	19,276.81	12,392.00	118.62	122.93	-180.00	6,854.01	-899.26	3,578.20	3,494.41	83.79	42.705		
15,700.00	8,813.00	19,376.81	12,392.00	120.21	124.47	-180.00	6,954.00	-900.36	3,578.20	3,493.38	84.82	42.186		
15,800.00	8,813.00	19,476.81	12,392.00	121.80	126.01	-180.00	7,054.00	-901.46	3,578.20	3,492.35	85.85	41.678		
15,900.00	8,813.00	19,576.81	12,392.00	123.39	127.56	-180.00	7,153.99	-902.56	3,578.20	3,491.31	86.89	41.182		
16,000.00	8,813.00	19,676.81	12,392.00	124.98	129.10	-180.00	7,253.99	-903.66	3,578.20	3,490.28	87.92	40.697		
16,100.00	8,813.00	19,776.81	12,392.00	126.58	130.65	-180.00	7,353.98	-904.76	3,578.20	3,489.24	88.96	40.222		
16,200.00	8,813.00	19,876.81	12,392.00	128.17	132.20	-180.00	7,453.97	-905.86	3,578.20	3,488.20	90.00	39.757		
16,300.00	8,813.00	19,976.81	12,392.00	129.77	133.76	-180.00	7,553.97	-906.96	3,578.20	3,487.16	91.04	39.303		
16,400.00	8,813.00	20,076.81	12,392.00	131.37	135.31	-180.00	7,653.96	-908.06	3,578.20	3,486.11	92.09	38.857		
16,500.00	8,813.00	20,176.81	12,392.00	132.97	136.87	-180.00	7,753.96	-909.16	3,578.20	3,485.07	93.13	38.422		
16,600.00	8,813.00	20,276.81	12,392.00	134.57	138.43	-180.00	7,853.95	-910.26	3,578.20	3,484.02	94.18	37.995		
16,700.00	8,813.00	20,376.81	12,392.00	136.17	140.00	-180.00	7,953.94	-911.36	3,578.20	3,482.98	95.22	37.577		
16,800.00	8,813.00	20,476.81	12,392.00	137.78	141.56	-180.00	8,053.94	-912.46	3,578.20	3,481.93	96.27	37.167		
16,900.00	8,813.00	20,576.81	12,392.00	139.38	143.13	-180.00	8,153.93	-913.56	3,578.20	3,480.88	97.32	36.766		
17,000.00	8,813.00	20,676.81	12,392.00	140.99	144.70	-180.00	8,253.93	-914.66	3,578.20	3,479.83	98.37	36.373		
17,100.00	8,813.00	20,776.81	12,392.00	142.60	146.27	-180.00	8,353.92	-915.76	3,578.20	3,478.77	99.43	35.988		
17,200.00	8,813.00	20,876.81	12,392.00	144.20	147.84	-180.00	8,453.91	-916.86	3,578.20	3,477.72	100.48	35.611		
17,300.00	8,813.00	20,976.81	12,392.00	145.81	149.42	-180.00	8,553.91	-917.96	3,578.20	3,476.66	101.54	35.241		
17,400.00	8,813.00	21,076.81	12,392.00	147.42	150.99	-180.00	8,653.90	-919.06	3,578.20	3,475.61	102.59	34.878		
17,500.00	8,813.00	21,176.81	12,392.00	149.04	152.57	-180.00	8,753.90	-920.16	3,578.20	3,474.55	103.65	34.522		
17,600.00	8,813.00	21,276.81	12,392.00	150.65	154.15	-180.00	8,853.89	-921.26	3,578.20	3,473.49	104.71	34.173		
17,700.00	8,813.00	21,376.81	12,392.00	152.26	155.73	-180.00	8,953.88	-922.37	3,578.20	3,472.43	105.77	33.830		
17,800.00	8,813.00	21,476.81	12,392.00	153.88	157.31	-180.00	9,053.88	-923.47	3,578.20	3,471.37	106.83	33.495		
17,900.00	8,813.00	21,576.81	12,392.00	155.49	158.90	-180.00	9,153.87	-924.57	3,578.20	3,470.31	107.89	33.165		
18,000.00	8,813.00	21,676.81	12,392.00	157.11	160.48	-180.00	9,253.87	-925.67	3,578.20	3,469.25	108.95	32.842		
18,100.00	8,813.00	21,776.81	12,392.00	158.72	162.07	-180.00	9,353.86	-926.77	3,578.20	3,468.18	110.02	32.524		
18,200.00	8,813.00	21,876.81	12,392.00	160.34	163.65	-180.00	9,453.85	-927.87	3,578.20	3,467.12	111.08	32.212		
18,300.00	8,813.00	21,976.81	12,392.00	161.96	165.24	-180.00	9,553.85	-928.97	3,578.20	3,466.05	112.15	31.906		
18,400.00	8,813.00	22,076.81	12,392.00	163.58	166.83	-180.00	9,653.84	-930.07	3,578.20	3,464.99	113.21	31.606		
18,500.00	8,813.00	22,176.81	12,392.00	165.20	168.43	-180.00	9,753.84	-931.17	3,578.20	3,463.92	114.28	31.311		
18,600.00	8,813.00	22,276.81	12,392.00	166.82	170.02	-180.00	9,853.83	-932.27	3,578.20	3,462.85	115.35	31.021		
18,700.00	8,813.00	22,376.81	12,392.00	168.44	171.61	-180.00	9,953.82	-933.37	3,578.20	3,461.78	116.42	30.736		
18,800.00	8,813.00	22,476.81	12,392.00	170.06	173.21	-180.00	10,053.82	-934.47	3,578.20	3,460.71	117.49	30.456		
18,904.52	8,813.00	22,581.33	12,392.00	171.75	174.88	180.00	10,158.33	-935.62	3,578.20	3,459.60	118.60	30.169		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.20	1.20	0.00	0.00	89.44	1.02	104.98	104.98					
100.00	100.00	101.20	101.20	0.13	0.13	89.44	1.02	104.98	104.98	104.80	0.18	581.628		
200.00	200.00	201.20	201.20	0.48	0.49	89.44	1.02	104.98	104.98	104.30	0.69	152.719		
300.00	300.00	301.20	301.20	0.84	0.85	89.44	1.02	104.98	104.98	103.79	1.19	87.898		
400.00	400.00	401.20	401.20	1.20	1.21	89.44	1.02	104.98	104.98	103.28	1.70	61.707		
500.00	500.00	501.20	501.20	1.56	1.56	89.44	1.02	104.98	104.98	102.78	2.21	47.541		
600.00	600.00	601.20	601.20	1.92	1.92	89.44	1.02	104.98	104.98	102.27	2.72	38.665		
700.00	700.00	701.20	701.20	2.28	2.28	89.44	1.02	104.98	104.98	101.76	3.22	32.582		
800.00	800.00	801.20	801.20	2.63	2.64	89.44	1.02	104.98	104.98	101.26	3.73	28.152		
900.00	900.00	901.20	901.20	2.99	3.00	89.44	1.02	104.98	104.98	100.75	4.24	24.783		
1,000.00	1,000.00	1,001.20	1,001.20	3.35	3.36	89.44	1.02	104.98	104.98	100.24	4.74	22.134		
1,100.00	1,100.00	1,101.20	1,101.20	3.71	3.71	89.44	1.02	104.98	104.98	99.73	5.25	19.997		
1,200.00	1,200.00	1,201.20	1,201.20	4.07	4.07	89.44	1.02	104.98	104.98	99.23	5.76	18.236		
1,300.00	1,300.00	1,301.20	1,301.20	4.43	4.43	89.44	1.02	104.98	104.98	98.72	6.26	16.760		
1,400.00	1,400.00	1,401.20	1,401.20	4.79	4.79	89.44	1.02	104.98	104.98	98.21	6.77	15.505		
1,500.00	1,500.00	1,501.21	1,501.21	5.14	5.15	89.44	1.02	104.98	104.98	97.71	7.28	14.426		
1,600.00	1,600.00	1,601.88	1,601.86	5.50	5.49	90.16	-0.30	104.65	104.66	96.88	7.77	13.464		
1,700.00	1,700.00	1,702.40	1,702.31	5.86	5.82	92.31	-4.18	103.69	103.78	95.52	8.26	12.568		
1,800.00	1,800.00	1,802.65	1,802.33	6.22	6.15	95.93	-10.61	102.10	102.66	93.91	8.75	11.738		
1,900.00	1,900.00	1,902.48	1,901.73	6.58	6.49	101.07	-19.54	99.89	101.79	92.55	9.24	11.019		
1,945.52	1,945.52	1,947.74	1,946.72	6.74	6.64	103.90	-24.42	98.68	101.66	92.20	9.46	10.743 CC		
2,000.00	2,000.00	2,001.76	2,000.32	6.94	6.83	107.67	-30.92	97.07	101.88	92.15	9.73	10.469 ES		
2,060.00	2,060.00	2,061.12	2,059.12	7.15	7.04	112.20	-38.82	95.12	102.76	92.73	10.03	10.245		
2,100.00	2,100.00	2,100.74	2,098.35	7.29	7.18	-144.71	-44.17	93.79	103.89	93.66	10.23	10.159 SF		
2,200.00	2,199.97	2,199.87	2,196.52	7.63	7.53	-138.24	-57.57	90.48	109.24	98.53	10.71	10.199		
2,300.00	2,299.84	2,299.05	2,294.73	7.97	7.90	-133.31	-70.97	87.16	117.63	106.43	11.20	10.501		
2,400.00	2,399.55	2,398.22	2,392.94	8.32	8.27	-129.91	-84.37	83.85	128.40	116.70	11.70	10.978		
2,500.00	2,499.03	2,497.31	2,491.06	8.67	8.64	-127.85	-97.76	80.53	141.11	128.91	12.20	11.570		
2,576.48	2,574.90	2,572.98	2,566.00	8.94	8.93	-127.01	-107.99	78.00	151.96	139.38	12.58	12.077		
2,600.00	2,598.21	2,596.25	2,589.03	9.02	9.02	-126.88	-111.13	77.22	155.45	142.75	12.70	12.237		
2,700.00	2,697.30	2,695.13	2,686.96	9.38	9.40	-126.39	-124.49	73.92	170.27	157.05	13.21	12.885		
2,800.00	2,796.39	2,794.02	2,784.88	9.75	9.78	-125.98	-137.85	70.61	185.10	171.36	13.73	13.480		
2,900.00	2,895.47	2,892.91	2,882.81	10.12	10.17	-125.64	-151.22	67.30	199.93	185.68	14.25	14.028		
3,000.00	2,994.56	2,992.16	2,981.09	10.49	10.56	-125.34	-164.61	63.99	214.76	199.99	14.78	14.532		
3,100.00	3,093.65	3,094.15	3,082.31	10.87	10.96	-125.44	-176.74	60.98	228.78	213.46	15.32	14.931		
3,200.00	3,192.74	3,196.43	3,184.12	11.25	11.34	-126.10	-186.28	58.62	241.48	225.61	15.86	15.222		
3,300.00	3,291.82	3,298.86	3,286.30	11.64	11.72	-127.24	-193.17	56.92	252.93	236.53	16.40	15.425		
3,400.00	3,390.91	3,401.30	3,388.65	12.02	12.09	-128.81	-197.40	55.87	263.26	246.33	16.92	15.554		
3,500.00	3,490.00	3,503.60	3,490.93	12.41	12.44	-130.77	-198.97	55.48	272.62	255.18	17.44	15.629		
3,600.00	3,589.09	3,602.96	3,590.29	12.80	12.77	-132.84	-198.98	55.48	281.66	263.72	17.94	15.697		
3,700.00	3,688.17	3,702.05	3,689.37	13.19	13.10	-134.78	-198.98	55.48	291.04	272.60	18.44	15.782		
3,800.00	3,787.26	3,801.13	3,788.46	13.58	13.44	-136.60	-198.98	55.48	300.73	281.79	18.94	15.878		
3,900.00	3,886.35	3,900.22	3,887.55	13.98	13.77	-138.30	-198.98	55.48	310.70	291.26	19.44	15.985		
4,000.00	3,985.43	3,999.31	3,986.63	14.38	14.10	-139.89	-198.98	55.48	320.93	301.00	19.93	16.100		
4,100.00	4,084.52	4,098.40	4,085.72	14.77	14.44	-141.39	-198.98	55.48	331.39	310.96	20.43	16.220		
4,200.00	4,183.61	4,197.48	4,184.81	15.17	14.77	-142.79	-198.98	55.48	342.07	321.14	20.93	16.345		
4,300.00	4,282.70	4,296.57	4,283.90	15.57	15.11	-144.11	-198.98	55.48	352.93	331.51	21.42	16.473		
4,400.00	4,381.78	4,395.66	4,382.98	15.97	15.45	-145.35	-198.98	55.48	363.97	342.05	21.92	16.604		
4,500.00	4,480.87	4,494.74	4,482.07	16.37	15.79	-146.52	-198.98	55.48	375.17	352.75	22.42	16.736		
4,600.00	4,579.96	4,593.83	4,581.16	16.78	16.13	-147.62	-198.98	55.48	386.52	363.60	22.91	16.868		
4,700.00	4,679.05	4,692.92	4,680.25	17.18	16.47	-148.66	-198.98	55.48	398.00	374.58	23.41	17.000		
4,800.00	4,778.13	4,792.01	4,779.33	17.59	16.81	-149.64	-198.98	55.48	409.60	385.69	23.91	17.132		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
4,900.00	4,877.22	4,891.09	4,878.42	17.99	17.15	-150.56	-198.98	55.48	421.31	396.90	24.41	17.262				
5,000.00	4,976.31	4,990.18	4,977.51	18.40	17.49	-151.44	-198.98	55.48	433.12	408.22	24.90	17.392				
5,100.00	5,075.39	5,089.27	5,076.59	18.80	17.83	-152.26	-198.98	55.48	445.03	419.63	25.40	17.519				
5,200.00	5,174.48	5,188.35	5,175.68	19.21	18.17	-153.05	-198.98	55.48	457.03	431.13	25.90	17.646				
5,300.00	5,273.57	5,287.44	5,274.77	19.62	18.52	-153.79	-198.98	55.48	469.11	442.71	26.40	17.770				
5,400.00	5,372.66	5,386.53	5,373.86	20.02	18.86	-154.50	-198.98	55.48	481.26	454.36	26.90	17.892				
5,500.00	5,471.74	5,485.62	5,472.94	20.43	19.21	-155.17	-198.98	55.48	493.48	466.09	27.40	18.012				
5,600.00	5,570.83	5,584.70	5,572.03	20.84	19.55	-155.81	-198.98	55.48	505.77	477.87	27.90	18.130				
5,700.00	5,669.92	5,683.79	5,671.12	21.25	19.89	-156.42	-198.98	55.48	518.11	489.72	28.40	18.245				
5,800.00	5,769.01	5,782.88	5,770.21	21.66	20.24	-157.01	-198.98	55.48	530.51	501.62	28.90	18.359				
5,900.00	5,868.09	5,881.97	5,869.29	22.07	20.59	-157.56	-198.98	55.48	542.96	513.57	29.40	18.470				
6,000.00	5,967.18	5,981.05	5,968.38	22.48	20.93	-158.09	-198.98	55.48	555.46	525.57	29.90	18.578				
6,100.00	6,066.27	6,080.14	6,067.47	22.89	21.28	-158.60	-198.98	55.48	568.01	537.61	30.40	18.685				
6,200.00	6,165.35	6,179.23	6,166.55	23.30	21.62	-159.08	-198.98	55.48	580.59	549.69	30.90	18.789				
6,300.00	6,264.44	6,278.31	6,265.64	23.71	21.97	-159.55	-198.98	55.48	593.22	561.82	31.40	18.891				
6,400.00	6,363.53	6,377.40	6,364.73	24.13	22.32	-159.99	-198.98	55.48	605.88	573.98	31.90	18.990				
6,500.00	6,462.62	6,476.49	6,463.82	24.54	22.66	-160.42	-198.98	55.48	618.58	586.17	32.41	19.088				
6,600.00	6,561.70	6,575.58	6,562.90	24.95	23.01	-160.83	-198.98	55.48	631.31	598.40	32.91	19.183				
6,700.00	6,660.79	6,674.66	6,661.99	25.36	23.36	-161.22	-198.98	55.48	644.07	610.66	33.41	19.276				
6,800.00	6,759.88	6,773.75	6,761.08	25.78	23.71	-161.60	-198.98	55.48	656.86	622.94	33.92	19.368				
6,900.00	6,858.97	6,872.84	6,860.17	26.19	24.06	-161.96	-198.98	55.48	669.67	635.25	34.42	19.457				
7,000.00	6,958.05	6,971.93	6,959.25	26.60	24.40	-162.31	-198.98	55.48	682.51	647.59	34.92	19.544				
7,100.00	7,057.14	7,071.01	7,058.34	27.01	24.75	-162.65	-198.98	55.48	695.38	659.95	35.43	19.629				
7,123.17	7,080.10	7,093.97	7,081.30	27.11	24.83	-162.73	-198.98	55.48	698.36	662.82	35.54	19.649				
7,200.00	7,156.33	7,170.20	7,157.53	27.42	25.10	-163.00	-198.98	55.48	707.54	671.61	35.93	19.692				
7,300.00	7,255.80	7,269.68	7,257.00	27.82	25.45	-163.28	-198.98	55.48	717.28	680.85	36.43	19.688				
7,400.00	7,355.51	7,369.39	7,356.71	28.19	25.80	-163.48	-198.98	55.48	724.55	687.61	36.93	19.618				
7,500.00	7,455.39	7,469.26	7,456.59	28.55	26.16	-163.61	-198.98	55.48	729.31	691.87	37.43	19.483				
7,600.00	7,555.36	7,569.23	7,556.56	28.89	26.51	-163.67	-198.98	55.48	731.56	693.63	37.93	19.287				
7,639.64	7,595.00	7,608.87	7,596.20	29.02	26.65	96.20	-198.98	55.48	731.75	693.63	38.13	19.193				
7,700.00	7,655.36	7,669.23	7,656.56	29.22	26.86	96.20	-198.98	55.48	731.75	693.33	38.42	19.046				
7,800.00	7,755.36	7,769.23	7,756.56	29.54	27.21	96.20	-198.98	55.48	731.75	692.85	38.91	18.807				
7,900.00	7,855.36	7,869.23	7,856.56	29.86	27.57	96.20	-198.98	55.48	731.75	692.36	39.40	18.574				
8,000.00	7,955.36	7,969.23	7,956.56	30.19	27.92	96.20	-198.98	55.48	731.75	691.87	39.89	18.346				
8,100.00	8,055.36	8,069.23	8,056.56	30.51	28.27	96.20	-198.98	55.48	731.75	691.38	40.38	18.124				
8,200.00	8,155.36	8,169.23	8,156.56	30.84	28.63	96.20	-198.98	55.48	731.75	690.89	40.87	17.906				
8,284.68	8,240.04	8,253.91	8,241.24	31.11	28.93	96.20	-198.98	55.48	731.75	690.47	41.28	17.726				
8,300.00	8,255.35	8,269.23	8,256.55	31.16	28.98	107.21	-198.98	55.48	731.82	690.46	41.36	17.695				
8,350.00	8,305.21	8,319.09	8,306.41	31.33	29.16	107.37	-198.98	55.48	732.86	691.26	41.60	17.616				
8,400.00	8,354.58	8,368.45	8,355.78	31.49	29.33	107.72	-198.98	55.48	735.26	693.41	41.85	17.569				
8,450.00	8,403.07	8,416.94	8,404.27	31.65	29.50	108.22	-198.98	55.48	739.10	697.01	42.09	17.559				
8,500.00	8,450.32	8,464.20	8,451.52	31.80	29.67	108.83	-198.98	55.48	744.56	702.23	42.33	17.589				
8,550.00	8,495.98	8,509.85	8,497.18	31.95	29.83	109.50	-198.98	55.48	751.81	709.24	42.56	17.663				
8,600.00	8,539.68	8,553.55	8,540.88	32.09	29.99	110.15	-198.98	55.48	761.07	718.28	42.79	17.787				
8,650.00	8,581.10	8,594.98	8,582.30	32.22	30.13	110.71	-198.98	55.48	772.56	729.55	43.00	17.965				
8,700.00	8,619.93	8,633.80	8,621.13	32.35	30.27	111.10	-198.98	55.48	786.47	743.27	43.21	18.203				
8,750.00	8,655.87	8,669.74	8,657.07	32.48	30.40	111.25	-198.98	55.48	802.99	759.59	43.39	18.504				
8,800.00	8,688.64	8,702.51	8,689.84	32.60	30.51	111.07	-198.98	55.48	822.22	778.65	43.57	18.872				
8,850.00	8,718.00	8,731.87	8,719.20	32.72	30.62	110.48	-198.98	55.48	844.21	800.49	43.72	19.308				
8,900.00	8,743.72	8,757.59	8,744.92	32.84	30.71	109.39	-198.98	55.48	868.97	825.11	43.86	19.813				
8,950.00	8,765.60	8,779.48	8,766.80	32.98	30.79	107.73	-198.98	55.48	896.39	852.42	43.97	20.384				
9,000.00	8,783.49	8,797.36	8,784.69	33.12	30.85	105.40	-198.98	55.48	926.32	882.25	44.07	21.020				

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
9,050.00	8,797.24	8,811.11	8,798.44	33.29	30.90	102.33	-198.98	55.48	958.54	914.40	44.14	21.715				
9,100.00	8,806.75	8,820.62	8,807.95	33.48	30.93	98.45	-198.98	55.48	992.76	948.57	44.19	22.465				
9,150.00	8,811.95	8,825.82	8,813.15	33.68	30.95	93.74	-198.98	55.48	1,028.66	984.44	44.22	23.262				
9,184.68	8,813.00	8,826.87	8,814.20	33.83	30.96	90.00	-198.98	55.48	1,054.35	1,010.12	44.23	23.838				
9,200.00	8,813.00	8,826.87	8,814.20	33.91	30.96	90.00	-198.98	55.48	1,065.84	1,021.60	44.23	24.097				
9,300.00	8,813.00	8,826.87	8,814.20	34.41	30.96	90.00	-198.98	55.48	1,141.79	1,097.55	44.24	25.807				
9,400.00	8,813.00	8,826.87	8,814.20	34.98	30.96	90.00	-198.98	55.48	1,219.12	1,174.87	44.25	27.549				
9,500.00	8,813.00	8,826.87	8,814.20	35.60	30.96	90.00	-198.98	55.48	1,297.49	1,253.23	44.26	29.315				
9,600.00	8,813.00	8,826.87	8,814.20	36.27	30.96	90.00	-198.98	55.48	1,376.64	1,332.37	44.27	31.097				
9,702.98	8,813.00	8,826.87	8,814.20	37.00	30.96	90.00	-198.98	55.48	1,458.73	1,414.45	44.28	32.946				
9,800.00	8,813.00	8,826.87	8,814.20	37.74	30.96	90.00	-198.98	55.48	1,537.40	1,493.11	44.29	34.716				
9,900.00	8,813.00	8,826.87	8,814.20	38.55	30.96	90.00	-198.98	55.48	1,620.56	1,576.26	44.30	36.585				
10,000.00	8,813.00	8,826.87	8,814.20	39.42	30.96	90.00	-198.98	55.48	1,705.53	1,661.23	44.31	38.495				
10,100.00	8,813.00	8,826.87	8,814.20	40.34	30.96	90.00	-198.98	55.48	1,792.05	1,747.74	44.32	40.438				
10,200.00	8,813.00	8,826.87	8,814.20	41.30	30.96	90.00	-198.98	55.48	1,879.92	1,835.59	44.33	42.409				
10,300.00	8,813.00	8,826.87	8,814.20	42.31	30.96	90.00	-198.98	55.48	1,968.94	1,924.60	44.34	44.406				
10,400.00	8,813.00	8,826.87	8,814.20	43.35	30.96	90.00	-198.98	55.48	2,058.96	2,014.61	44.35	46.423				
10,500.00	8,813.00	8,826.87	8,814.20	44.44	30.96	90.00	-198.98	55.48	2,149.87	2,105.51	44.37	48.459				
10,600.00	8,813.00	8,826.87	8,814.20	45.55	30.96	90.00	-198.98	55.48	2,241.56	2,197.18	44.38	50.510				
10,700.00	8,813.00	8,826.87	8,814.20	46.70	30.96	90.00	-198.98	55.48	2,333.93	2,289.53	44.39	52.574				
10,800.00	8,813.00	8,826.87	8,814.20	47.88	30.96	90.00	-198.98	55.48	2,426.90	2,382.49	44.41	54.650				
10,900.00	8,813.00	8,826.87	8,814.20	49.09	30.96	90.00	-198.98	55.48	2,520.41	2,475.99	44.42	56.736				
11,000.00	8,813.00	8,826.87	8,814.20	50.32	30.96	90.00	-198.98	55.48	2,614.40	2,569.96	44.44	58.830				
11,100.00	8,813.00	8,826.87	8,814.20	51.57	30.96	90.00	-198.98	55.48	2,708.82	2,664.36	44.46	60.932				
11,200.00	8,813.00	8,826.87	8,814.20	52.85	30.96	90.00	-198.98	55.48	2,803.63	2,759.16	44.47	63.039				
11,300.00	8,813.00	8,826.87	8,814.20	54.15	30.96	90.00	-198.98	55.48	2,898.79	2,854.29	44.49	65.152				
11,400.00	8,813.00	8,826.87	8,814.20	55.46	30.96	90.00	-198.98	55.48	2,994.26	2,949.75	44.51	67.269				
11,500.00	8,813.00	8,826.87	8,814.20	56.80	30.96	90.00	-198.98	55.48	3,090.02	3,045.49	44.53	69.390				
11,600.00	8,813.00	8,826.87	8,814.20	58.15	30.96	90.00	-198.98	55.48	3,186.04	3,141.49	44.55	71.514				
11,700.00	8,813.00	8,826.87	8,814.20	59.51	30.96	90.00	-198.98	55.48	3,282.30	3,237.72	44.57	73.640				
11,800.00	8,813.00	8,826.87	8,814.20	60.89	30.96	90.00	-198.98	55.48	3,378.77	3,334.18	44.59	75.768				
11,900.00	8,813.00	8,826.87	8,814.20	62.29	30.96	90.00	-198.98	55.48	3,475.44	3,430.83	44.62	77.897				
12,000.00	8,813.00	8,826.87	8,814.20	63.69	30.96	90.00	-198.98	55.48	3,572.30	3,527.66	44.64	80.026				
12,100.00	8,813.00	8,826.87	8,814.20	65.11	30.96	90.00	-198.98	55.48	3,669.33	3,624.66	44.66	82.156				
12,200.00	8,813.00	8,826.87	8,814.20	66.54	30.96	90.00	-198.98	55.48	3,766.51	3,721.82	44.69	84.286				
12,300.00	8,813.00	16,032.48	12,501.00	67.97	73.75	165.91	3,564.39	62.80	3,801.16	3,744.87	56.29	67.526				
12,400.00	8,813.00	16,132.48	12,501.00	69.42	75.09	165.91	3,664.38	61.70	3,801.16	3,743.90	57.26	66.379				
12,500.00	8,813.00	16,232.48	12,501.00	70.88	76.43	165.91	3,764.38	60.60	3,801.17	3,742.92	58.25	65.260				
12,600.00	8,813.00	16,332.48	12,501.00	72.34	77.79	165.91	3,864.37	59.51	3,801.17	3,741.93	59.24	64.168				
12,700.00	8,813.00	16,432.48	12,501.00	73.82	79.16	165.91	3,964.37	58.41	3,801.17	3,740.93	60.24	63.103				
12,800.00	8,813.00	16,532.48	12,501.00	75.30	80.54	165.91	4,064.36	57.31	3,801.17	3,739.93	61.24	62.065				
12,900.00	8,813.00	16,632.48	12,501.00	76.78	81.93	165.91	4,164.35	56.21	3,801.17	3,738.91	62.26	61.054				
13,000.00	8,813.00	16,732.48	12,501.00	78.28	83.33	165.91	4,264.35	55.11	3,801.17	3,737.89	63.28	60.068				
13,100.00	8,813.00	16,832.48	12,501.00	79.78	84.74	165.91	4,364.34	54.01	3,801.18	3,736.87	64.31	59.109				
13,200.00	8,813.00	16,932.48	12,501.00	81.28	86.16	165.91	4,464.34	52.91	3,801.18	3,735.84	65.34	58.176				
13,300.00	8,813.00	17,032.48	12,501.00	82.80	87.59	165.91	4,564.33	51.81	3,801.18	3,734.80	66.38	57.266				
13,400.00	8,813.00	17,132.48	12,501.00	84.31	89.02	165.91	4,664.32	50.71	3,801.18	3,733.76	67.42	56.380				
13,500.00	8,813.00	17,232.48	12,501.00	85.84	90.46	165.91	4,764.32	49.61	3,801.18	3,732.71	68.47	55.516				
13,600.00	8,813.00	17,332.48	12,501.00	87.36	91.91	165.91	4,864.31	48.51	3,801.18	3,731.66	69.52	54.674				
13,700.00	8,813.00	17,432.48	12,501.00	88.89	93.37	165.91	4,964.31	47.41	3,801.19	3,730.60	70.58	53.854				
13,800.00	8,813.00	17,532.48	12,501.00	90.43	94.83	165.91	5,064.30	46.31	3,801.19	3,729.54	71.65	53.054				
13,900.00	8,813.00	17,632.48	12,501.00	91.97	96.30	165.91	5,164.29	45.21	3,801.19	3,728.47	72.72	52.275				

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



Total Directional Services

Anticollision Report



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Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado 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		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	8,813.00	17,732.48	12,501.00	93.51	97.77	165.91	5,264.29	44.11	3,801.19	3,727.40	73.79	51.515		
14,100.00	8,813.00	17,832.48	12,501.00	95.06	99.25	165.91	5,364.28	43.01	3,801.19	3,726.33	74.87	50.774		
14,200.00	8,813.00	17,932.48	12,501.00	96.61	100.74	165.91	5,464.28	41.91	3,801.20	3,725.25	75.95	50.051		
14,300.00	8,813.00	18,032.48	12,501.00	98.17	102.23	165.91	5,564.27	40.81	3,801.20	3,724.17	77.03	49.347		
14,400.00	8,813.00	18,132.48	12,501.00	99.72	103.72	165.91	5,664.26	39.71	3,801.20	3,723.08	78.12	48.660		
14,500.00	8,813.00	18,232.48	12,501.00	101.29	105.22	165.91	5,764.26	38.61	3,801.20	3,721.99	79.21	47.991		
14,600.00	8,813.00	18,332.48	12,501.00	102.85	106.73	165.91	5,864.25	37.51	3,801.20	3,720.90	80.30	47.337		
14,700.00	8,813.00	18,432.48	12,501.00	104.41	108.24	165.91	5,964.25	36.41	3,801.20	3,719.81	81.40	46.700		
14,800.00	8,813.00	18,532.48	12,501.00	105.98	109.75	165.91	6,064.24	35.32	3,801.21	3,718.71	82.50	46.077		
14,900.00	8,813.00	18,632.48	12,501.00	107.56	111.27	165.91	6,164.23	34.22	3,801.21	3,717.61	83.60	45.469		
15,000.00	8,813.00	18,732.48	12,501.00	109.13	112.79	165.91	6,264.23	33.12	3,801.21	3,716.51	84.70	44.876		
15,100.00	8,813.00	18,832.48	12,501.00	110.71	114.31	165.91	6,364.22	32.02	3,801.21	3,715.40	85.81	44.296		
15,200.00	8,813.00	18,932.48	12,501.00	112.28	115.84	165.91	6,464.21	30.92	3,801.21	3,714.29	86.93	43.730		
15,300.00	8,813.00	19,032.48	12,501.00	113.86	117.37	165.91	6,564.21	29.82	3,801.21	3,713.18	88.04	43.176		
15,400.00	8,813.00	19,132.48	12,501.00	115.45	118.91	165.91	6,664.20	28.72	3,801.22	3,712.06	89.15	42.637		
15,500.00	8,813.00	19,232.48	12,501.00	117.03	120.44	165.91	6,764.20	27.62	3,801.22	3,710.95	90.27	42.109		
15,600.00	8,813.00	19,332.48	12,501.00	118.62	121.99	165.91	6,864.19	26.52	3,801.22	3,709.83	91.39	41.594		
15,700.00	8,813.00	19,432.48	12,501.00	120.21	123.53	165.91	6,964.18	25.42	3,801.22	3,708.71	92.51	41.090		
15,800.00	8,813.00	19,532.48	12,501.00	121.80	125.08	165.91	7,064.18	24.32	3,801.22	3,707.59	93.63	40.597		
15,900.00	8,813.00	19,632.48	12,501.00	123.39	126.63	165.91	7,164.17	23.22	3,801.23	3,706.47	94.76	40.115		
16,000.00	8,813.00	19,732.48	12,501.00	124.98	128.18	165.91	7,264.17	22.12	3,801.23	3,705.34	95.88	39.644		
16,100.00	8,813.00	19,832.48	12,501.00	126.58	129.73	165.91	7,364.16	21.02	3,801.23	3,704.22	97.01	39.182		
16,200.00	8,813.00	19,932.48	12,501.00	128.17	131.29	165.91	7,464.15	19.92	3,801.23	3,703.09	98.14	38.731		
16,300.00	8,813.00	20,032.48	12,501.00	129.77	132.85	165.91	7,564.15	18.82	3,801.23	3,701.96	99.28	38.289		
16,400.00	8,813.00	20,132.48	12,501.00	131.37	134.41	165.91	7,664.14	17.72	3,801.23	3,700.82	100.41	37.857		
16,500.00	8,813.00	20,232.48	12,501.00	132.97	135.97	165.91	7,764.14	16.62	3,801.24	3,699.69	101.55	37.433		
16,600.00	8,813.00	20,332.48	12,501.00	134.57	137.54	165.91	7,864.13	15.52	3,801.24	3,698.55	102.68	37.019		
16,700.00	8,813.00	20,432.48	12,501.00	136.17	139.11	165.91	7,964.12	14.42	3,801.24	3,697.42	103.82	36.613		
16,800.00	8,813.00	20,532.48	12,501.00	137.78	140.68	165.91	8,064.12	13.32	3,801.24	3,696.28	104.96	36.216		
16,900.00	8,813.00	20,632.48	12,501.00	139.38	142.25	165.91	8,164.11	12.22	3,801.24	3,695.14	106.10	35.827		
17,000.00	8,813.00	20,732.48	12,501.00	140.99	143.82	165.90	8,264.11	11.13	3,801.24	3,694.00	107.24	35.446		
17,100.00	8,813.00	20,832.48	12,501.00	142.60	145.40	165.90	8,364.10	10.03	3,801.25	3,692.86	108.38	35.072		
17,200.00	8,813.00	20,932.48	12,501.00	144.20	146.97	165.90	8,464.09	8.93	3,801.25	3,691.72	109.53	34.706		
17,300.00	8,813.00	21,032.48	12,501.00	145.81	148.55	165.90	8,564.09	7.83	3,801.25	3,690.58	110.67	34.347		
17,400.00	8,813.00	21,132.48	12,501.00	147.42	150.13	165.90	8,664.08	6.73	3,801.25	3,689.43	111.82	33.994		
17,500.00	8,813.00	21,232.48	12,501.00	149.04	151.72	165.90	8,764.08	5.63	3,801.25	3,688.28	112.97	33.648		
17,600.00	8,813.00	21,332.48	12,501.00	150.65	153.30	165.90	8,864.07	4.53	3,801.25	3,687.14	114.12	33.309		
17,700.00	8,813.00	21,432.48	12,501.00	152.26	154.88	165.90	8,964.06	3.43	3,801.26	3,685.99	115.27	32.978		
17,800.00	8,813.00	21,532.48	12,501.00	153.88	156.47	165.90	9,064.06	2.33	3,801.26	3,684.84	116.42	32.652		
17,900.00	8,813.00	21,632.48	12,501.00	155.49	158.06	165.90	9,164.05	1.23	3,801.26	3,683.69	117.57	32.333		
18,000.00	8,813.00	21,732.48	12,501.00	157.11	159.65	165.90	9,264.05	0.13	3,801.26	3,682.54	118.72	32.019		
18,100.00	8,813.00	21,832.48	12,501.00	158.72	161.24	165.90	9,364.04	-0.97	3,801.26	3,681.39	119.87	31.711		
18,200.00	8,813.00	21,932.48	12,501.00	160.34	162.83	165.90	9,464.03	-2.07	3,801.27	3,680.24	121.03	31.409		
18,300.00	8,813.00	22,032.48	12,501.00	161.96	164.42	165.90	9,564.03	-3.17	3,801.27	3,679.09	122.18	31.112		
18,400.00	8,813.00	22,132.48	12,501.00	163.58	166.01	165.90	9,664.02	-4.27	3,801.27	3,677.93	123.33	30.821		
18,500.00	8,813.00	22,232.48	12,501.00	165.20	167.61	165.90	9,764.02	-5.37	3,801.27	3,676.78	124.49	30.535		
18,600.00	8,813.00	22,332.48	12,501.00	166.82	169.21	165.90	9,864.01	-6.47	3,801.27	3,675.62	125.65	30.253		
18,700.00	8,813.00	22,432.48	12,501.00	168.44	170.80	165.90	9,964.00	-7.57	3,801.27	3,674.47	126.81	29.977		
18,800.00	8,813.00	22,532.48	12,501.00	170.06	172.40	165.90	10,064.00	-8.67	3,801.28	3,673.31	127.96	29.706		
18,805.66	8,813.00	22,538.14	12,501.00	170.15	172.49	165.90	10,069.65	-8.73	3,801.28	3,673.25	128.03	29.690		
18,904.52	8,813.00	22,636.34	12,501.00	171.75	174.06	165.90	10,167.84	-9.81	3,801.28	3,672.10	129.18	29.427		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado Fed Com 803H - OH - Plan #1		Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
0.00	0.00	1.60	1.60	0.00	0.00	89.44	1.36	139.97	139.98							
100.00	100.00	101.60	101.60	0.13	0.13	89.44	1.36	139.97	139.98	139.80	0.18	771.070				
200.00	200.00	201.60	201.60	0.48	0.49	89.44	1.36	139.97	139.98	139.29	0.69	203.319				
300.00	300.00	301.60	301.60	0.84	0.85	89.44	1.36	139.97	139.98	138.78	1.20	117.095				
400.00	400.00	401.60	401.60	1.20	1.21	89.44	1.36	139.97	139.98	138.27	1.70	82.225				
500.00	500.00	501.60	501.60	1.56	1.57	89.44	1.36	139.97	139.98	137.77	2.21	63.357				
600.00	600.00	601.60	601.60	1.92	1.92	89.44	1.36	139.97	139.98	137.26	2.72	51.533				
700.00	700.00	701.60	701.60	2.28	2.28	89.44	1.36	139.97	139.98	136.75	3.22	43.428				
800.00	800.00	801.60	801.60	2.63	2.64	89.44	1.36	139.97	139.98	136.25	3.73	37.525				
900.00	900.00	901.60	901.60	2.99	3.00	89.44	1.36	139.97	139.98	135.74	4.24	33.036				
1,000.00	1,000.00	1,001.60	1,001.60	3.35	3.36	89.44	1.36	139.97	139.98	135.23	4.74	29.505				
1,100.00	1,100.00	1,101.60	1,101.60	3.71	3.72	89.44	1.36	139.97	139.98	134.73	5.25	26.657				
1,200.00	1,200.00	1,201.60	1,201.60	4.07	4.07	89.44	1.36	139.97	139.98	134.22	5.76	24.310				
1,300.00	1,300.00	1,301.60	1,301.60	4.43	4.43	89.44	1.36	139.97	139.98	133.71	6.26	22.343				
1,400.00	1,400.00	1,401.60	1,401.60	4.79	4.79	89.44	1.36	139.97	139.98	133.20	6.77	20.670				
1,416.12	1,416.12	1,417.72	1,417.72	4.84	4.85	89.44	1.36	139.97	139.98	133.12	6.85	20.424 CC				
1,500.00	1,500.00	1,500.00	1,500.00	5.14	5.14	89.44	1.36	139.97	139.99	132.71	7.27	19.243 ES				
1,600.00	1,600.00	1,598.00	1,597.99	5.50	5.49	89.49	1.26	141.22	141.28	133.51	7.77	18.187				
1,700.00	1,700.00	1,694.33	1,694.25	5.86	5.82	89.61	0.99	144.90	145.09	136.84	8.25	17.591				
1,800.00	1,800.00	1,790.42	1,790.14	6.22	6.15	89.80	0.52	150.97	151.41	142.69	8.72	17.359 SF				
1,900.00	1,900.00	1,886.13	1,885.48	6.58	6.48	90.04	-0.12	159.41	160.23	151.04	9.19	17.432				
2,000.00	2,000.00	1,981.37	1,980.09	6.94	6.82	90.32	-0.94	170.17	171.53	161.88	9.65	17.766				
2,060.00	2,060.00	2,038.23	2,036.45	7.15	7.03	90.49	-1.51	177.72	179.50	169.57	9.93	18.076				
2,100.00	2,100.00	2,075.97	2,073.79	7.29	7.17	-169.27	-1.93	183.19	185.50	175.39	10.11	18.350				
2,200.00	2,199.97	2,169.49	2,166.07	7.63	7.52	-169.05	-3.08	198.32	203.98	193.43	10.54	19.345				
2,300.00	2,299.84	2,265.19	2,260.18	7.97	7.89	-168.94	-4.39	215.59	226.82	215.81	11.01	20.606				
2,400.00	2,399.55	2,361.89	2,355.26	8.32	8.27	-168.94	-5.73	233.17	252.28	240.79	11.49	21.962				
2,500.00	2,499.03	2,457.90	2,449.67	8.67	8.66	-169.03	-7.06	250.61	280.22	268.25	11.97	23.419				
2,576.48	2,574.90	2,530.82	2,521.37	8.94	8.95	-169.14	-8.07	263.86	303.25	290.91	12.33	24.591				
2,600.00	2,598.21	2,553.18	2,543.35	9.02	9.04	-169.19	-8.38	267.93	310.55	298.10	12.44	24.955				
2,700.00	2,697.30	2,648.23	2,636.81	9.38	9.44	-169.41	-9.69	285.20	341.60	328.68	12.92	26.439				
2,800.00	2,796.39	2,743.28	2,730.27	9.75	9.83	-169.59	-11.00	302.47	372.66	359.26	13.40	27.813				
2,900.00	2,895.47	2,838.33	2,823.73	10.12	10.23	-169.74	-12.32	319.74	403.72	389.84	13.88	29.087				
3,000.00	2,994.56	2,933.38	2,917.18	10.49	10.63	-169.87	-13.63	337.01	434.78	420.42	14.36	30.272				
3,100.00	3,093.65	3,028.43	3,010.64	10.87	11.04	-169.99	-14.95	354.29	465.84	451.00	14.85	31.376				
3,200.00	3,192.74	3,123.47	3,104.10	11.25	11.45	-170.09	-16.26	371.56	496.91	481.57	15.33	32.407				
3,300.00	3,291.82	3,218.52	3,197.56	11.64	11.86	-170.17	-17.58	388.83	527.97	512.15	15.82	33.371				
3,400.00	3,390.91	3,313.57	3,291.01	12.02	12.27	-170.25	-18.89	406.10	559.04	542.73	16.31	34.275				
3,500.00	3,490.00	3,408.62	3,384.47	12.41	12.69	-170.32	-20.20	423.38	590.11	573.31	16.80	35.124				
3,600.00	3,589.09	3,503.67	3,477.93	12.80	13.10	-170.38	-21.52	440.65	621.18	603.88	17.29	35.922				
3,700.00	3,688.17	3,598.72	3,571.39	13.19	13.52	-170.44	-22.83	457.92	652.25	634.46	17.79	36.673				
3,800.00	3,787.26	3,693.77	3,664.84	13.58	13.94	-170.49	-24.15	475.19	683.32	665.04	18.28	37.383				
3,900.00	3,886.35	3,788.82	3,758.30	13.98	14.36	-170.54	-25.46	492.46	714.39	695.61	18.77	38.053				
4,000.00	3,985.43	3,883.87	3,851.76	14.38	14.78	-170.58	-26.77	509.74	745.46	726.19	19.27	38.687				
4,100.00	4,084.52	3,978.92	3,945.22	14.77	15.21	-170.62	-28.09	527.01	776.53	756.76	19.77	39.287				
4,200.00	4,183.61	4,073.97	4,038.67	15.17	15.63	-170.66	-29.40	544.28	807.60	787.34	20.26	39.857				
4,300.00	4,282.70	4,169.02	4,132.13	15.57	16.06	-170.69	-30.72	561.55	838.67	817.91	20.76	40.398				
4,400.00	4,381.78	4,264.06	4,225.59	15.97	16.48	-170.72	-32.03	578.83	869.74	848.48	21.26	40.913				
4,500.00	4,480.87	4,359.11	4,319.04	16.37	16.91	-170.75	-33.35	596.10	900.81	879.06	21.76	41.403				
4,600.00	4,579.96	4,454.16	4,412.50	16.78	17.34	-170.78	-34.66	613.37	931.89	909.63	22.26	41.869				
4,700.00	4,679.05	4,549.21	4,505.96	17.18	17.77	-170.80	-35.97	630.64	962.96	940.20	22.76	42.315				
4,800.00	4,778.13	4,644.26	4,599.42	17.59	18.20	-170.83	-37.29	647.91	994.03	970.77	23.26	42.740				

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado Fed Com 803H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,877.22	4,739.31	4,692.87	17.99	18.63	-170.85	-38.60	665.19	1,025.10	1,001.34	23.76	43.146		
5,000.00	4,976.31	4,834.36	4,786.33	18.40	19.06	-170.87	-39.92	682.46	1,056.18	1,031.92	24.26	43.535		
5,100.00	5,075.39	4,929.41	4,879.79	18.80	19.49	-170.89	-41.23	699.73	1,087.25	1,062.49	24.76	43.907		
5,200.00	5,174.48	5,024.46	4,973.25	19.21	19.92	-170.91	-42.54	717.00	1,118.32	1,093.06	25.26	44.264		
5,300.00	5,273.57	5,119.51	5,066.70	19.62	20.35	-170.93	-43.86	734.27	1,149.39	1,123.63	25.77	44.606		
5,400.00	5,372.66	5,214.56	5,160.16	20.02	20.78	-170.95	-45.17	751.55	1,180.47	1,154.20	26.27	44.935		
5,500.00	5,471.74	5,309.61	5,253.62	20.43	21.21	-170.96	-46.49	768.82	1,211.54	1,184.77	26.77	45.250		
5,600.00	5,570.83	5,404.66	5,347.08	20.84	21.65	-170.98	-47.80	786.09	1,242.61	1,215.34	27.28	45.553		
5,700.00	5,669.92	5,499.70	5,440.53	21.25	22.08	-170.99	-49.12	803.36	1,273.69	1,245.91	27.78	45.845		
5,800.00	5,769.01	5,594.75	5,533.99	21.66	22.51	-171.00	-50.43	820.64	1,304.76	1,276.47	28.29	46.126		
5,900.00	5,868.09	5,689.80	5,627.45	22.07	22.95	-171.02	-51.74	837.91	1,335.83	1,307.04	28.79	46.396		
6,000.00	5,967.18	5,784.85	5,720.91	22.48	23.38	-171.03	-53.06	855.18	1,366.91	1,337.61	29.30	46.657		
6,100.00	6,066.27	5,879.90	5,814.36	22.89	23.82	-171.04	-54.37	872.45	1,397.98	1,368.18	29.80	46.908		
6,200.00	6,165.35	5,974.95	5,907.82	23.30	24.25	-171.05	-55.69	889.72	1,429.06	1,398.75	30.31	47.150		
6,300.00	6,264.44	6,070.00	6,001.28	23.71	24.69	-171.06	-57.00	907.00	1,460.13	1,429.32	30.81	47.385		
6,400.00	6,363.53	6,165.05	6,094.74	24.13	25.12	-171.08	-58.31	924.27	1,491.20	1,459.88	31.32	47.611		
6,500.00	6,462.62	6,260.10	6,188.19	24.54	25.56	-171.09	-59.63	941.54	1,522.28	1,490.45	31.83	47.829		
6,600.00	6,561.70	6,355.15	6,281.65	24.95	25.99	-171.10	-60.94	958.81	1,553.35	1,521.02	32.33	48.041		
6,700.00	6,660.79	6,450.20	6,375.11	25.36	26.43	-171.10	-62.26	976.08	1,584.43	1,551.58	32.84	48.245		
6,800.00	6,759.88	6,545.25	6,468.57	25.78	26.86	-171.11	-63.57	993.36	1,615.50	1,582.15	33.35	48.443		
6,900.00	6,858.97	6,699.91	6,621.07	26.19	27.55	-171.14	-65.52	1,018.97	1,645.13	1,610.98	34.16	48.162		
7,000.00	6,958.05	6,870.10	6,789.93	26.60	28.24	-171.19	-67.13	1,040.06	1,670.61	1,635.63	34.98	47.757		
7,100.00	7,057.14	7,043.98	6,963.24	27.01	28.89	-171.26	-68.17	1,053.83	1,691.74	1,655.98	35.75	47.317		
7,123.17	7,080.10	7,084.72	7,003.93	27.11	29.03	-171.28	-68.33	1,055.92	1,696.00	1,660.07	35.92	47.210		
7,200.00	7,156.33	7,221.10	7,140.25	27.42	29.48	-171.38	-68.62	1,059.76	1,707.62	1,671.16	36.46	46.830		
7,300.00	7,255.80	7,338.26	7,257.40	27.82	29.83	-171.47	-68.64	1,059.97	1,717.81	1,680.81	36.99	46.437		
7,400.00	7,355.51	7,437.97	7,357.11	28.19	30.13	-171.52	-68.64	1,059.97	1,725.30	1,687.82	37.48	46.031		
7,500.00	7,455.39	7,537.84	7,456.99	28.55	30.43	-171.56	-68.64	1,059.97	1,730.21	1,692.24	37.97	45.570		
7,600.00	7,555.36	7,637.81	7,556.96	28.89	30.74	-171.57	-68.64	1,059.97	1,732.53	1,694.07	38.45	45.056		
7,639.64	7,595.00	7,677.45	7,596.60	29.02	30.86	88.30	-68.64	1,059.97	1,732.73	1,694.09	38.64	44.839		
7,700.00	7,655.36	7,737.81	7,656.96	29.22	31.04	88.30	-68.64	1,059.97	1,732.73	1,693.80	38.93	44.509		
7,800.00	7,755.36	7,837.81	7,756.96	29.54	31.34	88.30	-68.64	1,059.97	1,732.73	1,693.32	39.41	43.971		
7,900.00	7,855.36	7,937.81	7,856.96	29.86	31.65	88.30	-68.64	1,059.97	1,732.73	1,692.85	39.88	43.445		
8,000.00	7,955.36	8,037.81	7,956.96	30.19	31.96	88.30	-68.64	1,059.97	1,732.73	1,692.37	40.36	42.930		
8,100.00	8,055.36	8,137.81	8,056.96	30.51	32.27	88.30	-68.64	1,059.97	1,732.73	1,691.89	40.84	42.427		
8,200.00	8,155.36	8,237.81	8,156.96	30.84	32.58	88.30	-68.64	1,059.97	1,732.73	1,691.41	41.32	41.935		
8,284.68	8,240.04	8,322.49	8,241.64	31.11	32.84	88.30	-68.64	1,059.97	1,732.73	1,691.01	41.73	41.527		
8,300.00	8,255.35	8,337.81	8,256.95	31.16	32.89	99.30	-68.64	1,059.97	1,732.76	1,690.97	41.80	41.455		
8,350.00	8,305.21	8,387.67	8,306.81	31.33	33.04	99.36	-68.64	1,059.97	1,733.34	1,691.30	42.04	41.234		
8,400.00	8,354.58	8,437.03	8,356.18	31.49	33.20	99.49	-68.64	1,059.97	1,734.64	1,692.37	42.27	41.036		
8,450.00	8,403.07	8,485.52	8,404.67	31.65	33.35	99.66	-68.64	1,059.97	1,736.72	1,694.22	42.50	40.864		
8,500.00	8,450.32	8,532.78	8,451.92	31.80	33.50	99.88	-68.64	1,059.97	1,739.64	1,696.92	42.72	40.721		
8,550.00	8,495.98	8,578.43	8,497.58	31.95	33.64	100.10	-68.64	1,059.97	1,743.50	1,700.57	42.94	40.607		
8,600.00	8,539.68	8,622.13	8,541.28	32.09	33.78	100.30	-68.64	1,059.97	1,748.40	1,705.26	43.14	40.527		
8,650.00	8,581.10	8,663.55	8,582.70	32.22	33.91	100.45	-68.64	1,059.97	1,754.45	1,711.11	43.34	40.481		
8,700.00	8,619.93	8,702.38	8,621.53	32.35	34.03	100.52	-68.64	1,059.97	1,761.76	1,718.23	43.53	40.472		
8,750.00	8,655.87	8,738.32	8,657.47	32.48	34.14	100.46	-68.64	1,059.97	1,770.44	1,726.73	43.71	40.503		
8,800.00	8,688.64	8,771.09	8,690.24	32.60	34.24	100.24	-68.64	1,059.97	1,780.60	1,736.71	43.88	40.576		
8,850.00	8,718.00	8,800.45	8,719.60	32.72	34.34	99.83	-68.64	1,059.97	1,792.30	1,748.25	44.05	40.691		
8,900.00	8,743.72	8,826.17	8,745.32	32.84	34.42	99.18	-68.64	1,059.97	1,805.61	1,761.41	44.20	40.851		
8,950.00	8,765.60	8,848.06	8,767.20	32.98	34.49	98.28	-68.64	1,059.97	1,820.54	1,776.19	44.34	41.057		
9,000.00	8,783.49	8,865.94	8,785.09	33.12	34.54	97.09	-68.64	1,059.97	1,837.08	1,792.60	44.47	41.307		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Colorado Fed Com - Colorado Fed Com 803H - OH - Plan #1		Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
9,050.00	8,797.24	8,879.69	8,798.84	33.29	34.59	95.60	-68.64	1,059.97	1,855.18	1,810.59	44.59	41.602				
9,100.00	8,806.75	8,889.20	8,808.35	33.48	34.62	93.79	-68.64	1,059.97	1,874.76	1,830.06	44.70	41.940				
9,150.00	8,811.95	8,894.40	8,813.55	33.68	34.63	91.66	-68.64	1,059.97	1,895.69	1,850.89	44.79	42.320				
9,184.68	8,813.00	8,895.45	8,814.60	33.83	34.64	90.00	-68.64	1,059.97	1,910.91	1,866.06	44.85	42.606				
9,200.00	8,813.00	8,895.45	8,814.60	33.91	34.64	90.00	-68.64	1,059.97	1,917.76	1,872.88	44.87	42.736				
9,300.00	8,813.00	8,895.45	8,814.60	34.41	34.64	90.00	-68.64	1,059.97	1,963.06	1,918.02	45.04	43.583				
9,400.00	8,813.00	8,895.45	8,814.60	34.98	34.64	90.00	-68.64	1,059.97	2,009.29	1,964.06	45.23	44.428				
9,500.00	8,813.00	8,895.45	8,814.60	35.60	34.64	90.00	-68.64	1,059.97	2,056.32	2,010.90	45.42	45.271				
9,600.00	8,813.00	8,895.45	8,814.60	36.27	34.64	90.00	-68.64	1,059.97	2,104.05	2,058.42	45.63	46.111				
9,702.98	8,813.00	8,895.45	8,814.60	37.00	34.64	90.00	-68.64	1,059.97	2,153.83	2,107.98	45.85	46.974				
9,800.00	8,813.00	8,895.45	8,814.60	37.74	34.64	90.00	-68.64	1,059.97	2,202.62	2,156.55	46.06	47.817				
9,900.00	8,813.00	8,895.45	8,814.60	38.55	34.64	90.00	-68.64	1,059.97	2,256.17	2,209.89	46.28	48.747				
10,000.00	8,813.00	8,895.45	8,814.60	39.42	34.64	90.00	-68.64	1,059.97	2,312.81	2,266.31	46.50	49.736				
10,100.00	8,813.00	8,895.45	8,814.60	40.34	34.64	90.00	-68.64	1,059.97	2,372.31	2,325.60	46.72	50.781				
10,200.00	8,813.00	8,895.45	8,814.60	41.30	34.64	90.00	-68.64	1,059.97	2,434.47	2,387.55	46.93	51.879				
10,300.00	8,813.00	8,895.45	8,814.60	42.31	34.64	90.00	-68.64	1,059.97	2,499.09	2,451.96	47.13	53.027				
10,400.00	8,813.00	8,895.45	8,814.60	43.35	34.64	90.00	-68.64	1,059.97	2,565.97	2,518.65	47.32	54.222				
10,500.00	8,813.00	8,895.45	8,814.60	44.44	34.64	90.00	-68.64	1,059.97	2,634.96	2,587.45	47.51	55.462				
10,600.00	8,813.00	8,895.45	8,814.60	45.55	34.64	90.00	-68.64	1,059.97	2,705.88	2,658.19	47.69	56.742				
10,700.00	8,813.00	8,895.45	8,814.60	46.70	34.64	90.00	-68.64	1,059.97	2,778.59	2,730.73	47.86	58.059				
10,800.00	8,813.00	8,895.45	8,814.60	47.88	34.64	90.00	-68.64	1,059.97	2,852.95	2,804.93	48.02	59.410				
10,900.00	8,813.00	8,895.45	8,814.60	49.09	34.64	90.00	-68.64	1,059.97	2,928.84	2,880.67	48.18	60.794				
11,000.00	8,813.00	8,895.45	8,814.60	50.32	34.64	90.00	-68.64	1,059.97	3,006.15	2,957.82	48.32	62.208				
11,100.00	8,813.00	8,895.45	8,814.60	51.57	34.64	90.00	-68.64	1,059.97	3,084.75	3,036.29	48.46	63.649				
11,200.00	8,813.00	8,895.45	8,814.60	52.85	34.64	90.00	-68.64	1,059.97	3,164.57	3,115.97	48.60	65.116				
11,300.00	8,813.00	8,895.45	8,814.60	54.15	34.64	90.00	-68.64	1,059.97	3,245.50	3,196.77	48.73	66.607				
11,400.00	8,813.00	8,895.45	8,814.60	55.46	34.64	90.00	-68.64	1,059.97	3,327.47	3,278.62	48.85	68.119				
11,500.00	8,813.00	8,895.45	8,814.60	56.80	34.64	90.00	-68.64	1,059.97	3,410.40	3,361.44	48.96	69.653				
11,600.00	8,813.00	8,895.45	8,814.60	58.15	34.64	90.00	-68.64	1,059.97	3,494.22	3,445.15	49.07	71.205				
11,700.00	8,813.00	8,895.45	8,814.60	59.51	34.64	90.00	-68.64	1,059.97	3,578.88	3,529.70	49.18	72.775				
11,800.00	8,813.00	8,895.45	8,814.60	60.89	34.64	90.00	-68.64	1,059.97	3,664.31	3,615.03	49.28	74.360				
11,900.00	8,813.00	8,895.45	8,814.60	62.29	34.64	90.00	-68.64	1,059.97	3,750.46	3,701.09	49.37	75.960				
12,000.00	8,813.00	8,895.45	8,814.60	63.69	34.64	90.00	-68.64	1,059.97	3,837.28	3,787.82	49.47	77.574				
12,100.00	8,813.00	8,895.45	8,814.60	65.11	34.64	90.00	-68.64	1,059.97	3,924.73	3,875.18	49.55	79.202				
12,200.00	8,813.00	8,895.45	8,814.60	66.54	34.64	90.00	-68.64	1,059.97	4,012.77	3,963.13	49.64	80.840				
12,300.00	8,813.00	15,904.48	12,425.00	67.97	74.20	152.85	3,574.62	988.79	4,057.44	3,993.76	63.68	63.718				
12,400.00	8,813.00	16,004.48	12,425.00	69.42	75.52	152.85	3,674.62	987.69	4,057.44	3,992.58	64.86	62.557				
12,500.00	8,813.00	16,104.48	12,425.00	70.88	76.85	152.85	3,774.61	986.59	4,057.44	3,991.39	66.05	61.428				
12,600.00	8,813.00	16,204.48	12,425.00	72.34	78.19	152.85	3,874.60	985.49	4,057.44	3,990.19	67.25	60.333				
12,700.00	8,813.00	16,304.48	12,425.00	73.82	79.54	152.85	3,974.60	984.38	4,057.44	3,988.99	68.46	59.268				
12,800.00	8,813.00	16,404.48	12,425.00	75.30	80.91	152.85	4,074.59	983.28	4,057.45	3,987.77	69.68	58.233				
12,900.00	8,813.00	16,504.48	12,425.00	76.78	82.28	152.85	4,174.58	982.18	4,057.45	3,986.55	70.90	57.227				
13,000.00	8,813.00	16,604.48	12,425.00	78.28	83.67	152.85	4,274.58	981.08	4,057.45	3,985.32	72.13	56.249				
13,100.00	8,813.00	16,704.48	12,425.00	79.78	85.06	152.85	4,374.57	979.97	4,057.45	3,984.08	73.37	55.298				
13,200.00	8,813.00	16,804.48	12,425.00	81.28	86.47	152.85	4,474.57	978.87	4,057.45	3,982.83	74.62	54.374				
13,300.00	8,813.00	16,904.48	12,425.00	82.80	87.88	152.85	4,574.56	977.77	4,057.46	3,981.58	75.88	53.475				
13,400.00	8,813.00	17,004.48	12,425.00	84.31	89.30	152.85	4,674.55	976.67	4,057.46	3,980.32	77.14	52.601				
13,500.00	8,813.00	17,104.48	12,425.00	85.84	90.73	152.85	4,774.55	975.57	4,057.46	3,979.06	78.40	51.751				
13,600.00	8,813.00	17,204.48	12,425.00	87.36	92.16	152.85	4,874.54	974.46	4,057.46	3,977.79	79.68	50.925				
13,700.00	8,813.00	17,304.48	12,425.00	88.89	93.61	152.85	4,974.54	973.36	4,057.46	3,976.51	80.95	50.121				
13,800.00	8,813.00	17,404.48	12,425.00	90.43	95.06	152.85	5,074.53	972.26	4,057.47	3,975.23	82.24	49.338				
13,900.00	8,813.00	17,504.48	12,425.00	91.97	96.52	152.85	5,174.52	971.16	4,057.47	3,973.95	83.52	48.579				

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Colorado Fed Com 803H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	8,813.00	17,604.48	12,425.00	93.51	97.98	152.85	5,274.52	970.06	4,057.47	3,972.66	84.81	47.840		
14,100.00	8,813.00	17,704.48	12,425.00	95.06	99.45	152.85	5,374.51	968.95	4,057.47	3,971.36	86.11	47.120		
14,200.00	8,813.00	17,804.48	12,425.00	96.61	100.92	152.85	5,474.51	967.85	4,057.48	3,970.07	87.41	46.419		
14,300.00	8,813.00	17,904.48	12,425.00	98.17	102.40	152.85	5,574.50	966.75	4,057.48	3,968.77	88.71	45.738		
14,400.00	8,813.00	18,004.48	12,425.00	99.72	103.89	152.85	5,674.49	965.65	4,057.48	3,967.46	90.02	45.074		
14,500.00	8,813.00	18,104.48	12,425.00	101.29	105.38	152.85	5,774.49	964.54	4,057.48	3,966.15	91.33	44.428		
14,600.00	8,813.00	18,204.48	12,425.00	102.85	106.87	152.85	5,874.48	963.44	4,057.48	3,964.84	92.64	43.798		
14,700.00	8,813.00	18,304.48	12,425.00	104.41	108.37	152.85	5,974.48	962.34	4,057.49	3,963.53	93.96	43.185		
14,800.00	8,813.00	18,404.48	12,425.00	105.98	109.88	152.85	6,074.47	961.24	4,057.49	3,962.21	95.28	42.586		
14,900.00	8,813.00	18,504.48	12,425.00	107.56	111.38	152.85	6,174.46	960.14	4,057.49	3,960.89	96.60	42.003		
15,000.00	8,813.00	18,604.48	12,425.00	109.13	112.90	152.85	6,274.46	959.03	4,057.49	3,959.57	97.93	41.434		
15,100.00	8,813.00	18,704.48	12,425.00	110.71	114.41	152.85	6,374.45	957.93	4,057.49	3,958.24	99.26	40.879		
15,200.00	8,813.00	18,804.48	12,425.00	112.28	115.93	152.85	6,474.45	956.83	4,057.50	3,956.91	100.59	40.338		
15,300.00	8,813.00	18,904.48	12,425.00	113.86	117.46	152.85	6,574.44	955.73	4,057.50	3,955.58	101.92	39.810		
15,400.00	8,813.00	19,004.48	12,425.00	115.45	118.98	152.85	6,674.43	954.62	4,057.50	3,954.24	103.26	39.294		
15,500.00	8,813.00	19,104.48	12,425.00	117.03	120.51	152.85	6,774.43	953.52	4,057.50	3,952.90	104.60	38.792		
15,600.00	8,813.00	19,204.48	12,425.00	118.62	122.05	152.85	6,874.42	952.42	4,057.50	3,951.57	105.94	38.301		
15,700.00	8,813.00	19,304.48	12,425.00	120.21	123.58	152.85	6,974.41	951.32	4,057.51	3,950.23	107.28	37.822		
15,800.00	8,813.00	19,404.48	12,425.00	121.80	125.12	152.85	7,074.41	950.22	4,057.51	3,948.88	108.62	37.353		
15,900.00	8,813.00	19,504.48	12,425.00	123.39	126.67	152.85	7,174.40	949.11	4,057.51	3,947.54	109.97	36.897		
16,000.00	8,813.00	19,604.48	12,425.00	124.98	128.21	152.85	7,274.40	948.01	4,057.51	3,946.20	111.32	36.451		
16,100.00	8,813.00	19,704.48	12,425.00	126.58	129.76	152.85	7,374.39	946.91	4,057.51	3,944.85	112.66	36.014		
16,200.00	8,813.00	19,804.48	12,425.00	128.17	131.31	152.85	7,474.38	945.81	4,057.52	3,943.50	114.01	35.588		
16,300.00	8,813.00	19,904.48	12,425.00	129.77	132.86	152.85	7,574.38	944.70	4,057.52	3,942.15	115.37	35.171		
16,400.00	8,813.00	20,004.48	12,425.00	131.37	134.42	152.85	7,674.37	943.60	4,057.52	3,940.80	116.72	34.763		
16,500.00	8,813.00	20,104.48	12,425.00	132.97	135.98	152.85	7,774.37	942.50	4,057.52	3,939.45	118.08	34.364		
16,600.00	8,813.00	20,204.48	12,425.00	134.57	137.54	152.85	7,874.36	941.40	4,057.52	3,938.09	119.43	33.973		
16,700.00	8,813.00	20,304.48	12,425.00	136.17	139.10	152.85	7,974.35	940.30	4,057.53	3,936.73	120.79	33.591		
16,800.00	8,813.00	20,404.48	12,425.00	137.78	140.66	152.85	8,074.35	939.19	4,057.53	3,935.38	122.15	33.217		
16,900.00	8,813.00	20,504.48	12,425.00	139.38	142.23	152.85	8,174.34	938.09	4,057.53	3,934.02	123.51	32.851		
17,000.00	8,813.00	20,604.48	12,425.00	140.99	143.80	152.85	8,274.34	936.99	4,057.53	3,932.65	124.88	32.492		
17,100.00	8,813.00	20,704.48	12,425.00	142.60	145.37	152.85	8,374.33	935.89	4,057.54	3,931.29	126.24	32.141		
17,200.00	8,813.00	20,804.48	12,425.00	144.20	146.94	152.85	8,474.32	934.78	4,057.54	3,929.93	127.60	31.798		
17,300.00	8,813.00	20,904.48	12,425.00	145.81	148.51	152.85	8,574.32	933.68	4,057.54	3,928.57	128.97	31.462		
17,400.00	8,813.00	21,004.48	12,425.00	147.42	150.09	152.85	8,674.31	932.58	4,057.54	3,927.21	130.33	31.132		
17,500.00	8,813.00	21,104.48	12,425.00	149.04	151.66	152.85	8,774.31	931.48	4,057.54	3,925.84	131.70	30.809		
17,600.00	8,813.00	21,204.48	12,425.00	150.65	153.24	152.85	8,874.30	930.38	4,057.55	3,924.48	133.07	30.492		
17,700.00	8,813.00	21,304.48	12,425.00	152.26	154.82	152.85	8,974.29	929.27	4,057.55	3,923.11	134.44	30.181		
17,800.00	8,813.00	21,404.48	12,425.00	153.88	156.40	152.85	9,074.29	928.17	4,057.55	3,921.74	135.81	29.877		
17,900.00	8,813.00	21,504.48	12,425.00	155.49	157.99	152.85	9,174.28	927.07	4,057.55	3,920.37	137.18	29.579		
18,000.00	8,813.00	21,604.48	12,425.00	157.11	159.57	152.85	9,274.28	925.97	4,057.55	3,919.01	138.55	29.286		
18,100.00	8,813.00	21,704.48	12,425.00	158.72	161.16	152.85	9,374.27	924.87	4,057.56	3,917.63	139.92	28.999		
18,200.00	8,813.00	21,804.48	12,425.00	160.34	162.74	152.85	9,474.26	923.76	4,057.56	3,916.26	141.30	28.717		
18,300.00	8,813.00	21,904.48	12,425.00	161.96	164.33	152.85	9,574.26	922.66	4,057.56	3,914.89	142.67	28.441		
18,400.00	8,813.00	22,004.48	12,425.00	163.58	165.92	152.85	9,674.25	921.56	4,057.56	3,913.52	144.04	28.170		
18,500.00	8,813.00	22,104.48	12,425.00	165.20	167.51	152.85	9,774.24	920.46	4,057.56	3,912.15	145.41	27.904		
18,600.00	8,813.00	22,204.48	12,425.00	166.82	169.11	152.85	9,874.24	919.35	4,057.57	3,910.78	146.79	27.643		
18,700.00	8,813.00	22,304.48	12,425.00	168.44	170.70	152.85	9,974.23	918.25	4,057.57	3,909.40	148.16	27.386		
18,800.00	8,813.00	22,404.48	12,425.00	170.06	172.29	152.85	10,074.23	917.15	4,057.57	3,908.03	149.54	27.134		
18,809.01	8,813.00	22,413.49	12,425.00	170.20	172.44	152.85	10,083.24	917.05	4,057.57	3,907.91	149.66	27.111		
18,904.52	8,813.00	22,506.08	12,425.00	171.75	173.92	152.85	10,175.82	916.03	4,057.57	3,906.62	150.96	26.879		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 60-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	23.79	1,732.62	763.91	1,893.59					
100.00	100.00	87.50	87.50	0.13	0.86	23.79	1,732.65	763.91	1,893.57	1,892.70	0.87	2,176.080		
130.00	130.00	117.50	117.50	0.23	1.42	23.79	1,732.62	763.91	1,893.55	1,892.11	1.44	1,318.881		
200.00	200.00	189.99	189.99	0.48	2.84	23.79	1,732.81	763.91	1,893.72	1,890.85	2.88	658.329		
300.00	300.00	291.55	291.53	0.84	4.76	23.79	1,732.73	763.91	1,893.65	1,888.82	4.84	391.516		
400.00	400.00	387.52	387.50	1.20	6.47	23.79	1,732.62	763.91	1,893.55	1,886.97	6.58	287.870		
500.00	500.00	490.60	490.59	1.56	8.37	23.79	1,732.64	763.91	1,893.57	1,885.05	8.52	222.340		
513.93	513.93	505.44	505.42	1.61	8.65	23.79	1,732.61	763.91	1,893.54	1,884.75	8.80	215.290		
600.00	600.00	591.16	591.14	1.92	10.28	23.79	1,732.81	763.91	1,893.73	1,883.27	10.46	181.115		
700.00	700.00	687.53	687.50	2.28	12.14	23.79	1,732.62	763.91	1,893.55	1,881.19	12.35	153.297		
800.00	800.00	789.29	789.26	2.63	14.14	23.79	1,732.87	763.91	1,893.78	1,879.40	14.38	131.704		
900.00	900.00	887.55	887.50	2.99	16.07	23.79	1,732.62	763.91	1,893.55	1,877.20	16.34	115.849		
1,000.00	1,000.00	1,004.77	1,004.71	3.35	18.59	23.79	1,732.54	763.91	1,893.56	1,874.67	18.89	100.244		
1,009.22	1,009.22	1,017.37	1,017.31	3.38	18.86	23.80	1,732.41	763.91	1,893.47	1,874.30	19.16	98.815		
1,100.00	1,100.00	1,087.59	1,087.50	3.71	20.39	23.79	1,732.62	763.91	1,893.55	1,872.82	20.72	91.383		
1,200.00	1,200.00	1,187.61	1,187.50	4.07	22.54	23.79	1,732.62	763.91	1,893.55	1,870.64	22.91	82.659		
1,300.00	1,300.00	1,287.63	1,287.50	4.43	24.65	23.79	1,732.62	763.91	1,893.55	1,868.50	25.05	75.598		
1,400.00	1,400.00	1,387.63	1,387.50	4.79	26.47	23.79	1,732.62	763.91	1,893.55	1,866.64	26.90	70.390		
1,500.00	1,500.00	1,489.36	1,489.23	5.14	28.20	23.79	1,732.68	763.91	1,893.61	1,864.94	28.66	66.063		
1,600.00	1,600.00	1,590.94	1,590.81	5.50	29.97	23.79	1,732.62	763.91	1,893.56	1,863.09	30.47	62.149		
1,607.23	1,607.23	1,599.12	1,598.99	5.53	30.11	23.79	1,732.61	763.91	1,893.54	1,862.93	30.62	61.850		
1,700.00	1,700.00	1,690.21	1,690.08	5.86	31.79	23.79	1,732.75	763.91	1,893.67	1,861.35	32.33	58.581		
1,800.00	1,800.00	1,787.64	1,787.50	6.22	33.55	23.79	1,732.62	763.91	1,893.55	1,859.42	34.12	55.493		
1,900.00	1,900.00	1,892.82	1,892.68	6.58	35.42	23.79	1,732.72	763.91	1,893.65	1,857.62	36.03	52.563		
2,000.00	2,000.00	1,987.64	1,987.50	6.94	37.23	23.79	1,732.62	763.91	1,893.55	1,855.67	37.87	50.000		
2,060.00	2,060.00	2,048.46	2,048.32	7.15	38.43	23.79	1,732.72	763.91	1,893.64	1,854.56	39.09	48.448		
2,063.42	2,063.42	2,052.01	2,051.86	7.16	38.50	123.92	1,732.72	763.91	1,893.64	1,854.49	39.16	48.361		
2,100.00	2,100.00	2,089.97	2,089.83	7.29	39.24	123.92	1,732.69	763.91	1,893.73	1,853.81	39.91	47.446		
2,200.00	2,199.97	2,187.63	2,187.47	7.63	41.24	123.96	1,732.62	763.91	1,894.98	1,853.04	41.94	45.187		
2,300.00	2,299.84	2,287.52	2,287.34	7.97	43.30	124.05	1,732.62	763.91	1,897.76	1,853.74	44.03	43.106		
2,400.00	2,399.55	2,395.27	2,395.08	8.32	45.42	124.21	1,732.74	763.91	1,902.16	1,855.99	46.17	41.197		
2,500.00	2,499.03	2,486.72	2,486.53	8.67	47.35	124.37	1,732.62	763.91	1,907.79	1,859.65	48.14	39.630		
2,576.48	2,574.90	2,569.69	2,569.49	8.94	49.15	124.56	1,732.80	763.91	1,913.40	1,863.44	49.96	38.301		
2,600.00	2,598.21	2,596.24	2,596.04	9.02	49.73	124.65	1,732.67	763.91	1,915.11	1,864.57	50.54	37.894		
2,700.00	2,697.30	2,685.06	2,684.80	9.38	51.82	124.94	1,732.62	763.91	1,922.77	1,870.10	52.66	36.510		
2,800.00	2,796.39	2,815.10	2,814.83	9.75	54.93	125.38	1,732.27	763.91	1,930.51	1,874.73	55.78	34.609		
2,900.00	2,895.47	2,903.71	2,903.41	10.12	57.15	125.66	1,732.69	763.91	1,938.61	1,880.58	58.03	33.407		
3,000.00	2,994.56	2,982.42	2,982.06	10.49	59.11	125.91	1,732.62	763.91	1,946.35	1,886.33	60.03	32.425		
3,100.00	3,093.65	3,089.47	3,089.08	10.87	61.93	126.25	1,733.00	763.91	1,954.70	1,891.83	62.87	31.092		
3,200.00	3,192.74	3,184.22	3,183.75	11.25	64.63	126.55	1,733.07	763.91	1,962.79	1,897.20	65.59	29.925		
3,300.00	3,291.82	3,279.86	3,279.32	11.64	67.62	126.86	1,732.62	763.91	1,970.49	1,901.89	68.60	28.724		
3,400.00	3,390.91	3,378.99	3,378.41	12.02	70.81	127.17	1,732.62	763.91	1,978.65	1,906.84	71.81	27.554		
3,500.00	3,490.00	3,478.29	3,477.50	12.41	74.15	127.48	1,732.62	763.91	1,986.87	1,911.71	75.16	26.434		
3,600.00	3,589.09	3,577.47	3,576.59	12.80	77.43	127.79	1,732.62	763.91	1,995.15	1,916.69	78.46	25.429		
3,700.00	3,688.17	3,676.66	3,675.67	13.19	80.55	128.09	1,732.62	763.91	2,003.48	1,921.88	81.60	24.552		
3,800.00	3,787.26	3,798.95	3,797.90	13.58	84.23	128.46	1,732.78	763.91	2,012.16	1,926.86	85.29	23.592		
3,900.00	3,886.35	3,897.84	3,896.73	13.98	87.02	128.75	1,732.91	763.91	2,020.71	1,932.61	88.10	22.936		
4,000.00	3,985.43	3,974.09	3,972.93	14.38	89.09	128.98	1,732.62	763.91	2,028.82	1,938.61	90.22	22.489		
4,100.00	4,084.52	4,073.24	4,072.02	14.77	91.93	129.28	1,732.62	763.91	2,037.37	1,944.30	93.08	21.889		
4,200.00	4,183.61	4,190.00	4,188.72	15.17	94.93	129.62	1,732.62	763.91	2,046.06	1,949.96	96.09	21.292		
4,300.00	4,282.70	4,271.48	4,270.20	15.57	96.43	129.85	1,732.62	763.91	2,054.64	1,957.00	97.64	21.044		
4,400.00	4,381.78	4,370.58	4,369.28	15.97	98.40	130.14	1,732.62	763.91	2,063.35	1,963.71	99.65	20.707		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 60-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,500.00	4,480.87	4,484.38	4,483.07	16.37	101.19	130.46	1,732.69	763.91	2,072.23	1,969.77	102.46	20.225		
4,600.00	4,579.96	4,568.88	4,567.46	16.78	104.29	130.70	1,732.62	763.91	2,080.93	1,975.35	105.58	19.710		
4,700.00	4,679.05	4,668.27	4,666.55	17.18	109.09	130.98	1,732.62	763.91	2,089.79	1,979.41	110.38	18.932		
4,800.00	4,778.13	4,767.66	4,765.63	17.59	114.33	131.26	1,732.62	763.91	2,098.70	1,983.08	115.61	18.153		
4,900.00	4,877.22	4,867.08	4,864.72	17.99	119.18	131.53	1,732.62	763.91	2,107.66	1,987.19	120.47	17.495		
5,000.00	4,976.31	4,966.30	4,963.81	18.40	122.86	131.81	1,732.62	763.91	2,116.67	1,992.50	124.17	17.047		
5,100.00	5,075.39	5,065.44	5,062.89	18.80	125.53	132.07	1,732.62	763.91	2,125.72	1,998.85	126.87	16.755		
5,200.00	5,174.48	5,164.56	5,161.98	19.21	127.82	132.34	1,732.62	763.91	2,134.82	2,005.64	129.18	16.526		
5,300.00	5,273.57	5,263.65	5,261.07	19.62	129.83	132.61	1,732.62	763.91	2,143.97	2,012.74	131.23	16.338		
5,400.00	5,372.66	5,362.33	5,361.75	20.02	131.72	132.87	1,732.98	763.91	2,153.47	2,020.32	133.16	16.173		
5,500.00	5,471.74	5,474.92	5,472.33	20.43	133.80	133.17	1,732.53	763.91	2,162.38	2,027.11	135.26	15.986		
5,600.00	5,570.83	5,561.58	5,558.97	20.84	135.43	133.39	1,732.92	763.91	2,171.94	2,035.00	136.94	15.861		
5,700.00	5,669.92	5,660.04	5,657.42	21.25	137.29	133.64	1,732.62	763.91	2,181.01	2,042.18	138.84	15.709		
5,800.00	5,769.01	5,762.43	5,759.80	21.66	139.34	133.90	1,732.88	763.91	2,190.61	2,049.69	140.91	15.546		
5,900.00	5,868.09	5,858.23	5,855.59	22.07	141.28	134.15	1,732.62	763.91	2,199.80	2,056.90	142.89	15.395		
6,000.00	5,967.18	5,960.52	5,957.87	22.48	143.43	134.40	1,733.08	763.91	2,209.64	2,064.56	145.08	15.231		
6,100.00	6,066.27	6,056.44	6,053.77	22.89	145.45	134.65	1,732.62	763.91	2,218.75	2,071.62	147.13	15.081		
6,200.00	6,165.35	6,163.98	6,161.30	23.30	147.71	134.91	1,732.85	763.91	2,228.49	2,079.07	149.42	14.914		
6,300.00	6,264.44	6,254.64	6,251.94	23.71	149.62	135.14	1,732.62	763.91	2,237.86	2,086.50	151.36	14.785		
6,400.00	6,363.53	6,361.59	6,358.88	24.13	151.87	135.39	1,732.98	763.91	2,247.79	2,094.14	153.65	14.630		
6,500.00	6,462.62	6,452.85	6,450.12	24.54	153.79	135.62	1,732.62	763.91	2,257.14	2,101.54	155.60	14.506		
6,600.00	6,561.70	6,560.67	6,557.93	24.95	156.06	135.87	1,732.90	763.91	2,267.08	2,109.18	157.90	14.357		
6,700.00	6,660.79	6,651.05	6,648.29	25.36	157.91	136.09	1,732.62	763.91	2,276.57	2,116.78	159.79	14.247		
6,800.00	6,759.88	6,754.43	6,751.67	25.78	159.98	136.33	1,733.10	763.91	2,286.74	2,124.84	161.90	14.124		
6,900.00	6,858.97	6,849.25	6,846.47	26.19	161.88	136.55	1,732.62	763.91	2,296.15	2,132.33	163.83	14.016		
7,000.00	6,958.05	6,948.34	6,945.55	26.60	163.76	136.78	1,732.62	763.91	2,306.00	2,140.25	165.75	13.913		
7,100.00	7,057.14	7,055.08	7,052.29	27.01	165.79	137.02	1,732.87	763.91	2,316.10	2,148.29	167.82	13.801		
7,123.17	7,080.10	7,080.39	7,077.60	27.11	166.28	137.08	1,732.75	763.91	2,318.31	2,150.01	168.30	13.774		
7,200.00	7,156.33	7,146.64	7,143.83	27.42	167.54	137.30	1,732.62	763.91	2,325.24	2,155.64	169.60	13.710		
7,300.00	7,255.80	7,250.64	7,247.83	27.82	169.52	137.54	1,732.92	763.91	2,333.00	2,161.39	171.61	13.594		
7,400.00	7,355.51	7,345.84	7,343.01	28.19	171.34	137.72	1,732.62	763.91	2,338.36	2,164.90	173.46	13.480		
7,500.00	7,455.39	7,448.14	7,445.30	28.55	173.29	137.84	1,732.96	763.91	2,342.31	2,166.86	175.45	13.350		
7,600.00	7,555.36	7,545.70	7,542.86	28.89	175.16	137.90	1,732.62	763.91	2,343.78	2,166.44	177.34	13.216		
7,639.64	7,595.00	7,585.35	7,582.50	29.02	175.91	37.78	1,732.62	763.91	2,343.93	2,165.82	178.11	13.160		
7,700.00	7,655.36	7,648.36	7,645.51	29.22	177.12	37.77	1,732.91	763.91	2,344.16	2,164.83	179.34	13.071		
7,800.00	7,755.36	7,745.72	7,742.86	29.54	178.98	37.78	1,732.62	763.91	2,343.93	2,162.70	181.23	12.934		
7,900.00	7,855.36	7,847.69	7,844.82	29.86	180.94	37.77	1,732.96	763.91	2,344.21	2,161.00	183.21	12.795		
8,000.00	7,955.36	7,945.74	7,942.86	30.19	182.82	37.78	1,732.62	763.91	2,343.93	2,158.81	185.12	12.662		
8,100.00	8,055.36	8,045.74	8,042.86	30.51	184.84	37.78	1,732.62	763.91	2,343.93	2,156.77	187.17	12.523		
8,200.00	8,155.36	8,156.79	8,153.91	30.84	187.08	37.78	1,732.68	763.91	2,344.01	2,154.58	189.43	12.374		
8,221.17	8,176.52	8,180.48	8,177.60	30.91	187.56	37.78	1,732.52	763.91	2,343.90	2,153.98	189.91	12.342		
8,284.68	8,240.04	8,230.45	8,227.54	31.11	188.69	37.78	1,732.62	763.91	2,343.93	2,152.86	191.07	12.267		
8,300.00	8,255.35	8,245.76	8,242.85	31.16	189.03	48.79	1,732.62	763.91	2,343.80	2,152.39	191.41	12.245		
8,350.00	8,305.21	8,297.22	8,294.31	31.33	190.17	49.03	1,733.13	763.91	2,341.89	2,149.32	192.57	12.161		
8,400.00	8,354.58	8,354.34	8,351.42	31.49	191.44	49.60	1,732.96	763.91	2,336.62	2,142.77	193.84	12.054		
8,450.00	8,403.07	8,410.33	8,407.41	31.65	192.68	50.50	1,732.56	763.91	2,328.41	2,133.31	195.09	11.935		
8,500.00	8,450.32	8,440.78	8,437.82	31.80	193.32	51.56	1,732.62	763.91	2,317.78	2,122.02	195.76	11.840		
8,550.00	8,495.98	8,486.43	8,483.48	31.95	194.28	53.01	1,732.62	763.91	2,304.62	2,107.88	196.74	11.714		
8,600.00	8,539.68	8,530.72	8,527.76	32.09	195.22	54.78	1,733.29	763.91	2,289.59	2,091.89	197.69	11.581		
8,650.00	8,581.10	8,579.72	8,576.76	32.22	196.26	56.97	1,733.16	763.91	2,271.77	2,073.02	198.75	11.430		
8,700.00	8,619.93	8,625.35	8,622.38	32.35	197.22	59.50	1,732.86	763.91	2,251.85	2,052.12	199.73	11.275		
8,750.00	8,655.87	8,667.24	8,664.26	32.48	198.11	62.33	1,732.41	763.91	2,230.12	2,029.49	200.63	11.116		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 60-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
8,800.00	8,688.64	8,679.13	8,676.14	32.60	198.31	64.89	1,732.62	763.91	2,207.26	2,006.40	200.86	10.989		
8,850.00	8,718.00	8,708.49	8,705.50	32.72	198.87	68.06	1,732.62	763.91	2,183.16	1,981.71	201.45	10.837		
8,900.00	8,743.72	8,734.21	8,731.22	32.84	199.36	71.40	1,732.62	763.91	2,158.16	1,956.19	201.97	10.686		
8,950.00	8,765.60	8,756.48	8,753.49	32.98	199.79	74.84	1,732.95	763.91	2,132.80	1,930.37	202.42	10.536		
9,000.00	8,783.49	8,776.21	8,773.21	33.12	200.17	78.36	1,732.93	763.91	2,106.87	1,904.04	202.83	10.387		
9,050.00	8,797.24	8,791.26	8,788.26	33.29	200.46	81.80	1,732.90	763.91	2,080.93	1,877.78	203.15	10.243		
9,100.00	8,806.75	8,801.55	8,798.55	33.48	200.66	85.10	1,732.87	763.91	2,055.27	1,851.88	203.39	10.105		
9,150.00	8,811.95	8,807.06	8,804.07	33.68	200.76	88.17	1,732.86	763.91	2,030.16	1,826.63	203.53	9.975		
9,184.68	8,813.00	8,808.08	8,805.08	33.83	200.78	90.15	1,732.85	763.91	2,013.20	1,809.62	203.58	9.889		
9,200.00	8,813.00	8,808.02	8,805.02	33.91	200.78	90.15	1,732.85	763.91	2,005.81	1,802.22	203.59	9.852		
9,300.00	8,813.00	8,807.64	8,804.64	34.41	200.77	90.14	1,732.85	763.91	1,958.06	1,754.38	203.68	9.614		
9,400.00	8,813.00	8,807.27	8,804.27	34.98	200.77	90.13	1,732.86	763.91	1,911.19	1,707.42	203.77	9.379		
9,500.00	8,813.00	8,806.89	8,803.90	35.60	200.76	90.12	1,732.86	763.91	1,865.34	1,661.47	203.87	9.150		
9,600.00	8,813.00	8,806.53	8,803.53	36.27	200.75	90.11	1,732.86	763.91	1,820.64	1,616.66	203.98	8.925		
9,702.98	8,813.00	8,806.15	8,803.16	37.00	200.75	90.09	1,732.86	763.91	1,775.96	1,571.86	204.10	8.701		
9,800.00	8,813.00	8,805.81	8,802.81	37.74	200.74	90.08	1,732.86	763.91	1,736.78	1,532.55	204.23	8.504		
9,900.00	8,813.00	8,805.45	8,802.46	38.55	200.73	90.07	1,732.86	763.91	1,701.25	1,496.89	204.36	8.325		
10,000.00	8,813.00	8,805.10	8,802.11	39.42	200.73	90.06	1,732.86	763.91	1,670.96	1,466.45	204.51	8.171		
10,100.00	8,813.00	8,804.76	8,801.76	40.34	200.72	90.05	1,732.86	763.91	1,646.20	1,441.54	204.65	8.044		
10,200.00	8,813.00	8,804.42	8,801.42	41.30	200.71	90.03	1,732.86	763.91	1,627.21	1,422.40	204.80	7.945		
10,300.00	8,813.00	8,804.08	8,801.09	42.31	200.71	90.02	1,732.87	763.91	1,614.20	1,409.25	204.95	7.876		
10,400.00	8,813.00	8,803.75	8,800.76	43.35	200.70	90.01	1,732.87	763.91	1,607.33	1,402.23	205.10	7.837		
10,460.76	8,813.00	8,803.55	8,800.56	44.01	200.70	90.00	1,732.87	763.91	1,606.18	1,401.00	205.18	7.828 CC, ES, SF		
10,500.00	8,813.00	8,803.43	8,800.43	44.44	200.69	90.00	1,732.87	763.91	1,606.66	1,401.43	205.23	7.829		
10,600.00	8,813.00	8,803.10	8,800.11	45.55	200.69	89.99	1,732.87	763.91	1,612.20	1,406.85	205.35	7.851		
10,700.00	8,813.00	8,802.78	8,799.79	46.70	200.68	89.97	1,732.87	763.91	1,623.90	1,418.44	205.46	7.904		
10,800.00	8,813.00	8,802.47	8,799.47	47.88	200.68	89.96	1,732.87	763.91	1,641.61	1,436.06	205.55	7.986		
10,900.00	8,813.00	8,802.16	8,799.16	49.09	200.67	89.95	1,732.87	763.91	1,665.15	1,459.53	205.62	8.098		
11,000.00	8,813.00	8,801.85	8,798.86	50.32	200.66	89.94	1,732.87	763.91	1,694.28	1,488.60	205.68	8.237		
11,100.00	8,813.00	8,801.55	8,798.55	51.57	200.66	89.93	1,732.87	763.91	1,728.71	1,522.99	205.72	8.403		
11,200.00	8,813.00	8,801.25	8,798.25	52.85	200.65	89.92	1,732.88	763.91	1,768.13	1,562.39	205.74	8.594		
11,300.00	8,813.00	8,800.95	8,797.96	54.15	200.65	89.91	1,732.88	763.91	1,812.21	1,606.46	205.75	8.808		
11,400.00	8,813.00	8,800.66	8,797.67	55.46	200.64	89.90	1,732.88	763.91	1,860.64	1,654.89	205.75	9.043		
11,500.00	8,813.00	8,800.37	8,797.38	56.80	200.64	89.89	1,732.88	763.91	1,913.06	1,707.33	205.73	9.299		
11,600.00	8,813.00	8,800.09	8,797.09	58.15	200.63	89.88	1,732.88	763.91	1,969.18	1,763.47	205.71	9.573		
11,700.00	8,813.00	8,799.81	8,796.81	59.51	200.62	89.87	1,732.88	763.91	2,028.67	1,822.99	205.68	9.863		
11,800.00	8,813.00	8,799.53	8,796.53	60.89	200.62	89.86	1,732.88	763.91	2,091.26	1,885.61	205.65	10.169		
11,900.00	8,813.00	8,799.25	8,796.26	62.29	200.61	89.85	1,732.88	763.91	2,156.66	1,951.06	205.61	10.489		
12,000.00	8,813.00	8,798.98	8,795.98	63.69	200.61	89.84	1,732.88	763.91	2,224.64	2,019.08	205.56	10.822		
12,100.00	8,813.00	8,798.71	8,795.71	65.11	200.60	89.83	1,732.88	763.91	2,294.97	2,089.45	205.52	11.167		
12,200.00	8,813.00	8,798.44	8,795.45	66.54	200.60	89.82	1,732.88	763.91	2,367.43	2,161.95	205.48	11.522		
12,300.00	8,813.00	8,798.18	8,795.19	67.97	200.59	89.81	1,732.88	763.91	2,441.84	2,236.41	205.43	11.886		
12,400.00	8,813.00	8,797.92	8,794.93	69.42	200.59	89.80	1,732.89	763.91	2,518.02	2,312.63	205.39	12.260		
12,500.00	8,813.00	8,797.67	8,794.67	70.88	200.58	89.79	1,732.89	763.91	2,595.82	2,390.47	205.34	12.641		
12,600.00	8,813.00	8,797.41	8,794.42	72.34	200.58	89.78	1,732.89	763.91	2,675.09	2,469.79	205.30	13.030		
12,700.00	8,813.00	8,797.16	8,794.16	73.82	200.57	89.77	1,732.89	763.91	2,755.71	2,550.45	205.26	13.426		
12,800.00	8,813.00	8,796.91	8,793.92	75.30	200.57	89.77	1,732.89	763.91	2,837.57	2,632.35	205.22	13.827		
12,900.00	8,813.00	8,796.67	8,793.67	76.78	200.56	89.76	1,732.89	763.91	2,920.55	2,715.38	205.18	14.234		
13,000.00	8,813.00	8,796.42	8,793.43	78.28	200.56	89.75	1,732.89	763.91	3,004.58	2,799.44	205.14	14.647		
13,100.00	8,813.00	8,796.18	8,793.19	79.78	200.55	89.74	1,732.89	763.91	3,089.55	2,884.45	205.10	15.064		
13,200.00	8,813.00	8,795.95	8,792.95	81.28	200.55	89.73	1,732.89	763.91	3,175.40	2,970.33	205.07	15.485		
13,300.00	8,813.00	8,795.71	8,792.71	82.80	200.55	89.72	1,732.89	763.91	3,262.06	3,057.02	205.03	15.910		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 60-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	8,813.00	8,795.48	8,792.48	84.31	200.54	89.71	1,732.89	763.91	3,349.45	3,144.45	205.00	16.339		
13,500.00	8,813.00	8,795.25	8,792.25	85.84	200.54	89.71	1,732.89	763.91	3,437.54	3,232.57	204.97	16.771		
13,600.00	8,813.00	8,795.02	8,792.02	87.36	200.53	89.70	1,732.89	763.91	3,526.26	3,321.32	204.94	17.206		
13,700.00	8,813.00	8,794.79	8,791.80	88.89	200.53	89.69	1,732.89	763.91	3,615.57	3,410.66	204.91	17.644		
13,800.00	8,813.00	8,794.57	8,791.58	90.43	200.52	89.68	1,732.89	763.91	3,705.43	3,500.54	204.89	18.085		
13,900.00	8,813.00	8,794.35	8,791.36	91.97	200.52	89.67	1,732.89	763.91	3,795.79	3,590.93	204.86	18.528		
14,000.00	8,813.00	8,794.13	8,791.14	93.51	200.52	89.67	1,732.90	763.91	3,886.63	3,681.79	204.84	18.974		
14,100.00	8,813.00	8,793.92	8,790.92	95.06	200.51	89.66	1,732.90	763.91	3,977.91	3,773.09	204.82	19.422		
14,200.00	8,813.00	8,793.70	8,790.71	96.61	200.51	89.65	1,732.90	763.91	4,069.59	3,864.80	204.80	19.871		
14,300.00	8,813.00	8,793.49	8,790.50	98.17	200.50	89.64	1,732.90	763.91	4,161.66	3,956.88	204.78	20.323		
14,400.00	8,813.00	8,793.28	8,790.29	99.72	200.50	89.64	1,732.90	763.91	4,254.09	4,049.33	204.76	20.776		
14,500.00	8,813.00	8,793.08	8,790.08	101.29	200.49	89.63	1,732.90	763.91	4,346.85	4,142.11	204.74	21.231		
14,600.00	8,813.00	8,792.87	8,789.87	102.85	200.49	89.62	1,732.90	763.91	4,439.93	4,235.20	204.72	21.687		
14,700.00	8,813.00	8,792.67	8,789.67	104.41	200.49	89.61	1,732.90	763.91	4,533.30	4,328.59	204.71	22.145		
14,800.00	8,813.00	8,792.47	8,789.47	105.98	200.48	89.61	1,732.90	763.91	4,626.95	4,422.25	204.70	22.604		
14,900.00	8,813.00	8,792.27	8,789.27	107.56	200.48	89.60	1,732.90	763.91	4,720.85	4,516.17	204.68	23.064		
15,000.00	8,813.00	8,792.07	8,789.07	109.13	200.48	89.59	1,732.90	763.91	4,815.01	4,610.34	204.67	23.526		
15,100.00	8,813.00	8,791.87	8,788.88	110.71	200.47	89.59	1,732.90	763.91	4,909.39	4,704.74	204.66	23.988		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 192-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,700.00	8,813.00	8,808.07	8,804.86	59.51	208.89	90.03	7,025.20	2,025.93	4,987.73	4,773.08	214.65	23.237		
11,800.00	8,813.00	8,808.03	8,804.83	60.89	208.89	90.03	7,025.20	2,025.93	4,907.11	4,692.21	214.90	22.834		
11,900.00	8,813.00	8,808.00	8,804.79	62.29	208.89	90.03	7,025.20	2,025.93	4,827.21	4,612.05	215.16	22.435		
12,000.00	8,813.00	8,807.97	8,804.76	63.69	208.89	90.02	7,025.20	2,025.93	4,748.07	4,532.63	215.45	22.038		
12,100.00	8,813.00	8,807.93	8,804.72	65.11	208.89	90.02	7,025.20	2,025.93	4,669.74	4,453.99	215.75	21.644		
12,200.00	8,813.00	8,807.90	8,804.69	66.54	208.89	90.02	7,025.20	2,025.93	4,592.24	4,376.17	216.07	21.254		
12,300.00	8,813.00	8,807.86	8,804.66	67.97	208.89	90.02	7,025.20	2,025.93	4,515.63	4,299.22	216.41	20.866		
12,400.00	8,813.00	8,807.83	8,804.62	69.42	208.89	90.02	7,025.20	2,025.93	4,439.95	4,223.18	216.77	20.482		
12,500.00	8,813.00	8,807.79	8,804.59	70.88	208.89	90.02	7,025.20	2,025.93	4,365.25	4,148.10	217.15	20.102		
12,600.00	8,813.00	8,807.76	8,804.55	72.34	208.89	90.02	7,025.20	2,025.93	4,291.58	4,074.02	217.56	19.726		
12,700.00	8,813.00	8,807.73	8,804.52	73.82	208.89	90.02	7,025.20	2,025.93	4,218.99	4,001.01	217.98	19.355		
12,800.00	8,813.00	8,807.69	8,804.48	75.30	208.89	90.02	7,025.20	2,025.93	4,147.54	3,929.11	218.44	18.987		
12,900.00	8,813.00	8,807.66	8,804.45	76.78	208.89	90.02	7,025.20	2,025.93	4,077.30	3,858.38	218.92	18.624		
13,000.00	8,813.00	8,807.62	8,804.42	78.28	208.89	90.02	7,025.20	2,025.93	4,008.32	3,788.89	219.43	18.267		
13,100.00	8,813.00	8,807.59	8,804.38	79.78	208.89	90.02	7,025.20	2,025.93	3,940.67	3,720.70	219.97	17.915		
13,200.00	8,813.00	8,807.56	8,804.35	81.28	208.89	90.02	7,025.20	2,025.93	3,874.41	3,653.88	220.54	17.568		
13,300.00	8,813.00	8,807.52	8,804.32	82.80	208.89	90.02	7,025.20	2,025.93	3,809.64	3,588.50	221.13	17.228		
13,400.00	8,813.00	8,807.49	8,804.28	84.31	208.88	90.02	7,025.20	2,025.93	3,746.41	3,524.65	221.76	16.894		
13,500.00	8,813.00	8,807.46	8,804.25	85.84	208.88	90.01	7,025.20	2,025.93	3,684.81	3,462.39	222.42	16.567		
13,600.00	8,813.00	8,807.42	8,804.21	87.36	208.88	90.01	7,025.20	2,025.93	3,624.92	3,401.81	223.10	16.248		
13,700.00	8,813.00	8,807.39	8,804.18	88.89	208.88	90.01	7,025.20	2,025.93	3,566.83	3,343.01	223.82	15.936		
13,800.00	8,813.00	8,807.35	8,804.15	90.43	208.88	90.01	7,025.20	2,025.93	3,510.63	3,286.06	224.57	15.632		
13,900.00	8,813.00	8,807.32	8,804.11	91.97	208.88	90.01	7,025.20	2,025.93	3,456.41	3,231.06	225.35	15.338		
14,000.00	8,813.00	8,807.29	8,804.08	93.51	208.88	90.01	7,025.20	2,025.93	3,404.26	3,178.10	226.16	15.052		
14,100.00	8,813.00	8,807.25	8,804.05	95.06	208.88	90.01	7,025.20	2,025.93	3,354.29	3,127.29	227.00	14.777		
14,200.00	8,813.00	8,807.22	8,804.01	96.61	208.88	90.01	7,025.20	2,025.93	3,306.58	3,078.73	227.86	14.512		
14,300.00	8,813.00	8,807.19	8,803.98	98.17	208.88	90.01	7,025.20	2,025.93	3,261.24	3,032.51	228.74	14.258		
14,400.00	8,813.00	8,807.16	8,803.95	99.72	208.88	90.01	7,025.20	2,025.93	3,218.38	2,988.74	229.64	14.015		
14,500.00	8,813.00	8,807.12	8,803.92	101.29	208.88	90.01	7,025.20	2,025.93	3,178.08	2,947.52	230.56	13.784		
14,600.00	8,813.00	8,807.09	8,803.88	102.85	208.88	90.01	7,025.20	2,025.93	3,140.45	2,908.97	231.48	13.567		
14,700.00	8,813.00	8,807.06	8,803.85	104.41	208.88	90.01	7,025.20	2,025.93	3,105.59	2,873.17	232.42	13.362		
14,800.00	8,813.00	8,807.02	8,803.82	105.98	208.88	90.01	7,025.20	2,025.93	3,073.58	2,840.23	233.36	13.171		
14,900.00	8,813.00	8,806.99	8,803.78	107.56	208.88	90.01	7,025.20	2,025.93	3,044.53	2,810.24	234.29	12.995		
15,000.00	8,813.00	8,806.96	8,803.75	109.13	208.88	90.00	7,025.20	2,025.93	3,018.51	2,783.30	235.21	12.833		
15,100.00	8,813.00	8,806.92	8,803.72	110.71	208.88	90.00	7,025.20	2,025.93	2,995.60	2,759.49	236.11	12.687		
15,200.00	8,813.00	8,806.89	8,803.68	112.28	208.87	90.00	7,025.20	2,025.93	2,975.88	2,738.89	236.99	12.557		
15,300.00	8,813.00	8,806.86	8,803.65	113.86	208.87	90.00	7,025.20	2,025.93	2,959.41	2,721.57	237.84	12.443		
15,400.00	8,813.00	8,806.83	8,803.62	115.45	208.87	90.00	7,025.20	2,025.93	2,946.24	2,707.60	238.65	12.346		
15,500.00	8,813.00	8,806.79	8,803.59	117.03	208.87	90.00	7,025.20	2,025.93	2,936.42	2,697.01	239.42	12.265		
15,600.00	8,813.00	8,806.76	8,803.55	118.62	208.87	90.00	7,025.20	2,025.93	2,929.99	2,689.85	240.14	12.201		
15,700.00	8,813.00	8,806.73	8,803.52	120.21	208.87	90.00	7,025.20	2,025.93	2,926.95	2,686.15	240.80	12.155		
15,738.80	8,813.00	8,806.72	8,803.51	120.82	208.87	90.00	7,025.20	2,025.93	2,926.70	2,685.65	241.05	12.142 CC, ES		
15,800.00	8,813.00	8,806.70	8,803.49	121.80	208.87	90.00	7,025.20	2,025.93	2,927.34	2,685.93	241.41	12.126		
15,900.00	8,813.00	8,806.66	8,803.46	123.39	208.87	90.00	7,025.20	2,025.93	2,931.13	2,689.18	241.95	12.114 SF		
16,000.00	8,813.00	8,806.63	8,803.43	124.98	208.87	90.00	7,025.20	2,025.93	2,938.33	2,695.90	242.43	12.120		
16,100.00	8,813.00	8,806.60	8,803.39	126.58	208.87	90.00	7,025.20	2,025.93	2,948.90	2,706.06	242.84	12.143		
16,200.00	8,813.00	8,806.57	8,803.36	128.17	208.87	90.00	7,025.20	2,025.93	2,962.81	2,719.63	243.18	12.184		
16,300.00	8,813.00	8,806.54	8,803.33	129.77	208.87	90.00	7,025.20	2,025.93	2,980.02	2,736.56	243.45	12.241		
16,400.00	8,813.00	8,806.50	8,803.30	131.37	208.87	90.00	7,025.20	2,025.93	3,000.46	2,756.80	243.65	12.314		
16,500.00	8,813.00	8,806.47	8,803.26	132.97	208.87	90.00	7,025.20	2,025.93	3,024.07	2,780.28	243.79	12.404		
16,600.00	8,813.00	8,806.44	8,803.23	134.57	208.87	89.99	7,025.20	2,025.93	3,050.77	2,806.91	243.86	12.510		
16,700.00	8,813.00	8,806.41	8,803.20	136.17	208.87	89.99	7,025.20	2,025.93	3,080.50	2,836.62	243.87	12.632		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Colorado Fed Com - Woolworth Ranch Unit #001 (Offset) - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 192-INC-ONLY													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Reference Offset Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,800.00	8,813.00	8,806.38	8,803.17	137.78	208.87	89.99	7,025.20	2,025.93	3,113.15	2,869.32	243.83	12.768	
16,900.00	8,813.00	8,806.34	8,803.14	139.38	208.87	89.99	7,025.20	2,025.93	3,148.64	2,904.91	243.73	12.919	
17,000.00	8,813.00	8,806.31	8,803.10	140.99	208.86	89.99	7,025.20	2,025.93	3,186.88	2,943.30	243.58	13.083	
17,100.00	8,813.00	8,806.28	8,803.07	142.60	208.86	89.99	7,025.20	2,025.93	3,227.76	2,984.37	243.39	13.262	
17,200.00	8,813.00	8,806.25	8,803.04	144.20	208.86	89.99	7,025.20	2,025.93	3,271.19	3,028.04	243.15	13.453	
17,300.00	8,813.00	8,806.22	8,803.01	145.81	208.86	89.99	7,025.20	2,025.93	3,317.06	3,074.18	242.88	13.657	
17,400.00	8,813.00	8,806.19	8,802.98	147.42	208.86	89.99	7,025.20	2,025.93	3,365.28	3,122.71	242.57	13.873	
17,500.00	8,813.00	8,806.15	8,802.95	149.04	208.86	89.99	7,025.20	2,025.93	3,415.75	3,173.51	242.24	14.100	
17,600.00	8,813.00	8,806.12	8,802.92	150.65	208.86	89.99	7,025.20	2,025.93	3,468.37	3,226.49	241.89	14.339	
17,700.00	8,813.00	8,806.09	8,802.88	152.26	208.86	89.99	7,025.20	2,025.93	3,523.05	3,281.53	241.51	14.587	
17,800.00	8,813.00	8,806.06	8,802.85	153.88	208.86	89.99	7,025.20	2,025.93	3,579.68	3,338.56	241.12	14.846	
17,900.00	8,813.00	8,806.03	8,802.82	155.49	208.86	89.99	7,025.20	2,025.93	3,638.18	3,397.46	240.72	15.114	
18,000.00	8,813.00	8,806.00	8,802.79	157.11	208.86	89.99	7,025.20	2,025.93	3,698.45	3,458.15	240.30	15.391	
18,100.00	8,813.00	8,805.97	8,802.76	158.72	208.86	89.99	7,025.20	2,025.93	3,760.43	3,520.55	239.88	15.676	
18,200.00	8,813.00	8,805.93	8,802.73	160.34	208.86	89.98	7,025.20	2,025.93	3,824.01	3,584.56	239.45	15.970	
18,300.00	8,813.00	8,805.90	8,802.70	161.96	208.86	89.98	7,025.20	2,025.93	3,889.12	3,650.10	239.02	16.271	
18,400.00	8,813.00	8,805.87	8,802.66	163.58	208.86	89.98	7,025.20	2,025.93	3,955.70	3,717.10	238.59	16.579	
18,500.00	8,813.00	8,805.84	8,802.63	165.20	208.86	89.98	7,025.20	2,025.93	4,023.65	3,785.49	238.16	16.894	
18,600.00	8,813.00	8,805.81	8,802.60	166.82	208.86	89.98	7,025.20	2,025.93	4,092.92	3,855.18	237.74	17.216	
18,700.00	8,813.00	8,805.78	8,802.57	168.44	208.86	89.98	7,025.20	2,025.93	4,163.44	3,926.13	237.31	17.544	
18,800.00	8,813.00	8,805.75	8,802.54	170.06	208.86	89.98	7,025.20	2,025.93	4,235.15	3,998.25	236.89	17.878	
18,904.52	8,813.00	8,805.72	8,802.51	171.75	208.85	89.98	7,025.20	2,025.93	4,311.30	4,074.84	236.46	18.233	

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 301H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-35.69	74.79	-53.73	92.52					
100.00	100.00	91.10	91.10	0.13	0.13	-35.69	74.79	-53.73	92.09	91.91	0.18	511.757		
200.00	200.00	191.10	191.10	0.48	0.47	-35.69	74.79	-53.73	92.09	91.42	0.67	136.767		
300.00	300.00	291.10	291.10	0.84	0.83	-35.69	74.79	-53.73	92.09	90.91	1.18	78.026		
400.00	400.00	391.10	391.10	1.20	1.19	-35.69	74.79	-53.73	92.09	90.40	1.69	54.582		
500.00	500.00	491.10	491.10	1.56	1.54	-35.69	74.79	-53.73	92.09	89.90	2.19	41.971		
600.00	600.00	591.10	591.10	1.92	1.90	-35.69	74.79	-53.73	92.09	89.39	2.70	34.094		
700.00	700.00	691.10	691.10	2.28	2.26	-35.69	74.79	-53.73	92.09	88.88	3.21	28.706		
800.00	800.00	791.10	791.10	2.63	2.62	-35.69	74.79	-53.73	92.09	88.37	3.71	24.789		
900.00	900.00	891.10	891.10	2.99	2.98	-35.69	74.79	-53.73	92.09	87.87	4.22	21.812		
1,000.00	1,000.00	991.10	991.10	3.35	3.34	-35.69	74.79	-53.73	92.09	87.36	4.73	19.474		
1,100.00	1,100.00	1,091.10	1,091.10	3.71	3.69	-35.69	74.79	-53.73	92.09	86.85	5.24	17.588		
1,200.00	1,200.00	1,191.10	1,191.10	4.07	4.05	-35.69	74.79	-53.73	92.09	86.35	5.74	16.036		
1,300.00	1,300.00	1,291.10	1,291.10	4.43	4.41	-35.69	74.79	-53.73	92.09	85.84	6.25	14.735		
1,400.00	1,400.00	1,391.10	1,391.10	4.79	4.77	-35.69	74.79	-53.73	92.09	85.33	6.76	13.629		
1,500.00	1,500.00	1,491.10	1,491.10	5.14	5.13	-35.69	74.79	-53.73	92.09	84.83	7.26	12.678		
1,600.00	1,600.00	1,591.10	1,591.10	5.50	5.49	-35.69	74.79	-53.73	92.09	84.32	7.77	11.851		
1,700.00	1,700.00	1,691.10	1,691.10	5.86	5.85	-35.69	74.79	-53.73	92.09	83.81	8.28	11.125		
1,800.00	1,800.00	1,791.10	1,791.10	6.22	6.20	-35.69	74.79	-53.73	92.09	83.30	8.78	10.483		
1,900.00	1,900.00	1,891.10	1,891.10	6.58	6.56	-35.69	74.79	-53.73	92.09	82.80	9.29	9.911		
2,000.00	2,000.00	1,991.10	1,991.10	6.94	6.92	-35.69	74.79	-53.73	92.09	82.29	9.80	9.398		
2,060.00	2,060.00	2,051.10	2,051.10	7.15	7.14	-35.69	74.79	-53.73	92.09	81.99	10.10	9.115		
2,100.00	2,100.00	2,091.10	2,091.10	7.29	7.28	64.55	74.79	-53.73	92.00	81.70	10.30	8.930		
2,200.00	2,199.97	2,191.07	2,191.07	7.63	7.64	65.90	74.79	-53.73	91.01	80.22	10.80	8.431		
2,300.00	2,299.94	2,290.94	2,290.94	7.97	8.00	68.85	74.79	-53.73	89.10	77.81	11.29	7.892		
2,400.00	2,399.55	2,390.65	2,390.65	8.32	8.35	73.55	74.79	-53.73	86.64	74.86	11.79	7.351		
2,500.00	2,499.03	2,490.13	2,490.13	8.67	8.71	80.21	74.79	-53.73	84.31	72.03	12.29	6.863		
2,576.48	2,574.90	2,566.00	2,566.00	8.94	8.98	86.67	74.79	-53.73	83.21	70.54	12.67	6.568		
2,600.00	2,598.21	2,589.31	2,589.31	9.02	9.07	88.83	74.79	-53.73	83.09	70.30	12.79	6.497		
2,612.69	2,610.79	2,601.89	2,601.89	9.07	9.11	90.00	74.79	-53.73	83.07	70.22	12.85	6.463		
2,700.00	2,697.30	2,688.40	2,688.40	9.38	9.42	97.99	74.79	-53.73	83.90	70.60	13.30	6.310		
2,800.00	2,796.39	2,787.49	2,787.49	9.75	9.78	106.76	74.79	-53.73	86.82	73.02	13.80	6.290		
2,900.00	2,895.47	2,886.57	2,886.57	10.12	10.13	114.80	74.79	-53.73	91.66	77.35	14.31	6.406		
3,000.00	2,994.56	2,985.66	2,985.66	10.49	10.49	121.91	74.79	-53.73	98.12	83.30	14.81	6.624		
3,100.00	3,093.65	3,084.75	3,084.75	10.87	10.84	128.08	74.79	-53.73	105.91	90.59	15.31	6.916		
3,200.00	3,192.74	3,183.84	3,183.84	11.25	11.20	133.36	74.79	-53.73	114.75	98.94	15.81	7.257		
3,300.00	3,291.82	3,284.81	3,284.80	11.64	11.55	137.62	74.70	-54.67	123.81	107.49	16.31	7.589		
3,400.00	3,390.91	3,386.70	3,386.62	12.02	11.90	140.51	74.36	-58.27	131.55	114.74	16.81	7.827		
3,500.00	3,490.00	3,489.06	3,488.78	12.41	12.25	142.33	73.77	-64.61	137.59	120.29	17.30	7.954		
3,600.00	3,589.09	3,591.75	3,591.06	12.80	12.60	143.26	72.92	-73.71	141.73	123.94	17.79	7.968		
3,700.00	3,688.17	3,694.61	3,693.23	13.19	12.96	143.42	71.81	-85.57	143.88	125.60	18.28	7.872		
3,800.00	3,787.26	3,795.70	3,793.37	13.58	13.32	143.01	70.51	-99.39	144.40	125.62	18.78	7.689		
3,900.00	3,886.35	3,895.70	3,892.38	13.98	13.68	142.55	69.21	-113.25	144.78	125.49	19.29	7.505		
4,000.00	3,985.43	3,995.69	3,991.40	14.38	14.04	142.09	67.91	-127.10	145.17	125.37	19.81	7.329		
4,100.00	4,084.52	4,095.68	4,090.42	14.77	14.41	141.63	66.61	-140.96	145.58	125.25	20.33	7.162		
4,200.00	4,183.61	4,195.67	4,189.44	15.17	14.77	141.18	65.31	-154.82	145.99	125.14	20.85	7.002		
4,300.00	4,282.70	4,295.67	4,288.46	15.57	15.15	140.73	64.01	-168.68	146.41	125.04	21.37	6.850		
4,400.00	4,381.78	4,395.66	4,387.48	15.97	15.52	140.28	62.71	-182.54	146.84	124.94	21.90	6.705		
4,500.00	4,480.87	4,495.65	4,486.50	16.37	15.90	139.84	61.41	-196.40	147.28	124.85	22.43	6.567		
4,600.00	4,579.96	4,595.64	4,585.52	16.78	16.27	139.40	60.12	-210.26	147.72	124.77	22.96	6.435		
4,700.00	4,679.05	4,695.64	4,684.53	17.18	16.65	138.96	58.82	-224.12	148.18	124.69	23.49	6.308		
4,800.00	4,778.13	4,795.63	4,783.55	17.59	17.04	138.52	57.52	-237.98	148.64	124.62	24.03	6.187		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 301H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,877.22	4,895.62	4,882.57	17.99	17.42	138.09	56.22	-251.84	149.12	124.55	24.56	6.071		
5,000.00	4,976.31	4,995.61	4,981.59	18.40	17.81	137.65	54.92	-265.70	149.60	124.50	25.10	5.960		
5,100.00	5,075.39	5,095.61	5,080.61	18.80	18.20	137.22	53.62	-279.56	150.09	124.45	25.64	5.853		
5,200.00	5,174.48	5,195.60	5,179.63	19.21	18.59	136.80	52.32	-293.42	150.59	124.40	26.18	5.751		
5,300.00	5,273.57	5,295.59	5,278.65	19.62	18.98	136.38	51.02	-307.28	151.09	124.37	26.73	5.653		
5,400.00	5,372.66	5,395.58	5,377.67	20.02	19.37	135.96	49.72	-321.13	151.61	124.34	27.27	5.559		
5,500.00	5,471.74	5,495.58	5,476.69	20.43	19.76	135.54	48.42	-334.99	152.13	124.31	27.82	5.468		
5,600.00	5,570.83	5,595.57	5,575.70	20.84	20.16	135.12	47.12	-348.85	152.66	124.29	28.37	5.381		
5,700.00	5,669.92	5,695.56	5,674.72	21.25	20.55	134.71	45.82	-362.71	153.20	124.28	28.92	5.297		
5,800.00	5,769.01	5,795.55	5,773.74	21.66	20.95	134.30	44.52	-376.57	153.75	124.28	29.47	5.217		
5,900.00	5,868.09	5,895.55	5,872.76	22.07	21.35	133.90	43.22	-390.43	154.30	124.28	30.03	5.139		
6,000.00	5,967.18	5,995.54	5,971.78	22.48	21.75	133.50	41.92	-404.29	154.87	124.29	30.58	5.064		
6,100.00	6,066.27	6,095.53	6,070.80	22.89	22.15	133.10	40.63	-418.15	155.43	124.30	31.14	4.992		
6,200.00	6,165.35	6,195.52	6,169.82	23.30	22.55	132.70	39.33	-432.01	156.01	124.32	31.69	4.922		
6,300.00	6,264.44	6,295.52	6,268.84	23.71	22.95	132.30	38.03	-445.87	156.60	124.34	32.25	4.855		
6,400.00	6,363.53	6,395.51	6,367.86	24.13	23.35	131.91	36.73	-459.73	157.19	124.38	32.81	4.791		
6,500.00	6,462.62	6,495.50	6,466.87	24.54	23.75	131.53	35.43	-473.59	157.79	124.41	33.37	4.728		
6,600.00	6,561.70	6,595.49	6,565.89	24.95	24.16	131.14	34.13	-487.45	158.40	124.46	33.94	4.667		
6,700.00	6,660.79	6,695.49	6,664.91	25.36	24.56	130.76	32.83	-501.31	159.01	124.51	34.50	4.609		
6,800.00	6,759.88	6,795.48	6,763.93	25.78	24.97	130.38	31.53	-515.17	159.63	124.57	35.06	4.552		
6,900.00	6,858.97	6,895.47	6,862.95	26.19	25.37	130.00	30.23	-529.02	160.26	124.63	35.63	4.498		
7,000.00	6,958.05	6,995.46	6,961.97	26.60	25.78	129.63	28.93	-542.88	160.89	124.69	36.20	4.445		
7,100.00	7,057.14	7,095.46	7,060.99	27.01	26.19	129.26	27.63	-556.74	161.53	124.77	36.77	4.394		
7,123.17	7,080.10	7,118.62	7,083.93	27.11	26.28	129.17	27.33	-559.95	161.68	124.79	36.90	4.382		
7,200.00	7,156.33	7,195.44	7,160.00	27.42	26.59	128.68	26.33	-570.60	161.70	124.36	37.34	4.330		
7,300.00	7,255.80	7,295.36	7,258.95	27.82	27.00	127.37	25.03	-584.45	160.32	122.38	37.94	4.226		
7,400.00	7,355.51	7,395.15	7,357.76	28.19	27.41	125.25	23.74	-598.28	157.50	118.94	38.55	4.085		
7,500.00	7,455.39	7,494.74	7,456.38	28.55	27.81	122.23	22.44	-612.09	153.48	114.28	39.20	3.916		
7,600.00	7,555.36	7,594.06	7,554.74	28.89	28.22	118.19	21.15	-625.85	148.64	108.78	39.86	3.729		
7,639.64	7,595.00	7,633.35	7,593.64	29.02	28.38	16.14	20.64	-631.30	146.61	106.48	40.13	3.653		
7,700.00	7,655.36	7,693.12	7,652.83	29.22	28.63	13.05	19.87	-639.58	143.72	103.18	40.54	3.545		
7,800.00	7,755.36	7,792.14	7,750.89	29.54	29.03	7.68	18.58	-653.31	139.91	98.71	41.20	3.396		
7,900.00	7,855.36	7,891.17	7,848.95	29.86	29.44	2.07	17.29	-667.03	137.41	95.58	41.83	3.285		
8,000.00	7,955.36	7,990.20	7,947.01	30.19	29.85	-3.68	16.01	-680.76	136.29	93.87	42.42	3.213		
8,028.83	7,984.19	8,018.75	7,975.29	30.28	29.96	-5.36	15.64	-684.72	136.23	93.65	42.58	3.199		
8,100.00	8,055.36	8,089.22	8,045.08	30.51	30.25	-9.47	14.72	-694.48	136.59	93.63	42.96	3.179		
8,200.00	8,155.36	8,188.25	8,143.14	30.84	30.66	-15.18	13.43	-708.21	138.30	94.84	43.45	3.183		
8,284.68	8,240.04	8,272.11	8,226.18	31.11	31.00	-19.87	12.34	-719.83	140.81	96.98	43.83	3.212		
8,300.00	8,255.35	8,287.28	8,241.20	31.16	31.07	-9.71	12.15	-721.93	141.16	97.26	43.90	3.216		
8,350.00	8,305.21	8,336.70	8,290.14	31.33	31.27	-12.70	11.50	-728.78	139.75	95.65	44.10	3.169		
8,400.00	8,354.58	8,385.69	8,338.66	31.49	31.47	-16.32	10.87	-735.57	134.53	90.27	44.26	3.039		
8,450.00	8,403.07	8,433.88	8,386.38	31.65	31.67	-21.00	10.24	-742.25	125.81	81.44	44.38	2.835		
8,500.00	8,450.32	8,480.89	8,432.93	31.80	31.86	-27.34	9.63	-748.77	114.11	69.72	44.39	2.570		
8,550.00	8,495.98	8,526.38	8,477.98	31.95	32.05	-36.27	9.04	-755.07	100.38	56.13	44.26	2.268		
8,600.00	8,539.68	8,569.99	8,521.16	32.09	32.23	-48.91	8.47	-761.12	86.50	42.60	43.89	1.971		
8,650.00	8,581.10	8,611.39	8,562.16	32.22	32.40	-65.73	7.93	-766.86	76.09	32.69	43.39	1.753		
8,680.93	8,605.44	8,635.76	8,586.29	32.30	32.50	-77.43	7.62	-770.23	73.85	30.59	43.26	1.707 CC, ES, SF		
8,700.00	8,619.93	8,650.27	8,600.66	32.35	32.56	-84.60	7.43	-772.25	74.81	31.47	43.35	1.726		
8,750.00	8,655.87	8,686.33	8,636.37	32.48	32.71	-101.27	6.96	-777.25	66.77	42.62	44.15	1.965		
8,800.00	8,688.64	8,719.30	8,669.02	32.60	32.85	-113.29	6.53	-781.81	110.48	65.36	45.12	2.448		
8,850.00	8,718.00	8,748.93	8,698.36	32.72	32.97	-120.88	6.15	-785.92	142.23	96.41	45.82	3.104		
8,900.00	8,743.72	8,774.99	8,724.16	32.84	33.08	-125.01	5.81	-789.53	179.31	133.04	46.27	3.875		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 301H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,950.00	8,765.60	8,797.27	8,746.23	32.98	33.17	-126.33	5.52	-792.62	220.12	173.55	46.57	4.727		
9,000.00	8,783.49	8,815.63	8,764.41	33.12	33.25	-125.01	5.28	-795.17	263.68	216.90	46.77	5.637		
9,050.00	8,797.24	8,829.90	8,778.54	33.29	33.31	-120.66	5.09	-797.14	309.26	262.35	46.91	6.592		
9,100.00	8,806.75	8,839.99	8,788.53	33.48	33.35	-112.28	4.96	-798.54	356.32	309.32	47.01	7.580		
9,150.00	8,811.95	8,845.82	8,794.31	33.68	33.37	-98.41	4.89	-799.35	404.36	357.29	47.07	8.591		
9,184.68	8,813.00	8,847.33	8,795.80	33.83	33.38	-85.32	4.87	-799.56	438.02	390.93	47.09	9.301		
9,200.00	8,813.00	8,847.54	8,796.01	33.91	33.38	-85.33	4.87	-799.59	452.94	405.84	47.10	9.616		
9,300.00	8,813.00	8,848.59	8,797.05	34.41	33.38	-85.09	4.85	-799.73	551.23	504.10	47.14	11.695		
9,400.00	8,813.00	8,849.16	8,797.61	34.98	33.39	-83.96	4.84	-799.81	650.49	603.33	47.15	13.795		
9,500.00	8,813.00	8,849.24	8,797.69	35.60	33.39	-80.15	4.84	-799.82	750.22	703.06	47.17	15.906		
9,600.00	8,813.00	8,848.84	8,797.29	36.27	33.38	-52.71	4.85	-799.77	850.17	803.00	47.17	18.023		
9,702.98	8,813.00	8,847.91	8,796.38	37.00	33.38	71.89	4.86	-799.64	953.14	905.96	47.18	20.204		
9,800.00	8,813.00	8,846.80	8,795.28	37.74	33.38	69.63	4.88	-799.49	1,050.13	1,002.95	47.18	22.259		
9,900.00	8,813.00	8,845.65	8,794.14	38.55	33.37	67.40	4.89	-799.33	1,150.10	1,102.92	47.18	24.376		
10,000.00	8,813.00	8,844.51	8,793.01	39.42	33.37	65.27	4.91	-799.17	1,250.08	1,202.89	47.19	26.492		
10,100.00	8,813.00	11,354.97	10,143.96	40.34	43.31	-178.70	1,383.97	-868.97	1,340.55	1,311.29	29.25	45.829		
10,200.00	8,813.00	11,454.95	10,141.73	41.30	44.17	-178.70	1,483.91	-870.08	1,338.31	1,308.46	29.85	44.830		
10,300.00	8,813.00	11,554.92	10,139.49	42.31	45.07	-178.69	1,583.86	-871.18	1,336.08	1,305.59	30.48	43.831		
10,400.00	8,813.00	11,654.90	10,137.26	43.35	46.02	-178.69	1,683.80	-872.28	1,333.84	1,302.70	31.14	42.834		
10,500.00	8,813.00	11,754.87	10,135.02	44.44	47.00	-178.69	1,783.75	-873.38	1,331.61	1,299.78	31.82	41.846		
10,600.00	8,813.00	11,854.85	10,132.79	45.55	48.02	-178.69	1,883.69	-874.48	1,329.37	1,296.84	32.53	40.869		
10,700.00	8,813.00	11,954.82	10,130.55	46.70	49.08	-178.69	1,983.63	-875.58	1,327.14	1,293.88	33.26	39.907		
10,800.00	8,813.00	12,054.80	10,128.32	47.88	50.17	-178.68	2,083.58	-876.68	1,324.90	1,290.90	34.00	38.963		
10,900.00	8,813.00	12,154.77	10,126.08	49.09	51.29	-178.68	2,183.52	-877.78	1,322.67	1,287.89	34.77	38.038		
11,000.00	8,813.00	12,254.75	10,123.85	50.32	52.43	-178.68	2,283.47	-878.88	1,320.43	1,284.87	35.56	37.134		
11,100.00	8,813.00	12,354.72	10,121.62	51.57	53.60	-178.68	2,383.41	-879.98	1,318.20	1,281.84	36.36	36.252		
11,200.00	8,813.00	12,454.70	10,119.38	52.85	54.80	-178.68	2,483.35	-881.08	1,315.96	1,278.78	37.18	35.394		
11,300.00	8,813.00	12,554.67	10,117.15	54.15	56.02	-178.67	2,583.30	-882.18	1,313.73	1,275.71	38.01	34.559		
11,400.00	8,813.00	12,654.65	10,114.91	55.46	57.26	-178.67	2,683.24	-883.28	1,311.49	1,272.63	38.86	33.747		
11,500.00	8,813.00	12,754.62	10,112.68	56.80	58.53	-178.67	2,783.19	-884.39	1,309.26	1,269.54	39.72	32.960		
11,600.00	8,813.00	12,854.60	10,110.44	58.15	59.81	-178.67	2,883.13	-885.49	1,307.02	1,266.43	40.60	32.196		
11,700.00	8,813.00	12,954.57	10,108.21	59.51	61.11	-178.67	2,983.07	-886.59	1,304.79	1,263.31	41.48	31.456		
11,800.00	8,813.00	13,054.55	10,105.97	60.89	62.42	-178.66	3,083.02	-887.69	1,302.55	1,260.18	42.37	30.739		
11,900.00	8,813.00	13,154.52	10,103.74	62.29	63.75	-178.66	3,182.96	-888.79	1,300.32	1,257.04	43.28	30.045		
12,000.00	8,813.00	13,254.50	10,101.50	63.69	65.10	-178.66	3,282.91	-889.89	1,298.08	1,253.89	44.19	29.372		
12,100.00	8,813.00	13,354.47	10,099.27	65.11	66.46	-178.66	3,382.85	-890.99	1,295.85	1,250.73	45.12	28.722		
12,200.00	8,813.00	13,454.45	10,097.03	66.54	67.83	-178.66	3,482.79	-892.09	1,293.61	1,247.57	46.05	28.092		
12,300.00	8,813.00	13,554.42	10,094.80	67.97	69.22	-178.65	3,582.74	-893.19	1,291.38	1,244.39	46.99	27.483		
12,400.00	8,813.00	13,654.40	10,092.56	69.42	70.61	-178.65	3,682.68	-894.29	1,289.15	1,241.21	47.93	26.894		
12,500.00	8,813.00	13,754.37	10,090.33	70.88	72.02	-178.65	3,782.63	-895.39	1,286.91	1,238.02	48.89	26.324		
12,600.00	8,813.00	13,854.35	10,088.10	72.34	73.44	-178.65	3,882.57	-896.49	1,284.68	1,234.83	49.85	25.772		
12,700.00	8,813.00	13,954.32	10,085.86	73.82	74.87	-178.64	3,982.51	-897.59	1,282.44	1,231.63	50.81	25.238		
12,800.00	8,813.00	14,054.30	10,083.63	75.30	76.30	-178.64	4,082.46	-898.70	1,280.21	1,228.42	51.79	24.721		
12,900.00	8,813.00	14,154.27	10,081.39	76.78	77.75	-178.64	4,182.40	-899.80	1,277.97	1,225.21	52.76	24.221		
13,000.00	8,813.00	14,254.25	10,079.16	78.28	79.20	-178.64	4,282.35	-900.90	1,275.74	1,221.99	53.75	23.737		
13,100.00	8,813.00	14,354.22	10,076.92	79.78	80.66	-178.64	4,382.29	-902.00	1,273.50	1,218.77	54.73	23.267		
13,200.00	8,813.00	14,454.20	10,074.69	81.28	82.13	-178.63	4,482.23	-903.10	1,271.27	1,215.54	55.73	22.813		
13,300.00	8,813.00	14,554.17	10,072.45	82.80	83.60	-178.63	4,582.18	-904.20	1,269.03	1,212.31	56.72	22.373		
13,400.00	8,813.00	14,654.15	10,070.22	84.31	85.09	-178.63	4,682.12	-905.30	1,266.80	1,209.07	57.72	21.946		
13,500.00	8,813.00	14,754.12	10,067.98	85.84	86.57	-178.63	4,782.06	-906.40	1,264.56	1,205.84	58.73	21.533		
13,600.00	8,813.00	14,854.10	10,065.75	87.36	88.07	-178.63	4,882.01	-907.50	1,262.33	1,202.59	59.74	21.132		
13,700.00	8,813.00	14,954.07	10,063.51	88.89	89.57	-178.62	4,981.95	-908.60	1,260.09	1,199.35	60.75	20.743		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 301H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,800.00	8,813.00	15,054.05	10,061.28	90.43	91.07	-178.62	5,081.90	-909.70	1,257.86	1,196.10	61.76	20.366		
13,900.00	8,813.00	15,154.02	10,059.04	91.97	92.58	-178.62	5,181.84	-910.80	1,255.62	1,192.84	62.78	20.000		
14,000.00	8,813.00	15,254.00	10,056.81	93.51	94.09	-178.62	5,281.78	-911.90	1,253.39	1,189.59	63.80	19.644		
14,100.00	8,813.00	15,353.97	10,054.58	95.06	95.61	-178.61	5,381.73	-913.01	1,251.15	1,186.33	64.83	19.299		
14,200.00	8,813.00	15,453.95	10,052.34	96.61	97.14	-178.61	5,481.67	-914.11	1,248.92	1,183.06	65.86	18.964		
14,300.00	8,813.00	15,553.92	10,050.11	98.17	98.66	-178.61	5,581.62	-915.21	1,246.68	1,179.80	66.89	18.639		
14,400.00	8,813.00	15,653.90	10,047.87	99.72	100.20	-178.61	5,681.56	-916.31	1,244.45	1,176.53	67.92	18.322		
14,500.00	8,813.00	15,753.87	10,045.64	101.29	101.73	-178.61	5,781.50	-917.41	1,242.22	1,173.26	68.95	18.015		
14,600.00	8,813.00	15,853.85	10,043.40	102.85	103.27	-178.60	5,881.45	-918.51	1,239.98	1,169.99	69.99	17.716		
14,700.00	8,813.00	15,953.82	10,041.17	104.41	104.81	-178.60	5,981.39	-919.61	1,237.75	1,166.71	71.03	17.425		
14,800.00	8,813.00	16,053.80	10,038.93	105.98	106.36	-178.60	6,081.34	-920.71	1,235.51	1,163.44	72.07	17.142		
14,900.00	8,813.00	16,153.77	10,036.70	107.56	107.91	-178.60	6,181.28	-921.81	1,233.28	1,160.16	73.12	16.867		
15,000.00	8,813.00	16,253.75	10,034.46	109.13	109.46	-178.59	6,281.22	-922.91	1,231.04	1,156.88	74.16	16.599		
15,100.00	8,813.00	16,353.72	10,032.23	110.71	111.01	-178.59	6,381.17	-924.01	1,228.81	1,153.60	75.21	16.338		
15,200.00	8,813.00	16,453.70	10,029.99	112.28	112.57	-178.59	6,481.11	-925.11	1,226.57	1,150.31	76.26	16.084		
15,300.00	8,813.00	16,553.67	10,027.76	113.86	114.13	-178.59	6,581.06	-926.21	1,224.34	1,147.03	77.31	15.836		
15,400.00	8,813.00	16,653.65	10,025.52	115.45	115.70	-178.58	6,681.00	-927.31	1,222.10	1,143.74	78.36	15.595		
15,500.00	8,813.00	16,753.62	10,023.29	117.03	117.26	-178.58	6,780.94	-928.42	1,219.87	1,140.45	79.42	15.360		
15,600.00	8,813.00	16,853.60	10,021.06	118.62	118.83	-178.58	6,880.89	-929.52	1,217.63	1,137.16	80.48	15.131		
15,700.00	8,813.00	16,953.57	10,018.82	120.21	120.40	-178.58	6,980.83	-930.62	1,215.40	1,133.87	81.53	14.907		
15,800.00	8,813.00	17,053.55	10,016.59	121.80	121.97	-178.58	7,080.78	-931.72	1,213.16	1,130.57	82.59	14.689		
15,900.00	8,813.00	17,153.52	10,014.35	123.39	123.55	-178.57	7,180.72	-932.82	1,210.93	1,127.28	83.65	14.476		
16,000.00	8,813.00	17,253.50	10,012.12	124.98	125.12	-178.57	7,280.66	-933.92	1,208.69	1,123.98	84.71	14.268		
16,100.00	8,813.00	17,353.47	10,009.88	126.58	126.70	-178.57	7,380.61	-935.02	1,206.46	1,120.68	85.78	14.065		
16,200.00	8,813.00	17,453.45	10,007.65	128.17	128.28	-178.57	7,480.55	-936.12	1,204.23	1,117.39	86.84	13.867		
16,300.00	8,813.00	17,553.42	10,005.41	129.77	129.86	-178.56	7,580.50	-937.22	1,201.99	1,114.09	87.90	13.674		
16,400.00	8,813.00	17,653.40	10,003.18	131.37	131.45	-178.56	7,680.44	-938.32	1,199.76	1,110.79	88.97	13.485		
16,500.00	8,813.00	17,753.37	10,000.94	132.97	133.03	-178.56	7,780.38	-939.42	1,197.52	1,107.48	90.04	13.300		
16,600.00	8,813.00	17,853.35	9,998.71	134.57	134.62	-178.56	7,880.33	-940.52	1,195.29	1,104.18	91.11	13.120		
16,700.00	8,813.00	17,953.32	9,996.47	136.17	136.21	-178.55	7,980.27	-941.62	1,193.05	1,100.88	92.18	12.943		
16,800.00	8,813.00	18,053.30	9,994.24	137.78	137.80	-178.55	8,080.22	-942.73	1,190.82	1,097.57	93.25	12.771		
16,900.00	8,813.00	18,153.27	9,992.00	139.38	139.39	-178.55	8,180.16	-943.83	1,188.58	1,094.27	94.32	12.602		
17,000.00	8,813.00	18,253.25	9,989.77	140.99	140.98	-178.55	8,280.10	-944.93	1,186.35	1,090.96	95.39	12.437		
17,100.00	8,813.00	18,353.22	9,987.54	142.60	142.58	-178.54	8,380.05	-946.03	1,184.11	1,087.65	96.46	12.275		
17,200.00	8,813.00	18,453.20	9,985.30	144.20	144.17	-178.54	8,479.99	-947.13	1,181.88	1,084.34	97.54	12.117		
17,300.00	8,813.00	18,553.17	9,983.07	145.81	145.77	-178.54	8,579.94	-948.23	1,179.64	1,081.03	98.61	11.963		
17,400.00	8,813.00	18,653.15	9,980.83	147.42	147.37	-178.54	8,679.88	-949.33	1,177.41	1,077.72	99.69	11.811		
17,500.00	8,813.00	18,753.12	9,978.60	149.04	148.97	-178.53	8,779.82	-950.43	1,175.17	1,074.41	100.76	11.663		
17,600.00	8,813.00	18,853.10	9,976.36	150.65	150.57	-178.53	8,879.77	-951.53	1,172.94	1,071.10	101.84	11.518		
17,700.00	8,813.00	18,953.07	9,974.13	152.26	152.17	-178.53	8,979.71	-952.63	1,170.71	1,067.79	102.92	11.375		
17,800.00	8,813.00	19,053.05	9,971.89	153.88	153.77	-178.53	9,079.66	-953.73	1,168.47	1,064.48	103.99	11.236		
17,900.00	8,813.00	19,153.02	9,969.66	155.49	155.38	-178.52	9,179.60	-954.83	1,166.24	1,061.16	105.07	11.099		
18,000.00	8,813.00	19,253.00	9,967.42	157.11	156.98	-178.52	9,279.54	-955.93	1,164.00	1,057.85	106.15	10.965		
18,100.00	8,813.00	19,352.97	9,965.19	158.72	158.59	-178.52	9,379.49	-957.04	1,161.77	1,054.53	107.23	10.834		
18,200.00	8,813.00	19,452.95	9,962.95	160.34	160.19	-178.52	9,479.43	-958.14	1,159.53	1,051.22	108.31	10.705		
18,300.00	8,813.00	19,552.92	9,960.72	161.96	161.80	-178.51	9,579.38	-959.24	1,157.30	1,047.90	109.40	10.579		
18,400.00	8,813.00	19,652.90	9,958.48	163.58	163.41	-178.51	9,679.32	-960.34	1,155.06	1,044.59	110.48	10.455		
18,500.00	8,813.00	19,752.87	9,956.25	165.20	165.02	-178.51	9,779.26	-961.44	1,152.83	1,041.27	111.56	10.334		
18,600.00	8,813.00	19,852.85	9,954.01	166.82	166.63	-178.51	9,879.21	-962.54	1,150.59	1,037.95	112.64	10.214		
18,700.00	8,813.00	19,952.82	9,951.78	168.44	168.24	-178.50	9,979.15	-963.64	1,148.36	1,034.63	113.73	10.097		
18,800.00	8,813.00	20,052.80	9,949.55	170.06	169.86	-178.50	10,079.10	-964.74	1,146.12	1,031.31	114.81	9.983		
18,904.52	8,813.00	20,131.78	9,947.78	171.75	171.13	-178.50	10,158.05	-965.61	1,144.07	1,028.31	115.76	9.883		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 601H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-14.01	75.10	-18.74	77.85					
100.00	100.00	91.70	91.70	0.13	0.13	-14.01	75.10	-18.74	77.40	77.22	0.18	428.688		
200.00	200.00	191.70	191.70	0.48	0.47	-14.01	75.10	-18.74	77.40	76.73	0.67	114.700		
300.00	300.00	291.70	291.70	0.84	0.83	-14.01	75.10	-18.74	77.40	76.22	1.18	65.498		
400.00	400.00	391.70	391.70	1.20	1.19	-14.01	75.10	-18.74	77.40	75.71	1.69	45.836		
500.00	500.00	491.70	491.70	1.56	1.55	-14.01	75.10	-18.74	77.40	75.21	2.20	35.253		
600.00	600.00	591.70	591.70	1.92	1.90	-14.01	75.10	-18.74	77.40	74.70	2.70	28.640		
700.00	700.00	691.70	691.70	2.28	2.26	-14.01	75.10	-18.74	77.40	74.19	3.21	24.116		
800.00	800.00	791.70	791.70	2.63	2.62	-14.01	75.10	-18.74	77.40	73.69	3.72	20.827		
900.00	900.00	891.70	891.70	2.99	2.98	-14.01	75.10	-18.74	77.40	73.18	4.22	18.327		
1,000.00	1,000.00	991.70	991.70	3.35	3.34	-14.01	75.10	-18.74	77.40	72.67	4.73	16.363		
1,100.00	1,100.00	1,091.70	1,091.70	3.71	3.70	-14.01	75.10	-18.74	77.40	72.17	5.24	14.779		
1,200.00	1,200.00	1,191.70	1,191.70	4.07	4.06	-14.01	75.10	-18.74	77.40	71.66	5.74	13.475		
1,300.00	1,300.00	1,291.70	1,291.70	4.43	4.41	-14.01	75.10	-18.74	77.40	71.15	6.25	12.382		
1,400.00	1,400.00	1,391.70	1,391.70	4.79	4.77	-14.01	75.10	-18.74	77.40	70.64	6.76	11.453		
1,500.00	1,500.00	1,491.70	1,491.70	5.14	5.13	-14.01	75.10	-18.74	77.40	70.14	7.27	10.654		
1,600.00	1,600.00	1,591.70	1,591.70	5.50	5.49	-14.01	75.10	-18.74	77.40	69.63	7.77	9.959		
1,700.00	1,700.00	1,691.70	1,691.70	5.86	5.85	-14.01	75.10	-18.74	77.40	69.12	8.28	9.349		
1,800.00	1,800.00	1,791.70	1,791.70	6.22	6.21	-14.01	75.10	-18.74	77.40	68.62	8.79	8.810		
1,900.00	1,900.00	1,891.70	1,891.70	6.58	6.56	-14.01	75.10	-18.74	77.40	68.11	9.29	8.329		
2,000.00	2,000.00	1,991.70	1,991.70	6.94	6.92	-14.01	75.10	-18.74	77.40	67.60	9.80	7.898		
2,060.00	2,060.00	2,051.70	2,051.70	7.15	7.14	-14.01	75.10	-18.74	77.40	67.30	10.10	7.661		
2,100.00	2,100.00	2,091.70	2,091.70	7.29	7.28	86.27	75.10	-18.74	77.39	67.09	10.30	7.511		
2,200.00	2,199.97	2,191.67	2,191.67	7.63	7.64	88.01	75.10	-18.74	77.27	66.47	10.80	7.157		
2,260.22	2,260.13	2,251.83	2,251.83	7.84	7.86	90.00	75.10	-18.74	77.22	66.13	11.09	6.960 CC		
2,300.00	2,299.84	2,291.54	2,291.54	7.97	8.00	91.70	75.10	-18.74	77.26	65.97	11.29	6.842		
2,400.00	2,399.55	2,391.25	2,391.25	8.32	8.36	97.26	75.10	-18.74	77.85	66.07	11.79	6.604		
2,500.00	2,499.03	2,490.73	2,490.73	8.67	8.71	104.47	75.10	-18.74	79.79	67.50	12.29	6.494		
2,576.48	2,574.90	2,566.60	2,566.60	8.94	8.98	110.81	75.10	-18.74	82.71	70.04	12.67	6.528		
2,600.00	2,598.21	2,589.91	2,589.91	9.02	9.07	112.82	75.10	-18.74	83.90	71.11	12.79	6.560		
2,700.00	2,697.30	2,689.00	2,689.00	9.38	9.42	120.70	75.10	-18.74	90.02	76.73	13.29	6.774		
2,800.00	2,796.39	2,788.09	2,788.09	9.75	9.78	127.48	75.10	-18.74	97.64	83.85	13.79	7.080		
2,900.00	2,895.47	2,887.17	2,887.17	10.12	10.13	133.22	75.10	-18.74	106.42	92.13	14.29	7.447		
3,000.00	2,994.56	2,986.26	2,986.26	10.49	10.49	138.05	75.10	-18.74	116.11	101.32	14.79	7.850		
3,100.00	3,093.65	3,085.35	3,085.35	10.87	10.84	142.12	75.10	-18.74	126.50	111.21	15.29	8.273		
3,200.00	3,192.74	3,184.44	3,184.44	11.25	11.20	145.56	75.10	-18.74	137.42	121.63	15.79	8.703		
3,300.00	3,291.82	3,283.52	3,283.52	11.64	11.55	148.49	75.10	-18.74	148.76	132.48	16.29	9.133		
3,400.00	3,390.91	3,382.61	3,382.61	12.02	11.91	151.01	75.10	-18.74	160.44	143.65	16.79	9.556		
3,500.00	3,490.00	3,485.14	3,485.14	12.41	12.27	153.10	74.92	-19.67	171.56	154.26	17.29	9.920		
3,600.00	3,589.09	3,588.98	3,588.90	12.80	12.62	154.60	74.22	-23.33	180.45	162.66	17.79	10.144		
3,700.00	3,688.17	3,693.30	3,693.01	13.19	12.98	155.61	72.98	-29.79	186.95	168.68	18.28	10.229		
3,800.00	3,787.26	3,797.96	3,797.24	13.58	13.34	156.23	71.20	-39.08	190.99	172.23	18.76	10.182		
3,900.00	3,886.35	3,901.11	3,899.69	13.98	13.69	156.51	68.94	-50.82	192.67	173.43	19.24	10.014		
4,000.00	3,985.43	4,001.10	3,998.94	14.38	14.04	156.70	66.65	-62.79	193.81	174.07	19.74	9.818		
4,100.00	4,084.52	4,101.09	4,098.19	14.77	14.40	156.90	64.35	-74.75	194.95	174.71	20.24	9.632		
4,200.00	4,183.61	4,201.08	4,197.43	15.17	14.76	157.09	62.06	-86.72	196.09	175.35	20.74	9.454		
4,300.00	4,282.70	4,301.08	4,296.68	15.57	15.11	157.28	59.76	-98.68	197.23	175.99	21.25	9.284		
4,400.00	4,381.78	4,401.07	4,395.93	15.97	15.48	157.47	57.47	-110.65	198.38	176.63	21.75	9.121		
4,500.00	4,480.87	4,501.06	4,495.17	16.37	15.84	157.65	55.17	-122.61	199.53	177.27	22.26	8.966		
4,600.00	4,579.96	4,601.05	4,594.42	16.78	16.21	157.83	52.88	-134.58	200.68	177.92	22.76	8.817		
4,700.00	4,679.05	4,701.04	4,693.66	17.18	16.58	158.01	50.58	-146.54	201.83	178.57	23.27	8.674		
4,800.00	4,778.13	4,801.03	4,792.91	17.59	16.95	158.19	48.29	-158.51	202.99	179.21	23.78	8.537		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 601H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,877.22	4,901.02	4,892.16	17.99	17.32	158.37	45.99	-170.47	204.15	179.86	24.29	8.406		
5,000.00	4,976.31	5,001.02	4,991.40	18.40	17.69	158.55	43.70	-182.44	205.31	180.51	24.79	8.280		
5,100.00	5,075.39	5,101.01	5,090.65	18.80	18.07	158.72	41.40	-194.40	206.47	181.16	25.30	8.159		
5,200.00	5,174.48	5,201.00	5,189.90	19.21	18.44	158.89	39.10	-206.37	207.63	181.81	25.81	8.043		
5,300.00	5,273.57	5,300.99	5,289.14	19.62	18.82	159.06	36.81	-218.33	208.79	182.47	26.33	7.931		
5,400.00	5,372.66	5,400.98	5,388.39	20.02	19.20	159.23	34.51	-230.30	209.96	183.12	26.84	7.823		
5,500.00	5,471.74	5,500.97	5,487.64	20.43	19.58	159.39	32.22	-242.26	211.13	183.78	27.35	7.720		
5,600.00	5,570.83	5,600.96	5,586.88	20.84	19.96	159.56	29.92	-254.23	212.30	184.44	27.86	7.620		
5,700.00	5,669.92	5,700.95	5,686.13	21.25	20.34	159.72	27.63	-266.19	213.47	185.10	28.37	7.523		
5,800.00	5,769.01	5,800.95	5,785.37	21.66	20.73	159.88	25.33	-278.16	214.64	185.76	28.89	7.430		
5,900.00	5,868.09	5,900.94	5,884.62	22.07	21.11	160.04	23.04	-290.12	215.82	186.42	29.40	7.340		
6,000.00	5,967.18	6,000.93	5,983.87	22.48	21.50	160.19	20.74	-302.09	217.00	187.08	29.92	7.254		
6,100.00	6,066.27	6,100.92	6,083.11	22.89	21.88	160.35	18.45	-314.05	218.17	187.74	30.43	7.170		
6,200.00	6,165.35	6,200.91	6,182.36	23.30	22.27	160.50	16.15	-326.02	219.35	188.41	30.94	7.089		
6,300.00	6,264.44	6,300.90	6,281.61	23.71	22.66	160.65	13.85	-337.98	220.53	189.08	31.46	7.010		
6,400.00	6,363.53	6,400.89	6,380.85	24.13	23.05	160.80	11.56	-349.95	221.72	189.74	31.97	6.934		
6,500.00	6,462.62	6,500.89	6,480.10	24.54	23.44	160.95	9.26	-361.91	222.90	190.41	32.49	6.861		
6,600.00	6,561.70	6,600.88	6,579.35	24.95	23.83	161.10	6.97	-373.88	224.09	191.08	33.01	6.789		
6,700.00	6,660.79	6,700.87	6,678.59	25.36	24.22	161.24	4.67	-385.84	225.28	191.75	33.52	6.720		
6,800.00	6,759.88	6,800.86	6,777.84	25.78	24.61	161.39	2.38	-397.81	226.46	192.43	34.04	6.654		
6,900.00	6,858.97	6,900.85	6,877.08	26.19	25.00	161.53	0.08	-409.77	227.65	193.10	34.55	6.589		
7,000.00	6,958.05	7,000.84	6,976.33	26.60	25.39	161.67	-2.21	-421.73	228.85	193.78	35.07	6.526		
7,100.00	7,057.14	7,100.83	7,075.58	27.01	25.79	161.81	-4.51	-433.70	230.04	194.45	35.59	6.464		
7,123.17	7,080.10	7,124.00	7,098.57	27.11	25.88	161.84	-5.04	-436.47	230.32	194.61	35.71	6.450		
7,200.00	7,156.33	7,200.83	7,174.83	27.42	26.18	161.89	-6.80	-445.67	230.50	194.40	36.10	6.385		
7,300.00	7,255.80	7,300.81	7,274.06	27.82	26.57	161.76	-9.10	-457.63	228.54	191.92	36.62	6.241		
7,400.00	7,355.51	7,400.70	7,373.21	28.19	26.97	161.41	-11.39	-469.58	224.10	186.96	37.14	6.034		
7,500.00	7,455.39	7,500.43	7,472.20	28.55	27.36	160.80	-13.68	-481.52	217.19	179.53	37.66	5.768		
7,600.00	7,555.36	7,599.94	7,570.97	28.89	27.75	159.90	-15.97	-493.42	207.86	169.68	38.18	5.444		
7,639.64	7,595.00	7,639.31	7,610.05	29.02	27.91	59.33	-16.87	-498.13	203.49	165.11	38.39	5.301		
7,700.00	7,655.36	7,699.22	7,669.51	29.22	28.15	58.60	-18.25	-505.30	196.59	157.89	38.70	5.080		
7,800.00	7,755.36	7,798.48	7,768.02	29.54	28.54	57.28	-20.52	-517.18	185.21	145.99	39.22	4.722		
7,900.00	7,855.36	7,897.73	7,866.54	29.86	28.93	55.79	-22.80	-529.06	173.95	134.20	39.75	4.376		
8,000.00	7,955.36	7,996.99	7,965.05	30.19	29.33	54.09	-25.08	-540.93	162.83	122.53	40.29	4.041		
8,100.00	8,055.36	8,096.24	8,063.57	30.51	29.72	52.14	-27.36	-552.81	151.86	111.02	40.84	3.718		
8,200.00	8,155.36	8,195.50	8,162.08	30.84	30.12	49.90	-29.64	-564.69	141.09	99.69	41.40	3.408		
8,284.68	8,240.04	8,279.55	8,245.51	31.11	30.45	47.72	-31.57	-574.74	132.17	90.27	41.89	3.155		
8,300.00	8,255.35	8,294.75	8,260.60	31.16	30.51	58.52	-31.92	-576.56	130.47	88.49	41.98	3.108		
8,350.00	8,305.21	8,344.24	8,309.72	31.33	30.71	59.04	-33.05	-582.48	123.46	81.23	42.24	2.923		
8,400.00	8,354.58	8,393.24	8,358.35	31.49	30.90	61.64	-34.18	-588.35	114.29	71.86	42.43	2.694		
8,450.00	8,403.07	8,441.37	8,406.13	31.65	31.09	66.88	-35.28	-594.11	103.44	60.88	42.55	2.431		
8,500.00	8,450.32	8,488.28	8,452.68	31.80	31.28	75.52	-36.36	-599.72	92.03	49.43	42.60	2.160		
8,550.00	8,495.98	8,533.59	8,497.66	31.95	31.46	88.11	-37.40	-605.14	82.39	39.74	42.65	1.932		
8,598.31	8,538.24	8,575.55	8,539.31	32.09	31.63	103.28	-38.36	-610.16	78.37	35.46	42.91	1.826		
8,600.00	8,539.68	8,576.98	8,540.73	32.09	31.63	103.84	-38.40	-610.33	78.38	35.45	42.93	1.826 ES, SF		
8,650.00	8,581.10	8,618.10	8,581.54	32.22	31.80	119.81	-39.34	-615.26	84.18	40.58	43.60	1.931		
8,700.00	8,619.93	8,656.65	8,619.80	32.35	31.95	133.07	-40.22	-619.87	101.01	56.63	44.38	2.276		
8,750.00	8,655.87	8,692.33	8,655.22	32.48	32.09	142.72	-41.04	-624.14	126.89	81.92	44.96	2.822		
8,800.00	8,688.64	8,724.87	8,687.51	32.60	32.22	149.29	-41.79	-628.03	159.29	113.94	45.35	3.512		
8,850.00	8,718.00	8,754.02	8,716.45	32.72	32.34	153.55	-42.46	-631.52	196.43	150.82	45.61	4.307		
8,900.00	8,743.72	8,779.56	8,741.80	32.84	32.44	156.08	-43.05	-634.58	237.17	191.38	45.80	5.179		
8,950.00	8,765.60	8,801.30	8,763.37	32.98	32.53	157.13	-43.54	-637.18	280.71	234.78	45.93	6.111		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 601H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	8,783.49	8,819.07	8,781.01	33.12	32.60	156.63	-43.95	-639.30	326.44	280.41	46.03	7.091		
9,050.00	8,797.24	8,832.73	8,794.57	33.29	32.65	153.94	-44.27	-640.94	373.85	327.74	46.11	8.108		
9,100.00	8,806.75	8,842.18	8,803.95	33.48	32.69	146.96	-44.48	-642.07	422.48	376.32	46.15	9.153		
9,150.00	8,811.95	8,847.36	8,809.09	33.68	32.71	128.11	-44.60	-642.69	471.88	425.70	46.18	10.218		
9,184.68	8,813.00	8,848.41	8,810.13	33.83	32.72	97.20	-44.63	-642.81	506.40	460.21	46.19	10.964		
9,200.00	8,813.00	8,848.41	8,810.13	33.91	32.72	96.77	-44.63	-642.81	521.66	475.47	46.19	11.294		
9,300.00	8,813.00	8,848.16	8,809.89	34.41	32.72	94.52	-44.62	-642.78	621.18	574.99	46.20	13.447		
9,400.00	8,813.00	8,847.49	8,809.22	34.98	32.71	92.91	-44.61	-642.70	720.52	674.32	46.20	15.596		
9,500.00	8,813.00	8,846.39	8,808.13	35.60	32.71	91.70	-44.58	-642.57	819.64	773.43	46.20	17.740		
9,600.00	8,813.00	8,844.87	8,806.62	36.27	32.70	90.75	-44.55	-642.39	918.50	872.30	46.20	19.879		
9,702.98	8,813.00	8,842.86	8,804.63	37.00	32.70	89.98	-44.50	-642.15	1,020.02	973.81	46.20	22.077		
9,800.00	8,813.00	8,840.77	8,802.55	37.74	32.69	89.32	-44.45	-641.90	1,115.64	1,069.43	46.20	24.147		
9,900.00	8,813.00	8,838.60	8,800.40	38.55	32.68	88.64	-44.40	-641.64	1,214.42	1,168.22	46.20	26.285		
10,000.00	8,813.00	8,836.44	8,798.25	39.42	32.67	87.96	-44.35	-641.38	1,313.38	1,267.18	46.20	28.427		
10,100.00	8,813.00	8,834.28	8,796.11	40.34	32.66	87.29	-44.30	-641.12	1,412.49	1,366.29	46.20	30.572		
10,200.00	8,813.00	8,832.11	8,793.96	41.30	32.65	86.62	-44.25	-640.86	1,511.71	1,465.51	46.20	32.718		
10,300.00	8,813.00	8,829.95	8,791.81	42.31	32.64	85.95	-44.20	-640.60	1,611.03	1,564.82	46.21	34.866		
10,400.00	8,813.00	8,827.79	8,789.67	43.35	32.63	85.29	-44.15	-640.35	1,710.42	1,664.21	46.21	37.015		
10,500.00	8,813.00	8,825.62	8,787.52	44.44	32.63	84.63	-44.10	-640.09	1,809.88	1,763.66	46.21	39.164		
10,600.00	8,813.00	8,823.46	8,785.37	45.55	32.62	83.97	-44.05	-639.83	1,909.39	1,863.17	46.22	41.313		
10,700.00	8,813.00	8,821.30	8,783.22	46.70	32.61	83.31	-44.00	-639.57	2,008.95	1,962.72	46.22	43.462		
10,800.00	8,813.00	8,819.14	8,781.08	47.88	32.60	82.66	-43.95	-639.31	2,108.54	2,062.31	46.23	45.611		
10,900.00	8,813.00	8,816.97	8,778.93	49.09	32.59	82.01	-43.90	-639.05	2,208.17	2,161.94	46.24	47.759		
11,000.00	8,813.00	8,814.81	8,776.78	50.32	32.58	81.37	-43.86	-638.79	2,307.83	2,261.59	46.24	49.906		
11,100.00	8,813.00	8,812.65	8,774.64	51.57	32.57	80.73	-43.81	-638.53	2,407.52	2,361.27	46.25	52.052		
11,200.00	8,813.00	8,810.48	8,772.49	52.85	32.57	80.09	-43.76	-638.28	2,507.23	2,460.97	46.26	54.197		
11,300.00	8,813.00	8,808.32	8,770.34	54.15	32.56	79.46	-43.71	-638.02	2,606.96	2,560.69	46.27	56.341		
11,400.00	8,813.00	8,806.16	8,768.20	55.46	32.55	78.83	-43.66	-637.76	2,706.71	2,660.43	46.28	58.483		
11,500.00	8,813.00	8,803.99	8,766.05	56.80	32.54	78.21	-43.61	-637.50	2,806.48	2,760.18	46.29	60.623		
11,600.00	8,813.00	8,801.83	8,763.90	58.15	32.53	77.59	-43.56	-637.24	2,906.26	2,859.95	46.31	62.762		
11,700.00	8,813.00	8,799.67	8,761.76	59.51	32.52	76.98	-43.51	-636.98	3,006.05	2,959.73	46.32	64.899		
11,800.00	8,813.00	14,924.71	11,826.37	60.89	67.09	-179.42	3,135.84	-888.23	3,022.94	2,976.90	46.03	65.668		
11,900.00	8,813.00	15,024.67	11,823.66	62.29	68.36	-179.42	3,235.76	-889.33	3,020.23	2,973.34	46.89	64.416		
12,000.00	8,813.00	15,124.64	11,820.95	63.69	69.65	-179.42	3,335.68	-890.43	3,017.52	2,969.77	47.75	63.194		
12,100.00	8,813.00	15,224.60	11,818.24	65.11	70.95	-179.42	3,435.60	-891.53	3,014.80	2,966.18	48.62	62.003		
12,200.00	8,813.00	15,324.56	11,815.53	66.54	72.27	-179.42	3,535.52	-892.63	3,012.09	2,962.59	49.51	60.843		
12,300.00	8,813.00	15,424.53	11,812.82	67.97	73.60	-179.42	3,635.44	-893.74	3,009.38	2,958.99	50.40	59.712		
12,400.00	8,813.00	15,524.49	11,810.12	69.42	74.94	-179.42	3,735.36	-894.84	3,006.67	2,955.38	51.30	58.611		
12,500.00	8,813.00	15,624.45	11,807.41	70.88	76.30	-179.42	3,835.28	-895.94	3,003.96	2,951.76	52.21	57.539		
12,600.00	8,813.00	15,724.42	11,804.70	72.34	77.66	-179.42	3,935.20	-897.04	3,001.25	2,948.13	53.12	56.496		
12,700.00	8,813.00	15,824.38	11,801.99	73.82	79.04	-179.42	4,035.12	-898.14	2,998.54	2,944.50	54.05	55.481		
12,800.00	8,813.00	15,924.34	11,799.28	75.30	80.43	-179.42	4,135.04	-899.24	2,995.83	2,940.86	54.98	54.493		
12,900.00	8,813.00	16,024.31	11,796.57	76.78	81.82	-179.42	4,234.96	-900.34	2,993.12	2,937.21	55.91	53.531		
13,000.00	8,813.00	16,124.27	11,793.86	78.28	83.23	-179.42	4,334.88	-901.44	2,990.41	2,933.56	56.86	52.596		
13,100.00	8,813.00	16,224.23	11,791.15	79.78	84.65	-179.42	4,434.80	-902.54	2,987.70	2,929.90	57.81	51.685		
13,200.00	8,813.00	16,324.20	11,788.44	81.28	86.07	-179.42	4,534.72	-903.64	2,984.99	2,926.23	58.76	50.800		
13,300.00	8,813.00	16,424.16	11,785.73	82.80	87.50	-179.42	4,634.64	-904.75	2,982.28	2,922.56	59.72	49.938		
13,400.00	8,813.00	16,524.12	11,783.02	84.31	88.94	-179.42	4,734.56	-905.85	2,979.57	2,918.89	60.69	49.099		
13,500.00	8,813.00	16,624.09	11,780.31	85.84	90.39	-179.42	4,834.48	-906.95	2,976.86	2,915.21	61.65	48.283		
13,600.00	8,813.00	16,724.05	11,777.60	87.36	91.84	-179.42	4,934.41	-908.05	2,974.15	2,911.52	62.63	47.488		
13,700.00	8,813.00	16,824.01	11,774.89	88.89	93.30	-179.42	5,034.33	-909.15	2,971.44	2,907.83	63.61	46.715		
13,800.00	8,813.00	16,923.98	11,772.18	90.43	94.77	-179.42	5,134.25	-910.25	2,968.73	2,904.14	64.59	45.962		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 601H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	8,813.00	17,023.94	11,769.47	91.97	96.24	-179.42	5,234.17	-911.35	2,966.02	2,900.44	65.58	45.228		
14,000.00	8,813.00	17,123.90	11,766.76	93.51	97.72	-179.42	5,334.09	-912.45	2,963.31	2,896.74	66.57	44.514		
14,100.00	8,813.00	17,223.87	11,764.06	95.06	99.21	-179.41	5,434.01	-913.55	2,960.60	2,893.03	67.56	43.819		
14,200.00	8,813.00	17,323.83	11,761.35	96.61	100.70	-179.41	5,533.93	-914.66	2,957.89	2,889.32	68.56	43.141		
14,300.00	8,813.00	17,423.79	11,758.64	98.17	102.19	-179.41	5,633.85	-915.76	2,955.18	2,885.61	69.56	42.481		
14,400.00	8,813.00	17,523.75	11,755.93	99.72	103.69	-179.41	5,733.77	-916.86	2,952.47	2,881.90	70.57	41.838		
14,500.00	8,813.00	17,623.72	11,753.22	101.29	105.19	-179.41	5,833.69	-917.96	2,949.76	2,878.18	71.58	41.211		
14,600.00	8,813.00	17,723.68	11,750.51	102.85	106.70	-179.41	5,933.61	-919.06	2,947.05	2,874.46	72.59	40.599		
14,700.00	8,813.00	17,823.64	11,747.80	104.41	108.21	-179.41	6,033.53	-920.16	2,944.34	2,870.73	73.60	40.003		
14,800.00	8,813.00	17,923.61	11,745.09	105.98	109.73	-179.41	6,133.45	-921.26	2,941.63	2,867.01	74.62	39.422		
14,900.00	8,813.00	18,023.57	11,742.38	107.56	111.25	-179.41	6,233.37	-922.36	2,938.92	2,863.28	75.64	38.855		
15,000.00	8,813.00	18,123.53	11,739.67	109.13	112.78	-179.41	6,333.29	-923.46	2,936.21	2,859.55	76.66	38.302		
15,100.00	8,813.00	18,223.50	11,736.96	110.71	114.30	-179.41	6,433.21	-924.56	2,933.49	2,855.81	77.68	37.762		
15,200.00	8,813.00	18,323.46	11,734.25	112.28	115.83	-179.41	6,533.13	-925.67	2,930.78	2,852.07	78.71	37.235		
15,300.00	8,813.00	18,423.42	11,731.54	113.86	117.37	-179.41	6,633.05	-926.77	2,928.07	2,848.34	79.74	36.721		
15,400.00	8,813.00	18,523.39	11,728.83	115.45	118.91	-179.41	6,732.97	-927.87	2,925.36	2,844.59	80.77	36.219		
15,500.00	8,813.00	18,623.35	11,726.12	117.03	120.45	-179.41	6,832.89	-928.97	2,922.65	2,840.85	81.80	35.728		
15,600.00	8,813.00	18,723.31	11,723.41	118.62	121.99	-179.41	6,932.81	-930.07	2,919.94	2,837.11	82.84	35.249		
15,700.00	8,813.00	18,823.28	11,720.70	120.21	123.54	-179.41	7,032.74	-931.17	2,917.23	2,833.36	83.87	34.781		
15,800.00	8,813.00	18,923.24	11,718.00	121.80	125.09	-179.41	7,132.66	-932.27	2,914.52	2,829.61	84.91	34.324		
15,900.00	8,813.00	19,023.20	11,715.29	123.39	126.64	-179.41	7,232.58	-933.37	2,911.81	2,825.86	85.95	33.877		
16,000.00	8,813.00	19,123.17	11,712.58	124.98	128.19	-179.41	7,332.50	-934.47	2,909.10	2,822.11	86.99	33.440		
16,100.00	8,813.00	19,223.13	11,709.87	126.58	129.75	-179.41	7,432.42	-935.58	2,906.39	2,818.35	88.04	33.013		
16,200.00	8,813.00	19,323.09	11,707.16	128.17	131.31	-179.41	7,532.34	-936.68	2,903.68	2,814.60	89.08	32.595		
16,300.00	8,813.00	19,423.06	11,704.45	129.77	132.87	-179.41	7,632.26	-937.78	2,900.97	2,810.84	90.13	32.186		
16,400.00	8,813.00	19,523.02	11,701.74	131.37	134.43	-179.40	7,732.18	-938.88	2,898.26	2,807.08	91.18	31.787		
16,500.00	8,813.00	19,622.98	11,699.03	132.97	136.00	-179.40	7,832.10	-939.98	2,895.55	2,803.32	92.23	31.395		
16,600.00	8,813.00	19,722.95	11,696.32	134.57	137.57	-179.40	7,932.02	-941.08	2,892.84	2,799.56	93.28	31.013		
16,700.00	8,813.00	19,822.91	11,693.61	136.17	139.14	-179.40	8,031.94	-942.18	2,890.13	2,795.80	94.33	30.638		
16,800.00	8,813.00	19,922.87	11,690.90	137.78	140.71	-179.40	8,131.86	-943.28	2,887.42	2,792.03	95.39	30.271		
16,900.00	8,813.00	20,022.84	11,688.19	139.38	142.28	-179.40	8,231.78	-944.38	2,884.71	2,788.27	96.44	29.912		
17,000.00	8,813.00	20,122.80	11,685.48	140.99	143.86	-179.40	8,331.70	-945.48	2,882.00	2,784.50	97.50	29.560		
17,100.00	8,813.00	20,222.76	11,682.77	142.60	145.43	-179.40	8,431.62	-946.59	2,879.29	2,780.73	98.55	29.215		
17,200.00	8,813.00	20,322.73	11,680.06	144.20	147.01	-179.40	8,531.54	-947.69	2,876.58	2,776.96	99.61	28.877		
17,300.00	8,813.00	20,422.69	11,677.35	145.81	148.59	-179.40	8,631.46	-948.79	2,873.87	2,773.19	100.67	28.547		
17,400.00	8,813.00	20,522.65	11,674.65	147.42	150.17	-179.40	8,731.38	-949.89	2,871.16	2,769.42	101.73	28.222		
17,500.00	8,813.00	20,622.62	11,671.94	149.04	151.76	-179.40	8,831.30	-950.99	2,868.45	2,765.65	102.80	27.904		
17,600.00	8,813.00	20,722.58	11,669.23	150.65	153.34	-179.40	8,931.22	-952.09	2,865.74	2,761.88	103.86	27.593		
17,700.00	8,813.00	20,822.54	11,666.52	152.26	154.93	-179.40	9,031.14	-953.19	2,863.03	2,758.10	104.92	27.287		
17,800.00	8,813.00	20,922.51	11,663.81	153.88	156.51	-179.40	9,131.07	-954.29	2,860.32	2,754.33	105.99	26.988		
17,900.00	8,813.00	21,022.47	11,661.10	155.49	158.10	-179.40	9,230.99	-955.39	2,857.61	2,750.55	107.05	26.694		
18,000.00	8,813.00	21,122.43	11,658.39	157.11	159.69	-179.40	9,330.91	-956.50	2,854.90	2,746.78	108.12	26.405		
18,100.00	8,813.00	21,222.40	11,655.68	158.72	161.29	-179.40	9,430.83	-957.60	2,852.19	2,743.00	109.19	26.122		
18,200.00	8,813.00	21,322.36	11,652.97	160.34	162.88	-179.40	9,530.75	-958.70	2,849.47	2,739.22	110.25	25.845		
18,300.00	8,813.00	21,422.32	11,650.26	161.96	164.47	-179.40	9,630.67	-959.80	2,846.76	2,735.44	111.32	25.572		
18,400.00	8,813.00	21,522.29	11,647.55	163.58	166.07	-179.40	9,730.59	-960.90	2,844.05	2,731.66	112.39	25.305		
18,500.00	8,813.00	21,622.25	11,644.84	165.20	167.66	-179.39	9,830.51	-962.00	2,841.34	2,727.88	113.46	25.042		
18,600.00	8,813.00	21,722.21	11,642.13	166.82	169.26	-179.39	9,930.43	-963.10	2,838.63	2,724.10	114.53	24.784		
18,700.00	8,813.00	21,822.18	11,639.42	168.44	170.86	-179.39	10,030.35	-964.20	2,835.92	2,720.32	115.61	24.531		
18,800.00	8,813.00	21,922.14	11,636.71	170.06	172.46	-179.39	10,130.27	-965.30	2,833.21	2,716.53	116.68	24.282		
18,904.52	8,813.00	21,949.93	11,635.96	171.75	172.90	-179.39	10,158.05	-965.61	2,831.42	2,714.15	117.27	24.145		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 701H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	12.17	75.41	16.26	77.57					
100.00	100.00	91.90	91.90	0.13	0.13	12.17	75.41	16.26	77.14	76.96	0.18	426.768		
200.00	200.00	191.90	191.90	0.48	0.47	12.17	75.41	16.26	77.14	76.47	0.68	114.231		
300.00	300.00	291.90	291.90	0.84	0.83	12.17	75.41	16.26	77.14	75.96	1.18	65.251		
400.00	400.00	391.90	391.90	1.20	1.19	12.17	75.41	16.26	77.14	75.45	1.69	45.668		
500.00	500.00	491.90	491.90	1.56	1.55	12.17	75.41	16.26	77.14	74.95	2.20	35.127		
600.00	600.00	591.90	591.90	1.92	1.90	12.17	75.41	16.26	77.14	74.44	2.70	28.539		
700.00	700.00	691.90	691.90	2.28	2.26	12.17	75.41	16.26	77.14	73.93	3.21	24.032		
800.00	800.00	791.90	791.90	2.63	2.62	12.17	75.41	16.26	77.14	73.43	3.72	20.754		
900.00	900.00	891.90	891.90	2.99	2.98	12.17	75.41	16.26	77.14	72.92	4.22	18.263		
1,000.00	1,000.00	991.90	991.90	3.35	3.34	12.17	75.41	16.26	77.14	72.41	4.73	16.306		
1,100.00	1,100.00	1,091.90	1,091.90	3.71	3.70	12.17	75.41	16.26	77.14	71.91	5.24	14.728		
1,200.00	1,200.00	1,191.90	1,191.90	4.07	4.06	12.17	75.41	16.26	77.14	71.40	5.74	13.428		
1,300.00	1,300.00	1,291.90	1,291.90	4.43	4.41	12.17	75.41	16.26	77.14	70.89	6.25	12.339		
1,400.00	1,400.00	1,391.90	1,391.90	4.79	4.77	12.17	75.41	16.26	77.14	70.38	6.76	11.414		
1,500.00	1,500.00	1,491.90	1,491.90	5.14	5.13	12.17	75.41	16.26	77.14	69.88	7.27	10.617		
1,600.00	1,600.00	1,591.90	1,591.90	5.50	5.49	12.17	75.41	16.26	77.14	69.37	7.77	9.925		
1,700.00	1,700.00	1,691.90	1,691.90	5.86	5.85	12.17	75.41	16.26	77.14	68.86	8.28	9.317		
1,800.00	1,800.00	1,791.90	1,791.90	6.22	6.21	12.17	75.41	16.26	77.14	68.36	8.79	8.780		
1,900.00	1,900.00	1,891.90	1,891.90	6.58	6.57	12.17	75.41	16.26	77.14	67.85	9.29	8.301		
2,000.00	2,000.00	1,991.90	1,991.90	6.94	6.92	12.17	75.41	16.26	77.14	67.34	9.80	7.871		
2,060.00	2,060.00	2,051.90	2,051.90	7.15	7.14	12.17	75.41	16.26	77.14	67.04	10.10	7.634 CC		
2,100.00	2,100.00	2,091.90	2,091.90	7.29	7.28	112.44	75.41	16.26	77.22	66.92	10.30	7.494		
2,200.00	2,199.97	2,191.87	2,191.87	7.63	7.64	114.02	75.41	16.26	78.15	67.35	10.80	7.238		
2,300.00	2,299.84	2,291.74	2,291.74	7.97	8.00	117.23	75.41	16.26	80.31	69.01	11.29	7.112		
2,400.00	2,399.55	2,391.45	2,391.45	8.32	8.36	121.77	75.41	16.26	84.05	72.26	11.79	7.130		
2,500.00	2,499.03	2,490.93	2,490.93	8.67	8.71	127.22	75.41	16.26	89.85	77.57	12.29	7.314		
2,576.48	2,574.90	2,566.80	2,566.80	8.94	8.98	131.68	75.41	16.26	95.95	83.29	12.67	7.576		
2,600.00	2,598.21	2,590.11	2,590.11	9.02	9.07	133.05	75.41	16.26	98.10	85.32	12.78	7.674		
2,700.00	2,697.30	2,689.20	2,689.20	9.38	9.42	138.27	75.41	16.26	107.80	94.51	13.28	8.116		
2,800.00	2,796.39	2,788.29	2,788.29	9.75	9.78	142.61	75.41	16.26	118.23	104.46	13.78	8.581		
2,900.00	2,895.47	2,887.37	2,887.37	10.12	10.13	146.23	75.41	16.26	129.24	114.96	14.28	9.052		
3,000.00	2,994.56	2,986.46	2,986.46	10.49	10.49	149.28	75.41	16.26	140.67	125.90	14.78	9.521		
3,100.00	3,093.65	3,085.55	3,085.55	10.87	10.84	151.86	75.41	16.26	152.44	137.17	15.27	9.980		
3,200.00	3,192.74	3,184.64	3,184.64	11.25	11.20	154.07	75.41	16.26	164.47	148.70	15.77	10.427		
3,300.00	3,291.82	3,283.72	3,283.72	11.64	11.55	155.98	75.41	16.26	176.72	160.44	16.27	10.859		
3,400.00	3,390.91	3,382.81	3,382.81	12.02	11.91	157.64	75.41	16.26	189.13	172.35	16.77	11.275		
3,500.00	3,490.00	3,481.90	3,481.90	12.41	12.26	159.10	75.41	16.26	201.67	184.40	17.27	11.674		
3,600.00	3,589.09	3,580.99	3,580.99	12.80	12.62	160.38	75.41	16.26	214.33	196.56	17.78	12.058		
3,700.00	3,688.17	3,685.02	3,685.02	13.19	12.98	161.53	75.12	15.36	226.21	207.93	18.29	12.370		
3,800.00	3,787.26	3,790.82	3,790.74	13.58	13.34	162.46	73.97	11.72	235.51	216.73	18.79	12.537		
3,900.00	3,886.35	3,897.11	3,896.81	13.98	13.70	163.20	71.92	5.25	242.14	222.86	19.27	12.563		
4,000.00	3,985.43	4,003.74	4,002.99	14.38	14.06	163.80	68.97	-4.06	246.04	226.29	19.75	12.457		
4,100.00	4,084.52	4,110.54	4,109.02	14.77	14.43	164.28	65.12	-16.22	247.20	226.99	20.22	12.228		
4,200.00	4,183.61	4,212.00	4,209.50	15.17	14.79	164.68	60.87	-29.62	246.47	225.76	20.70	11.905		
4,300.00	4,282.70	4,311.98	4,308.51	15.57	15.14	165.06	56.67	-42.89	245.67	224.48	21.20	11.589		
4,400.00	4,381.78	4,411.96	4,407.52	15.97	15.50	165.45	52.47	-56.16	244.89	223.20	21.70	11.287		
4,500.00	4,480.87	4,511.94	4,506.53	16.37	15.86	165.84	48.26	-69.43	244.13	221.93	22.20	10.999		
4,600.00	4,579.96	4,611.93	4,605.53	16.78	16.22	166.23	44.06	-82.70	243.37	220.67	22.70	10.723		
4,700.00	4,679.05	4,711.91	4,704.54	17.18	16.59	166.63	39.85	-95.98	242.62	219.43	23.20	10.459		
4,800.00	4,778.13	4,811.89	4,803.55	17.59	16.96	167.03	35.65	-109.25	241.89	218.19	23.70	10.207		
4,900.00	4,877.22	4,911.88	4,902.56	17.99	17.33	167.43	31.44	-122.52	241.16	216.96	24.20	9.965		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,976.31	5,011.86	5,001.57	18.40	17.70	167.83	27.24	-135.79	240.45	215.75	24.70	9.733		
5,100.00	5,075.39	5,111.84	5,100.58	18.80	18.08	168.24	23.03	-149.06	239.76	214.55	25.21	9.511		
5,200.00	5,174.48	5,211.83	5,199.59	19.21	18.46	168.64	18.83	-162.33	239.07	213.36	25.71	9.298		
5,300.00	5,273.57	5,311.81	5,298.60	19.62	18.84	169.05	14.62	-175.60	238.39	212.18	26.22	9.093		
5,400.00	5,372.66	5,411.79	5,397.61	20.02	19.22	169.47	10.42	-188.88	237.73	211.01	26.72	8.896		
5,500.00	5,471.74	5,511.78	5,496.62	20.43	19.60	169.88	6.21	-202.15	237.08	209.85	27.23	8.706		
5,600.00	5,570.83	5,611.76	5,595.63	20.84	19.99	170.30	2.01	-215.42	236.44	208.71	27.74	8.524		
5,700.00	5,669.92	5,711.74	5,694.64	21.25	20.38	170.72	-2.20	-228.69	235.82	207.57	28.25	8.349		
5,800.00	5,769.01	5,811.73	5,793.64	21.66	20.76	171.14	-6.40	-241.96	235.21	206.45	28.75	8.180		
5,900.00	5,868.09	5,911.71	5,892.65	22.07	21.15	171.56	-10.60	-255.23	234.61	205.34	29.26	8.017		
6,000.00	5,967.18	6,011.69	5,991.66	22.48	21.54	171.99	-14.81	-268.51	234.02	204.25	29.77	7.860		
6,100.00	6,066.27	6,111.67	6,090.67	22.89	21.94	172.41	-19.01	-281.78	233.45	203.16	30.28	7.709		
6,200.00	6,165.35	6,211.66	6,189.68	23.30	22.33	172.84	-23.22	-295.05	232.89	202.09	30.79	7.563		
6,300.00	6,264.44	6,311.64	6,288.69	23.71	22.72	173.28	-27.42	-308.32	232.34	201.03	31.30	7.422		
6,400.00	6,363.53	6,411.62	6,387.70	24.13	23.12	173.71	-31.63	-321.59	231.81	199.99	31.82	7.286		
6,500.00	6,462.62	6,511.61	6,486.71	24.54	23.52	174.15	-35.83	-334.86	231.28	198.96	32.33	7.154		
6,600.00	6,561.70	6,611.59	6,585.72	24.95	23.91	174.58	-40.04	-348.13	230.78	197.94	32.84	7.027		
6,700.00	6,660.79	6,711.57	6,684.73	25.36	24.31	175.02	-44.24	-361.41	230.28	196.93	33.36	6.904		
6,800.00	6,759.88	6,811.56	6,783.74	25.78	24.71	175.46	-48.45	-374.68	229.80	195.93	33.87	6.785		
6,900.00	6,858.97	6,911.54	6,882.75	26.19	25.11	175.91	-52.65	-387.95	229.34	194.95	34.38	6.670		
7,000.00	6,958.05	7,011.52	6,981.75	26.60	25.51	176.35	-56.86	-401.22	228.88	193.99	34.90	6.558		
7,100.00	7,057.14	7,111.51	7,080.76	27.01	25.91	176.80	-61.06	-414.49	228.45	193.03	35.41	6.451		
7,123.17	7,080.10	7,134.67	7,103.70	27.11	26.00	176.90	-62.03	-417.57	228.35	192.81	35.53	6.426		
7,200.00	7,156.33	7,211.48	7,179.77	27.42	26.31	177.24	-65.27	-427.76	227.25	191.32	35.93	6.325		
7,300.00	7,255.80	7,311.40	7,278.71	27.82	26.72	177.65	-69.47	-441.02	223.52	187.08	36.44	6.133		
7,400.00	7,355.51	7,411.18	7,377.52	28.19	27.12	178.06	-73.66	-454.27	217.19	180.24	36.96	5.877		
7,500.00	7,455.39	7,510.77	7,476.13	28.55	27.52	178.47	-77.85	-467.49	208.27	170.80	37.46	5.559		
7,600.00	7,555.36	7,610.09	7,574.49	28.89	27.92	178.90	-82.03	-480.67	196.75	158.78	37.97	5.182		
7,639.64	7,595.00	7,649.37	7,613.39	29.02	28.08	178.96	-83.68	-485.89	191.47	153.30	38.17	5.017		
7,700.00	7,655.36	7,709.14	7,672.58	29.22	28.32	179.26	-86.19	-493.82	183.12	144.65	38.46	4.761		
7,800.00	7,755.36	7,808.17	7,770.64	29.54	28.73	179.82	-90.36	-506.96	169.30	130.34	38.96	4.346		
7,900.00	7,855.36	7,907.19	7,868.70	29.86	29.13	180.48	-94.52	-520.11	155.50	116.04	39.46	3.941		
8,000.00	7,955.36	8,006.22	7,966.76	30.19	29.53	181.27	-98.69	-533.25	141.72	101.77	39.95	3.547		
8,100.00	8,055.36	8,105.24	8,064.82	30.51	29.93	182.23	-102.85	-546.40	127.98	87.52	40.46	3.163		
8,200.00	8,155.36	8,204.27	8,162.88	30.84	30.34	183.41	-107.02	-559.54	114.28	73.32	40.96	2.790		
8,284.68	8,240.04	8,288.13	8,245.92	31.11	30.68	184.67	-110.54	-570.67	102.72	61.33	41.39	2.482		
8,300.00	8,255.35	8,303.29	8,260.94	31.16	30.74	185.25	-111.18	-572.69	100.66	59.19	41.47	2.427		
8,350.00	8,305.21	8,352.61	8,309.78	31.33	30.94	186.91	-113.25	-579.23	94.38	52.62	41.77	2.260		
8,400.00	8,354.58	8,401.37	8,358.06	31.49	31.14	188.44	-115.30	-585.70	89.51	47.36	42.14	2.124		
8,448.17	8,401.32	8,447.47	8,403.71	31.64	31.33	189.19	-117.24	-591.82	87.56	44.92	42.63	2.054		
8,450.00	8,403.07	8,449.19	8,405.42	31.65	31.34	189.56	-117.32	-592.05	87.56	44.90	42.66	2.053 ES, SF		
8,500.00	8,450.32	8,495.73	8,451.50	31.80	31.53	190.16	-119.27	-598.23	90.53	47.21	43.33	2.090		
8,550.00	8,495.98	8,540.61	8,495.94	31.95	31.71	190.61	-121.16	-604.19	100.02	55.99	44.04	2.271		
8,600.00	8,539.68	8,583.50	8,538.42	32.09	31.89	191.61	-122.96	-609.88	116.48	71.84	44.64	2.609		
8,650.00	8,581.10	8,624.07	8,578.60	32.22	32.05	192.70	-124.67	-615.26	139.33	94.24	45.09	3.090		
8,700.00	8,619.93	8,662.02	8,616.17	32.35	32.21	193.81	-126.27	-620.30	167.61	122.20	45.41	3.691		
8,750.00	8,655.87	8,697.05	8,650.86	32.48	32.35	194.88	-127.74	-624.95	200.44	154.78	45.65	4.390		
8,800.00	8,688.64	8,728.90	8,682.40	32.60	32.48	196.65	-129.08	-629.18	237.07	191.23	45.84	5.171		
8,850.00	8,718.00	8,757.33	8,710.55	32.72	32.60	198.54	-130.27	-632.95	276.92	230.92	45.99	6.021		
8,900.00	8,743.72	8,782.11	8,735.10	32.84	32.70	199.70	-131.32	-636.24	319.48	273.36	46.12	6.927		
8,950.00	8,765.60	8,803.07	8,755.85	32.98	32.79	200.84	-132.20	-639.02	364.29	318.07	46.22	7.882		
9,000.00	8,783.49	8,820.04	8,772.65	33.12	32.86	201.96	-132.91	-641.28	410.93	364.64	46.30	8.876		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 701H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,050.00	8,797.24	8,832.89	8,785.38	33.29	32.91	165.89	-133.45	-642.98	459.00	412.64	46.36	9.902		
9,100.00	8,806.75	8,841.52	8,793.93	33.48	32.95	160.56	-133.81	-644.13	508.08	461.69	46.39	10.952		
9,150.00	8,811.95	8,845.88	8,798.24	33.68	32.96	139.37	-134.00	-644.71	557.79	511.38	46.41	12.018		
9,184.68	8,813.00	8,846.36	8,798.72	33.83	32.97	75.60	-134.02	-644.77	592.43	546.02	46.42	12.764		
9,200.00	8,813.00	8,846.11	8,798.47	33.91	32.96	76.76	-134.01	-644.74	607.74	561.32	46.42	13.093		
9,300.00	8,813.00	8,844.20	8,796.58	34.41	32.96	80.64	-133.93	-644.48	707.56	661.15	46.41	15.246		
9,400.00	8,813.00	8,841.81	8,794.22	34.98	32.95	82.12	-133.83	-644.17	807.20	760.80	46.40	17.396		
9,500.00	8,813.00	8,838.95	8,791.38	35.60	32.94	82.82	-133.71	-643.79	906.61	860.22	46.39	19.543		
9,600.00	8,813.00	8,835.60	8,788.07	36.27	32.92	83.18	-133.57	-643.34	1,005.76	959.38	46.38	21.687		
9,702.98	8,813.00	8,831.67	8,784.17	37.00	32.91	83.39	-133.40	-642.82	1,107.54	1,061.18	46.36	23.889		
9,800.00	8,813.00	8,827.74	8,780.27	37.74	32.89	82.19	-133.23	-642.30	1,203.37	1,157.02	46.35	25.964		
9,900.00	8,813.00	8,823.68	8,776.26	38.55	32.87	80.96	-133.06	-641.76	1,302.31	1,255.97	46.34	28.106		
10,000.00	8,813.00	8,819.62	8,772.24	39.42	32.86	79.74	-132.89	-641.22	1,401.39	1,355.06	46.32	30.252		
10,100.00	8,813.00	8,815.56	8,768.22	40.34	32.84	78.55	-132.72	-640.68	1,500.58	1,454.26	46.31	32.400		
10,200.00	8,813.00	8,811.50	8,764.20	41.30	32.82	77.37	-132.55	-640.14	1,599.86	1,553.55	46.31	34.550		
10,300.00	8,813.00	8,807.44	8,760.18	42.31	32.81	76.20	-132.38	-639.61	1,699.22	1,652.92	46.30	36.701		
10,400.00	8,813.00	8,803.39	8,756.16	43.35	32.79	75.06	-132.21	-639.07	1,798.64	1,752.34	46.29	38.853		
10,500.00	8,813.00	8,799.33	8,752.14	44.44	32.77	73.93	-132.04	-638.53	1,898.11	1,851.82	46.29	41.006		
10,600.00	8,813.00	8,795.27	8,748.13	45.55	32.76	72.83	-131.87	-637.99	1,997.62	1,951.34	46.28	43.159		
10,700.00	8,813.00	8,791.21	8,744.11	46.70	32.74	71.74	-131.70	-637.45	2,097.18	2,050.89	46.28	45.313		
10,800.00	8,813.00	8,787.15	8,740.09	47.88	32.72	70.68	-131.53	-636.91	2,196.76	2,150.48	46.28	47.466		
10,900.00	8,813.00	8,783.10	8,736.07	49.09	32.71	69.63	-131.36	-636.37	2,296.38	2,250.10	46.28	49.619		
11,000.00	8,813.00	8,779.04	8,732.05	50.32	32.69	68.60	-131.19	-635.83	2,396.02	2,349.74	46.28	51.771		
11,100.00	8,813.00	8,774.98	8,728.03	51.57	32.67	67.59	-131.02	-635.30	2,495.68	2,449.40	46.28	53.923		
11,200.00	8,813.00	8,770.92	8,724.01	52.85	32.66	66.61	-130.85	-634.76	2,595.36	2,549.08	46.28	56.074		
11,300.00	8,813.00	8,766.86	8,719.99	54.15	32.64	65.64	-130.67	-634.22	2,695.06	2,648.78	46.29	58.224		
11,400.00	8,813.00	8,762.80	8,715.98	55.46	32.62	64.69	-130.50	-633.68	2,794.78	2,748.49	46.29	60.373		
11,500.00	8,813.00	8,758.75	8,711.96	56.80	32.61	63.77	-130.33	-633.14	2,894.51	2,848.21	46.30	62.521		
11,600.00	8,813.00	8,754.69	8,707.94	58.15	32.59	62.86	-130.16	-632.60	2,994.25	2,947.95	46.30	64.667		
11,700.00	8,813.00	8,750.63	8,703.92	59.51	32.57	61.97	-129.99	-632.06	3,094.00	3,047.69	46.31	66.812		
11,800.00	8,813.00	8,746.57	8,699.90	60.89	32.56	61.10	-129.82	-631.53	3,193.77	3,147.45	46.32	68.955		
11,900.00	8,813.00	15,338.47	12,003.43	62.29	69.18	-179.45	3,240.61	-889.56	3,199.85	3,151.96	47.89	66.814		
12,000.00	8,813.00	15,438.43	12,000.72	63.69	70.47	-179.45	3,340.54	-890.66	3,197.14	3,148.39	48.76	65.574		
12,100.00	8,813.00	15,538.39	11,998.01	65.11	71.77	-179.45	3,440.46	-891.76	3,194.43	3,144.80	49.63	64.365		
12,200.00	8,813.00	15,638.36	11,995.30	66.54	73.08	-179.45	3,540.38	-892.86	3,191.72	3,141.21	50.51	63.187		
12,300.00	8,813.00	15,738.32	11,992.59	67.97	74.41	-179.45	3,640.30	-893.96	3,189.01	3,137.61	51.40	62.038		
12,400.00	8,813.00	15,838.28	11,989.88	69.42	75.75	-179.45	3,740.22	-895.05	3,186.30	3,134.00	52.30	60.919		
12,500.00	8,813.00	15,938.25	11,987.17	70.88	77.10	-179.45	3,840.14	-896.15	3,183.59	3,130.38	53.21	59.828		
12,600.00	8,813.00	16,038.21	11,984.47	72.34	78.47	-179.45	3,940.06	-897.25	3,180.88	3,126.75	54.13	58.766		
12,700.00	8,813.00	16,138.17	11,981.76	73.82	79.84	-179.45	4,039.98	-898.35	3,178.17	3,123.12	55.05	57.732		
12,800.00	8,813.00	16,238.14	11,979.05	75.30	81.23	-179.45	4,139.90	-899.45	3,175.46	3,119.48	55.98	56.725		
12,900.00	8,813.00	16,338.10	11,976.34	76.78	82.62	-179.45	4,239.82	-900.55	3,172.75	3,115.84	56.92	55.745		
13,000.00	8,813.00	16,438.06	11,973.63	78.28	84.03	-179.45	4,339.74	-901.64	3,170.04	3,112.18	57.86	54.790		
13,100.00	8,813.00	16,538.03	11,970.92	79.78	85.44	-179.45	4,439.66	-902.74	3,167.33	3,108.53	58.81	53.861		
13,200.00	8,813.00	16,637.99	11,968.21	81.28	86.86	-179.45	4,539.58	-903.84	3,164.62	3,104.86	59.76	52.956		
13,300.00	8,813.00	16,737.95	11,965.50	82.80	88.29	-179.45	4,639.50	-904.94	3,161.91	3,101.19	60.72	52.076		
13,400.00	8,813.00	16,837.92	11,962.79	84.31	89.73	-179.45	4,739.42	-906.04	3,159.20	3,097.52	61.68	51.218		
13,500.00	8,813.00	16,937.88	11,960.08	85.84	91.17	-179.45	4,839.34	-907.14	3,156.49	3,093.84	62.65	50.383		
13,600.00	8,813.00	17,037.84	11,957.37	87.36	92.62	-179.45	4,939.26	-908.24	3,153.78	3,090.16	63.62	49.570		
13,700.00	8,813.00	17,137.81	11,954.67	88.89	94.08	-179.45	5,039.18	-909.33	3,151.07	3,086.47	64.60	48.777		
13,800.00	8,813.00	17,237.77	11,951.96	90.43	95.55	-179.45	5,139.10	-910.43	3,148.36	3,082.78	65.58	48.006		
13,900.00	8,813.00	17,337.73	11,949.25	91.97	97.02	-179.45	5,239.03	-911.53	3,145.65	3,079.08	66.57	47.254		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Georgetown Fed Com 701H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	8,813.00	17,437.70	11,946.54	93.51	98.49	-179.45	5,338.95	-912.63	3,142.94	3,075.38	67.56	46.522		
14,100.00	8,813.00	17,537.66	11,943.83	95.06	99.97	-179.45	5,438.87	-913.73	3,140.23	3,071.68	68.55	45.808		
14,200.00	8,813.00	17,637.62	11,941.12	96.61	101.46	-179.45	5,538.79	-914.83	3,137.52	3,067.97	69.55	45.113		
14,300.00	8,813.00	17,737.59	11,938.41	98.17	102.95	-179.45	5,638.71	-915.93	3,134.81	3,064.26	70.55	44.435		
14,400.00	8,813.00	17,837.55	11,935.70	99.72	104.45	-179.45	5,738.63	-917.02	3,132.10	3,060.55	71.55	43.774		
14,500.00	8,813.00	17,937.51	11,932.99	101.29	105.95	-179.44	5,838.55	-918.12	3,129.39	3,056.83	72.56	43.129		
14,600.00	8,813.00	18,037.47	11,930.28	102.85	107.46	-179.44	5,938.47	-919.22	3,126.68	3,053.11	73.57	42.500		
14,700.00	8,813.00	18,137.44	11,927.57	104.41	108.97	-179.44	6,038.39	-920.32	3,123.97	3,049.39	74.58	41.887		
14,800.00	8,813.00	18,237.40	11,924.87	105.98	110.48	-179.44	6,138.31	-921.42	3,121.26	3,045.66	75.60	41.289		
14,900.00	8,813.00	18,337.36	11,922.16	107.56	112.00	-179.44	6,238.23	-922.52	3,118.55	3,041.94	76.61	40.705		
15,000.00	8,813.00	18,437.33	11,919.45	109.13	113.52	-179.44	6,338.15	-923.61	3,115.84	3,038.21	77.63	40.135		
15,100.00	8,813.00	18,537.29	11,916.74	110.71	115.05	-179.44	6,438.07	-924.71	3,113.13	3,034.47	78.66	39.579		
15,200.00	8,813.00	18,637.25	11,914.03	112.28	116.58	-179.44	6,537.99	-925.81	3,110.42	3,030.74	79.68	39.036		
15,300.00	8,813.00	18,737.22	11,911.32	113.86	118.11	-179.44	6,637.91	-926.91	3,107.71	3,027.00	80.71	38.505		
15,400.00	8,813.00	18,837.18	11,908.61	115.45	119.64	-179.44	6,737.83	-928.01	3,105.00	3,023.26	81.74	37.987		
15,500.00	8,813.00	18,937.14	11,905.90	117.03	121.18	-179.44	6,837.75	-929.11	3,102.29	3,019.52	82.77	37.481		
15,600.00	8,813.00	19,037.11	11,903.19	118.62	122.72	-179.44	6,937.67	-930.21	3,099.58	3,015.78	83.80	36.987		
15,700.00	8,813.00	19,137.07	11,900.48	120.21	124.27	-179.44	7,037.59	-931.30	3,096.87	3,012.03	84.84	36.503		
15,800.00	8,813.00	19,237.03	11,897.77	121.80	125.82	-179.44	7,137.51	-932.40	3,094.16	3,008.28	85.88	36.031		
15,900.00	8,813.00	19,337.00	11,895.07	123.39	127.37	-179.44	7,237.44	-933.50	3,091.45	3,004.53	86.91	35.569		
16,000.00	8,813.00	19,436.96	11,892.36	124.98	128.92	-179.44	7,337.36	-934.60	3,088.74	3,000.78	87.96	35.117		
16,100.00	8,813.00	19,536.92	11,889.65	126.58	130.47	-179.44	7,437.28	-935.70	3,086.03	2,997.03	89.00	34.675		
16,200.00	8,813.00	19,636.89	11,886.94	128.17	132.03	-179.44	7,537.20	-936.80	3,083.32	2,993.28	90.04	34.243		
16,300.00	8,813.00	19,736.85	11,884.23	129.77	133.59	-179.44	7,637.12	-937.90	3,080.61	2,989.52	91.09	33.820		
16,400.00	8,813.00	19,836.81	11,881.52	131.37	135.15	-179.44	7,737.04	-938.99	3,077.90	2,985.76	92.13	33.407		
16,500.00	8,813.00	19,936.78	11,878.81	132.97	136.71	-179.44	7,836.96	-940.09	3,075.19	2,982.01	93.18	33.002		
16,600.00	8,813.00	20,036.74	11,876.10	134.57	138.28	-179.44	7,936.88	-941.19	3,072.48	2,978.25	94.23	32.605		
16,700.00	8,813.00	20,136.70	11,873.39	136.17	139.85	-179.44	8,036.80	-942.29	3,069.77	2,974.48	95.28	32.217		
16,800.00	8,813.00	20,236.67	11,870.68	137.78	141.42	-179.44	8,136.72	-943.39	3,067.06	2,970.72	96.34	31.837		
16,900.00	8,813.00	20,336.63	11,867.97	139.38	142.99	-179.44	8,236.64	-944.49	3,064.35	2,966.96	97.39	31.465		
17,000.00	8,813.00	20,436.59	11,865.27	140.99	144.56	-179.44	8,336.56	-945.58	3,061.64	2,963.19	98.45	31.100		
17,100.00	8,813.00	20,536.56	11,862.56	142.60	146.14	-179.44	8,436.48	-946.68	3,058.93	2,959.43	99.50	30.743		
17,200.00	8,813.00	20,636.52	11,859.85	144.20	147.72	-179.44	8,536.40	-947.78	3,056.22	2,955.66	100.56	30.392		
17,300.00	8,813.00	20,736.48	11,857.14	145.81	149.29	-179.43	8,636.32	-948.88	3,053.51	2,951.89	101.62	30.049		
17,400.00	8,813.00	20,836.45	11,854.43	147.42	150.87	-179.43	8,736.24	-949.98	3,050.80	2,948.12	102.68	29.713		
17,500.00	8,813.00	20,936.41	11,851.72	149.04	152.46	-179.43	8,836.16	-951.08	3,048.09	2,944.35	103.74	29.383		
17,600.00	8,813.00	21,036.37	11,849.01	150.65	154.04	-179.43	8,936.08	-952.18	3,045.38	2,940.58	104.80	29.059		
17,700.00	8,813.00	21,136.34	11,846.30	152.26	155.62	-179.43	9,036.00	-953.27	3,042.67	2,936.81	105.86	28.742		
17,800.00	8,813.00	21,236.30	11,843.59	153.88	157.21	-179.43	9,135.93	-954.37	3,039.96	2,933.03	106.93	28.431		
17,900.00	8,813.00	21,336.26	11,840.88	155.49	158.80	-179.43	9,235.85	-955.47	3,037.25	2,929.26	107.99	28.125		
18,000.00	8,813.00	21,436.23	11,838.17	157.11	160.39	-179.43	9,335.77	-956.57	3,034.54	2,925.48	109.06	27.826		
18,100.00	8,813.00	21,536.19	11,835.47	158.72	161.98	-179.43	9,435.69	-957.67	3,031.83	2,921.71	110.12	27.532		
18,200.00	8,813.00	21,636.15	11,832.76	160.34	163.57	-179.43	9,535.61	-958.77	3,029.12	2,917.93	111.19	27.243		
18,300.00	8,813.00	21,736.12	11,830.05	161.96	165.16	-179.43	9,635.53	-959.87	3,026.41	2,914.15	112.26	26.960		
18,400.00	8,813.00	21,836.08	11,827.34	163.58	166.75	-179.43	9,735.45	-960.96	3,023.70	2,910.37	113.33	26.682		
18,500.00	8,813.00	21,936.04	11,824.63	165.20	168.35	-179.43	9,835.37	-962.06	3,020.99	2,906.59	114.39	26.409		
18,600.00	8,813.00	22,036.01	11,821.92	166.82	169.95	-179.43	9,935.29	-963.16	3,018.28	2,902.81	115.46	26.140		
18,700.00	8,813.00	22,135.97	11,819.21	168.44	171.54	-179.43	10,035.21	-964.26	3,015.57	2,899.03	116.54	25.877		
18,800.00	8,813.00	22,235.93	11,816.50	170.06	173.14	-179.43	10,135.13	-965.36	3,012.86	2,895.25	117.61	25.618		
18,904.52	8,813.00	22,258.86	11,815.88	171.75	173.51	-179.43	10,158.05	-965.61	3,011.13	2,892.99	118.14	25.487		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 302H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	2.20	2.20	0.00	0.00	63.82	76.78	156.20	174.05				
100.00	100.00	102.20	102.20	0.13	0.13	63.82	76.78	156.20	174.05	173.87	0.18	950.597	
200.00	200.00	202.20	202.20	0.48	0.49	63.82	76.78	156.20	174.05	173.36	0.69	252.251	
300.00	300.00	302.20	302.20	0.84	0.85	63.82	76.78	156.20	174.05	172.85	1.20	145.414	
400.00	400.00	402.20	402.20	1.20	1.21	63.82	76.78	156.20	174.05	172.35	1.70	102.149	
500.00	500.00	502.20	502.20	1.56	1.57	63.82	76.78	156.20	174.05	171.84	2.21	78.726	
600.00	600.00	602.20	602.20	1.92	1.93	63.82	76.78	156.20	174.05	171.33	2.72	64.041	
700.00	700.00	702.20	702.20	2.28	2.28	63.82	76.78	156.20	174.05	170.83	3.22	53.973	
800.00	800.00	802.20	802.20	2.63	2.64	63.82	76.78	156.20	174.05	170.32	3.73	46.641	
900.00	900.00	902.20	902.20	2.99	3.00	63.82	76.78	156.20	174.05	169.81	4.24	41.063	
1,000.00	1,000.00	1,002.20	1,002.20	3.35	3.36	63.82	76.78	156.20	174.05	169.30	4.75	36.676	
1,100.00	1,100.00	1,102.20	1,102.20	3.71	3.72	63.82	76.78	156.20	174.05	168.80	5.25	33.136	
1,200.00	1,200.00	1,202.20	1,202.20	4.07	4.08	63.82	76.78	156.20	174.05	168.29	5.76	30.220	
1,300.00	1,300.00	1,302.20	1,302.20	4.43	4.44	63.82	76.78	156.20	174.05	167.78	6.27	27.775	
1,315.92	1,315.92	1,318.12	1,318.12	4.48	4.49	63.82	76.78	156.20	174.05	167.70	6.35	27.422 CC	
1,400.00	1,400.00	1,402.16	1,402.16	4.79	4.79	63.82	76.78	156.20	174.05	167.28	6.77	25.697 ES	
1,500.00	1,500.00	1,500.00	1,499.99	5.14	5.13	64.06	76.37	156.97	174.58	167.31	7.27	24.030	
1,600.00	1,600.00	1,598.58	1,598.54	5.50	5.46	64.73	75.17	159.24	176.13	168.38	7.75	22.723	
1,700.00	1,700.00	1,696.65	1,696.51	5.86	5.79	65.82	73.19	162.98	178.75	170.51	8.24	21.700	
1,800.00	1,800.00	1,794.54	1,794.22	6.22	6.13	67.28	70.42	168.20	182.52	173.80	8.72	20.921	
1,900.00	1,900.00	1,892.20	1,891.59	6.58	6.47	69.07	66.89	174.87	187.53	178.31	9.21	20.359	
2,000.00	2,000.00	1,989.57	1,988.53	6.94	6.81	71.12	62.59	182.98	193.87	184.17	9.70	19.993	
2,060.00	2,060.00	2,049.00	2,047.64	7.15	7.03	72.43	59.69	188.46	198.22	188.23	9.99	19.833	
2,100.00	2,100.00	2,088.77	2,087.18	7.29	7.17	173.40	57.74	192.13	201.39	191.20	10.19	19.762	
2,200.00	2,199.97	2,187.99	2,185.87	7.63	7.53	175.44	52.89	201.29	211.31	200.64	10.68	19.794	
2,300.00	2,299.84	2,286.91	2,284.24	7.97	7.89	177.34	48.05	210.43	224.08	212.92	11.16	20.075	
2,400.00	2,399.55	2,385.45	2,382.24	8.32	8.25	179.04	43.22	219.53	239.66	228.01	11.65	20.573	
2,500.00	2,499.03	2,483.54	2,479.80	8.67	8.61	-179.47	38.43	228.59	258.00	245.86	12.14	21.259	
2,576.48	2,574.90	2,558.22	2,554.07	8.94	8.89	-178.46	34.77	235.48	273.86	261.35	12.51	21.894	
2,600.00	2,598.21	2,581.14	2,576.86	9.02	8.98	-178.18	33.65	237.60	278.98	266.36	12.62	22.101	
2,700.00	2,697.30	2,678.57	2,673.76	9.38	9.34	-177.09	28.88	246.60	300.82	287.71	13.11	22.949	
2,800.00	2,796.39	2,776.01	2,770.66	9.75	9.71	-176.14	24.12	255.59	322.76	309.16	13.60	23.739	
2,900.00	2,895.47	2,873.44	2,867.56	10.12	10.08	-175.32	19.35	264.59	344.76	330.68	14.09	24.477	
3,000.00	2,994.56	2,970.88	2,964.47	10.49	10.45	-174.59	14.58	273.59	366.83	352.26	14.58	25.166	
3,100.00	3,093.65	3,068.31	3,061.37	10.87	10.82	-173.94	9.81	282.59	388.95	373.88	15.07	25.811	
3,200.00	3,192.74	3,165.75	3,158.27	11.25	11.19	-173.37	5.05	291.58	411.11	395.55	15.56	26.415	
3,300.00	3,291.82	3,263.18	3,255.17	11.64	11.56	-172.85	0.28	300.58	433.30	417.24	16.06	26.982	
3,400.00	3,390.91	3,360.62	3,352.07	12.02	11.93	-172.39	-4.49	309.58	455.53	438.97	16.56	27.515	
3,500.00	3,490.00	3,458.05	3,448.98	12.41	12.31	-171.96	-9.26	318.58	477.78	460.73	17.05	28.016	
3,600.00	3,589.09	3,555.49	3,545.88	12.80	12.68	-171.58	-14.02	327.57	500.05	482.50	17.55	28.489	
3,700.00	3,688.17	3,652.93	3,642.78	13.19	13.06	-171.23	-18.79	336.57	522.35	504.29	18.05	28.935	
3,800.00	3,787.26	3,750.36	3,739.68	13.58	13.44	-170.90	-23.56	345.57	544.66	526.10	18.55	29.357	
3,900.00	3,886.35	3,847.80	3,836.58	13.98	13.81	-170.61	-28.33	354.57	566.98	547.93	19.05	29.756	
4,000.00	3,985.43	3,945.23	3,933.48	14.38	14.19	-170.33	-33.09	363.56	589.32	569.76	19.56	30.134	
4,100.00	4,084.52	4,042.67	4,030.39	14.77	14.57	-170.07	-37.86	372.56	611.67	591.61	20.06	30.492	
4,200.00	4,183.61	4,140.10	4,127.29	15.17	14.95	-169.84	-42.63	381.56	634.03	613.47	20.56	30.833	
4,300.00	4,282.70	4,237.54	4,224.19	15.57	15.32	-169.62	-47.40	390.55	656.41	635.34	21.07	31.156	
4,400.00	4,381.78	4,334.97	4,321.09	15.97	15.70	-169.41	-52.16	399.55	678.79	657.21	21.57	31.465	
4,500.00	4,480.87	4,432.41	4,417.99	16.37	16.08	-169.22	-56.93	408.55	701.17	679.10	22.08	31.758	
4,600.00	4,579.96	4,529.84	4,514.89	16.78	16.46	-169.03	-61.70	417.55	723.57	700.98	22.58	32.038	
4,700.00	4,679.05	4,627.28	4,611.80	17.18	16.84	-168.86	-66.47	426.54	745.97	722.88	23.09	32.306	
4,800.00	4,778.13	4,724.71	4,708.70	17.59	17.22	-168.70	-71.23	435.54	768.38	744.78	23.60	32.561	

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 302H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,900.00	4,877.22	4,822.15	4,805.60	17.99	17.60	-168.55	-76.00	444.54	790.79	766.69	24.11	32.806		
5,000.00	4,976.31	4,919.58	4,902.50	18.40	17.98	-168.41	-80.77	453.54	813.21	788.60	24.61	33.040		
5,100.00	5,075.39	5,017.02	4,999.40	18.80	18.36	-168.27	-85.54	462.53	835.63	810.51	25.12	33.264		
5,200.00	5,174.48	5,114.45	5,096.30	19.21	18.75	-168.14	-90.30	471.53	858.06	832.43	25.63	33.479		
5,300.00	5,273.57	5,211.89	5,193.21	19.62	19.13	-168.02	-95.07	480.53	880.49	854.35	26.14	33.685		
5,400.00	5,372.66	5,309.32	5,290.11	20.02	19.51	-167.91	-99.84	489.53	902.92	876.27	26.65	33.883		
5,500.00	5,471.74	5,406.76	5,387.01	20.43	19.89	-167.80	-104.61	498.52	925.36	898.20	27.16	34.074		
5,600.00	5,570.83	5,504.19	5,483.91	20.84	20.27	-167.69	-109.37	507.52	947.80	920.13	27.67	34.257		
5,700.00	5,669.92	5,601.63	5,580.81	21.25	20.66	-167.59	-114.14	516.52	970.24	942.07	28.18	34.433		
5,800.00	5,769.01	5,699.07	5,677.71	21.66	21.04	-167.50	-118.91	525.52	992.69	964.00	28.69	34.603		
5,900.00	5,868.09	5,796.50	5,774.62	22.07	21.42	-167.40	-123.68	534.51	1,015.14	985.94	29.20	34.767		
6,000.00	5,967.18	5,893.94	5,871.52	22.48	21.80	-167.32	-128.44	543.51	1,037.59	1,007.88	29.71	34.924		
6,100.00	6,066.27	5,991.37	5,968.42	22.89	22.19	-167.23	-133.21	552.51	1,060.04	1,029.82	30.22	35.076		
6,200.00	6,165.35	6,088.81	6,065.32	23.30	22.57	-167.15	-137.98	561.51	1,082.50	1,051.77	30.73	35.223		
6,300.00	6,264.44	6,186.24	6,162.22	23.71	22.95	-167.08	-142.75	570.50	1,104.96	1,073.71	31.24	35.365		
6,400.00	6,363.53	6,283.68	6,259.12	24.13	23.33	-167.00	-147.51	579.50	1,127.41	1,095.66	31.76	35.503		
6,500.00	6,462.62	6,381.11	6,356.03	24.54	23.72	-166.93	-152.28	588.50	1,149.88	1,117.61	32.27	35.635		
6,600.00	6,561.70	6,478.55	6,452.93	24.95	24.10	-166.86	-157.05	597.50	1,172.34	1,139.56	32.78	35.763		
6,700.00	6,660.79	6,575.98	6,549.83	25.36	24.48	-166.80	-161.81	606.49	1,194.80	1,161.51	33.29	35.888		
6,800.00	6,759.88	6,673.42	6,646.73	25.78	24.87	-166.73	-166.58	615.49	1,217.27	1,183.46	33.81	36.008		
6,900.00	6,858.97	6,770.85	6,743.63	26.19	25.25	-166.67	-171.35	624.49	1,239.73	1,205.41	34.32	36.124		
7,000.00	6,958.05	6,868.29	6,840.53	26.60	25.63	-166.61	-176.12	633.49	1,262.20	1,227.37	34.83	36.237		
7,100.00	7,057.14	6,965.72	6,937.44	27.01	26.02	-166.56	-180.88	642.48	1,284.67	1,249.33	35.34	36.347		
7,123.17	7,080.10	6,988.30	6,959.89	27.11	26.11	-166.54	-181.99	644.57	1,289.88	1,254.41	35.46	36.372		
7,200.00	7,156.33	7,074.68	7,045.83	27.42	26.45	-166.55	-186.09	652.31	1,306.22	1,270.31	35.91	36.372		
7,300.00	7,255.80	7,199.07	7,169.77	27.82	26.92	-166.55	-191.00	661.56	1,323.71	1,287.17	36.54	36.226		
7,400.00	7,355.51	7,324.74	7,295.19	28.19	27.39	-166.55	-194.67	668.49	1,336.72	1,299.57	37.15	35.977		
7,500.00	7,455.39	7,451.30	7,421.65	28.55	27.84	-166.55	-197.06	673.01	1,345.22	1,307.46	37.75	35.631		
7,600.00	7,555.36	7,578.40	7,548.72	28.89	28.28	-166.55	-198.15	675.07	1,349.16	1,310.83	38.34	35.193		
7,639.64	7,595.00	7,626.88	7,597.20	29.02	28.44	93.32	-198.22	675.20	1,349.47	1,310.92	38.55	35.003		
7,700.00	7,655.36	7,687.23	7,657.56	29.22	28.64	93.32	-198.22	675.20	1,349.47	1,310.63	38.84	34.746		
7,800.00	7,755.36	7,787.23	7,757.56	29.54	28.96	93.32	-198.22	675.20	1,349.47	1,310.16	39.31	34.327		
7,900.00	7,855.36	7,887.23	7,857.56	29.86	29.28	93.32	-198.22	675.20	1,349.47	1,309.68	39.79	33.917		
8,000.00	7,955.36	7,987.23	7,957.56	30.19	29.60	93.32	-198.22	675.20	1,349.47	1,309.21	40.26	33.517		
8,100.00	8,055.36	8,087.23	8,057.56	30.51	29.93	93.32	-198.22	675.20	1,349.47	1,308.73	40.74	33.125		
8,200.00	8,155.36	8,187.23	8,157.56	30.84	30.25	93.32	-198.22	675.20	1,349.47	1,308.25	41.22	32.742		
8,284.68	8,240.04	8,271.92	8,242.24	31.11	30.53	93.32	-198.22	675.20	1,349.47	1,307.85	41.62	32.424		
8,300.00	8,255.35	8,287.23	8,257.55	31.16	30.58	104.33	-198.22	675.20	1,349.52	1,307.83	41.69	32.368		
8,350.00	8,305.21	8,337.09	8,307.41	31.33	30.74	104.39	-198.22	675.20	1,350.39	1,308.46	41.93	32.206		
8,400.00	8,354.58	8,386.46	8,356.78	31.49	30.90	104.51	-198.22	675.20	1,352.38	1,310.22	42.16	32.076		
8,450.00	8,403.07	8,434.95	8,405.27	31.65	31.06	104.69	-198.22	675.20	1,355.52	1,313.14	42.39	31.980		
8,500.00	8,450.32	8,482.20	8,452.52	31.80	31.22	104.89	-198.22	675.20	1,359.91	1,317.31	42.60	31.920		
8,550.00	8,495.98	8,527.85	8,498.18	31.95	31.37	105.09	-198.22	675.20	1,365.65	1,322.84	42.81	31.899		
8,600.00	8,539.68	8,571.56	8,541.88	32.09	31.51	105.26	-198.22	675.20	1,372.85	1,329.83	43.01	31.918		
8,650.00	8,581.10	8,612.98	8,583.30	32.22	31.64	105.34	-198.22	675.20	1,381.63	1,338.43	43.20	31.982		
8,700.00	8,619.93	8,651.81	8,622.13	32.35	31.77	105.30	-198.22	675.20	1,392.12	1,348.74	43.38	32.093		
8,750.00	8,655.87	8,687.74	8,658.07	32.48	31.89	105.09	-198.22	675.20	1,404.42	1,360.88	43.54	32.253		
8,800.00	8,688.64	8,720.52	8,690.84	32.60	32.00	104.67	-198.22	675.20	1,418.63	1,374.94	43.70	32.465		
8,850.00	8,718.00	8,749.87	8,720.20	32.72	32.09	103.99	-198.22	675.20	1,434.81	1,390.98	43.84	32.730		
8,900.00	8,743.72	8,775.59	8,745.92	32.84	32.18	103.01	-198.22	675.20	1,452.99	1,409.02	43.96	33.049		
8,950.00	8,765.60	8,797.48	8,767.80	32.98	32.25	101.68	-198.22	675.20	1,473.14	1,429.06	44.08	33.422		
9,000.00	8,783.49	8,815.37	8,785.69	33.12	32.31	99.97	-198.22	675.20	1,495.22	1,451.04	44.17	33.848		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 302H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,050.00	8,797.24	8,829.12	8,799.44	33.29	32.36	97.84	-198.22	675.20	1,519.11	1,474.85	44.26	34.325		
9,100.00	8,806.75	8,838.63	8,808.95	33.48	32.39	95.29	-198.22	675.20	1,544.67	1,500.34	44.32	34.851		
9,150.00	8,811.95	8,843.83	8,814.15	33.68	32.40	92.31	-198.22	675.20	1,571.70	1,527.33	44.37	35.422		
9,184.68	8,813.00	8,844.88	8,815.20	33.83	32.41	90.00	-198.22	675.20	1,591.19	1,546.80	44.39	35.842		
9,200.00	8,813.00	8,844.88	8,815.20	33.91	32.41	90.00	-198.22	675.20	1,599.94	1,555.54	44.40	36.032		
9,300.00	8,813.00	8,844.88	8,815.20	34.41	32.41	90.00	-198.22	675.20	1,657.77	1,613.30	44.47	37.279		
9,400.00	8,813.00	8,844.88	8,815.20	34.98	32.41	90.00	-198.22	675.20	1,716.75	1,672.20	44.54	38.540		
9,500.00	8,813.00	8,844.88	8,815.20	35.60	32.41	90.00	-198.22	675.20	1,776.68	1,732.05	44.63	39.812		
9,600.00	8,813.00	8,844.88	8,815.20	36.27	32.41	90.00	-198.22	675.20	1,837.41	1,792.70	44.71	41.093		
9,702.98	8,813.00	8,844.88	8,815.20	37.00	32.41	90.00	-198.22	675.20	1,900.63	1,855.82	44.81	42.419		
9,800.00	8,813.00	8,844.88	8,815.20	37.74	32.41	90.00	-198.22	675.20	1,961.95	1,917.06	44.90	43.700		
9,900.00	8,813.00	11,330.41	10,129.66	38.55	41.09	131.30	1,200.18	659.81	1,991.80	1,946.19	45.61	43.674		
10,000.00	8,813.00	11,430.39	10,127.43	39.42	41.91	131.25	1,300.13	658.71	1,990.33	1,943.72	46.61	42.698		
10,100.00	8,813.00	11,530.36	10,125.20	40.34	42.78	131.20	1,400.07	657.61	1,988.86	1,941.19	47.68	41.715		
10,200.00	8,813.00	11,630.34	10,122.96	41.30	43.70	131.16	1,500.02	656.51	1,987.40	1,938.60	48.79	40.731		
10,300.00	8,813.00	11,730.31	10,120.73	42.31	44.65	131.11	1,599.96	655.41	1,985.93	1,935.98	49.96	39.752		
10,400.00	8,813.00	11,830.29	10,118.50	43.35	45.65	131.06	1,699.90	654.31	1,984.47	1,933.30	51.17	38.783		
10,500.00	8,813.00	11,930.26	10,116.27	44.44	46.68	131.01	1,799.85	653.22	1,983.01	1,930.59	52.42	37.828		
10,600.00	8,813.00	12,030.24	10,114.03	45.55	47.75	130.96	1,899.79	652.12	1,981.55	1,927.83	53.72	36.890		
10,700.00	8,813.00	12,130.21	10,111.80	46.70	48.85	130.91	1,999.74	651.02	1,980.09	1,925.05	55.04	35.973		
10,800.00	8,813.00	12,230.19	10,109.57	47.88	49.98	130.86	2,099.68	649.92	1,978.63	1,922.23	56.41	35.077		
10,900.00	8,813.00	12,330.16	10,107.34	49.09	51.14	130.81	2,199.62	648.82	1,977.18	1,919.37	57.80	34.205		
11,000.00	8,813.00	12,430.14	10,105.10	50.32	52.32	130.76	2,299.57	647.72	1,975.72	1,916.49	59.23	33.356		
11,100.00	8,813.00	12,530.11	10,102.87	51.57	53.53	130.71	2,399.51	646.62	1,974.27	1,913.59	60.69	32.533		
11,200.00	8,813.00	12,630.09	10,100.64	52.85	54.76	130.67	2,499.46	645.52	1,972.82	1,910.65	62.17	31.735		
11,300.00	8,813.00	12,730.06	10,098.41	54.15	56.02	130.62	2,599.40	644.42	1,971.37	1,907.70	63.67	30.962		
11,400.00	8,813.00	12,830.04	10,096.17	55.46	57.29	130.57	2,699.34	643.32	1,969.92	1,904.72	65.20	30.214		
11,500.00	8,813.00	12,930.01	10,093.94	56.80	58.58	130.52	2,799.29	642.22	1,968.48	1,901.73	66.75	29.490		
11,600.00	8,813.00	13,029.99	10,091.71	58.15	59.89	130.47	2,899.23	641.12	1,967.03	1,898.71	68.32	28.791		
11,700.00	8,813.00	13,129.96	10,089.48	59.51	61.22	130.42	2,999.18	640.02	1,965.59	1,895.68	69.91	28.117		
11,800.00	8,813.00	13,229.94	10,087.24	60.89	62.56	130.37	3,099.12	638.92	1,964.14	1,892.63	71.52	27.465		
11,900.00	8,813.00	13,329.91	10,085.01	62.29	63.92	130.32	3,199.07	637.82	1,962.70	1,889.56	73.14	26.835		
12,000.00	8,813.00	13,429.89	10,082.78	63.69	65.29	130.27	3,299.01	636.72	1,961.26	1,886.49	74.78	26.228		
12,100.00	8,813.00	13,529.86	10,080.55	65.11	66.67	130.22	3,398.95	635.62	1,959.83	1,883.39	76.43	25.641		
12,200.00	8,813.00	13,629.84	10,078.31	66.54	68.06	130.17	3,498.90	634.52	1,958.39	1,880.29	78.10	25.076		
12,300.00	8,813.00	13,729.81	10,076.08	67.97	69.47	130.12	3,598.84	633.42	1,956.95	1,877.17	79.78	24.529		
12,400.00	8,813.00	13,829.79	10,073.85	69.42	70.89	130.07	3,698.79	632.32	1,955.52	1,874.05	81.48	24.001		
12,500.00	8,813.00	13,929.76	10,071.62	70.88	72.31	130.02	3,798.73	631.22	1,954.09	1,870.91	83.18	23.492		
12,600.00	8,813.00	14,029.74	10,069.38	72.34	73.75	129.97	3,898.67	630.12	1,952.66	1,867.76	84.90	23.001		
12,700.00	8,813.00	14,129.71	10,067.15	73.82	75.20	129.92	3,998.62	629.02	1,951.23	1,864.61	86.62	22.525		
12,800.00	8,813.00	14,229.69	10,064.92	75.30	76.65	129.87	4,098.56	627.92	1,949.80	1,861.44	88.36	22.066		
12,900.00	8,813.00	14,329.66	10,062.69	76.78	78.11	129.82	4,198.51	626.82	1,948.38	1,858.27	90.11	21.623		
13,000.00	8,813.00	14,429.64	10,060.45	78.28	79.58	129.77	4,298.45	625.72	1,946.95	1,855.09	91.86	21.194		
13,100.00	8,813.00	14,529.61	10,058.22	79.78	81.06	129.72	4,398.39	624.62	1,945.53	1,851.90	93.63	20.780		
13,200.00	8,813.00	14,629.59	10,055.99	81.28	82.54	129.66	4,498.34	623.52	1,944.11	1,848.71	95.40	20.378		
13,300.00	8,813.00	14,729.56	10,053.76	82.80	84.03	129.61	4,598.28	622.42	1,942.69	1,845.50	97.18	19.990		
13,400.00	8,813.00	14,829.54	10,051.52	84.31	85.52	129.56	4,698.23	621.32	1,941.27	1,842.30	98.97	19.615		
13,500.00	8,813.00	14,929.51	10,049.29	85.84	87.02	129.51	4,798.17	620.22	1,939.85	1,839.09	100.77	19.251		
13,600.00	8,813.00	15,029.49	10,047.06	87.36	88.53	129.46	4,898.11	619.12	1,938.44	1,835.87	102.57	18.899		
13,700.00	8,813.00	15,129.46	10,044.83	88.89	90.04	129.41	4,998.06	618.02	1,937.02	1,832.64	104.38	18.558		
13,800.00	8,813.00	15,229.44	10,042.59	90.43	91.56	129.36	5,098.00	616.93	1,935.61	1,829.42	106.19	18.227		
13,900.00	8,813.00	15,329.41	10,040.36	91.97	93.08	129.31	5,197.95	615.83	1,934.20	1,826.18	108.02	17.907		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 302H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	8,813.00	15,429.39	10,038.13	93.51	94.60	129.26	5,297.89	614.73	1,932.79	1,822.95	109.84	17.596		
14,100.00	8,813.00	15,529.36	10,035.90	95.06	96.13	129.20	5,397.83	613.63	1,931.38	1,819.70	111.68	17.294		
14,200.00	8,813.00	15,629.34	10,033.66	96.61	97.67	129.15	5,497.78	612.53	1,929.98	1,816.46	113.52	17.002		
14,300.00	8,813.00	15,729.32	10,031.43	98.17	99.20	129.10	5,597.72	611.43	1,928.57	1,813.21	115.36	16.718		
14,400.00	8,813.00	15,829.29	10,029.20	99.72	100.75	129.05	5,697.67	610.33	1,927.17	1,809.96	117.21	16.442		
14,500.00	8,813.00	15,929.27	10,026.97	101.29	102.29	129.00	5,797.61	609.23	1,925.77	1,806.70	119.07	16.174		
14,600.00	8,813.00	16,029.24	10,024.73	102.85	103.84	128.95	5,897.56	608.13	1,924.37	1,803.44	120.93	15.914		
14,700.00	8,813.00	16,129.22	10,022.50	104.41	105.39	128.89	5,997.50	607.03	1,922.97	1,800.18	122.79	15.661		
14,800.00	8,813.00	16,229.19	10,020.27	105.98	106.94	128.84	6,097.44	605.93	1,921.58	1,796.92	124.66	15.415		
14,900.00	8,813.00	16,329.17	10,018.03	107.56	108.50	128.79	6,197.39	604.83	1,920.18	1,793.65	126.53	15.175		
15,000.00	8,813.00	16,429.14	10,015.80	109.13	110.06	128.74	6,297.33	603.73	1,918.79	1,790.38	128.41	14.943		
15,100.00	8,813.00	16,529.12	10,013.57	110.71	111.62	128.69	6,397.28	602.63	1,917.40	1,787.11	130.29	14.716		
15,200.00	8,813.00	16,629.09	10,011.34	112.28	113.19	128.63	6,497.22	601.53	1,916.01	1,783.83	132.18	14.496		
15,300.00	8,813.00	16,729.07	10,009.10	113.86	114.76	128.58	6,597.16	600.43	1,914.62	1,780.55	134.07	14.281		
15,400.00	8,813.00	16,829.04	10,006.87	115.45	116.33	128.53	6,697.11	599.33	1,913.23	1,777.27	135.96	14.072		
15,500.00	8,813.00	16,929.02	10,004.64	117.03	117.90	128.48	6,797.05	598.23	1,911.84	1,773.99	137.86	13.868		
15,600.00	8,813.00	17,028.99	10,002.41	118.62	119.47	128.42	6,897.00	597.13	1,910.46	1,770.70	139.76	13.670		
15,700.00	8,813.00	17,128.97	10,000.17	120.21	121.05	128.37	6,996.94	596.03	1,909.08	1,767.42	141.66	13.476		
15,800.00	8,813.00	17,228.94	9,997.94	121.80	122.63	128.32	7,096.88	594.93	1,907.70	1,764.13	143.57	13.288		
15,900.00	8,813.00	17,328.92	9,995.71	123.39	124.21	128.27	7,196.83	593.83	1,906.32	1,760.84	145.48	13.104		
16,000.00	8,813.00	17,428.89	9,993.48	124.98	125.79	128.21	7,296.77	592.73	1,904.94	1,757.55	147.40	12.924		
16,100.00	8,813.00	17,528.87	9,991.24	126.58	127.38	128.16	7,396.72	591.63	1,903.57	1,754.25	149.31	12.749		
16,200.00	8,813.00	17,628.84	9,989.01	128.17	128.96	128.11	7,496.66	590.53	1,902.19	1,750.96	151.23	12.578		
16,300.00	8,813.00	17,728.82	9,986.78	129.77	130.55	128.05	7,596.60	589.43	1,900.82	1,747.66	153.16	12.411		
16,400.00	8,813.00	17,828.79	9,984.55	131.37	132.14	128.00	7,696.55	588.33	1,899.45	1,744.36	155.08	12.248		
16,500.00	8,813.00	17,928.77	9,982.31	132.97	133.73	127.95	7,796.49	587.23	1,898.08	1,741.07	157.01	12.089		
16,600.00	8,813.00	18,028.74	9,980.08	134.57	135.32	127.89	7,896.44	586.13	1,896.71	1,737.76	158.95	11.933		
16,700.00	8,813.00	18,128.72	9,977.85	136.17	136.91	127.84	7,996.38	585.03	1,895.35	1,734.46	160.89	11.781		
16,800.00	8,813.00	18,228.69	9,975.62	137.78	138.51	127.79	8,096.33	583.93	1,893.98	1,731.16	162.82	11.632		
16,900.00	8,813.00	18,328.67	9,973.38	139.38	140.11	127.73	8,196.27	582.83	1,892.62	1,727.86	164.76	11.487		
17,000.00	8,813.00	18,428.64	9,971.15	140.99	141.70	127.68	8,296.21	581.73	1,891.26	1,724.55	166.71	11.345		
17,100.00	8,813.00	18,528.62	9,968.92	142.60	143.30	127.63	8,396.16	580.64	1,889.90	1,721.24	168.66	11.206		
17,200.00	8,813.00	18,628.59	9,966.69	144.20	144.90	127.57	8,496.10	579.54	1,888.54	1,717.93	170.61	11.070		
17,300.00	8,813.00	18,728.57	9,964.45	145.81	146.50	127.52	8,596.05	578.44	1,887.19	1,714.63	172.56	10.936		
17,400.00	8,813.00	18,828.54	9,962.22	147.42	148.11	127.47	8,695.99	577.34	1,885.83	1,711.32	174.51	10.806		
17,500.00	8,813.00	18,928.52	9,959.99	149.04	149.71	127.41	8,795.93	576.24	1,884.48	1,708.01	176.47	10.679		
17,600.00	8,813.00	19,028.49	9,957.76	150.65	151.32	127.36	8,895.88	575.14	1,883.13	1,704.70	178.43	10.554		
17,700.00	8,813.00	19,128.47	9,955.52	152.26	152.92	127.30	8,995.82	574.04	1,881.78	1,701.38	180.39	10.431		
17,800.00	8,813.00	19,228.44	9,953.29	153.88	154.53	127.25	9,095.77	572.94	1,880.43	1,698.07	182.36	10.312		
17,900.00	8,813.00	19,328.42	9,951.06	155.49	156.14	127.19	9,195.71	571.84	1,879.08	1,694.76	184.33	10.194		
18,000.00	8,813.00	19,428.39	9,948.83	157.11	157.74	127.14	9,295.65	570.74	1,877.74	1,691.44	186.30	10.079		
18,100.00	8,813.00	19,528.37	9,946.59	158.72	159.35	127.09	9,395.60	569.64	1,876.40	1,688.13	188.27	9.966		
18,200.00	8,813.00	19,628.34	9,944.36	160.34	160.96	127.03	9,495.54	568.54	1,875.06	1,684.81	190.25	9.856		
18,300.00	8,813.00	19,728.32	9,942.13	161.96	162.58	126.98	9,595.49	567.44	1,873.72	1,681.49	192.22	9.748		
18,400.00	8,813.00	19,828.29	9,939.90	163.58	164.19	126.92	9,695.43	566.34	1,872.38	1,678.18	194.20	9.641		
18,500.00	8,813.00	19,928.27	9,937.66	165.20	165.80	126.87	9,795.37	565.24	1,871.05	1,674.86	196.19	9.537		
18,600.00	8,813.00	20,028.24	9,935.43	166.82	167.42	126.81	9,895.32	564.14	1,869.71	1,671.54	198.17	9.435		
18,700.00	8,813.00	20,128.22	9,933.20	168.44	169.03	126.76	9,995.26	563.04	1,868.38	1,668.22	200.16	9.335		
18,800.00	8,813.00	20,228.19	9,930.97	170.06	170.65	126.70	10,095.21	561.94	1,867.05	1,664.90	202.15	9.236		
18,902.09	8,813.00	20,305.48	9,929.24	171.71	171.89	126.66	10,172.47	561.09	1,865.86	1,661.99	203.86	9.153		
18,904.52	8,813.00	20,305.48	9,929.24	171.75	171.89	126.66	10,172.47	561.09	1,865.86	1,661.98	203.88	9.152 SF		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 602H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	48.60	76.02	86.24	115.20					
100.00	100.00	92.60	92.60	0.13	0.13	48.60	76.02	86.24	114.96	114.78	0.18	633.486		
200.00	200.00	192.60	192.60	0.48	0.47	48.60	76.02	86.24	114.96	114.29	0.68	169.792		
300.00	300.00	292.60	292.60	0.84	0.83	48.60	76.02	86.24	114.96	113.78	1.18	97.095		
400.00	400.00	392.60	392.60	1.20	1.19	48.60	76.02	86.24	114.96	113.27	1.69	67.986		
500.00	500.00	492.60	492.60	1.56	1.55	48.60	76.02	86.24	114.96	112.76	2.20	52.305		
600.00	600.00	592.60	592.60	1.92	1.91	48.60	76.02	86.24	114.96	112.26	2.70	42.502		
700.00	700.00	692.60	692.60	2.28	2.27	48.60	76.02	86.24	114.96	111.75	3.21	35.794		
800.00	800.00	792.60	792.60	2.63	2.62	48.60	76.02	86.24	114.96	111.24	3.72	30.914		
900.00	900.00	892.60	892.60	2.99	2.98	48.60	76.02	86.24	114.96	110.74	4.23	27.205		
1,000.00	1,000.00	992.60	992.60	3.35	3.34	48.60	76.02	86.24	114.96	110.23	4.73	24.291		
1,100.00	1,100.00	1,092.60	1,092.60	3.71	3.70	48.60	76.02	86.24	114.96	109.72	5.24	21.941		
1,200.00	1,200.00	1,192.60	1,192.60	4.07	4.06	48.60	76.02	86.24	114.96	109.22	5.75	20.005		
1,300.00	1,300.00	1,292.60	1,292.60	4.43	4.42	48.60	76.02	86.24	114.96	108.71	6.25	18.384		
1,400.00	1,400.00	1,392.60	1,392.60	4.79	4.78	48.60	76.02	86.24	114.96	108.20	6.76	17.005		
1,500.00	1,500.00	1,492.60	1,492.60	5.14	5.13	48.60	76.02	86.24	114.96	107.70	7.27	15.819		
1,600.00	1,600.00	1,592.60	1,592.60	5.50	5.49	48.60	76.02	86.24	114.96	107.19	7.77	14.787		
1,700.00	1,700.00	1,692.60	1,692.60	5.86	5.85	48.60	76.02	86.24	114.96	106.68	8.28	13.882		
1,800.00	1,800.00	1,792.60	1,792.60	6.22	6.21	48.60	76.02	86.24	114.96	106.17	8.79	13.081		
1,900.00	1,900.00	1,892.60	1,892.60	6.58	6.57	48.60	76.02	86.24	114.96	105.67	9.30	12.368		
2,000.00	2,000.00	1,992.60	1,992.60	6.94	6.93	48.60	76.02	86.24	114.96	105.16	9.80	11.728		
2,060.00	2,060.00	2,052.60	2,052.60	7.15	7.14	48.60	76.02	86.24	114.96	104.86	10.11	11.375 CC		
2,100.00	2,100.00	2,092.60	2,092.60	7.29	7.28	148.78	76.02	86.24	115.14	104.84	10.31	11.172 ES		
2,200.00	2,199.97	2,192.57	2,192.57	7.63	7.64	149.36	76.02	86.24	117.16	106.36	10.80	10.850		
2,300.00	2,299.84	2,292.44	2,292.44	7.97	8.00	150.53	76.02	86.24	121.47	110.18	11.29	10.756 SF		
2,400.00	2,399.55	2,392.15	2,392.15	8.32	8.36	152.15	76.02	86.24	128.13	116.34	11.79	10.870		
2,500.00	2,499.03	2,491.63	2,491.63	8.67	8.71	154.07	76.02	86.24	137.23	124.95	12.28	11.173		
2,576.48	2,574.90	2,567.50	2,567.50	8.94	8.99	155.66	76.02	86.24	145.89	133.23	12.66	11.522		
2,600.00	2,598.21	2,590.81	2,590.81	9.02	9.07	156.16	76.02	86.24	148.79	136.01	12.78	11.644		
2,700.00	2,697.30	2,689.90	2,689.90	9.38	9.43	158.09	76.02	86.24	161.23	147.95	13.27	12.147		
2,800.00	2,796.39	2,788.99	2,788.99	9.75	9.78	159.75	76.02	86.24	173.82	160.05	13.77	12.624		
2,900.00	2,895.47	2,888.07	2,888.07	10.12	10.14	161.18	76.02	86.24	186.54	172.27	14.27	13.076		
3,000.00	2,994.56	2,987.16	2,987.16	10.49	10.49	162.43	76.02	86.24	199.36	184.59	14.76	13.504		
3,100.00	3,093.65	3,086.25	3,086.25	10.87	10.85	163.53	76.02	86.24	212.26	197.00	15.26	13.908		
3,200.00	3,192.74	3,185.34	3,185.34	11.25	11.20	164.50	76.02	86.24	225.23	209.47	15.76	14.290		
3,300.00	3,291.82	3,284.42	3,284.42	11.64	11.56	165.37	76.02	86.24	238.25	221.99	16.26	14.652		
3,400.00	3,390.91	3,383.51	3,383.51	12.02	11.91	166.14	76.02	86.24	251.32	234.56	16.76	14.994		
3,500.00	3,490.00	3,478.51	3,478.50	12.41	12.24	166.93	75.77	87.01	265.08	247.84	17.24	15.377		
3,600.00	3,589.09	3,572.08	3,572.02	12.80	12.56	167.94	74.81	89.92	280.70	263.01	17.70	15.861		
3,700.00	3,688.17	3,664.91	3,664.69	13.19	12.87	169.12	73.16	94.96	298.28	280.13	18.15	16.438		
3,800.00	3,787.26	3,756.88	3,756.36	13.58	13.19	170.42	70.83	102.07	317.85	299.27	18.58	17.103		
3,900.00	3,886.35	3,847.90	3,846.87	13.98	13.50	171.79	67.84	111.16	339.47	320.46	19.01	17.855		
4,000.00	3,985.43	3,938.25	3,936.47	14.38	13.81	173.19	64.22	122.21	363.16	343.73	19.43	18.688		
4,100.00	4,084.52	4,034.72	4,032.00	14.77	14.15	174.60	60.03	134.97	387.91	368.01	19.91	19.485		
4,200.00	4,183.61	4,131.19	4,127.53	15.17	14.50	175.84	55.84	147.72	412.86	392.48	20.39	20.252		
4,300.00	4,282.70	4,227.66	4,223.07	15.57	14.84	176.94	51.66	160.48	437.97	417.11	20.87	20.989		
4,400.00	4,381.78	4,324.13	4,318.60	15.97	15.19	177.92	47.47	173.24	463.22	441.87	21.35	21.697		
4,500.00	4,480.87	4,420.60	4,414.13	16.37	15.54	178.80	43.29	185.99	488.58	466.75	21.83	22.378		
4,600.00	4,579.96	4,517.08	4,509.66	16.78	15.90	179.59	39.10	198.75	514.04	491.72	22.32	23.031		
4,700.00	4,679.05	4,613.55	4,605.20	17.18	16.26	-179.69	34.91	211.50	539.58	516.77	22.81	23.659		
4,800.00	4,778.13	4,710.02	4,700.73	17.59	16.62	-179.04	30.73	224.26	565.20	541.90	23.30	24.262		
4,900.00	4,877.22	4,806.49	4,796.26	17.99	16.98	-178.44	26.54	237.02	590.87	567.09	23.79	24.842		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 602H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,976.31	4,902.96	4,891.79	18.40	17.34	-177.89	22.35	249.77	616.61	592.33	24.28	25.399		
5,100.00	5,075.39	4,999.43	4,987.33	18.80	17.71	-177.39	18.17	262.53	642.39	617.62	24.77	25.935		
5,200.00	5,174.48	5,095.90	5,082.86	19.21	18.08	-176.92	13.98	275.29	668.21	642.95	25.26	26.451		
5,300.00	5,273.57	5,192.37	5,178.39	19.62	18.44	-176.49	9.80	288.04	694.07	668.32	25.76	26.947		
5,400.00	5,372.66	5,288.84	5,273.92	20.02	18.82	-176.10	5.61	300.80	719.97	693.72	26.25	27.425		
5,500.00	5,471.74	5,385.32	5,369.46	20.43	19.19	-175.72	1.42	313.55	745.89	719.15	26.75	27.886		
5,600.00	5,570.83	5,481.79	5,464.99	20.84	19.56	-175.38	-2.76	326.31	771.85	744.60	27.24	28.330		
5,700.00	5,669.92	5,578.26	5,560.52	21.25	19.94	-175.05	-6.95	339.07	797.83	770.08	27.74	28.758		
5,800.00	5,769.01	5,674.73	5,656.05	21.66	20.31	-174.75	-11.13	351.82	823.83	795.59	28.24	29.172		
5,900.00	5,868.09	5,771.20	5,751.59	22.07	20.69	-174.46	-15.32	364.58	849.85	821.11	28.74	29.571		
6,000.00	5,967.18	5,867.67	5,847.12	22.48	21.07	-174.19	-19.51	377.34	875.89	846.65	29.24	29.956		
6,100.00	6,066.27	5,964.14	5,942.65	22.89	21.45	-173.94	-23.69	390.09	901.95	872.21	29.74	30.328		
6,200.00	6,165.35	6,060.61	6,038.18	23.30	21.83	-173.70	-27.88	402.85	928.02	897.78	30.24	30.688		
6,300.00	6,264.44	6,157.09	6,133.71	23.71	22.21	-173.48	-32.06	415.60	954.10	923.36	30.74	31.036		
6,400.00	6,363.53	6,253.56	6,229.25	24.13	22.60	-173.26	-36.25	428.36	980.20	948.96	31.24	31.373		
6,500.00	6,462.62	6,350.03	6,324.78	24.54	22.98	-173.06	-40.44	441.12	1,006.32	974.57	31.75	31.699		
6,600.00	6,561.70	6,446.50	6,420.31	24.95	23.37	-172.87	-44.62	453.87	1,032.44	1,000.19	32.25	32.014		
6,700.00	6,660.79	6,542.97	6,515.84	25.36	23.75	-172.69	-48.81	466.63	1,058.57	1,025.82	32.75	32.320		
6,800.00	6,759.88	6,639.44	6,611.38	25.78	24.14	-172.51	-53.00	479.39	1,084.71	1,051.46	33.26	32.617		
6,900.00	6,858.97	6,735.91	6,706.91	26.19	24.52	-172.35	-57.18	492.14	1,110.86	1,077.10	33.76	32.904		
7,000.00	6,958.05	6,832.38	6,802.44	26.60	24.91	-172.19	-61.37	504.90	1,137.02	1,102.76	34.27	33.183		
7,100.00	7,057.14	6,928.85	6,897.97	27.01	25.30	-172.04	-65.55	517.65	1,163.19	1,128.42	34.77	33.453		
7,123.17	7,080.10	6,951.20	6,920.11	27.11	25.39	-172.00	-66.52	520.61	1,169.26	1,134.37	34.89	33.515		
7,200.00	7,156.33	7,025.52	6,993.70	27.42	25.69	-171.93	-69.75	530.44	1,188.63	1,153.35	35.28	33.695		
7,300.00	7,255.80	7,122.78	7,090.01	27.82	26.08	-171.82	-73.97	543.30	1,211.62	1,175.84	35.78	33.862		
7,400.00	7,355.51	7,220.59	7,186.87	28.19	26.48	-171.69	-78.21	556.23	1,232.10	1,195.81	36.29	33.954		
7,500.00	7,455.39	7,318.88	7,284.21	28.55	26.87	-171.54	-82.48	569.23	1,250.05	1,213.25	36.79	33.976		
7,600.00	7,555.36	7,417.59	7,381.96	28.89	27.28	-171.38	-86.76	582.28	1,265.45	1,228.16	37.30	33.930		
7,639.64	7,595.00	7,456.83	7,420.81	29.02	27.43	88.57	-88.46	587.47	1,270.86	1,233.36	37.49	33.895		
7,700.00	7,655.36	7,516.59	7,479.99	29.22	27.68	88.69	-91.06	595.37	1,278.78	1,240.99	37.79	33.836		
7,800.00	7,755.36	7,615.62	7,578.06	29.54	28.08	88.90	-95.35	608.47	1,291.92	1,253.63	38.29	33.740		
7,900.00	7,855.36	7,714.65	7,676.12	29.86	28.48	89.10	-99.65	621.56	1,305.08	1,266.29	38.79	33.647		
8,000.00	7,955.36	7,813.68	7,774.18	30.19	28.89	89.30	-103.95	634.65	1,318.26	1,278.97	39.28	33.556		
8,100.00	8,055.36	7,912.70	7,872.25	30.51	29.29	89.49	-108.25	647.75	1,331.44	1,291.66	39.78	33.468		
8,200.00	8,155.36	8,011.73	7,970.31	30.84	29.69	89.68	-112.54	660.84	1,344.65	1,304.37	40.28	33.382		
8,284.68	8,240.04	8,095.59	8,053.35	31.11	30.04	89.84	-116.18	671.93	1,355.84	1,315.14	40.70	33.310		
8,300.00	8,255.35	8,110.74	8,068.36	31.16	30.10	100.67	-116.84	673.93	1,357.91	1,317.13	40.78	33.298		
8,350.00	8,305.21	8,159.88	8,117.02	31.33	30.30	100.18	-118.97	680.43	1,365.17	1,324.14	41.03	33.276		
8,400.00	8,354.58	8,208.23	8,164.90	31.49	30.50	99.78	-121.07	686.82	1,373.24	1,331.97	41.27	33.278		
8,450.00	8,403.07	8,255.43	8,211.64	31.65	30.69	99.45	-123.12	693.07	1,382.15	1,340.65	41.50	33.306		
8,500.00	8,450.32	8,301.11	8,256.88	31.80	30.88	99.16	-125.10	699.11	1,391.94	1,350.22	41.72	33.364		
8,550.00	8,495.98	8,344.94	8,300.28	31.95	31.06	98.88	-127.00	704.90	1,402.69	1,360.76	41.93	33.452		
8,600.00	8,539.68	8,386.57	8,341.51	32.09	31.23	98.58	-128.81	710.41	1,414.49	1,372.35	42.13	33.572		
8,650.00	8,581.10	8,425.70	8,380.25	32.22	31.39	98.21	-130.51	715.58	1,427.42	1,385.09	42.32	33.728		
8,700.00	8,619.93	8,462.01	8,416.21	32.35	31.54	97.74	-132.08	720.38	1,441.57	1,399.07	42.50	33.921		
8,750.00	8,655.87	8,495.24	8,449.12	32.48	31.67	97.11	-133.52	724.78	1,457.02	1,414.36	42.66	34.153		
8,800.00	8,688.64	8,525.14	8,478.72	32.60	31.80	96.30	-134.82	728.73	1,473.84	1,431.03	42.81	34.426		
8,850.00	8,718.00	8,551.46	8,504.79	32.72	31.90	95.25	-135.96	732.21	1,492.05	1,449.10	42.95	34.740		
8,900.00	8,743.72	8,574.03	8,527.14	32.84	32.00	93.94	-136.94	735.19	1,511.67	1,468.59	43.07	35.096		
8,950.00	8,765.60	8,592.65	8,545.58	32.98	32.07	92.34	-137.75	737.66	1,532.65	1,489.47	43.18	35.493		
9,000.00	8,783.49	8,607.20	8,559.99	33.12	32.13	90.42	-138.38	739.58	1,554.94	1,511.66	43.28	35.930		
9,050.00	8,797.24	8,617.56	8,570.24	33.29	32.18	88.17	-138.83	740.95	1,578.42	1,535.06	43.36	36.405		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 602H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,100.00	8,806.75	8,623.65	8,576.27	33.48	32.20	85.61	-139.10	741.76	1,602.95	1,559.53	43.42	36.915		
9,150.00	8,811.95	8,625.42	8,578.03	33.68	32.21	82.75	-139.17	741.99	1,628.35	1,584.88	43.47	37.457		
9,184.68	8,813.00	8,624.11	8,576.73	33.83	32.20	80.61	-139.12	741.82	1,646.37	1,602.87	43.50	37.849		
9,200.00	8,813.00	8,623.08	8,575.71	33.91	32.20	80.60	-139.07	741.68	1,654.40	1,610.89	43.51	38.025		
9,300.00	8,813.00	8,616.57	8,569.27	34.41	32.17	80.55	-138.79	740.82	1,707.63	1,664.04	43.59	39.179		
9,400.00	8,813.00	8,610.50	8,563.26	34.98	32.15	80.52	-138.53	740.02	1,762.08	1,718.41	43.68	40.343		
9,500.00	8,813.00	8,604.87	8,557.68	35.60	32.12	80.52	-138.28	739.27	1,817.60	1,773.82	43.78	41.515		
9,600.00	8,813.00	8,599.69	8,552.55	36.27	32.10	80.55	-138.06	738.59	1,874.04	1,830.14	43.89	42.694		
9,702.98	8,813.00	8,594.83	8,547.74	37.00	32.08	80.61	-137.84	737.94	1,932.95	1,888.93	44.02	43.914		
9,800.00	8,813.00	8,590.48	8,543.43	37.74	32.06	80.45	-137.66	737.37	1,990.37	1,946.23	44.14	45.096		
9,900.00	8,813.00	8,585.99	8,538.99	38.55	32.05	80.29	-137.46	736.78	2,052.66	2,008.40	44.26	46.377		
10,000.00	8,813.00	8,581.51	8,534.54	39.42	32.03	80.13	-137.27	736.18	2,117.83	2,073.45	44.38	47.716		
10,100.00	8,813.00	8,577.02	8,530.10	40.34	32.01	79.97	-137.07	735.59	2,185.63	2,141.12	44.51	49.108		
10,200.00	8,813.00	8,572.54	8,525.66	41.30	31.99	79.80	-136.88	735.00	2,255.82	2,211.19	44.63	50.550		
10,300.00	8,813.00	8,568.05	8,521.22	42.31	31.97	79.64	-136.68	734.40	2,328.18	2,283.44	44.74	52.037		
10,400.00	8,813.00	8,563.57	8,516.78	43.35	31.95	79.48	-136.49	733.81	2,402.51	2,357.66	44.85	53.567		
10,500.00	8,813.00	8,559.08	8,512.34	44.44	31.94	79.32	-136.29	733.22	2,478.64	2,433.69	44.96	55.135		
10,600.00	8,813.00	8,554.60	8,507.89	45.55	31.92	79.16	-136.10	732.62	2,556.41	2,511.35	45.06	56.739		
10,700.00	8,813.00	8,550.11	8,503.45	46.70	31.90	78.99	-135.90	732.03	2,635.67	2,590.52	45.15	58.374		
10,800.00	8,813.00	8,545.62	8,499.01	47.88	31.88	78.83	-135.71	731.44	2,716.29	2,671.05	45.24	60.039		
10,900.00	8,813.00	8,541.14	8,494.57	49.09	31.86	78.67	-135.52	730.85	2,798.16	2,752.83	45.33	61.730		
11,000.00	8,813.00	8,536.65	8,490.13	50.32	31.84	78.51	-135.32	730.25	2,881.16	2,835.75	45.41	63.446		
11,100.00	8,813.00	8,532.17	8,485.69	51.57	31.83	78.35	-135.13	729.66	2,965.21	2,919.72	45.49	65.184		
11,200.00	8,813.00	8,527.68	8,481.24	52.85	31.81	78.19	-134.93	729.07	3,050.21	3,004.65	45.56	66.942		
11,300.00	8,813.00	8,523.20	8,476.80	54.15	31.79	78.02	-134.74	728.47	3,136.09	3,090.46	45.64	68.719		
11,400.00	8,813.00	8,518.71	8,472.36	55.46	31.77	77.86	-134.54	727.88	3,222.78	3,177.08	45.70	70.513		
11,500.00	8,813.00	8,514.23	8,467.92	56.80	31.75	77.70	-134.35	727.29	3,310.22	3,264.45	45.77	72.323		
11,600.00	8,813.00	8,509.74	8,463.48	58.15	31.73	77.54	-134.15	726.69	3,398.34	3,352.51	45.83	74.146		
11,700.00	8,813.00	15,008.42	11,820.96	59.51	66.57	149.94	3,078.63	888.16	3,485.63	3,426.75	58.88	59.202		
11,800.00	8,813.00	15,108.36	11,817.48	60.89	67.84	149.91	3,178.50	887.06	3,482.61	3,422.53	60.08	57.966		
11,900.00	8,813.00	15,208.30	11,814.00	62.29	69.12	149.88	3,278.37	885.96	3,479.60	3,418.30	61.30	56.765		
12,000.00	8,813.00	15,308.24	11,810.51	63.69	70.42	149.85	3,378.25	884.86	3,476.59	3,414.06	62.53	55.599		
12,100.00	8,813.00	15,408.18	11,807.03	65.11	71.73	149.82	3,478.12	883.76	3,473.58	3,409.80	63.78	54.466		
12,200.00	8,813.00	15,508.12	11,803.55	66.54	73.06	149.79	3,577.99	882.66	3,470.57	3,405.53	65.03	53.366		
12,300.00	8,813.00	15,608.06	11,800.06	67.97	74.40	149.76	3,677.86	881.57	3,467.56	3,401.25	66.30	52.298		
12,400.00	8,813.00	15,708.00	11,796.58	69.42	75.75	149.73	3,777.74	880.47	3,464.55	3,396.96	67.59	51.262		
12,500.00	8,813.00	15,807.94	11,793.09	70.88	77.11	149.71	3,877.61	879.37	3,461.54	3,392.66	68.88	50.256		
12,600.00	8,813.00	15,907.88	11,789.61	72.34	78.49	149.68	3,977.48	878.27	3,458.53	3,388.35	70.18	49.280		
12,700.00	8,813.00	16,007.81	11,786.13	73.82	79.87	149.65	4,077.35	877.17	3,455.53	3,384.03	71.49	48.333		
12,800.00	8,813.00	16,107.75	11,782.64	75.30	81.27	149.62	4,177.23	876.07	3,452.52	3,379.71	72.82	47.414		
12,900.00	8,813.00	16,207.69	11,779.16	76.78	82.67	149.59	4,277.10	874.97	3,449.52	3,375.37	74.15	46.523		
13,000.00	8,813.00	16,307.63	11,775.68	78.28	84.08	149.56	4,376.97	873.87	3,446.52	3,371.03	75.48	45.660		
13,100.00	8,813.00	16,407.57	11,772.19	79.78	85.50	149.53	4,476.84	872.77	3,443.51	3,366.69	76.82	44.823		
13,200.00	8,813.00	16,507.51	11,768.71	81.28	86.93	149.50	4,576.72	871.67	3,440.51	3,362.34	78.18	44.010		
13,300.00	8,813.00	16,607.45	11,765.23	82.80	88.37	149.47	4,676.59	870.57	3,437.51	3,357.98	79.53	43.220		
13,400.00	8,813.00	16,707.39	11,761.74	84.31	89.82	149.44	4,776.46	869.47	3,434.51	3,353.61	80.90	42.453		
13,500.00	8,813.00	16,807.33	11,758.26	85.84	91.27	149.41	4,876.33	868.37	3,431.51	3,349.24	82.27	41.709		
13,600.00	8,813.00	16,907.27	11,754.77	87.36	92.73	149.38	4,976.21	867.27	3,428.52	3,344.86	83.65	40.985		
13,700.00	8,813.00	17,007.21	11,751.29	88.89	94.19	149.35	5,076.08	866.17	3,425.52	3,340.48	85.04	40.282		
13,800.00	8,813.00	17,107.15	11,747.81	90.43	95.66	149.32	5,175.95	865.08	3,422.52	3,336.09	86.43	39.598		
13,900.00	8,813.00	17,207.08	11,744.32	91.97	97.14	149.29	5,275.82	863.98	3,419.53	3,331.70	87.83	38.933		
14,000.00	8,813.00	17,307.02	11,740.84	93.51	98.62	149.26	5,375.70	862.88	3,416.54	3,327.30	89.23	38.287		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 602H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	8,813.00	17,406.96	11,737.36	95.06	100.11	149.23	5,475.57	861.78	3,413.54	3,322.90	90.64	37.659		
14,200.00	8,813.00	17,506.90	11,733.87	96.61	101.60	149.20	5,575.44	860.68	3,410.55	3,318.49	92.06	37.048		
14,300.00	8,813.00	17,606.84	11,730.39	98.17	103.10	149.17	5,675.31	859.58	3,407.56	3,314.09	93.47	36.455		
14,400.00	8,813.00	17,706.78	11,726.90	99.72	104.60	149.14	5,775.19	858.48	3,404.57	3,309.68	94.89	35.878		
14,500.00	8,813.00	17,806.72	11,723.42	101.29	106.11	149.11	5,875.06	857.38	3,401.58	3,305.26	96.32	35.317		
14,600.00	8,813.00	17,906.66	11,719.94	102.85	107.62	149.08	5,974.93	856.28	3,398.59	3,300.84	97.75	34.769		
14,700.00	8,813.00	18,006.60	11,716.45	104.41	109.13	149.05	6,074.80	855.18	3,395.60	3,296.42	99.18	34.237		
14,800.00	8,813.00	18,106.54	11,712.97	105.98	110.65	149.02	6,174.68	854.08	3,392.62	3,292.00	100.62	33.717		
14,900.00	8,813.00	18,206.48	11,709.49	107.56	112.18	148.99	6,274.55	852.98	3,389.63	3,287.57	102.06	33.211		
15,000.00	8,813.00	18,306.42	11,706.00	109.13	113.70	148.96	6,374.42	851.88	3,386.65	3,283.14	103.51	32.718		
15,100.00	8,813.00	18,406.36	11,702.52	110.71	115.23	148.93	6,474.29	850.78	3,383.66	3,278.70	104.96	32.237		
15,200.00	8,813.00	18,506.29	11,699.04	112.28	116.76	148.90	6,574.17	849.68	3,380.68	3,274.26	106.42	31.768		
15,300.00	8,813.00	18,606.23	11,695.55	113.86	118.30	148.87	6,674.04	848.59	3,377.70	3,269.82	107.87	31.311		
15,400.00	8,813.00	18,706.17	11,692.07	115.45	119.84	148.84	6,773.91	847.49	3,374.72	3,265.39	109.33	30.866		
15,500.00	8,813.00	18,806.11	11,688.58	117.03	121.38	148.81	6,873.78	846.39	3,371.74	3,260.94	110.80	30.432		
15,600.00	8,813.00	18,906.05	11,685.10	118.62	122.93	148.78	6,973.66	845.29	3,368.76	3,256.50	112.26	30.008		
15,700.00	8,813.00	19,005.99	11,681.62	120.21	124.48	148.74	7,073.53	844.19	3,365.78	3,252.05	113.73	29.594		
15,800.00	8,813.00	19,105.93	11,678.13	121.80	126.03	148.71	7,173.40	843.09	3,362.81	3,247.60	115.21	29.189		
15,900.00	8,813.00	19,205.87	11,674.65	123.39	127.58	148.68	7,273.27	841.99	3,359.83	3,243.15	116.68	28.794		
16,000.00	8,813.00	19,305.81	11,671.17	124.98	129.13	148.65	7,373.14	840.89	3,356.86	3,238.69	118.16	28.409		
16,100.00	8,813.00	19,405.75	11,667.68	126.58	130.69	148.62	7,473.02	839.79	3,353.88	3,234.24	119.64	28.032		
16,200.00	8,813.00	19,505.69	11,664.20	128.17	132.25	148.59	7,572.89	838.69	3,350.91	3,229.78	121.13	27.665		
16,300.00	8,813.00	19,605.63	11,660.72	129.77	133.82	148.56	7,672.76	837.59	3,347.94	3,225.33	122.61	27.305		
16,400.00	8,813.00	19,705.57	11,657.23	131.37	135.38	148.53	7,772.63	836.49	3,344.97	3,220.86	124.10	26.954		
16,500.00	8,813.00	19,805.50	11,653.75	132.97	136.95	148.50	7,872.51	835.39	3,342.00	3,216.40	125.59	26.610		
16,600.00	8,813.00	19,905.44	11,650.26	134.57	138.51	148.46	7,972.38	834.29	3,339.03	3,211.94	127.09	26.273		
16,700.00	8,813.00	20,005.38	11,646.78	136.17	140.09	148.43	8,072.25	833.19	3,336.06	3,207.47	128.59	25.944		
16,800.00	8,813.00	20,105.32	11,643.30	137.78	141.66	148.40	8,172.12	832.09	3,333.09	3,203.01	130.09	25.622		
16,900.00	8,813.00	20,205.26	11,639.81	139.38	143.23	148.37	8,272.00	831.00	3,330.13	3,198.54	131.59	25.308		
17,000.00	8,813.00	20,305.20	11,636.33	140.99	144.81	148.34	8,371.87	829.90	3,327.16	3,194.07	133.09	25.000		
17,100.00	8,813.00	20,405.14	11,632.85	142.60	146.39	148.31	8,471.74	828.80	3,324.20	3,189.60	134.59	24.698		
17,200.00	8,813.00	20,505.08	11,629.36	144.20	147.96	148.28	8,571.61	827.70	3,321.24	3,185.13	136.10	24.402		
17,300.00	8,813.00	20,605.02	11,625.88	145.81	149.55	148.24	8,671.49	826.60	3,318.27	3,180.66	137.61	24.113		
17,400.00	8,813.00	20,704.96	11,622.39	147.42	151.13	148.21	8,771.36	825.50	3,315.31	3,176.18	139.13	23.829		
17,500.00	8,813.00	20,804.90	11,618.91	149.04	152.71	148.18	8,871.23	824.40	3,312.35	3,171.71	140.64	23.551		
17,600.00	8,813.00	20,904.84	11,615.43	150.65	154.30	148.15	8,971.10	823.30	3,309.39	3,167.23	142.16	23.279		
17,700.00	8,813.00	21,004.78	11,611.94	152.26	155.88	148.12	9,070.98	822.20	3,306.44	3,162.76	143.68	23.013		
17,800.00	8,813.00	21,104.71	11,608.46	153.88	157.47	148.08	9,170.85	821.10	3,303.48	3,158.28	145.20	22.751		
17,900.00	8,813.00	21,204.65	11,604.98	155.49	159.06	148.05	9,270.72	820.00	3,300.52	3,153.80	146.72	22.495		
18,000.00	8,813.00	21,304.59	11,601.49	157.11	160.65	148.02	9,370.59	818.90	3,297.57	3,149.32	148.25	22.244		
18,100.00	8,813.00	21,404.53	11,598.01	158.72	162.24	147.99	9,470.47	817.80	3,294.62	3,144.84	149.78	21.997		
18,200.00	8,813.00	21,504.47	11,594.53	160.34	163.84	147.96	9,570.34	816.70	3,291.66	3,140.36	151.30	21.756		
18,300.00	8,813.00	21,604.41	11,591.04	161.96	165.43	147.92	9,670.21	815.60	3,288.71	3,135.88	152.83	21.518		
18,400.00	8,813.00	21,704.35	11,587.56	163.58	167.03	147.89	9,770.08	814.51	3,285.76	3,131.39	154.37	21.285		
18,500.00	8,813.00	21,804.29	11,584.07	165.20	168.62	147.86	9,869.96	813.41	3,282.81	3,126.91	155.90	21.057		
18,600.00	8,813.00	21,904.23	11,580.59	166.82	170.22	147.83	9,969.83	812.31	3,279.86	3,122.43	157.44	20.833		
18,700.00	8,813.00	22,004.17	11,577.11	168.44	171.82	147.79	10,069.70	811.21	3,276.92	3,117.94	158.97	20.613		
18,800.00	8,813.00	22,104.11	11,573.62	170.06	173.42	147.76	10,169.57	810.11	3,273.97	3,113.46	160.51	20.397		
18,901.69	8,813.00	22,109.36	11,573.44	171.71	173.50	147.76	10,174.82	810.05	3,272.39	3,111.17	161.22	20.297		
18,904.52	8,813.00	22,109.36	11,573.44	171.75	173.50	147.76	10,174.82	810.05	3,272.40	3,111.15	161.24	20.295		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 702H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	34.10	75.71	51.25	91.78					
100.00	100.00	91.90	91.90	0.13	0.13	34.10	75.71	51.25	91.43	91.24	0.18	505.779		
200.00	200.00	191.90	191.90	0.48	0.47	34.10	75.71	51.25	91.43	90.75	0.68	135.379		
300.00	300.00	291.90	291.90	0.84	0.83	34.10	75.71	51.25	91.43	90.24	1.18	77.331		
400.00	400.00	391.90	391.90	1.20	1.19	34.10	75.71	51.25	91.43	89.74	1.69	54.123		
500.00	500.00	491.90	491.90	1.56	1.55	34.10	75.71	51.25	91.43	89.23	2.20	41.630		
600.00	600.00	591.90	591.90	1.92	1.90	34.10	75.71	51.25	91.43	88.72	2.70	33.822		
700.00	700.00	691.90	691.90	2.28	2.26	34.10	75.71	51.25	91.43	88.22	3.21	28.481		
800.00	800.00	791.90	791.90	2.63	2.62	34.10	75.71	51.25	91.43	87.71	3.72	24.596		
900.00	900.00	891.90	891.90	2.99	2.98	34.10	75.71	51.25	91.43	87.20	4.22	21.644		
1,000.00	1,000.00	991.90	991.90	3.35	3.34	34.10	75.71	51.25	91.43	86.69	4.73	19.325		
1,100.00	1,100.00	1,091.90	1,091.90	3.71	3.70	34.10	75.71	51.25	91.43	86.19	5.24	17.455		
1,200.00	1,200.00	1,191.90	1,191.90	4.07	4.06	34.10	75.71	51.25	91.43	85.68	5.74	15.914		
1,300.00	1,300.00	1,291.90	1,291.90	4.43	4.41	34.10	75.71	51.25	91.43	85.17	6.25	14.624		
1,400.00	1,400.00	1,391.90	1,391.90	4.79	4.77	34.10	75.71	51.25	91.43	84.67	6.76	13.527		
1,500.00	1,500.00	1,491.90	1,491.90	5.14	5.13	34.10	75.71	51.25	91.43	84.16	7.27	12.583		
1,600.00	1,600.00	1,591.90	1,591.90	5.50	5.49	34.10	75.71	51.25	91.43	83.65	7.77	11.762		
1,700.00	1,700.00	1,691.90	1,691.90	5.86	5.85	34.10	75.71	51.25	91.43	83.15	8.28	11.042		
1,800.00	1,800.00	1,791.90	1,791.90	6.22	6.21	34.10	75.71	51.25	91.43	82.64	8.79	10.405		
1,900.00	1,900.00	1,891.90	1,891.90	6.58	6.57	34.10	75.71	51.25	91.43	82.13	9.29	9.838		
2,000.00	2,000.00	1,991.90	1,991.90	6.94	6.92	34.10	75.71	51.25	91.43	81.62	9.80	9.329		
2,060.00	2,060.00	2,051.90	2,051.90	7.15	7.14	34.10	75.71	51.25	91.43	81.32	10.10	9.048 CC		
2,100.00	2,100.00	2,091.90	2,091.90	7.29	7.28	134.31	75.71	51.25	91.57	81.27	10.30	8.887 ES		
2,200.00	2,199.97	2,191.87	2,191.87	7.63	7.64	135.33	75.71	51.25	93.23	82.44	10.80	8.635		
2,300.00	2,299.84	2,291.74	2,291.74	7.97	8.00	137.36	75.71	51.25	96.83	85.54	11.29	8.576 SF		
2,400.00	2,399.55	2,391.45	2,391.45	8.32	8.36	140.17	75.71	51.25	102.55	90.76	11.79	8.700		
2,500.00	2,499.03	2,490.93	2,490.93	8.67	8.71	143.48	75.71	51.25	110.58	98.30	12.28	9.003		
2,576.48	2,574.90	2,566.80	2,566.80	8.94	8.98	146.16	75.71	51.25	118.41	105.74	12.66	9.351		
2,600.00	2,598.21	2,590.11	2,590.11	9.02	9.07	146.99	75.71	51.25	121.06	108.28	12.78	9.473		
2,700.00	2,697.30	2,689.20	2,689.20	9.38	9.42	150.16	75.71	51.25	132.60	119.32	13.27	9.989		
2,800.00	2,796.39	2,788.29	2,788.29	9.75	9.78	152.82	75.71	51.25	144.47	130.70	13.77	10.491		
2,900.00	2,895.47	2,887.37	2,887.37	10.12	10.13	155.07	75.71	51.25	156.60	142.33	14.27	10.975		
3,000.00	2,994.56	2,986.46	2,986.46	10.49	10.49	156.99	75.71	51.25	168.94	154.17	14.77	11.441		
3,100.00	3,093.65	3,085.55	3,085.55	10.87	10.84	158.65	75.71	51.25	181.44	166.18	15.27	11.886		
3,200.00	3,192.74	3,184.64	3,184.64	11.25	11.20	160.10	75.71	51.25	194.07	178.31	15.76	12.311		
3,300.00	3,291.82	3,283.72	3,283.72	11.64	11.55	161.37	75.71	51.25	206.81	190.55	16.26	12.716		
3,400.00	3,390.91	3,382.81	3,382.81	12.02	11.91	162.49	75.71	51.25	219.64	202.87	16.76	13.101		
3,500.00	3,490.00	3,481.90	3,481.90	12.41	12.26	163.49	75.71	51.25	232.54	215.27	17.27	13.468		
3,600.00	3,589.09	3,580.99	3,580.99	12.80	12.62	164.39	75.71	51.25	245.50	227.74	17.77	13.818		
3,700.00	3,688.17	3,680.07	3,680.07	13.19	12.98	165.19	75.71	51.25	258.52	240.25	18.27	14.150		
3,800.00	3,787.26	3,779.16	3,779.16	13.58	13.33	165.92	75.71	51.25	271.58	252.81	18.77	14.467		
3,900.00	3,886.35	3,878.25	3,878.25	13.98	13.69	166.58	75.71	51.25	284.68	265.41	19.27	14.769		
4,000.00	3,985.43	3,977.33	3,977.33	14.38	14.04	167.18	75.71	51.25	297.82	278.04	19.78	15.058		
4,100.00	4,084.52	4,076.42	4,076.42	14.77	14.40	167.73	75.71	51.25	310.98	290.70	20.28	15.333		
4,200.00	4,183.61	4,175.51	4,175.51	15.17	14.75	168.23	75.71	51.25	324.17	303.38	20.79	15.595		
4,300.00	4,282.70	4,274.60	4,274.60	15.57	15.11	168.70	75.71	51.25	337.38	316.09	21.29	15.847		
4,400.00	4,381.78	4,373.68	4,373.68	15.97	15.46	169.13	75.71	51.25	350.62	328.82	21.80	16.087		
4,500.00	4,480.87	4,472.77	4,472.77	16.37	15.82	169.53	75.71	51.25	363.87	341.57	22.30	16.317		
4,600.00	4,579.96	4,571.86	4,571.86	16.78	16.17	169.90	75.71	51.25	377.14	354.33	22.81	16.537		
4,700.00	4,679.05	4,670.95	4,670.95	17.18	16.53	170.25	75.71	51.25	390.42	367.11	23.31	16.748		
4,800.00	4,778.13	4,770.03	4,770.03	17.59	16.88	170.58	75.71	51.25	403.71	379.90	23.82	16.951		
4,900.00	4,877.22	4,869.12	4,869.12	17.99	17.24	170.88	75.71	51.25	417.02	392.70	24.32	17.145		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Georgetown/Ouray - Ouray Fed Com 702H - OH - Plan #1													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,976.31	4,968.21	4,968.21	18.40	17.59	171.16	75.71	51.25	430.34	405.51	24.83	17.332		
5,100.00	5,075.39	5,067.18	5,067.17	18.80	17.94	171.51	75.15	51.45	443.67	418.35	25.33	17.518		
5,200.00	5,174.48	5,165.91	5,165.86	19.21	18.26	172.14	72.31	52.45	457.08	431.27	25.81	17.710		
5,300.00	5,273.57	5,264.31	5,264.10	19.62	18.58	173.04	67.09	54.29	470.64	444.36	26.29	17.904		
5,400.00	5,372.66	5,362.25	5,361.70	20.02	18.90	174.19	59.52	56.96	484.47	457.70	26.76	18.102		
5,500.00	5,471.74	5,460.27	5,459.21	20.43	19.22	175.51	50.04	60.31	498.64	471.40	27.24	18.305		
5,600.00	5,570.83	5,558.58	5,556.98	20.84	19.54	176.78	40.35	63.72	513.09	485.37	27.72	18.509		
5,700.00	5,669.92	5,656.90	5,654.76	21.25	19.87	177.98	30.65	67.14	527.77	499.57	28.20	18.712		
5,800.00	5,769.01	5,755.22	5,752.54	21.66	20.20	179.12	20.96	70.56	542.67	513.98	28.69	18.915		
5,900.00	5,868.09	5,853.53	5,850.32	22.07	20.53	-179.80	11.27	73.98	557.78	528.60	29.18	19.116		
6,000.00	5,967.18	5,951.85	5,948.10	22.48	20.86	-178.78	1.58	77.40	573.06	543.39	29.67	19.316		
6,100.00	6,066.27	6,050.17	6,045.88	22.89	21.19	-177.81	-8.11	80.82	588.52	558.36	30.16	19.513		
6,200.00	6,165.35	6,148.48	6,143.65	23.30	21.53	-176.89	-17.80	84.23	604.13	573.48	30.65	19.708		
6,300.00	6,264.44	6,246.80	6,241.43	23.71	21.87	-176.02	-27.49	87.65	619.89	588.74	31.15	19.900		
6,400.00	6,363.53	6,345.12	6,339.21	24.13	22.21	-175.19	-37.18	91.07	635.79	604.14	31.65	20.089		
6,500.00	6,462.62	6,443.43	6,436.99	24.54	22.55	-174.40	-46.87	94.49	651.80	619.66	32.15	20.275		
6,600.00	6,561.70	6,541.75	6,534.77	24.95	22.89	-173.65	-56.56	97.91	667.94	635.29	32.65	20.458		
6,700.00	6,660.79	6,640.07	6,632.54	25.36	23.24	-172.93	-66.25	101.32	684.18	651.03	33.15	20.638		
6,800.00	6,759.88	6,738.38	6,730.32	25.78	23.58	-172.25	-75.95	104.74	700.52	666.86	33.66	20.815		
6,900.00	6,858.97	6,836.70	6,828.10	26.19	23.93	-171.60	-85.64	108.16	716.95	682.79	34.16	20.988		
7,000.00	6,958.05	6,935.02	6,925.88	26.60	24.28	-170.98	-95.33	111.58	733.48	698.81	34.67	21.158		
7,100.00	7,057.14	7,033.33	7,023.66	27.01	24.63	-170.38	-105.02	115.00	750.08	714.90	35.17	21.324		
7,123.17	7,080.10	7,056.11	7,046.31	27.11	24.71	-170.25	-107.26	115.79	753.94	718.64	35.29	21.362		
7,200.00	7,156.33	7,131.76	7,121.55	27.42	24.98	-169.83	-114.72	118.42	766.01	730.32	35.68	21.467		
7,300.00	7,255.80	7,230.52	7,219.77	27.82	25.34	-169.28	-124.45	121.85	779.53	743.34	36.19	21.539		
7,400.00	7,355.51	7,329.56	7,318.26	28.19	25.69	-168.70	-134.22	125.30	790.59	753.89	36.70	21.542		
7,500.00	7,455.39	7,428.80	7,416.96	28.55	26.05	-168.10	-144.00	128.75	799.18	761.98	37.21	21.480		
7,600.00	7,555.36	7,528.18	7,515.80	28.89	26.41	-167.46	-153.79	132.20	805.33	767.61	37.71	21.354		
7,639.64	7,595.00	7,567.61	7,555.00	29.02	26.55	92.68	-157.68	133.57	807.08	769.17	37.91	21.289		
7,700.00	7,655.36	7,627.63	7,614.70	29.22	26.77	93.09	-163.60	135.66	809.49	771.28	38.21	21.185		
7,800.00	7,755.36	7,727.08	7,713.61	29.54	27.13	93.77	-173.40	139.12	813.57	774.86	38.71	21.018		
7,900.00	7,855.36	7,830.06	7,816.04	29.86	27.51	94.45	-183.35	142.63	817.68	778.46	39.22	20.846		
8,000.00	7,955.36	7,939.36	7,924.99	30.19	27.90	95.00	-191.57	145.53	820.95	781.18	39.77	20.642		
8,100.00	8,055.36	8,049.08	8,034.56	30.51	28.29	95.36	-196.85	147.39	823.09	782.78	40.31	20.419		
8,200.00	8,155.36	8,159.03	8,144.48	30.84	28.67	95.51	-199.18	148.21	824.03	783.19	40.84	20.177		
8,284.68	8,240.04	8,246.49	8,231.94	31.11	28.97	95.52	-199.29	148.25	824.07	782.81	41.26	19.972		
8,300.00	8,255.35	8,261.80	8,247.25	31.16	29.03	106.53	-199.29	148.25	824.13	782.79	41.34	19.937		
8,350.00	8,305.21	8,311.66	8,297.11	31.33	29.20	106.67	-199.29	148.25	825.14	783.56	41.58	19.845		
8,400.00	8,354.58	8,361.03	8,346.48	31.49	29.37	106.96	-199.29	148.25	827.44	785.62	41.82	19.785		
8,450.00	8,403.07	8,409.52	8,394.97	31.65	29.54	107.39	-199.29	148.25	831.12	789.06	42.06	19.761		
8,500.00	8,450.32	8,456.77	8,442.22	31.80	29.71	107.90	-199.29	148.25	836.32	794.03	42.29	19.776		
8,550.00	8,495.98	8,502.42	8,487.88	31.95	29.87	108.45	-199.29	148.25	843.22	800.71	42.51	19.835		
8,600.00	8,539.68	8,546.13	8,531.58	32.09	30.02	108.99	-199.29	148.25	852.00	809.27	42.73	19.940		
8,650.00	8,581.10	8,587.55	8,573.00	32.22	30.16	109.43	-199.29	148.25	862.86	819.93	42.93	20.099		
8,700.00	8,619.93	8,626.38	8,611.83	32.35	30.30	109.72	-199.29	148.25	875.99	832.87	43.12	20.313		
8,750.00	8,655.87	8,662.32	8,647.77	32.48	30.42	109.79	-199.29	148.25	891.55	848.25	43.30	20.589		
8,800.00	8,688.64	8,695.09	8,680.54	32.60	30.54	109.55	-199.29	148.25	909.65	866.19	43.47	20.928		
8,850.00	8,718.00	8,724.45	8,709.90	32.72	30.64	108.93	-199.29	148.25	930.37	886.75	43.61	21.333		
8,900.00	8,743.72	8,750.17	8,735.62	32.84	30.73	107.86	-199.29	148.25	953.70	909.95	43.74	21.803		
8,950.00	8,765.60	8,772.05	8,757.50	32.98	30.81	106.27	-199.29	148.25	979.57	935.72	43.85	22.339		
9,000.00	8,783.49	8,789.94	8,775.39	33.12	30.87	104.09	-199.29	148.25	1,007.87	963.93	43.94	22.938		
9,050.00	8,797.24	8,803.69	8,789.14	33.29	30.92	101.24	-199.29	148.25	1,038.39	994.38	44.01	23.595		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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													Offset Site Error:	0.00 usft
Georgetown/Ouray - Ouray Fed Com 702H - OH - Plan #1													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,100.00	8,806.75	8,813.20	8,798.65	33.48	30.95	97.67	-199.29	148.25	1,070.89	1,026.83	44.06	24.307		
9,150.00	8,811.95	8,818.40	8,803.85	33.68	30.97	93.39	-199.29	148.25	1,105.06	1,060.97	44.08	25.067		
9,184.68	8,813.00	8,819.45	8,804.90	33.83	30.97	90.00	-199.29	148.25	1,129.56	1,085.47	44.09	25.618		
9,200.00	8,813.00	8,819.45	8,804.90	33.91	30.97	90.00	-199.29	148.25	1,140.53	1,096.44	44.09	25.866		
9,300.00	8,813.00	8,819.45	8,804.90	34.41	30.97	90.00	-199.29	148.25	1,213.13	1,169.02	44.11	27.505		
9,400.00	8,813.00	8,819.45	8,804.90	34.98	30.97	90.00	-199.29	148.25	1,287.17	1,243.05	44.12	29.176		
9,500.00	8,813.00	8,819.45	8,804.90	35.60	30.97	90.00	-199.29	148.25	1,362.33	1,318.20	44.13	30.871		
9,600.00	8,813.00	8,819.45	8,804.90	36.27	30.97	90.00	-199.29	148.25	1,438.35	1,394.20	44.14	32.585		
9,702.98	8,813.00	8,819.45	8,804.90	37.00	30.97	90.00	-199.29	148.25	1,517.31	1,473.15	44.16	34.363		
9,800.00	8,813.00	8,819.45	8,804.90	37.74	30.97	90.00	-199.29	148.25	1,593.16	1,548.99	44.17	36.070		
9,900.00	8,813.00	8,819.45	8,804.90	38.55	30.97	90.00	-199.29	148.25	1,673.64	1,629.45	44.18	37.878		
10,000.00	8,813.00	8,819.45	8,804.90	39.42	30.97	90.00	-199.29	148.25	1,756.12	1,711.92	44.20	39.730		
10,100.00	8,813.00	8,819.45	8,804.90	40.34	30.97	90.00	-199.29	148.25	1,840.34	1,796.12	44.22	41.620		
10,200.00	8,813.00	8,819.45	8,804.90	41.30	30.97	90.00	-199.29	148.25	1,926.07	1,881.83	44.23	43.542		
10,300.00	8,813.00	8,819.45	8,804.90	42.31	30.97	90.00	-199.29	148.25	2,013.11	1,968.86	44.25	45.492		
10,400.00	8,813.00	8,819.45	8,804.90	43.35	30.97	90.00	-199.29	148.25	2,101.31	2,057.04	44.27	47.465		
10,500.00	8,813.00	8,819.45	8,804.90	44.44	30.97	90.00	-199.29	148.25	2,190.53	2,146.24	44.29	49.460		
10,600.00	8,813.00	8,819.45	8,804.90	45.55	30.97	90.00	-199.29	148.25	2,280.64	2,236.33	44.31	51.473		
10,700.00	8,813.00	8,819.45	8,804.90	46.70	30.97	90.00	-199.29	148.25	2,371.54	2,327.21	44.33	53.502		
10,800.00	8,813.00	8,819.45	8,804.90	47.88	30.97	90.00	-199.29	148.25	2,463.15	2,418.80	44.35	55.544		
10,900.00	8,813.00	8,819.45	8,804.90	49.09	30.97	90.00	-199.29	148.25	2,555.38	2,511.02	44.37	57.599		
11,000.00	8,813.00	8,819.45	8,804.90	50.32	30.97	90.00	-199.29	148.25	2,648.18	2,603.80	44.39	59.663		
11,100.00	8,813.00	8,819.45	8,804.90	51.57	30.97	90.00	-199.29	148.25	2,741.49	2,697.08	44.41	61.737		
11,200.00	8,813.00	8,819.45	8,804.90	52.85	30.97	90.00	-199.29	148.25	2,835.25	2,790.83	44.43	63.818		
11,300.00	8,813.00	8,819.45	8,804.90	54.15	30.97	90.00	-199.29	148.25	2,929.43	2,884.98	44.45	65.906		
11,400.00	8,813.00	8,819.45	8,804.90	55.46	30.97	90.00	-199.29	148.25	3,023.98	2,979.51	44.47	67.999		
11,500.00	8,813.00	8,819.45	8,804.90	56.80	30.97	90.00	-199.29	148.25	3,118.87	3,074.37	44.49	70.097		
11,600.00	8,813.00	8,819.45	8,804.90	58.15	30.97	90.00	-199.29	148.25	3,214.07	3,169.55	44.52	72.199		
11,700.00	8,813.00	15,005.61	11,910.52	59.51	65.58	162.66	3,051.50	112.49	3,254.55	3,202.92	51.63	63.040		
11,800.00	8,813.00	15,105.57	11,907.73	60.89	66.86	162.65	3,151.41	111.39	3,251.89	3,199.28	52.61	61.811		
11,900.00	8,813.00	15,205.53	11,904.95	62.29	68.15	162.64	3,251.33	110.29	3,249.23	3,195.62	53.61	60.613		
12,000.00	8,813.00	15,305.50	11,902.16	63.69	69.47	162.62	3,351.25	109.19	3,246.57	3,191.96	54.61	59.446		
12,100.00	8,813.00	15,405.46	11,899.37	65.11	70.79	162.61	3,451.16	108.09	3,243.91	3,188.28	55.63	58.309		
12,200.00	8,813.00	15,505.42	11,896.59	66.54	72.13	162.59	3,551.08	106.99	3,241.26	3,184.59	56.66	57.202		
12,300.00	8,813.00	15,605.38	11,893.80	67.97	73.48	162.58	3,650.99	105.89	3,238.60	3,180.90	57.70	56.125		
12,400.00	8,813.00	15,705.34	11,891.02	69.42	74.84	162.56	3,750.91	104.79	3,235.94	3,177.19	58.75	55.080		
12,500.00	8,813.00	15,805.30	11,888.23	70.88	76.22	162.55	3,850.83	103.69	3,233.28	3,173.48	59.80	54.064		
12,600.00	8,813.00	15,905.26	11,885.44	72.34	77.60	162.53	3,950.74	102.59	3,230.63	3,169.76	60.87	53.076		
12,700.00	8,813.00	16,005.22	11,882.66	73.82	79.00	162.52	4,050.66	101.49	3,227.97	3,166.03	61.94	52.115		
12,800.00	8,813.00	16,105.18	11,879.87	75.30	80.41	162.50	4,150.58	100.40	3,225.32	3,162.30	63.02	51.180		
12,900.00	8,813.00	16,205.15	11,877.09	76.78	81.82	162.49	4,250.49	99.30	3,222.66	3,158.55	64.11	50.271		
13,000.00	8,813.00	16,305.11	11,874.30	78.28	83.24	162.47	4,350.41	98.20	3,220.00	3,154.80	65.20	49.387		
13,100.00	8,813.00	16,405.07	11,871.52	79.78	84.68	162.46	4,450.32	97.10	3,217.35	3,151.05	66.30	48.527		
13,200.00	8,813.00	16,505.03	11,868.73	81.28	86.12	162.44	4,550.24	96.00	3,214.69	3,147.29	67.41	47.691		
13,300.00	8,813.00	16,604.99	11,865.94	82.80	87.56	162.43	4,650.16	94.90	3,212.04	3,143.52	68.52	46.878		
13,400.00	8,813.00	16,704.95	11,863.16	84.31	89.02	162.41	4,750.07	93.80	3,209.38	3,139.75	69.64	46.087		
13,500.00	8,813.00	16,804.91	11,860.37	85.84	90.48	162.40	4,849.99	92.70	3,206.73	3,135.97	70.76	45.318		
13,600.00	8,813.00	16,904.87	11,857.59	87.36	91.95	162.38	4,949.91	91.60	3,204.07	3,132.19	71.89	44.570		
13,700.00	8,813.00	17,004.83	11,854.80	88.89	93.42	162.37	5,049.82	90.50	3,201.42	3,128.40	73.02	43.843		
13,800.00	8,813.00	17,104.80	11,852.01	90.43	94.90	162.35	5,149.74	89.40	3,198.77	3,124.61	74.16	43.134		
13,900.00	8,813.00	17,204.76	11,849.23	91.97	96.39	162.33	5,249.65	88.30	3,196.11	3,120.81	75.30	42.445		
14,000.00	8,813.00	17,304.72	11,846.44	93.51	97.88	162.32	5,349.57	87.20	3,193.46	3,117.01	76.45	41.774		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 702H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	8,813.00	17,404.68	11,843.66	95.06	99.38	162.30	5,449.49	86.11	3,190.81	3,113.21	77.59	41.122		
14,200.00	8,813.00	17,504.64	11,840.87	96.61	100.88	162.29	5,549.40	85.01	3,188.15	3,109.40	78.75	40.486		
14,300.00	8,813.00	17,604.60	11,838.09	98.17	102.38	162.27	5,649.32	83.91	3,185.50	3,105.59	79.90	39.866		
14,400.00	8,813.00	17,704.56	11,835.30	99.72	103.89	162.26	5,749.24	82.81	3,182.85	3,101.78	81.07	39.262		
14,500.00	8,813.00	17,804.52	11,832.51	101.29	105.41	162.24	5,849.15	81.71	3,180.19	3,097.96	82.23	38.674		
14,600.00	8,813.00	17,904.49	11,829.73	102.85	106.93	162.23	5,949.07	80.61	3,177.54	3,094.14	83.40	38.100		
14,700.00	8,813.00	18,004.45	11,826.94	104.41	108.45	162.21	6,048.98	79.51	3,174.89	3,090.32	84.57	37.541		
14,800.00	8,813.00	18,104.41	11,824.16	105.98	109.97	162.20	6,148.90	78.41	3,172.24	3,086.49	85.75	36.995		
14,900.00	8,813.00	18,204.37	11,821.37	107.56	111.50	162.18	6,248.82	77.31	3,169.59	3,082.66	86.93	36.463		
15,000.00	8,813.00	18,304.33	11,818.58	109.13	113.04	162.17	6,348.73	76.21	3,166.94	3,078.83	88.11	35.944		
15,100.00	8,813.00	18,404.29	11,815.80	110.71	114.57	162.15	6,448.65	75.11	3,164.29	3,074.99	89.29	35.438		
15,200.00	8,813.00	18,504.25	11,813.01	112.28	116.11	162.13	6,548.57	74.01	3,161.63	3,071.16	90.48	34.945		
15,300.00	8,813.00	18,604.21	11,810.23	113.86	117.66	162.12	6,648.48	72.91	3,158.98	3,067.32	91.67	34.462		
15,400.00	8,813.00	18,704.17	11,807.44	115.45	119.20	162.10	6,748.40	71.82	3,156.33	3,063.48	92.85	33.992		
15,500.00	8,813.00	18,804.14	11,804.65	117.03	120.75	162.09	6,848.32	70.72	3,153.68	3,059.64	94.05	33.533		
15,600.00	8,813.00	18,904.10	11,801.87	118.62	122.30	162.07	6,948.23	69.62	3,151.03	3,055.79	95.24	33.085		
15,700.00	8,813.00	19,004.06	11,799.08	120.21	123.86	162.06	7,048.15	68.52	3,148.38	3,051.95	96.44	32.647		
15,800.00	8,813.00	19,104.02	11,796.30	121.80	125.41	162.04	7,148.06	67.42	3,145.74	3,048.10	97.64	32.219		
15,900.00	8,813.00	19,203.98	11,793.51	123.39	126.97	162.02	7,247.98	66.32	3,143.09	3,044.25	98.84	31.800		
16,000.00	8,813.00	19,303.94	11,790.73	124.98	128.54	162.01	7,347.90	65.22	3,140.44	3,040.39	100.04	31.391		
16,100.00	8,813.00	19,403.90	11,787.94	126.58	130.10	161.99	7,447.81	64.12	3,137.79	3,036.54	101.25	30.991		
16,200.00	8,813.00	19,503.86	11,785.15	128.17	131.67	161.98	7,547.73	63.02	3,135.14	3,032.68	102.46	30.599		
16,300.00	8,813.00	19,603.82	11,782.37	129.77	133.23	161.96	7,647.65	61.92	3,132.49	3,028.82	103.67	30.216		
16,400.00	8,813.00	19,703.79	11,779.58	131.37	134.80	161.94	7,747.56	60.82	3,129.84	3,024.96	104.88	29.842		
16,500.00	8,813.00	19,803.75	11,776.80	132.97	136.38	161.93	7,847.48	59.72	3,127.20	3,021.10	106.10	29.475		
16,600.00	8,813.00	19,903.71	11,774.01	134.57	137.95	161.91	7,947.39	58.62	3,124.55	3,017.24	107.31	29.116		
16,700.00	8,813.00	20,003.67	11,771.22	136.17	139.52	161.90	8,047.31	57.53	3,121.90	3,013.37	108.53	28.766		
16,800.00	8,813.00	20,103.63	11,768.44	137.78	141.10	161.88	8,147.23	56.43	3,119.26	3,009.51	109.75	28.423		
16,900.00	8,813.00	20,203.59	11,765.65	139.38	142.68	161.86	8,247.14	55.33	3,116.61	3,005.64	110.97	28.086		
17,000.00	8,813.00	20,303.55	11,762.87	140.99	144.26	161.85	8,347.06	54.23	3,113.96	3,001.78	112.19	27.757		
17,100.00	8,813.00	20,403.51	11,760.08	142.60	145.84	161.83	8,446.98	53.13	3,111.32	2,997.91	113.41	27.434		
17,200.00	8,813.00	20,503.48	11,757.30	144.20	147.43	161.82	8,546.89	52.03	3,108.67	2,994.04	114.63	27.118		
17,300.00	8,813.00	20,603.44	11,754.51	145.81	149.01	161.80	8,646.81	50.93	3,106.02	2,990.16	115.86	26.808		
17,400.00	8,813.00	20,703.40	11,751.72	147.42	150.60	161.78	8,746.72	49.83	3,103.38	2,986.29	117.09	26.505		
17,500.00	8,813.00	20,803.36	11,748.94	149.04	152.19	161.77	8,846.64	48.73	3,100.73	2,982.42	118.31	26.207		
17,600.00	8,813.00	20,903.32	11,746.15	150.65	153.78	161.75	8,946.56	47.63	3,098.09	2,978.54	119.54	25.916		
17,700.00	8,813.00	21,003.28	11,743.37	152.26	155.37	161.74	9,046.47	46.53	3,095.44	2,974.67	120.78	25.630		
17,800.00	8,813.00	21,103.24	11,740.58	153.88	156.96	161.72	9,146.39	45.43	3,092.80	2,970.79	122.01	25.349		
17,900.00	8,813.00	21,203.20	11,737.79	155.49	158.56	161.70	9,246.31	44.33	3,090.16	2,966.91	123.24	25.074		
18,000.00	8,813.00	21,303.16	11,735.01	157.11	160.15	161.69	9,346.22	43.24	3,087.51	2,963.03	124.48	24.804		
18,100.00	8,813.00	21,403.13	11,732.22	158.72	161.75	161.67	9,446.14	42.14	3,084.87	2,959.15	125.71	24.539		
18,200.00	8,813.00	21,503.09	11,729.44	160.34	163.34	161.65	9,546.05	41.04	3,082.22	2,955.28	126.95	24.279		
18,300.00	8,813.00	21,603.05	11,726.65	161.96	164.94	161.64	9,645.97	39.94	3,079.58	2,951.40	128.18	24.025		
18,400.00	8,813.00	21,703.01	11,723.87	163.58	166.54	161.62	9,745.89	38.84	3,076.94	2,947.52	129.42	23.775		
18,500.00	8,813.00	21,802.97	11,721.08	165.20	168.14	161.60	9,845.80	37.74	3,074.30	2,943.63	130.66	23.529		
18,600.00	8,813.00	21,902.93	11,718.29	166.82	169.74	161.59	9,945.72	36.64	3,071.65	2,939.75	131.90	23.288		
18,700.00	8,813.00	22,002.89	11,715.51	168.44	171.35	161.57	10,045.64	35.54	3,069.01	2,935.87	133.14	23.051		
18,800.00	8,813.00	22,102.85	11,712.72	170.06	172.95	161.55	10,145.55	34.44	3,066.37	2,931.98	134.39	22.818		
18,902.95	8,813.00	22,124.80	11,712.11	171.73	173.30	161.55	10,167.49	34.20	3,064.72	2,929.78	134.94	22.711		
18,904.52	8,813.00	22,124.80	11,712.11	171.75	173.30	161.55	10,167.49	34.20	3,064.72	2,929.77	134.95	22.710		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 703H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	57.81	76.33	121.24	143.46				
100.00	100.00	92.60	92.60	0.13	0.13	57.81	76.33	121.24	143.27	143.09	0.18	789.454	
200.00	200.00	192.60	192.60	0.48	0.47	57.81	76.33	121.24	143.27	142.59	0.68	211.596	
300.00	300.00	292.60	292.60	0.84	0.83	57.81	76.33	121.24	143.27	142.08	1.18	121.001	
400.00	400.00	392.60	392.60	1.20	1.19	57.81	76.33	121.24	143.27	141.58	1.69	84.725	
500.00	500.00	492.60	492.60	1.56	1.55	57.81	76.33	121.24	143.27	141.07	2.20	65.183	
600.00	600.00	592.60	592.60	1.92	1.91	57.81	76.33	121.24	143.27	140.56	2.70	52.966	
700.00	700.00	692.60	692.60	2.28	2.27	57.81	76.33	121.24	143.27	140.06	3.21	44.606	
800.00	800.00	792.60	792.60	2.63	2.62	57.81	76.33	121.24	143.27	139.55	3.72	38.525	
900.00	900.00	892.60	892.60	2.99	2.98	57.81	76.33	121.24	143.27	139.04	4.23	33.903	
1,000.00	1,000.00	992.60	992.60	3.35	3.34	57.81	76.33	121.24	143.27	138.53	4.73	30.272	
1,100.00	1,100.00	1,092.60	1,092.60	3.71	3.70	57.81	76.33	121.24	143.27	138.03	5.24	27.343	
1,200.00	1,200.00	1,192.60	1,192.60	4.07	4.06	57.81	76.33	121.24	143.27	137.52	5.75	24.931	
1,300.00	1,300.00	1,292.60	1,292.60	4.43	4.42	57.81	76.33	121.24	143.27	137.01	6.25	22.910	
1,400.00	1,400.00	1,392.60	1,392.60	4.79	4.78	57.81	76.33	121.24	143.27	136.51	6.76	21.192	
1,500.00	1,500.00	1,492.60	1,492.60	5.14	5.13	57.81	76.33	121.24	143.27	136.00	7.27	19.713	
1,600.00	1,600.00	1,592.60	1,592.60	5.50	5.49	57.81	76.33	121.24	143.27	135.49	7.77	18.428	
1,700.00	1,700.00	1,692.60	1,692.60	5.86	5.85	57.81	76.33	121.24	143.27	134.99	8.28	17.300	
1,800.00	1,800.00	1,792.60	1,792.60	6.22	6.21	57.81	76.33	121.24	143.27	134.48	8.79	16.302	
1,900.00	1,900.00	1,892.60	1,892.60	6.58	6.57	57.81	76.33	121.24	143.27	133.97	9.30	15.413	
2,000.00	2,000.00	1,992.60	1,992.60	6.94	6.93	57.81	76.33	121.24	143.27	133.46	9.80	14.616	
2,060.00	2,060.00	2,052.60	2,052.60	7.15	7.14	57.81	76.33	121.24	143.27	133.16	10.11	14.176 CC	
2,100.00	2,100.00	2,092.60	2,092.60	7.29	7.28	157.96	76.33	121.24	143.46	133.15	10.31	13.920 ES	
2,200.00	2,199.97	2,192.57	2,192.57	7.63	7.64	158.30	76.33	121.24	145.65	134.85	10.80	13.487	
2,300.00	2,299.84	2,292.44	2,292.44	7.97	8.00	158.97	76.33	121.24	150.28	138.99	11.29	13.308 SF	
2,400.00	2,399.55	2,392.15	2,392.15	8.32	8.36	159.93	76.33	121.24	157.38	145.60	11.79	13.352	
2,500.00	2,499.03	2,491.63	2,491.63	8.67	8.71	161.08	76.33	121.24	167.00	154.72	12.28	13.597	
2,576.48	2,574.90	2,567.50	2,567.50	8.94	8.99	162.04	76.33	121.24	176.06	163.40	12.66	13.907	
2,600.00	2,598.21	2,590.81	2,590.81	9.02	9.07	162.36	76.33	121.24	179.09	166.31	12.78	14.017	
2,700.00	2,697.30	2,689.90	2,689.90	9.38	9.43	163.58	76.33	121.24	191.99	178.71	13.27	14.467	
2,800.00	2,796.39	2,788.99	2,788.99	9.75	9.78	164.64	76.33	121.24	204.96	191.19	13.77	14.888	
2,900.00	2,895.47	2,888.07	2,888.07	10.12	10.14	165.58	76.33	121.24	218.00	203.73	14.26	15.284	
3,000.00	2,994.56	2,987.16	2,987.16	10.49	10.49	166.41	76.33	121.24	231.08	216.32	14.76	15.656	
3,100.00	3,093.65	3,086.25	3,086.25	10.87	10.85	167.15	76.33	121.24	244.21	228.95	15.26	16.005	
3,200.00	3,192.74	3,185.34	3,185.34	11.25	11.20	167.82	76.33	121.24	257.38	241.62	15.76	16.334	
3,300.00	3,291.82	3,279.82	3,279.81	11.64	11.53	168.50	76.13	122.05	271.29	255.06	16.23	16.712	
3,400.00	3,390.91	3,372.87	3,372.81	12.02	11.85	169.37	75.38	125.03	287.21	270.52	16.69	17.208	
3,500.00	3,490.00	3,465.17	3,464.95	12.41	12.16	170.38	74.10	130.17	305.18	288.04	17.14	17.808	
3,600.00	3,589.09	3,556.59	3,556.08	12.80	12.47	171.49	72.30	137.38	325.22	307.65	17.57	18.505	
3,700.00	3,688.17	3,647.07	3,646.05	13.19	12.79	172.66	70.00	146.60	347.38	329.38	18.00	19.297	
3,800.00	3,787.26	3,736.51	3,734.74	13.58	13.10	173.86	67.22	157.74	371.65	353.23	18.42	20.179	
3,900.00	3,886.35	3,827.08	3,824.28	13.98	13.42	175.08	63.92	170.98	397.98	379.13	18.84	21.120	
4,000.00	3,985.43	3,923.02	3,919.04	14.38	13.76	176.25	60.28	185.55	424.98	405.66	19.32	21.998	
4,100.00	4,084.52	4,018.96	4,013.80	14.77	14.11	177.29	56.65	200.11	452.12	432.33	19.80	22.838	
4,200.00	4,183.61	4,114.90	4,108.56	15.17	14.47	178.20	53.01	214.68	479.39	459.11	20.28	23.642	
4,300.00	4,282.70	4,210.84	4,203.32	15.57	14.82	179.02	49.38	229.25	506.76	486.00	20.76	24.412	
4,400.00	4,381.78	4,306.78	4,298.07	15.97	15.18	179.76	45.74	243.81	534.22	512.98	21.24	25.148	
4,500.00	4,480.87	4,402.72	4,392.83	16.37	15.54	-179.58	42.11	258.38	561.75	540.02	21.73	25.853	
4,600.00	4,579.96	4,498.67	4,487.59	16.78	15.91	-178.98	38.47	272.95	589.34	567.13	22.22	26.529	
4,700.00	4,679.05	4,594.61	4,582.35	17.18	16.28	-178.43	34.84	287.52	616.99	594.29	22.70	27.176	
4,800.00	4,778.13	4,690.55	4,677.11	17.59	16.65	-177.93	31.20	302.08	644.69	621.50	23.19	27.797	
4,900.00	4,877.22	4,786.49	4,771.87	17.99	17.02	-177.47	27.57	316.65	672.43	648.74	23.68	28.392	

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 703H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,976.31	4,882.43	4,866.63	18.40	17.40	-177.05	23.93	331.22	700.20	676.03	24.18	28.964		
5,100.00	5,075.39	4,978.37	4,961.39	18.80	17.78	-176.65	20.30	345.78	728.01	703.34	24.67	29.513		
5,200.00	5,174.48	5,074.31	5,056.15	19.21	18.15	-176.29	16.66	360.35	755.85	730.69	25.16	30.040		
5,300.00	5,273.57	5,170.26	5,150.91	19.62	18.54	-175.96	13.03	374.92	783.71	758.05	25.66	30.547		
5,400.00	5,372.66	5,266.20	5,245.67	20.02	18.92	-175.64	9.39	389.48	811.60	785.45	26.15	31.035		
5,500.00	5,471.74	5,362.14	5,340.43	20.43	19.30	-175.35	5.76	404.05	839.50	812.86	26.65	31.504		
5,600.00	5,570.83	5,458.08	5,435.19	20.84	19.69	-175.08	2.12	418.62	867.43	840.29	27.14	31.956		
5,700.00	5,669.92	5,554.02	5,529.95	21.25	20.08	-174.82	-1.52	433.19	895.37	867.73	27.64	32.392		
5,800.00	5,769.01	5,649.96	5,624.71	21.66	20.46	-174.58	-5.15	447.75	923.33	895.19	28.14	32.812		
5,900.00	5,868.09	5,745.90	5,719.46	22.07	20.85	-174.35	-8.79	462.32	951.31	922.67	28.64	33.217		
6,000.00	5,967.18	5,841.84	5,814.22	22.48	21.25	-174.14	-12.42	476.89	979.29	950.15	29.14	33.608		
6,100.00	6,066.27	5,937.79	5,908.98	22.89	21.64	-173.93	-16.06	491.45	1,007.29	977.65	29.64	33.986		
6,200.00	6,165.35	6,033.73	6,003.74	23.30	22.03	-173.74	-19.69	506.02	1,035.30	1,005.16	30.14	34.350		
6,300.00	6,264.44	6,129.67	6,098.50	23.71	22.43	-173.56	-23.33	520.59	1,063.32	1,032.68	30.64	34.703		
6,400.00	6,363.53	6,225.61	6,193.26	24.13	22.82	-173.39	-26.96	535.16	1,091.35	1,060.21	31.14	35.044		
6,500.00	6,462.62	6,321.55	6,288.02	24.54	23.22	-173.23	-30.60	549.72	1,119.38	1,087.74	31.64	35.374		
6,600.00	6,561.70	6,417.49	6,382.78	24.95	23.61	-173.07	-34.23	564.29	1,147.43	1,115.28	32.15	35.693		
6,700.00	6,660.79	6,513.43	6,477.54	25.36	24.01	-172.92	-37.87	578.86	1,175.48	1,142.83	32.65	36.002		
6,800.00	6,759.88	6,609.38	6,572.30	25.78	24.41	-172.78	-41.50	593.42	1,203.54	1,170.39	33.15	36.302		
6,900.00	6,858.97	6,705.32	6,667.06	26.19	24.81	-172.65	-45.14	607.99	1,231.61	1,197.95	33.66	36.592		
7,000.00	6,958.05	6,801.26	6,761.82	26.60	25.21	-172.52	-48.77	622.56	1,259.68	1,225.52	34.16	36.873		
7,100.00	7,057.14	6,897.20	6,856.58	27.01	25.61	-172.39	-52.41	637.13	1,287.76	1,253.09	34.67	37.146		
7,123.17	7,080.10	6,919.43	6,878.53	27.11	25.70	-172.37	-53.25	640.50	1,294.26	1,259.48	34.78	37.208		
7,200.00	7,156.33	6,993.35	6,951.54	27.42	26.01	-172.31	-56.05	651.72	1,315.10	1,279.93	35.17	37.391		
7,300.00	7,255.80	7,090.15	7,047.15	27.82	26.42	-172.23	-59.72	666.42	1,340.02	1,304.34	35.68	37.559		
7,400.00	7,355.51	7,187.55	7,143.35	28.19	26.83	-172.14	-63.41	681.21	1,362.42	1,326.24	36.18	37.653		
7,500.00	7,455.39	7,285.48	7,240.07	28.55	27.24	-172.02	-67.12	696.08	1,382.30	1,345.61	36.69	37.676		
7,600.00	7,555.36	7,383.88	7,337.26	28.89	27.65	-171.90	-70.85	711.02	1,399.64	1,362.44	37.19	37.631		
7,639.64	7,595.00	7,423.01	7,375.91	29.02	27.82	88.03	-72.33	716.96	1,405.81	1,368.42	37.39	37.597		
7,700.00	7,655.36	7,482.62	7,434.79	29.22	28.07	88.14	-74.59	726.01	1,414.90	1,377.21	37.69	37.538		
7,800.00	7,755.36	7,581.39	7,532.34	29.54	28.49	88.31	-78.33	741.01	1,429.97	1,391.78	38.19	37.444		
7,900.00	7,855.36	7,680.16	7,629.89	29.86	28.90	88.48	-82.07	756.00	1,445.06	1,406.37	38.69	37.352		
8,000.00	7,955.36	7,778.93	7,727.44	30.19	29.32	88.64	-85.82	771.00	1,460.15	1,420.97	39.19	37.261		
8,100.00	8,055.36	7,877.69	7,824.99	30.51	29.74	88.80	-89.56	786.00	1,475.26	1,435.58	39.69	37.174		
8,200.00	8,155.36	7,976.46	7,922.54	30.84	30.16	88.96	-93.30	800.99	1,490.38	1,450.19	40.19	37.088		
8,284.68	8,240.04	8,060.10	8,005.15	31.11	30.51	89.09	-96.47	813.69	1,503.19	1,462.58	40.61	37.017		
8,300.00	8,255.35	8,075.21	8,020.08	31.16	30.58	99.89	-97.04	815.99	1,505.55	1,464.86	40.68	37.005		
8,350.00	8,305.21	8,124.23	8,068.49	31.33	30.78	99.28	-98.90	823.43	1,513.71	1,472.78	40.93	36.981		
8,400.00	8,354.58	8,172.46	8,116.13	31.49	30.99	98.75	-100.73	830.75	1,522.61	1,481.44	41.17	36.982		
8,450.00	8,403.07	8,219.56	8,162.64	31.65	31.19	98.28	-102.51	837.90	1,532.26	1,490.85	41.40	37.008		
8,500.00	8,450.32	8,265.15	8,207.67	31.80	31.38	97.85	-104.24	844.83	1,542.68	1,501.05	41.63	37.060		
8,550.00	8,495.98	8,308.89	8,250.88	31.95	31.57	97.43	-105.90	851.47	1,553.93	1,512.09	41.84	37.141		
8,600.00	8,539.68	8,350.45	8,291.92	32.09	31.75	97.00	-107.47	857.78	1,566.08	1,524.04	42.04	37.253		
8,650.00	8,581.10	8,389.51	8,330.51	32.22	31.91	96.52	-108.95	863.71	1,579.20	1,536.97	42.23	37.397		
8,700.00	8,619.93	8,425.78	8,366.33	32.35	32.07	95.94	-110.32	869.21	1,593.36	1,550.95	42.41	37.574		
8,750.00	8,655.87	8,458.98	8,399.11	32.48	32.21	95.24	-111.58	874.25	1,608.62	1,566.05	42.57	37.787		
8,800.00	8,688.64	8,488.85	8,428.61	32.60	32.33	94.37	-112.71	878.79	1,625.04	1,582.32	42.72	38.037		
8,850.00	8,718.00	8,515.17	8,454.61	32.72	32.45	93.31	-113.71	882.79	1,642.64	1,599.78	42.86	38.323		
8,900.00	8,743.72	8,537.73	8,476.90	32.84	32.54	92.02	-114.57	886.21	1,661.43	1,618.44	42.99	38.647		
8,950.00	8,765.60	8,556.38	8,495.31	32.98	32.62	90.48	-115.27	889.04	1,681.39	1,638.28	43.10	39.007		
9,000.00	8,783.49	8,570.96	8,509.71	33.12	32.68	88.68	-115.82	891.26	1,702.44	1,659.24	43.21	39.404		
9,050.00	8,797.24	8,581.36	8,519.99	33.29	32.73	86.60	-116.22	892.84	1,724.50	1,681.21	43.29	39.834		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 703H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,100.00	8,806.75	8,587.50	8,526.06	33.48	32.76	84.25	-116.45	893.77	1,747.45	1,704.08	43.37	40.295		
9,150.00	8,811.95	8,589.35	8,527.88	33.68	32.76	81.65	-116.52	894.05	1,771.12	1,727.69	43.43	40.785		
9,184.68	8,813.00	8,588.09	8,526.64	33.83	32.76	79.72	-116.47	893.86	1,787.86	1,744.40	43.46	41.140		
9,200.00	8,813.00	8,587.08	8,525.64	33.91	32.75	79.71	-116.44	893.71	1,795.31	1,751.84	43.47	41.299		
9,300.00	8,813.00	8,580.79	8,519.43	34.41	32.73	79.69	-116.20	892.75	1,844.65	1,801.08	43.57	42.336		
9,400.00	8,813.00	8,575.01	8,513.71	34.98	32.70	79.69	-115.98	891.87	1,895.07	1,851.38	43.69	43.374		
9,500.00	8,813.00	8,569.73	8,508.50	35.60	32.68	79.72	-115.78	891.07	1,946.42	1,902.60	43.83	44.413		
9,600.00	8,813.00	8,564.97	8,503.80	36.27	32.66	79.78	-115.60	890.35	1,998.59	1,954.62	43.97	45.451		
9,702.98	8,813.00	8,560.62	8,499.50	37.00	32.64	79.86	-115.43	889.69	2,053.03	2,008.89	44.13	46.520		
9,800.00	8,813.00	8,556.78	8,495.71	37.74	32.62	79.73	-115.29	889.10	2,106.22	2,061.93	44.29	47.557		
9,900.00	8,813.00	8,552.82	8,491.80	38.55	32.61	79.60	-115.14	888.50	2,164.23	2,119.78	44.45	48.687		
10,000.00	8,813.00	8,548.86	8,487.89	39.42	32.59	79.47	-114.99	887.90	2,225.21	2,180.60	44.62	49.875		
10,100.00	8,813.00	8,544.91	8,483.98	40.34	32.57	79.34	-114.84	887.30	2,288.94	2,244.16	44.78	51.118		
10,200.00	8,813.00	8,540.95	8,480.08	41.30	32.56	79.21	-114.69	886.70	2,355.18	2,310.24	44.94	52.411		
10,300.00	8,813.00	8,536.99	8,476.17	42.31	32.54	79.08	-114.54	886.10	2,423.73	2,378.63	45.09	53.752		
10,400.00	8,813.00	8,533.04	8,472.26	43.35	32.52	78.95	-114.39	885.50	2,494.40	2,449.16	45.24	55.138		
10,500.00	8,813.00	8,529.08	8,468.35	44.44	32.51	78.82	-114.24	884.90	2,567.01	2,521.63	45.38	56.566		
10,600.00	8,813.00	8,525.12	8,464.44	45.55	32.49	78.69	-114.09	884.30	2,641.41	2,595.89	45.52	58.031		
10,700.00	8,813.00	8,521.17	8,460.54	46.70	32.47	78.56	-113.94	883.70	2,717.44	2,671.80	45.65	59.532		
10,800.00	8,813.00	8,517.21	8,456.63	47.88	32.46	78.43	-113.79	883.10	2,794.98	2,749.21	45.77	61.064		
10,900.00	8,813.00	8,513.25	8,452.72	49.09	32.44	78.30	-113.64	882.50	2,873.91	2,828.02	45.89	62.627		
11,000.00	8,813.00	8,509.30	8,448.81	50.32	32.42	78.17	-113.49	881.89	2,954.10	2,908.10	46.00	64.217		
11,100.00	8,813.00	8,505.34	8,444.90	51.57	32.41	78.04	-113.34	881.29	3,035.47	2,989.36	46.11	65.832		
11,200.00	8,813.00	8,501.38	8,441.00	52.85	32.39	77.91	-113.19	880.69	3,117.91	3,071.70	46.21	67.471		
11,300.00	8,813.00	8,497.43	8,437.09	54.15	32.37	77.78	-113.04	880.09	3,201.35	3,155.04	46.31	69.131		
11,400.00	8,813.00	8,493.47	8,433.18	55.46	32.35	77.65	-112.89	879.49	3,285.71	3,239.31	46.40	70.811		
11,500.00	8,813.00	8,489.51	8,429.27	56.80	32.34	77.52	-112.74	878.89	3,370.92	3,324.43	46.49	72.509		
11,600.00	8,813.00	8,485.56	8,425.36	58.15	32.32	77.39	-112.59	878.29	3,456.92	3,410.35	46.57	74.224		
11,700.00	8,813.00	8,481.60	8,421.46	59.51	32.30	77.26	-112.44	877.69	3,543.65	3,496.99	46.65	75.955		
11,800.00	8,813.00	8,477.64	8,417.55	60.89	32.29	77.13	-112.29	877.09	3,631.06	3,584.32	46.73	77.699		
11,900.00	8,813.00	8,473.69	8,413.64	62.29	32.27	77.00	-112.14	876.49	3,719.09	3,672.29	46.81	79.457		
12,000.00	8,813.00	15,540.80	12,006.25	63.69	71.70	147.43	3,388.11	1,184.09	3,799.62	3,735.19	64.43	58.971		
12,100.00	8,813.00	15,640.74	12,002.76	65.11	72.99	147.40	3,487.98	1,183.00	3,796.70	3,730.98	65.71	57.776		
12,200.00	8,813.00	15,740.68	11,999.28	66.54	74.30	147.37	3,587.85	1,181.91	3,793.77	3,726.76	67.01	56.615		
12,300.00	8,813.00	15,840.62	11,995.80	67.97	75.62	147.34	3,687.72	1,180.82	3,790.84	3,722.52	68.32	55.487		
12,400.00	8,813.00	15,940.56	11,992.32	69.42	76.95	147.31	3,787.60	1,179.73	3,787.92	3,718.28	69.64	54.393		
12,500.00	8,813.00	16,040.50	11,988.84	70.88	78.30	147.29	3,887.47	1,178.64	3,785.00	3,714.02	70.97	53.331		
12,600.00	8,813.00	16,140.44	11,985.36	72.34	79.66	147.26	3,987.34	1,177.55	3,782.07	3,709.76	72.32	52.300		
12,700.00	8,813.00	16,240.37	11,981.88	73.82	81.02	147.23	4,087.22	1,176.46	3,779.15	3,705.48	73.67	51.299		
12,800.00	8,813.00	16,340.31	11,978.39	75.30	82.40	147.20	4,187.09	1,175.37	3,776.23	3,701.20	75.03	50.328		
12,900.00	8,813.00	16,440.25	11,974.91	76.78	83.79	147.17	4,286.96	1,174.28	3,773.31	3,696.91	76.40	49.386		
13,000.00	8,813.00	16,540.19	11,971.43	78.28	85.19	147.14	4,386.83	1,173.19	3,770.39	3,692.61	77.79	48.471		
13,100.00	8,813.00	16,640.13	11,967.95	79.78	86.59	147.11	4,486.71	1,172.10	3,767.47	3,688.30	79.18	47.583		
13,200.00	8,813.00	16,740.07	11,964.47	81.28	88.01	147.08	4,586.58	1,171.01	3,764.56	3,683.98	80.57	46.721		
13,300.00	8,813.00	16,840.01	11,960.99	82.80	89.43	147.05	4,686.45	1,169.92	3,761.64	3,679.66	81.98	45.886		
13,400.00	8,813.00	16,939.95	11,957.51	84.31	90.86	147.03	4,786.32	1,168.83	3,758.73	3,675.34	83.39	45.075		
13,500.00	8,813.00	17,039.89	11,954.02	85.84	92.30	147.00	4,886.20	1,167.74	3,755.81	3,671.01	84.81	44.288		
13,600.00	8,813.00	17,139.83	11,950.54	87.36	93.75	146.97	4,986.07	1,166.65	3,752.90	3,666.67	86.23	43.523		
13,700.00	8,813.00	17,239.77	11,947.06	88.89	95.20	146.94	5,085.94	1,165.56	3,749.99	3,662.33	87.66	42.780		
13,800.00	8,813.00	17,339.71	11,943.58	90.43	96.66	146.91	5,185.82	1,164.47	3,747.07	3,657.98	89.09	42.057		
13,900.00	8,813.00	17,439.65	11,940.10	91.97	98.12	146.88	5,285.69	1,163.38	3,744.16	3,653.63	90.54	41.355		
14,000.00	8,813.00	17,539.59	11,936.62	93.51	99.59	146.85	5,385.56	1,162.29	3,741.25	3,649.27	91.99	40.672		

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 Georgetown/Ouray - Ouray Fed Com 703H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	8,813.00	17,639.52	11,933.14	95.06	101.07	146.82	5,485.43	1,161.20	3,738.35	3,644.91	93.44	40.008		
14,200.00	8,813.00	17,739.46	11,929.65	96.61	102.55	146.79	5,585.31	1,160.11	3,735.44	3,640.54	94.90	39.362		
14,300.00	8,813.00	17,839.40	11,926.17	98.17	104.03	146.76	5,685.18	1,159.02	3,732.53	3,636.17	96.37	38.733		
14,400.00	8,813.00	17,939.34	11,922.69	99.72	105.53	146.73	5,785.05	1,157.93	3,729.63	3,631.79	97.84	38.121		
14,500.00	8,813.00	18,039.28	11,919.21	101.29	107.02	146.70	5,884.92	1,156.84	3,726.72	3,627.41	99.31	37.526		
14,600.00	8,813.00	18,139.22	11,915.73	102.85	108.52	146.67	5,984.80	1,155.75	3,723.82	3,623.03	100.79	36.947		
14,700.00	8,813.00	18,239.16	11,912.25	104.41	110.03	146.64	6,084.67	1,154.66	3,720.92	3,618.65	102.27	36.383		
14,800.00	8,813.00	18,339.10	11,908.77	105.98	111.54	146.61	6,184.54	1,153.57	3,718.02	3,614.26	103.76	35.834		
14,900.00	8,813.00	18,439.04	11,905.28	107.56	113.05	146.58	6,284.41	1,152.48	3,715.12	3,609.87	105.25	35.299		
15,000.00	8,813.00	18,538.98	11,901.80	109.13	114.57	146.55	6,384.29	1,151.39	3,712.22	3,605.48	106.74	34.778		
15,100.00	8,813.00	18,638.92	11,898.32	110.71	116.09	146.52	6,484.16	1,150.30	3,709.32	3,601.08	108.24	34.270		
15,200.00	8,813.00	18,738.86	11,894.84	112.28	117.61	146.49	6,584.03	1,149.21	3,706.42	3,596.68	109.74	33.775		
15,300.00	8,813.00	18,838.80	11,891.36	113.86	119.14	146.46	6,683.91	1,148.12	3,703.52	3,592.28	111.24	33.292		
15,400.00	8,813.00	18,938.74	11,887.88	115.45	120.67	146.43	6,783.78	1,147.03	3,700.63	3,587.88	112.75	32.821		
15,500.00	8,813.00	19,038.68	11,884.40	117.03	122.20	146.40	6,883.65	1,145.94	3,697.74	3,583.47	114.27	32.361		
15,600.00	8,813.00	19,138.61	11,880.91	118.62	123.74	146.37	6,983.52	1,144.85	3,694.84	3,579.06	115.78	31.912		
15,700.00	8,813.00	19,238.55	11,877.43	120.21	125.28	146.34	7,083.40	1,143.76	3,691.95	3,574.65	117.30	31.473		
15,800.00	8,813.00	19,338.49	11,873.95	121.80	126.82	146.31	7,183.27	1,142.67	3,689.06	3,570.23	118.83	31.046		
15,900.00	8,813.00	19,438.43	11,870.47	123.39	128.37	146.28	7,283.14	1,141.58	3,686.17	3,565.82	120.35	30.629		
16,000.00	8,813.00	19,538.37	11,866.99	124.98	129.91	146.25	7,383.01	1,140.49	3,683.28	3,561.40	121.88	30.221		
16,100.00	8,813.00	19,638.31	11,863.51	126.58	131.47	146.22	7,482.89	1,139.40	3,680.39	3,556.98	123.41	29.823		
16,200.00	8,813.00	19,738.25	11,860.03	128.17	133.02	146.19	7,582.76	1,138.31	3,677.50	3,552.56	124.94	29.433		
16,300.00	8,813.00	19,838.19	11,856.54	129.77	134.57	146.16	7,682.63	1,137.22	3,674.62	3,548.14	126.48	29.053		
16,400.00	8,813.00	19,938.13	11,853.06	131.37	136.13	146.13	7,782.51	1,136.13	3,671.73	3,543.71	128.02	28.681		
16,500.00	8,813.00	20,038.07	11,849.58	132.97	137.69	146.10	7,882.38	1,135.04	3,668.85	3,539.29	129.56	28.318		
16,600.00	8,813.00	20,138.01	11,846.10	134.57	139.25	146.07	7,982.25	1,133.95	3,665.97	3,534.86	131.10	27.962		
16,700.00	8,813.00	20,237.95	11,842.62	136.17	140.82	146.04	8,082.12	1,132.86	3,663.08	3,530.43	132.65	27.614		
16,800.00	8,813.00	20,337.89	11,839.14	137.78	142.38	146.01	8,182.00	1,131.77	3,660.20	3,526.00	134.20	27.273		
16,900.00	8,813.00	20,437.83	11,835.66	139.38	143.95	145.98	8,281.87	1,130.68	3,657.32	3,521.57	135.75	26.941		
17,000.00	8,813.00	20,537.76	11,832.17	140.99	145.52	145.95	8,381.74	1,129.59	3,654.44	3,517.14	137.31	26.615		
17,100.00	8,813.00	20,637.70	11,828.69	142.60	147.09	145.92	8,481.61	1,128.50	3,651.57	3,512.70	138.86	26.296		
17,200.00	8,813.00	20,737.64	11,825.21	144.20	148.67	145.89	8,581.49	1,127.41	3,648.69	3,508.27	140.42	25.984		
17,300.00	8,813.00	20,837.58	11,821.73	145.81	150.24	145.86	8,681.36	1,126.32	3,645.81	3,503.83	141.98	25.678		
17,400.00	8,813.00	20,937.52	11,818.25	147.42	151.82	145.82	8,781.23	1,125.23	3,642.94	3,499.39	143.55	25.377		
17,500.00	8,813.00	21,037.46	11,814.77	149.04	153.40	145.79	8,881.10	1,124.14	3,640.07	3,494.95	145.12	25.084		
17,600.00	8,813.00	21,137.40	11,811.28	150.65	154.98	145.76	8,980.98	1,123.05	3,637.19	3,490.51	146.68	24.797		
17,700.00	8,813.00	21,237.34	11,807.80	152.26	156.56	145.73	9,080.85	1,121.96	3,634.32	3,486.07	148.25	24.515		
17,800.00	8,813.00	21,337.28	11,804.32	153.88	158.14	145.70	9,180.72	1,120.87	3,631.45	3,481.63	149.82	24.238		
17,900.00	8,813.00	21,437.22	11,800.84	155.49	159.72	145.67	9,280.60	1,119.78	3,628.58	3,477.19	151.40	23.967		
18,000.00	8,813.00	21,537.16	11,797.36	157.11	161.31	145.64	9,380.47	1,118.69	3,625.72	3,472.74	152.97	23.702		
18,100.00	8,813.00	21,637.10	11,793.88	158.72	162.90	145.61	9,480.34	1,117.60	3,622.85	3,468.30	154.55	23.441		
18,200.00	8,813.00	21,737.04	11,790.40	160.34	164.48	145.58	9,580.21	1,116.51	3,619.98	3,463.85	156.13	23.185		
18,300.00	8,813.00	21,836.98	11,786.91	161.96	166.07	145.54	9,680.09	1,115.42	3,617.12	3,459.41	157.71	22.935		
18,400.00	8,813.00	21,936.92	11,783.43	163.58	167.66	145.51	9,779.96	1,114.33	3,614.25	3,454.96	159.30	22.689		
18,500.00	8,813.00	22,036.85	11,779.95	165.20	169.26	145.48	9,879.83	1,113.24	3,611.39	3,450.51	160.88	22.448		
18,600.00	8,813.00	22,136.79	11,776.47	166.82	170.85	145.45	9,979.70	1,112.15	3,608.53	3,446.06	162.47	22.211		
18,700.00	8,813.00	22,236.73	11,772.99	168.44	172.44	145.42	10,079.58	1,111.06	3,605.67	3,441.61	164.06	21.978		
18,800.00	8,813.00	22,336.67	11,769.51	170.06	173.97	145.39	10,179.45	1,109.99	3,602.81	3,437.24	165.57	21.760		
18,901.20	8,813.00	22,334.87	11,769.57	171.70	173.97	145.39	10,177.65	1,109.99	3,601.39	3,435.01	166.38	21.645		
18,904.52	8,813.00	22,334.87	11,769.57	171.75	173.97	145.39	10,177.65	1,109.99	3,601.39	3,434.98	166.41	21.642		

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



Total Directional Services

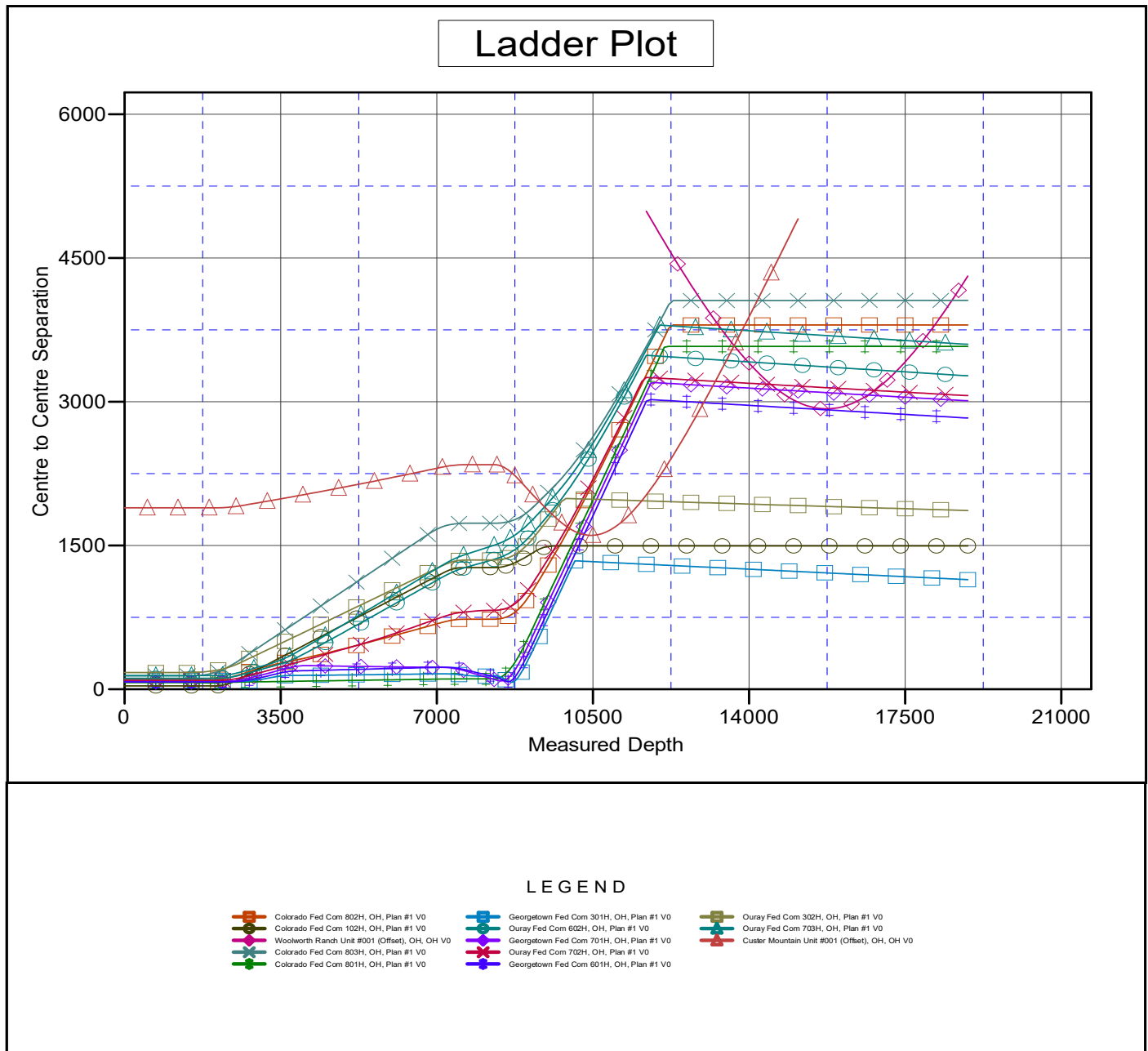
Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Colorado Fed Com 101H
Project:	Lea County, NM (NAD83)	TVD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Reference Site:	Colorado Fed Com	MD Reference:	3391.5' GE + 30' KB @ 3421.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Colorado Fed Com 101H	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 3391.5' GE + 30' KB @ 3421.50usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Colorado Fed Com 101H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.51°



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



Total Directional Services

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Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3391.5' GE + 30' KB @ 3421.50usft

Offset Depths are relative to Offset Datum

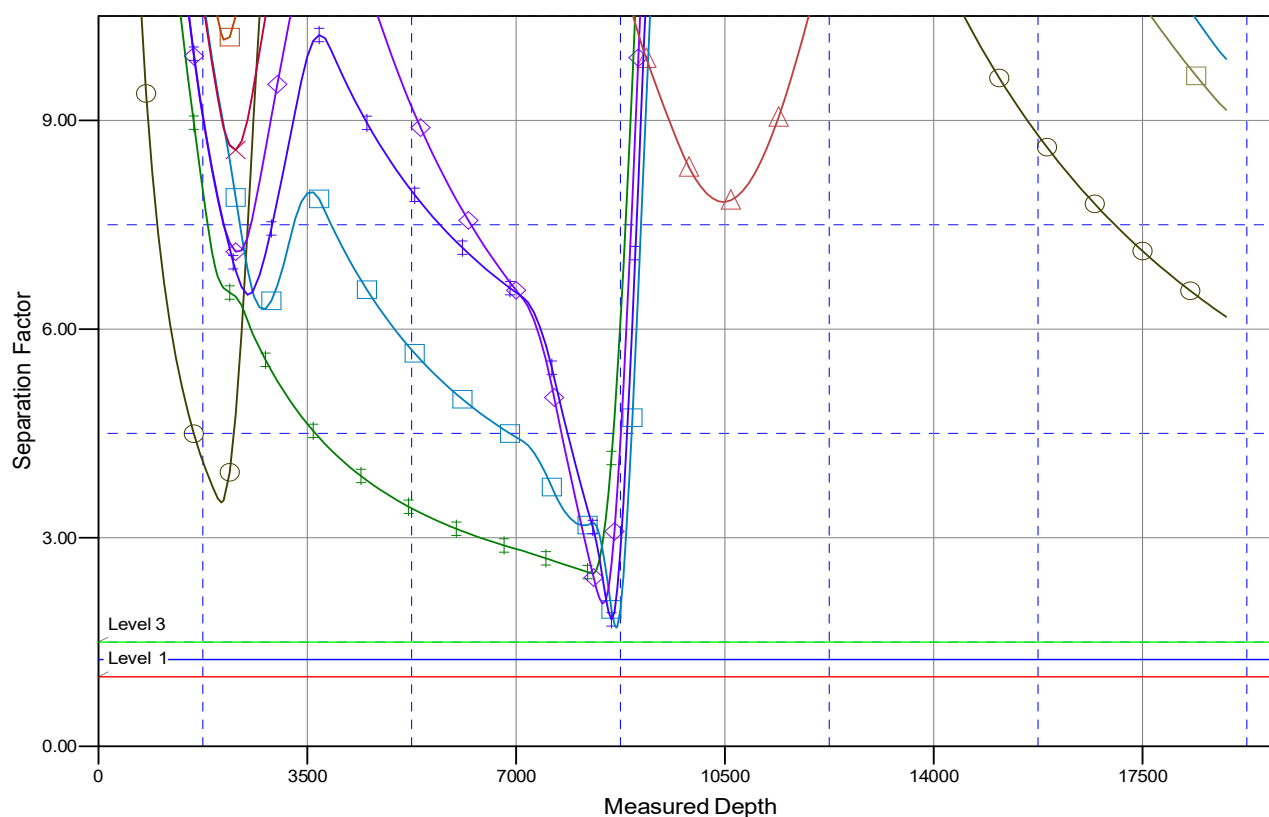
Central Meridian is -104.333334

Coordinates are relative to: Colorado Fed Com 101H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.51°

Separation Factor Plot



LEGEND

Colorado Fed Com 802H, OH, Plan #1 V0	Georgetown Fed Com 301H, OH, Plan #1 V0	Ouray Fed Com 302H, OH, Plan #1 V0
Colorado Fed Com 102H, OH, Plan #1 V0	Ouray Fed Com 602H, OH, Plan #1 V0	Ouray Fed Com 703H, OH, Plan #1 V0
Woolworth Ranch Unit #001 (Offset), OH, OH V0	Georgetown Fed Com 701H, OH, Plan #1 V0	Custer Mountain Unit #001 (Offset), OH, OH V0
Colorado Fed Com 803H, OH, Plan #1 V0	Ouray Fed Com 702H, OH, Plan #1 V0	
Colorado Fed Com 801H, OH, Plan #1 V0	Georgetown Fed Com 601H, OH, Plan #1 V0	

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

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Franklin Mountain Energy Company LLC
LEASE NO.:	NMNM114998, NMNM138898, NMNM01228, NMNM0001228A
COUNTY:	Lea

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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Watershed
 - Lesser Prairie Chicken
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 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
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- ☐ **Final Abandonment & Reclamation**

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.

VRM IV:

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

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

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 Enclosure 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 enclosure 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 Enclosures

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 enclosure 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, Carlsbad Canyon from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

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

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

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover

operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture 3, for Shallow 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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria macrostachya</i>)	1.0
Green Sprangletop (<i>Leptochloa dubia</i>)	2.0
Sideoats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Franklin Mountain Energy LLC
LEASE NO.:	NMNM01228A
LOCATION:	Section 9, T.24 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico
Sundry ID:	N/A

WELL NAME & NO.:	Colorado Fed Com 101H
SURFACE HOLE FOOTAGE:	250'S & 1203'/W
BOTTOM HOLE FOOTAGE:	150'/N & 380'/W

WELL NAME & NO.:	Colorado Fed Com 102H
SURFACE HOLE FOOTAGE:	250'S & 1238'/W
BOTTOM HOLE FOOTAGE:	150'/N & 1877'/W

WELL NAME & NO.:	Colorado Fed Com 801H
SURFACE HOLE FOOTAGE:	250'S & 1273'/W
BOTTOM HOLE FOOTAGE:	150'/N & 380'/W

WELL NAME & NO.:	Colorado Fed Com 802H
SURFACE HOLE FOOTAGE:	250'S & 1308'/W
BOTTOM HOLE FOOTAGE:	150'/N & 1306'/W

WELL NAME & NO.:	Colorado Fed Com 803H
SURFACE HOLE FOOTAGE:	250'S & 1343'/W
BOTTOM HOLE FOOTAGE:	150'/N & 2232'/W

COA

H2S	☒ Yes	☐ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☒ None	☐ Flex Hose	☐ Other
Wellhead	☐ Conventional	☐ Multibowl	☒ Both
Wellhead Variance	☐ Diverter		
Other	☒ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☒ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1100 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

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

b. Second stage above DV tool:

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

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

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

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

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

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

C. PRESSURE CONTROL

1.

Option 1:

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

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 integrity 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 integrity 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.

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 166742

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 166742
	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	12/30/2022
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	12/30/2022
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	12/30/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	12/30/2022