

Form 3160-3
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: ☐ DRILL ☐ REENTER		5. Lease Serial No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator [373910]		8. Lease Name and Well No. [330329]
3a. Address	3b. Phone No. (include area code)	9. API Well No. 30-025-48581
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 33813
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
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	12. County or Parish
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	13. State
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	17. Spacing Unit dedicated to this well
24. Attachments		20. BLM/BIA Bond No. in file
23. Estimated duration		

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 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.

GCP Rec 03/29/2021

KZ
03/30/2021

SL

(Continued on page 2)

*(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 a new 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: SESW / 710 FSL / 2619 FWL / TWSP: 25S / RANGE: 35E / SECTION: 24 / LAT: 32.110573 / LONG: -103.321324 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 636 FSL / 2101 FWL / TWSP: 25S / RANGE: 35E / SECTION: 24 / LAT: 32.110366 / LONG: -103.322996 (TVD: 12044 feet, MD: 12428 feet)

BHL: NENW / 150 FNL / 2102 FWL / TWSP: 25S / RANGE: 35E / SECTION: 13 / LAT: 32.137239 / LONG: -103.322969 (TVD: 11925 feet, MD: 22206 feet)

BLM Point of Contact

Name: TYLER HILL

Title: LIE

Phone: (575) 234-5972

Email: tjhill@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.

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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 30-025-48581	² Pool Code 33813	³ Pool Name JAL:WOLFCAMP, WEST
⁴ Property Code 330329	⁵ Property Name TRINITY FEDERAL	⁶ Well Number 703H
⁷ OGRID No. 373910	⁸ Operator Name FRANKLIN MOUNTAIN ENERGY LLC	⁹ Elevation 3097.6'

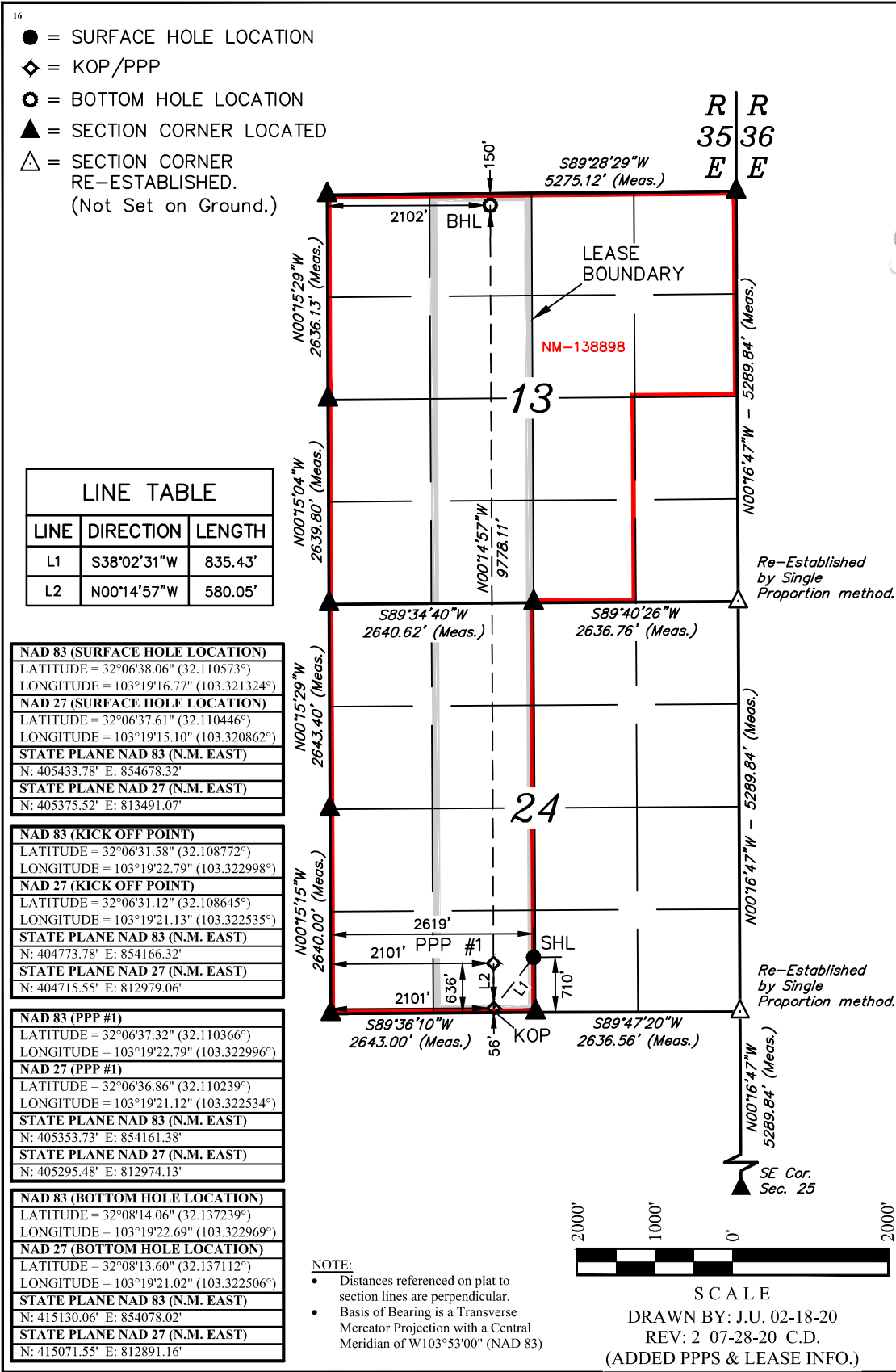
¹⁰ Surface Location

UL or lot no. N	Section 24	Township 25S	Range 35E	Lot Idn	Feet from the 710	North/South line SOUTH	Feet from the 2619	East/West line WEST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. C	Section 13	Township 25S	Range 35E	Lot Idn	Feet from the 150	North/South line NORTH	Feet from the 2102	East/West line WEST	County LEA
¹² Dedicated Acres 320	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.



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.

Shelly Albrecht
Signature Date 7/29/2020

Shelly Albrecht

Printed Name

salbrecht@fmellc.com

E-mail Address

¹⁸ SURVEYOR
CERTIFICATION

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

June 9, 2020

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number:

SCALE
DRAWN BY: J.U. 02-18-20
REV: 2 07-28-20 C.D.
(ADDED PPPS & LEASE INFO.)

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1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 12/2/2020

☒ Original

Operator & OGRID No.: Franklin Mountain Energy, LLC 373910

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Trinity Federal 602H	TBD	N-24-25S-35E	710 FSL 2584 FWL	1100 +/-	Flared	New well; expect to tie-in at IP
Trinity Federal 703H	TBD 30-025-48581	N-24-25S-35E	710 FSL 2619 FWL	1100 +/-	Flared	New well; expect to tie-in at IP
Santa Fe Fed Com 704H	TBD	O-24-25S-35E	710 FSL 2626 FEL	1100 +/-	Flared	New well; expect to tie-in at IP

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Energy Transfer Company and will be connected to Energy Transfer Company's gathering system located in Lea County, New Mexico. It will require 3,500' of pipeline to connect the facility to low/high pressure gathering system. Franklin Mountain Energy, LLC provides (periodically) to Energy Transfer Company a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Franklin Mountain Energy, LLC and Energy Transfer Company have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Energy Transfer Company's Keystone Gas Processing Facility located in Sec.5, Block B-2, Kermit, Winkler Co., Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to permanent central tank battery and gas will be sold or flared. Gas sales should start as soon as the wells start producing gas unless there are operational issues on Energy Transfer Company's system at that time. Based on current information, it is Franklin Mountain Energy's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



Trinity Federal 703H

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)	3,098'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,378'	750'			Carbonates
Salado	1,775'	1,353'			Salt, Carbonate & Clastics
Base Salt	-1,026'	4,154'			Shaley Carbonate & Shale
Lamar	-1,792'	4,920'			Carbonate & Clastics
Bell Canyon	-1,844'	4,972'			Sandstone - oil/gas/water
Cherry Canyon	-2,877'	6,005'			Sandstone - oil/gas/water
Brushy Canyon	-4,179'	7,307'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,430'	8,558'			Shale/Carbonates - oil/gas
Avalon	-5,453'	8,581'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,842'	9,970'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,970'	10,098'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,364'	10,492'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,813'	10,941'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,464'	11,592'			Sandstone - oil/gas/water
Wolfcamp	-8,767'	11,895'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,801'	11,929'			Overpressure Shale - Oil/Gas
HZ Target	-8,916'	12,044'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,994'	12,122'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	4,972'	Oil
Bone Spring	9,970'	Oil
Wolfcamp	11,895'	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. Capitan Reef boundary is near surface hole locations, but exact location is unknown. While drilling, FME will be prepared to switch over to fresh water should we encounter the reef and have losses up to 50%.

4. Casing Program:

All casings 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	5400	1.72	1.67	2.90	3.30
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	11950	1.11	1.28	1.82	1.24
Long string 5 1/2"	23	P-110	14520	14520	729	Anaconda 656	22206	1.32	1.4	1.19	1.07



Preliminary plan is to set 7 5/8" string before entering Wolfcamp formation at 11,861'TVD/11,550'MD at 42° Inc due too potential overpressure. Safety factors calculated assuming the well is vertical.

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	795	Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	334	HalCem TM, 14.8 ppg, Class C, 1% CaCl ₂ , 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5400	1167	0.125pps Poly-E-Flake Neocem TM, 11.5 ppg, Class C 5% Salt,	2.444	14.32	0	153	HalCem TM, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.334	6.42	5100	100%
Int2	8.75	7.625	11950	338	0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal NeoCem, 11 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake NeoCem, 13.5 ppg, Gas Migration Control	2.798	17.15	4400	112	NeoCem 13.2 ppg, Class C 0.25 pps Cello-Flake, 2% CaCl ₂	1.44	7.29	10950	50%
Prod	6.75	5.5	22206	829		1.357	6.65	10950						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' – 11,950'	Brine	8.8-10.2	28-34	N/c
11,950' – 22,206' Lateral	Oil Base	10.0-11.0	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 12.5 ppg may be utilized.

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

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

7. Auxiliary well control and monitoring equipment:

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

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

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

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

8. Logging, testing and coring program:

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

Open-hole logs are not planned for this well.

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

The estimated bottom-hole temperature at 12,044' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 7,828 psig (based on 12.5 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 be 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 Cameron 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.

Released to Imaging: 3/30/2021 10:42:09 AM

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Trinity Fed/Santa Fe Fed
Well: Trinity Federal 703H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.54°
Magnetic North: 6.03°

Magnetic Field
Strength: 47586.4nT
Dip Angle: 59.88°
Date: 3/10/2020
Model: IGRF2020

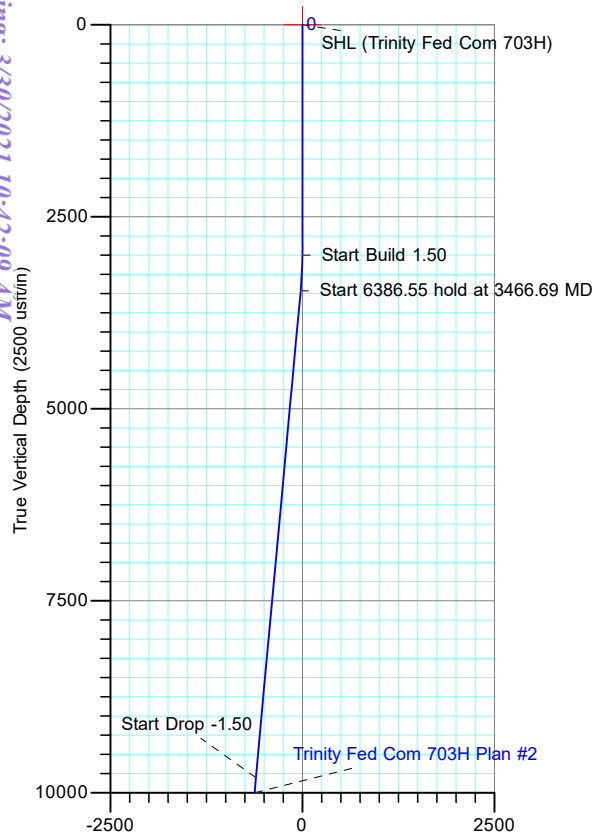
PROJECT DETAILS: Lea County, NM (NAD83)

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



Received by OCD: 3/26/2021 4:52:29 PM

3097.6' GE + 30' KB @ 3127.60usft

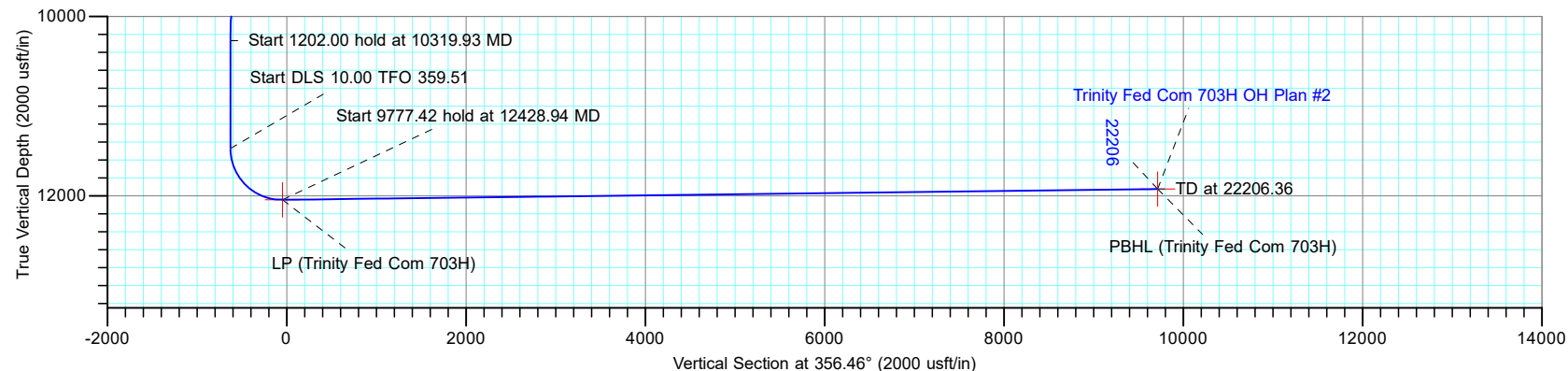
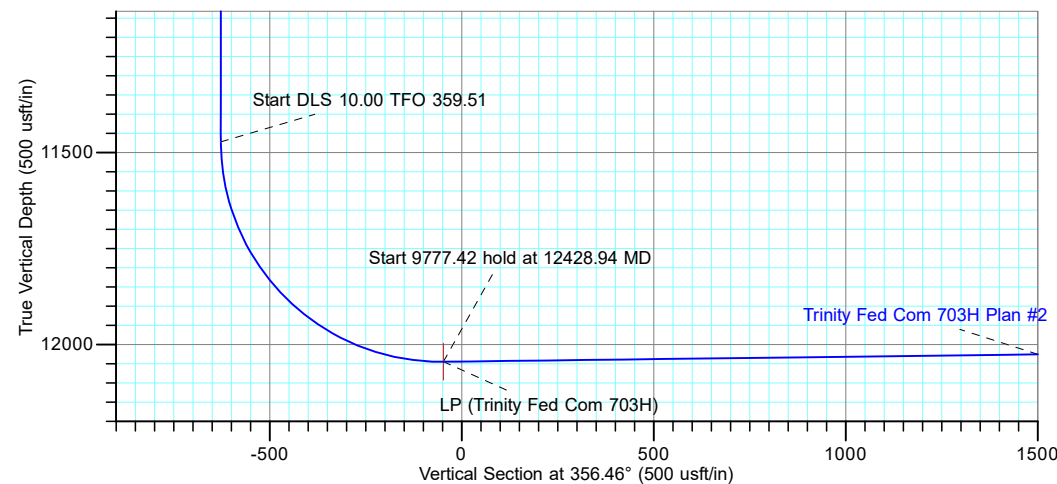


Model: TSN 2020

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	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3466.69	7.00	217.80	3465.53	-22.50	-17.45	1.50	217.80	-21.38	Start 6386.55 hold at 3466.69 MD
9853.24	7.00	217.80	9804.47	-637.50	-494.55	0.00	0.00	-605.72	Start Drop -1.50
10319.93	0.00	0.00	10270.00	-660.00	-512.00	1.50	180.00	-627.10	Start 1202.00 hold at 10319.93 MD
11521.93	0.00	0.00	11472.00	-660.00	-512.00	0.00	0.00	-627.10	Start DLS 10.00 TFO 359.51
12428.94	90.70	359.51	12044.91	-80.05	-516.94	10.00	359.51	-47.96	Start 9777.42 hold at 12428.94 MD
22206.36	90.70	359.51	11925.30	9696.28	-600.30	0.00	0.00	9714.84	TD at 22206.36

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (Trinity Fed Com 703H)	12044.91	-80.05	-516.94	32.110366	-103.322996
PBHL (Trinity Fed Com 703H)	11925.30	9696.28	-600.30	32.137239	-103.322969
SHL (Trinity Fed Com 703H)	0.00	0.00	0.00	32.110573	-103.321324



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

Plan: Plan #2 (Trinity Fed Com 703H/OH)
Trinity Fed/Santa Fe Fed
Created By: Dustin Ault Date: 13:24, July 15 2020
Date: _____
Approved: _____ Date: _____

Page 13 of 113

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Trinity Fed/Santa Fe Fed
Well: Trinity Fed Com 703H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.54°
Magnetic North: 6.03°

Magnetic Field
Strength: 47586.4nT
Dip Angle: 59.88°
Date: 3/10/2020
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

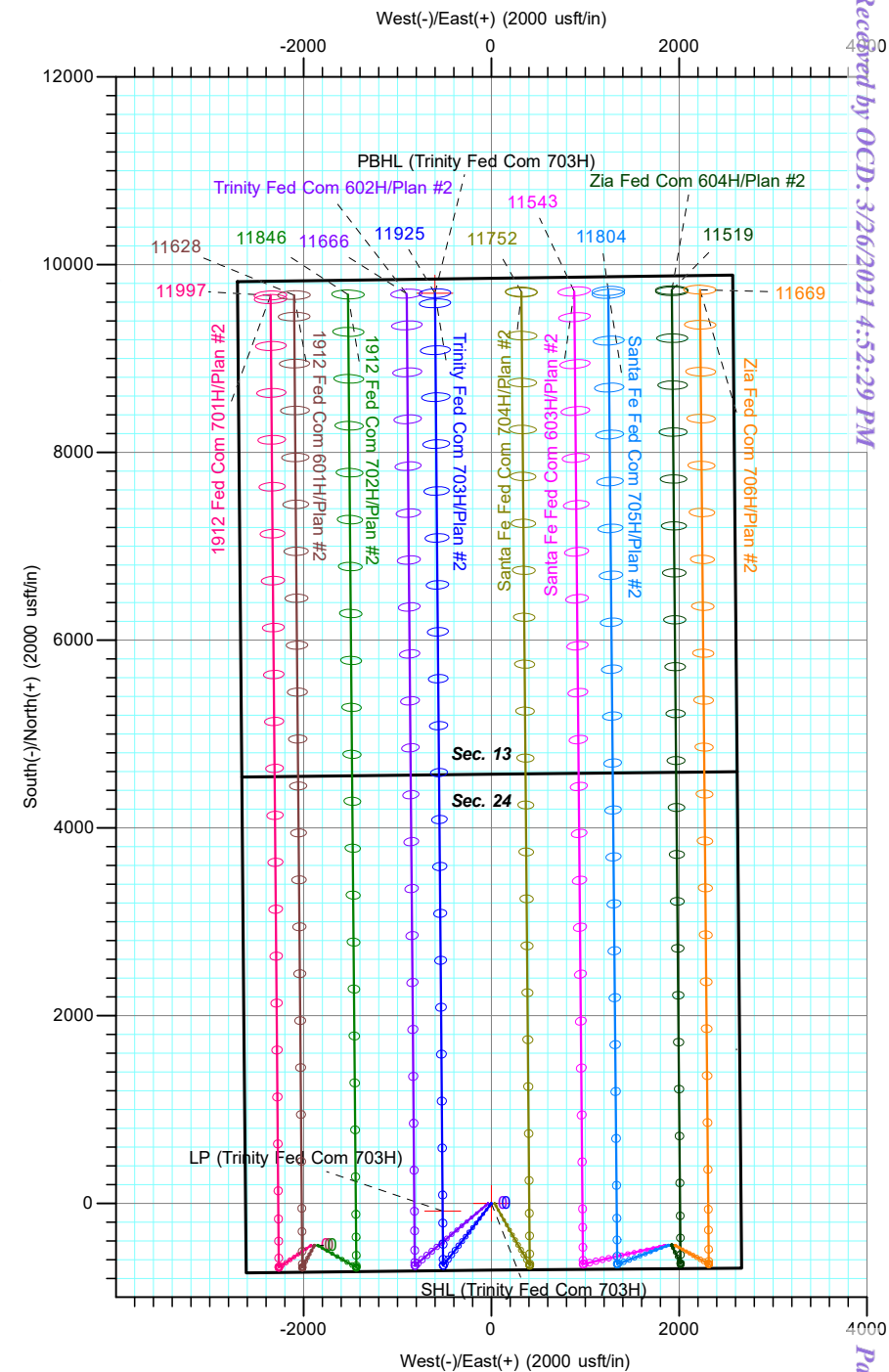
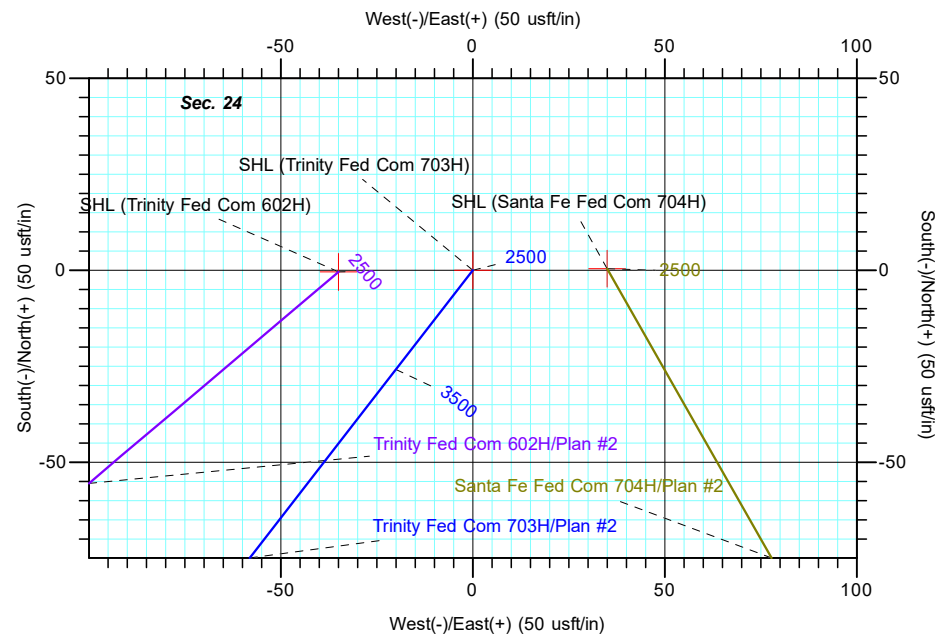


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (Trinity Fed Com 703H)	12044.91	-80.05	-516.94	405353.73	854161.38	32.110366	-103.322996
PBHL (Trinity Fed Com 703H)	11925.30	9696.28	-600.30	415130.06	854078.02	32.137239	-103.322969
SHL (Trinity Fed Com 703H)	0.00	0.00	0.00	405433.78	854678.32	32.110573	-103.321324

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	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3466.69	7.00	217.80	3465.53	-22.50	-17.45	1.50	217.80	-21.38	Start 6386.55 hold at 3466.69 MD
9853.24	7.00	217.80	9804.47	-637.50	-494.55	0.00	0.00	-605.72	Start Drop -1.50
10319.93	0.00	0.00	10270.00	-660.00	-512.00	1.50	180.00	-627.10	Start 1202.00 hold at 10319.93 MD
11521.93	0.00	0.00	11472.00	-660.00	-512.00	0.00	0.00	-627.10	Start DLS 10.00 TFO 359.51
12428.94	90.70	359.51	12044.91	-80.05	-516.94	10.00	359.51	-47.96	Start 9777.42 hold at 12428.94 MD
22206.36	90.70	359.51	11925.30	9696.28	-600.30	0.00	0.00	9714.84	TD at 22206.36



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

Plan: Plan #2 (Trinity Fed Com 703H/OH)
Trinity Fed/Santa Fe Fed
Created By: Dustin Ault Date: 13:25, July 15 2020
Date: _____
Approved: _____ Date: _____



Franklin Mountain Energy

Lea County, NM (NAD83)

Trinity Fed/Santa Fe Fed

Trinity Fed Com 703H

OH

Plan: Plan #2

Standard Planning Report

15 July, 2020





Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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	Trinity Fed/Santa Fe Fed				
Site Position:		Northing:	405,220.81 usft	Latitude:	32.109994
From:	Map	Easting:	854,430.99 usft	Longitude:	-103.322130
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.54

Well	Trinity Fed Com 703H					
Well Position	+N/-S	212.97 usft	Northing:	405,433.78 usft	Latitude:	32.110573
	+E/-W	247.33 usft	Easting:	854,678.32 usft	Longitude:	-103.321324
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,097.60 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/10/2020	6.57	59.88	47,586.42051008

Design	Plan #2			
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	356.46

Plan Survey Tool Program	Date	7/15/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,206.36 Plan #2 (OH)	OWSG (Rev2) MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,466.69	7.00	217.80	3,465.53	-22.50	-17.45	1.50	1.50	0.00	217.80	
9,853.24	7.00	217.80	9,804.47	-637.50	-494.55	0.00	0.00	0.00	0.00	
10,319.93	0.00	0.00	10,270.00	-660.00	-512.00	1.50	-1.50	0.00	180.00	
11,521.93	0.00	0.00	11,472.00	-660.00	-512.00	0.00	0.00	0.00	0.00	
12,428.94	90.70	359.51	12,044.92	-80.05	-516.94	10.00	10.00	-0.05	359.51	
22,206.36	90.70	359.51	11,925.30	9,696.28	-600.30	0.00	0.00	0.00	0.00	PBHL (Trinity Fed Coi



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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 (Trinity Fed Com 703H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
3,100.00	1.50	217.80	3,099.99	-1.03	-0.80	-0.98	1.50	1.50	0.00
3,200.00	3.00	217.80	3,199.91	-4.14	-3.21	-3.93	1.50	1.50	0.00
3,300.00	4.50	217.80	3,299.69	-9.30	-7.22	-8.84	1.50	1.50	0.00
3,400.00	6.00	217.80	3,399.27	-16.53	-12.83	-15.71	1.50	1.50	0.00
3,466.69	7.00	217.80	3,465.53	-22.50	-17.45	-21.38	1.50	1.50	0.00
Start 6386.55 hold at 3466.69 MD									
3,500.00	7.00	217.80	3,498.59	-25.71	-19.94	-24.42	0.00	0.00	0.00
3,600.00	7.00	217.80	3,597.85	-35.34	-27.41	-33.57	0.00	0.00	0.00
3,700.00	7.00	217.80	3,697.10	-44.97	-34.88	-42.72	0.00	0.00	0.00
3,800.00	7.00	217.80	3,796.36	-54.60	-42.35	-51.87	0.00	0.00	0.00
3,900.00	7.00	217.80	3,895.61	-64.22	-49.82	-61.02	0.00	0.00	0.00
4,000.00	7.00	217.80	3,994.86	-73.85	-57.29	-70.17	0.00	0.00	0.00
4,100.00	7.00	217.80	4,094.12	-83.48	-64.76	-79.32	0.00	0.00	0.00
4,200.00	7.00	217.80	4,193.37	-93.11	-72.23	-88.47	0.00	0.00	0.00
4,300.00	7.00	217.80	4,292.63	-102.74	-79.70	-97.62	0.00	0.00	0.00
4,400.00	7.00	217.80	4,391.88	-112.37	-87.17	-106.77	0.00	0.00	0.00
4,500.00	7.00	217.80	4,491.14	-122.00	-94.64	-115.92	0.00	0.00	0.00
4,600.00	7.00	217.80	4,590.39	-131.63	-102.11	-125.07	0.00	0.00	0.00
4,700.00	7.00	217.80	4,689.65	-141.26	-109.59	-134.22	0.00	0.00	0.00
4,800.00	7.00	217.80	4,788.90	-150.89	-117.06	-143.37	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	7.00	217.80	4,888.16	-160.52	-124.53	-152.52	0.00	0.00	0.00
5,000.00	7.00	217.80	4,987.41	-170.15	-132.00	-161.67	0.00	0.00	0.00
5,100.00	7.00	217.80	5,086.66	-179.78	-139.47	-170.82	0.00	0.00	0.00
5,200.00	7.00	217.80	5,185.92	-189.41	-146.94	-179.97	0.00	0.00	0.00
5,300.00	7.00	217.80	5,285.17	-199.04	-154.41	-189.12	0.00	0.00	0.00
5,400.00	7.00	217.80	5,384.43	-208.67	-161.88	-198.27	0.00	0.00	0.00
5,500.00	7.00	217.80	5,483.68	-218.30	-169.35	-207.42	0.00	0.00	0.00
5,600.00	7.00	217.80	5,582.94	-227.93	-176.82	-216.57	0.00	0.00	0.00
5,700.00	7.00	217.80	5,682.19	-237.56	-184.29	-225.72	0.00	0.00	0.00
5,800.00	7.00	217.80	5,781.45	-247.19	-191.76	-234.87	0.00	0.00	0.00
5,900.00	7.00	217.80	5,880.70	-256.82	-199.23	-244.02	0.00	0.00	0.00
6,000.00	7.00	217.80	5,979.96	-266.45	-206.70	-253.17	0.00	0.00	0.00
6,100.00	7.00	217.80	6,079.21	-276.08	-214.17	-262.32	0.00	0.00	0.00
6,200.00	7.00	217.80	6,178.46	-285.71	-221.64	-271.47	0.00	0.00	0.00
6,300.00	7.00	217.80	6,277.72	-295.34	-229.11	-280.62	0.00	0.00	0.00
6,400.00	7.00	217.80	6,376.97	-304.97	-236.58	-289.76	0.00	0.00	0.00
6,500.00	7.00	217.80	6,476.23	-314.60	-244.05	-298.91	0.00	0.00	0.00
6,600.00	7.00	217.80	6,575.48	-324.23	-251.52	-308.06	0.00	0.00	0.00
6,700.00	7.00	217.80	6,674.74	-333.86	-258.99	-317.21	0.00	0.00	0.00
6,800.00	7.00	217.80	6,773.99	-343.48	-266.46	-326.36	0.00	0.00	0.00
6,900.00	7.00	217.80	6,873.25	-353.11	-273.93	-335.51	0.00	0.00	0.00
7,000.00	7.00	217.80	6,972.50	-362.74	-281.40	-344.66	0.00	0.00	0.00
7,100.00	7.00	217.80	7,071.76	-372.37	-288.87	-353.81	0.00	0.00	0.00
7,200.00	7.00	217.80	7,171.01	-382.00	-296.34	-362.96	0.00	0.00	0.00
7,300.00	7.00	217.80	7,270.26	-391.63	-303.81	-372.11	0.00	0.00	0.00
7,400.00	7.00	217.80	7,369.52	-401.26	-311.28	-381.26	0.00	0.00	0.00
7,500.00	7.00	217.80	7,468.77	-410.89	-318.75	-390.41	0.00	0.00	0.00
7,600.00	7.00	217.80	7,568.03	-420.52	-326.22	-399.56	0.00	0.00	0.00
7,700.00	7.00	217.80	7,667.28	-430.15	-333.69	-408.71	0.00	0.00	0.00
7,800.00	7.00	217.80	7,766.54	-439.78	-341.16	-417.86	0.00	0.00	0.00
7,900.00	7.00	217.80	7,865.79	-449.41	-348.63	-427.01	0.00	0.00	0.00
8,000.00	7.00	217.80	7,965.05	-459.04	-356.10	-436.16	0.00	0.00	0.00
8,100.00	7.00	217.80	8,064.30	-468.67	-363.57	-445.31	0.00	0.00	0.00
8,200.00	7.00	217.80	8,163.56	-478.30	-371.05	-454.46	0.00	0.00	0.00
8,300.00	7.00	217.80	8,262.81	-487.93	-378.52	-463.61	0.00	0.00	0.00
8,400.00	7.00	217.80	8,362.06	-497.56	-385.99	-472.76	0.00	0.00	0.00
8,500.00	7.00	217.80	8,461.32	-507.19	-393.46	-481.91	0.00	0.00	0.00
8,600.00	7.00	217.80	8,560.57	-516.82	-400.93	-491.06	0.00	0.00	0.00
8,700.00	7.00	217.80	8,659.83	-526.45	-408.40	-500.21	0.00	0.00	0.00
8,800.00	7.00	217.80	8,759.08	-536.08	-415.87	-509.36	0.00	0.00	0.00
8,900.00	7.00	217.80	8,858.34	-545.71	-423.34	-518.51	0.00	0.00	0.00
9,000.00	7.00	217.80	8,957.59	-555.34	-430.81	-527.66	0.00	0.00	0.00
9,100.00	7.00	217.80	9,056.85	-564.97	-438.28	-536.81	0.00	0.00	0.00
9,200.00	7.00	217.80	9,156.10	-574.60	-445.75	-545.96	0.00	0.00	0.00
9,300.00	7.00	217.80	9,255.36	-584.23	-453.22	-555.10	0.00	0.00	0.00
9,400.00	7.00	217.80	9,354.61	-593.86	-460.69	-564.25	0.00	0.00	0.00
9,500.00	7.00	217.80	9,453.86	-603.49	-468.16	-573.40	0.00	0.00	0.00
9,600.00	7.00	217.80	9,553.12	-613.12	-475.63	-582.55	0.00	0.00	0.00
9,700.00	7.00	217.80	9,652.37	-622.75	-483.10	-591.70	0.00	0.00	0.00
9,800.00	7.00	217.80	9,751.63	-632.37	-490.57	-600.85	0.00	0.00	0.00
9,853.24	7.00	217.80	9,804.47	-637.50	-494.55	-605.72	0.00	0.00	0.00
Start Drop -1.50									
9,900.00	6.30	217.80	9,850.92	-641.78	-497.87	-609.79	1.50	-1.50	0.00
10,000.00	4.80	217.80	9,950.44	-649.42	-503.79	-617.05	1.50	-1.50	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.00	3.30	217.80	10,050.19	-655.00	-508.12	-622.35	1.50	-1.50	0.00
10,200.00	1.80	217.80	10,150.09	-658.51	-510.85	-625.69	1.50	-1.50	0.00
10,300.00	0.30	217.80	10,250.07	-659.96	-511.97	-627.06	1.50	-1.50	0.00
10,319.93	0.00	0.00	10,270.00	-660.00	-512.00	-627.10	1.50	-1.50	0.00
Start 1202.00 hold at 10319.93 MD									
10,400.00	0.00	0.00	10,350.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
10,500.00	0.00	0.00	10,450.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
10,600.00	0.00	0.00	10,550.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
10,700.00	0.00	0.00	10,650.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
10,800.00	0.00	0.00	10,750.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
10,900.00	0.00	0.00	10,850.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,000.00	0.00	0.00	10,950.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,100.00	0.00	0.00	11,050.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,200.00	0.00	0.00	11,150.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,300.00	0.00	0.00	11,250.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,400.00	0.00	0.00	11,350.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,500.00	0.00	0.00	11,450.07	-660.00	-512.00	-627.10	0.00	0.00	0.00
11,521.93	0.00	0.00	11,472.00	-660.00	-512.00	-627.10	0.00	0.00	0.00
Start DLS 10.00 TFO 359.51									
11,550.00	2.81	359.51	11,500.06	-659.31	-512.01	-626.41	10.00	10.00	0.00
11,600.00	7.81	359.51	11,549.83	-654.69	-512.05	-621.80	10.00	10.00	0.00
11,650.00	12.81	359.51	11,599.01	-645.75	-512.12	-612.87	10.00	10.00	0.00
11,700.00	17.81	359.51	11,647.22	-632.55	-512.23	-599.69	10.00	10.00	0.00
11,750.00	22.81	359.51	11,694.10	-615.21	-512.38	-582.37	10.00	10.00	0.00
11,800.00	27.81	359.51	11,739.28	-593.84	-512.56	-561.03	10.00	10.00	0.00
11,850.00	32.81	359.51	11,782.44	-568.62	-512.78	-535.84	10.00	10.00	0.00
11,900.00	37.81	359.51	11,823.23	-539.73	-513.03	-507.00	10.00	10.00	0.00
11,950.00	42.81	359.51	11,861.34	-507.40	-513.30	-474.71	10.00	10.00	0.00
12,000.00	47.81	359.51	11,896.50	-471.86	-513.60	-439.23	10.00	10.00	0.00
12,050.00	52.81	359.51	11,928.42	-433.40	-513.93	-400.82	10.00	10.00	0.00
12,100.00	57.81	359.51	11,956.87	-392.31	-514.28	-359.78	10.00	10.00	0.00
12,150.00	62.81	359.51	11,981.63	-348.89	-514.65	-316.42	10.00	10.00	0.00
12,200.00	67.81	359.51	12,002.51	-303.48	-515.04	-271.07	10.00	10.00	0.00
12,250.00	72.81	359.51	12,019.36	-256.42	-515.44	-224.08	10.00	10.00	0.00
12,300.00	77.81	359.51	12,032.03	-208.07	-515.85	-175.80	10.00	10.00	0.00
12,350.00	82.81	359.51	12,040.45	-158.80	-516.27	-126.60	10.00	10.00	0.00
12,400.00	87.81	359.51	12,044.54	-108.99	-516.70	-76.85	10.00	10.00	0.00
12,428.94	90.70	359.51	12,044.92	-80.05	-516.94	-47.95	10.00	10.00	0.00
Start 9777.42 hold at 12428.94 MD - LP (Trinity Fed Com 703H)									
12,500.00	90.70	359.51	12,044.05	-9.00	-517.55	23.00	0.00	0.00	0.00
12,600.00	90.70	359.51	12,042.82	90.99	-518.40	122.85	0.00	0.00	0.00
12,700.00	90.70	359.51	12,041.60	190.98	-519.26	222.70	0.00	0.00	0.00
12,800.00	90.70	359.51	12,040.38	290.97	-520.11	322.55	0.00	0.00	0.00
12,900.00	90.70	359.51	12,039.15	390.95	-520.96	422.40	0.00	0.00	0.00
13,000.00	90.70	359.51	12,037.93	490.94	-521.81	522.25	0.00	0.00	0.00
13,100.00	90.70	359.51	12,036.71	590.93	-522.67	622.10	0.00	0.00	0.00
13,200.00	90.70	359.51	12,035.48	690.92	-523.52	721.95	0.00	0.00	0.00
13,300.00	90.70	359.51	12,034.26	790.91	-524.37	821.80	0.00	0.00	0.00
13,400.00	90.70	359.51	12,033.04	890.90	-525.22	921.65	0.00	0.00	0.00
13,500.00	90.70	359.51	12,031.81	990.89	-526.08	1,021.50	0.00	0.00	0.00
13,600.00	90.70	359.51	12,030.59	1,090.88	-526.93	1,121.35	0.00	0.00	0.00
13,700.00	90.70	359.51	12,029.37	1,190.87	-527.78	1,221.20	0.00	0.00	0.00
13,800.00	90.70	359.51	12,028.14	1,290.85	-528.63	1,321.05	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
13,900.00	90.70	359.51	12,026.92	1,390.84	-529.49	1,420.90	0.00	0.00	0.00
14,000.00	90.70	359.51	12,025.70	1,490.83	-530.34	1,520.75	0.00	0.00	0.00
14,100.00	90.70	359.51	12,024.47	1,590.82	-531.19	1,620.60	0.00	0.00	0.00
14,200.00	90.70	359.51	12,023.25	1,690.81	-532.04	1,720.46	0.00	0.00	0.00
14,300.00	90.70	359.51	12,022.03	1,790.80	-532.90	1,820.31	0.00	0.00	0.00
14,400.00	90.70	359.51	12,020.80	1,890.79	-533.75	1,920.16	0.00	0.00	0.00
14,500.00	90.70	359.51	12,019.58	1,990.78	-534.60	2,020.01	0.00	0.00	0.00
14,600.00	90.70	359.51	12,018.35	2,090.77	-535.45	2,119.86	0.00	0.00	0.00
14,700.00	90.70	359.51	12,017.13	2,190.75	-536.31	2,219.71	0.00	0.00	0.00
14,800.00	90.70	359.51	12,015.91	2,290.74	-537.16	2,319.56	0.00	0.00	0.00
14,900.00	90.70	359.51	12,014.68	2,390.73	-538.01	2,419.41	0.00	0.00	0.00
15,000.00	90.70	359.51	12,013.46	2,490.72	-538.86	2,519.26	0.00	0.00	0.00
15,100.00	90.70	359.51	12,012.24	2,590.71	-539.72	2,619.11	0.00	0.00	0.00
15,200.00	90.70	359.51	12,011.01	2,690.70	-540.57	2,718.96	0.00	0.00	0.00
15,300.00	90.70	359.51	12,009.79	2,790.69	-541.42	2,818.81	0.00	0.00	0.00
15,400.00	90.70	359.51	12,008.57	2,890.68	-542.27	2,918.66	0.00	0.00	0.00
15,500.00	90.70	359.51	12,007.34	2,990.67	-543.13	3,018.51	0.00	0.00	0.00
15,600.00	90.70	359.51	12,006.12	3,090.65	-543.98	3,118.36	0.00	0.00	0.00
15,700.00	90.70	359.51	12,004.90	3,190.64	-544.83	3,218.21	0.00	0.00	0.00
15,800.00	90.70	359.51	12,003.67	3,290.63	-545.68	3,318.06	0.00	0.00	0.00
15,900.00	90.70	359.51	12,002.45	3,390.62	-546.54	3,417.91	0.00	0.00	0.00
16,000.00	90.70	359.51	12,001.23	3,490.61	-547.39	3,517.76	0.00	0.00	0.00
16,100.00	90.70	359.51	12,000.00	3,590.60	-548.24	3,617.61	0.00	0.00	0.00
16,200.00	90.70	359.51	11,998.78	3,690.59	-549.09	3,717.46	0.00	0.00	0.00
16,300.00	90.70	359.51	11,997.56	3,790.58	-549.95	3,817.32	0.00	0.00	0.00
16,400.00	90.70	359.51	11,996.33	3,890.57	-550.80	3,917.17	0.00	0.00	0.00
16,500.00	90.70	359.51	11,995.11	3,990.55	-551.65	4,017.02	0.00	0.00	0.00
16,600.00	90.70	359.51	11,993.89	4,090.54	-552.50	4,116.87	0.00	0.00	0.00
16,700.00	90.70	359.51	11,992.66	4,190.53	-553.36	4,216.72	0.00	0.00	0.00
16,800.00	90.70	359.51	11,991.44	4,290.52	-554.21	4,316.57	0.00	0.00	0.00
16,900.00	90.70	359.51	11,990.22	4,390.51	-555.06	4,416.42	0.00	0.00	0.00
17,000.00	90.70	359.51	11,988.99	4,490.50	-555.91	4,516.27	0.00	0.00	0.00
17,100.00	90.70	359.51	11,987.77	4,590.49	-556.77	4,616.12	0.00	0.00	0.00
17,200.00	90.70	359.51	11,986.55	4,690.48	-557.62	4,715.97	0.00	0.00	0.00
17,300.00	90.70	359.51	11,985.32	4,790.47	-558.47	4,815.82	0.00	0.00	0.00
17,400.00	90.70	359.51	11,984.10	4,890.45	-559.32	4,915.67	0.00	0.00	0.00
17,500.00	90.70	359.51	11,982.88	4,990.44	-560.18	5,015.52	0.00	0.00	0.00
17,600.00	90.70	359.51	11,981.65	5,090.43	-561.03	5,115.37	0.00	0.00	0.00
17,700.00	90.70	359.51	11,980.43	5,190.42	-561.88	5,215.22	0.00	0.00	0.00
17,800.00	90.70	359.51	11,979.21	5,290.41	-562.73	5,315.07	0.00	0.00	0.00
17,900.00	90.70	359.51	11,977.98	5,390.40	-563.59	5,414.92	0.00	0.00	0.00
18,000.00	90.70	359.51	11,976.76	5,490.39	-564.44	5,514.77	0.00	0.00	0.00
18,100.00	90.70	359.51	11,975.54	5,590.38	-565.29	5,614.62	0.00	0.00	0.00
18,200.00	90.70	359.51	11,974.31	5,690.37	-566.14	5,714.47	0.00	0.00	0.00
18,300.00	90.70	359.51	11,973.09	5,790.35	-567.00	5,814.33	0.00	0.00	0.00
18,400.00	90.70	359.51	11,971.87	5,890.34	-567.85	5,914.18	0.00	0.00	0.00
18,500.00	90.70	359.51	11,970.64	5,990.33	-568.70	6,014.03	0.00	0.00	0.00
18,600.00	90.70	359.51	11,969.42	6,090.32	-569.55	6,113.88	0.00	0.00	0.00
18,700.00	90.70	359.51	11,968.20	6,190.31	-570.41	6,213.73	0.00	0.00	0.00
18,800.00	90.70	359.51	11,966.97	6,290.30	-571.26	6,313.58	0.00	0.00	0.00
18,900.00	90.70	359.51	11,965.75	6,390.29	-572.11	6,413.43	0.00	0.00	0.00
19,000.00	90.70	359.51	11,964.53	6,490.28	-572.96	6,513.28	0.00	0.00	0.00
19,100.00	90.70	359.51	11,963.30	6,590.27	-573.82	6,613.13	0.00	0.00	0.00
19,200.00	90.70	359.51	11,962.08	6,690.25	-574.67	6,712.98	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
19,300.00	90.70	359.51	11,960.86	6,790.24	-575.52	6,812.83	0.00	0.00	0.00	
19,400.00	90.70	359.51	11,959.63	6,890.23	-576.38	6,912.68	0.00	0.00	0.00	
19,500.00	90.70	359.51	11,958.41	6,990.22	-577.23	7,012.53	0.00	0.00	0.00	
19,600.00	90.70	359.51	11,957.19	7,090.21	-578.08	7,112.38	0.00	0.00	0.00	
19,700.00	90.70	359.51	11,955.96	7,190.20	-578.93	7,212.23	0.00	0.00	0.00	
19,800.00	90.70	359.51	11,954.74	7,290.19	-579.79	7,312.08	0.00	0.00	0.00	
19,900.00	90.70	359.51	11,953.52	7,390.18	-580.64	7,411.93	0.00	0.00	0.00	
20,000.00	90.70	359.51	11,952.29	7,490.17	-581.49	7,511.78	0.00	0.00	0.00	
20,100.00	90.70	359.51	11,951.07	7,590.15	-582.34	7,611.63	0.00	0.00	0.00	
20,200.00	90.70	359.51	11,949.85	7,690.14	-583.20	7,711.48	0.00	0.00	0.00	
20,300.00	90.70	359.51	11,948.62	7,790.13	-584.05	7,811.34	0.00	0.00	0.00	
20,400.00	90.70	359.51	11,947.40	7,890.12	-584.90	7,911.19	0.00	0.00	0.00	
20,500.00	90.70	359.51	11,946.18	7,990.11	-585.75	8,011.04	0.00	0.00	0.00	
20,600.00	90.70	359.51	11,944.95	8,090.10	-586.61	8,110.89	0.00	0.00	0.00	
20,700.00	90.70	359.51	11,943.73	8,190.09	-587.46	8,210.74	0.00	0.00	0.00	
20,800.00	90.70	359.51	11,942.51	8,290.08	-588.31	8,310.59	0.00	0.00	0.00	
20,900.00	90.70	359.51	11,941.28	8,390.07	-589.16	8,410.44	0.00	0.00	0.00	
21,000.00	90.70	359.51	11,940.06	8,490.05	-590.02	8,510.29	0.00	0.00	0.00	
21,100.00	90.70	359.51	11,938.84	8,590.04	-590.87	8,610.14	0.00	0.00	0.00	
21,200.00	90.70	359.51	11,937.61	8,690.03	-591.72	8,709.99	0.00	0.00	0.00	
21,300.00	90.70	359.51	11,936.39	8,790.02	-592.57	8,809.84	0.00	0.00	0.00	
21,400.00	90.70	359.51	11,935.17	8,890.01	-593.43	8,909.69	0.00	0.00	0.00	
21,500.00	90.70	359.51	11,933.94	8,990.00	-594.28	9,009.54	0.00	0.00	0.00	
21,600.00	90.70	359.51	11,932.72	9,089.99	-595.13	9,109.39	0.00	0.00	0.00	
21,700.00	90.70	359.51	11,931.49	9,189.98	-595.98	9,209.24	0.00	0.00	0.00	
21,800.00	90.70	359.51	11,930.27	9,289.97	-596.84	9,309.09	0.00	0.00	0.00	
21,900.00	90.70	359.51	11,929.05	9,389.95	-597.69	9,408.94	0.00	0.00	0.00	
22,000.00	90.70	359.51	11,927.82	9,489.94	-598.54	9,508.79	0.00	0.00	0.00	
22,100.00	90.70	359.51	11,926.60	9,589.93	-599.39	9,608.64	0.00	0.00	0.00	
22,206.36	90.70	359.51	11,925.30	9,696.28	-600.30	9,714.84	0.00	0.00	0.00	
TD at 22206.36 - PBHL (Trinity Fed Com 703H)										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
SHL (Trinity Fed Com 703H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	405,433.78	854,678.32	32.110573		-103.321324
PBHL (Trinity Fed Com 703H) - plan hits target center - Point	0.00	0.01	11,925.30	9,696.28	-600.30	415,130.06	854,078.02	32.137239		-103.322969
LP (Trinity Fed Com 703H) - plan misses target center by 0.01usft at 12428.94usft MD (12044.91 TVD, -80.05 N, -516.94 E) - Point	0.00	0.00	12,044.91	-80.05	-516.94	405,353.73	854,161.38	32.110366		-103.322996



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Company:	Franklin Mountain Energy	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site:	Trinity Fed/Santa Fe Fed	North Reference:	Grid
Well:	Trinity Fed Com 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,000.00	3,000.00	0.00	0.00	Start Build 1.50	
3,466.69	3,465.53	-22.50	-17.45	Start 6386.55 hold at 3466.69 MD	
9,853.24	9,804.47	-637.50	-494.55	Start Drop -1.50	
10,319.93	10,270.00	-660.00	-512.00	Start 1202.00 hold at 10319.93 MD	
11,521.93	11,472.00	-660.00	-512.00	Start DLS 10.00 TFO 359.51	
12,428.94	12,044.92	-80.05	-516.94	Start 9777.42 hold at 12428.94 MD	
22,206.36	11,925.30	9,696.28	-600.30	TD at 22206.36	



Franklin Mountain Energy

Lea County, NM (NAD83)

Trinity Fed/Santa Fe Fed

Trinity Fed Com 703H

OH

Plan #2

Anticollision Report

15 July, 2020





Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	Error Surface:	Combined Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	7/15/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,206.36	Plan #2 (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						
1912 Fed Com						
1912 Fed Com 601H - OH - Plan #2	11,364.53	11,340.02	1,500.79	1,443.64	26.261	CC
1912 Fed Com 601H - OH - Plan #2	22,206.36	21,929.37	1,530.87	1,292.44	6.421	ES, SF
1912 Fed Com 701H - OH - Plan #2	11,521.93	11,509.57	1,750.78	1,692.79	30.191	CC
1912 Fed Com 701H - OH - Plan #2	22,206.36	22,238.31	1,753.24	1,511.59	7.255	ES, SF
1912 Fed Com 702H - OH - Plan #2	11,539.33	11,529.58	925.81	867.70	15.932	CC
1912 Fed Com 702H - OH - Plan #2	22,206.36	22,099.37	929.25	688.18	3.855	ES, SF
Santa Fe Fed/Zia Fed						
Santa Fe Fed Com 603H - OH - Plan #2	9,777.81	9,884.40	1,481.85	1,431.60	29.494	CC
Santa Fe Fed Com 603H - OH - Plan #2	22,206.36	21,861.49	1,532.42	1,298.08	6.539	ES, SF
Santa Fe Fed Com 705H - OH - Plan #2	8,359.34	8,453.85	1,744.21	1,701.55	40.888	CC
Santa Fe Fed Com 705H - OH - Plan #2	22,206.36	22,119.73	1,850.86	1,609.34	7.663	ES, SF
Zia Fed Com 604H - OH - Plan #2	3,000.00	2,981.20	1,973.21	1,958.38	133.041	CC, ES
Zia Fed Com 604H - OH - Plan #2	22,206.36	21,794.78	2,555.20	2,315.82	10.674	SF
Zia Fed Com 706H - OH - Plan #2	3,000.00	2,980.90	2,007.26	1,992.43	135.344	CC, ES
Zia Fed Com 706H - OH - Plan #2	22,206.36	21,956.49	2,834.27	2,592.94	11.744	SF
Trinity Fed/Santa Fe Fed						
Santa Fe Fed Com 704H - OH - Plan #2	2,500.00	2,497.70	34.99	22.65	2.836	CC, ES
Santa Fe Fed Com 704H - OH - Plan #2	2,600.00	2,597.25	35.61	22.78	2.775	SF
Trinity Fed Com 602H - OH - Plan #2	2,416.16	2,417.66	35.00	23.08	2.936	CC
Trinity Fed Com 602H - OH - Plan #2	2,500.00	2,501.49	35.00	22.65	2.835	ES
Trinity Fed Com 602H - OH - Plan #2	22,206.36	21,937.17	397.97	215.24	2.178	SF

Offset Design												1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2	Offset Site Error:	0.00 usft
Survey Program:												0-OWSG (Rev2) MWD	Offset Well Error:	0.00 usft
Reference		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	13.70	13.70	0.00	0.02	-103.32	-446.09	-1,884.66	1,936.73					
100.00	100.00	113.70	113.70	0.13	0.17	-103.32	-446.09	-1,884.66	1,936.73	1,936.52	0.21	9,008.724		
200.00	200.00	213.70	213.70	0.48	0.53	-103.32	-446.09	-1,884.66	1,936.73	1,936.01	0.72	2,690.079		
300.00	300.00	313.70	313.70	0.84	0.89	-103.32	-446.09	-1,884.66	1,936.73	1,935.51	1.23	1,578.992		
400.00	400.00	413.70	413.70	1.20	1.25	-103.32	-446.09	-1,884.66	1,936.73	1,935.00	1.73	1,117.320		
500.00	500.00	513.70	513.70	1.56	1.61	-103.32	-446.09	-1,884.66	1,936.73	1,934.49	2.24	864.516		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
600.00	600.00	613.70	613.70	1.92	1.97	-103.32	-446.09	-1,884.66	1,936.73	1,933.99	2.75	704.996		
700.00	700.00	713.70	713.70	2.28	2.33	-103.32	-446.09	-1,884.66	1,936.73	1,933.48	3.25	595.171		
800.00	800.00	813.70	813.70	2.63	2.68	-103.32	-446.09	-1,884.66	1,936.73	1,932.97	3.76	514.951		
900.00	900.00	913.70	913.70	2.99	3.04	-103.32	-446.09	-1,884.66	1,936.73	1,932.47	4.27	453.786		
1,000.00	1,000.00	1,013.70	1,013.70	3.35	3.40	-103.32	-446.09	-1,884.66	1,936.73	1,931.96	4.77	405.609		
1,100.00	1,100.00	1,113.70	1,113.70	3.71	3.76	-103.32	-446.09	-1,884.66	1,936.73	1,931.45	5.28	366.679		
1,200.00	1,200.00	1,213.70	1,213.70	4.07	4.12	-103.32	-446.09	-1,884.66	1,936.73	1,930.95	5.79	334.567		
1,300.00	1,300.00	1,313.70	1,313.70	4.43	4.48	-103.32	-446.09	-1,884.66	1,936.73	1,930.44	6.30	307.627		
1,400.00	1,400.00	1,413.70	1,413.70	4.79	4.83	-103.32	-446.09	-1,884.66	1,936.73	1,929.93	6.80	284.702		
1,500.00	1,500.00	1,513.70	1,513.70	5.14	5.19	-103.32	-446.09	-1,884.66	1,936.73	1,929.42	7.31	264.957		
1,600.00	1,600.00	1,613.70	1,613.70	5.50	5.55	-103.32	-446.09	-1,884.66	1,936.73	1,928.92	7.82	247.773		
1,700.00	1,700.00	1,713.70	1,713.70	5.86	5.91	-103.32	-446.09	-1,884.66	1,936.73	1,928.41	8.32	232.682		
1,800.00	1,800.00	1,813.70	1,813.70	6.22	6.27	-103.32	-446.09	-1,884.66	1,936.73	1,927.90	8.83	219.324		
1,900.00	1,900.00	1,913.70	1,913.70	6.58	6.63	-103.32	-446.09	-1,884.66	1,936.73	1,927.40	9.34	207.416		
2,000.00	2,000.00	2,013.70	2,013.70	6.94	6.99	-103.32	-446.09	-1,884.66	1,936.73	1,926.89	9.84	196.735		
2,100.00	2,100.00	2,113.70	2,113.70	7.29	7.34	-103.32	-446.09	-1,884.66	1,936.73	1,926.38	10.35	187.100		
2,200.00	2,200.00	2,213.70	2,213.70	7.65	7.70	-103.32	-446.09	-1,884.66	1,936.73	1,925.88	10.86	178.365		
2,300.00	2,300.00	2,313.70	2,313.70	8.01	8.06	-103.32	-446.09	-1,884.66	1,936.73	1,925.37	11.37	170.409		
2,400.00	2,400.00	2,413.70	2,413.70	8.37	8.42	-103.32	-446.09	-1,884.66	1,936.73	1,924.86	11.87	163.132		
2,500.00	2,500.00	2,513.70	2,513.70	8.73	8.78	-103.32	-446.09	-1,884.66	1,936.73	1,924.36	12.38	156.451		
2,600.00	2,600.00	2,613.70	2,613.70	9.09	9.14	-103.32	-446.09	-1,884.66	1,936.73	1,923.85	12.89	150.296		
2,700.00	2,700.00	2,713.70	2,713.70	9.45	9.49	-103.32	-446.09	-1,884.66	1,936.73	1,923.34	13.39	144.607		
2,800.00	2,800.00	2,813.70	2,813.70	9.80	9.85	-103.32	-446.09	-1,884.66	1,936.73	1,922.83	13.90	139.333		
2,900.00	2,900.00	2,913.70	2,913.70	10.16	10.21	-103.32	-446.09	-1,884.66	1,936.73	1,922.33	14.41	134.431		
3,000.00	3,000.00	3,013.70	3,013.70	10.52	10.57	-103.32	-446.09	-1,884.66	1,936.73	1,921.82	14.91	129.861		
3,100.00	3,099.99	3,113.69	3,113.69	10.86	10.93	38.91	-446.09	-1,884.66	1,935.72	1,920.31	15.41	125.622		
3,200.00	3,199.91	3,213.61	3,213.61	11.19	11.29	39.02	-446.09	-1,884.66	1,932.66	1,916.77	15.89	121.602		
3,300.00	3,299.69	3,313.39	3,313.39	11.52	11.64	39.19	-446.09	-1,884.66	1,927.58	1,911.20	16.38	117.690		
3,400.00	3,399.27	3,412.97	3,412.97	11.85	12.00	39.43	-446.09	-1,884.66	1,920.49	1,903.63	16.86	113.880		
3,466.69	3,465.53	3,479.23	3,479.23	12.08	12.24	39.63	-446.09	-1,884.66	1,914.65	1,897.46	17.19	111.392		
3,500.00	3,498.59	3,500.00	3,500.00	12.19	12.31	39.67	-446.09	-1,884.66	1,911.56	1,894.24	17.32	110.373		
3,600.00	3,597.85	3,584.04	3,584.04	12.53	12.60	39.85	-446.09	-1,885.10	1,902.93	1,885.18	17.76	107.166		
3,700.00	3,697.10	3,659.14	3,659.09	12.87	12.85	39.97	-449.00	-1,886.25	1,895.64	1,877.48	18.17	104.351		
3,800.00	3,796.36	3,734.47	3,734.32	13.22	13.09	40.06	-452.41	-1,888.10	1,889.65	1,871.08	18.57	101.735		
3,900.00	3,895.61	3,809.97	3,809.63	13.58	13.34	40.12	-457.13	-1,890.67	1,884.95	1,865.97	18.98	99.296		
4,000.00	3,994.86	3,902.29	3,901.61	13.93	13.64	40.16	-464.14	-1,894.49	1,881.24	1,861.80	19.44	96.778		
4,100.00	4,094.12	4,002.22	4,001.15	14.29	13.98	40.20	-471.79	-1,898.66	1,877.59	1,857.67	19.92	94.265		
4,200.00	4,193.37	4,102.15	4,100.70	14.65	14.31	40.23	-479.45	-1,902.83	1,873.94	1,853.54	20.40	91.857		
4,300.00	4,292.63	4,202.07	4,200.24	15.01	14.65	40.27	-487.10	-1,907.00	1,870.29	1,849.40	20.89	89.548		
4,400.00	4,391.88	4,302.00	4,299.79	15.38	14.99	40.31	-494.75	-1,911.17	1,866.64	1,845.27	21.37	87.332		
4,500.00	4,491.14	4,401.92	4,399.33	15.75	15.33	40.35	-502.41	-1,915.34	1,863.00	1,841.13	21.86	85.206		
4,600.00	4,590.39	4,501.85	4,498.88	16.12	15.67	40.39	-510.06	-1,919.50	1,859.35	1,836.99	22.36	83.165		
4,700.00	4,689.65	4,601.77	4,598.42	16.49	16.02	40.43	-517.72	-1,923.67	1,855.71	1,832.85	22.85	81.203		
4,800.00	4,788.90	4,701.70	4,697.97	16.86	16.36	40.47	-525.37	-1,927.84	1,852.06	1,828.71	23.35	79.318		
4,900.00	4,888.16	4,801.62	4,797.51	17.24	16.71	40.51	-533.03	-1,932.01	1,848.42	1,824.57	23.85	77.505		
5,000.00	4,987.41	4,901.55	4,897.06	17.61	17.06	40.55	-540.68	-1,936.18	1,844.78	1,820.43	24.35	75.761		
5,100.00	5,086.66	5,001.48	4,996.60	17.99	17.42	40.59	-548.33	-1,940.35	1,841.14	1,816.28	24.85	74.082		
5,200.00	5,185.92	5,101.40	5,096.14	18.37	17.77	40.63	-555.99	-1,944.52	1,837.50	1,812.14	25.36	72.465		
5,300.00	5,285.17	5,201.33	5,195.69	18.75	18.12	40.67	-563.64	-1,948.69	1,833.86	1,807.99	25.86	70.907		
5,400.00	5,384.43	5,301.25	5,295.23	19.14	18.48	40.71	-571.30	-1,952.86	1,830.22	1,803.85	26.37	69.405		
5,500.00	5,483.68	5,401.18	5,394.78	19.52	18.84	40.75	-578.95	-1,957.03	1,826.58	1,799.70	26.88	67.956		
5,600.00	5,582.94	5,501.10	5,494.32	19.90	19.20	40.79	-586.61	-1,961.20	1,822.94	1,795.56	27.39	66.558		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
5,700.00	5,682.19	5,601.03	5,593.87	20.29	19.56	40.83	-594.26	-1,965.37	1,819.31	1,791.41	27.90	65.208		
5,800.00	5,781.45	5,700.95	5,693.41	20.68	19.92	40.87	-601.91	-1,969.53	1,815.67	1,787.26	28.41	63.904		
5,900.00	5,880.70	5,800.88	5,792.96	21.06	20.28	40.91	-609.57	-1,973.70	1,812.04	1,783.11	28.93	62.644		
6,000.00	5,979.96	5,900.81	5,892.50	21.45	20.64	40.95	-617.22	-1,977.87	1,808.41	1,778.97	29.44	61.426		
6,100.00	6,079.21	6,000.73	5,992.05	21.84	21.00	40.99	-624.88	-1,982.04	1,804.77	1,774.82	29.96	60.247		
6,200.00	6,178.46	6,100.66	6,091.59	22.23	21.37	41.03	-632.53	-1,986.21	1,801.14	1,770.67	30.47	59.107		
6,300.00	6,277.72	6,200.58	6,191.14	22.62	21.73	41.07	-640.19	-1,990.38	1,797.51	1,766.52	30.99	58.003		
6,400.00	6,376.97	6,300.51	6,290.68	23.01	22.10	41.12	-647.84	-1,994.55	1,793.88	1,762.38	31.51	56.934		
6,500.00	6,476.23	6,400.43	6,390.23	23.40	22.47	41.16	-655.49	-1,998.72	1,790.26	1,758.23	32.03	55.897		
6,600.00	6,575.48	6,500.36	6,489.77	23.80	22.83	41.20	-663.15	-2,002.89	1,786.63	1,754.08	32.55	54.893		
6,700.00	6,674.74	6,614.10	6,603.10	24.19	23.25	41.26	-671.61	-2,007.50	1,782.88	1,749.77	33.11	53.854		
6,800.00	6,773.99	6,755.95	6,744.72	24.58	23.76	41.42	-678.66	-2,011.34	1,777.30	1,743.57	33.73	52.694		
6,900.00	6,873.25	6,896.95	6,885.68	24.98	24.25	41.72	-681.09	-2,012.66	1,769.39	1,735.06	34.33	51.541		
7,000.00	6,972.50	6,997.47	6,986.20	25.37	24.60	41.99	-681.09	-2,012.66	1,760.28	1,725.44	34.84	50.519		
7,100.00	7,071.76	7,096.72	7,085.46	25.77	24.94	42.26	-681.09	-2,012.66	1,751.21	1,715.86	35.36	49.529		
7,200.00	7,171.01	7,195.98	7,184.71	26.16	25.28	42.53	-681.09	-2,012.66	1,742.18	1,706.31	35.87	48.568		
7,300.00	7,270.26	7,295.23	7,283.96	26.56	25.63	42.80	-681.09	-2,012.66	1,733.19	1,696.80	36.39	47.635		
7,400.00	7,369.52	7,394.49	7,383.22	26.95	25.97	43.07	-681.09	-2,012.66	1,724.24	1,687.34	36.90	46.727		
7,500.00	7,468.77	7,493.74	7,482.47	27.35	26.31	43.35	-681.09	-2,012.66	1,715.32	1,677.91	37.42	45.844		
7,600.00	7,568.03	7,593.00	7,581.73	27.75	26.66	43.63	-681.09	-2,012.66	1,706.45	1,668.52	37.93	44.986		
7,700.00	7,667.28	7,692.25	7,680.98	28.15	27.00	43.91	-681.09	-2,012.66	1,697.62	1,659.17	38.45	44.151		
7,800.00	7,766.54	7,791.51	7,780.24	28.54	27.34	44.20	-681.09	-2,012.66	1,688.82	1,649.86	38.97	43.338		
7,900.00	7,865.79	7,890.76	7,879.49	28.94	27.69	44.49	-681.09	-2,012.66	1,680.08	1,640.59	39.49	42.548		
8,000.00	7,965.05	7,990.01	7,978.75	29.34	28.03	44.78	-681.09	-2,012.66	1,671.37	1,631.36	40.01	41.777		
8,100.00	8,064.30	8,089.27	8,078.00	29.74	28.38	45.07	-681.09	-2,012.66	1,662.71	1,622.18	40.53	41.027		
8,200.00	8,163.56	8,188.52	8,177.26	30.14	28.72	45.37	-681.09	-2,012.66	1,654.09	1,613.05	41.05	40.297		
8,300.00	8,262.81	8,287.78	8,276.51	30.54	29.07	45.67	-681.09	-2,012.66	1,645.52	1,603.95	41.57	39.585		
8,400.00	8,362.06	8,387.03	8,375.76	30.94	29.41	45.97	-681.09	-2,012.66	1,637.00	1,594.90	42.09	38.891		
8,500.00	8,461.32	8,486.29	8,475.02	31.34	29.76	46.28	-681.09	-2,012.66	1,628.52	1,585.90	42.61	38.215		
8,600.00	8,560.57	8,585.54	8,574.27	31.74	30.11	46.59	-681.09	-2,012.66	1,620.08	1,576.95	43.14	37.556		
8,700.00	8,659.83	8,684.80	8,673.53	32.14	30.45	46.91	-681.09	-2,012.66	1,611.70	1,568.04	43.66	36.913		
8,800.00	8,759.08	8,784.05	8,772.78	32.54	30.80	47.22	-681.09	-2,012.66	1,603.36	1,559.18	44.19	36.286		
8,900.00	8,858.34	8,883.31	8,872.04	32.94	31.15	47.54	-681.09	-2,012.66	1,595.08	1,550.37	44.71	35.674		
9,000.00	8,957.59	8,982.56	8,971.29	33.34	31.49	47.87	-681.09	-2,012.66	1,586.84	1,541.60	45.24	35.077		
9,100.00	9,056.85	9,081.81	9,070.55	33.75	31.84	48.19	-681.09	-2,012.66	1,578.66	1,532.89	45.77	34.494		
9,200.00	9,156.10	9,181.07	9,169.80	34.15	32.19	48.52	-681.09	-2,012.66	1,570.53	1,524.23	46.29	33.926		
9,300.00	9,255.36	9,280.32	9,269.06	34.55	32.54	48.86	-681.09	-2,012.66	1,562.45	1,515.63	46.82	33.371		
9,400.00	9,354.61	9,379.58	9,368.31	34.95	32.88	49.19	-681.09	-2,012.66	1,554.42	1,507.07	47.35	32.828		
9,500.00	9,453.86	9,478.83	9,467.56	35.35	33.23	49.53	-681.09	-2,012.66	1,546.45	1,498.57	47.88	32.299		
9,600.00	9,553.12	9,578.09	9,566.82	35.76	33.58	49.88	-681.09	-2,012.66	1,538.53	1,490.12	48.41	31.782		
9,700.00	9,652.37	9,677.34	9,666.07	36.16	33.93	50.22	-681.09	-2,012.66	1,530.67	1,481.73	48.94	31.277		
9,800.00	9,751.63	9,776.60	9,765.33	36.56	34.28	50.57	-681.09	-2,012.66	1,522.87	1,473.40	49.47	30.783		
9,853.24	9,804.47	9,829.44	9,818.17	36.78	34.46	50.76	-681.09	-2,012.66	1,518.74	1,468.98	49.75	30.525		
9,900.00	9,850.92	9,875.88	9,864.62	36.96	34.63	50.88	-681.09	-2,012.66	1,515.30	1,465.30	50.00	30.305		
10,000.00	9,950.44	9,975.41	9,964.14	37.35	34.97	51.09	-681.09	-2,012.66	1,509.20	1,458.67	50.53	29.870		
10,100.00	10,050.19	10,075.16	10,063.89	37.73	35.33	51.25	-681.09	-2,012.66	1,504.77	1,453.73	51.04	29.482		
10,200.00	10,150.09	10,175.06	10,163.79	38.09	35.68	51.35	-681.09	-2,012.66	1,501.98	1,450.44	51.55	29.139		
10,300.00	10,250.07	10,275.04	10,263.77	38.43	36.03	51.39	-681.09	-2,012.66	1,500.84	1,448.80	52.04	28.839		
10,319.93	10,270.00	10,294.97	10,283.70	38.50	36.10	-90.81	-681.09	-2,012.66	1,500.81	1,448.67	52.14	28.785		
10,400.00	10,350.07	10,375.04	10,363.77	38.75	36.38	-90.81	-681.09	-2,012.66	1,500.81	1,448.29	52.52	28.576		
10,500.00	10,450.07	10,475.04	10,463.77	39.07	36.73	-90.81	-681.09	-2,012.66	1,500.81	1,447.81	53.00	28.318		
10,600.00	10,550.07	10,575.04	10,563.77	39.39	37.08	-90.81	-681.09	-2,012.66	1,500.81	1,447.33	53.48	28.065		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
10,700.00	10,650.07	10,675.04	10,663.77	39.71	37.44	-90.81	-681.09	-2,012.66	1,500.81	1,446.85	53.95	27.816		
10,800.00	10,750.07	10,775.04	10,763.77	40.03	37.79	-90.81	-681.09	-2,012.66	1,500.81	1,446.37	54.43	27.571		
10,900.00	10,850.07	10,875.04	10,863.77	40.35	38.14	-90.81	-681.09	-2,012.66	1,500.81	1,445.89	54.91	27.330		
11,000.00	10,950.07	10,975.04	10,963.77	40.67	38.49	-90.81	-681.09	-2,012.66	1,500.81	1,445.41	55.39	27.094		
11,100.00	11,050.07	11,075.04	11,063.77	40.99	38.85	-90.81	-681.09	-2,012.66	1,500.81	1,444.93	55.87	26.861		
11,200.00	11,150.07	11,175.04	11,163.77	41.32	39.20	-90.81	-681.09	-2,012.66	1,500.81	1,444.45	56.36	26.631		
11,300.00	11,250.07	11,275.04	11,263.77	41.64	39.55	-90.77	-680.19	-2,012.67	1,500.80	1,443.97	56.84	26.406		
11,364.53	11,314.60	11,340.02	11,328.30	41.85	39.77	-90.49	-672.94	-2,012.73	1,500.79	1,443.64	57.15	26.261 CC		
11,400.00	11,350.07	11,374.59	11,362.18	41.96	39.88	-90.23	-666.11	-2,012.79	1,500.80	1,443.49	57.32	26.184		
11,500.00	11,450.07	11,476.38	11,464.51	42.29	40.16	-89.17	-638.20	-2,013.03	1,501.26	1,443.47	57.78	25.982		
11,521.93	11,472.00	11,485.16	11,466.77	42.36	40.21	-88.89	-630.79	-2,013.09	1,501.50	1,443.62	57.88	25.942		
11,550.00	11,500.06	11,508.67	11,488.02	42.45	40.28	-87.99	-620.71	-2,013.18	1,501.89	1,443.89	58.00	25.894		
11,600.00	11,549.83	11,550.00	11,524.29	42.60	40.39	-87.28	-600.93	-2,013.35	1,502.78	1,444.58	58.20	25.820		
11,650.00	11,599.01	11,589.91	11,557.88	42.73	40.48	-86.59	-579.40	-2,013.54	1,503.88	1,445.50	58.38	25.760		
11,700.00	11,647.22	11,629.24	11,589.43	42.85	40.58	-85.92	-555.94	-2,013.74	1,505.16	1,446.62	58.54	25.712		
11,750.00	11,694.10	11,667.84	11,618.77	42.95	40.66	-85.27	-530.85	-2,013.96	1,506.57	1,447.90	58.67	25.677		
11,800.00	11,739.28	11,705.82	11,645.92	43.04	40.74	-84.65	-504.31	-2,014.18	1,508.09	1,449.30	58.79	25.652		
11,850.00	11,782.44	11,743.24	11,670.89	43.11	40.82	-84.06	-476.46	-2,014.42	1,509.68	1,450.79	58.89	25.638		
11,900.00	11,823.23	11,780.16	11,693.70	43.17	40.90	-83.51	-447.42	-2,014.67	1,511.29	1,452.32	58.96	25.631		
11,950.00	11,861.34	11,816.67	11,714.36	43.21	40.98	-82.99	-417.34	-2,014.93	1,512.89	1,453.86	59.03	25.630		
12,000.00	11,896.50	11,850.00	11,731.53	43.24	41.06	-82.53	-388.77	-2,015.18	1,514.45	1,455.38	59.07	25.637		
12,050.00	11,928.42	11,888.60	11,749.29	43.25	41.14	-82.07	-354.51	-2,015.48	1,515.93	1,456.80	59.13	25.639		
12,100.00	11,956.87	11,924.13	11,763.56	43.25	41.22	-81.68	-321.98	-2,015.76	1,517.31	1,458.14	59.17	25.645		
12,150.00	11,981.63	11,959.43	11,775.72	43.25	41.31	-81.34	-288.85	-2,016.04	1,518.55	1,459.35	59.21	25.648		
12,200.00	12,002.51	12,000.00	11,787.14	43.23	41.40	-81.02	-249.93	-2,016.38	1,519.66	1,460.39	59.26	25.642		
12,250.00	12,019.36	12,029.48	11,793.70	43.21	41.47	-80.81	-221.19	-2,016.63	1,520.56	1,461.26	59.30	25.643		
12,300.00	12,032.03	12,064.31	11,799.53	43.18	41.56	-80.62	-186.86	-2,016.92	1,521.27	1,461.92	59.35	25.632		
12,350.00	12,040.45	12,100.00	11,803.33	43.16	41.65	-80.49	-151.38	-2,017.23	1,521.79	1,462.37	59.42	25.612		
12,400.00	12,044.54	12,133.72	11,804.88	43.13	41.73	-80.42	-117.70	-2,017.52	1,522.08	1,462.59	59.49	25.585		
12,428.94	12,044.92	12,154.20	11,804.86	43.11	41.78	-80.40	-97.22	-2,017.69	1,522.15	1,462.61	59.54	25.564		
12,500.00	12,044.05	12,225.26	11,803.67	43.10	41.99	-80.39	-26.17	-2,018.31	1,522.21	1,462.47	59.74	25.479		
12,600.00	12,042.82	12,325.26	11,802.01	43.15	42.33	-80.37	73.81	-2,019.17	1,522.29	1,462.19	60.10	25.331		
12,700.00	12,041.60	12,425.26	11,800.34	43.31	42.74	-80.36	173.79	-2,020.03	1,522.38	1,461.84	60.54	25.148		
12,800.00	12,040.38	12,525.26	11,798.68	43.57	43.20	-80.34	273.77	-2,020.89	1,522.46	1,461.40	61.06	24.934		
12,900.00	12,039.15	12,625.26	11,797.01	43.92	43.72	-80.33	373.75	-2,021.76	1,522.54	1,460.88	61.67	24.690		
13,000.00	12,037.93	12,725.26	11,795.35	44.34	44.29	-80.31	473.73	-2,022.62	1,522.63	1,460.27	62.35	24.420		
13,100.00	12,036.71	12,825.26	11,793.68	44.81	44.92	-80.29	573.72	-2,023.48	1,522.71	1,459.60	63.11	24.126		
13,200.00	12,035.48	12,925.26	11,792.02	45.34	45.59	-80.28	673.70	-2,024.34	1,522.79	1,458.84	63.95	23.812		
13,300.00	12,034.26	13,025.26	11,790.35	45.92	46.32	-80.26	773.68	-2,025.20	1,522.88	1,458.02	64.86	23.480		
13,400.00	12,033.04	13,125.25	11,788.69	46.55	47.10	-80.24	873.66	-2,026.07	1,522.96	1,457.13	65.83	23.133		
13,500.00	12,031.81	13,225.25	11,787.02	47.23	47.91	-80.23	973.64	-2,026.93	1,523.05	1,456.17	66.88	22.774		
13,600.00	12,030.59	13,325.25	11,785.36	47.96	48.77	-80.21	1,073.62	-2,027.79	1,523.13	1,455.15	67.98	22.406		
13,700.00	12,029.37	13,425.25	11,783.69	48.73	49.67	-80.19	1,173.60	-2,028.65	1,523.22	1,454.07	69.14	22.030		
13,800.00	12,028.14	13,525.25	11,782.03	49.54	50.61	-80.18	1,273.59	-2,029.51	1,523.30	1,452.94	70.36	21.649		
13,900.00	12,026.92	13,625.25	11,780.36	50.39	51.59	-80.16	1,373.57	-2,030.38	1,523.39	1,451.75	71.64	21.266		
14,000.00	12,025.70	13,725.25	11,778.70	51.28	52.59	-80.15	1,473.55	-2,031.24	1,523.47	1,450.51	72.96	20.881		
14,100.00	12,024.47	13,825.25	11,777.03	52.21	53.63	-80.13	1,573.53	-2,032.10	1,523.56	1,449.22	74.33	20.497		
14,200.00	12,023.25	13,925.25	11,775.37	53.17	54.70	-80.11	1,673.51	-2,032.96	1,523.64	1,447.89	75.75	20.115		
14,300.00	12,022.03	14,025.25	11,773.70	54.17	55.80	-80.10	1,773.49	-2,033.83	1,523.73	1,446.52	77.21	19.735		
14,400.00	12,020.80	14,125.25	11,772.04	55.19	56.93	-80.08	1,873.48	-2,034.69	1,523.81	1,445.11	78.71	19.360		
14,500.00	12,019.58	14,225.24	11,770.38	56.25	58.08	-80.06	1,973.46	-2,035.55	1,523.90	1,443.65	80.25	18.991		
14,600.00	12,018.35	14,325.24	11,768.71	57.33	59.25	-80.05	2,073.44	-2,036.41	1,523.98	1,442.16	81.82	18.626		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
14,700.00	12,017.13	14,425.24	11,767.05	58.44	60.45	-80.03	2,173.42	-2,037.27	1,524.07	1,440.64	83.43	18.268		
14,800.00	12,015.91	14,525.24	11,765.38	59.57	61.66	-80.02	2,273.40	-2,038.14	1,524.16	1,439.09	85.07	17.917		
14,900.00	12,014.68	14,625.24	11,763.72	60.73	62.90	-80.00	2,373.38	-2,039.00	1,524.24	1,437.51	86.74	17.573		
15,000.00	12,013.46	14,725.24	11,762.05	61.91	64.16	-79.98	2,473.36	-2,039.86	1,524.33	1,435.90	88.43	17.237		
15,100.00	12,012.24	14,825.24	11,760.39	63.11	65.43	-79.97	2,573.35	-2,040.72	1,524.41	1,434.26	90.16	16.908		
15,200.00	12,011.01	14,925.24	11,758.72	64.33	66.72	-79.95	2,673.33	-2,041.58	1,524.50	1,432.59	91.91	16.587		
15,300.00	12,009.79	15,025.24	11,757.06	65.57	68.03	-79.93	2,773.31	-2,042.45	1,524.59	1,430.91	93.68	16.274		
15,400.00	12,008.57	15,125.24	11,755.39	66.82	69.35	-79.92	2,873.29	-2,043.31	1,524.67	1,429.20	95.48	15.969		
15,500.00	12,007.34	15,225.23	11,753.73	68.10	70.68	-79.90	2,973.27	-2,044.17	1,524.76	1,427.47	97.29	15.672		
15,600.00	12,006.12	15,325.23	11,752.06	69.39	72.03	-79.89	3,073.25	-2,045.03	1,524.85	1,425.72	99.13	15.382		
15,700.00	12,004.90	15,425.23	11,750.40	70.69	73.39	-79.87	3,173.23	-2,045.90	1,524.94	1,423.95	100.99	15.100		
15,800.00	12,003.67	15,525.23	11,748.73	72.01	74.76	-79.85	3,273.22	-2,046.76	1,525.02	1,422.16	102.86	14.826		
15,900.00	12,002.45	15,625.23	11,747.07	73.34	76.14	-79.84	3,373.20	-2,047.62	1,525.11	1,420.36	104.75	14.559		
16,000.00	12,001.23	15,725.23	11,745.40	74.69	77.54	-79.82	3,473.18	-2,048.48	1,525.20	1,418.54	106.66	14.300		
16,100.00	12,000.00	15,825.23	11,743.74	76.04	78.94	-79.80	3,573.16	-2,049.34	1,525.29	1,416.70	108.58	14.047		
16,200.00	11,998.78	15,925.23	11,742.07	77.41	80.35	-79.79	3,673.14	-2,050.21	1,525.37	1,414.85	110.52	13.802		
16,300.00	11,997.56	16,025.23	11,740.41	78.79	81.77	-79.77	3,773.12	-2,051.07	1,525.46	1,412.99	112.47	13.563		
16,400.00	11,996.33	16,125.23	11,738.74	80.18	83.20	-79.76	3,873.10	-2,051.93	1,525.55	1,411.12	114.43	13.332		
16,500.00	11,995.11	16,225.22	11,737.08	81.58	84.64	-79.74	3,973.09	-2,052.79	1,525.64	1,409.23	116.41	13.106		
16,600.00	11,993.89	16,325.22	11,735.41	82.99	86.09	-79.72	4,073.07	-2,053.65	1,525.73	1,407.33	118.39	12.887		
16,700.00	11,992.66	16,425.22	11,733.75	84.40	87.54	-79.71	4,173.05	-2,054.52	1,525.81	1,405.42	120.39	12.674		
16,800.00	11,991.44	16,525.22	11,732.08	85.83	89.00	-79.69	4,273.03	-2,055.38	1,525.90	1,403.51	122.40	12.467		
16,900.00	11,990.22	16,625.22	11,730.42	87.26	90.47	-79.67	4,373.01	-2,056.24	1,525.99	1,401.58	124.41	12.266		
17,000.00	11,988.99	16,725.22	11,728.75	88.70	91.94	-79.66	4,472.99	-2,057.10	1,526.08	1,399.64	126.44	12.070		
17,100.00	11,987.77	16,825.22	11,727.09	90.15	93.42	-79.64	4,572.97	-2,057.97	1,526.17	1,397.69	128.47	11.879		
17,200.00	11,986.55	16,925.22	11,725.42	91.60	94.90	-79.63	4,672.96	-2,058.83	1,526.26	1,395.74	130.52	11.694		
17,300.00	11,985.32	17,025.22	11,723.76	93.06	96.39	-79.61	4,772.94	-2,059.69	1,526.35	1,393.78	132.57	11.513		
17,400.00	11,984.10	17,125.22	11,722.09	94.53	97.89	-79.59	4,872.92	-2,060.55	1,526.44	1,391.80	134.63	11.338		
17,500.00	11,982.88	17,225.21	11,720.43	96.01	99.39	-79.58	4,972.90	-2,061.41	1,526.52	1,389.83	136.70	11.167		
17,600.00	11,981.65	17,325.21	11,718.76	97.49	100.89	-79.56	5,072.88	-2,062.28	1,526.61	1,387.84	138.77	11.001		
17,700.00	11,980.43	17,425.21	11,717.10	98.97	102.40	-79.54	5,172.86	-2,063.14	1,526.70	1,385.85	140.85	10.839		
17,800.00	11,979.21	17,525.21	11,715.43	100.46	103.92	-79.53	5,272.84	-2,064.00	1,526.79	1,383.85	142.94	10.681		
17,900.00	11,977.98	17,625.21	11,713.77	101.95	105.43	-79.51	5,372.83	-2,064.86	1,526.88	1,381.85	145.03	10.528		
18,000.00	11,976.76	17,725.21	11,712.10	103.45	106.96	-79.50	5,472.81	-2,065.72	1,526.97	1,379.84	147.13	10.378		
18,100.00	11,975.54	17,825.21	11,710.44	104.96	108.48	-79.48	5,572.79	-2,066.59	1,527.06	1,377.82	149.24	10.232		
18,200.00	11,974.31	17,925.21	11,708.77	106.47	110.01	-79.46	5,672.77	-2,067.45	1,527.15	1,375.80	151.35	10.090		
18,300.00	11,973.09	18,025.21	11,707.11	107.98	111.54	-79.45	5,772.75	-2,068.31	1,527.24	1,373.78	153.46	9.952		
18,400.00	11,971.87	18,125.21	11,705.45	109.50	113.08	-79.43	5,872.73	-2,069.17	1,527.33	1,371.75	155.58	9.817		
18,500.00	11,970.64	18,225.21	11,703.78	111.02	114.62	-79.41	5,972.71	-2,070.04	1,527.42	1,369.72	157.71	9.685		
18,600.00	11,969.42	18,325.20	11,702.12	112.54	116.16	-79.40	6,072.70	-2,070.90	1,527.52	1,367.68	159.83	9.557		
18,700.00	11,968.20	18,425.20	11,700.45	114.07	117.71	-79.38	6,172.68	-2,071.76	1,527.61	1,365.64	161.97	9.432		
18,800.00	11,966.97	18,525.20	11,698.79	115.60	119.26	-79.37	6,272.66	-2,072.62	1,527.70	1,363.59	164.10	9.309		
18,900.00	11,965.75	18,625.20	11,697.12	117.13	120.81	-79.35	6,372.64	-2,073.48	1,527.79	1,361.54	166.24	9.190		
19,000.00	11,964.53	18,725.20	11,695.46	118.67	122.36	-79.33	6,472.62	-2,074.35	1,527.88	1,359.49	168.39	9.073		
19,100.00	11,963.30	18,825.20	11,693.79	120.21	123.92	-79.32	6,572.60	-2,075.21	1,527.97	1,357.43	170.54	8.960		
19,200.00	11,962.08	18,925.20	11,692.13	121.76	125.48	-79.30	6,672.58	-2,076.07	1,528.06	1,355.37	172.69	8.849		
19,300.00	11,960.86	19,025.20	11,690.46	123.30	127.04	-79.28	6,772.57	-2,076.93	1,528.15	1,353.31	174.84	8.740		
19,400.00	11,959.63	19,125.20	11,688.80	124.85	128.60	-79.27	6,872.55	-2,077.79	1,528.25	1,351.24	177.00	8.634		
19,500.00	11,958.41	19,225.20	11,687.13	126.40	130.17	-79.25	6,972.53	-2,078.66	1,528.34	1,349.17	179.16	8.530		
19,600.00	11,957.19	19,325.19	11,685.47	127.96	131.73	-79.24	7,072.51	-2,079.52	1,528.43	1,347.10	181.33	8.429		
19,700.00	11,955.96	19,425.19	11,683.80	129.51	133.30	-79.22	7,172.49	-2,080.38	1,528.52	1,345.02	183.50	8.330		
19,800.00	11,954.74	19,525.19	11,682.14	131.07	134.87	-79.20	7,272.47	-2,081.24	1,528.61	1,342.95	185.67	8.233		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 601H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
19,900.00	11,953.52	19,625.19	11,680.47	132.63	136.45	-79.19	7,372.45	-2,082.10	1,528.71	1,340.87	187.84	8.138		
20,000.00	11,952.29	19,725.19	11,678.81	134.20	138.02	-79.17	7,472.44	-2,082.97	1,528.80	1,338.79	190.01	8.046		
20,100.00	11,951.07	19,825.19	11,677.14	135.76	139.60	-79.15	7,572.42	-2,083.83	1,528.89	1,336.70	192.19	7.955		
20,200.00	11,949.85	19,925.19	11,675.48	137.33	141.18	-79.14	7,672.40	-2,084.69	1,528.98	1,334.62	194.37	7.867		
20,300.00	11,948.62	20,025.19	11,673.81	138.90	142.76	-79.12	7,772.38	-2,085.55	1,529.08	1,332.53	196.55	7.780		
20,400.00	11,947.40	20,125.19	11,672.15	140.47	144.34	-79.11	7,872.36	-2,086.42	1,529.17	1,330.44	198.73	7.695		
20,500.00	11,946.18	20,225.19	11,670.48	142.04	145.92	-79.09	7,972.34	-2,087.28	1,529.26	1,328.35	200.91	7.612		
20,600.00	11,944.95	20,325.18	11,668.82	143.62	147.51	-79.07	8,072.32	-2,088.14	1,529.35	1,326.25	203.10	7.530		
20,700.00	11,943.73	20,425.18	11,667.15	145.19	149.10	-79.06	8,172.31	-2,089.00	1,529.45	1,324.16	205.29	7.450		
20,800.00	11,942.51	20,525.18	11,665.49	146.77	150.68	-79.04	8,272.29	-2,089.86	1,529.54	1,322.06	207.48	7.372		
20,900.00	11,941.28	20,625.18	11,663.82	148.35	152.27	-79.03	8,372.27	-2,090.73	1,529.63	1,319.96	209.67	7.295		
21,000.00	11,940.06	20,725.18	11,662.16	149.93	153.86	-79.01	8,472.25	-2,091.59	1,529.73	1,317.86	211.87	7.220		
21,100.00	11,938.84	20,825.18	11,660.49	151.51	155.45	-78.99	8,572.23	-2,092.45	1,529.82	1,315.76	214.07	7.147		
21,200.00	11,937.61	20,925.18	11,658.83	153.10	157.05	-78.98	8,672.21	-2,093.31	1,529.92	1,313.65	216.26	7.074		
21,300.00	11,936.39	21,025.18	11,657.16	154.68	158.64	-78.96	8,772.20	-2,094.17	1,530.01	1,311.55	218.46	7.004		
21,400.00	11,935.17	21,125.18	11,655.50	156.27	160.24	-78.94	8,872.18	-2,095.04	1,530.10	1,309.44	220.66	6.934		
21,500.00	11,933.94	21,225.18	11,653.83	157.86	161.83	-78.93	8,972.16	-2,095.90	1,530.20	1,307.34	222.86	6.866		
21,600.00	11,932.72	21,325.17	11,652.17	159.45	163.43	-78.91	9,072.14	-2,096.76	1,530.29	1,305.23	225.07	6.799		
21,700.00	11,931.49	21,425.17	11,650.50	161.04	165.03	-78.90	9,172.12	-2,097.62	1,530.39	1,303.12	227.27	6.734		
21,800.00	11,930.27	21,525.17	11,648.84	162.63	166.63	-78.88	9,272.10	-2,098.49	1,530.48	1,301.01	229.47	6.670		
21,900.00	11,929.05	21,625.17	11,647.17	164.22	168.23	-78.86	9,372.08	-2,099.35	1,530.58	1,298.90	231.68	6.606		
22,000.00	11,927.82	21,725.17	11,645.51	165.82	169.83	-78.85	9,472.07	-2,100.21	1,530.67	1,296.78	233.89	6.544		
22,100.00	11,926.60	21,825.17	11,643.85	167.41	171.44	-78.83	9,572.05	-2,101.07	1,530.77	1,294.67	236.10	6.484		
22,206.36	11,925.30	21,929.37	11,642.11	169.11	173.11	-78.81	9,676.23	-2,101.97	1,530.87	1,292.44	238.43	6.421 ES, 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	16.50	16.50	0.00	0.02	-103.09	-446.46	-1,919.65	1,970.88					
100.00	100.00	116.50	116.50	0.13	0.18	-103.09	-446.46	-1,919.65	1,970.88	1,970.66	0.22	8,829.658		
200.00	200.00	216.50	216.50	0.48	0.54	-103.09	-446.46	-1,919.65	1,970.88	1,970.16	0.73	2,709.427		
300.00	300.00	316.50	316.50	0.84	0.90	-103.09	-446.46	-1,919.65	1,970.88	1,969.65	1.23	1,597.308		
400.00	400.00	416.50	416.50	1.20	1.26	-103.09	-446.46	-1,919.65	1,970.88	1,969.14	1.74	1,132.284		
500.00	500.00	516.50	516.50	1.56	1.62	-103.09	-446.46	-1,919.65	1,970.88	1,968.64	2.25	876.935		
600.00	600.00	616.50	616.50	1.92	1.98	-103.09	-446.46	-1,919.65	1,970.88	1,968.13	2.75	715.552		
700.00	700.00	716.50	716.50	2.28	2.34	-103.09	-446.46	-1,919.65	1,970.88	1,967.62	3.26	604.332		
800.00	800.00	816.50	816.50	2.63	2.69	-103.09	-446.46	-1,919.65	1,970.88	1,967.12	3.77	523.034		
900.00	900.00	916.50	916.50	2.99	3.05	-103.09	-446.46	-1,919.65	1,970.88	1,966.61	4.28	461.014		
1,000.00	1,000.00	1,016.50	1,016.50	3.35	3.41	-103.09	-446.46	-1,919.65	1,970.88	1,966.10	4.78	412.143		
1,100.00	1,100.00	1,116.50	1,116.50	3.71	3.77	-103.09	-446.46	-1,919.65	1,970.88	1,965.59	5.29	372.640		
1,200.00	1,200.00	1,216.50	1,216.50	4.07	4.13	-103.09	-446.46	-1,919.65	1,970.88	1,965.09	5.80	340.047		
1,300.00	1,300.00	1,316.50	1,316.50	4.43	4.49	-103.09	-446.46	-1,919.65	1,970.88	1,964.58	6.30	312.697		
1,400.00	1,400.00	1,416.50	1,416.50	4.79	4.84	-103.09	-446.46	-1,919.65	1,970.88	1,964.07	6.81	289.418		
1,500.00	1,500.00	1,516.50	1,516.50	5.14	5.20	-103.09	-446.46	-1,919.65	1,970.88	1,963.57	7.32	269.366		
1,600.00	1,600.00	1,616.50	1,616.50	5.50	5.56	-103.09	-446.46	-1,919.65	1,970.88	1,963.06	7.82	251.912		
1,700.00	1,700.00	1,716.50	1,716.50	5.86	5.92	-103.09	-446.46	-1,919.65	1,970.88	1,962.55	8.33	236.582		
1,800.00	1,800.00	1,816.50	1,816.50	6.22	6.28	-103.09	-446.46	-1,919.65	1,970.88	1,962.05	8.84	223.011		
1,900.00	1,900.00	1,916.50	1,916.50	6.58	6.64	-103.09	-446.46	-1,919.65	1,970.88	1,961.54	9.34	210.913		
2,000.00	2,000.00	2,016.50	2,016.50	6.94	7.00	-103.09	-446.46	-1,919.65	1,970.88	1,961.03	9.85	200.059		
2,100.00	2,100.00	2,116.50	2,116.50	7.29	7.35	-103.09	-446.46	-1,919.65	1,970.88	1,960.53	10.36	190.268		
2,200.00	2,200.00	2,216.50	2,216.50	7.65	7.71	-103.09	-446.46	-1,919.65	1,970.88	1,960.02	10.87	181.391		
2,300.00	2,300.00	2,316.50	2,316.50	8.01	8.07	-103.09	-446.46	-1,919.65	1,970.88	1,959.51	11.37	173.305		
2,400.00	2,400.00	2,416.50	2,416.50	8.37	8.43	-103.09	-446.46	-1,919.65	1,970.88	1,959.00	11.88	165.909		
2,500.00	2,500.00	2,516.50	2,516.50	8.73	8.79	-103.09	-446.46	-1,919.65	1,970.88	1,958.50	12.39	159.119		
2,600.00	2,600.00	2,616.50	2,616.50	9.09	9.15	-103.09	-446.46	-1,919.65	1,970.88	1,957.99	12.89	152.862		
2,700.00	2,700.00	2,716.50	2,716.50	9.45	9.50	-103.09	-446.46	-1,919.65	1,970.88	1,957.48	13.40	147.079		
2,800.00	2,800.00	2,816.50	2,816.50	9.80	9.86	-103.09	-446.46	-1,919.65	1,970.88	1,956.98	13.91	141.718		
2,900.00	2,900.00	2,916.50	2,916.50	10.16	10.22	-103.09	-446.46	-1,919.65	1,970.88	1,956.47	14.41	136.733		
3,000.00	3,000.00	3,016.50	3,016.50	10.52	10.58	-103.09	-446.46	-1,919.65	1,970.88	1,955.96	14.92	132.088		
3,100.00	3,099.99	3,116.49	3,116.49	10.86	10.94	39.14	-446.46	-1,919.65	1,969.87	1,954.45	15.42	127.779		
3,200.00	3,199.91	3,200.00	3,200.00	11.19	11.24	39.22	-446.46	-1,919.65	1,966.89	1,951.03	15.86	124.029		
3,300.00	3,299.69	3,278.62	3,278.61	11.52	11.51	39.34	-446.92	-1,920.32	1,962.87	1,946.59	16.28	120.573		
3,400.00	3,399.27	3,346.17	3,346.13	11.85	11.74	39.48	-448.04	-1,921.96	1,958.53	1,941.86	16.67	117.511		
3,466.69	3,465.53	3,400.00	3,399.91	12.08	11.91	39.60	-449.42	-1,923.97	1,955.46	1,938.51	16.95	115.394		
3,500.00	3,498.59	3,400.00	3,399.91	12.19	11.91	39.60	-449.42	-1,923.97	1,954.00	1,936.99	17.01	114.853		
3,600.00	3,597.85	3,481.45	3,481.20	12.53	12.19	39.73	-452.32	-1,928.20	1,950.54	1,933.10	17.43	111.886		
3,700.00	3,697.10	3,549.25	3,548.77	12.87	12.41	39.82	-455.48	-1,932.81	1,948.80	1,930.99	17.82	109.388		
3,748.72	3,745.46	3,582.31	3,581.67	13.04	12.53	39.86	-457.26	-1,935.42	1,948.56	1,930.55	18.00	108.244		
3,800.00	3,796.36	3,625.13	3,624.26	13.22	12.67	39.91	-459.77	-1,939.08	1,948.67	1,930.45	18.22	106.946		
3,900.00	3,895.61	3,725.05	3,723.64	13.58	13.01	40.03	-465.68	-1,947.70	1,949.01	1,930.30	18.70	104.220		
4,000.00	3,994.86	3,824.98	3,823.01	13.93	13.36	40.14	-471.58	-1,956.32	1,949.35	1,930.17	19.18	101.614		
4,100.00	4,094.12	3,924.90	3,922.39	14.29	13.70	40.26	-477.49	-1,964.94	1,949.70	1,930.03	19.67	99.122		
4,200.00	4,193.37	4,024.83	4,021.77	14.65	14.05	40.37	-483.39	-1,973.56	1,950.06	1,929.90	20.16	96.738		
4,300.00	4,292.63	4,124.75	4,121.14	15.01	14.40	40.48	-489.30	-1,982.18	1,950.43	1,929.78	20.65	94.456		
4,400.00	4,391.88	4,224.67	4,220.52	15.38	14.76	40.60	-495.21	-1,990.80	1,950.80	1,929.66	21.14	92.270		
4,500.00	4,491.14	4,324.60	4,319.89	15.75	15.11	40.71	-501.11	-1,999.42	1,951.19	1,929.55	21.64	90.174		
4,600.00	4,590.39	4,424.52	4,419.27	16.12	15.47	40.82	-507.02	-2,008.04	1,951.58	1,929.44	22.14	88.165		
4,700.00	4,689.65	4,524.45	4,518.65	16.49	15.83	40.94	-512.92	-2,016.66	1,951.97	1,929.34	22.63	86.237		
4,800.00	4,788.90	4,624.37	4,618.02	16.86	16.19	41.05	-518.83	-2,025.28	1,952.38	1,929.24	23.14	84.386		
4,900.00	4,888.16	4,724.29	4,717.40	17.24	16.56	41.17	-524.73	-2,033.89	1,952.79	1,929.16	23.64	82.608		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2													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	4,987.41	4,824.22	4,816.78	17.61	16.92	41.28	-530.64	-2,042.51	1,953.22	1,929.07	24.14	80.899		
5,100.00	5,086.66	4,924.14	4,916.15	17.99	17.29	41.39	-536.54	-2,051.13	1,953.64	1,928.99	24.65	79.255		
5,200.00	5,185.92	5,024.06	5,015.53	18.37	17.66	41.51	-542.45	-2,059.75	1,954.08	1,928.92	25.16	77.673		
5,300.00	5,285.17	5,123.99	5,114.90	18.75	18.02	41.62	-548.35	-2,068.37	1,954.53	1,928.86	25.67	76.150		
5,400.00	5,384.43	5,223.91	5,214.28	19.14	18.39	41.73	-554.26	-2,076.99	1,954.98	1,928.80	26.18	74.683		
5,500.00	5,483.68	5,323.84	5,313.66	19.52	18.77	41.85	-560.17	-2,085.61	1,955.44	1,928.75	26.69	73.269		
5,600.00	5,582.94	5,423.76	5,413.03	19.90	19.14	41.96	-566.07	-2,094.23	1,955.91	1,928.70	27.20	71.905		
5,700.00	5,682.19	5,523.68	5,512.41	20.29	19.51	42.07	-571.98	-2,102.85	1,956.38	1,928.66	27.72	70.589		
5,800.00	5,781.45	5,623.61	5,611.78	20.68	19.88	42.19	-577.88	-2,111.47	1,956.86	1,928.63	28.23	69.318		
5,900.00	5,880.70	5,723.53	5,711.16	21.06	20.26	42.30	-583.79	-2,120.09	1,957.35	1,928.61	28.75	68.091		
6,000.00	5,979.96	5,823.46	5,810.54	21.45	20.63	42.41	-589.69	-2,128.71	1,957.85	1,928.59	29.26	66.905		
6,100.00	6,079.21	5,923.38	5,909.91	21.84	21.01	42.53	-595.60	-2,137.33	1,958.36	1,928.58	29.78	65.758		
6,200.00	6,178.46	6,023.30	6,009.29	22.23	21.39	42.64	-601.50	-2,145.95	1,958.87	1,928.57	30.30	64.649		
6,300.00	6,277.72	6,123.23	6,108.67	22.62	21.77	42.75	-607.41	-2,154.57	1,959.39	1,928.57	30.82	63.576		
6,400.00	6,376.97	6,223.15	6,208.04	23.01	22.15	42.86	-613.32	-2,163.19	1,959.92	1,928.58	31.34	62.537		
6,500.00	6,476.23	6,323.08	6,307.42	23.40	22.52	42.98	-619.22	-2,171.81	1,960.46	1,928.59	31.86	61.530		
6,600.00	6,575.48	6,423.00	6,406.79	23.80	22.90	43.09	-625.13	-2,180.43	1,961.00	1,928.62	32.38	60.555		
6,700.00	6,674.74	6,522.92	6,506.17	24.19	23.28	43.20	-631.03	-2,189.05	1,961.55	1,928.64	32.91	59.609		
6,800.00	6,773.99	6,622.85	6,605.55	24.58	23.67	43.32	-636.94	-2,197.67	1,962.11	1,928.68	33.43	58.692		
6,900.00	6,873.25	6,722.77	6,704.92	24.98	24.05	43.43	-642.84	-2,206.29	1,962.68	1,928.72	33.95	57.803		
7,000.00	6,972.50	6,822.70	6,804.30	25.37	24.43	43.54	-648.75	-2,214.91	1,963.25	1,928.77	34.48	56.939		
7,100.00	7,071.76	6,922.62	6,903.67	25.77	24.81	43.65	-654.65	-2,223.53	1,963.83	1,928.83	35.01	56.101		
7,200.00	7,171.01	7,022.54	7,003.05	26.16	25.19	43.77	-660.56	-2,232.15	1,964.42	1,928.89	35.53	55.286		
7,300.00	7,270.26	7,122.47	7,102.43	26.56	25.58	43.88	-666.47	-2,240.76	1,965.02	1,928.96	36.06	54.495		
7,400.00	7,369.52	7,222.15	7,241.44	26.95	26.11	44.05	-674.17	-2,252.02	1,965.15	1,928.45	36.71	53.537		
7,500.00	7,468.77	7,447.02	7,425.98	27.35	26.78	44.37	-680.23	-2,260.85	1,961.58	1,924.14	37.45	52.383		
7,600.00	7,568.03	7,605.59	7,584.53	27.75	27.33	44.74	-681.46	-2,262.65	1,953.93	1,915.85	38.08	51.310		
7,700.00	7,667.28	7,704.85	7,683.78	28.15	27.67	44.99	-681.46	-2,262.65	1,945.26	1,906.66	38.60	50.400		
7,800.00	7,766.54	7,804.10	7,783.04	28.54	28.01	45.24	-681.46	-2,262.65	1,936.63	1,897.51	39.11	49.513		
7,900.00	7,865.79	7,903.36	7,882.29	28.94	28.34	45.50	-681.46	-2,262.65	1,928.03	1,888.40	39.63	48.651		
8,000.00	7,965.05	8,002.61	7,981.55	29.34	28.68	45.76	-681.46	-2,262.65	1,919.48	1,879.33	40.15	47.810		
8,100.00	8,064.30	8,101.87	8,080.80	29.74	29.02	46.02	-681.46	-2,262.65	1,910.96	1,870.29	40.67	46.991		
8,200.00	8,163.56	8,201.12	8,180.06	30.14	29.35	46.28	-681.46	-2,262.65	1,902.48	1,861.30	41.19	46.193		
8,300.00	8,262.81	8,300.37	8,279.31	30.54	29.69	46.55	-681.46	-2,262.65	1,894.05	1,852.34	41.71	45.415		
8,400.00	8,362.06	8,399.63	8,378.56	30.94	30.03	46.81	-681.46	-2,262.65	1,885.65	1,843.43	42.23	44.656		
8,500.00	8,461.32	8,498.88	8,477.82	31.34	30.37	47.08	-681.46	-2,262.65	1,877.30	1,834.55	42.75	43.916		
8,600.00	8,560.57	8,598.14	8,577.07	31.74	30.71	47.36	-681.46	-2,262.65	1,868.99	1,825.72	43.27	43.194		
8,700.00	8,659.83	8,697.39	8,676.33	32.14	31.05	47.63	-681.46	-2,262.65	1,860.72	1,816.93	43.79	42.490		
8,800.00	8,759.08	8,796.65	8,775.58	32.54	31.39	47.91	-681.46	-2,262.65	1,852.50	1,808.18	44.32	41.803		
8,900.00	8,858.34	8,895.90	8,874.84	32.94	31.73	48.19	-681.46	-2,262.65	1,844.32	1,799.48	44.84	41.132		
9,000.00	8,957.59	8,995.16	8,974.09	33.34	32.07	48.47	-681.46	-2,262.65	1,836.18	1,790.82	45.36	40.477		
9,100.00	9,056.85	9,094.41	9,073.35	33.75	32.41	48.76	-681.46	-2,262.65	1,828.09	1,782.20	45.89	39.838		
9,200.00	9,156.10	9,193.67	9,172.60	34.15	32.75	49.04	-681.46	-2,262.65	1,820.04	1,773.63	46.41	39.213		
9,300.00	9,255.36	9,292.92	9,271.86	34.55	33.09	49.33	-681.46	-2,262.65	1,812.04	1,765.10	46.94	38.603		
9,400.00	9,354.61	9,392.17	9,371.11	34.95	33.44	49.63	-681.46	-2,262.65	1,804.09	1,756.62	47.47	38.007		
9,500.00	9,453.86	9,491.43	9,470.36	35.35	33.78	49.92	-681.46	-2,262.65	1,796.18	1,748.19	48.00	37.424		
9,600.00	9,553.12	9,590.68	9,569.62	35.76	34.12	50.22	-681.46	-2,262.65	1,788.33	1,739.80	48.52	36.855		
9,700.00	9,652.37	9,689.94	9,668.87	36.16	34.46	50.52	-681.46	-2,262.65	1,780.52	1,731.47	49.05	36.299		
9,800.00	9,751.63	9,789.19	9,768.13	36.56	34.81	50.82	-681.46	-2,262.65	1,772.76	1,723.18	49.58	35.754		
9,853.24	9,804.47	9,842.04	9,820.97	36.78	34.99	50.98	-681.46	-2,262.65	1,768.65	1,718.79	49.86	35.470		
9,900.00	9,850.92	9,888.48	9,867.42	36.96	35.15	51.08	-681.46	-2,262.65	1,765.23	1,715.12	50.11	35.227		
10,000.00	9,950.44	9,988.01	9,966.94	37.35	35.50	51.25	-681.46	-2,262.65	1,759.15	1,708.52	50.63	34.744		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2													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		
10,100.00	10,050.19	10,087.76	10,066.69	37.73	35.84	51.38	-681.46	-2,262.65	1,754.73	1,703.58	51.15	34.309		
10,200.00	10,150.09	10,187.66	10,166.59	38.09	36.19	51.46	-681.46	-2,262.65	1,751.95	1,700.30	51.65	33.920		
10,300.00	10,250.07	10,287.64	10,266.57	38.43	36.53	51.49	-681.46	-2,262.65	1,750.81	1,698.67	52.14	33.577		
10,319.93	10,270.00	10,307.57	10,286.50	38.50	36.60	-90.70	-681.46	-2,262.65	1,750.78	1,698.54	52.24	33.514		
10,400.00	10,350.07	10,387.64	10,366.57	38.75	36.88	-90.70	-681.46	-2,262.65	1,750.78	1,698.16	52.62	33.272		
10,500.00	10,450.07	10,487.64	10,466.57	39.07	37.23	-90.70	-681.46	-2,262.65	1,750.78	1,697.69	53.10	32.974		
10,600.00	10,550.07	10,587.64	10,566.57	39.39	37.58	-90.70	-681.46	-2,262.65	1,750.78	1,697.21	53.57	32.680		
10,700.00	10,650.07	10,687.64	10,666.57	39.71	37.92	-90.70	-681.46	-2,262.65	1,750.78	1,696.73	54.05	32.392		
10,800.00	10,750.07	10,787.64	10,766.57	40.03	38.27	-90.70	-681.46	-2,262.65	1,750.78	1,696.25	54.53	32.108		
10,900.00	10,850.07	10,887.64	10,866.57	40.35	38.62	-90.70	-681.46	-2,262.65	1,750.78	1,695.78	55.01	31.829		
11,000.00	10,950.07	10,987.64	10,966.57	40.67	38.97	-90.70	-681.46	-2,262.65	1,750.78	1,695.30	55.48	31.555		
11,100.00	11,050.07	11,087.64	11,066.57	40.99	39.32	-90.70	-681.46	-2,262.65	1,750.78	1,694.82	55.96	31.284		
11,200.00	11,150.07	11,187.64	11,166.57	41.32	39.67	-90.70	-681.46	-2,262.65	1,750.78	1,694.34	56.44	31.019		
11,300.00	11,250.07	11,287.64	11,266.57	41.64	40.01	-90.70	-681.46	-2,262.65	1,750.78	1,693.86	56.92	30.757		
11,400.00	11,350.07	11,387.64	11,366.57	41.96	40.36	-90.70	-681.46	-2,262.65	1,750.78	1,693.38	57.40	30.499		
11,500.00	11,450.07	11,487.64	11,466.57	42.29	40.71	-90.70	-681.46	-2,262.65	1,750.78	1,692.90	57.88	30.246		
11,521.93	11,472.00	11,509.57	11,488.50	42.36	40.79	-90.70	-681.46	-2,262.65	1,750.78	1,692.79	57.99	30.191 CC		
11,550.00	11,500.06	11,537.62	11,516.56	42.45	40.89	-90.24	-681.46	-2,262.65	1,750.78	1,692.66	58.12	30.122		
11,600.00	11,549.83	11,588.01	11,568.93	42.60	41.06	-90.36	-680.57	-2,262.66	1,750.80	1,692.45	58.35	30.006		
11,650.00	11,599.01	11,638.99	11,617.64	42.73	41.23	-90.49	-675.47	-2,262.70	1,750.83	1,692.27	58.56	29.898		
11,700.00	11,647.22	11,690.34	11,668.05	42.85	41.40	-90.61	-665.80	-2,262.79	1,750.87	1,692.11	58.76	29.798		
11,750.00	11,694.10	11,742.06	11,717.74	42.95	41.56	-90.74	-651.54	-2,262.91	1,750.92	1,691.98	58.94	29.707		
11,800.00	11,739.28	11,794.13	11,766.27	43.04	41.70	-90.85	-632.71	-2,263.07	1,750.97	1,691.86	59.11	29.624		
11,850.00	11,782.44	11,846.55	11,813.20	43.11	41.84	-90.96	-609.39	-2,263.27	1,751.03	1,691.76	59.26	29.548		
11,900.00	11,823.23	11,899.30	11,858.07	43.17	41.96	-91.07	-581.69	-2,263.51	1,751.08	1,691.68	59.40	29.479		
11,950.00	11,861.34	11,952.37	11,900.45	43.21	42.07	-91.16	-549.79	-2,263.79	1,751.14	1,691.61	59.53	29.416		
12,000.00	11,896.50	12,005.72	11,939.90	43.24	42.16	-91.25	-513.89	-2,264.09	1,751.20	1,691.55	59.65	29.358		
12,050.00	11,928.42	12,059.34	11,976.01	43.25	42.23	-91.32	-474.28	-2,264.44	1,751.26	1,691.50	59.76	29.304		
12,100.00	11,956.87	12,113.20	12,008.39	43.25	42.29	-91.39	-431.28	-2,264.81	1,751.31	1,691.44	59.87	29.252		
12,150.00	11,981.63	12,167.25	12,036.69	43.25	42.34	-91.44	-385.25	-2,265.20	1,751.35	1,691.38	59.97	29.202		
12,200.00	12,002.51	12,221.46	12,060.60	43.23	42.38	-91.48	-336.62	-2,265.62	1,751.39	1,691.31	60.08	29.152		
12,250.00	12,019.36	12,275.80	12,079.83	43.21	42.46	-91.51	-285.82	-2,266.06	1,751.42	1,691.24	60.18	29.102		
12,300.00	12,032.03	12,330.22	12,094.19	43.18	42.59	-91.53	-233.36	-2,266.51	1,751.44	1,691.15	60.29	29.050		
12,350.00	12,040.45	12,384.68	12,103.52	43.16	42.72	-91.54	-179.73	-2,266.98	1,751.45	1,691.05	60.40	28.998		
12,400.00	12,044.54	12,439.13	12,107.71	43.13	42.86	-91.53	-125.46	-2,267.44	1,751.44	1,690.93	60.51	28.944		
12,425.40	12,044.95	12,466.35	12,107.89	43.12	42.93	-91.52	-98.24	-2,267.68	1,751.44	1,690.87	60.57	28.916		
12,428.94	12,044.92	12,469.89	12,107.85	43.11	42.94	-91.52	-94.70	-2,267.71	1,751.44	1,690.86	60.58	28.912		
12,500.00	12,044.05	12,540.95	12,107.17	43.10	43.15	-91.53	-23.64	-2,268.32	1,751.45	1,690.68	60.77	28.822		
12,600.00	12,042.82	12,640.95	12,106.20	43.15	43.49	-91.53	76.35	-2,269.18	1,751.47	1,690.37	61.10	28.664		
12,700.00	12,041.60	12,740.95	12,105.24	43.31	43.89	-91.54	176.34	-2,270.04	1,751.48	1,689.96	61.53	28.468		
12,800.00	12,040.38	12,840.95	12,104.28	43.57	44.34	-91.55	276.33	-2,270.91	1,751.50	1,689.47	62.03	28.235		
12,900.00	12,039.15	12,940.95	12,103.31	43.92	44.85	-91.56	376.32	-2,271.77	1,751.52	1,688.89	62.62	27.969		
13,000.00	12,037.93	13,040.95	12,102.35	44.34	45.40	-91.57	476.31	-2,272.63	1,751.53	1,688.24	63.29	27.673		
13,100.00	12,036.71	13,140.95	12,101.39	44.81	46.01	-91.58	576.30	-2,273.49	1,751.55	1,687.51	64.04	27.350		
13,200.00	12,035.48	13,240.95	12,100.43	45.34	46.67	-91.58	676.29	-2,274.35	1,751.57	1,686.70	64.87	27.003		
13,300.00	12,034.26	13,340.95	12,099.46	45.92	47.38	-91.59	776.29	-2,275.22	1,751.58	1,685.82	65.76	26.635		
13,400.00	12,033.04	13,440.95	12,098.50	46.55	48.13	-91.60	876.28	-2,276.08	1,751.60	1,684.87	66.73	26.250		
13,500.00	12,031.81	13,540.95	12,097.54	47.23	48.93	-91.61	976.27	-2,276.94	1,751.62	1,683.86	67.76	25.850		
13,600.00	12,030.59	13,640.95	12,096.57	47.96	49.77	-91.62	1,076.26	-2,277.80	1,751.63	1,682.78	68.86	25.439		
13,700.00	12,029.37	13,740.95	12,095.61	48.73	50.65	-91.63	1,176.25	-2,278.66	1,751.65	1,681.64	70.02	25.018		
13,800.00	12,028.14	13,840.95	12,094.65	49.54	51.56	-91.64	1,276.24	-2,279.53	1,751.67	1,680.44	71.23	24.592		
13,900.00	12,026.92	13,940.95	12,093.68	50.39	52.51	-91.64	1,376.23	-2,280.39	1,751.68	1,679.18	72.50	24.161		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2													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	12,025.70	14,040.95	12,092.72	51.28	53.50	-91.65	1,476.23	-2,281.25	1,751.70	1,677.88	73.82	23.729		
14,100.00	12,024.47	14,140.95	12,091.76	52.21	54.52	-91.66	1,576.22	-2,282.11	1,751.72	1,676.52	75.19	23.296		
14,200.00	12,023.25	14,240.95	12,090.79	53.17	55.56	-91.67	1,676.21	-2,282.97	1,751.74	1,675.12	76.61	22.865		
14,300.00	12,022.03	14,340.95	12,089.83	54.17	56.64	-91.68	1,776.20	-2,283.84	1,751.75	1,673.68	78.07	22.437		
14,400.00	12,020.80	14,440.95	12,088.87	55.19	57.74	-91.69	1,876.19	-2,284.70	1,751.77	1,672.19	79.58	22.014		
14,500.00	12,019.58	14,540.94	12,087.90	56.25	58.87	-91.70	1,976.18	-2,285.56	1,751.79	1,670.67	81.12	21.595		
14,600.00	12,018.35	14,640.94	12,086.94	57.33	60.03	-91.70	2,076.17	-2,286.42	1,751.80	1,669.11	82.70	21.183		
14,700.00	12,017.13	14,740.94	12,085.98	58.44	61.20	-91.71	2,176.16	-2,287.28	1,751.82	1,667.51	84.31	20.778		
14,800.00	12,015.91	14,840.94	12,085.02	59.57	62.40	-91.72	2,276.16	-2,288.15	1,751.84	1,665.88	85.96	20.379		
14,900.00	12,014.68	14,940.94	12,084.05	60.73	63.62	-91.73	2,376.15	-2,289.01	1,751.86	1,664.22	87.64	19.989		
15,000.00	12,013.46	15,040.94	12,083.09	61.91	64.86	-91.74	2,476.14	-2,289.87	1,751.87	1,662.52	89.35	19.607		
15,100.00	12,012.24	15,140.94	12,082.13	63.11	66.11	-91.75	2,576.13	-2,290.73	1,751.89	1,660.81	91.08	19.234		
15,200.00	12,011.01	15,240.94	12,081.16	64.33	67.38	-91.75	2,676.12	-2,291.59	1,751.91	1,659.06	92.85	18.869		
15,300.00	12,009.79	15,340.94	12,080.20	65.57	68.67	-91.76	2,776.11	-2,292.46	1,751.93	1,657.29	94.63	18.513		
15,400.00	12,008.57	15,440.94	12,079.24	66.82	69.98	-91.77	2,876.10	-2,293.32	1,751.94	1,655.50	96.44	18.165		
15,500.00	12,007.34	15,540.94	12,078.27	68.10	71.29	-91.78	2,976.09	-2,294.18	1,751.96	1,653.68	98.28	17.827		
15,600.00	12,006.12	15,640.94	12,077.31	69.39	72.63	-91.79	3,076.09	-2,295.04	1,751.98	1,651.85	100.13	17.497		
15,700.00	12,004.90	15,740.94	12,076.35	70.69	73.97	-91.80	3,176.08	-2,295.90	1,752.00	1,649.99	102.00	17.176		
15,800.00	12,003.67	15,840.94	12,075.38	72.01	75.33	-91.81	3,276.07	-2,296.77	1,752.01	1,648.12	103.89	16.863		
15,900.00	12,002.45	15,940.94	12,074.42	73.34	76.69	-91.81	3,376.06	-2,297.63	1,752.03	1,646.23	105.80	16.559		
16,000.00	12,001.23	16,040.94	12,073.46	74.69	78.07	-91.82	3,476.05	-2,298.49	1,752.05	1,644.32	107.73	16.263		
16,100.00	12,000.00	16,140.94	12,072.50	76.04	79.46	-91.83	3,576.04	-2,299.35	1,752.07	1,642.39	109.67	15.975		
16,200.00	11,998.78	16,240.94	12,071.53	77.41	80.86	-91.84	3,676.03	-2,300.21	1,752.08	1,640.45	111.63	15.696		
16,300.00	11,997.56	16,340.94	12,070.57	78.79	82.27	-91.85	3,776.03	-2,301.08	1,752.10	1,638.50	113.60	15.423		
16,400.00	11,996.33	16,440.94	12,069.61	80.18	83.69	-91.86	3,876.02	-2,301.94	1,752.12	1,636.53	115.59	15.159		
16,500.00	11,995.11	16,540.94	12,068.64	81.58	85.12	-91.87	3,976.01	-2,302.80	1,752.14	1,634.55	117.58	14.901		
16,600.00	11,993.89	16,640.94	12,067.68	82.99	86.55	-91.87	4,076.00	-2,303.66	1,752.15	1,632.56	119.59	14.651		
16,700.00	11,992.66	16,740.94	12,066.72	84.40	87.99	-91.88	4,175.99	-2,304.52	1,752.17	1,630.56	121.61	14.408		
16,800.00	11,991.44	16,840.94	12,065.75	85.83	89.44	-91.89	4,275.98	-2,305.39	1,752.19	1,628.55	123.65	14.171		
16,900.00	11,990.22	16,940.94	12,064.79	87.26	90.90	-91.90	4,375.97	-2,306.25	1,752.21	1,626.52	125.69	13.941		
17,000.00	11,988.99	17,040.94	12,063.83	88.70	92.36	-91.91	4,475.96	-2,307.11	1,752.23	1,624.49	127.74	13.717		
17,100.00	11,987.77	17,140.94	12,062.86	90.15	93.83	-91.92	4,575.96	-2,307.97	1,752.25	1,622.44	129.80	13.499		
17,200.00	11,986.55	17,240.94	12,061.90	91.60	95.30	-91.92	4,675.95	-2,308.83	1,752.26	1,620.39	131.87	13.287		
17,300.00	11,985.32	17,340.94	12,060.94	93.06	96.78	-91.93	4,775.94	-2,309.70	1,752.28	1,618.33	133.95	13.081		
17,400.00	11,984.10	17,440.94	12,059.97	94.53	98.27	-91.94	4,875.93	-2,310.56	1,752.30	1,616.26	136.04	12.881		
17,500.00	11,982.88	17,540.93	12,059.01	96.01	99.76	-91.95	4,975.92	-2,311.42	1,752.32	1,614.18	138.14	12.685		
17,600.00	11,981.65	17,640.93	12,058.05	97.49	101.26	-91.96	5,075.91	-2,312.28	1,752.34	1,612.09	140.24	12.495		
17,700.00	11,980.43	17,740.93	12,057.09	98.97	102.76	-91.97	5,175.90	-2,313.14	1,752.35	1,610.00	142.35	12.310		
17,800.00	11,979.21	17,840.93	12,056.12	100.46	104.26	-91.98	5,275.90	-2,314.01	1,752.37	1,607.90	144.47	12.130		
17,900.00	11,977.98	17,940.93	12,055.16	101.95	105.77	-91.98	5,375.89	-2,314.87	1,752.39	1,605.80	146.59	11.954		
18,000.00	11,976.76	18,040.93	12,054.20	103.45	107.29	-91.99	5,475.88	-2,315.73	1,752.41	1,603.69	148.72	11.783		
18,100.00	11,975.54	18,140.93	12,053.23	104.96	108.80	-92.00	5,575.87	-2,316.59	1,752.43	1,601.57	150.86	11.616		
18,200.00	11,974.31	18,240.93	12,052.27	106.47	110.33	-92.01	5,675.86	-2,317.45	1,752.45	1,599.44	153.00	11.454		
18,300.00	11,973.09	18,340.93	12,051.31	107.98	111.85	-92.02	5,775.85	-2,318.32	1,752.47	1,597.32	155.15	11.295		
18,400.00	11,971.87	18,440.93	12,050.34	109.50	113.38	-92.03	5,875.84	-2,319.18	1,752.48	1,595.18	157.30	11.141		
18,500.00	11,970.64	18,540.93	12,049.38	111.02	114.91	-92.04	5,975.83	-2,320.04	1,752.50	1,593.04	159.46	10.990		
18,600.00	11,969.42	18,640.93	12,048.42	112.54	116.45	-92.04	6,075.83	-2,320.90	1,752.52	1,590.90	161.62	10.843		
18,700.00	11,968.20	18,740.93	12,047.45	114.07	117.99	-92.05	6,175.82	-2,321.76	1,752.54	1,588.75	163.79	10.700		
18,800.00	11,966.97	18,840.93	12,046.49	115.60	119.53	-92.06	6,275.81	-2,322.63	1,752.56	1,586.60	165.96	10.560		
18,900.00	11,965.75	18,940.93	12,045.53	117.13	121.07	-92.07	6,375.80	-2,323.49	1,752.58	1,584.44	168.14	10.423		
19,000.00	11,964.53	19,040.93	12,044.56	118.67	122.62	-92.08	6,475.79	-2,324.35	1,752.60	1,582.28	170.32	10.290		
19,100.00	11,963.30	19,140.93	12,043.60	120.21	124.17	-92.09	6,575.78	-2,325.21	1,752.62	1,580.11	172.50	10.160		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2													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		
19,200.00	11,962.08	19,240.93	12,042.64	121.76	125.72	-92.09	6,675.77	-2,326.07	1,752.63	1,577.94	174.69	10.033		
19,300.00	11,960.86	19,340.93	12,041.68	123.30	127.28	-92.10	6,775.76	-2,326.94	1,752.65	1,575.77	176.88	9.909		
19,400.00	11,959.63	19,440.93	12,040.71	124.85	128.84	-92.11	6,875.76	-2,327.80	1,752.67	1,573.60	179.08	9.787		
19,500.00	11,958.41	19,540.93	12,039.75	126.40	130.40	-92.12	6,975.75	-2,328.66	1,752.69	1,571.42	181.27	9.669		
19,600.00	11,957.19	19,640.93	12,038.79	127.96	131.96	-92.13	7,075.74	-2,329.52	1,752.71	1,569.23	183.48	9.553		
19,700.00	11,955.96	19,740.93	12,037.82	129.51	133.52	-92.14	7,175.73	-2,330.38	1,752.73	1,567.05	185.68	9.439		
19,800.00	11,954.74	19,840.93	12,036.86	131.07	135.09	-92.15	7,275.72	-2,331.25	1,752.75	1,564.86	187.89	9.329		
19,900.00	11,953.52	19,940.93	12,035.90	132.63	136.66	-92.15	7,375.71	-2,332.11	1,752.77	1,562.67	190.10	9.220		
20,000.00	11,952.29	20,040.93	12,034.93	134.20	138.23	-92.16	7,475.70	-2,332.97	1,752.79	1,560.47	192.31	9.114		
20,100.00	11,951.07	20,140.93	12,033.97	135.76	139.80	-92.17	7,575.70	-2,333.83	1,752.81	1,558.28	194.53	9.010		
20,200.00	11,949.85	20,240.93	12,033.01	137.33	141.38	-92.18	7,675.69	-2,334.69	1,752.83	1,556.08	196.75	8.909		
20,300.00	11,948.62	20,340.93	12,032.04	138.90	142.95	-92.19	7,775.68	-2,335.56	1,752.84	1,553.87	198.97	8.810		
20,400.00	11,947.40	20,440.92	12,031.08	140.47	144.53	-92.20	7,875.67	-2,336.42	1,752.86	1,551.67	201.20	8.712		
20,500.00	11,946.18	20,540.92	12,030.12	142.04	146.11	-92.21	7,975.66	-2,337.28	1,752.88	1,549.46	203.42	8.617		
20,600.00	11,944.95	20,640.92	12,029.15	143.62	147.69	-92.21	8,075.65	-2,338.14	1,752.90	1,547.25	205.65	8.524		
20,700.00	11,943.73	20,740.92	12,028.19	145.19	149.27	-92.22	8,175.64	-2,339.00	1,752.92	1,545.04	207.88	8.432		
20,800.00	11,942.51	20,840.92	12,027.23	146.77	150.85	-92.23	8,275.63	-2,339.86	1,752.94	1,542.83	210.12	8.343		
20,900.00	11,941.28	20,940.92	12,026.27	148.35	152.44	-92.24	8,375.63	-2,340.73	1,752.96	1,540.61	212.35	8.255		
21,000.00	11,940.06	21,040.92	12,025.30	149.93	154.03	-92.25	8,475.62	-2,341.59	1,752.98	1,538.39	214.59	8.169		
21,100.00	11,938.84	21,140.92	12,024.34	151.51	155.61	-92.26	8,575.61	-2,342.45	1,753.00	1,536.17	216.83	8.085		
21,200.00	11,937.61	21,240.92	12,023.38	153.10	157.20	-92.26	8,675.60	-2,343.31	1,753.02	1,533.95	219.07	8.002		
21,300.00	11,936.39	21,340.92	12,022.41	154.68	158.79	-92.27	8,775.59	-2,344.17	1,753.04	1,531.73	221.31	7.921		
21,400.00	11,935.17	21,440.92	12,021.45	156.27	160.39	-92.28	8,875.58	-2,345.04	1,753.06	1,529.50	223.56	7.842		
21,500.00	11,933.94	21,540.92	12,020.49	157.86	161.98	-92.29	8,975.57	-2,345.90	1,753.08	1,527.27	225.81	7.764		
21,600.00	11,932.72	21,640.92	12,019.52	159.45	163.57	-92.30	9,075.56	-2,346.76	1,753.10	1,525.05	228.05	7.687		
21,700.00	11,931.49	21,740.92	12,018.56	161.04	165.17	-92.31	9,175.56	-2,347.62	1,753.12	1,522.82	230.30	7.612		
21,800.00	11,930.27	21,840.92	12,017.60	162.63	166.76	-92.32	9,275.55	-2,348.48	1,753.14	1,520.58	232.56	7.539		
21,900.00	11,929.05	21,940.92	12,016.63	164.22	168.36	-92.32	9,375.54	-2,349.35	1,753.16	1,518.35	234.81	7.466		
22,000.00	11,927.82	22,040.92	12,015.67	165.82	169.96	-92.33	9,475.53	-2,350.21	1,753.18	1,516.12	237.06	7.395		
22,100.00	11,926.60	22,140.92	12,014.71	167.41	171.56	-92.34	9,575.52	-2,351.07	1,753.20	1,513.88	239.32	7.326		
22,106.08	11,926.53	22,147.00	12,014.65	167.51	171.66	-92.34	9,581.60	-2,351.12	1,753.20	1,513.74	239.46	7.322		
22,206.36	11,925.30	22,238.31	12,013.77	169.11	173.12	-92.35	9,672.90	-2,351.91	1,753.24	1,511.59	241.65	7.255 ES, 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2													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	11.40	11.40	0.00	0.01	-103.55	-445.73	-1,849.67	1,902.62					
100.00	100.00	111.40	111.40	0.13	0.17	-103.55	-445.73	-1,849.67	1,902.62	1,902.41	0.21	9,132.066		
200.00	200.00	211.40	211.40	0.48	0.52	-103.55	-445.73	-1,849.67	1,902.62	1,901.90	0.71	2,665.211		
300.00	300.00	311.40	311.40	0.84	0.88	-103.55	-445.73	-1,849.67	1,902.62	1,901.40	1.22	1,558.777		
400.00	400.00	411.40	411.40	1.20	1.24	-103.55	-445.73	-1,849.67	1,902.62	1,900.89	1.73	1,101.410		
500.00	500.00	511.40	511.40	1.56	1.60	-103.55	-445.73	-1,849.67	1,902.62	1,900.38	2.23	851.535		
600.00	600.00	611.40	611.40	1.92	1.96	-103.55	-445.73	-1,849.67	1,902.62	1,899.88	2.74	694.067		
700.00	700.00	711.40	711.40	2.28	2.32	-103.55	-445.73	-1,849.67	1,902.62	1,899.37	3.25	585.747		
800.00	800.00	811.40	811.40	2.63	2.68	-103.55	-445.73	-1,849.67	1,902.62	1,898.86	3.76	506.672		
900.00	900.00	911.40	911.40	2.99	3.03	-103.55	-445.73	-1,849.67	1,902.62	1,898.36	4.26	446.407		
1,000.00	1,000.00	1,011.40	1,011.40	3.35	3.39	-103.55	-445.73	-1,849.67	1,902.62	1,897.85	4.77	398.954		
1,100.00	1,100.00	1,111.40	1,111.40	3.71	3.75	-103.55	-445.73	-1,849.67	1,902.62	1,897.34	5.28	360.620		
1,200.00	1,200.00	1,211.40	1,211.40	4.07	4.11	-103.55	-445.73	-1,849.67	1,902.62	1,896.83	5.78	329.007		
1,300.00	1,300.00	1,311.40	1,311.40	4.43	4.47	-103.55	-445.73	-1,849.67	1,902.62	1,896.33	6.29	302.490		
1,400.00	1,400.00	1,411.40	1,411.40	4.79	4.83	-103.55	-445.73	-1,849.67	1,902.62	1,895.82	6.80	279.928		
1,500.00	1,500.00	1,511.40	1,511.40	5.14	5.18	-103.55	-445.73	-1,849.67	1,902.62	1,895.31	7.30	260.498		
1,600.00	1,600.00	1,611.40	1,611.40	5.50	5.54	-103.55	-445.73	-1,849.67	1,902.62	1,894.81	7.81	243.591		
1,700.00	1,700.00	1,711.40	1,711.40	5.86	5.90	-103.55	-445.73	-1,849.67	1,902.62	1,894.30	8.32	228.744		
1,800.00	1,800.00	1,811.40	1,811.40	6.22	6.26	-103.55	-445.73	-1,849.67	1,902.62	1,893.79	8.82	215.603		
1,900.00	1,900.00	1,911.40	1,911.40	6.58	6.62	-103.55	-445.73	-1,849.67	1,902.62	1,893.29	9.33	203.890		
2,000.00	2,000.00	2,011.40	2,011.40	6.94	6.98	-103.55	-445.73	-1,849.67	1,902.62	1,892.78	9.84	193.384		
2,100.00	2,100.00	2,111.40	2,111.40	7.29	7.34	-103.55	-445.73	-1,849.67	1,902.62	1,892.27	10.35	183.908		
2,200.00	2,200.00	2,211.40	2,211.40	7.65	7.69	-103.55	-445.73	-1,849.67	1,902.62	1,891.77	10.85	175.317		
2,300.00	2,300.00	2,311.40	2,311.40	8.01	8.05	-103.55	-445.73	-1,849.67	1,902.62	1,891.26	11.36	167.493		
2,400.00	2,400.00	2,411.40	2,411.40	8.37	8.41	-103.55	-445.73	-1,849.67	1,902.62	1,890.75	11.87	160.337		
2,500.00	2,500.00	2,511.40	2,511.40	8.73	8.77	-103.55	-445.73	-1,849.67	1,902.62	1,890.24	12.37	153.768		
2,600.00	2,600.00	2,611.40	2,611.40	9.09	9.13	-103.55	-445.73	-1,849.67	1,902.62	1,889.74	12.88	147.716		
2,700.00	2,700.00	2,711.40	2,711.40	9.45	9.49	-103.55	-445.73	-1,849.67	1,902.62	1,889.23	13.39	142.122		
2,800.00	2,800.00	2,811.40	2,811.40	9.80	9.85	-103.55	-445.73	-1,849.67	1,902.62	1,888.72	13.89	136.937		
2,900.00	2,900.00	2,911.40	2,911.40	10.16	10.20	-103.55	-445.73	-1,849.67	1,902.62	1,888.22	14.40	132.116		
3,000.00	3,000.00	3,011.40	3,011.40	10.52	10.56	-103.55	-445.73	-1,849.67	1,902.62	1,887.71	14.91	127.623		
3,100.00	3,099.99	3,111.39	3,111.39	10.86	10.92	38.68	-445.73	-1,849.67	1,901.60	1,886.19	15.40	123.454		
3,200.00	3,199.91	3,217.74	3,217.74	11.19	11.25	38.79	-445.75	-1,849.63	1,898.51	1,882.61	15.90	119.387		
3,300.00	3,299.69	3,374.11	3,374.05	11.52	11.83	38.97	-447.70	-1,846.22	1,891.59	1,875.08	16.50	114.626		
3,400.00	3,399.27	3,529.40	3,529.00	11.85	12.35	39.14	-452.76	-1,837.34	1,879.67	1,862.58	17.08	110.031		
3,466.69	3,465.53	3,632.04	3,631.12	12.08	12.70	39.26	-457.82	-1,828.47	1,868.97	1,851.51	17.46	107.022		
3,500.00	3,498.59	3,677.18	3,675.94	12.19	12.85	39.25	-460.47	-1,823.83	1,862.94	1,845.30	17.64	105.601		
3,600.00	3,597.85	3,775.49	3,773.52	12.53	13.19	39.23	-466.41	-1,813.42	1,844.62	1,826.51	18.11	101.851		
3,700.00	3,697.10	3,873.79	3,871.09	12.87	13.54	39.21	-472.34	-1,803.01	1,826.30	1,807.71	18.58	98.270		
3,800.00	3,796.36	3,972.10	3,968.66	13.22	13.88	39.19	-478.28	-1,792.60	1,807.98	1,788.92	19.06	94.849		
3,900.00	3,895.61	4,070.40	4,066.23	13.58	14.23	39.17	-484.22	-1,782.20	1,789.66	1,770.11	19.54	91.580		
4,000.00	3,994.86	4,168.71	4,163.81	13.93	14.59	39.15	-490.15	-1,771.79	1,771.33	1,751.31	20.03	88.454		
4,100.00	4,094.12	4,267.01	4,261.38	14.29	14.94	39.13	-496.09	-1,761.38	1,753.01	1,732.50	20.51	85.464		
4,200.00	4,193.37	4,365.32	4,358.95	14.65	15.30	39.11	-502.02	-1,750.98	1,734.69	1,713.69	21.00	82.601		
4,300.00	4,292.63	4,463.62	4,456.52	15.01	15.66	39.09	-507.96	-1,740.57	1,716.37	1,694.88	21.49	79.859		
4,400.00	4,391.88	4,561.93	4,554.10	15.38	16.02	39.07	-513.90	-1,730.16	1,698.05	1,676.06	21.99	77.232		
4,500.00	4,491.14	4,660.24	4,651.67	15.75	16.38	39.04	-519.83	-1,719.75	1,679.73	1,657.25	22.48	74.713		
4,600.00	4,490.39	4,758.54	4,749.24	16.12	16.75	39.02	-525.77	-1,709.35	1,661.41	1,638.43	22.98	72.297		
4,700.00	4,689.65	4,856.85	4,846.81	16.49	17.11	39.00	-531.70	-1,698.94	1,643.09	1,619.61	23.48	69.977		
4,800.00	4,788.90	4,955.15	4,944.39	16.86	17.48	38.97	-537.64	-1,688.53	1,624.77	1,600.79	23.98	67.749		
4,900.00	4,888.16	5,053.46	5,041.96	17.24	17.85	38.95	-543.58	-1,678.13	1,606.45	1,581.96	24.49	65.608		
5,000.00	4,987.41	5,151.76	5,139.53	17.61	18.22	38.92	-549.51	-1,667.72	1,588.13	1,563.14	24.99	63.549		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2													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	
5,100.00	5,086.66	5,250.07	5,237.10	17.99	18.59	38.90	-555.45	-1,657.31	1,569.81	1,544.32	25.50	61.568		
5,200.00	5,185.92	5,348.37	5,334.68	18.37	18.97	38.87	-561.39	-1,646.90	1,551.49	1,525.49	26.01	59.661		
5,300.00	5,285.17	5,446.68	5,432.25	18.75	19.34	38.84	-567.32	-1,636.50	1,533.18	1,506.66	26.51	57.824		
5,400.00	5,384.43	5,544.98	5,529.82	19.14	19.72	38.81	-573.26	-1,626.09	1,514.86	1,487.83	27.03	56.054		
5,500.00	5,483.68	5,643.29	5,627.39	19.52	20.09	38.79	-579.19	-1,615.68	1,496.54	1,469.01	27.54	54.347		
5,600.00	5,582.94	5,741.59	5,724.97	19.90	20.47	38.76	-585.13	-1,605.28	1,478.23	1,450.18	28.05	52.700		
5,700.00	5,682.19	5,839.90	5,822.54	20.29	20.85	38.73	-591.07	-1,594.87	1,459.91	1,431.34	28.56	51.111		
5,800.00	5,781.45	5,938.20	5,920.11	20.68	21.23	38.69	-597.00	-1,584.46	1,441.59	1,412.51	29.08	49.576		
5,900.00	5,880.70	6,036.51	6,017.68	21.06	21.61	38.66	-602.94	-1,574.05	1,423.28	1,393.68	29.59	48.093		
6,000.00	5,979.96	6,134.81	6,115.26	21.45	21.99	38.63	-608.87	-1,563.65	1,404.96	1,374.85	30.11	46.659		
6,100.00	6,079.21	6,233.12	6,212.83	21.84	22.37	38.60	-614.81	-1,553.24	1,386.65	1,356.02	30.63	45.272		
6,200.00	6,178.46	6,331.43	6,310.40	22.23	22.76	38.56	-620.75	-1,542.83	1,368.33	1,337.18	31.15	43.931		
6,300.00	6,277.72	6,429.73	6,407.97	22.62	23.14	38.53	-626.68	-1,532.43	1,350.02	1,318.35	31.67	42.632		
6,400.00	6,376.97	6,528.04	6,505.55	23.01	23.52	38.49	-632.62	-1,522.02	1,331.71	1,299.52	32.19	41.374		
6,500.00	6,476.23	6,626.34	6,603.12	23.40	23.91	38.45	-638.55	-1,511.61	1,313.39	1,280.68	32.71	40.155		
6,600.00	6,575.48	6,724.65	6,700.69	23.80	24.29	38.42	-644.49	-1,501.20	1,295.08	1,261.85	33.23	38.974		
6,700.00	6,674.74	6,822.95	6,798.26	24.19	24.68	38.38	-650.43	-1,490.80	1,276.77	1,243.02	33.75	37.829		
6,800.00	6,773.99	6,921.26	6,895.83	24.58	25.07	38.34	-656.36	-1,480.39	1,258.46	1,224.18	34.27	36.718		
6,900.00	6,873.25	7,019.56	6,993.41	24.98	25.45	38.29	-662.30	-1,469.98	1,240.15	1,205.35	34.80	35.639		
7,000.00	6,972.50	7,112.87	7,086.03	25.37	25.82	38.25	-667.90	-1,460.16	1,221.89	1,186.57	35.32	34.597		
7,100.00	7,071.76	7,200.00	7,172.67	25.77	26.16	38.27	-672.43	-1,452.22	1,204.75	1,168.92	35.83	33.623		
7,200.00	7,171.01	7,273.65	7,246.06	26.16	26.43	38.33	-675.49	-1,446.85	1,189.06	1,152.73	36.32	32.735		
7,300.00	7,270.26	7,354.55	7,326.79	26.56	26.73	38.45	-678.05	-1,442.37	1,174.90	1,138.08	36.82	31.913		
7,400.00	7,369.52	7,435.68	7,407.85	26.95	27.02	38.64	-679.76	-1,439.37	1,162.27	1,124.97	37.30	31.161		
7,500.00	7,468.77	7,516.99	7,489.14	27.35	27.31	38.89	-680.62	-1,437.86	1,151.19	1,113.41	37.77	30.475		
7,600.00	7,568.03	7,607.28	7,579.43	27.75	27.61	39.23	-680.73	-1,437.67	1,141.50	1,103.24	38.26	29.835		
7,700.00	7,667.28	7,706.53	7,678.68	28.15	27.94	39.62	-680.73	-1,437.67	1,132.06	1,093.29	38.77	29.203		
7,800.00	7,766.54	7,805.79	7,777.94	28.54	28.28	40.01	-680.73	-1,437.67	1,122.67	1,083.40	39.27	28.587		
7,900.00	7,865.79	7,905.04	7,877.19	28.94	28.61	40.42	-680.73	-1,437.67	1,113.33	1,073.55	39.78	27.987		
8,000.00	7,965.05	8,004.29	7,976.45	29.34	28.95	40.83	-680.73	-1,437.67	1,104.05	1,063.76	40.29	27.404		
8,100.00	8,064.30	8,103.55	8,075.70	29.74	29.28	41.24	-680.73	-1,437.67	1,094.83	1,054.03	40.80	26.835		
8,200.00	8,163.56	8,202.80	8,174.96	30.14	29.62	41.66	-680.73	-1,437.67	1,085.66	1,044.36	41.31	26.282		
8,300.00	8,262.81	8,302.06	8,274.21	30.54	29.95	42.09	-680.73	-1,437.67	1,076.56	1,034.74	41.82	25.742		
8,400.00	8,362.06	8,401.31	8,373.46	30.94	30.29	42.53	-680.73	-1,437.67	1,067.52	1,025.18	42.33	25.217		
8,500.00	8,461.32	8,500.57	8,472.72	31.34	30.63	42.98	-680.73	-1,437.67	1,058.54	1,015.69	42.85	24.705		
8,600.00	8,560.57	8,599.82	8,571.97	31.74	30.97	43.43	-680.73	-1,437.67	1,049.62	1,006.26	43.36	24.206		
8,700.00	8,659.83	8,699.08	8,671.23	32.14	31.30	43.89	-680.73	-1,437.67	1,040.77	996.89	43.88	23.720		
8,800.00	8,759.08	8,798.33	8,770.48	32.54	31.64	44.35	-680.73	-1,437.67	1,031.99	987.60	44.39	23.246		
8,900.00	8,858.34	8,897.59	8,869.74	32.94	31.98	44.83	-680.73	-1,437.67	1,023.28	978.37	44.91	22.784		
9,000.00	8,957.59	8,996.84	8,968.99	33.34	32.32	45.31	-680.73	-1,437.67	1,014.64	969.21	45.43	22.333		
9,100.00	9,056.85	9,096.09	9,068.25	33.75	32.66	45.80	-680.73	-1,437.67	1,006.07	960.12	45.95	21.894		
9,200.00	9,156.10	9,195.35	9,167.50	34.15	33.00	46.30	-680.73	-1,437.67	997.58	951.11	46.47	21.466		
9,300.00	9,255.36	9,294.60	9,266.76	34.55	33.34	46.81	-680.73	-1,437.67	989.17	942.18	46.99	21.048		
9,400.00	9,354.61	9,393.86	9,366.01	34.95	33.68	47.33	-680.73	-1,437.67	980.84	933.32	47.52	20.641		
9,500.00	9,453.86	9,493.11	9,465.26	35.35	34.02	47.86	-680.73	-1,437.67	972.58	924.54	48.04	20.244		
9,600.00	9,553.12	9,592.37	9,564.52	35.76	34.36	48.39	-680.73	-1,437.67	964.41	915.85	48.57	19.857		
9,700.00	9,652.37	9,691.62	9,663.77	36.16	34.70	48.93	-680.73	-1,437.67	956.33	907.24	49.09	19.480		
9,800.00	9,751.63	9,790.88	9,763.03	36.56	35.05	49.49	-680.73	-1,437.67	948.33	898.71	49.62	19.111		
9,853.24	9,804.47	9,843.72	9,815.87	36.78	35.23	49.78	-680.73	-1,437.67	944.11	894.21	49.90	18.919		
9,900.00	9,850.92	9,890.16	9,862.32	36.96	35.39	49.99	-680.73	-1,437.67	940.61	890.46	50.15	18.756		
10,000.00	9,950.44	9,989.69	9,961.84	37.35	35.73	50.38	-680.73	-1,437.67	934.40	883.73	50.67	18.441		
10,100.00	10,050.19	10,089.44	10,061.59	37.73	36.08	50.66	-680.73	-1,437.67	929.91	878.72	51.18	18.168		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2													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		
10,200.00	10,150.09	10,189.34	10,161.49	38.09	36.42	50.84	-680.73	-1,437.67	927.09	875.40	51.69	17.937		
10,300.00	10,250.07	10,289.32	10,261.47	38.43	36.77	50.91	-680.73	-1,437.67	925.93	873.75	52.18	17.745		
10,319.93	10,270.00	10,309.25	10,281.40	38.50	36.84	-91.28	-680.73	-1,437.67	925.90	873.63	52.28	17.712		
10,400.00	10,350.07	10,389.32	10,361.47	38.75	37.11	-91.28	-680.73	-1,437.67	925.90	873.25	52.66	17.584		
10,500.00	10,450.07	10,489.32	10,461.47	39.07	37.46	-91.28	-680.73	-1,437.67	925.90	872.77	53.13	17.426		
10,600.00	10,550.07	10,589.32	10,561.47	39.39	37.80	-91.28	-680.73	-1,437.67	925.90	872.29	53.61	17.271		
10,700.00	10,650.07	10,689.32	10,661.47	39.71	38.15	-91.28	-680.73	-1,437.67	925.90	871.82	54.09	17.119		
10,800.00	10,750.07	10,789.32	10,761.47	40.03	38.50	-91.28	-680.73	-1,437.67	925.90	871.34	54.56	16.969		
10,900.00	10,850.07	10,889.32	10,861.47	40.35	38.84	-91.28	-680.73	-1,437.67	925.90	870.86	55.04	16.822		
11,000.00	10,950.07	10,989.32	10,961.47	40.67	39.19	-91.28	-680.73	-1,437.67	925.90	870.38	55.52	16.677		
11,100.00	11,050.07	11,089.32	11,061.47	40.99	39.54	-91.28	-680.73	-1,437.67	925.90	869.90	56.00	16.534		
11,200.00	11,150.07	11,189.32	11,161.47	41.32	39.89	-91.28	-680.73	-1,437.67	925.90	869.42	56.48	16.394		
11,300.00	11,250.07	11,289.32	11,261.47	41.64	40.23	-91.28	-680.73	-1,437.67	925.90	868.94	56.96	16.256		
11,400.00	11,350.07	11,389.32	11,361.47	41.96	40.58	-91.28	-680.73	-1,437.67	925.90	868.46	57.44	16.120		
11,500.00	11,450.07	11,490.61	11,462.46	42.29	40.93	-90.90	-674.62	-1,437.72	925.84	867.92	57.92	15.984		
11,521.93	11,472.00	11,512.43	11,483.98	42.36	41.00	-90.68	-671.03	-1,437.75	925.82	867.79	58.03	15.955		
11,539.33	11,489.40	11,529.58	11,500.80	42.41	41.05	-90.00	-667.64	-1,437.78	925.81	867.70	58.11	15.932 CC		
11,550.00	11,500.06	11,540.06	11,511.01	42.45	41.08	-89.88	-665.32	-1,437.80	925.82	867.66	58.16	15.919		
11,600.00	11,549.83	11,588.68	11,557.79	42.60	41.23	-89.33	-652.12	-1,437.91	925.88	867.50	58.38	15.860		
11,650.00	11,599.01	11,636.58	11,602.63	42.73	41.37	-88.79	-635.29	-1,438.06	926.03	867.45	58.58	15.808		
11,700.00	11,647.22	11,683.81	11,645.30	42.85	41.49	-88.25	-615.08	-1,438.23	926.26	867.49	58.76	15.762		
11,750.00	11,694.10	11,730.42	11,685.64	42.95	41.60	-87.74	-591.77	-1,438.43	926.56	867.63	58.93	15.724		
11,800.00	11,739.28	11,776.45	11,723.49	43.04	41.69	-87.24	-565.60	-1,438.65	926.92	867.84	59.07	15.691		
11,850.00	11,782.44	11,821.94	11,758.72	43.11	41.78	-86.76	-536.84	-1,438.90	927.33	868.13	59.20	15.664		
11,900.00	11,823.23	11,866.94	11,791.22	43.17	41.85	-86.31	-505.72	-1,439.16	927.78	868.47	59.31	15.643		
11,950.00	11,861.34	11,911.50	11,820.89	43.21	41.91	-85.88	-472.50	-1,439.45	928.25	868.85	59.40	15.626		
12,000.00	11,896.50	11,955.65	11,847.65	43.24	41.96	-85.49	-437.39	-1,439.75	928.74	869.25	59.49	15.612		
12,050.00	11,928.42	12,000.00	11,871.74	43.25	42.00	-85.12	-400.17	-1,440.06	929.23	869.66	59.56	15.601		
12,100.00	11,956.87	12,042.92	11,892.24	43.25	42.02	-84.79	-362.48	-1,440.39	929.70	870.07	59.63	15.592		
12,150.00	11,981.63	12,068.11	11,909.96	43.25	42.04	-84.49	-323.10	-1,440.72	930.14	870.46	59.69	15.583		
12,200.00	12,002.51	12,129.06	11,924.59	43.23	42.05	-84.23	-282.74	-1,441.07	930.55	870.81	59.75	15.574		
12,250.00	12,019.36	12,171.80	11,936.12	43.21	42.08	-84.01	-241.59	-1,441.42	930.92	871.11	59.81	15.564		
12,300.00	12,032.03	12,214.37	11,944.51	43.18	42.10	-83.83	-199.86	-1,441.77	931.22	871.35	59.88	15.552		
12,350.00	12,040.45	12,256.81	11,949.77	43.16	42.31	-83.69	-157.76	-1,442.13	931.47	871.52	59.95	15.538		
12,400.00	12,044.54	12,300.00	11,951.92	43.13	42.42	-83.59	-114.64	-1,442.50	931.64	871.62	60.03	15.520		
12,428.94	12,044.92	12,325.68	11,951.80	43.11	42.50	-83.56	-88.96	-1,442.72	931.70	871.61	60.08	15.506		
12,500.00	12,044.05	12,396.75	11,951.12	43.10	42.71	-83.57	-17.90	-1,443.33	931.68	871.41	60.27	15.458		
12,600.00	12,042.82	12,496.75	11,950.16	43.15	43.05	-83.59	82.09	-1,444.18	931.65	871.04	60.61	15.371		
12,700.00	12,041.60	12,596.74	11,949.19	43.31	43.46	-83.60	182.08	-1,445.03	931.62	870.58	61.04	15.263		
12,800.00	12,040.38	12,696.74	11,948.23	43.57	43.91	-83.62	282.07	-1,445.88	931.59	870.04	61.55	15.136		
12,900.00	12,039.15	12,796.74	11,947.27	43.92	44.43	-83.63	382.06	-1,446.74	931.56	869.42	62.14	14.991		
13,000.00	12,037.93	12,896.74	11,946.31	44.34	44.99	-83.65	482.05	-1,447.59	931.53	868.72	62.81	14.830		
13,100.00	12,036.71	12,996.74	11,945.34	44.81	45.61	-83.67	582.04	-1,448.44	931.51	867.94	63.57	14.654		
13,200.00	12,035.48	13,096.74	11,944.38	45.34	46.27	-83.68	682.04	-1,449.30	931.48	867.08	64.39	14.465		
13,300.00	12,034.26	13,196.74	11,943.42	45.92	46.99	-83.70	782.03	-1,450.15	931.45	866.16	65.29	14.265		
13,400.00	12,033.04	13,296.74	11,942.45	46.55	47.75	-83.71	882.02	-1,451.00	931.42	865.16	66.26	14.056		
13,500.00	12,031.81	13,396.74	11,941.49	47.23	48.55	-83.73	982.01	-1,451.86	931.39	864.10	67.30	13.840		
13,600.00	12,030.59	13,496.74	11,940.53	47.96	49.39	-83.75	1,082.00	-1,452.71	931.37	862.97	68.40	13.617		
13,700.00	12,029.37	13,596.74	11,939.57	48.73	50.28	-83.76	1,181.99	-1,453.56	931.34	861.78	69.56	13.390		
13,800.00	12,028.14	13,696.74	11,938.60	49.54	51.20	-83.78	1,281.98	-1,454.42	931.31	860.54	70.77	13.159		
13,900.00	12,026.92	13,796.74	11,937.64	50.39	52.16	-83.79	1,381.98	-1,455.27	931.28	859.24	72.04	12.926		
14,000.00	12,025.70	13,896.74	11,936.68	51.28	53.15	-83.81	1,481.97	-1,456.12	931.26	857.89	73.37	12.693		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2													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	12,024.47	13,996.74	11,935.72	52.21	54.17	-83.83	1,581.96	-1,456.98	931.23	856.49	74.74	12.460		
14,200.00	12,023.25	14,096.74	11,934.75	53.17	55.23	-83.84	1,681.95	-1,457.83	931.20	855.04	76.16	12.227		
14,300.00	12,022.03	14,196.74	11,933.79	54.17	56.31	-83.86	1,781.94	-1,458.68	931.17	853.55	77.62	11.997		
14,400.00	12,020.80	14,296.74	11,932.83	55.19	57.42	-83.87	1,881.93	-1,459.53	931.15	852.02	79.12	11.768		
14,500.00	12,019.58	14,396.74	11,931.86	56.25	58.55	-83.89	1,981.92	-1,460.39	931.12	850.45	80.67	11.543		
14,600.00	12,018.35	14,496.74	11,930.90	57.33	59.71	-83.91	2,081.92	-1,461.24	931.09	848.85	82.25	11.321		
14,700.00	12,017.13	14,596.74	11,929.94	58.44	60.89	-83.92	2,181.91	-1,462.09	931.06	847.20	83.86	11.103		
14,800.00	12,015.91	14,696.74	11,928.98	59.57	62.09	-83.94	2,281.90	-1,462.95	931.04	845.53	85.51	10.888		
14,900.00	12,014.68	14,796.74	11,928.01	60.73	63.32	-83.95	2,381.89	-1,463.80	931.01	843.83	87.18	10.679		
15,000.00	12,013.46	14,896.74	11,927.05	61.91	64.56	-83.97	2,481.88	-1,464.65	930.98	842.09	88.89	10.473		
15,100.00	12,012.24	14,996.74	11,926.09	63.11	65.82	-83.99	2,581.87	-1,465.51	930.96	840.33	90.63	10.272		
15,200.00	12,011.01	15,096.74	11,925.13	64.33	67.10	-84.00	2,681.86	-1,466.36	930.93	838.54	92.39	10.076		
15,300.00	12,009.79	15,196.74	11,924.16	65.57	68.39	-84.02	2,781.86	-1,467.21	930.90	836.73	94.17	9.885		
15,400.00	12,008.57	15,296.74	11,923.20	66.82	69.70	-84.03	2,881.85	-1,468.07	930.88	834.90	95.98	9.699		
15,500.00	12,007.34	15,396.74	11,922.24	68.10	71.02	-84.05	2,981.84	-1,468.92	930.85	833.04	97.81	9.517		
15,600.00	12,006.12	15,496.73	11,921.28	69.39	72.35	-84.06	3,081.83	-1,469.77	930.82	831.16	99.66	9.340		
15,700.00	12,004.90	15,596.73	11,920.31	70.69	73.70	-84.08	3,181.82	-1,470.62	930.80	829.26	101.53	9.167		
15,800.00	12,003.67	15,696.73	11,919.35	72.01	75.06	-84.10	3,281.81	-1,471.48	930.77	827.35	103.42	9.000		
15,900.00	12,002.45	15,796.73	11,918.39	73.34	76.44	-84.11	3,381.80	-1,472.33	930.75	825.41	105.33	8.836		
16,000.00	12,001.23	15,896.73	11,917.42	74.69	77.82	-84.13	3,481.79	-1,473.18	930.72	823.46	107.25	8.678		
16,100.00	12,000.00	15,996.73	11,916.46	76.04	79.21	-84.14	3,581.79	-1,474.04	930.69	821.50	109.19	8.523		
16,200.00	11,998.78	16,096.73	11,915.50	77.41	80.62	-84.16	3,681.78	-1,474.89	930.67	819.52	111.15	8.373		
16,300.00	11,997.56	16,196.73	11,914.54	78.79	82.03	-84.18	3,781.77	-1,475.74	930.64	817.52	113.12	8.227		
16,400.00	11,996.33	16,296.73	11,913.57	80.18	83.45	-84.19	3,881.76	-1,476.60	930.62	815.52	115.10	8.085		
16,500.00	11,995.11	16,396.73	11,912.61	81.58	84.88	-84.21	3,981.75	-1,477.45	930.59	813.50	117.09	7.947		
16,600.00	11,993.89	16,496.73	11,911.65	82.99	86.31	-84.22	4,081.74	-1,478.30	930.56	811.46	119.10	7.813		
16,700.00	11,992.66	16,596.73	11,910.69	84.40	87.76	-84.24	4,181.73	-1,479.16	930.54	809.42	121.12	7.683		
16,800.00	11,991.44	16,696.73	11,909.72	85.83	89.21	-84.26	4,281.73	-1,480.01	930.51	807.37	123.15	7.556		
16,900.00	11,990.22	16,796.73	11,908.76	87.26	90.67	-84.27	4,381.72	-1,480.86	930.49	805.30	125.19	7.433		
17,000.00	11,988.99	16,896.73	11,907.80	88.70	92.14	-84.29	4,481.71	-1,481.72	930.46	803.23	127.24	7.313		
17,100.00	11,987.77	16,996.73	11,906.83	90.15	93.61	-84.30	4,581.70	-1,482.57	930.44	801.14	129.30	7.196		
17,200.00	11,986.55	17,096.73	11,905.87	91.60	95.08	-84.32	4,681.69	-1,483.42	930.41	799.05	131.36	7.083		
17,300.00	11,985.32	17,196.73	11,904.91	93.06	96.57	-84.34	4,781.68	-1,484.27	930.39	796.95	133.44	6.972		
17,400.00	11,984.10	17,296.73	11,903.95	94.53	98.06	-84.35	4,881.67	-1,485.13	930.36	794.84	135.53	6.865		
17,500.00	11,982.88	17,396.73	11,902.98	96.01	99.55	-84.37	4,981.67	-1,485.98	930.34	792.72	137.62	6.760		
17,600.00	11,981.65	17,496.73	11,902.02	97.49	101.05	-84.38	5,081.66	-1,486.83	930.31	790.59	139.72	6.658		
17,700.00	11,980.43	17,596.73	11,901.06	98.97	102.55	-84.40	5,181.65	-1,487.69	930.29	788.46	141.82	6.559		
17,800.00	11,979.21	17,696.73	11,900.10	100.46	104.06	-84.42	5,281.64	-1,488.54	930.26	786.32	143.94	6.463		
17,900.00	11,977.98	17,796.73	11,899.13	101.95	105.57	-84.43	5,381.63	-1,489.39	930.24	784.18	146.06	6.369		
18,000.00	11,976.76	17,896.73	11,898.17	103.45	107.09	-84.45	5,481.62	-1,490.25	930.21	782.02	148.19	6.277		
18,100.00	11,975.54	17,996.73	11,897.21	104.96	108.61	-84.46	5,581.61	-1,491.10	930.19	779.87	150.32	6.188		
18,200.00	11,974.31	18,096.73	11,896.24	106.47	110.13	-84.48	5,681.61	-1,491.95	930.16	777.70	152.46	6.101		
18,300.00	11,973.09	18,196.73	11,895.28	107.98	111.66	-84.50	5,781.60	-1,492.81	930.14	775.54	154.60	6.016		
18,400.00	11,971.87	18,296.73	11,894.32	109.50	113.19	-84.51	5,881.59	-1,493.66	930.11	773.36	156.75	5.934		
18,500.00	11,970.64	18,396.73	11,893.36	111.02	114.72	-84.53	5,981.58	-1,494.51	930.09	771.18	158.91	5.853		
18,600.00	11,969.42	18,496.72	11,892.39	112.54	116.26	-84.54	6,081.57	-1,495.37	930.06	769.00	161.07	5.774		
18,700.00	11,968.20	18,596.72	11,891.43	114.07	117.80	-84.56	6,181.56	-1,496.22	930.04	766.81	163.23	5.698		
18,800.00	11,966.97	18,696.72	11,890.47	115.60	119.34	-84.58	6,281.55	-1,497.07	930.02	764.62	165.40	5.623		
18,900.00	11,965.75	18,796.72	11,889.51	117.13	120.89	-84.59	6,381.55	-1,497.92	929.99	762.42	167.57	5.550		
19,000.00	11,964.53	18,896.72	11,888.54	118.67	122.44	-84.61	6,481.54	-1,498.78	929.97	760.22	169.75	5.478		
19,100.00	11,963.30	18,996.72	11,887.58	120.21	123.99	-84.62	6,581.53	-1,499.63	929.94	758.01	171.93	5.409		
19,200.00	11,962.08	19,096.72	11,886.62	121.76	125.55	-84.64	6,681.52	-1,500.48	929.92	755.80	174.12	5.341		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2													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		
19,300.00	11,960.86	19,196.72	11,885.65	123.30	127.10	-84.66	6,781.51	-1,501.34	929.90	753.59	176.31	5.274		
19,400.00	11,959.63	19,296.72	11,884.69	124.85	128.66	-84.67	6,881.50	-1,502.19	929.87	751.37	178.50	5.209		
19,500.00	11,958.41	19,396.72	11,883.73	126.40	130.22	-84.69	6,981.49	-1,503.04	929.85	749.15	180.70	5.146		
19,600.00	11,957.19	19,496.72	11,882.77	127.96	131.79	-84.70	7,081.48	-1,503.90	929.83	746.93	182.90	5.084		
19,700.00	11,955.96	19,596.72	11,881.80	129.51	133.35	-84.72	7,181.48	-1,504.75	929.80	744.70	185.10	5.023		
19,800.00	11,954.74	19,696.72	11,880.84	131.07	134.92	-84.74	7,281.47	-1,505.60	929.78	742.48	187.30	4.964		
19,900.00	11,953.52	19,796.72	11,879.88	132.63	136.49	-84.75	7,381.46	-1,506.46	929.76	740.24	189.51	4.906		
20,000.00	11,952.29	19,896.72	11,878.92	134.20	138.06	-84.77	7,481.45	-1,507.31	929.73	738.01	191.72	4.849		
20,100.00	11,951.07	19,996.72	11,877.95	135.76	139.63	-84.78	7,581.44	-1,508.16	929.71	735.77	193.94	4.794		
20,200.00	11,949.85	20,096.72	11,876.99	137.33	141.21	-84.80	7,681.43	-1,509.02	929.69	733.53	196.16	4.740		
20,300.00	11,948.62	20,196.72	11,876.03	138.90	142.79	-84.82	7,781.42	-1,509.87	929.66	731.29	198.38	4.686		
20,400.00	11,947.40	20,296.72	11,875.06	140.47	144.37	-84.83	7,881.42	-1,510.72	929.64	729.04	200.60	4.634		
20,500.00	11,946.18	20,396.72	11,874.10	142.04	145.95	-84.85	7,981.41	-1,511.57	929.62	726.79	202.82	4.583		
20,600.00	11,944.95	20,496.72	11,873.14	143.62	147.53	-84.86	8,081.40	-1,512.43	929.59	724.54	205.05	4.533		
20,700.00	11,943.73	20,596.72	11,872.18	145.19	149.11	-84.88	8,181.39	-1,513.28	929.57	722.29	207.28	4.485		
20,800.00	11,942.51	20,696.72	11,871.21	146.77	150.70	-84.90	8,281.38	-1,514.13	929.55	720.04	209.51	4.437		
20,900.00	11,941.28	20,796.72	11,870.25	148.35	152.28	-84.91	8,381.37	-1,514.99	929.53	717.78	211.75	4.390		
21,000.00	11,940.06	20,896.72	11,869.29	149.93	153.87	-84.93	8,481.36	-1,515.84	929.50	715.52	213.98	4.344		
21,100.00	11,938.84	20,996.72	11,868.33	151.51	155.46	-84.94	8,581.36	-1,516.69	929.48	713.26	216.22	4.299		
21,200.00	11,937.61	21,096.72	11,867.36	153.10	157.05	-84.96	8,681.35	-1,517.55	929.46	711.00	218.46	4.255		
21,300.00	11,936.39	21,196.72	11,866.40	154.68	158.64	-84.98	8,781.34	-1,518.40	929.44	708.73	220.70	4.211		
21,400.00	11,935.17	21,296.72	11,865.44	156.27	160.23	-84.99	8,881.33	-1,519.25	929.42	706.47	222.95	4.169		
21,500.00	11,933.94	21,396.72	11,864.47	157.86	161.83	-85.01	8,981.32	-1,520.11	929.39	704.20	225.19	4.127		
21,600.00	11,932.72	21,496.71	11,863.51	159.45	163.42	-85.02	9,081.31	-1,520.96	929.37	701.93	227.44	4.086		
21,700.00	11,931.49	21,596.71	11,862.55	161.04	165.02	-85.04	9,181.30	-1,521.81	929.35	699.66	229.69	4.046		
21,800.00	11,930.27	21,696.71	11,861.59	162.63	166.61	-85.06	9,281.30	-1,522.66	929.33	697.39	231.94	4.007		
21,900.00	11,929.05	21,796.71	11,860.62	164.22	168.21	-85.07	9,381.29	-1,523.52	929.31	695.11	234.19	3.968		
22,000.00	11,927.82	21,896.71	11,859.66	165.82	169.81	-85.09	9,481.28	-1,524.37	929.28	692.83	236.45	3.930		
22,100.00	11,926.60	21,996.71	11,858.70	167.41	171.41	-85.10	9,581.27	-1,525.22	929.26	690.56	238.70	3.893		
22,203.88	11,925.33	22,099.37	11,857.71	169.07	173.06	-85.12	9,683.92	-1,526.10	929.24	688.20	241.04	3.855		
22,206.36	11,925.30	22,099.37	11,857.71	169.11	173.06	-85.12	9,683.92	-1,526.10	929.25	688.18	241.07	3.855 ES, 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	0.00	0.00	0.00	0.00	103.52	-445.45	1,852.43	1,905.32					
100.00	100.00	82.20	82.20	0.13	0.10	103.52	-445.45	1,852.43	1,905.24	1,905.07	0.16	N/A		
200.00	200.00	182.20	182.20	0.48	0.42	103.52	-445.45	1,852.43	1,905.24	1,904.59	0.64	2,972.930		
300.00	300.00	282.20	282.20	0.84	0.78	103.52	-445.45	1,852.43	1,905.24	1,904.09	1.15	1,660.895		
400.00	400.00	382.20	382.20	1.20	1.14	103.52	-445.45	1,852.43	1,905.24	1,903.58	1.65	1,152.037		
500.00	500.00	482.20	482.20	1.56	1.50	103.52	-445.45	1,852.43	1,905.24	1,903.08	2.16	881.805		
600.00	600.00	582.20	582.20	1.92	1.85	103.52	-445.45	1,852.43	1,905.24	1,902.57	2.67	714.247		
700.00	700.00	682.20	682.20	2.28	2.21	103.52	-445.45	1,852.43	1,905.24	1,902.06	3.17	600.194		
800.00	800.00	782.20	782.20	2.63	2.57	103.52	-445.45	1,852.43	1,905.24	1,901.55	3.68	517.547		
900.00	900.00	882.20	882.20	2.99	2.93	103.52	-445.45	1,852.43	1,905.24	1,901.05	4.19	454.905		
1,000.00	1,000.00	982.20	982.20	3.35	3.29	103.52	-445.45	1,852.43	1,905.24	1,900.54	4.70	405.790		
1,100.00	1,100.00	1,082.20	1,082.20	3.71	3.65	103.52	-445.45	1,852.43	1,905.24	1,900.03	5.20	366.246		
1,200.00	1,200.00	1,182.20	1,182.20	4.07	4.00	103.52	-445.45	1,852.43	1,905.24	1,899.53	5.71	333.725		
1,300.00	1,300.00	1,282.20	1,282.20	4.43	4.36	103.52	-445.45	1,852.43	1,905.24	1,899.02	6.22	306.508		
1,400.00	1,400.00	1,382.20	1,382.20	4.79	4.72	103.52	-445.45	1,852.43	1,905.24	1,898.51	6.72	283.395		
1,500.00	1,500.00	1,482.20	1,482.20	5.14	5.08	103.52	-445.45	1,852.43	1,905.24	1,898.01	7.23	263.524		
1,600.00	1,600.00	1,582.20	1,582.20	5.50	5.44	103.52	-445.45	1,852.43	1,905.24	1,897.50	7.74	246.257		
1,700.00	1,700.00	1,682.20	1,682.20	5.86	5.80	103.52	-445.45	1,852.43	1,905.24	1,896.99	8.24	231.113		
1,800.00	1,800.00	1,782.20	1,782.20	6.22	6.16	103.52	-445.45	1,852.43	1,905.24	1,896.48	8.75	217.724		
1,900.00	1,900.00	1,882.20	1,882.20	6.58	6.51	103.52	-445.45	1,852.43	1,905.24	1,895.98	9.26	205.802		
2,000.00	2,000.00	1,982.20	1,982.20	6.94	6.87	103.52	-445.45	1,852.43	1,905.24	1,895.47	9.76	195.117		
2,100.00	2,100.00	2,082.20	2,082.20	7.29	7.23	103.52	-445.45	1,852.43	1,905.24	1,894.96	10.27	185.487		
2,200.00	2,200.00	2,182.20	2,182.20	7.65	7.59	103.52	-445.45	1,852.43	1,905.24	1,894.46	10.78	176.763		
2,300.00	2,300.00	2,282.20	2,282.20	8.01	7.95	103.52	-445.45	1,852.43	1,905.24	1,893.95	11.29	168.823		
2,400.00	2,400.00	2,382.20	2,382.20	8.37	8.31	103.52	-445.45	1,852.43	1,905.24	1,893.44	11.79	161.565		
2,500.00	2,500.00	2,482.20	2,482.20	8.73	8.66	103.52	-445.45	1,852.43	1,905.24	1,892.94	12.30	154.906		
2,600.00	2,600.00	2,582.20	2,582.20	9.09	9.02	103.52	-445.45	1,852.43	1,905.24	1,892.43	12.81	148.774		
2,700.00	2,700.00	2,682.20	2,682.20	9.45	9.38	103.52	-445.45	1,852.43	1,905.24	1,891.92	13.31	143.108		
2,800.00	2,800.00	2,782.20	2,782.20	9.80	9.74	103.52	-445.45	1,852.43	1,905.24	1,891.42	13.82	137.859		
2,900.00	2,900.00	2,882.20	2,882.20	10.16	10.10	103.52	-445.45	1,852.43	1,905.24	1,890.91	14.33	132.981		
3,000.00	3,000.00	2,982.20	2,982.20	10.52	10.46	103.52	-445.45	1,852.43	1,905.24	1,890.40	14.83	128.436		
3,100.00	3,099.99	3,082.19	3,082.19	10.86	10.82	-114.31	-445.45	1,852.43	1,905.77	1,890.45	15.33	124.323		
3,200.00	3,199.91	3,182.11	3,182.11	11.19	11.17	-114.40	-445.45	1,852.43	1,907.39	1,891.58	15.81	120.619		
3,300.00	3,299.69	3,348.60	3,348.56	11.52	11.75	-114.64	-446.09	1,849.61	1,908.68	1,892.23	16.44	116.066		
3,400.00	3,399.27	3,529.74	3,529.33	11.85	12.37	-114.97	-448.62	1,838.56	1,906.88	1,889.80	17.08	111.639		
3,466.69	3,465.53	3,650.42	3,649.37	12.08	12.78	-115.22	-451.36	1,826.57	1,903.95	1,886.45	17.49	108.837		
3,500.00	3,498.59	3,710.62	3,709.10	12.19	12.99	-115.32	-453.04	1,819.21	1,901.90	1,884.20	17.70	107.475		
3,600.00	3,597.85	3,820.44	3,817.86	12.53	13.38	-115.49	-456.43	1,804.37	1,894.55	1,876.36	18.19	104.143		
3,700.00	3,697.10	3,920.04	3,916.49	12.87	13.74	-115.64	-459.52	1,790.86	1,887.18	1,868.50	18.68	101.050		
3,800.00	3,796.36	4,019.64	4,015.12	13.22	14.10	-115.80	-462.61	1,777.34	1,879.82	1,860.66	19.16	98.094		
3,900.00	3,895.61	4,119.24	4,113.75	13.58	14.46	-115.95	-465.70	1,763.83	1,872.48	1,852.83	19.65	95.270		
4,000.00	3,994.86	4,218.84	4,212.38	13.93	14.82	-116.11	-468.79	1,750.31	1,865.15	1,845.00	20.15	92.569		
4,100.00	4,094.12	4,318.44	4,311.01	14.29	15.19	-116.27	-471.88	1,736.80	1,857.84	1,837.19	20.65	89.985		
4,200.00	4,193.37	4,418.04	4,409.64	14.65	15.56	-116.43	-474.97	1,723.28	1,850.54	1,829.39	21.15	87.513		
4,300.00	4,292.63	4,517.64	4,508.27	15.01	15.94	-116.59	-478.06	1,709.77	1,843.25	1,821.60	21.65	85.145		
4,400.00	4,391.88	4,617.24	4,606.91	15.38	16.31	-116.75	-481.15	1,696.25	1,835.98	1,813.83	22.15	82.877		
4,500.00	4,491.14	4,716.84	4,705.54	15.75	16.69	-116.91	-484.24	1,682.74	1,828.72	1,806.06	22.66	80.703		
4,600.00	4,490.39	4,816.44	4,804.17	16.12	17.07	-117.08	-487.33	1,669.22	1,821.48	1,798.31	23.17	78.618		
4,700.00	4,689.65	4,916.04	4,902.80	16.49	17.46	-117.24	-490.41	1,655.71	1,814.25	1,790.57	23.68	76.618		
4,800.00	4,788.90	5,015.64	5,001.43	16.86	17.84	-117.41	-493.50	1,642.19	1,807.04	1,782.85	24.19	74.697		
4,900.00	4,888.16	5,115.24	5,100.06	17.24	18.23	-117.58	-496.59	1,628.68	1,799.84	1,775.14	24.71	72.853		
5,000.00	4,987.41	5,214.84	5,198.69	17.61	18.61	-117.75	-499.68	1,615.16	1,792.66	1,767.44	25.22	71.079		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
5,100.00	5,086.66	5,314.45	5,297.32	17.99	19.00	-117.92	-502.77	1,601.65	1,785.50	1,759.76	25.74	69.374		
5,200.00	5,185.92	5,414.05	5,395.95	18.37	19.39	-118.09	-505.86	1,588.13	1,778.35	1,752.09	26.25	67.734		
5,300.00	5,285.17	5,513.65	5,494.59	18.75	19.78	-118.26	-508.95	1,574.62	1,771.22	1,744.44	26.77	66.155		
5,400.00	5,384.43	5,613.25	5,593.22	19.14	20.18	-118.44	-512.04	1,561.11	1,764.10	1,736.80	27.29	64.634		
5,500.00	5,483.68	5,712.85	5,691.85	19.52	20.57	-118.61	-515.13	1,547.59	1,757.00	1,729.18	27.81	63.168		
5,600.00	5,582.94	5,812.45	5,790.48	19.90	20.97	-118.79	-518.22	1,534.08	1,749.91	1,721.58	28.34	61.754		
5,700.00	5,682.19	5,912.05	5,889.11	20.29	21.36	-118.97	-521.31	1,520.56	1,742.85	1,713.99	28.86	60.391		
5,800.00	5,781.45	6,011.65	5,987.74	20.68	21.76	-119.15	-524.39	1,507.05	1,735.80	1,706.42	29.38	59.075		
5,900.00	5,880.70	6,111.25	6,086.37	21.06	22.16	-119.33	-527.48	1,493.53	1,728.77	1,698.86	29.91	57.805		
6,000.00	5,979.96	6,210.85	6,185.00	21.45	22.56	-119.52	-530.57	1,480.02	1,721.75	1,691.32	30.43	56.578		
6,100.00	6,079.21	6,310.45	6,283.63	21.84	22.96	-119.70	-533.66	1,466.50	1,714.76	1,683.80	30.96	55.392		
6,200.00	6,178.46	6,410.05	6,382.27	22.23	23.36	-119.89	-536.75	1,452.99	1,707.78	1,676.29	31.48	54.245		
6,300.00	6,277.72	6,509.65	6,480.90	22.62	23.76	-120.08	-539.84	1,439.47	1,700.82	1,668.81	32.01	53.135		
6,400.00	6,376.97	6,609.25	6,579.53	23.01	24.16	-120.27	-542.93	1,425.96	1,693.87	1,661.34	32.54	52.061		
6,500.00	6,476.23	6,708.86	6,678.16	23.40	24.56	-120.46	-546.02	1,412.44	1,686.95	1,653.89	33.06	51.022		
6,600.00	6,575.48	6,808.46	6,776.79	23.80	24.96	-120.65	-549.11	1,398.93	1,680.05	1,646.46	33.59	50.015		
6,700.00	6,674.74	6,908.06	6,875.42	24.19	25.37	-120.84	-552.20	1,385.41	1,673.16	1,639.04	34.12	49.039		
6,800.00	6,773.99	7,007.66	6,974.05	24.58	25.77	-121.04	-555.29	1,371.90	1,666.30	1,631.65	34.65	48.093		
6,900.00	6,873.25	7,107.26	7,072.68	24.98	26.18	-121.24	-558.38	1,358.38	1,659.45	1,624.27	35.18	47.176		
7,000.00	6,972.50	7,206.86	7,171.31	25.37	26.58	-121.44	-561.46	1,344.87	1,652.62	1,616.92	35.70	46.286		
7,100.00	7,071.76	7,306.46	7,269.95	25.77	26.99	-121.64	-564.55	1,331.35	1,645.82	1,609.58	36.23	45.423		
7,200.00	7,171.01	7,406.06	7,368.58	26.16	27.39	-121.84	-567.64	1,317.84	1,639.03	1,602.27	36.76	44.584		
7,300.00	7,270.26	7,505.66	7,467.21	26.56	27.80	-122.04	-570.73	1,304.32	1,632.27	1,594.97	37.29	43.770		
7,400.00	7,369.52	7,605.26	7,565.84	26.95	28.21	-122.25	-573.82	1,290.81	1,625.52	1,587.70	37.82	42.979		
7,500.00	7,468.77	7,704.86	7,664.47	27.35	28.62	-122.46	-576.91	1,277.29	1,618.80	1,580.45	38.35	42.210		
7,600.00	7,568.03	7,804.46	7,763.10	27.75	29.02	-122.67	-580.00	1,263.78	1,612.10	1,573.22	38.88	41.463		
7,700.00	7,667.28	7,904.06	7,861.73	28.15	29.43	-122.88	-583.09	1,250.26	1,605.42	1,566.01	39.41	40.736		
7,800.00	7,766.54	8,003.66	7,960.36	28.54	29.84	-123.09	-586.18	1,236.75	1,598.76	1,558.82	39.94	40.029		
7,900.00	7,865.79	8,103.26	8,059.00	28.94	30.25	-123.31	-589.27	1,223.23	1,592.12	1,551.65	40.47	39.342		
8,000.00	7,965.05	8,202.87	8,157.63	29.34	30.66	-123.52	-592.36	1,209.72	1,585.51	1,544.51	41.00	38.672		
8,100.00	8,064.30	8,302.47	8,256.26	29.74	31.07	-123.74	-595.44	1,196.20	1,578.92	1,537.39	41.53	38.020		
8,200.00	8,163.56	8,402.07	8,354.89	30.14	31.48	-123.96	-598.53	1,182.69	1,572.35	1,530.29	42.06	37.385		
8,300.00	8,262.81	8,501.67	8,453.52	30.54	31.89	-124.18	-601.62	1,169.17	1,565.81	1,523.22	42.59	36.767		
8,400.00	8,362.06	8,601.27	8,552.15	30.94	32.30	-124.41	-604.71	1,155.66	1,559.28	1,516.17	43.12	36.164		
8,500.00	8,461.32	8,700.87	8,650.78	31.34	32.71	-124.63	-607.80	1,142.14	1,552.79	1,509.14	43.65	35.577		
8,600.00	8,560.57	8,800.47	8,749.41	31.74	33.13	-124.86	-610.89	1,128.63	1,546.32	1,502.14	44.18	35.004		
8,700.00	8,659.83	8,900.07	8,848.04	32.14	33.54	-125.09	-613.98	1,115.12	1,539.87	1,495.16	44.70	34.446		
8,800.00	8,759.08	8,999.67	8,946.68	32.54	33.95	-125.32	-617.07	1,101.60	1,533.44	1,488.21	45.23	33.901		
8,900.00	8,858.34	9,099.27	9,045.31	32.94	34.36	-125.55	-620.16	1,088.09	1,527.05	1,481.28	45.76	33.370		
9,000.00	8,957.59	9,198.87	9,143.94	33.34	34.77	-125.79	-623.25	1,074.57	1,520.67	1,474.38	46.29	32.851		
9,100.00	9,056.85	9,298.47	9,242.57	33.75	35.19	-126.02	-626.34	1,061.06	1,514.33	1,467.51	46.82	32.344		
9,200.00	9,156.10	9,398.07	9,341.20	34.15	35.60	-126.26	-629.42	1,047.54	1,508.01	1,460.66	47.35	31.850		
9,300.00	9,255.36	9,497.67	9,439.83	34.55	36.01	-126.50	-632.51	1,034.03	1,501.71	1,453.84	47.88	31.367		
9,400.00	9,354.61	9,597.27	9,538.46	34.95	36.42	-126.75	-635.60	1,020.51	1,495.45	1,447.04	48.40	30.896		
9,500.00	9,453.86	9,696.87	9,623.74	35.35	36.83	-126.99	-638.69	1,008.99	1,489.43	1,440.51	48.92	30.448		
9,600.00	9,553.12	9,796.47	9,723.55	35.75	37.24	-127.24	-641.78	997.48	1,483.41	1,433.99	49.44	30.057		
9,700.00	9,652.37	9,896.07	9,823.63	36.16	37.65	-127.48	-644.87	985.97	1,477.39	1,427.47	49.96	29.720		
9,777.81	9,729.60	9,984.40	9,911.87	36.47	37.96	-127.53	-647.96	980.46	1,471.37	1,421.45	50.24	29.494 CC		
9,800.00	9,751.63	9,900.00	9,839.22	36.56	37.63	-127.57	-643.15	987.50	1,481.87	1,431.52	50.34	29.435		
9,853.24	9,804.47	9,938.98	9,878.10	36.78	37.77	-127.70	-643.74	984.90	1,482.29	1,431.70	50.58	29.304		
9,900.00	9,850.92	9,972.80	9,911.87	36.96	37.90	-127.81	-644.19	982.96	1,482.92	1,432.13	50.79	29.197		
10,000.00	9,950.44	10,045.16	9,984.15	37.35	38.15	-128.01	-644.91	979.79	1,484.48	1,433.26	51.22	28.984		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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			
10,100.00	10,050.19	10,117.54	10,056.51	37.73	38.40	-128.17	-645.33	977.94	1,486.29	1,434.67	51.62	28.791			
10,200.00	10,150.09	10,193.33	10,132.29	38.09	38.65	-128.29	-645.45	977.43	1,488.33	1,436.31	52.02	28.610			
10,300.00	10,250.07	10,293.31	10,232.27	38.43	38.98	-128.36	-645.45	977.43	1,489.47	1,436.96	52.51	28.368			
10,319.93	10,270.00	10,313.23	10,252.20	38.50	39.04	89.44	-645.45	977.43	1,489.50	1,436.90	52.60	28.317			
10,400.00	10,350.07	10,393.31	10,332.27	38.75	39.30	89.44	-645.45	977.43	1,489.50	1,436.53	52.98	28.117			
10,500.00	10,450.07	10,493.31	10,432.27	39.07	39.62	89.44	-645.45	977.43	1,489.50	1,436.06	53.44	27.870			
10,600.00	10,550.07	10,593.31	10,532.27	39.39	39.95	89.44	-645.45	977.43	1,489.50	1,435.59	53.91	27.627			
10,700.00	10,650.07	10,693.31	10,632.27	39.71	40.27	89.44	-645.45	977.43	1,489.50	1,435.12	54.38	27.388			
10,800.00	10,750.07	10,793.31	10,732.27	40.03	40.60	89.44	-645.45	977.43	1,489.50	1,434.65	54.86	27.153			
10,900.00	10,850.07	10,893.31	10,832.27	40.35	40.93	89.44	-645.45	977.43	1,489.50	1,434.17	55.33	26.922			
11,000.00	10,950.07	10,993.31	10,932.27	40.67	41.25	89.44	-645.45	977.43	1,489.50	1,433.70	55.80	26.694			
11,100.00	11,050.07	11,093.31	11,032.27	40.99	41.58	89.44	-645.45	977.43	1,489.50	1,433.23	56.27	26.469			
11,113.39	11,063.46	11,106.69	11,045.66	41.04	41.62	89.44	-645.45	977.43	1,489.50	1,433.16	56.34	26.440			
11,200.00	11,150.07	11,193.29	11,132.25	41.32	41.91	89.44	-645.38	977.43	1,489.50	1,432.76	56.75	26.249			
11,300.00	11,250.07	11,291.82	11,230.15	41.64	42.22	89.05	-635.34	977.34	1,489.54	1,432.35	57.19	26.046			
11,400.00	11,350.07	11,384.34	11,319.25	41.96	42.48	88.11	-610.79	977.12	1,489.99	1,432.42	57.57	25.882			
11,500.00	11,450.07	11,467.19	11,394.77	42.29	42.69	86.81	-576.90	976.81	1,491.60	1,433.72	57.87	25.773			
11,521.93	11,472.00	11,483.88	11,409.35	42.36	42.73	86.49	-568.77	976.73	1,492.20	1,434.27	57.93	25.758			
11,550.00	11,500.06	11,504.76	11,427.24	42.45	42.77	86.50	-558.01	976.64	1,493.10	1,435.10	58.00	25.743			
11,600.00	11,549.83	11,541.29	11,457.55	42.60	42.85	85.64	-537.64	976.45	1,494.95	1,436.85	58.10	25.729			
11,650.00	11,599.01	11,577.07	11,485.93	42.73	42.91	84.81	-515.85	976.26	1,497.07	1,438.88	58.19	25.728			
11,700.00	11,647.22	11,612.21	11,512.42	42.85	42.97	83.99	-492.78	976.05	1,499.40	1,441.15	58.25	25.740			
11,750.00	11,694.10	11,650.00	11,539.27	42.95	43.03	83.16	-466.20	975.80	1,501.89	1,443.58	58.31	25.756			
11,800.00	11,739.28	11,680.87	11,559.87	43.04	43.06	82.45	-443.21	975.60	1,504.47	1,446.14	58.33	25.793			
11,850.00	11,782.44	11,714.54	11,580.89	43.11	43.10	81.73	-416.91	975.36	1,507.09	1,448.75	58.34	25.831			
11,900.00	11,823.23	11,750.00	11,601.31	43.17	43.14	81.03	-387.93	975.10	1,509.70	1,451.35	58.36	25.871			
11,950.00	11,861.34	11,780.83	11,617.59	43.21	43.17	80.43	-361.75	974.86	1,512.25	1,453.90	58.34	25.921			
12,000.00	11,896.50	11,813.54	11,633.29	43.24	43.20	79.85	-333.06	974.60	1,514.67	1,456.34	58.33	25.967			
12,050.00	11,928.42	11,850.00	11,648.82	43.25	43.23	79.30	-300.09	974.30	1,516.95	1,458.62	58.33	26.007			
12,100.00	11,956.87	11,878.30	11,659.42	43.25	43.25	78.87	-273.85	974.06	1,519.01	1,460.71	58.30	26.055			
12,150.00	11,981.63	11,910.42	11,669.85	43.25	43.28	78.47	-243.48	973.79	1,520.85	1,462.56	58.29	26.091			
12,200.00	12,002.51	11,950.00	11,680.35	43.23	43.31	78.09	-205.33	973.44	1,522.45	1,464.13	58.31	26.109			
12,250.00	12,019.36	11,974.27	11,685.48	43.21	43.33	77.86	-181.61	973.22	1,523.69	1,465.39	58.30	26.136			
12,300.00	12,032.03	12,000.00	11,689.81	43.18	43.36	77.68	-156.25	972.99	1,524.67	1,466.36	58.31	26.149			
12,350.00	12,040.45	12,037.78	11,694.09	43.16	43.41	77.53	-118.72	972.65	1,525.27	1,466.91	58.36	26.136			
12,400.00	12,044.54	12,069.47	11,695.77	43.13	43.45	77.47	-87.07	972.37	1,525.56	1,467.14	58.42	26.115			
12,428.94	12,044.92	12,094.06	11,695.87	43.11	43.49	77.46	-62.50	972.14	1,525.59	1,467.12	58.47	26.093			
12,437.60	12,044.81	12,094.06	11,695.87	43.11	43.49	77.46	-62.50	972.14	1,525.56	1,467.09	58.47	26.090			
12,500.00	12,044.05	12,155.27	11,694.80	43.10	43.61	77.45	-1.30	971.59	1,525.60	1,466.98	58.62	26.023			
12,600.00	12,042.82	12,255.26	11,693.05	43.15	43.88	77.43	98.68	970.68	1,525.66	1,466.73	58.93	25.888			
12,700.00	12,041.60	12,355.26	11,691.30	43.31	44.22	77.41	198.66	969.78	1,525.72	1,466.39	59.33	25.716			
12,800.00	12,040.38	12,455.26	11,689.55	43.57	44.64	77.39	298.64	968.87	1,525.79	1,465.97	59.81	25.509			
12,900.00	12,039.15	12,555.26	11,687.80	43.92	45.13	77.37	398.62	967.96	1,525.85	1,465.47	60.38	25.272			
13,000.00	12,037.93	12,655.26	11,686.06	44.34	45.69	77.35	498.60	967.06	1,525.91	1,464.89	61.02	25.006			
13,100.00	12,036.71	12,755.26	11,684.31	44.81	46.30	77.33	598.58	966.15	1,525.97	1,464.23	61.74	24.714			
13,200.00	12,035.48	12,855.26	11,682.56	45.34	46.96	77.31	698.56	965.24	1,526.03	1,463.49	62.54	24.400			
13,300.00	12,034.26	12,955.25	11,680.81	45.92	47.67	77.29	798.54	964.34	1,526.10	1,462.69	63.41	24.066			
13,400.00	12,033.04	13,055.25	11,679.06	46.55	48.43	77.27	898.52	963.43	1,526.16	1,461.81	64.35	23.716			
13,500.00	12,031.81	13,155.25	11,677.31	47.23	49.23	77.25	998.49	962.53	1,526.22	1,460.87	65.36	23.352			
13,600.00	12,030.59	13,255.25	11,675.56	47.96	50.08	77.23	1,098.47	961.62	1,526.29	1,459.86	66.43	22.977			
13,700.00	12,029.37	13,355.25	11,673.81	48.73	50.96	77.21	1,198.45	960.71	1,526.35	1,458.79	67.56	22.593			
13,800.00	12,028.14	13,455.25	11,672.06	49.54	51.88	77.19	1,298.43	959.81	1,526.41	1,457.67	68.74	22.205			

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	12,026.92	13,555.25	11,670.32	50.39	52.84	77.17	1,398.41	958.90	1,526.48	1,456.50	69.98	21.812		
14,000.00	12,025.70	13,655.24	11,668.57	51.28	53.83	77.16	1,498.39	957.99	1,526.54	1,455.27	71.27	21.418		
14,100.00	12,024.47	13,755.24	11,666.82	52.21	54.85	77.14	1,598.37	957.09	1,526.61	1,453.99	72.62	21.023		
14,200.00	12,023.25	13,855.24	11,665.07	53.17	55.90	77.12	1,698.35	956.18	1,526.67	1,452.67	74.00	20.630		
14,300.00	12,022.03	13,955.24	11,663.32	54.17	56.99	77.10	1,798.33	955.27	1,526.74	1,451.30	75.43	20.240		
14,400.00	12,020.80	14,055.24	11,661.57	55.19	58.09	77.08	1,898.31	954.37	1,526.80	1,449.90	76.90	19.854		
14,500.00	12,019.58	14,155.24	11,659.82	56.25	59.23	77.06	1,998.29	953.46	1,526.87	1,448.45	78.41	19.472		
14,600.00	12,018.35	14,255.24	11,658.07	57.33	60.38	77.04	2,098.27	952.55	1,526.93	1,446.97	79.96	19.097		
14,700.00	12,017.13	14,355.24	11,656.32	58.44	61.56	77.02	2,198.24	951.65	1,527.00	1,445.46	81.54	18.727		
14,800.00	12,015.91	14,455.23	11,654.58	59.57	62.76	77.00	2,298.22	950.74	1,527.06	1,443.91	83.15	18.365		
14,900.00	12,014.68	14,555.23	11,652.83	60.73	63.98	76.98	2,398.20	949.84	1,527.13	1,442.33	84.79	18.010		
15,000.00	12,013.46	14,655.23	11,651.08	61.91	65.22	76.96	2,498.18	948.93	1,527.19	1,440.73	86.47	17.662		
15,100.00	12,012.24	14,755.23	11,649.33	63.11	66.48	76.94	2,598.16	948.02	1,527.26	1,439.10	88.16	17.323		
15,200.00	12,011.01	14,855.23	11,647.58	64.33	67.75	76.92	2,698.14	947.12	1,527.33	1,437.44	89.89	16.991		
15,300.00	12,009.79	14,955.23	11,645.83	65.57	69.04	76.90	2,798.12	946.21	1,527.39	1,435.76	91.64	16.668		
15,400.00	12,008.57	15,055.23	11,644.08	66.82	70.35	76.88	2,898.10	945.30	1,527.46	1,434.05	93.41	16.353		
15,500.00	12,007.34	15,155.22	11,642.33	68.10	71.66	76.86	2,998.08	944.40	1,527.53	1,432.33	95.20	16.046		
15,600.00	12,006.12	15,255.22	11,640.59	69.39	73.00	76.84	3,098.06	943.49	1,527.59	1,430.58	97.01	15.747		
15,700.00	12,004.90	15,355.22	11,638.84	70.69	74.34	76.82	3,198.04	942.58	1,527.66	1,428.82	98.84	15.456		
15,800.00	12,003.67	15,455.22	11,637.09	72.01	75.70	76.80	3,298.02	941.68	1,527.73	1,427.04	100.69	15.173		
15,900.00	12,002.45	15,555.22	11,635.34	73.34	77.07	76.78	3,398.00	940.77	1,527.80	1,425.24	102.55	14.897		
16,000.00	12,001.23	15,655.22	11,633.59	74.69	78.45	76.76	3,497.97	939.86	1,527.86	1,423.43	104.44	14.630		
16,100.00	12,000.00	15,755.22	11,631.84	76.04	79.84	76.74	3,597.95	938.96	1,527.93	1,421.60	106.33	14.369		
16,200.00	11,998.78	15,855.21	11,630.09	77.41	81.24	76.72	3,697.93	938.05	1,528.00	1,419.76	108.24	14.117		
16,300.00	11,997.56	15,955.21	11,628.34	78.79	82.65	76.70	3,797.91	937.15	1,528.07	1,417.90	110.17	13.871		
16,400.00	11,996.33	16,055.21	11,626.59	80.18	84.06	76.68	3,897.89	936.24	1,528.14	1,416.03	112.10	13.632		
16,500.00	11,995.11	16,155.21	11,624.85	81.58	85.49	76.66	3,997.87	935.33	1,528.20	1,414.15	114.05	13.399		
16,600.00	11,993.89	16,255.21	11,623.10	82.99	86.92	76.64	4,097.85	934.43	1,528.27	1,412.26	116.01	13.173		
16,700.00	11,992.66	16,355.21	11,621.35	84.40	88.37	76.62	4,197.83	933.52	1,528.34	1,410.36	117.98	12.954		
16,800.00	11,991.44	16,455.21	11,619.60	85.83	89.82	76.60	4,297.81	932.61	1,528.41	1,408.45	119.96	12.741		
16,900.00	11,990.22	16,555.20	11,617.85	87.26	91.27	76.59	4,397.79	931.71	1,528.48	1,406.53	121.95	12.533		
17,000.00	11,988.99	16,655.20	11,616.10	88.70	92.73	76.57	4,497.77	930.80	1,528.55	1,404.60	123.95	12.332		
17,100.00	11,987.77	16,755.20	11,614.35	90.15	94.20	76.55	4,597.75	929.89	1,528.62	1,402.66	125.96	12.135		
17,200.00	11,986.55	16,855.20	11,612.60	91.60	95.68	76.53	4,697.72	928.99	1,528.69	1,400.71	127.98	11.945		
17,300.00	11,985.32	16,955.20	11,610.85	93.06	97.16	76.51	4,797.70	928.08	1,528.76	1,398.75	130.01	11.759		
17,400.00	11,984.10	17,055.20	11,609.11	94.53	98.64	76.49	4,897.68	927.17	1,528.83	1,396.79	132.04	11.578		
17,500.00	11,982.88	17,155.20	11,607.36	96.01	100.13	76.47	4,997.66	926.27	1,528.90	1,394.82	134.08	11.403		
17,600.00	11,981.65	17,255.19	11,605.61	97.49	101.63	76.45	5,097.64	925.36	1,528.97	1,392.84	136.13	11.232		
17,700.00	11,980.43	17,355.19	11,603.86	98.97	103.13	76.43	5,197.62	924.46	1,529.04	1,390.86	138.18	11.066		
17,800.00	11,979.21	17,455.19	11,602.11	100.46	104.63	76.41	5,297.60	923.55	1,529.11	1,388.87	140.24	10.904		
17,900.00	11,977.98	17,555.19	11,600.36	101.95	106.14	76.39	5,397.58	922.64	1,529.18	1,386.88	142.31	10.746		
18,000.00	11,976.76	17,655.19	11,598.61	103.45	107.66	76.37	5,497.56	921.74	1,529.25	1,384.88	144.38	10.592		
18,100.00	11,975.54	17,755.19	11,596.86	104.96	109.17	76.35	5,597.54	920.83	1,529.33	1,382.87	146.45	10.442		
18,200.00	11,974.31	17,855.19	11,595.11	106.47	110.70	76.33	5,697.52	919.92	1,529.40	1,380.86	148.54	10.296		
18,300.00	11,973.09	17,955.18	11,593.37	107.98	112.22	76.31	5,797.50	919.02	1,529.47	1,378.85	150.62	10.154		
18,400.00	11,971.87	18,055.18	11,591.62	109.50	113.75	76.29	5,897.48	918.11	1,529.54	1,376.83	152.71	10.016		
18,500.00	11,970.64	18,155.18	11,589.87	111.02	115.28	76.27	5,997.45	917.20	1,529.61	1,374.81	154.81	9.881		
18,600.00	11,969.42	18,255.18	11,588.12	112.54	116.82	76.25	6,097.43	916.30	1,529.69	1,372.78	156.91	9.749		
18,700.00	11,968.20	18,355.18	11,586.37	114.07	118.35	76.23	6,197.41	915.39	1,529.76	1,370.75	159.01	9.620		
18,800.00	11,966.97	18,455.18	11,584.62	115.60	119.90	76.21	6,297.39	914.48	1,529.83	1,368.71	161.12	9.495		
18,900.00	11,965.75	18,555.18	11,582.87	117.13	121.44	76.19	6,397.37	913.58	1,529.90	1,366.67	163.23	9.373		
19,000.00	11,964.53	18,655.18	11,581.12	118.67	122.99	76.17	6,497.35	912.67	1,529.98	1,364.63	165.35	9.253		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
19,100.00	11,963.30	18,755.17	11,579.37	120.21	124.54	76.15	6,597.33	911.77	1,530.05	1,362.59	167.46	9.137		
19,200.00	11,962.08	18,855.17	11,577.63	121.76	126.09	76.13	6,697.31	910.86	1,530.12	1,360.54	169.59	9.023		
19,300.00	11,960.86	18,955.17	11,575.88	123.30	127.64	76.11	6,797.29	909.95	1,530.20	1,358.49	171.71	8.912		
19,400.00	11,959.63	19,055.17	11,574.13	124.85	129.20	76.09	6,897.27	909.05	1,530.27	1,356.44	173.84	8.803		
19,500.00	11,958.41	19,155.17	11,572.38	126.40	130.76	76.08	6,997.25	908.14	1,530.35	1,354.38	175.97	8.697		
19,600.00	11,957.19	19,255.17	11,570.63	127.96	132.32	76.06	7,097.23	907.23	1,530.42	1,352.32	178.10	8.593		
19,700.00	11,955.96	19,355.17	11,568.88	129.51	133.89	76.04	7,197.20	906.33	1,530.49	1,350.26	180.23	8.492		
19,800.00	11,954.74	19,455.16	11,567.13	131.07	135.45	76.02	7,297.18	905.42	1,530.57	1,348.20	182.37	8.393		
19,900.00	11,953.52	19,555.16	11,565.38	132.63	137.02	76.00	7,397.16	904.51	1,530.64	1,346.13	184.51	8.296		
20,000.00	11,952.29	19,655.16	11,563.63	134.20	138.59	75.98	7,497.14	903.61	1,530.72	1,344.06	186.66	8.201		
20,100.00	11,951.07	19,755.16	11,561.89	135.76	140.16	75.96	7,597.12	902.70	1,530.79	1,341.99	188.80	8.108		
20,200.00	11,949.85	19,855.16	11,560.14	137.33	141.73	75.94	7,697.10	901.79	1,530.87	1,339.92	190.95	8.017		
20,300.00	11,948.62	19,955.16	11,558.39	138.90	143.31	75.92	7,797.08	900.89	1,530.94	1,337.85	193.10	7.928		
20,400.00	11,947.40	20,055.16	11,556.64	140.47	144.89	75.90	7,897.06	899.98	1,531.02	1,335.77	195.25	7.841		
20,500.00	11,946.18	20,155.15	11,554.89	142.04	146.47	75.88	7,997.04	899.08	1,531.10	1,333.70	197.40	7.756		
20,600.00	11,944.95	20,255.15	11,553.14	143.62	148.05	75.86	8,097.02	898.17	1,531.17	1,331.62	199.55	7.673		
20,700.00	11,943.73	20,355.15	11,551.39	145.19	149.63	75.84	8,197.00	897.26	1,531.25	1,329.54	201.71	7.591		
20,800.00	11,942.51	20,455.15	11,549.64	146.77	151.21	75.82	8,296.98	896.36	1,531.32	1,327.46	203.87	7.511		
20,900.00	11,941.28	20,555.15	11,547.89	148.35	152.80	75.80	8,396.96	895.45	1,531.40	1,325.37	206.03	7.433		
21,000.00	11,940.06	20,655.15	11,546.15	149.93	154.38	75.78	8,496.93	894.54	1,531.48	1,323.29	208.19	7.356		
21,100.00	11,938.84	20,755.15	11,544.40	151.51	155.97	75.76	8,596.91	893.64	1,531.55	1,321.21	210.35	7.281		
21,200.00	11,937.61	20,855.14	11,542.65	153.10	157.56	75.74	8,696.89	892.73	1,531.63	1,319.12	212.51	7.207		
21,300.00	11,936.39	20,955.14	11,540.90	154.68	159.15	75.72	8,796.87	891.82	1,531.71	1,317.03	214.68	7.135		
21,400.00	11,935.17	21,055.14	11,539.15	156.27	160.74	75.70	8,896.85	890.92	1,531.79	1,314.94	216.84	7.064		
21,500.00	11,933.94	21,155.14	11,537.40	157.86	162.33	75.68	8,996.83	890.01	1,531.86	1,312.86	219.01	6.995		
21,600.00	11,932.72	21,255.14	11,535.65	159.45	163.93	75.66	9,096.81	889.10	1,531.94	1,310.77	221.17	6.926		
21,700.00	11,931.49	21,355.14	11,533.90	161.04	165.52	75.64	9,196.79	888.20	1,532.02	1,308.68	223.34	6.860		
21,800.00	11,930.27	21,455.14	11,532.16	162.63	167.12	75.63	9,296.77	887.29	1,532.10	1,306.59	225.51	6.794		
21,900.00	11,929.05	21,555.13	11,530.41	164.22	168.71	75.61	9,396.75	886.39	1,532.18	1,304.49	227.68	6.729		
22,000.00	11,927.82	21,655.13	11,528.66	165.82	170.31	75.59	9,496.73	885.48	1,532.25	1,302.40	229.85	6.666		
22,100.00	11,926.60	21,755.13	11,526.91	167.41	171.91	75.57	9,596.71	884.57	1,532.33	1,300.31	232.02	6.604		
22,206.36	11,925.30	21,861.49	11,525.05	169.11	173.61	75.55	9,703.04	883.61	1,532.42	1,298.08	234.34	6.539 ES, 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	0.00	0.00	0.00	0.00	103.27	-445.16	1,887.42	1,939.29					
100.00	100.00	81.90	81.90	0.13	0.10	103.27	-445.16	1,887.42	1,939.21	1,939.04	0.16	N/A		
200.00	200.00	181.90	181.90	0.48	0.42	103.27	-445.16	1,887.42	1,939.21	1,938.57	0.64	3,029.269		
300.00	300.00	281.90	281.90	0.84	0.78	103.27	-445.16	1,887.42	1,939.21	1,938.06	1.15	1,691.585		
400.00	400.00	381.90	381.90	1.20	1.14	103.27	-445.16	1,887.42	1,939.21	1,937.55	1.65	1,173.103		
500.00	500.00	481.90	481.90	1.56	1.49	103.27	-445.16	1,887.42	1,939.21	1,937.05	2.16	897.837		
600.00	600.00	581.90	581.90	1.92	1.85	103.27	-445.16	1,887.42	1,939.21	1,936.54	2.67	727.186		
700.00	700.00	681.90	681.90	2.28	2.21	103.27	-445.16	1,887.42	1,939.21	1,936.03	3.17	611.040		
800.00	800.00	781.90	781.90	2.63	2.57	103.27	-445.16	1,887.42	1,939.21	1,935.53	3.68	526.883		
900.00	900.00	881.90	881.90	2.99	2.93	103.27	-445.16	1,887.42	1,939.21	1,935.02	4.19	463.100		
1,000.00	1,000.00	981.90	981.90	3.35	3.29	103.27	-445.16	1,887.42	1,939.21	1,934.51	4.69	413.091		
1,100.00	1,100.00	1,081.90	1,081.90	3.71	3.65	103.27	-445.16	1,887.42	1,939.21	1,934.01	5.20	372.830		
1,200.00	1,200.00	1,181.90	1,181.90	4.07	4.00	103.27	-445.16	1,887.42	1,939.21	1,933.50	5.71	339.720		
1,300.00	1,300.00	1,281.90	1,281.90	4.43	4.36	103.27	-445.16	1,887.42	1,939.21	1,932.99	6.22	312.011		
1,400.00	1,400.00	1,381.90	1,381.90	4.79	4.72	103.27	-445.16	1,887.42	1,939.21	1,932.48	6.72	288.481		
1,500.00	1,500.00	1,481.90	1,481.90	5.14	5.08	103.27	-445.16	1,887.42	1,939.21	1,931.98	7.23	268.251		
1,600.00	1,600.00	1,581.90	1,581.90	5.50	5.44	103.27	-445.16	1,887.42	1,939.21	1,931.47	7.74	250.672		
1,700.00	1,700.00	1,681.90	1,681.90	5.86	5.80	103.27	-445.16	1,887.42	1,939.21	1,930.96	8.24	235.256		
1,800.00	1,800.00	1,781.90	1,781.90	6.22	6.15	103.27	-445.16	1,887.42	1,939.21	1,930.46	8.75	221.626		
1,900.00	1,900.00	1,881.90	1,881.90	6.58	6.51	103.27	-445.16	1,887.42	1,939.21	1,929.95	9.26	209.488		
2,000.00	2,000.00	1,981.90	1,981.90	6.94	6.87	103.27	-445.16	1,887.42	1,939.21	1,929.44	9.76	198.612		
2,100.00	2,100.00	2,081.90	2,081.90	7.29	7.23	103.27	-445.16	1,887.42	1,939.21	1,928.94	10.27	188.808		
2,200.00	2,200.00	2,181.90	2,181.90	7.65	7.59	103.27	-445.16	1,887.42	1,939.21	1,928.43	10.78	179.927		
2,300.00	2,300.00	2,281.90	2,281.90	8.01	7.95	103.27	-445.16	1,887.42	1,939.21	1,927.92	11.28	171.844		
2,400.00	2,400.00	2,381.90	2,381.90	8.37	8.31	103.27	-445.16	1,887.42	1,939.21	1,927.41	11.79	164.456		
2,500.00	2,500.00	2,481.90	2,481.90	8.73	8.66	103.27	-445.16	1,887.42	1,939.21	1,926.91	12.30	157.677		
2,600.00	2,600.00	2,581.90	2,581.90	9.09	9.02	103.27	-445.16	1,887.42	1,939.21	1,926.40	12.81	151.435		
2,700.00	2,700.00	2,681.90	2,681.90	9.45	9.38	103.27	-445.16	1,887.42	1,939.21	1,925.89	13.31	145.668		
2,800.00	2,800.00	2,781.90	2,781.90	9.80	9.74	103.27	-445.16	1,887.42	1,939.21	1,925.39	13.82	140.325		
2,900.00	2,900.00	2,881.90	2,881.90	10.16	10.10	103.27	-445.16	1,887.42	1,939.21	1,924.88	14.33	135.359		
3,000.00	3,000.00	2,981.90	2,981.90	10.52	10.46	103.27	-445.16	1,887.42	1,939.21	1,924.37	14.83	130.733		
3,100.00	3,099.99	3,081.89	3,081.89	10.86	10.81	-114.56	-445.16	1,887.42	1,939.75	1,924.42	15.33	126.546		
3,200.00	3,199.91	3,181.81	3,181.81	11.19	11.17	-114.64	-445.16	1,887.42	1,941.39	1,925.57	15.81	122.774		
3,300.00	3,299.69	3,281.59	3,281.59	11.52	11.53	-114.78	-445.16	1,887.42	1,944.12	1,927.83	16.30	119.287		
3,400.00	3,399.27	3,381.17	3,381.17	11.85	11.89	-114.97	-445.16	1,887.42	1,947.99	1,931.20	16.78	116.060		
3,466.69	3,465.53	3,447.43	3,447.43	12.08	12.13	-115.13	-445.16	1,887.42	1,951.20	1,934.09	17.11	114.041		
3,500.00	3,498.59	3,480.49	3,480.49	12.19	12.24	-115.23	-445.16	1,887.42	1,952.94	1,935.67	17.27	113.067		
3,600.00	3,597.85	3,640.78	3,640.75	12.53	12.80	-115.71	-446.05	1,884.98	1,956.95	1,939.06	17.90	109.348		
3,700.00	3,697.10	3,816.94	3,816.57	12.87	13.39	-116.11	-449.68	1,875.08	1,957.21	1,938.68	18.53	105.626		
3,800.00	3,796.36	3,981.94	3,980.67	13.22	13.96	-116.38	-455.59	1,858.94	1,953.63	1,934.50	19.13	102.141		
3,900.00	3,895.61	4,081.72	4,079.70	13.58	14.30	-116.51	-459.78	1,847.51	1,948.65	1,929.03	19.61	99.357		
4,000.00	3,994.86	4,181.49	4,178.72	13.93	14.65	-116.64	-463.96	1,836.09	1,943.67	1,923.57	20.10	96.692		
4,100.00	4,094.12	4,281.26	4,277.75	14.29	15.01	-116.78	-468.15	1,824.66	1,938.71	1,918.11	20.59	94.139		
4,200.00	4,193.37	4,381.03	4,376.78	14.65	15.36	-116.91	-472.33	1,813.24	1,933.75	1,912.66	21.09	91.693		
4,300.00	4,292.63	4,480.81	4,475.81	15.01	15.72	-117.05	-476.52	1,801.81	1,928.81	1,907.22	21.59	89.348		
4,400.00	4,391.88	4,580.58	4,574.84	15.38	16.08	-117.19	-480.70	1,790.38	1,923.88	1,901.79	22.09	87.100		
4,500.00	4,491.14	4,680.35	4,673.87	15.75	16.44	-117.32	-484.89	1,778.96	1,918.96	1,896.37	22.59	84.943		
4,600.00	4,490.39	4,780.13	4,772.89	16.12	16.81	-117.46	-489.07	1,767.53	1,914.05	1,890.95	23.10	82.872		
4,700.00	4,689.65	4,879.90	4,871.92	16.49	17.17	-117.60	-493.26	1,756.11	1,909.15	1,885.55	23.60	80.884		
4,800.00	4,788.90	4,979.67	4,970.95	16.86	17.54	-117.74	-497.44	1,744.68	1,904.27	1,880.15	24.11	78.974		
4,900.00	4,888.16	5,079.45	5,069.98	17.24	17.91	-117.88	-501.63	1,733.26	1,899.39	1,874.77	24.62	77.137		
5,000.00	4,987.41	5,179.22	5,169.01	17.61	18.28	-118.02	-505.81	1,721.83	1,894.53	1,869.39	25.14	75.371		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
5,100.00	5,086.66	5,278.99	5,268.04	17.99	18.66	-118.16	-510.00	1,710.41	1,889.67	1,864.02	25.65	73.671		
5,200.00	5,185.92	5,378.76	5,367.06	18.37	19.03	-118.30	-514.18	1,698.98	1,884.83	1,858.67	26.17	72.035		
5,300.00	5,285.17	5,478.54	5,466.09	18.75	19.41	-118.45	-518.37	1,687.56	1,880.00	1,853.32	26.68	70.459		
5,400.00	5,384.43	5,578.31	5,565.12	19.14	19.79	-118.59	-522.56	1,676.13	1,875.18	1,847.98	27.20	68.941		
5,500.00	5,483.68	5,678.08	5,664.15	19.52	20.16	-118.73	-526.74	1,664.71	1,870.38	1,842.66	27.72	67.476		
5,600.00	5,582.94	5,777.86	5,763.18	19.90	20.54	-118.88	-530.93	1,653.28	1,865.58	1,837.35	28.24	66.064		
5,700.00	5,682.19	5,877.63	5,862.21	20.29	20.93	-119.02	-535.11	1,641.86	1,860.80	1,832.04	28.76	64.701		
5,800.00	5,781.45	5,977.40	5,961.23	20.68	21.31	-119.17	-539.30	1,630.43	1,856.03	1,826.75	29.28	63.384		
5,900.00	5,880.70	6,077.18	6,060.26	21.06	21.69	-119.32	-543.48	1,619.00	1,851.27	1,821.47	29.80	62.113		
6,000.00	5,979.96	6,176.95	6,159.29	21.45	22.07	-119.47	-547.67	1,607.58	1,846.53	1,816.20	30.33	60.884		
6,100.00	6,079.21	6,276.72	6,258.32	21.84	22.46	-119.61	-551.85	1,596.15	1,841.80	1,810.94	30.85	59.696		
6,200.00	6,178.46	6,376.50	6,357.35	22.23	22.84	-119.76	-556.04	1,584.73	1,837.08	1,805.70	31.38	58.547		
6,300.00	6,277.72	6,476.27	6,456.38	22.62	23.23	-119.91	-560.22	1,573.30	1,832.37	1,800.46	31.90	57.434		
6,400.00	6,376.97	6,576.04	6,555.40	23.01	23.62	-120.07	-564.41	1,561.88	1,827.67	1,795.24	32.43	56.358		
6,500.00	6,476.23	6,675.81	6,654.43	23.40	24.01	-120.22	-568.59	1,550.45	1,822.99	1,790.03	32.96	55.315		
6,600.00	6,575.48	6,775.59	6,753.46	23.80	24.39	-120.37	-572.78	1,539.03	1,818.32	1,784.84	33.48	54.304		
6,700.00	6,674.74	6,875.36	6,852.49	24.19	24.78	-120.52	-576.96	1,527.60	1,813.66	1,779.65	34.01	53.325		
6,800.00	6,773.99	6,975.13	6,951.52	24.58	25.17	-120.68	-581.15	1,516.18	1,809.02	1,774.48	34.54	52.375		
6,900.00	6,873.25	7,074.91	7,050.55	24.98	25.56	-120.83	-585.33	1,504.75	1,804.39	1,769.32	35.07	51.453		
7,000.00	6,972.50	7,174.68	7,149.57	25.37	25.95	-120.99	-589.52	1,493.33	1,799.77	1,764.17	35.60	50.559		
7,100.00	7,071.76	7,274.45	7,248.60	25.77	26.35	-121.14	-593.70	1,481.90	1,795.17	1,759.04	36.13	49.691		
7,200.00	7,171.01	7,374.23	7,347.63	26.16	26.74	-121.30	-597.89	1,470.48	1,790.58	1,753.92	36.66	48.848		
7,300.00	7,270.26	7,474.00	7,446.66	26.56	27.13	-121.46	-602.07	1,459.05	1,786.00	1,748.81	37.19	48.029		
7,400.00	7,369.52	7,573.77	7,545.69	26.95	27.52	-121.62	-606.26	1,447.62	1,781.44	1,743.72	37.72	47.233		
7,500.00	7,468.77	7,673.55	7,644.72	27.35	27.92	-121.78	-610.44	1,436.20	1,776.89	1,738.64	38.25	46.459		
7,600.00	7,568.03	7,773.32	7,743.74	27.75	28.31	-121.94	-614.63	1,424.77	1,772.35	1,733.58	38.78	45.706		
7,700.00	7,667.28	7,873.09	7,842.77	28.15	28.71	-122.10	-618.81	1,413.35	1,767.83	1,728.52	39.31	44.974		
7,800.00	7,766.54	7,972.86	7,941.80	28.54	29.10	-122.26	-623.00	1,401.92	1,763.32	1,723.49	39.84	44.261		
7,900.00	7,865.79	8,072.64	8,040.83	28.94	29.49	-122.43	-627.18	1,390.50	1,758.83	1,718.46	40.37	43.568		
8,000.00	7,965.05	8,172.41	8,139.86	29.34	29.89	-122.59	-631.37	1,379.07	1,754.35	1,713.45	40.90	42.893		
8,100.00	8,064.30	8,272.18	8,239.17	29.74	30.27	-122.75	-635.55	1,368.19	1,749.89	1,708.47	41.43	42.242		
8,200.00	8,163.56	8,371.95	8,337.66	30.14	30.66	-122.88	-639.73	1,360.39	1,746.35	1,704.44	41.91	41.667		
8,300.00	8,262.81	8,471.72	8,436.00	30.54	31.06	-123.00	-643.91	1,355.16	1,744.56	1,702.20	42.36	41.186		
8,359.34	8,321.71	8,453.85	8,419.68	30.78	30.98	-123.12	-641.62	1,351.09	1,744.21	1,701.55	42.66	40.888 CC		
8,400.00	8,362.06	8,482.52	8,448.28	30.94	31.09	-123.19	-642.30	1,349.22	1,744.35	1,701.51	42.84	40.714		
8,500.00	8,461.32	8,552.97	8,518.61	31.34	31.35	-123.37	-643.68	1,345.47	1,745.90	1,702.61	43.29	40.328		
8,600.00	8,560.57	8,623.27	8,588.86	31.74	31.60	-123.57	-644.60	1,342.94	1,749.16	1,705.43	43.73	39.999		
8,700.00	8,659.83	8,700.00	8,665.58	32.14	31.87	-123.80	-645.11	1,341.57	1,754.14	1,709.97	44.18	39.708		
8,800.00	8,759.08	8,775.41	8,740.98	32.54	32.12	-124.05	-645.16	1,341.42	1,760.67	1,716.06	44.61	39.471		
8,900.00	8,858.34	8,874.66	8,840.24	32.94	32.45	-124.38	-645.16	1,341.42	1,767.56	1,722.44	45.11	39.180		
9,000.00	8,957.59	8,973.92	8,939.49	33.34	32.78	-124.70	-645.16	1,341.42	1,774.50	1,728.88	45.62	38.897		
9,100.00	9,056.85	9,073.17	9,038.75	33.75	33.12	-125.02	-645.16	1,341.42	1,781.50	1,735.38	46.13	38.622		
9,200.00	9,156.10	9,172.43	9,138.00	34.15	33.45	-125.34	-645.16	1,341.42	1,788.56	1,741.93	46.63	38.353		
9,300.00	9,255.36	9,271.68	9,237.26	34.55	33.78	-125.65	-645.16	1,341.42	1,795.67	1,748.53	47.14	38.091		
9,400.00	9,354.61	9,370.93	9,336.51	34.95	34.12	-125.97	-645.16	1,341.42	1,802.84	1,755.19	47.65	37.836		
9,500.00	9,453.86	9,470.19	9,435.76	35.35	34.45	-126.28	-645.16	1,341.42	1,810.06	1,761.90	48.16	37.587		
9,600.00	9,553.12	9,569.44	9,535.02	35.76	34.79	-126.59	-645.16	1,341.42	1,817.33	1,768.67	48.66	37.344		
9,700.00	9,652.37	9,668.70	9,634.27	36.16	35.12	-126.89	-645.16	1,341.42	1,824.66	1,775.48	49.17	37.107		
9,800.00	9,751.63	9,767.95	9,733.53	36.56	35.46	-127.20	-645.16	1,341.42	1,832.03	1,782.35	49.68	36.876		
9,853.24	9,804.47	9,820.80	9,786.37	36.78	35.64	-127.36	-645.16	1,341.42	1,835.98	1,786.03	49.95	36.755		
9,900.00	9,850.92	9,867.24	9,832.82	36.96	35.80	-127.53	-645.16	1,341.42	1,839.29	1,789.10	50.19	36.647		
10,000.00	9,950.44	9,966.77	9,932.34	37.35	36.13	-127.84	-645.16	1,341.42	1,845.22	1,794.52	50.69	36.399		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
10,100.00	10,050.19	10,066.52	10,032.09	37.73	36.47	-128.06	-645.16	1,341.42	1,849.57	1,798.37	51.19	36.129		
10,200.00	10,150.09	10,166.41	10,131.99	38.09	36.81	-128.20	-645.16	1,341.42	1,852.31	1,800.63	51.69	35.837		
10,300.00	10,250.07	10,266.40	10,231.97	38.43	37.15	-128.26	-645.16	1,341.42	1,853.45	1,801.27	52.18	35.522		
10,319.93	10,270.00	10,286.32	10,251.90	38.50	37.22	89.54	-645.16	1,341.42	1,853.48	1,801.21	52.27	35.458		
10,400.00	10,350.07	10,366.40	10,331.97	38.75	37.49	89.54	-645.16	1,341.42	1,853.48	1,800.83	52.65	35.202		
10,500.00	10,450.07	10,466.40	10,431.97	39.07	37.83	89.54	-645.16	1,341.42	1,853.48	1,800.35	53.13	34.888		
10,600.00	10,550.07	10,566.40	10,531.97	39.39	38.18	89.54	-645.16	1,341.42	1,853.48	1,799.88	53.60	34.579		
10,700.00	10,650.07	10,666.40	10,631.97	39.71	38.52	89.54	-645.16	1,341.42	1,853.48	1,799.40	54.08	34.275		
10,800.00	10,750.07	10,766.40	10,731.97	40.03	38.86	89.54	-645.16	1,341.42	1,853.48	1,798.93	54.55	33.976		
10,900.00	10,850.07	10,866.40	10,831.97	40.35	39.20	89.54	-645.16	1,341.42	1,853.48	1,798.45	55.03	33.681		
11,000.00	10,950.07	10,966.40	10,931.97	40.67	39.54	89.54	-645.16	1,341.42	1,853.48	1,797.97	55.51	33.392		
11,100.00	11,050.07	11,066.40	11,031.97	40.99	39.89	89.54	-645.16	1,341.42	1,853.48	1,797.49	55.98	33.107		
11,200.00	11,150.07	11,166.40	11,131.97	41.32	40.23	89.54	-645.16	1,341.42	1,853.48	1,797.02	56.46	32.827		
11,300.00	11,250.07	11,266.40	11,231.97	41.64	40.57	89.54	-645.16	1,341.42	1,853.48	1,796.54	56.94	32.551		
11,400.00	11,350.07	11,366.40	11,331.97	41.96	40.92	89.54	-645.16	1,341.42	1,853.48	1,796.06	57.42	32.279		
11,500.00	11,450.07	11,466.48	11,432.04	42.29	41.26	89.51	-644.26	1,341.41	1,853.48	1,795.58	57.90	32.013		
11,517.49	11,467.56	11,483.95	11,449.46	42.34	41.32	89.48	-643.02	1,341.40	1,853.48	1,795.50	57.98	31.968		
11,521.93	11,472.00	11,488.37	11,453.86	42.36	41.33	89.46	-642.62	1,341.40	1,853.48	1,795.48	58.00	31.956		
11,550.00	11,500.06	11,516.23	11,481.53	42.45	41.43	89.87	-639.33	1,341.37	1,853.48	1,795.35	58.13	31.887		
11,600.00	11,549.83	11,565.55	11,529.99	42.60	41.58	89.73	-630.22	1,341.28	1,853.49	1,795.15	58.34	31.770		
11,650.00	11,599.01	11,614.49	11,577.12	42.73	41.73	89.59	-617.10	1,341.16	1,853.51	1,794.97	58.54	31.664		
11,700.00	11,647.22	11,663.06	11,622.62	42.85	41.87	89.45	-600.15	1,341.01	1,853.54	1,794.82	58.72	31.567		
11,750.00	11,694.10	11,711.28	11,666.21	42.95	41.99	89.32	-579.56	1,340.82	1,853.57	1,794.69	58.88	31.478		
11,800.00	11,739.28	11,759.17	11,707.64	43.04	42.10	89.19	-555.57	1,340.60	1,853.61	1,794.57	59.03	31.399		
11,850.00	11,782.44	11,806.75	11,746.67	43.11	42.20	89.07	-528.39	1,340.35	1,853.65	1,794.48	59.17	31.326		
11,900.00	11,823.23	11,854.05	11,783.10	43.17	42.29	88.96	-498.25	1,340.07	1,853.69	1,794.40	59.30	31.260		
11,950.00	11,861.34	11,900.00	11,816.01	43.21	42.37	88.85	-466.19	1,339.78	1,853.74	1,794.33	59.41	31.201		
12,000.00	11,896.50	11,947.86	11,847.43	43.24	42.43	88.75	-430.11	1,339.45	1,853.78	1,794.26	59.52	31.144		
12,050.00	11,928.42	11,994.43	11,875.01	43.25	42.48	88.66	-392.60	1,339.11	1,853.82	1,794.20	59.62	31.092		
12,100.00	11,956.87	12,040.81	11,899.36	43.25	42.53	88.58	-353.15	1,338.74	1,853.86	1,794.14	59.72	31.042		
12,150.00	11,981.63	12,087.01	11,920.36	43.25	42.57	88.52	-312.01	1,338.37	1,853.89	1,794.07	59.82	30.993		
12,200.00	12,002.51	12,133.07	11,937.94	43.23	42.60	88.46	-269.45	1,337.98	1,853.91	1,794.00	59.91	30.945		
12,250.00	12,019.36	12,179.01	11,952.01	43.21	42.65	88.41	-225.74	1,337.58	1,853.93	1,793.92	60.00	30.897		
12,300.00	12,032.03	12,224.85	11,962.51	43.18	42.70	88.37	-181.13	1,337.17	1,853.93	1,793.83	60.10	30.847		
12,350.00	12,040.45	12,270.62	11,969.41	43.16	42.78	88.35	-135.90	1,336.75	1,853.92	1,793.73	60.20	30.797		
12,400.00	12,044.54	12,316.34	11,972.67	43.13	42.88	88.34	-90.30	1,336.33	1,853.91	1,793.61	60.30	30.745		
12,428.94	12,044.92	12,342.79	11,972.90	43.11	42.95	88.33	-63.86	1,336.09	1,853.89	1,793.53	60.36	30.713		
12,500.00	12,044.05	12,413.61	11,971.55	43.10	43.15	88.32	6.94	1,335.44	1,853.86	1,793.31	60.55	30.616		
12,600.00	12,042.82	12,513.61	11,969.63	43.15	43.49	88.30	106.92	1,334.53	1,853.82	1,792.92	60.90	30.442		
12,700.00	12,041.60	12,613.60	11,967.71	43.31	43.90	88.28	206.89	1,333.61	1,853.77	1,792.45	61.33	30.227		
12,800.00	12,040.38	12,713.60	11,965.80	43.57	44.37	88.25	306.87	1,332.69	1,853.73	1,791.89	61.84	29.975		
12,900.00	12,039.15	12,813.60	11,963.88	43.92	44.89	88.23	406.84	1,331.78	1,853.69	1,791.25	62.44	29.687		
13,000.00	12,037.93	12,913.60	11,961.97	44.34	45.46	88.21	506.82	1,330.86	1,853.65	1,790.53	63.12	29.367		
13,100.00	12,036.71	13,013.59	11,960.05	44.81	46.09	88.19	606.79	1,329.95	1,853.60	1,789.73	63.88	29.019		
13,200.00	12,035.48	13,113.59	11,958.14	45.34	46.76	88.17	706.77	1,329.03	1,853.56	1,788.85	64.71	28.645		
13,300.00	12,034.26	13,213.59	11,956.22	45.92	47.48	88.15	806.74	1,328.11	1,853.52	1,787.91	65.61	28.249		
13,400.00	12,033.04	13,313.59	11,954.31	46.55	48.25	88.13	906.72	1,327.20	1,853.48	1,786.89	66.59	27.835		
13,500.00	12,031.81	13,413.58	11,952.39	47.23	49.05	88.10	1,006.69	1,326.28	1,853.44	1,785.81	67.63	27.406		
13,600.00	12,030.59	13,513.58	11,950.47	47.96	49.90	88.08	1,106.67	1,325.36	1,853.40	1,784.66	68.73	26.965		
13,700.00	12,029.37	13,613.58	11,948.56	48.73	50.79	88.06	1,206.64	1,324.45	1,853.36	1,783.46	69.90	26.515		
13,800.00	12,028.14	13,713.58	11,946.64	49.54	51.72	88.04	1,306.62	1,323.53	1,853.32	1,782.19	71.12	26.058		
13,900.00	12,026.92	13,813.57	11,944.73	50.39	52.68	88.02	1,406.59	1,322.61	1,853.28	1,780.88	72.40	25.599		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
14,000.00	12,025.70	13,913.57	11,942.81	51.28	53.67	88.00	1,506.57	1,321.70	1,853.24	1,779.51	73.73	25.137		
14,100.00	12,024.47	14,013.57	11,940.90	52.21	54.70	87.98	1,606.54	1,320.78	1,853.20	1,778.09	75.10	24.675		
14,200.00	12,023.25	14,113.57	11,938.98	53.17	55.76	87.95	1,706.52	1,319.87	1,853.16	1,776.63	76.53	24.216		
14,300.00	12,022.03	14,213.56	11,937.06	54.17	56.84	87.93	1,806.49	1,318.95	1,853.12	1,775.13	77.99	23.760		
14,400.00	12,020.80	14,313.56	11,935.15	55.19	57.95	87.91	1,906.47	1,318.03	1,853.08	1,773.58	79.50	23.309		
14,500.00	12,019.58	14,413.56	11,933.23	56.25	59.09	87.89	2,006.44	1,317.12	1,853.04	1,771.99	81.05	22.863		
14,600.00	12,018.35	14,513.56	11,931.32	57.33	60.25	87.87	2,106.42	1,316.20	1,853.00	1,770.37	82.63	22.424		
14,700.00	12,017.13	14,613.55	11,929.40	58.44	61.43	87.85	2,206.39	1,315.28	1,852.97	1,768.71	84.25	21.993		
14,800.00	12,015.91	14,713.55	11,927.49	59.57	62.63	87.83	2,306.37	1,314.37	1,852.93	1,767.02	85.91	21.569		
14,900.00	12,014.68	14,813.55	11,925.57	60.73	63.85	87.80	2,406.34	1,313.45	1,852.89	1,765.30	87.59	21.155		
15,000.00	12,013.46	14,913.55	11,923.65	61.91	65.10	87.78	2,506.32	1,312.54	1,852.85	1,763.55	89.30	20.749		
15,100.00	12,012.24	15,013.55	11,921.74	63.11	66.36	87.76	2,606.29	1,311.62	1,852.82	1,761.78	91.04	20.352		
15,200.00	12,011.01	15,113.54	11,919.82	64.33	67.63	87.74	2,706.27	1,310.70	1,852.78	1,759.97	92.81	19.964		
15,300.00	12,009.79	15,213.54	11,917.91	65.57	68.93	87.72	2,806.24	1,309.79	1,852.74	1,758.15	94.60	19.586		
15,400.00	12,008.57	15,313.54	11,915.99	66.82	70.23	87.70	2,906.22	1,308.87	1,852.71	1,756.30	96.41	19.217		
15,500.00	12,007.34	15,413.54	11,914.08	68.10	71.55	87.67	3,006.19	1,307.95	1,852.67	1,754.43	98.24	18.858		
15,600.00	12,006.12	15,513.53	11,912.16	69.39	72.89	87.65	3,106.17	1,307.04	1,852.64	1,752.54	100.10	18.508		
15,700.00	12,004.90	15,613.53	11,910.24	70.69	74.24	87.63	3,206.14	1,306.12	1,852.60	1,750.62	101.98	18.167		
15,800.00	12,003.67	15,713.53	11,908.33	72.01	75.60	87.61	3,306.12	1,305.20	1,852.56	1,748.70	103.87	17.836		
15,900.00	12,002.45	15,813.53	11,906.41	73.34	76.97	87.59	3,406.09	1,304.29	1,852.53	1,746.75	105.78	17.513		
16,000.00	12,001.23	15,913.52	11,904.50	74.69	78.35	87.57	3,506.07	1,303.37	1,852.50	1,744.79	107.71	17.199		
16,100.00	12,000.00	16,013.52	11,902.58	76.04	79.74	87.55	3,606.04	1,302.46	1,852.46	1,742.81	109.65	16.894		
16,200.00	11,998.78	16,113.52	11,900.67	77.41	81.15	87.52	3,706.02	1,301.54	1,852.43	1,740.82	111.61	16.597		
16,300.00	11,997.56	16,213.52	11,898.75	78.79	82.56	87.50	3,805.99	1,300.62	1,852.39	1,738.81	113.58	16.309		
16,400.00	11,996.33	16,313.51	11,896.83	80.18	83.98	87.48	3,905.97	1,299.71	1,852.36	1,736.79	115.57	16.028		
16,500.00	11,995.11	16,413.51	11,894.92	81.58	85.41	87.46	4,005.94	1,298.79	1,852.33	1,734.76	117.57	15.756		
16,600.00	11,993.89	16,513.51	11,893.00	82.99	86.84	87.44	4,105.92	1,297.87	1,852.29	1,732.72	119.58	15.491		
16,700.00	11,992.66	16,613.51	11,891.09	84.40	88.29	87.42	4,205.89	1,296.96	1,852.26	1,730.66	121.60	15.233		
16,800.00	11,991.44	16,713.50	11,889.17	85.83	89.74	87.40	4,305.87	1,296.04	1,852.23	1,728.60	123.63	14.982		
16,900.00	11,990.22	16,813.50	11,887.26	87.26	91.19	87.37	4,405.84	1,295.13	1,852.20	1,726.52	125.67	14.738		
17,000.00	11,988.99	16,913.50	11,885.34	88.70	92.66	87.35	4,505.82	1,294.21	1,852.16	1,724.44	127.73	14.501		
17,100.00	11,987.77	17,013.50	11,883.42	90.15	94.13	87.33	4,605.79	1,293.29	1,852.13	1,722.35	129.79	14.271		
17,200.00	11,986.55	17,113.49	11,881.51	91.60	95.60	87.31	4,705.77	1,292.38	1,852.10	1,720.24	131.86	14.046		
17,300.00	11,985.32	17,213.49	11,879.59	93.06	97.09	87.29	4,805.74	1,291.46	1,852.07	1,718.13	133.94	13.828		
17,400.00	11,984.10	17,313.49	11,877.68	94.53	98.57	87.27	4,905.72	1,290.54	1,852.04	1,716.02	136.02	13.616		
17,500.00	11,982.88	17,413.49	11,875.76	96.01	100.07	87.25	5,005.69	1,289.63	1,852.01	1,713.89	138.12	13.409		
17,600.00	11,981.65	17,513.48	11,873.85	97.49	101.56	87.22	5,105.67	1,288.71	1,851.98	1,711.76	140.22	13.208		
17,700.00	11,980.43	17,613.48	11,871.93	98.97	103.07	87.20	5,205.64	1,287.79	1,851.95	1,709.62	142.33	13.012		
17,800.00	11,979.21	17,713.48	11,870.01	100.46	104.57	87.18	5,305.62	1,286.88	1,851.92	1,707.47	144.44	12.821		
17,900.00	11,977.98	17,813.48	11,868.10	101.95	106.08	87.16	5,405.59	1,285.96	1,851.89	1,705.32	146.57	12.635		
18,000.00	11,976.76	17,913.47	11,866.18	103.45	107.60	87.14	5,505.57	1,285.05	1,851.86	1,703.16	148.69	12.454		
18,100.00	11,975.54	18,013.47	11,864.27	104.96	109.12	87.12	5,605.54	1,284.13	1,851.83	1,701.00	150.83	12.278		
18,200.00	11,974.31	18,113.47	11,862.35	106.47	110.64	87.09	5,705.52	1,283.21	1,851.80	1,698.83	152.97	12.106		
18,300.00	11,973.09	18,213.47	11,860.44	107.98	112.17	87.07	5,805.49	1,282.30	1,851.77	1,696.66	155.11	11.938		
18,400.00	11,971.87	18,313.47	11,858.52	109.50	113.70	87.05	5,905.47	1,281.38	1,851.74	1,694.48	157.26	11.775		
18,500.00	11,970.64	18,413.46	11,856.61	111.02	115.23	87.03	6,005.44	1,280.46	1,851.72	1,692.30	159.42	11.615		
18,600.00	11,969.42	18,513.46	11,854.69	112.54	116.77	87.01	6,105.42	1,279.55	1,851.69	1,690.11	161.58	11.460		
18,700.00	11,968.20	18,613.46	11,852.77	114.07	118.31	86.99	6,205.39	1,278.63	1,851.66	1,687.92	163.74	11.308		
18,800.00	11,966.97	18,713.46	11,850.86	115.60	119.85	86.97	6,305.37	1,277.72	1,851.63	1,685.72	165.91	11.160		
18,900.00	11,965.75	18,813.45	11,848.94	117.13	121.40	86.94	6,405.34	1,276.80	1,851.61	1,683.52	168.09	11.016		
19,000.00	11,964.53	18,913.45	11,847.03	118.67	122.94	86.92	6,505.32	1,275.88	1,851.58	1,681.32	170.26	10.875		
19,100.00	11,963.30	19,013.45	11,845.11	120.21	124.49	86.90	6,605.29	1,274.97	1,851.55	1,679.11	172.44	10.737		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
19,200.00	11,962.08	19,113.45	11,843.20	121.76	126.05	86.88	6,705.27	1,274.05	1,851.53	1,676.90	174.63	10.603		
19,300.00	11,960.86	19,213.44	11,841.28	123.30	127.60	86.86	6,805.24	1,273.13	1,851.50	1,674.68	176.82	10.471		
19,400.00	11,959.63	19,313.44	11,839.36	124.85	129.16	86.84	6,905.22	1,272.22	1,851.47	1,672.46	179.01	10.343		
19,500.00	11,958.41	19,413.44	11,837.45	126.40	130.72	86.82	7,005.19	1,271.30	1,851.45	1,670.24	181.20	10.217		
19,600.00	11,957.19	19,513.44	11,835.53	127.96	132.29	86.79	7,105.17	1,270.38	1,851.42	1,668.02	183.40	10.095		
19,700.00	11,955.96	19,613.43	11,833.62	129.51	133.85	86.77	7,205.14	1,269.47	1,851.40	1,665.79	185.60	9.975		
19,800.00	11,954.74	19,713.43	11,831.70	131.07	135.42	86.75	7,305.12	1,268.55	1,851.37	1,663.57	187.81	9.858		
19,900.00	11,953.52	19,813.43	11,829.79	132.63	136.99	86.73	7,405.09	1,267.64	1,851.35	1,661.33	190.02	9.743		
20,000.00	11,952.29	19,913.43	11,827.87	134.20	138.56	86.71	7,505.07	1,266.72	1,851.33	1,659.10	192.23	9.631		
20,100.00	11,951.07	20,013.42	11,825.95	135.76	140.13	86.69	7,605.04	1,265.80	1,851.30	1,656.86	194.44	9.521		
20,200.00	11,949.85	20,113.42	11,824.04	137.33	141.71	86.66	7,705.02	1,264.89	1,851.28	1,654.62	196.65	9.414		
20,300.00	11,948.62	20,213.42	11,822.12	138.90	143.28	86.64	7,804.99	1,263.97	1,851.25	1,652.38	198.87	9.309		
20,400.00	11,947.40	20,313.42	11,820.21	140.47	144.86	86.62	7,904.97	1,263.05	1,851.23	1,650.14	201.09	9.206		
20,500.00	11,946.18	20,413.41	11,818.29	142.04	146.44	86.60	8,004.94	1,262.14	1,851.21	1,647.90	203.31	9.105		
20,600.00	11,944.95	20,513.41	11,816.38	143.62	148.02	86.58	8,104.92	1,261.22	1,851.19	1,645.65	205.54	9.007		
20,700.00	11,943.73	20,613.41	11,814.46	145.19	149.60	86.56	8,204.89	1,260.31	1,851.16	1,643.40	207.76	8.910		
20,800.00	11,942.51	20,713.41	11,812.54	146.77	151.19	86.54	8,304.87	1,259.39	1,851.14	1,641.15	209.99	8.815		
20,900.00	11,941.28	20,813.40	11,810.63	148.35	152.77	86.51	8,404.84	1,258.47	1,851.12	1,638.90	212.22	8.723		
21,000.00	11,940.06	20,913.40	11,808.71	149.93	154.36	86.49	8,504.82	1,257.56	1,851.10	1,636.64	214.46	8.632		
21,100.00	11,938.84	21,013.40	11,806.80	151.51	155.95	86.47	8,604.79	1,256.64	1,851.08	1,634.39	216.69	8.542		
21,200.00	11,937.61	21,113.40	11,804.88	153.10	157.54	86.45	8,704.77	1,255.72	1,851.06	1,632.13	218.93	8.455		
21,300.00	11,936.39	21,213.40	11,802.97	154.68	159.13	86.43	8,804.74	1,254.81	1,851.03	1,629.87	221.16	8.369		
21,400.00	11,935.17	21,313.39	11,801.05	156.27	160.72	86.41	8,904.72	1,253.89	1,851.01	1,627.61	223.40	8.285		
21,500.00	11,933.94	21,413.39	11,799.13	157.86	162.32	86.38	9,004.69	1,252.97	1,850.99	1,625.35	225.65	8.203		
21,600.00	11,932.72	21,513.39	11,797.22	159.45	163.91	86.36	9,104.67	1,252.06	1,850.97	1,623.09	227.89	8.122		
21,700.00	11,931.49	21,613.39	11,795.30	161.04	165.51	86.34	9,204.64	1,251.14	1,850.95	1,620.82	230.13	8.043		
21,800.00	11,930.27	21,713.38	11,793.39	162.63	167.10	86.32	9,304.62	1,250.23	1,850.93	1,618.56	232.38	7.965		
21,900.00	11,929.05	21,813.38	11,791.47	164.22	168.70	86.30	9,404.59	1,249.31	1,850.92	1,616.29	234.62	7.889		
22,000.00	11,927.82	21,913.38	11,789.56	165.82	170.30	86.28	9,504.57	1,248.39	1,850.90	1,614.02	236.87	7.814		
22,100.00	11,926.60	22,013.38	11,787.64	167.41	171.90	86.26	9,604.54	1,247.48	1,850.88	1,611.76	239.12	7.740		
22,206.36	11,925.30	22,119.73	11,785.60	169.11	173.60	86.23	9,710.88	1,246.50	1,850.86	1,609.34	241.52	7.663 ES, 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	0.00	0.00	0.00	0.00	103.03	-444.87	1,922.41	1,973.30					
100.00	100.00	81.20	81.20	0.13	0.10	103.03	-444.87	1,922.41	1,973.21	1,973.05	0.16	N/A		
200.00	200.00	181.20	181.20	0.48	0.42	103.03	-444.87	1,922.41	1,973.21	1,972.57	0.64	3,090.307		
300.00	300.00	281.20	281.20	0.84	0.78	103.03	-444.87	1,922.41	1,973.21	1,972.07	1.14	1,723.806		
400.00	400.00	381.20	381.20	1.20	1.13	103.03	-444.87	1,922.41	1,973.21	1,971.56	1.65	1,194.920		
500.00	500.00	481.20	481.20	1.56	1.49	103.03	-444.87	1,922.41	1,973.21	1,971.05	2.16	914.317		
600.00	600.00	581.20	581.20	1.92	1.85	103.03	-444.87	1,922.41	1,973.21	1,970.55	2.66	740.422		
700.00	700.00	681.20	681.20	2.28	2.21	103.03	-444.87	1,922.41	1,973.21	1,970.04	3.17	622.098		
800.00	800.00	781.20	781.20	2.63	2.57	103.03	-444.87	1,922.41	1,973.21	1,969.53	3.68	536.378		
900.00	900.00	881.20	881.20	2.99	2.93	103.03	-444.87	1,922.41	1,973.21	1,969.03	4.19	471.418		
1,000.00	1,000.00	981.20	981.20	3.35	3.28	103.03	-444.87	1,922.41	1,973.21	1,968.52	4.69	420.493		
1,100.00	1,100.00	1,081.20	1,081.20	3.71	3.64	103.03	-444.87	1,922.41	1,973.21	1,968.01	5.20	379.497		
1,200.00	1,200.00	1,181.20	1,181.20	4.07	4.00	103.03	-444.87	1,922.41	1,973.21	1,967.51	5.71	345.784		
1,300.00	1,300.00	1,281.20	1,281.20	4.43	4.36	103.03	-444.87	1,922.41	1,973.21	1,967.00	6.21	317.572		
1,400.00	1,400.00	1,381.20	1,381.20	4.79	4.72	103.03	-444.87	1,922.41	1,973.21	1,966.49	6.72	293.617		
1,500.00	1,500.00	1,481.20	1,481.20	5.14	5.08	103.03	-444.87	1,922.41	1,973.21	1,965.99	7.23	273.022		
1,600.00	1,600.00	1,581.20	1,581.20	5.50	5.44	103.03	-444.87	1,922.41	1,973.21	1,965.48	7.73	255.126		
1,700.00	1,700.00	1,681.20	1,681.20	5.86	5.79	103.03	-444.87	1,922.41	1,973.21	1,964.97	8.24	239.433		
1,800.00	1,800.00	1,781.20	1,781.20	6.22	6.15	103.03	-444.87	1,922.41	1,973.21	1,964.46	8.75	225.558		
1,900.00	1,900.00	1,881.20	1,881.20	6.58	6.51	103.03	-444.87	1,922.41	1,973.21	1,963.96	9.26	213.203		
2,000.00	2,000.00	1,981.20	1,981.20	6.94	6.87	103.03	-444.87	1,922.41	1,973.21	1,963.45	9.76	202.131		
2,100.00	2,100.00	2,081.20	2,081.20	7.29	7.23	103.03	-444.87	1,922.41	1,973.21	1,962.94	10.27	192.152		
2,200.00	2,200.00	2,181.20	2,181.20	7.65	7.59	103.03	-444.87	1,922.41	1,973.21	1,962.44	10.78	183.113		
2,300.00	2,300.00	2,281.20	2,281.20	8.01	7.94	103.03	-444.87	1,922.41	1,973.21	1,961.93	11.28	174.885		
2,400.00	2,400.00	2,381.20	2,381.20	8.37	8.30	103.03	-444.87	1,922.41	1,973.21	1,961.42	11.79	167.365		
2,500.00	2,500.00	2,481.20	2,481.20	8.73	8.66	103.03	-444.87	1,922.41	1,973.21	1,960.92	12.30	160.466		
2,600.00	2,600.00	2,581.20	2,581.20	9.09	9.02	103.03	-444.87	1,922.41	1,973.21	1,960.41	12.80	154.112		
2,700.00	2,700.00	2,681.20	2,681.20	9.45	9.38	103.03	-444.87	1,922.41	1,973.21	1,959.90	13.31	148.243		
2,800.00	2,800.00	2,781.20	2,781.20	9.80	9.74	103.03	-444.87	1,922.41	1,973.21	1,959.40	13.82	142.804		
2,900.00	2,900.00	2,881.20	2,881.20	10.16	10.10	103.03	-444.87	1,922.41	1,973.21	1,958.89	14.32	137.750		
3,000.00	3,000.00	2,981.20	2,981.20	10.52	10.45	103.03	-444.87	1,922.41	1,973.21	1,958.38	14.83	133.041 CC, ES		
3,100.00	3,099.99	3,081.19	3,081.19	10.86	10.81	-114.80	-444.87	1,922.41	1,973.76	1,958.44	15.33	128.779		
3,200.00	3,199.91	3,181.11	3,181.11	11.19	11.17	-114.88	-444.87	1,922.41	1,975.41	1,959.60	15.81	124.940		
3,300.00	3,299.69	3,280.89	3,280.89	11.52	11.53	-115.01	-444.87	1,922.41	1,978.18	1,961.88	16.30	121.390		
3,400.00	3,399.27	3,380.47	3,380.47	11.85	11.89	-115.20	-444.87	1,922.41	1,982.07	1,965.29	16.78	118.104		
3,466.69	3,465.53	3,446.73	3,446.73	12.08	12.12	-115.35	-444.87	1,922.41	1,985.31	1,968.21	17.11	116.047		
3,500.00	3,498.59	3,479.79	3,479.79	12.19	12.24	-115.46	-444.87	1,922.41	1,987.07	1,969.79	17.27	115.055		
3,600.00	3,597.85	3,579.05	3,579.05	12.53	12.60	-115.77	-444.87	1,922.41	1,992.37	1,974.61	17.76	112.175		
3,700.00	3,697.10	3,678.30	3,678.30	12.87	12.95	-116.09	-444.87	1,922.41	1,997.73	1,979.47	18.25	109.439		
3,800.00	3,796.36	3,777.56	3,777.56	13.22	13.31	-116.40	-444.87	1,922.41	2,003.15	1,984.40	18.75	106.836		
3,900.00	3,895.61	3,876.81	3,876.81	13.58	13.66	-116.71	-444.87	1,922.41	2,008.63	1,989.38	19.25	104.358		
4,000.00	3,994.86	3,976.06	3,976.06	13.93	14.02	-117.01	-444.87	1,922.41	2,014.17	1,994.42	19.75	101.999		
4,100.00	4,094.12	4,075.32	4,075.32	14.29	14.38	-117.32	-444.87	1,922.41	2,019.77	1,999.52	20.25	99.750		
4,200.00	4,193.37	4,174.57	4,174.57	14.65	14.73	-117.62	-444.87	1,922.41	2,025.42	2,004.67	20.75	97.604		
4,300.00	4,292.63	4,273.83	4,273.83	15.01	15.09	-117.93	-444.87	1,922.41	2,031.14	2,009.88	21.26	95.556		
4,400.00	4,391.88	4,373.08	4,373.08	15.38	15.44	-118.23	-444.87	1,922.41	2,036.91	2,015.14	21.76	93.600		
4,500.00	4,491.14	4,472.34	4,472.34	15.75	15.80	-118.53	-444.87	1,922.41	2,042.73	2,020.46	22.27	91.730		
4,600.00	4,590.39	4,555.08	4,555.08	16.12	16.09	-118.77	-445.23	1,922.58	2,048.90	2,026.18	22.73	90.155		
4,700.00	4,689.65	4,631.55	4,631.52	16.49	16.34	-118.95	-446.92	1,923.37	2,056.18	2,033.02	23.16	88.782		
4,800.00	4,788.90	4,700.00	4,699.91	16.86	16.56	-119.09	-449.61	1,924.64	2,064.62	2,041.06	23.57	87.613		
4,900.00	4,888.16	4,784.62	4,784.36	17.24	16.84	-119.21	-454.46	1,926.92	2,074.14	2,050.13	24.01	86.376		
5,000.00	4,987.41	4,861.10	4,860.56	17.61	17.09	-119.29	-460.31	1,929.66	2,084.78	2,060.34	24.44	85.310		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
5,100.00	5,086.66	4,948.74	4,947.74	17.99	17.38	-119.34	-468.42	1,933.48	2,096.39	2,071.49	24.89	84.210		
5,200.00	5,185.92	5,048.02	5,046.48	18.37	17.71	-119.39	-477.81	1,937.89	2,108.14	2,082.75	25.39	83.035		
5,300.00	5,285.17	5,147.31	5,145.23	18.75	18.04	-119.44	-487.20	1,942.31	2,119.89	2,094.00	25.88	81.897		
5,400.00	5,384.43	5,246.60	5,243.98	19.14	18.37	-119.49	-496.60	1,946.72	2,131.64	2,105.26	26.38	80.795		
5,500.00	5,483.68	5,345.89	5,342.72	19.52	18.71	-119.54	-505.99	1,951.14	2,143.39	2,116.51	26.88	79.727		
5,600.00	5,582.94	5,445.18	5,441.47	19.90	19.04	-119.59	-515.38	1,955.55	2,155.15	2,127.76	27.39	78.693		
5,700.00	5,682.19	5,544.47	5,540.21	20.29	19.39	-119.64	-524.77	1,959.96	2,166.91	2,139.01	27.89	77.690		
5,800.00	5,781.45	5,643.76	5,639.96	20.68	19.73	-119.69	-534.17	1,964.38	2,178.67	2,150.27	28.40	76.718		
5,900.00	5,880.70	5,743.05	5,737.70	21.06	20.07	-119.74	-543.56	1,968.79	2,190.43	2,161.52	28.91	75.775		
6,000.00	5,979.96	5,842.34	5,836.45	21.45	20.42	-119.78	-552.95	1,973.21	2,202.19	2,172.77	29.42	74.861		
6,100.00	6,079.21	5,941.63	5,935.20	21.84	20.77	-119.83	-562.34	1,977.62	2,213.95	2,184.02	29.93	73.974		
6,200.00	6,178.46	6,040.92	6,033.94	22.23	21.12	-119.88	-571.74	1,982.04	2,225.71	2,195.27	30.44	73.113		
6,300.00	6,277.72	6,140.21	6,132.69	22.62	21.47	-119.92	-581.13	1,986.45	2,237.48	2,206.52	30.96	72.277		
6,400.00	6,376.97	6,239.50	6,231.43	23.01	21.82	-119.97	-590.52	1,990.87	2,249.25	2,217.78	31.47	71.466		
6,500.00	6,476.23	6,338.79	6,330.18	23.40	22.17	-120.01	-599.91	1,995.28	2,261.02	2,229.03	31.99	70.678		
6,600.00	6,575.48	6,438.08	6,428.92	23.80	22.53	-120.06	-609.31	1,999.69	2,272.79	2,240.28	32.51	69.912		
6,700.00	6,674.74	6,537.37	6,527.67	24.19	22.89	-120.10	-618.70	2,004.11	2,284.56	2,251.53	33.03	69.168		
6,800.00	6,773.99	6,647.51	6,637.22	24.58	23.28	-120.15	-628.98	2,008.94	2,296.28	2,262.69	33.58	68.373		
6,900.00	6,873.25	6,749.28	6,738.55	24.98	23.80	-120.30	-639.16	2,013.73	2,306.56	2,272.31	34.25	67.347		
7,000.00	6,972.50	6,841.07	6,830.22	25.37	24.32	-120.57	-644.24	2,016.12	2,314.82	2,279.92	34.90	66.336		
7,100.00	7,071.76	6,938.80	6,926.96	25.77	24.74	-120.87	-644.87	2,016.41	2,321.33	2,285.86	35.47	65.443		
7,200.00	7,171.01	7,163.06	7,152.21	26.16	25.09	-121.13	-644.87	2,016.41	2,327.64	2,291.65	35.99	64.678		
7,300.00	7,270.26	7,262.31	7,251.46	26.56	25.44	-121.38	-644.87	2,016.41	2,334.00	2,297.50	36.51	63.935		
7,400.00	7,369.52	7,361.57	7,350.72	26.95	25.78	-121.64	-644.87	2,016.41	2,340.41	2,303.38	37.02	63.214		
7,500.00	7,468.77	7,460.82	7,449.97	27.35	26.13	-121.89	-644.87	2,016.41	2,346.86	2,309.31	37.54	62.513		
7,600.00	7,568.03	7,560.08	7,549.23	27.75	26.48	-122.14	-644.87	2,016.41	2,353.35	2,315.29	38.06	61.833		
7,700.00	7,667.28	7,659.33	7,648.48	28.15	26.83	-122.39	-644.87	2,016.41	2,359.89	2,321.31	38.58	61.171		
7,800.00	7,766.54	7,758.59	7,747.74	28.54	27.18	-122.64	-644.87	2,016.41	2,366.48	2,327.38	39.10	60.529		
7,900.00	7,865.79	7,857.84	7,846.99	28.94	27.53	-122.88	-644.87	2,016.41	2,373.11	2,333.49	39.62	59.903		
8,000.00	7,965.05	7,957.10	7,946.25	29.34	27.88	-123.13	-644.87	2,016.41	2,379.78	2,339.65	40.13	59.295		
8,100.00	8,064.30	8,056.35	8,045.50	29.74	28.22	-123.37	-644.87	2,016.41	2,386.50	2,345.85	40.65	58.704		
8,200.00	8,163.56	8,155.60	8,144.76	30.14	28.57	-123.61	-644.87	2,016.41	2,393.26	2,352.09	41.17	58.128		
8,300.00	8,262.81	8,254.86	8,244.01	30.54	28.92	-123.85	-644.87	2,016.41	2,400.06	2,358.37	41.69	57.568		
8,400.00	8,362.06	8,354.11	8,343.26	30.94	29.27	-124.09	-644.87	2,016.41	2,406.91	2,364.70	42.21	57.022		
8,500.00	8,461.32	8,453.37	8,442.52	31.34	29.62	-124.33	-644.87	2,016.41	2,413.80	2,371.07	42.73	56.490		
8,600.00	8,560.57	8,552.62	8,541.77	31.74	29.97	-124.57	-644.87	2,016.41	2,420.73	2,377.48	43.25	55.972		
8,700.00	8,659.83	8,651.88	8,641.03	32.14	30.32	-124.81	-644.87	2,016.41	2,427.70	2,383.93	43.77	55.468		
8,800.00	8,759.08	8,751.13	8,740.28	32.54	30.67	-125.04	-644.87	2,016.41	2,434.71	2,390.42	44.29	54.976		
8,900.00	8,858.34	8,850.39	8,839.54	32.94	31.02	-125.27	-644.87	2,016.41	2,441.76	2,396.96	44.81	54.496		
9,000.00	8,957.59	8,949.64	8,938.79	33.34	31.37	-125.50	-644.87	2,016.41	2,448.85	2,403.53	45.33	54.028		
9,100.00	9,056.85	9,048.90	9,038.05	33.75	31.72	-125.73	-644.87	2,016.41	2,455.99	2,410.14	45.84	53.572		
9,200.00	9,156.10	9,148.15	9,137.30	34.15	32.08	-125.96	-644.87	2,016.41	2,463.16	2,416.80	46.36	53.126		
9,300.00	9,255.36	9,247.40	9,236.56	34.55	32.43	-126.19	-644.87	2,016.41	2,470.37	2,423.49	46.88	52.692		
9,400.00	9,354.61	9,346.66	9,335.81	34.95	32.78	-126.42	-644.87	2,016.41	2,477.62	2,430.22	47.40	52.267		
9,500.00	9,453.86	9,445.91	9,435.06	35.35	33.13	-126.64	-644.87	2,016.41	2,484.91	2,436.99	47.92	51.853		
9,600.00	9,553.12	9,545.17	9,534.32	35.76	33.48	-126.87	-644.87	2,016.41	2,492.24	2,443.80	48.44	51.448		
9,700.00	9,652.37	9,644.42	9,633.57	36.16	33.83	-127.09	-644.87	2,016.41	2,499.61	2,450.65	48.96	51.053		
9,800.00	9,751.63	9,743.68	9,732.83	36.56	34.18	-127.31	-644.87	2,016.41	2,507.01	2,457.53	49.48	50.667		
9,853.24	9,804.47	9,796.52	9,785.67	36.78	34.37	-127.43	-644.87	2,016.41	2,510.97	2,461.21	49.76	50.465		
9,900.00	9,850.92	9,842.97	9,832.12	36.96	34.53	-127.56	-644.87	2,016.41	2,514.28	2,464.28	50.00	50.287		
10,000.00	9,950.44	9,942.49	9,931.64	37.35	34.89	-127.81	-644.87	2,016.41	2,520.21	2,469.69	50.51	49.893		
10,100.00	10,050.19	10,042.24	10,031.39	37.73	35.24	-127.99	-644.87	2,016.41	2,524.55	2,473.53	51.02	49.481		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
10,200.00	10,150.09	10,142.14	10,131.29	38.09	35.59	-128.10	-644.87	2,016.41	2,527.29	2,475.77	51.52	49.053		
10,300.00	10,250.07	10,242.12	10,231.27	38.43	35.95	-128.14	-644.87	2,016.41	2,528.42	2,476.41	52.02	48.607		
10,319.93	10,270.00	10,262.05	10,251.20	38.50	36.02	89.66	-644.87	2,016.41	2,528.46	2,476.34	52.11	48.518		
10,400.00	10,350.07	10,342.12	10,331.27	38.75	36.30	89.66	-644.87	2,016.41	2,528.46	2,475.96	52.50	48.164		
10,500.00	10,450.07	10,442.12	10,431.27	39.07	36.66	89.66	-644.87	2,016.41	2,528.46	2,475.48	52.98	47.728		
10,600.00	10,550.07	10,542.12	10,531.27	39.39	37.01	89.66	-644.87	2,016.41	2,528.46	2,475.00	53.46	47.300		
10,700.00	10,650.07	10,642.12	10,631.27	39.71	37.37	89.66	-644.87	2,016.41	2,528.46	2,474.52	53.94	46.879		
10,800.00	10,750.07	10,742.12	10,731.27	40.03	37.72	89.66	-644.87	2,016.41	2,528.46	2,474.04	54.42	46.465		
10,900.00	10,850.07	10,842.12	10,831.27	40.35	38.08	89.66	-644.87	2,016.41	2,528.46	2,473.56	54.90	46.058		
11,000.00	10,950.07	10,942.12	10,931.27	40.67	38.43	89.66	-644.87	2,016.41	2,528.46	2,473.08	55.38	45.658		
11,100.00	11,050.07	11,042.12	11,031.27	40.99	38.79	89.66	-644.87	2,016.41	2,528.46	2,472.60	55.86	45.264		
11,200.00	11,150.07	11,142.12	11,131.27	41.32	39.14	89.63	-643.88	2,016.40	2,528.45	2,472.11	56.34	44.877		
11,261.04	11,211.11	11,203.59	11,192.31	41.51	39.35	89.48	-637.05	2,016.34	2,528.44	2,471.82	56.63	44.651		
11,300.00	11,250.07	11,241.54	11,229.51	41.64	39.47	89.31	-629.57	2,016.27	2,528.45	2,471.65	56.80	44.515		
11,400.00	11,350.07	11,333.14	11,316.61	41.96	39.76	88.68	-601.53	2,016.02	2,528.74	2,471.52	57.21	44.198		
11,500.00	11,450.07	11,414.13	11,389.04	42.29	39.98	87.86	-565.45	2,015.69	2,529.81	2,472.23	57.58	43.935		
11,521.93	11,472.00	11,430.35	11,402.89	42.36	40.02	87.67	-557.02	2,015.61	2,530.21	2,472.56	57.65	43.886		
11,550.00	11,500.06	11,450.00	11,419.35	42.45	40.08	87.86	-546.28	2,015.52	2,530.80	2,473.06	57.74	43.828		
11,600.00	11,549.83	11,486.07	11,448.55	42.60	40.17	87.32	-525.12	2,015.32	2,532.03	2,474.14	57.89	43.735		
11,650.00	11,599.01	11,520.81	11,475.37	42.73	40.25	86.80	-503.04	2,015.12	2,533.44	2,475.41	58.03	43.658		
11,700.00	11,647.22	11,550.00	11,496.84	42.85	40.32	86.34	-483.27	2,014.94	2,535.00	2,476.86	58.14	43.603		
11,750.00	11,694.10	11,588.55	11,523.59	42.95	40.41	85.79	-455.53	2,014.69	2,536.65	2,478.40	58.25	43.545		
11,800.00	11,739.28	11,621.69	11,545.06	43.04	40.49	85.31	-430.28	2,014.46	2,538.38	2,480.04	58.35	43.505		
11,850.00	11,782.44	11,650.00	11,562.21	43.11	40.55	84.89	-407.77	2,014.26	2,540.15	2,481.73	58.42	43.482		
11,900.00	11,823.23	11,686.85	11,582.83	43.17	40.64	84.42	-377.24	2,013.98	2,541.90	2,483.40	58.50	43.453		
11,950.00	11,861.34	11,718.95	11,599.17	43.21	40.72	84.01	-349.61	2,013.73	2,543.62	2,485.06	58.56	43.436		
12,000.00	11,896.50	11,750.00	11,613.47	43.24	40.79	83.64	-322.06	2,013.48	2,545.27	2,486.66	58.62	43.423		
12,050.00	11,928.42	11,782.43	11,626.80	43.25	40.87	83.29	-292.50	2,013.21	2,546.82	2,488.15	58.67	43.409		
12,100.00	11,956.87	11,813.88	11,638.10	43.25	40.95	82.98	-263.16	2,012.95	2,548.24	2,489.52	58.72	43.397		
12,150.00	11,981.63	11,850.00	11,649.08	43.25	41.04	82.69	-228.75	2,012.63	2,549.52	2,490.74	58.78	43.374		
12,200.00	12,002.51	11,876.32	11,655.70	43.23	41.10	82.49	-203.28	2,012.40	2,550.61	2,491.78	58.82	43.360		
12,250.00	12,019.36	11,900.00	11,660.65	43.21	41.16	82.32	-180.13	2,012.19	2,551.53	2,492.66	58.87	43.343		
12,300.00	12,032.03	11,938.34	11,666.63	43.18	41.26	82.16	-142.26	2,011.85	2,552.20	2,493.26	58.94	43.299		
12,350.00	12,040.45	11,969.26	11,669.59	43.16	41.34	82.06	-111.49	2,011.57	2,552.68	2,493.67	59.01	43.256		
12,400.00	12,044.54	12,000.00	11,670.89	43.13	41.42	82.01	-80.78	2,011.29	2,552.93	2,493.84	59.09	43.205		
12,428.94	12,044.92	12,018.82	11,670.87	43.11	41.47	82.00	-61.96	2,011.12	2,552.97	2,493.83	59.14	43.170		
12,431.89	12,044.88	12,020.44	11,670.84	43.11	41.48	82.00	-60.34	2,011.11	2,552.97	2,493.82	59.14	43.166		
12,500.00	12,044.05	12,088.55	11,669.66	43.10	41.68	81.99	7.75	2,010.49	2,552.98	2,493.65	59.33	43.031		
12,600.00	12,042.82	12,188.55	11,667.92	43.15	42.03	81.98	107.73	2,009.58	2,553.00	2,493.32	59.68	42.781		
12,700.00	12,041.60	12,288.55	11,666.18	43.31	42.45	81.97	207.71	2,008.67	2,553.01	2,492.90	60.11	42.472		
12,800.00	12,040.38	12,388.55	11,664.44	43.57	42.92	81.96	307.69	2,007.77	2,553.03	2,492.40	60.63	42.108		
12,900.00	12,039.15	12,488.54	11,662.70	43.92	43.45	81.95	407.67	2,006.86	2,553.05	2,491.82	61.23	41.694		
13,000.00	12,037.93	12,588.54	11,660.95	44.34	44.04	81.93	507.65	2,005.95	2,553.07	2,491.15	61.92	41.234		
13,100.00	12,036.71	12,688.54	11,659.21	44.81	44.68	81.92	607.63	2,005.04	2,553.09	2,490.41	62.68	40.733		
13,200.00	12,035.48	12,788.54	11,657.47	45.34	45.37	81.91	707.61	2,004.14	2,553.11	2,489.59	63.52	40.196		
13,300.00	12,034.26	12,888.54	11,655.73	45.92	46.11	81.90	807.59	2,003.23	2,553.12	2,488.70	64.43	39.629		
13,400.00	12,033.04	12,988.54	11,653.99	46.55	46.89	81.89	907.56	2,002.32	2,553.14	2,487.74	65.40	39.036		
13,500.00	12,031.81	13,088.54	11,652.25	47.23	47.72	81.88	1,007.54	2,001.41	2,553.16	2,486.71	66.45	38.422		
13,600.00	12,030.59	13,188.54	11,650.51	47.96	48.59	81.86	1,107.52	2,000.51	2,553.18	2,485.62	67.56	37.792		
13,700.00	12,029.37	13,288.53	11,648.77	48.73	49.51	81.85	1,207.50	1,999.60	2,553.20	2,484.47	68.73	37.150		
13,800.00	12,028.14	13,388.53	11,647.03	49.54	50.46	81.84	1,307.48	1,998.69	2,553.22	2,483.27	69.95	36.499		
13,900.00	12,026.92	13,488.53	11,645.29	50.39	51.44	81.83	1,407.46	1,997.79	2,553.24	2,482.00	71.23	35.843		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
14,000.00	12,025.70	13,588.53	11,643.55	51.28	52.46	81.82	1,507.44	1,996.88	2,553.26	2,480.69	72.56	35.186		
14,100.00	12,024.47	13,688.53	11,641.81	52.21	53.51	81.81	1,607.42	1,995.97	2,553.28	2,479.33	73.94	34.530		
14,200.00	12,023.25	13,788.53	11,640.07	53.17	54.59	81.79	1,707.40	1,995.06	2,553.30	2,477.93	75.37	33.877		
14,300.00	12,022.03	13,888.53	11,638.33	54.17	55.70	81.78	1,807.38	1,994.16	2,553.32	2,476.48	76.84	33.230		
14,400.00	12,020.80	13,988.52	11,636.59	55.19	56.83	81.77	1,907.36	1,993.25	2,553.33	2,474.99	78.35	32.590		
14,500.00	12,019.58	14,088.52	11,634.85	56.25	57.99	81.76	2,007.34	1,992.34	2,553.35	2,473.46	79.90	31.958		
14,600.00	12,018.35	14,188.52	11,633.11	57.33	59.17	81.75	2,107.32	1,991.43	2,553.37	2,471.89	81.48	31.337		
14,700.00	12,017.13	14,288.52	11,631.36	58.44	60.38	81.74	2,207.30	1,990.53	2,553.39	2,470.29	83.10	30.727		
14,800.00	12,015.91	14,388.52	11,629.62	59.57	61.60	81.72	2,307.28	1,989.62	2,553.41	2,468.66	84.75	30.129		
14,900.00	12,014.68	14,488.52	11,627.88	60.73	62.85	81.71	2,407.26	1,988.71	2,553.44	2,467.00	86.43	29.543		
15,000.00	12,013.46	14,588.52	11,626.14	61.91	64.11	81.70	2,507.23	1,987.81	2,553.46	2,465.31	88.14	28.970		
15,100.00	12,012.24	14,688.51	11,624.40	63.11	65.39	81.69	2,607.21	1,986.90	2,553.48	2,463.60	89.88	28.410		
15,200.00	12,011.01	14,788.51	11,622.66	64.33	66.69	81.68	2,707.19	1,985.99	2,553.50	2,461.86	91.64	27.864		
15,300.00	12,009.79	14,888.51	11,620.92	65.57	68.00	81.67	2,807.17	1,985.08	2,553.52	2,460.09	93.43	27.332		
15,400.00	12,008.57	14,988.51	11,619.18	66.82	69.33	81.65	2,907.15	1,984.18	2,553.54	2,458.30	95.24	26.813		
15,500.00	12,007.34	15,088.51	11,617.44	68.10	70.67	81.64	3,007.13	1,983.27	2,553.56	2,456.49	97.07	26.307		
15,600.00	12,006.12	15,188.51	11,615.70	69.39	72.02	81.63	3,107.11	1,982.36	2,553.58	2,454.66	98.92	25.815		
15,700.00	12,004.90	15,288.51	11,613.96	70.69	73.39	81.62	3,207.09	1,981.45	2,553.60	2,452.81	100.79	25.337		
15,800.00	12,003.67	15,388.51	11,612.22	72.01	74.76	81.61	3,307.07	1,980.55	2,553.62	2,450.95	102.67	24.871		
15,900.00	12,002.45	15,488.50	11,610.48	73.34	76.15	81.60	3,407.05	1,979.64	2,553.64	2,449.06	104.58	24.418		
16,000.00	12,001.23	15,588.50	11,608.74	74.69	77.55	81.58	3,507.03	1,978.73	2,553.66	2,447.16	106.50	23.978		
16,100.00	12,000.00	15,688.50	11,607.00	76.04	78.96	81.57	3,607.01	1,977.82	2,553.69	2,445.25	108.44	23.550		
16,200.00	11,998.78	15,788.50	11,605.26	77.41	80.38	81.56	3,706.99	1,976.92	2,553.71	2,443.32	110.39	23.134		
16,300.00	11,997.56	15,888.50	11,603.52	78.79	81.80	81.55	3,806.97	1,976.01	2,553.73	2,441.38	112.35	22.730		
16,400.00	11,996.33	15,988.50	11,601.78	80.18	83.24	81.54	3,906.95	1,975.10	2,553.75	2,439.42	114.33	22.337		
16,500.00	11,995.11	16,088.50	11,600.03	81.58	84.68	81.53	4,006.93	1,974.20	2,553.77	2,437.46	116.32	21.955		
16,600.00	11,993.89	16,188.49	11,598.29	82.99	86.13	81.51	4,106.90	1,973.29	2,553.80	2,435.48	118.32	21.584		
16,700.00	11,992.66	16,288.49	11,596.55	84.40	87.59	81.50	4,206.88	1,972.38	2,553.82	2,433.49	120.33	21.224		
16,800.00	11,991.44	16,388.49	11,594.81	85.83	89.05	81.49	4,306.86	1,971.47	2,553.84	2,431.49	122.35	20.873		
16,900.00	11,990.22	16,488.49	11,593.07	87.26	90.52	81.48	4,406.84	1,970.57	2,553.86	2,429.48	124.38	20.532		
17,000.00	11,988.99	16,588.49	11,591.33	88.70	92.00	81.47	4,506.82	1,969.66	2,553.88	2,427.46	126.43	20.201		
17,100.00	11,987.77	16,688.49	11,589.59	90.15	93.48	81.46	4,606.80	1,968.75	2,553.91	2,425.43	128.48	19.878		
17,200.00	11,986.55	16,788.49	11,587.85	91.60	94.97	81.44	4,706.78	1,967.84	2,553.93	2,423.39	130.54	19.565		
17,300.00	11,985.32	16,888.49	11,586.11	93.06	96.46	81.43	4,806.76	1,966.94	2,553.95	2,421.35	132.60	19.260		
17,400.00	11,984.10	16,988.48	11,584.37	94.53	97.96	81.42	4,906.74	1,966.03	2,553.98	2,419.30	134.68	18.964		
17,500.00	11,982.88	17,088.48	11,582.63	96.01	99.46	81.41	5,006.72	1,965.12	2,554.00	2,417.24	136.76	18.675		
17,600.00	11,981.65	17,188.48	11,580.89	97.49	100.97	81.40	5,106.70	1,964.22	2,554.02	2,415.17	138.85	18.394		
17,700.00	11,980.43	17,288.48	11,579.15	98.97	102.48	81.39	5,206.68	1,963.31	2,554.04	2,413.10	140.95	18.121		
17,800.00	11,979.21	17,388.48	11,577.41	100.46	104.00	81.37	5,306.66	1,962.40	2,554.07	2,411.02	143.05	17.855		
17,900.00	11,977.98	17,488.48	11,575.67	101.95	105.52	81.36	5,406.64	1,961.49	2,554.09	2,408.93	145.16	17.595		
18,000.00	11,976.76	17,588.48	11,573.93	103.45	107.04	81.35	5,506.62	1,960.59	2,554.11	2,406.84	147.27	17.343		
18,100.00	11,975.54	17,688.47	11,572.19	104.96	108.57	81.34	5,606.60	1,959.68	2,554.14	2,404.75	149.39	17.097		
18,200.00	11,974.31	17,788.47	11,570.44	106.47	110.10	81.33	5,706.58	1,958.77	2,554.16	2,402.64	151.52	16.857		
18,300.00	11,973.09	17,888.47	11,568.70	107.98	111.64	81.32	5,806.55	1,957.86	2,554.19	2,400.54	153.65	16.623		
18,400.00	11,971.87	17,988.47	11,566.96	109.50	113.18	81.30	5,906.53	1,956.96	2,554.21	2,398.42	155.79	16.396		
18,500.00	11,970.64	18,088.47	11,565.22	111.02	114.72	81.29	6,006.51	1,956.05	2,554.23	2,396.31	157.93	16.173		
18,600.00	11,969.42	18,188.47	11,563.48	112.54	116.27	81.28	6,106.49	1,955.14	2,554.26	2,394.18	160.07	15.957		
18,700.00	11,968.20	18,288.47	11,561.74	114.07	117.81	81.27	6,206.47	1,954.24	2,554.28	2,392.06	162.22	15.745		
18,800.00	11,966.97	18,388.46	11,560.00	115.60	119.36	81.26	6,306.45	1,953.33	2,554.31	2,389.93	164.38	15.539		
18,900.00	11,965.75	18,488.46	11,558.26	117.13	120.92	81.25	6,406.43	1,952.42	2,554.33	2,387.80	166.54	15.338		
19,000.00	11,964.53	18,588.46	11,556.52	118.67	122.47	81.23	6,506.41	1,951.51	2,554.36	2,385.66	168.70	15.142		
19,100.00	11,963.30	18,688.46	11,554.78	120.21	124.03	81.22	6,606.39	1,950.61	2,554.38	2,383.52	170.86	14.950		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Santa Fe Fed/Zia Fed - Zia Fed Com 604H - OH - Plan #2		Offset Site Error:	0.00 usft
Survey Program:													0-OWSG (Rev2) MWD		Offset Well Error:	0.00 usft
Reference		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				
19,200.00	11,962.08	18,788.46	11,553.04	121.76	125.59	81.21	6,706.37	1,949.70	2,554.40	2,381.37	173.03	14.763				
19,300.00	11,960.86	18,888.46	11,551.30	123.30	127.15	81.20	6,806.35	1,948.79	2,554.43	2,379.23	175.20	14.580				
19,400.00	11,959.63	18,988.46	11,549.56	124.85	128.72	81.19	6,906.33	1,947.88	2,554.45	2,377.08	177.38	14.401				
19,500.00	11,958.41	19,088.46	11,547.82	126.40	130.29	81.18	7,006.31	1,946.98	2,554.48	2,374.92	179.56	14.226				
19,600.00	11,957.19	19,188.45	11,546.08	127.96	131.86	81.16	7,106.29	1,946.07	2,554.50	2,372.76	181.74	14.056				
19,700.00	11,955.96	19,288.45	11,544.34	129.51	133.43	81.15	7,206.27	1,945.16	2,554.53	2,370.61	183.93	13.889				
19,800.00	11,954.74	19,388.45	11,542.60	131.07	135.00	81.14	7,306.25	1,944.25	2,554.56	2,368.44	186.11	13.726				
19,900.00	11,953.52	19,488.45	11,540.85	132.63	136.57	81.13	7,406.22	1,943.35	2,554.58	2,366.28	188.30	13.566				
20,000.00	11,952.29	19,588.45	11,539.11	134.20	138.15	81.12	7,506.20	1,942.44	2,554.61	2,364.11	190.49	13.410				
20,100.00	11,951.07	19,688.45	11,537.37	135.76	139.73	81.11	7,606.18	1,941.53	2,554.63	2,361.94	192.69	13.258				
20,200.00	11,949.85	19,788.45	11,535.63	137.33	141.31	81.10	7,706.16	1,940.63	2,554.66	2,359.77	194.89	13.108				
20,300.00	11,948.62	19,888.44	11,533.89	138.90	142.89	81.08	7,806.14	1,939.72	2,554.68	2,357.60	197.09	12.962				
20,400.00	11,947.40	19,988.44	11,532.15	140.47	144.48	81.07	7,906.12	1,938.81	2,554.71	2,355.42	199.29	12.819				
20,500.00	11,946.18	20,088.44	11,530.41	142.04	146.06	81.06	8,006.10	1,937.90	2,554.74	2,353.24	201.49	12.679				
20,600.00	11,944.95	20,188.44	11,528.67	143.62	147.65	81.05	8,106.08	1,937.00	2,554.76	2,351.06	203.70	12.542				
20,700.00	11,943.73	20,288.44	11,526.93	145.19	149.23	81.04	8,206.06	1,936.09	2,554.79	2,348.88	205.91	12.407				
20,800.00	11,942.51	20,388.44	11,525.19	146.77	150.82	81.03	8,306.04	1,935.18	2,554.82	2,346.70	208.12	12.276				
20,900.00	11,941.28	20,488.44	11,523.45	148.35	152.41	81.01	8,406.02	1,934.27	2,554.84	2,344.51	210.33	12.147				
21,000.00	11,940.06	20,588.44	11,521.71	149.93	154.01	81.00	8,506.00	1,933.37	2,554.87	2,342.32	212.55	12.020				
21,100.00	11,938.84	20,688.43	11,519.97	151.51	155.60	80.99	8,605.98	1,932.46	2,554.90	2,340.13	214.76	11.896				
21,200.00	11,937.61	20,788.43	11,518.23	153.10	157.19	80.98	8,705.96	1,931.55	2,554.92	2,337.94	216.98	11.775				
21,300.00	11,936.39	20,888.43	11,516.49	154.68	158.79	80.97	8,805.94	1,930.65	2,554.95	2,335.75	219.20	11.656				
21,400.00	11,935.17	20,988.43	11,514.75	156.27	160.39	80.96	8,905.92	1,929.74	2,554.98	2,333.55	221.42	11.539				
21,500.00	11,933.94	21,088.43	11,513.01	157.86	161.98	80.94	9,005.89	1,928.83	2,555.00	2,331.36	223.64	11.424				
21,600.00	11,932.72	21,188.43	11,511.27	159.45	163.58	80.93	9,105.87	1,927.92	2,555.03	2,329.16	225.87	11.312				
21,700.00	11,931.49	21,288.43	11,509.52	161.04	165.18	80.92	9,205.85	1,927.02	2,555.06	2,326.97	228.09	11.202				
21,800.00	11,930.27	21,388.42	11,507.78	162.63	166.78	80.91	9,305.83	1,926.11	2,555.09	2,324.77	230.32	11.094				
21,900.00	11,929.05	21,488.42	11,506.04	164.22	168.38	80.90	9,405.81	1,925.20	2,555.11	2,322.57	232.55	10.988				
22,000.00	11,927.82	21,588.42	11,504.30	165.82	169.99	80.89	9,505.79	1,924.29	2,555.14	2,320.37	234.77	10.883				
22,100.00	11,926.60	21,688.42	11,502.56	167.41	171.59	80.87	9,605.77	1,923.39	2,555.17	2,318.16	237.01	10.781				
22,206.36	11,925.30	21,794.78	11,500.71	169.11	173.30	80.86	9,712.11	1,922.42	2,555.20	2,315.82	239.38	10.674 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	0.00	0.00	0.00	0.00	102.80	-444.58	1,957.41	2,007.35					
100.00	100.00	80.90	80.90	0.13	0.10	102.80	-444.58	1,957.41	2,007.26	2,007.10	0.16	N/A		
200.00	200.00	180.90	180.90	0.48	0.42	102.80	-444.58	1,957.41	2,007.26	2,006.63	0.64	3,147.089		
300.00	300.00	280.90	280.90	0.84	0.77	102.80	-444.58	1,957.41	2,007.26	2,006.12	1.14	1,754.668		
400.00	400.00	380.90	380.90	1.20	1.13	102.80	-444.58	1,957.41	2,007.26	2,005.61	1.65	1,216.083		
500.00	500.00	480.90	480.90	1.56	1.49	102.80	-444.58	1,957.41	2,007.26	2,005.11	2.16	930.415		
600.00	600.00	580.90	580.90	1.92	1.85	102.80	-444.58	1,957.41	2,007.26	2,004.60	2.66	753.410		
700.00	700.00	680.90	680.90	2.28	2.21	102.80	-444.58	1,957.41	2,007.26	2,004.09	3.17	632.982		
800.00	800.00	780.90	780.90	2.63	2.57	102.80	-444.58	1,957.41	2,007.26	2,003.59	3.68	545.745		
900.00	900.00	880.90	880.90	2.99	2.92	102.80	-444.58	1,957.41	2,007.26	2,003.08	4.18	479.639		
1,000.00	1,000.00	980.90	980.90	3.35	3.28	102.80	-444.58	1,957.41	2,007.26	2,002.57	4.69	427.817		
1,100.00	1,100.00	1,080.90	1,080.90	3.71	3.64	102.80	-444.58	1,957.41	2,007.26	2,002.06	5.20	386.101		
1,200.00	1,200.00	1,180.90	1,180.90	4.07	4.00	102.80	-444.58	1,957.41	2,007.26	2,001.56	5.71	351.798		
1,300.00	1,300.00	1,280.90	1,280.90	4.43	4.36	102.80	-444.58	1,957.41	2,007.26	2,001.05	6.21	323.092		
1,400.00	1,400.00	1,380.90	1,380.90	4.79	4.72	102.80	-444.58	1,957.41	2,007.26	2,000.54	6.72	298.717		
1,500.00	1,500.00	1,480.90	1,480.90	5.14	5.08	102.80	-444.58	1,957.41	2,007.26	2,000.04	7.23	277.762		
1,600.00	1,600.00	1,580.90	1,580.90	5.50	5.43	102.80	-444.58	1,957.41	2,007.26	1,999.53	7.73	259.554		
1,700.00	1,700.00	1,680.90	1,680.90	5.86	5.79	102.80	-444.58	1,957.41	2,007.26	1,999.02	8.24	243.587		
1,800.00	1,800.00	1,780.90	1,780.90	6.22	6.15	102.80	-444.58	1,957.41	2,007.26	1,998.52	8.75	229.470		
1,900.00	1,900.00	1,880.90	1,880.90	6.58	6.51	102.80	-444.58	1,957.41	2,007.26	1,998.01	9.25	216.900		
2,000.00	2,000.00	1,980.90	1,980.90	6.94	6.87	102.80	-444.58	1,957.41	2,007.26	1,997.50	9.76	205.635		
2,100.00	2,100.00	2,080.90	2,080.90	7.29	7.23	102.80	-444.58	1,957.41	2,007.26	1,996.99	10.27	195.483		
2,200.00	2,200.00	2,180.90	2,180.90	7.65	7.58	102.80	-444.58	1,957.41	2,007.26	1,996.49	10.78	186.286		
2,300.00	2,300.00	2,280.90	2,280.90	8.01	7.94	102.80	-444.58	1,957.41	2,007.26	1,995.98	11.28	177.915		
2,400.00	2,400.00	2,380.90	2,380.90	8.37	8.30	102.80	-444.58	1,957.41	2,007.26	1,995.47	11.79	170.264		
2,500.00	2,500.00	2,480.90	2,480.90	8.73	8.66	102.80	-444.58	1,957.41	2,007.26	1,994.97	12.30	163.245		
2,600.00	2,600.00	2,580.90	2,580.90	9.09	9.02	102.80	-444.58	1,957.41	2,007.26	1,994.46	12.80	156.781		
2,700.00	2,700.00	2,680.90	2,680.90	9.45	9.38	102.80	-444.58	1,957.41	2,007.26	1,993.95	13.31	150.809		
2,800.00	2,800.00	2,780.90	2,780.90	9.80	9.74	102.80	-444.58	1,957.41	2,007.26	1,993.45	13.82	145.276		
2,900.00	2,900.00	2,880.90	2,880.90	10.16	10.09	102.80	-444.58	1,957.41	2,007.26	1,992.94	14.32	140.134		
3,000.00	3,000.00	2,980.90	2,980.90	10.52	10.45	102.80	-444.58	1,957.41	2,007.26	1,992.43	14.83	135.344 CC, ES		
3,100.00	3,099.99	3,080.89	3,080.89	10.86	10.81	-115.03	-444.58	1,957.41	2,007.82	1,992.49	15.33	131.008		
3,200.00	3,199.91	3,180.81	3,180.81	11.19	11.17	-115.11	-444.58	1,957.41	2,009.48	1,993.67	15.81	127.101		
3,300.00	3,299.69	3,253.55	3,253.55	11.52	11.42	-115.18	-444.76	1,957.74	2,012.81	1,996.59	16.22	124.091		
3,400.00	3,399.27	3,319.66	3,319.64	11.85	11.65	-115.25	-445.49	1,959.05	2,018.90	2,002.29	16.61	121.554		
3,466.69	3,465.53	3,363.59	3,363.54	12.08	11.80	-115.28	-446.28	1,960.47	2,024.51	2,007.65	16.86	120.047		
3,500.00	3,498.59	3,400.00	3,399.91	12.19	11.92	-115.38	-447.13	1,961.98	2,027.80	2,010.77	17.03	119.076		
3,600.00	3,597.85	3,451.12	3,450.94	12.53	12.09	-115.52	-448.60	1,964.62	2,038.46	2,021.08	17.37	117.343		
3,700.00	3,697.10	3,516.55	3,516.19	12.87	12.31	-115.68	-450.96	1,968.86	2,050.85	2,033.10	17.75	115.539		
3,800.00	3,796.36	3,606.85	3,606.15	13.22	12.61	-115.89	-454.77	1,975.70	2,064.45	2,046.25	18.20	113.420		
3,900.00	3,895.61	3,705.57	3,704.49	13.58	12.95	-116.12	-458.95	1,983.21	2,078.13	2,059.45	18.68	111.242		
4,000.00	3,994.86	3,804.28	3,802.83	13.93	13.29	-116.35	-463.14	1,990.72	2,091.84	2,072.68	19.16	109.157		
4,100.00	4,094.12	3,903.00	3,901.17	14.29	13.63	-116.57	-467.32	1,998.23	2,105.58	2,085.93	19.65	107.160		
4,200.00	4,193.37	4,001.72	3,999.52	14.65	13.98	-116.79	-471.50	2,005.73	2,119.36	2,099.22	20.14	105.247		
4,300.00	4,292.63	4,100.44	4,097.86	15.01	14.32	-117.01	-475.69	2,013.24	2,133.16	2,112.53	20.63	103.413		
4,400.00	4,391.88	4,199.15	4,196.20	15.38	14.67	-117.22	-479.87	2,020.75	2,147.00	2,125.88	21.12	101.655		
4,500.00	4,491.14	4,297.87	4,294.54	15.75	15.02	-117.43	-484.05	2,028.26	2,160.86	2,139.24	21.62	99.969		
4,600.00	4,490.39	4,396.59	4,392.89	16.12	15.37	-117.64	-488.23	2,035.77	2,174.75	2,152.64	22.11	98.350		
4,700.00	4,689.65	4,495.31	4,491.23	16.49	15.72	-117.85	-492.42	2,043.28	2,188.67	2,166.06	22.61	96.796		
4,800.00	4,788.90	4,594.02	4,589.57	16.86	16.07	-118.05	-496.60	2,050.79	2,202.62	2,179.51	23.11	95.303		
4,900.00	4,888.16	4,692.74	4,687.91	17.24	16.43	-118.26	-500.78	2,058.30	2,216.60	2,192.98	23.61	93.869		
5,000.00	4,987.41	4,791.46	4,786.26	17.61	16.78	-118.46	-504.97	2,065.81	2,230.60	2,206.48	24.12	92.489		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
5,100.00	5,086.66	4,890.18	4,884.60	17.99	17.14	-118.65	-509.15	2,073.31	2,244.63	2,220.01	24.62	91.162		
5,200.00	5,185.92	4,988.89	4,982.94	18.37	17.49	-118.85	-513.33	2,080.82	2,258.68	2,233.55	25.13	89.884		
5,300.00	5,285.17	5,087.61	5,081.28	18.75	17.85	-119.04	-517.52	2,088.33	2,272.76	2,247.13	25.64	88.653		
5,400.00	5,384.43	5,186.33	5,179.63	19.14	18.21	-119.23	-521.70	2,095.84	2,286.87	2,260.72	26.15	87.467		
5,500.00	5,483.68	5,285.04	5,277.97	19.52	18.57	-119.41	-525.88	2,103.35	2,301.00	2,274.34	26.66	86.324		
5,600.00	5,582.94	5,383.76	5,376.31	19.90	18.93	-119.60	-530.07	2,110.86	2,315.15	2,287.98	27.17	85.222		
5,700.00	5,682.19	5,482.48	5,474.65	20.29	19.29	-119.78	-534.25	2,118.37	2,329.33	2,301.65	27.68	84.158		
5,800.00	5,781.45	5,581.20	5,573.00	20.68	19.66	-119.96	-538.43	2,125.88	2,343.52	2,315.33	28.19	83.131		
5,900.00	5,880.70	5,679.91	5,671.34	21.06	20.02	-120.14	-542.62	2,133.39	2,357.75	2,329.04	28.70	82.138		
6,000.00	5,979.96	5,778.63	5,769.68	21.45	20.38	-120.32	-546.80	2,140.89	2,371.99	2,342.77	29.22	81.180		
6,100.00	6,079.21	5,877.35	5,868.02	21.84	20.75	-120.49	-550.98	2,148.40	2,386.26	2,356.52	29.73	80.253		
6,200.00	6,178.46	5,976.07	5,966.37	22.23	21.11	-120.66	-555.17	2,155.91	2,400.54	2,370.29	30.25	79.356		
6,300.00	6,277.72	6,074.78	6,064.71	22.62	21.48	-120.83	-559.35	2,163.42	2,414.85	2,384.08	30.77	78.488		
6,400.00	6,376.97	6,173.50	6,163.05	23.01	21.84	-121.00	-563.53	2,170.93	2,429.18	2,397.90	31.28	77.649		
6,500.00	6,476.23	6,272.22	6,261.39	23.40	22.21	-121.16	-567.72	2,178.44	2,443.53	2,411.73	31.80	76.835		
6,600.00	6,575.48	6,370.94	6,359.74	23.80	22.58	-121.33	-571.90	2,185.95	2,457.90	2,425.58	32.32	76.047		
6,700.00	6,674.74	6,469.65	6,458.08	24.19	22.94	-121.49	-576.08	2,193.46	2,472.29	2,439.45	32.84	75.283		
6,800.00	6,773.99	6,568.37	6,556.42	24.58	23.31	-121.65	-580.27	2,200.97	2,486.69	2,453.33	33.36	74.542		
6,900.00	6,873.25	6,667.09	6,654.76	24.98	23.68	-121.81	-584.45	2,208.47	2,501.12	2,467.24	33.88	73.824		
7,000.00	6,972.50	6,765.81	6,753.11	25.37	24.05	-121.97	-588.63	2,215.98	2,515.57	2,481.17	34.40	73.127		
7,100.00	7,071.76	6,864.52	6,851.45	25.77	24.42	-122.12	-592.81	2,223.49	2,530.03	2,495.11	34.92	72.450		
7,200.00	7,171.01	6,963.24	6,949.79	26.16	24.79	-122.27	-597.00	2,231.00	2,544.51	2,509.07	35.44	71.792		
7,300.00	7,270.26	7,061.96	7,048.13	26.56	25.16	-122.42	-601.18	2,238.51	2,559.01	2,523.05	35.96	71.153		
7,400.00	7,369.52	7,160.68	7,146.48	26.95	25.53	-122.57	-605.36	2,246.02	2,573.53	2,537.04	36.49	70.533		
7,500.00	7,468.77	7,259.39	7,244.82	27.35	25.90	-122.72	-609.55	2,253.53	2,588.06	2,551.05	37.01	69.929		
7,600.00	7,568.03	7,358.11	7,343.16	27.75	26.27	-122.87	-613.73	2,261.04	2,602.61	2,565.08	37.53	69.342		
7,700.00	7,667.28	7,456.83	7,441.50	28.15	26.64	-123.01	-617.91	2,268.54	2,617.18	2,579.12	38.06	68.771		
7,800.00	7,766.54	7,555.55	7,539.85	28.54	27.01	-123.16	-622.10	2,276.05	2,631.76	2,593.18	38.58	68.216		
7,900.00	7,865.79	7,654.26	7,638.19	28.94	27.38	-123.30	-626.28	2,283.56	2,646.36	2,607.25	39.10	67.675		
8,000.00	7,965.05	7,752.98	7,736.53	29.34	27.75	-123.44	-630.46	2,291.07	2,660.97	2,621.35	39.63	67.148		
8,100.00	8,064.30	7,851.70	7,834.87	29.74	28.12	-123.58	-634.65	2,298.58	2,675.60	2,635.45	40.15	66.635		
8,200.00	8,163.56	8,004.23	7,986.90	30.14	28.69	-123.80	-640.65	2,309.36	2,689.94	2,649.08	40.86	65.841		
8,300.00	8,262.81	8,261.21	8,243.71	30.54	29.61	-124.28	-644.58	2,316.41	2,699.47	2,657.66	41.82	64.554		
8,400.00	8,362.06	8,360.47	8,342.96	30.94	29.94	-124.49	-644.58	2,316.41	2,706.39	2,664.06	42.33	63.933		
8,500.00	8,461.32	8,459.72	8,442.22	31.34	30.28	-124.70	-644.58	2,316.41	2,713.35	2,670.50	42.85	63.328		
8,600.00	8,560.57	8,558.98	8,541.47	31.74	30.62	-124.91	-644.58	2,316.41	2,720.34	2,676.98	43.36	62.737		
8,700.00	8,659.83	8,658.23	8,640.73	32.14	30.96	-125.12	-644.58	2,316.41	2,727.37	2,683.49	43.88	62.161		
8,800.00	8,759.08	8,757.49	8,739.98	32.54	31.30	-125.33	-644.58	2,316.41	2,734.43	2,690.04	44.39	61.599		
8,900.00	8,858.34	8,856.74	8,839.24	32.94	31.64	-125.53	-644.58	2,316.41	2,741.53	2,696.62	44.91	61.050		
9,000.00	8,957.59	8,955.99	8,938.49	33.34	31.98	-125.74	-644.58	2,316.41	2,748.67	2,703.24	45.42	60.515		
9,100.00	9,056.85	9,055.25	9,037.75	33.75	32.32	-125.94	-644.58	2,316.41	2,755.84	2,709.90	45.94	59.992		
9,200.00	9,156.10	9,154.50	9,137.00	34.15	32.66	-126.15	-644.58	2,316.41	2,763.04	2,716.59	46.45	59.481		
9,300.00	9,255.36	9,253.76	9,236.26	34.55	33.00	-126.35	-644.58	2,316.41	2,770.29	2,723.32	46.97	58.982		
9,400.00	9,354.61	9,353.01	9,335.51	34.95	33.34	-126.55	-644.58	2,316.41	2,777.56	2,730.08	47.48	58.494		
9,500.00	9,453.86	9,452.27	9,434.76	35.35	33.68	-126.75	-644.58	2,316.41	2,784.87	2,736.87	48.00	58.018		
9,600.00	9,553.12	9,551.52	9,534.02	35.76	34.02	-126.95	-644.58	2,316.41	2,792.22	2,743.70	48.52	57.552		
9,700.00	9,652.37	9,650.78	9,633.27	36.16	34.36	-127.15	-644.58	2,316.41	2,799.59	2,750.56	49.03	57.096		
9,800.00	9,751.63	9,750.03	9,732.53	36.56	34.70	-127.35	-644.58	2,316.41	2,807.01	2,757.46	49.55	56.651		
9,853.24	9,804.47	9,802.87	9,785.37	36.78	34.88	-127.45	-644.58	2,316.41	2,810.97	2,761.14	49.82	56.418		
9,900.00	9,850.92	9,849.32	9,831.82	36.96	35.04	-127.58	-644.58	2,316.41	2,814.28	2,764.21	50.06	56.213		
10,000.00	9,950.44	9,948.85	9,931.34	37.35	35.39	-127.80	-644.58	2,316.41	2,820.21	2,769.63	50.58	55.763		
10,100.00	10,050.19	10,048.60	10,031.09	37.73	35.73	-127.97	-644.58	2,316.41	2,824.55	2,773.47	51.08	55.297		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Santa Fe Fed/Zia Fed - Zia Fed Com 706H - OH - Plan #2		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				
10,200.00	10,150.09	10,148.49	10,130.99	38.09	36.08	-128.07	-644.58	2,316.41	2,827.29	2,775.71	51.58	54.816				
10,300.00	10,250.07	10,248.47	10,230.97	38.43	36.42	-128.11	-644.58	2,316.41	2,828.42	2,776.35	52.07	54.321				
10,319.93	10,270.00	10,268.40	10,250.90	38.50	36.49	89.69	-644.58	2,316.41	2,828.45	2,776.29	52.16	54.222				
10,400.00	10,350.07	10,348.47	10,330.97	38.75	36.77	89.69	-644.58	2,316.41	2,828.45	2,775.91	52.54	53.829				
10,500.00	10,450.07	10,448.47	10,430.97	39.07	37.12	89.69	-644.58	2,316.41	2,828.45	2,775.43	53.02	53.347				
10,600.00	10,550.07	10,548.47	10,530.97	39.39	37.46	89.69	-644.58	2,316.41	2,828.45	2,774.96	53.50	52.873				
10,700.00	10,650.07	10,648.47	10,630.97	39.71	37.81	89.69	-644.58	2,316.41	2,828.45	2,774.48	53.97	52.406				
10,800.00	10,750.07	10,748.47	10,730.97	40.03	38.16	89.69	-644.58	2,316.41	2,828.45	2,774.00	54.45	51.947				
10,900.00	10,850.07	10,848.47	10,830.97	40.35	38.50	89.69	-644.58	2,316.41	2,828.45	2,773.53	54.93	51.496				
11,000.00	10,950.07	10,948.47	10,930.97	40.67	38.85	89.69	-644.58	2,316.41	2,828.45	2,773.05	55.40	51.052				
11,100.00	11,050.07	11,048.47	11,030.97	40.99	39.20	89.69	-644.58	2,316.41	2,828.45	2,772.57	55.88	50.615				
11,200.00	11,150.07	11,148.47	11,130.97	41.32	39.55	89.69	-644.58	2,316.41	2,828.45	2,772.09	56.36	50.185				
11,300.00	11,250.07	11,248.47	11,230.97	41.64	39.89	89.69	-644.58	2,316.41	2,828.45	2,771.61	56.84	49.762				
11,400.00	11,350.07	11,349.38	11,331.58	41.96	40.24	89.56	-638.45	2,316.35	2,828.44	2,771.12	57.31	49.350				
11,424.95	11,375.02	11,374.08	11,355.92	42.04	40.32	89.48	-634.32	2,316.32	2,828.43	2,771.01	57.43	49.252				
11,500.00	11,450.07	11,445.63	11,425.17	42.29	40.54	89.12	-616.50	2,316.16	2,828.50	2,770.74	57.75	48.975				
11,521.93	11,472.00	11,465.59	11,444.04	42.36	40.60	88.99	-610.00	2,316.10	2,828.55	2,770.71	57.84	48.899				
11,550.00	11,500.06	11,490.65	11,467.39	42.45	40.67	89.29	-600.91	2,316.01	2,828.65	2,770.70	57.96	48.806				
11,600.00	11,549.83	11,534.46	11,507.19	42.60	40.79	88.97	-582.61	2,315.85	2,828.91	2,770.76	58.15	48.652				
11,650.00	11,599.01	11,577.32	11,544.65	42.73	40.89	88.66	-561.81	2,315.66	2,829.25	2,770.93	58.32	48.515				
11,700.00	11,647.22	11,619.31	11,579.75	42.85	40.99	88.36	-538.77	2,315.45	2,829.65	2,771.18	58.47	48.391				
11,750.00	11,694.10	11,660.55	11,612.48	42.95	41.07	88.06	-513.71	2,315.22	2,830.12	2,771.50	58.62	48.281				
11,800.00	11,739.28	11,700.00	11,642.03	43.04	41.14	87.79	-487.58	2,314.98	2,830.62	2,771.88	58.74	48.186				
11,850.00	11,782.44	11,741.05	11,670.80	43.11	41.21	87.52	-458.31	2,314.72	2,831.16	2,772.30	58.86	48.098				
11,900.00	11,823.23	11,780.46	11,696.38	43.17	41.26	87.27	-428.34	2,314.45	2,831.72	2,772.75	58.97	48.020				
11,950.00	11,861.34	11,819.40	11,719.57	43.21	41.30	87.03	-397.06	2,314.16	2,832.27	2,773.21	59.07	47.951				
12,000.00	11,896.50	11,857.93	11,740.37	43.24	41.34	86.82	-364.64	2,313.87	2,832.82	2,773.66	59.16	47.887				
12,050.00	11,928.42	11,900.00	11,760.54	43.25	41.37	86.60	-327.74	2,313.53	2,833.35	2,774.10	59.25	47.822				
12,100.00	11,956.87	11,933.95	11,774.80	43.25	41.39	86.44	-296.94	2,313.25	2,833.83	2,774.51	59.32	47.770				
12,150.00	11,981.63	11,971.54	11,788.44	43.25	41.47	86.29	-261.92	2,312.94	2,834.28	2,774.88	59.40	47.713				
12,200.00	12,002.51	12,008.90	11,799.69	43.23	41.57	86.15	-226.30	2,312.61	2,834.67	2,775.18	59.48	47.657				
12,250.00	12,019.36	12,050.00	11,809.36	43.21	41.68	86.04	-186.36	2,312.25	2,834.99	2,775.43	59.57	47.593				
12,300.00	12,032.03	12,083.12	11,815.05	43.18	41.77	85.96	-153.74	2,311.95	2,835.24	2,775.60	59.64	47.536				
12,350.00	12,040.45	12,120.05	11,819.16	43.16	41.87	85.90	-117.05	2,311.62	2,835.42	2,775.69	59.73	47.471				
12,400.00	12,044.54	12,156.91	11,820.89	43.13	41.98	85.86	-80.24	2,311.29	2,835.52	2,775.70	59.82	47.401				
12,428.94	12,044.92	12,179.20	11,820.81	43.11	42.04	85.85	-57.95	2,311.08	2,835.54	2,775.66	59.88	47.357				
12,500.00	12,044.05	12,250.26	11,819.57	43.10	42.27	85.85	13.10	2,310.44	2,835.52	2,775.45	60.08	47.199				
12,600.00	12,042.82	12,350.26	11,817.83	43.15	42.63	85.84	113.08	2,309.53	2,835.51	2,775.08	60.43	46.924				
12,700.00	12,041.60	12,450.26	11,816.09	43.31	43.05	85.83	213.05	2,308.62	2,835.49	2,774.62	60.87	46.586				
12,800.00	12,040.38	12,550.26	11,814.35	43.57	43.53	85.81	313.03	2,307.72	2,835.47	2,774.08	61.39	46.188				
12,900.00	12,039.15	12,650.25	11,812.60	43.92	44.06	85.80	413.01	2,306.81	2,835.45	2,773.46	62.00	45.736				
13,000.00	12,037.93	12,750.25	11,810.86	44.34	44.64	85.79	512.99	2,305.90	2,835.44	2,772.75	62.68	45.234				
13,100.00	12,036.71	12,850.25	11,809.12	44.81	45.28	85.78	612.97	2,304.99	2,835.42	2,771.97	63.45	44.687				
13,200.00	12,035.48	12,950.25	11,807.38	45.34	45.97	85.77	712.95	2,304.09	2,835.40	2,771.11	64.29	44.102				
13,300.00	12,034.26	13,050.25	11,805.64	45.92	46.70	85.76	812.93	2,303.18	2,835.39	2,770.18	65.21	43.484				
13,400.00	12,033.04	13,150.25	11,803.90	46.55	47.48	85.75	912.91	2,302.27	2,835.37	2,769.18	66.19	42.838				
13,500.00	12,031.81	13,250.25	11,802.16	47.23	48.30	85.74	1,012.89	2,301.36	2,835.35	2,768.11	67.24	42.169				
13,600.00	12,030.59	13,350.25	11,800.42	47.96	49.16	85.73	1,112.87	2,300.46	2,835.34	2,766.98	68.35	41.482				
13,700.00	12,029.37	13,450.24	11,798.67	48.73	50.07	85.72	1,212.85	2,299.55	2,835.32	2,765.80	69.53	40.781				
13,800.00	12,028.14	13,550.24	11,796.93	49.54	51.01	85.71	1,312.83	2,298.64	2,835.30	2,764.55	70.76	40.072				
13,900.00	12,026.92	13,650.24	11,795.19	50.39	51.98	85.70	1,412.81	2,297.73	2,835.29	2,763.25	72.04	39.357				
14,000.00	12,025.70	13,750.24	11,793.45	51.28	52.99	85.69	1,512.79	2,296.82	2,835.27	2,761.89	73.38	38.639				

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:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
14,100.00	12,024.47	13,850.24	11,791.71	52.21	54.03	85.68	1,612.77	2,295.92	2,835.26	2,760.49	74.76	37.923		
14,200.00	12,023.25	13,950.24	11,789.97	53.17	55.10	85.67	1,712.75	2,295.01	2,835.24	2,759.05	76.19	37.211		
14,300.00	12,022.03	14,050.24	11,788.23	54.17	56.20	85.66	1,812.72	2,294.10	2,835.22	2,757.55	77.67	36.504		
14,400.00	12,020.80	14,150.23	11,786.49	55.19	57.33	85.65	1,912.70	2,293.19	2,835.21	2,756.02	79.19	35.805		
14,500.00	12,019.58	14,250.23	11,784.74	56.25	58.48	85.64	2,012.68	2,292.29	2,835.19	2,754.45	80.74	35.115		
14,600.00	12,018.35	14,350.23	11,783.00	57.33	59.65	85.63	2,112.66	2,291.38	2,835.18	2,752.85	82.33	34.436		
14,700.00	12,017.13	14,450.23	11,781.26	58.44	60.84	85.61	2,212.64	2,290.47	2,835.16	2,751.20	83.96	33.769		
14,800.00	12,015.91	14,550.23	11,779.52	59.57	62.06	85.60	2,312.62	2,289.56	2,835.15	2,749.53	85.62	33.115		
14,900.00	12,014.68	14,650.23	11,777.78	60.73	63.30	85.59	2,412.60	2,288.66	2,835.13	2,747.83	87.30	32.474		
15,000.00	12,013.46	14,750.23	11,776.04	61.91	64.55	85.58	2,512.58	2,287.75	2,835.12	2,746.09	89.02	31.847		
15,100.00	12,012.24	14,850.22	11,774.30	63.11	65.82	85.57	2,612.56	2,286.84	2,835.10	2,744.33	90.77	31.235		
15,200.00	12,011.01	14,950.22	11,772.56	64.33	67.11	85.56	2,712.54	2,285.93	2,835.09	2,742.55	92.54	30.637		
15,300.00	12,009.79	15,050.22	11,770.81	65.57	68.42	85.55	2,812.52	2,285.03	2,835.07	2,740.74	94.33	30.054		
15,400.00	12,008.57	15,150.22	11,769.07	66.82	69.73	85.54	2,912.50	2,284.12	2,835.06	2,738.90	96.15	29.485		
15,500.00	12,007.34	15,250.22	11,767.33	68.10	71.07	85.53	3,012.48	2,283.21	2,835.04	2,737.05	97.99	28.932		
15,600.00	12,006.12	15,350.22	11,765.59	69.39	72.41	85.52	3,112.46	2,282.30	2,835.03	2,735.18	99.85	28.393		
15,700.00	12,004.90	15,450.22	11,763.85	70.69	73.77	85.51	3,212.44	2,281.39	2,835.01	2,733.28	101.73	27.868		
15,800.00	12,003.67	15,550.22	11,762.11	72.01	75.14	85.50	3,312.41	2,280.49	2,835.00	2,731.37	103.63	27.358		
15,900.00	12,002.45	15,650.21	11,760.37	73.34	76.52	85.49	3,412.39	2,279.58	2,834.98	2,729.44	105.54	26.861		
16,000.00	12,001.23	15,750.21	11,758.63	74.69	77.91	85.48	3,512.37	2,278.67	2,834.97	2,727.50	107.47	26.379		
16,100.00	12,000.00	15,850.21	11,756.88	76.04	79.32	85.47	3,612.35	2,277.76	2,834.95	2,725.54	109.42	25.910		
16,200.00	11,998.78	15,950.21	11,755.14	77.41	80.73	85.46	3,712.33	2,276.86	2,834.94	2,723.56	111.38	25.453		
16,300.00	11,997.56	16,050.21	11,753.40	78.79	82.15	85.45	3,812.31	2,275.95	2,834.93	2,721.57	113.35	25.010		
16,400.00	11,996.33	16,150.21	11,751.66	80.18	83.57	85.44	3,912.29	2,275.04	2,834.91	2,719.57	115.34	24.579		
16,500.00	11,995.11	16,250.21	11,749.92	81.58	85.01	85.43	4,012.27	2,274.13	2,834.90	2,717.56	117.34	24.160		
16,600.00	11,993.89	16,350.20	11,748.18	82.99	86.46	85.41	4,112.25	2,273.23	2,834.89	2,715.53	119.35	23.752		
16,700.00	11,992.66	16,450.20	11,746.44	84.40	87.91	85.40	4,212.23	2,272.32	2,834.87	2,713.50	121.38	23.356		
16,800.00	11,991.44	16,550.20	11,744.70	85.83	89.37	85.39	4,312.21	2,271.41	2,834.86	2,711.45	123.41	22.971		
16,900.00	11,990.22	16,650.20	11,742.95	87.26	90.83	85.38	4,412.19	2,270.50	2,834.84	2,709.39	125.45	22.597		
17,000.00	11,988.99	16,750.20	11,741.21	88.70	92.30	85.37	4,512.17	2,269.60	2,834.83	2,707.32	127.51	22.233		
17,100.00	11,987.77	16,850.20	11,739.47	90.15	93.78	85.36	4,612.15	2,268.69	2,834.82	2,705.25	129.57	21.879		
17,200.00	11,986.55	16,950.20	11,737.73	91.60	95.26	85.35	4,712.13	2,267.78	2,834.81	2,703.16	131.64	21.534		
17,300.00	11,985.32	17,050.20	11,735.99	93.06	96.75	85.34	4,812.11	2,266.87	2,834.79	2,701.07	133.72	21.199		
17,400.00	11,984.10	17,150.19	11,734.25	94.53	98.25	85.33	4,912.08	2,265.96	2,834.78	2,698.97	135.81	20.873		
17,500.00	11,982.88	17,250.19	11,732.51	96.01	99.74	85.32	5,012.06	2,265.06	2,834.77	2,696.86	137.91	20.556		
17,600.00	11,981.65	17,350.19	11,730.77	97.49	101.25	85.31	5,112.04	2,264.15	2,834.75	2,694.74	140.01	20.247		
17,700.00	11,980.43	17,450.19	11,729.02	98.97	102.76	85.30	5,212.02	2,263.24	2,834.74	2,692.62	142.12	19.946		
17,800.00	11,979.21	17,550.19	11,727.28	100.46	104.27	85.29	5,312.00	2,262.33	2,834.73	2,690.49	144.24	19.653		
17,900.00	11,977.98	17,650.19	11,725.54	101.95	105.78	85.28	5,411.98	2,261.43	2,834.72	2,688.36	146.36	19.368		
18,000.00	11,976.76	17,750.19	11,723.80	103.45	107.31	85.27	5,511.96	2,260.52	2,834.70	2,686.22	148.49	19.090		
18,100.00	11,975.54	17,850.18	11,722.06	104.96	108.83	85.26	5,611.94	2,259.61	2,834.69	2,684.07	150.62	18.820		
18,200.00	11,974.31	17,950.18	11,720.32	106.47	110.36	85.25	5,711.92	2,258.70	2,834.68	2,681.92	152.76	18.556		
18,300.00	11,973.09	18,050.18	11,718.58	107.98	111.89	85.24	5,811.90	2,257.80	2,834.67	2,679.76	154.91	18.299		
18,400.00	11,971.87	18,150.18	11,716.84	109.50	113.42	85.23	5,911.88	2,256.89	2,834.66	2,677.59	157.06	18.048		
18,500.00	11,970.64	18,250.18	11,715.09	111.02	114.96	85.21	6,011.86	2,255.98	2,834.64	2,675.43	159.22	17.804		
18,600.00	11,969.42	18,350.18	11,713.35	112.54	116.50	85.20	6,111.84	2,255.07	2,834.63	2,673.25	161.38	17.565		
18,700.00	11,968.20	18,450.18	11,711.61	114.07	118.05	85.19	6,211.82	2,254.17	2,834.62	2,671.08	163.54	17.333		
18,800.00	11,966.97	18,550.17	11,709.87	115.60	119.60	85.18	6,311.80	2,253.26	2,834.61	2,668.90	165.71	17.106		
18,900.00	11,965.75	18,650.17	11,708.13	117.13	121.15	85.17	6,411.78	2,252.35	2,834.60	2,666.71	167.89	16.884		
19,000.00	11,964.53	18,750.17	11,706.39	118.67	122.70	85.16	6,511.75	2,251.44	2,834.59	2,664.52	170.06	16.668		
19,100.00	11,963.30	18,850.17	11,704.65	120.21	124.25	85.15	6,611.73	2,250.53	2,834.57	2,662.33	172.24	16.457		
19,200.00	11,962.08	18,950.17	11,702.91	121.76	125.81	85.14	6,711.71	2,249.63	2,834.56	2,660.13	174.43	16.250		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
19,300.00	11,960.86	19,050.17	11,701.16	123.30	127.37	85.13	6,811.69	2,248.72	2,834.55	2,657.93	176.62	16.049		
19,400.00	11,959.63	19,150.17	11,699.42	124.85	128.93	85.12	6,911.67	2,247.81	2,834.54	2,655.73	178.81	15.852		
19,500.00	11,958.41	19,250.17	11,697.68	126.40	130.50	85.11	7,011.65	2,246.90	2,834.53	2,653.52	181.01	15.660		
19,600.00	11,957.19	19,350.16	11,695.94	127.96	132.06	85.10	7,111.63	2,246.00	2,834.52	2,651.32	183.20	15.472		
19,700.00	11,955.96	19,450.16	11,694.20	129.51	133.63	85.09	7,211.61	2,245.09	2,834.51	2,649.10	185.41	15.288		
19,800.00	11,954.74	19,550.16	11,692.46	131.07	135.20	85.08	7,311.59	2,244.18	2,834.50	2,646.89	187.61	15.108		
19,900.00	11,953.52	19,650.16	11,690.72	132.63	136.78	85.07	7,411.57	2,243.27	2,834.49	2,644.67	189.82	14.933		
20,000.00	11,952.29	19,750.16	11,688.98	134.20	138.35	85.06	7,511.55	2,242.37	2,834.48	2,642.45	192.03	14.761		
20,100.00	11,951.07	19,850.16	11,687.23	135.76	139.93	85.05	7,611.53	2,241.46	2,834.47	2,640.23	194.24	14.593		
20,200.00	11,949.85	19,950.16	11,685.49	137.33	141.50	85.04	7,711.51	2,240.55	2,834.46	2,638.00	196.46	14.428		
20,300.00	11,948.62	20,050.15	11,683.75	138.90	143.08	85.03	7,811.49	2,239.64	2,834.45	2,635.77	198.67	14.267		
20,400.00	11,947.40	20,150.15	11,682.01	140.47	144.67	85.01	7,911.47	2,238.74	2,834.44	2,633.54	200.89	14.109		
20,500.00	11,946.18	20,250.15	11,680.27	142.04	146.25	85.00	8,011.44	2,237.83	2,834.43	2,631.31	203.12	13.955		
20,600.00	11,944.95	20,350.15	11,678.53	143.62	147.83	84.99	8,111.42	2,236.92	2,834.42	2,629.08	205.34	13.803		
20,700.00	11,943.73	20,450.15	11,676.79	145.19	149.42	84.98	8,211.40	2,236.01	2,834.41	2,626.84	207.57	13.655		
20,800.00	11,942.51	20,550.15	11,675.05	146.77	151.01	84.97	8,311.38	2,235.10	2,834.40	2,624.60	209.80	13.510		
20,900.00	11,941.28	20,650.15	11,673.30	148.35	152.59	84.96	8,411.36	2,234.20	2,834.39	2,622.36	212.03	13.368		
21,000.00	11,940.06	20,750.15	11,671.56	149.93	154.18	84.95	8,511.34	2,233.29	2,834.38	2,620.12	214.26	13.229		
21,100.00	11,938.84	20,850.14	11,669.82	151.51	155.77	84.94	8,611.32	2,232.38	2,834.37	2,617.87	216.50	13.092		
21,200.00	11,937.61	20,950.14	11,668.08	153.10	157.37	84.93	8,711.30	2,231.47	2,834.36	2,615.63	218.73	12.958		
21,300.00	11,936.39	21,050.14	11,666.34	154.68	158.96	84.92	8,811.28	2,230.57	2,834.35	2,613.38	220.97	12.827		
21,400.00	11,935.17	21,150.14	11,664.60	156.27	160.56	84.91	8,911.26	2,229.66	2,834.34	2,611.13	223.21	12.698		
21,500.00	11,933.94	21,250.14	11,662.86	157.86	162.15	84.90	9,011.24	2,228.75	2,834.33	2,608.88	225.45	12.572		
21,600.00	11,932.72	21,350.14	11,661.12	159.45	163.75	84.89	9,111.22	2,227.84	2,834.32	2,606.63	227.70	12.448		
21,700.00	11,931.49	21,450.14	11,659.37	161.04	165.35	84.88	9,211.20	2,226.94	2,834.31	2,604.37	229.94	12.326		
21,800.00	11,930.27	21,550.13	11,657.63	162.63	166.95	84.87	9,311.18	2,226.03	2,834.31	2,602.12	232.19	12.207		
21,900.00	11,929.05	21,650.13	11,655.89	164.22	168.55	84.86	9,411.16	2,225.12	2,834.30	2,599.86	234.44	12.090		
22,000.00	11,927.82	21,750.13	11,654.15	165.82	170.15	84.85	9,511.14	2,224.21	2,834.29	2,597.60	236.69	11.975		
22,100.00	11,926.60	21,850.13	11,652.41	167.41	171.75	84.84	9,611.11	2,223.31	2,834.28	2,595.34	238.94	11.862		
22,206.36	11,925.30	21,956.49	11,650.56	169.11	173.45	84.82	9,717.45	2,222.34	2,834.27	2,592.94	241.33	11.744 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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	0.00	0.00	0.00	0.00	89.31	0.42	34.99	35.07						
100.00	100.00	97.70	97.70	0.13	0.12	89.31	0.42	34.99	34.99	34.82	0.18	199.494			
200.00	200.00	197.70	197.70	0.48	0.48	89.31	0.42	34.99	34.99	34.31	0.68	51.567			
300.00	300.00	297.70	297.70	0.84	0.83	89.31	0.42	34.99	34.99	33.81	1.19	29.516			
400.00	400.00	397.70	397.70	1.20	1.19	89.31	0.42	34.99	34.99	33.30	1.69	20.675			
500.00	500.00	497.70	497.70	1.56	1.55	89.31	0.42	34.99	34.99	32.79	2.20	15.910			
600.00	600.00	597.70	597.70	1.92	1.91	89.31	0.42	34.99	34.99	32.29	2.71	12.930			
700.00	700.00	697.70	697.70	2.28	2.27	89.31	0.42	34.99	34.99	31.78	3.21	10.890			
800.00	800.00	797.70	797.70	2.63	2.63	89.31	0.42	34.99	34.99	31.27	3.72	9.406			
900.00	900.00	897.70	897.70	2.99	2.98	89.31	0.42	34.99	34.99	30.77	4.23	8.278			
1,000.00	1,000.00	997.70	997.70	3.35	3.34	89.31	0.42	34.99	34.99	30.26	4.73	7.391			
1,100.00	1,100.00	1,097.70	1,097.70	3.71	3.70	89.31	0.42	34.99	34.99	29.75	5.24	6.676			
1,200.00	1,200.00	1,197.70	1,197.70	4.07	4.06	89.31	0.42	34.99	34.99	29.24	5.75	6.088			
1,300.00	1,300.00	1,297.70	1,297.70	4.43	4.42	89.31	0.42	34.99	34.99	28.74	6.26	5.594			
1,400.00	1,400.00	1,397.70	1,397.70	4.79	4.78	89.31	0.42	34.99	34.99	28.23	6.76	5.175			
1,500.00	1,500.00	1,497.70	1,497.70	5.14	5.14	89.31	0.42	34.99	34.99	27.72	7.27	4.814			
1,600.00	1,600.00	1,597.70	1,597.70	5.50	5.49	89.31	0.42	34.99	34.99	27.22	7.78	4.500			
1,700.00	1,700.00	1,697.70	1,697.70	5.86	5.85	89.31	0.42	34.99	34.99	26.71	8.28	4.225			
1,800.00	1,800.00	1,797.70	1,797.70	6.22	6.21	89.31	0.42	34.99	34.99	26.20	8.79	3.981			
1,900.00	1,900.00	1,897.70	1,897.70	6.58	6.57	89.31	0.42	34.99	34.99	25.70	9.30	3.764			
2,000.00	2,000.00	1,997.70	1,997.70	6.94	6.93	89.31	0.42	34.99	34.99	25.19	9.80	3.569			
2,100.00	2,100.00	2,097.70	2,097.70	7.29	7.29	89.31	0.42	34.99	34.99	24.68	10.31	3.394			
2,200.00	2,200.00	2,197.70	2,197.70	7.65	7.65	89.31	0.42	34.99	34.99	24.17	10.82	3.235			
2,300.00	2,300.00	2,297.70	2,297.70	8.01	8.00	89.31	0.42	34.99	34.99	23.67	11.32	3.090			
2,400.00	2,400.00	2,397.70	2,397.70	8.37	8.36	89.31	0.42	34.99	34.99	23.16	11.83	2.958			
2,500.00	2,500.00	2,497.70	2,497.70	8.73	8.72	89.31	0.42	34.99	34.99	22.65	12.34	2.836 CC, ES			
2,600.00	2,600.00	2,597.25	2,597.24	9.09	9.06	91.06	-0.66	35.60	35.61	22.78	12.83	2.775 SF			
2,700.00	2,700.00	2,696.65	2,696.57	9.45	9.39	96.06	-3.98	37.49	37.72	24.41	13.31	2.834			
2,800.00	2,800.00	2,795.79	2,795.50	9.80	9.71	103.20	-9.53	40.65	41.81	28.03	13.78	3.035			
2,900.00	2,900.00	2,894.54	2,893.84	10.16	10.04	110.99	-17.28	45.05	48.40	34.17	14.23	3.401			
3,000.00	3,000.00	2,993.09	2,991.73	10.52	10.37	118.18	-27.13	50.65	57.77	43.08	14.69	3.933			
3,100.00	3,099.99	3,092.39	3,090.30	10.86	10.71	-95.11	-37.66	56.62	68.51	53.35	15.16	4.520			
3,200.00	3,199.91	3,191.75	3,188.91	11.19	11.06	-93.68	-48.18	62.61	79.67	64.04	15.62	5.099			
3,300.00	3,299.69	3,291.10	3,287.52	11.52	11.41	-94.20	-58.71	68.59	91.02	74.92	16.10	5.654			
3,400.00	3,399.27	3,390.36	3,386.04	11.85	11.76	-96.04	-69.23	74.56	102.63	86.05	16.58	6.191			
3,466.69	3,465.53	3,456.48	3,451.67	12.08	11.99	-97.77	-76.23	78.54	110.62	93.72	16.90	6.545			
3,500.00	3,498.59	3,489.49	3,484.43	12.19	12.11	-98.75	-79.73	80.53	114.69	97.63	17.06	6.722			
3,600.00	3,597.85	3,588.57	3,582.78	12.53	12.47	-101.29	-90.23	86.49	127.09	109.53	17.55	7.241			
3,700.00	3,697.10	3,687.66	3,681.12	12.87	12.83	-103.39	-100.73	92.46	139.69	121.64	18.04	7.741			
3,800.00	3,796.36	3,786.74	3,779.47	13.22	13.20	-105.13	-111.22	98.42	152.44	133.90	18.54	8.222			
3,900.00	3,895.61	3,885.83	3,877.82	13.58	13.56	-106.60	-121.72	104.39	165.31	146.27	19.04	8.682			
4,000.00	3,994.86	3,984.91	3,976.17	13.93	13.93	-107.86	-132.22	110.35	178.27	158.73	19.54	9.122			
4,100.00	4,094.12	4,084.00	4,074.51	14.29	14.30	-108.95	-142.72	116.32	191.31	171.26	20.05	9.542			
4,200.00	4,193.37	4,183.09	4,172.86	14.65	14.67	-109.90	-153.22	122.28	204.40	183.85	20.56	9.943			
4,300.00	4,292.63	4,282.17	4,271.21	15.01	15.05	-110.74	-163.72	128.25	217.55	196.48	21.07	10.325			
4,400.00	4,391.88	4,381.26	4,369.55	15.38	15.42	-111.48	-174.21	134.21	230.73	209.15	21.58	10.690			
4,500.00	4,491.14	4,480.34	4,467.90	15.75	15.80	-112.14	-184.71	140.18	243.95	221.85	22.10	11.039			
4,600.00	4,490.39	4,479.43	4,466.25	16.12	16.18	-112.73	-195.21	146.14	257.20	234.58	22.62	11.372			
4,700.00	4,689.65	4,678.51	4,664.59	16.49	16.56	-113.27	-205.71	152.11	270.47	247.34	23.14	11.691			
4,800.00	4,788.90	4,777.60	4,762.94	16.86	16.94	-113.75	-216.21	158.07	283.76	260.11	23.66	11.995			
4,900.00	4,888.16	4,876.68	4,861.29	17.24	17.32	-114.19	-226.71	164.04	297.07	272.89	24.18	12.286			
5,000.00	4,987.41	4,975.77	4,959.63	17.61	17.70	-114.60	-237.20	170.00	310.40	285.70	24.70	12.564			

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
5,100.00	5,086.66	5,074.85	5,057.98	17.99	18.09	-114.97	-247.70	175.97	323.74	298.51	25.23	12.831		
5,200.00	5,185.92	5,173.94	5,156.33	18.37	18.47	-115.31	-258.20	181.93	337.09	311.34	25.76	13.087		
5,300.00	5,285.17	5,273.02	5,254.68	18.75	18.86	-115.62	-268.70	187.90	350.46	324.17	26.29	13.332		
5,400.00	5,384.43	5,372.11	5,353.02	19.14	19.25	-115.91	-279.20	193.86	363.83	337.01	26.82	13.567		
5,500.00	5,483.68	5,471.20	5,451.37	19.52	19.64	-116.18	-289.70	199.83	377.21	349.86	27.35	13.793		
5,600.00	5,582.94	5,570.28	5,549.72	19.90	20.02	-116.44	-300.19	205.79	390.60	362.72	27.88	14.009		
5,700.00	5,682.19	5,669.37	5,648.06	20.29	20.41	-116.67	-310.69	211.76	404.00	375.58	28.42	14.218		
5,800.00	5,781.45	5,768.45	5,746.41	20.68	20.80	-116.89	-321.19	217.72	417.40	388.45	28.95	14.418		
5,900.00	5,880.70	5,867.54	5,844.76	21.06	21.19	-117.10	-331.69	223.69	430.81	401.32	29.48	14.611		
6,000.00	5,979.96	5,966.62	5,943.10	21.45	21.59	-117.29	-342.19	229.65	444.22	414.20	30.02	14.797		
6,100.00	6,079.21	6,065.71	6,041.45	21.84	21.98	-117.48	-352.69	235.62	457.64	427.08	30.56	14.976		
6,200.00	6,178.46	6,164.79	6,139.80	22.23	22.37	-117.65	-363.18	241.58	471.06	439.97	31.10	15.148		
6,300.00	6,277.72	6,263.88	6,238.15	22.62	22.76	-117.81	-373.68	247.55	484.49	452.85	31.64	15.315		
6,400.00	6,376.97	6,362.96	6,336.49	23.01	23.16	-117.97	-384.18	253.51	497.92	465.74	32.17	15.475		
6,500.00	6,476.23	6,462.05	6,434.84	23.40	23.55	-118.11	-394.68	259.48	511.35	478.64	32.71	15.631		
6,600.00	6,575.48	6,561.13	6,533.19	23.80	23.94	-118.25	-405.18	265.44	524.79	491.53	33.26	15.780		
6,700.00	6,674.74	6,660.22	6,631.53	24.19	24.34	-118.38	-415.68	271.41	538.23	504.43	33.80	15.925		
6,800.00	6,773.99	6,759.31	6,729.88	24.58	24.73	-118.51	-426.17	277.37	551.67	517.33	34.34	16.065		
6,900.00	6,873.25	6,858.39	6,828.23	24.98	25.13	-118.63	-436.67	283.34	565.12	530.23	34.88	16.201		
7,000.00	6,972.50	6,957.48	6,926.57	25.37	25.52	-118.74	-447.17	289.30	578.56	543.14	35.43	16.332		
7,100.00	7,071.76	7,056.56	7,024.92	25.77	25.92	-118.85	-457.67	295.27	592.01	556.04	35.97	16.459		
7,200.00	7,171.01	7,155.65	7,123.27	26.16	26.32	-118.95	-468.17	301.23	605.46	568.95	36.51	16.582		
7,300.00	7,270.26	7,254.73	7,221.61	26.56	26.71	-119.05	-478.67	307.20	618.92	581.86	37.06	16.701		
7,400.00	7,369.52	7,353.82	7,319.96	26.95	27.11	-119.15	-489.16	313.16	632.37	594.77	37.60	16.817		
7,500.00	7,468.77	7,452.90	7,418.31	27.35	27.51	-119.24	-499.66	319.13	645.83	607.68	38.15	16.929		
7,600.00	7,568.03	7,551.99	7,516.66	27.75	27.90	-119.33	-510.16	325.09	659.28	620.59	38.69	17.038		
7,700.00	7,667.28	7,651.07	7,615.00	28.15	28.30	-119.41	-520.66	331.06	672.74	633.50	39.24	17.144		
7,800.00	7,766.54	7,750.16	7,713.35	28.54	28.70	-119.49	-531.16	337.02	686.20	646.42	39.79	17.246		
7,900.00	7,865.79	7,849.24	7,811.70	28.94	29.10	-119.57	-541.66	342.99	699.67	659.33	40.34	17.346		
8,000.00	7,965.05	7,948.33	7,910.04	29.34	29.50	-119.64	-552.15	348.95	713.13	672.25	40.88	17.443		
8,100.00	8,064.30	8,047.42	8,008.39	29.74	29.90	-119.71	-562.65	354.92	726.59	685.16	41.43	17.537		
8,200.00	8,163.56	8,146.50	8,106.74	30.14	30.29	-119.78	-573.15	360.88	740.06	698.08	41.98	17.629		
8,300.00	8,262.81	8,245.59	8,205.08	30.54	30.69	-119.85	-583.65	366.85	753.52	711.00	42.53	17.721		
8,400.00	8,362.06	8,344.67	8,303.43	30.94	31.09	-119.91	-594.15	372.81	766.99	723.92	43.08	17.805		
8,500.00	8,461.32	8,443.76	8,401.78	31.34	31.49	-119.98	-604.65	378.78	780.46	736.83	43.63	17.890		
8,600.00	8,560.57	8,542.84	8,500.12	31.74	31.89	-120.04	-615.14	384.74	793.93	749.75	44.18	17.972		
8,700.00	8,659.83	8,641.93	8,598.47	32.14	32.29	-120.09	-625.64	390.71	807.40	762.67	44.73	18.052		
8,800.00	8,759.08	8,742.84	8,698.64	32.54	32.70	-120.15	-636.31	396.77	820.86	775.57	45.29	18.126		
8,900.00	8,858.34	8,856.82	8,812.00	32.94	33.14	-120.33	-646.55	402.59	833.22	787.31	45.91	18.149		
9,000.00	8,957.59	8,971.08	8,925.95	33.34	33.57	-120.70	-653.86	406.74	843.83	797.32	46.51	18.143		
9,100.00	9,056.85	9,085.42	9,040.17	33.75	33.98	-121.23	-658.21	409.21	852.72	805.63	47.09	18.107		
9,200.00	9,156.10	9,199.06	9,153.80	34.15	34.36	-121.94	-659.58	409.99	859.95	812.30	47.64	18.049		
9,300.00	9,255.36	9,298.32	9,253.06	34.55	34.68	-122.62	-659.58	409.99	866.49	818.34	48.15	17.997		
9,400.00	9,354.61	9,397.57	9,352.31	34.95	34.99	-123.29	-659.58	409.99	873.16	824.51	48.65	17.948		
9,500.00	9,453.86	9,496.83	9,451.56	35.35	35.31	-123.95	-659.58	409.99	879.94	830.79	49.15	17.902		
9,600.00	9,553.12	9,596.08	9,550.82	35.76	35.62	-124.60	-659.58	409.99	886.84	837.18	49.65	17.861		
9,700.00	9,652.37	9,695.34	9,650.07	36.16	35.94	-125.24	-659.58	409.99	893.85	843.69	50.15	17.822		
9,800.00	9,751.63	9,794.59	9,749.33	36.56	36.25	-125.87	-659.58	409.99	900.97	850.32	50.65	17.787		
9,853.24	9,804.47	9,847.43	9,802.17	36.78	36.42	-126.20	-659.58	409.99	904.81	853.89	50.92	17.769		
9,900.00	9,850.92	9,893.88	9,848.62	36.96	36.57	-126.51	-659.58	409.99	908.03	856.88	51.15	17.751		
10,000.00	9,950.44	9,993.41	9,948.14	37.35	36.89	-127.07	-659.58	409.99	913.84	862.19	51.65	17.694		
10,100.00	10,050.19	10,093.15	10,047.89	37.73	37.21	-127.47	-659.58	409.99	918.12	865.99	52.14	17.610		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
10,200.00	10,150.09	10,193.05	10,147.79	38.09	37.53	-127.72	-659.58	409.99	920.84	868.22	52.62	17.501		
10,300.00	10,250.07	10,293.03	10,247.77	38.43	37.86	-127.83	-659.58	409.99	921.96	868.87	53.09	17.365		
10,319.93	10,270.00	10,312.96	10,267.70	38.50	37.92	89.97	-659.58	409.99	921.99	868.81	53.18	17.336		
10,400.00	10,350.07	10,393.03	10,347.77	38.75	38.18	89.97	-659.58	409.99	921.99	868.44	53.55	17.217		
10,500.00	10,450.07	10,493.03	10,447.77	39.07	38.50	89.97	-659.58	409.99	921.99	867.98	54.01	17.070		
10,600.00	10,550.07	10,593.03	10,547.77	39.39	38.83	89.97	-659.58	409.99	921.99	867.52	54.47	16.926		
10,700.00	10,650.07	10,693.03	10,647.77	39.71	39.15	89.97	-659.58	409.99	921.99	867.06	54.93	16.784		
10,800.00	10,750.07	10,793.03	10,747.77	40.03	39.48	89.97	-659.58	409.99	921.99	866.59	55.40	16.644		
10,900.00	10,850.07	10,893.03	10,847.77	40.35	39.81	89.97	-659.58	409.99	921.99	866.13	55.86	16.506		
11,000.00	10,950.07	10,993.03	10,947.77	40.67	40.13	89.97	-659.58	409.99	921.99	865.67	56.32	16.370		
11,100.00	11,050.07	11,093.03	11,047.77	40.99	40.46	89.97	-659.58	409.99	921.99	865.20	56.79	16.236		
11,200.00	11,150.07	11,193.03	11,147.77	41.32	40.79	89.97	-659.58	409.99	921.99	864.74	57.25	16.104		
11,300.00	11,250.07	11,293.03	11,247.77	41.64	41.12	89.97	-659.58	409.99	921.99	864.27	57.72	15.974		
11,400.00	11,350.07	11,393.36	11,348.09	41.96	41.44	89.94	-658.99	409.98	921.99	863.80	58.18	15.846		
11,466.80	11,416.87	11,460.24	11,414.57	42.18	41.64	89.51	-652.05	409.93	921.96	863.48	58.48	15.766		
11,500.00	11,450.07	11,492.67	11,446.40	42.29	41.73	89.12	-645.91	409.87	921.98	863.37	58.61	15.730		
11,521.93	11,472.00	11,513.66	11,466.81	42.36	41.78	88.82	-640.98	409.83	922.03	863.33	58.70	15.708		
11,550.00	11,500.06	11,540.13	11,492.26	42.45	41.84	88.88	-633.70	409.77	922.14	863.34	58.80	15.682		
11,600.00	11,549.83	11,586.58	11,536.00	42.60	41.94	88.14	-618.12	409.63	922.48	863.50	58.97	15.643		
11,650.00	11,599.01	11,632.18	11,577.58	42.73	42.03	87.41	-599.42	409.47	922.95	863.84	59.12	15.612		
11,700.00	11,647.22	11,677.00	11,616.87	42.85	42.10	86.70	-577.88	409.29	923.57	864.33	59.24	15.590		
11,750.00	11,694.10	11,721.12	11,653.78	42.95	42.16	86.02	-553.74	409.08	924.29	864.95	59.34	15.576		
11,800.00	11,739.28	11,764.59	11,688.24	43.04	42.21	85.37	-527.25	408.85	925.10	865.69	59.42	15.570		
11,850.00	11,782.44	11,807.49	11,720.17	43.11	42.25	84.75	-498.62	408.60	925.98	866.51	59.47	15.570		
11,900.00	11,823.23	11,850.00	11,749.62	43.17	42.28	84.17	-467.97	408.34	926.90	867.39	59.51	15.575		
11,950.00	11,861.34	11,891.77	11,776.26	43.21	42.30	83.63	-435.82	408.06	927.84	868.31	59.53	15.585		
12,000.00	11,896.50	11,933.27	11,800.34	43.24	42.32	83.12	-402.03	407.77	928.77	869.23	59.54	15.598		
12,050.00	11,928.42	11,974.40	11,821.73	43.25	42.33	82.67	-366.91	407.47	929.68	870.13	59.54	15.613		
12,100.00	11,956.87	12,015.22	11,840.41	43.25	42.33	82.26	-330.63	407.15	930.53	870.99	59.54	15.628		
12,150.00	11,981.63	12,055.76	11,856.36	43.25	42.34	81.90	-293.37	406.83	931.31	871.77	59.54	15.642		
12,200.00	12,002.51	12,100.00	11,870.72	43.23	42.34	81.57	-251.53	406.47	932.02	872.47	59.54	15.653		
12,250.00	12,019.36	12,136.19	11,880.03	43.21	42.34	81.34	-216.57	406.17	932.59	873.06	59.54	15.664		
12,300.00	12,032.03	12,176.17	11,887.73	43.18	42.34	81.15	-177.35	405.83	933.07	873.52	59.55	15.669		
12,350.00	12,040.45	12,216.03	11,892.67	43.16	42.34	81.00	-137.81	405.49	933.41	873.84	59.57	15.669		
12,400.00	12,044.54	12,255.81	11,894.84	43.13	42.34	80.92	-98.09	405.15	933.62	874.02	59.60	15.664		
12,428.94	12,044.92	12,279.61	11,894.84	43.11	42.35	80.89	-74.30	404.95	933.68	874.05	59.63	15.657		
12,500.00	12,044.05	12,350.67	11,893.79	43.10	42.39	80.88	-3.25	404.33	933.70	873.96	59.74	15.630		
12,600.00	12,042.82	12,450.67	11,892.30	43.15	42.51	80.87	96.74	403.47	933.73	873.77	59.96	15.573		
12,700.00	12,041.60	12,550.67	11,890.82	43.31	42.72	80.85	196.72	402.61	933.76	873.50	60.26	15.494		
12,800.00	12,040.38	12,650.67	11,889.34	43.57	43.00	80.83	296.71	401.75	933.79	873.14	60.66	15.394		
12,900.00	12,039.15	12,750.67	11,887.86	43.92	43.35	80.82	396.69	400.89	933.83	872.69	61.14	15.274		
13,000.00	12,037.93	12,850.67	11,886.38	44.34	43.76	80.80	496.68	400.02	933.86	872.16	61.70	15.136		
13,100.00	12,036.71	12,950.67	11,884.90	44.81	44.24	80.79	596.66	399.16	933.89	871.55	62.34	14.980		
13,200.00	12,035.48	13,050.67	11,883.42	45.34	44.77	80.77	696.65	398.30	933.92	870.86	63.06	14.810		
13,300.00	12,034.26	13,150.67	11,881.93	45.92	45.35	80.76	796.63	397.44	933.95	870.10	63.86	14.626		
13,400.00	12,033.04	13,250.67	11,880.45	46.55	45.99	80.74	896.62	396.58	933.99	869.26	64.72	14.430		
13,500.00	12,031.81	13,350.67	11,878.97	47.23	46.67	80.72	996.60	395.71	934.02	868.36	65.66	14.224		
13,600.00	12,030.59	13,450.67	11,877.49	47.96	47.41	80.71	1,096.59	394.85	934.05	867.38	66.67	14.011		
13,700.00	12,029.37	13,550.67	11,876.01	48.73	48.18	80.69	1,196.57	393.99	934.08	866.35	67.74	13.790		
13,800.00	12,028.14	13,650.67	11,874.53	49.54	49.00	80.68	1,296.56	393.13	934.12	865.25	68.87	13.564		
13,900.00	12,026.92	13,750.67	11,873.05	50.39	49.86	80.66	1,396.54	392.27	934.15	864.10	70.05	13.335		
14,000.00	12,025.70	13,850.67	11,871.57	51.28	50.76	80.65	1,496.53	391.41	934.18	862.89	71.30	13.103		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
14,100.00	12,024.47	13,950.67	11,870.08	52.21	51.70	80.63	1,596.51	390.54	934.21	861.63	72.59	12.870		
14,200.00	12,023.25	14,050.67	11,868.60	53.17	52.67	80.61	1,696.50	389.68	934.25	860.32	73.93	12.637		
14,300.00	12,022.03	14,150.67	11,867.12	54.17	53.68	80.60	1,796.48	388.82	934.28	858.96	75.32	12.404		
14,400.00	12,020.80	14,250.67	11,865.64	55.19	54.71	80.58	1,896.47	387.96	934.31	857.56	76.76	12.173		
14,500.00	12,019.58	14,350.66	11,864.16	56.25	55.78	80.57	1,996.45	387.10	934.35	856.12	78.23	11.943		
14,600.00	12,018.35	14,450.66	11,862.68	57.33	56.87	80.55	2,096.44	386.23	934.38	854.63	79.75	11.717		
14,700.00	12,017.13	14,550.66	11,861.20	58.44	57.99	80.54	2,196.42	385.37	934.41	853.11	81.30	11.494		
14,800.00	12,015.91	14,650.66	11,859.71	59.57	59.13	80.52	2,296.41	384.51	934.45	851.56	82.89	11.274		
14,900.00	12,014.68	14,750.66	11,858.23	60.73	60.30	80.50	2,396.39	383.65	934.48	849.97	84.51	11.058		
15,000.00	12,013.46	14,850.66	11,856.75	61.91	61.49	80.49	2,496.38	382.79	934.51	848.36	86.16	10.847		
15,100.00	12,012.24	14,950.66	11,855.27	63.11	62.70	80.47	2,596.36	381.92	934.55	846.71	87.84	10.640		
15,200.00	12,011.01	15,050.66	11,853.79	64.33	63.93	80.46	2,696.35	381.06	934.58	845.04	89.54	10.437		
15,300.00	12,009.79	15,150.66	11,852.31	65.57	65.18	80.44	2,796.33	380.20	934.61	843.34	91.28	10.239		
15,400.00	12,008.57	15,250.66	11,850.83	66.82	66.45	80.43	2,896.32	379.34	934.65	841.61	93.04	10.046		
15,500.00	12,007.34	15,350.66	11,849.35	68.10	67.73	80.41	2,996.30	378.48	934.68	839.86	94.82	9.858		
15,600.00	12,006.12	15,450.66	11,847.86	69.39	69.03	80.39	3,096.29	377.62	934.71	838.09	96.62	9.674		
15,700.00	12,004.90	15,550.66	11,846.38	70.69	70.34	80.38	3,196.27	376.75	934.75	836.30	98.45	9.495		
15,800.00	12,003.67	15,650.66	11,844.90	72.01	71.67	80.36	3,296.26	375.89	934.78	834.49	100.29	9.321		
15,900.00	12,002.45	15,750.66	11,843.42	73.34	73.01	80.35	3,396.24	375.03	934.82	832.66	102.15	9.151		
16,000.00	12,001.23	15,850.66	11,841.94	74.69	74.36	80.33	3,496.23	374.17	934.85	830.82	104.03	8.986		
16,100.00	12,000.00	15,950.66	11,840.46	76.04	75.73	80.32	3,596.21	373.31	934.88	828.96	105.93	8.826		
16,200.00	11,998.78	16,050.66	11,838.98	77.41	77.10	80.30	3,696.20	372.44	934.92	827.08	107.84	8.669		
16,300.00	11,997.56	16,150.66	11,837.50	78.79	78.49	80.28	3,796.18	371.58	934.95	825.19	109.77	8.518		
16,400.00	11,996.33	16,250.66	11,836.01	80.18	79.89	80.27	3,896.17	370.72	934.99	823.28	111.71	8.370		
16,500.00	11,995.11	16,350.66	11,834.53	81.58	81.29	80.25	3,996.15	369.86	935.02	821.36	113.66	8.226		
16,600.00	11,993.89	16,450.66	11,833.05	82.99	82.71	80.24	4,096.14	369.00	935.06	819.43	115.63	8.087		
16,700.00	11,992.66	16,550.66	11,831.57	84.40	84.13	80.22	4,196.12	368.14	935.09	817.49	117.60	7.951		
16,800.00	11,991.44	16,650.66	11,830.09	85.83	85.56	80.21	4,296.11	367.27	935.13	815.53	119.59	7.819		
16,900.00	11,990.22	16,750.66	11,828.61	87.26	87.00	80.19	4,396.09	366.41	935.16	813.57	121.59	7.691		
17,000.00	11,988.99	16,850.66	11,827.13	88.70	88.45	80.17	4,496.08	365.55	935.19	811.59	123.60	7.566		
17,100.00	11,987.77	16,950.66	11,825.64	90.15	89.90	80.16	4,596.06	364.69	935.23	809.61	125.62	7.445		
17,200.00	11,986.55	17,050.66	11,824.16	91.60	91.36	80.14	4,696.05	363.83	935.26	807.61	127.65	7.327		
17,300.00	11,985.32	17,150.66	11,822.68	93.06	92.83	80.13	4,796.03	362.96	935.30	805.61	129.69	7.212		
17,400.00	11,984.10	17,250.66	11,821.20	94.53	94.30	80.11	4,896.02	362.10	935.33	803.60	131.74	7.100		
17,500.00	11,982.88	17,350.65	11,819.72	96.01	95.78	80.10	4,996.00	361.24	935.37	801.58	133.79	6.991		
17,600.00	11,981.65	17,450.65	11,818.24	97.49	97.27	80.08	5,095.99	360.38	935.41	799.55	135.85	6.886		
17,700.00	11,980.43	17,550.65	11,816.76	98.97	98.76	80.07	5,195.97	359.52	935.44	797.52	137.92	6.783		
17,800.00	11,979.21	17,650.65	11,815.28	100.46	100.25	80.05	5,295.96	358.66	935.48	795.48	139.99	6.682		
17,900.00	11,977.98	17,750.65	11,813.79	101.95	101.75	80.03	5,395.94	357.79	935.51	793.44	142.08	6.585		
18,000.00	11,976.76	17,850.65	11,812.31	103.45	103.26	80.02	5,495.93	356.93	935.55	791.38	144.16	6.489		
18,100.00	11,975.54	17,950.65	11,810.83	104.96	104.77	80.00	5,595.91	356.07	935.58	789.32	146.26	6.397		
18,200.00	11,974.31	18,050.65	11,809.35	106.47	106.28	79.99	5,695.90	355.21	935.62	787.26	148.36	6.306		
18,300.00	11,973.09	18,150.65	11,807.87	107.98	107.80	79.97	5,795.88	354.35	935.65	785.19	150.46	6.218		
18,400.00	11,971.87	18,250.65	11,806.39	109.50	109.32	79.96	5,895.87	353.48	935.69	783.12	152.57	6.133		
18,500.00	11,970.64	18,350.65	11,804.91	111.02	110.84	79.94	5,995.85	352.62	935.73	781.04	154.69	6.049		
18,600.00	11,969.42	18,450.65	11,803.42	112.54	112.37	79.92	6,095.84	351.76	935.76	778.95	156.81	5.968		
18,700.00	11,968.20	18,550.65	11,801.94	114.07	113.90	79.91	6,195.82	350.90	935.80	776.86	158.93	5.888		
18,800.00	11,966.97	18,650.65	11,800.46	115.60	115.44	79.89	6,295.81	350.04	935.83	774.77	161.06	5.810		
18,900.00	11,965.75	18,750.65	11,798.98	117.13	116.98	79.88	6,395.79	349.18	935.87	772.67	163.19	5.735		
19,000.00	11,964.53	18,850.65	11,797.50	118.67	118.52	79.86	6,495.78	348.31	935.91	770.57	165.33	5.661		
19,100.00	11,963.30	18,950.65	11,796.02	120.21	120.06	79.85	6,595.76	347.45	935.94	768.47	167.47	5.589		
19,200.00	11,962.08	19,050.65	11,794.54	121.76	121.61	79.83	6,695.75	346.59	935.98	766.36	169.61	5.518		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		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		
19,300.00	11,960.86	19,150.65	11,793.06	123.30	123.16	79.81	6,795.73	345.73	936.01	764.25	171.76	5.449		
19,400.00	11,959.63	19,250.65	11,791.57	124.85	124.71	79.80	6,895.72	344.87	936.05	762.14	173.91	5.382		
19,500.00	11,958.41	19,350.65	11,790.09	126.40	126.27	79.78	6,995.70	344.00	936.09	760.02	176.07	5.317		
19,600.00	11,957.19	19,450.65	11,788.61	127.96	127.82	79.77	7,095.69	343.14	936.12	757.90	178.22	5.253		
19,700.00	11,955.96	19,550.65	11,787.13	129.51	129.38	79.75	7,195.67	342.28	936.16	755.78	180.38	5.190		
19,800.00	11,954.74	19,650.65	11,785.65	131.07	130.95	79.74	7,295.66	341.42	936.20	753.65	182.54	5.129		
19,900.00	11,953.52	19,750.65	11,784.17	132.63	132.51	79.72	7,395.64	340.56	936.23	751.52	184.71	5.069		
20,000.00	11,952.29	19,850.65	11,782.69	134.20	134.08	79.71	7,495.63	339.69	936.27	749.39	186.88	5.010		
20,100.00	11,951.07	19,950.65	11,781.20	135.76	135.64	79.69	7,595.61	338.83	936.31	747.26	189.05	4.953		
20,200.00	11,949.85	20,050.65	11,779.72	137.33	137.21	79.67	7,695.60	337.97	936.34	745.12	191.22	4.897		
20,300.00	11,948.62	20,150.65	11,778.24	138.90	138.79	79.66	7,795.58	337.11	936.38	742.98	193.40	4.842		
20,400.00	11,947.40	20,250.65	11,776.76	140.47	140.36	79.64	7,895.57	336.25	936.42	740.85	195.57	4.788		
20,500.00	11,946.18	20,350.64	11,775.28	142.04	141.94	79.63	7,995.55	335.39	936.46	738.70	197.75	4.736		
20,600.00	11,944.95	20,450.64	11,773.80	143.62	143.51	79.61	8,095.54	334.52	936.49	736.56	199.93	4.684		
20,700.00	11,943.73	20,550.64	11,772.32	145.19	145.09	79.60	8,195.52	333.66	936.53	734.41	202.12	4.634		
20,800.00	11,942.51	20,650.64	11,770.84	146.77	146.67	79.58	8,295.51	332.80	936.57	732.27	204.30	4.584		
20,900.00	11,941.28	20,750.64	11,769.35	148.35	148.25	79.56	8,395.49	331.94	936.61	730.12	206.49	4.536		
21,000.00	11,940.06	20,850.64	11,767.87	149.93	149.84	79.55	8,495.48	331.08	936.64	727.97	208.68	4.488		
21,100.00	11,938.84	20,950.64	11,766.39	151.51	151.42	79.53	8,595.46	330.21	936.68	725.81	210.87	4.442		
21,200.00	11,937.61	21,050.64	11,764.91	153.10	153.01	79.52	8,695.45	329.35	936.72	723.66	213.06	4.397		
21,300.00	11,936.39	21,150.64	11,763.43	154.68	154.60	79.50	8,795.43	328.49	936.76	721.51	215.25	4.352		
21,400.00	11,935.17	21,250.64	11,761.95	156.27	156.19	79.49	8,895.42	327.63	936.79	719.35	217.44	4.308		
21,500.00	11,933.94	21,350.64	11,760.47	157.86	157.78	79.47	8,995.40	326.77	936.83	717.19	219.64	4.265		
21,600.00	11,932.72	21,450.64	11,758.98	159.45	159.37	79.46	9,095.39	325.91	936.87	715.03	221.84	4.223		
21,700.00	11,931.49	21,550.64	11,757.50	161.04	160.96	79.44	9,195.37	325.04	936.91	712.87	224.04	4.182		
21,800.00	11,930.27	21,650.64	11,756.02	162.63	162.56	79.42	9,295.36	324.18	936.95	710.71	226.23	4.141		
21,900.00	11,929.05	21,750.64	11,754.54	164.22	164.15	79.41	9,395.34	323.32	936.98	708.55	228.44	4.102		
22,000.00	11,927.82	21,850.64	11,753.06	165.82	165.75	79.39	9,495.33	322.46	937.02	706.39	230.64	4.063		
22,100.00	11,926.60	21,950.64	11,751.58	167.41	167.35	79.38	9,595.31	321.60	937.06	704.22	232.84	4.024		
22,206.36	11,925.30	22,057.00	11,750.00	169.11	169.05	79.36	9,701.66	320.68	937.10	701.92	235.18	3.985		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - OH - Plan #2													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	1.50	1.50	0.00	0.00	-90.70	-0.43	-35.00	35.00					
100.00	100.00	101.50	101.50	0.13	0.13	-90.70	-0.43	-35.00	35.00	34.82	0.18	193.090		
200.00	200.00	201.50	201.50	0.48	0.49	-90.70	-0.43	-35.00	35.00	34.31	0.69	50.861		
300.00	300.00	301.50	301.50	0.84	0.85	-90.70	-0.43	-35.00	35.00	33.81	1.20	29.287		
400.00	400.00	401.50	401.50	1.20	1.21	-90.70	-0.43	-35.00	35.00	33.30	1.70	20.564		
500.00	500.00	501.50	501.50	1.56	1.56	-90.70	-0.43	-35.00	35.00	32.79	2.21	15.845		
600.00	600.00	601.50	601.50	1.92	1.92	-90.70	-0.43	-35.00	35.00	32.29	2.72	12.887		
700.00	700.00	701.50	701.50	2.28	2.28	-90.70	-0.43	-35.00	35.00	31.78	3.22	10.860		
800.00	800.00	801.50	801.50	2.63	2.64	-90.70	-0.43	-35.00	35.00	31.27	3.73	9.384		
900.00	900.00	901.50	901.50	2.99	3.00	-90.70	-0.43	-35.00	35.00	30.77	4.24	8.261		
1,000.00	1,000.00	1,001.50	1,001.50	3.35	3.36	-90.70	-0.43	-35.00	35.00	30.26	4.74	7.379		
1,100.00	1,100.00	1,101.50	1,101.50	3.71	3.72	-90.70	-0.43	-35.00	35.00	29.75	5.25	6.666		
1,200.00	1,200.00	1,201.50	1,201.50	4.07	4.07	-90.70	-0.43	-35.00	35.00	29.24	5.76	6.079		
1,300.00	1,300.00	1,301.50	1,301.50	4.43	4.43	-90.70	-0.43	-35.00	35.00	28.74	6.26	5.587		
1,400.00	1,400.00	1,401.50	1,401.50	4.79	4.79	-90.70	-0.43	-35.00	35.00	28.23	6.77	5.169		
1,500.00	1,500.00	1,501.50	1,501.50	5.14	5.15	-90.70	-0.43	-35.00	35.00	27.72	7.28	4.809		
1,600.00	1,600.00	1,601.50	1,601.50	5.50	5.51	-90.70	-0.43	-35.00	35.00	27.22	7.79	4.496		
1,700.00	1,700.00	1,701.50	1,701.50	5.86	5.87	-90.70	-0.43	-35.00	35.00	26.71	8.29	4.221		
1,800.00	1,800.00	1,801.50	1,801.50	6.22	6.22	-90.70	-0.43	-35.00	35.00	26.20	8.80	3.978		
1,900.00	1,900.00	1,901.50	1,901.50	6.58	6.58	-90.70	-0.43	-35.00	35.00	25.70	9.31	3.761		
2,000.00	2,000.00	2,001.50	2,001.50	6.94	6.94	-90.70	-0.43	-35.00	35.00	25.19	9.81	3.567		
2,100.00	2,100.00	2,101.50	2,101.50	7.29	7.30	-90.70	-0.43	-35.00	35.00	24.68	10.32	3.392		
2,200.00	2,200.00	2,201.50	2,201.50	7.65	7.66	-90.70	-0.43	-35.00	35.00	24.18	10.83	3.233		
2,300.00	2,300.00	2,301.50	2,301.50	8.01	8.02	-90.70	-0.43	-35.00	35.00	23.67	11.33	3.088		
2,400.00	2,400.00	2,401.50	2,401.50	8.37	8.38	-90.70	-0.43	-35.00	35.00	23.16	11.84	2.956		
2,416.16	2,416.16	2,417.66	2,417.66	8.43	8.43	-90.70	-0.43	-35.00	35.00	23.08	11.92	2.936 CC		
2,500.00	2,500.00	2,501.49	2,501.49	8.73	8.73	-90.70	-0.43	-35.00	35.00	22.65	12.35	2.835 ES		
2,600.00	2,600.00	2,600.76	2,600.75	9.09	9.07	-92.05	-1.29	-36.01	36.04	23.21	12.84	2.807		
2,700.00	2,700.00	2,700.00	2,699.91	9.45	9.40	-95.59	-3.81	-38.99	39.21	25.90	13.31	2.945		
2,800.00	2,800.00	2,798.77	2,798.47	9.80	9.73	-100.30	-7.98	-43.91	44.73	30.96	13.78	3.247		
2,900.00	2,900.00	2,897.25	2,896.53	10.16	10.06	-105.18	-13.77	-50.75	52.82	38.58	14.23	3.711		
3,000.00	3,000.00	2,995.19	2,993.80	10.52	10.40	-109.58	-21.15	-59.46	63.57	48.90	14.67	4.332		
3,100.00	3,099.99	3,093.79	3,091.47	10.86	10.74	-29.40	-29.90	-69.78	75.44	60.31	15.13	4.986		
3,200.00	3,199.91	3,193.27	3,189.99	11.19	11.09	27.81	-38.85	-80.34	85.35	69.75	15.60	5.472		
3,300.00	3,299.69	3,292.98	3,288.72	11.52	11.45	27.29	-47.82	-90.93	92.99	76.91	16.07	5.786		
3,400.00	3,399.27	3,392.83	3,387.60	11.85	11.81	27.54	-56.80	-101.53	98.30	81.75	16.55	5.941		
3,466.69	3,465.53	3,459.47	3,453.60	12.08	12.06	28.08	-62.79	-108.61	100.56	83.70	16.87	5.962		
3,500.00	3,498.59	3,492.77	3,486.57	12.19	12.18	28.43	-65.79	-112.14	101.44	84.41	17.03	5.958		
3,600.00	3,597.85	3,592.72	3,585.54	12.53	12.55	29.45	-74.78	-122.75	104.10	86.58	17.51	5.944		
3,700.00	3,697.10	3,692.66	3,684.52	12.87	12.92	30.41	-83.77	-133.36	106.78	88.78	18.00	5.933		
3,800.00	3,796.36	3,792.61	3,783.49	13.22	13.30	31.32	-92.76	-143.98	109.50	91.01	18.49	5.922		
3,900.00	3,895.61	3,892.56	3,882.47	13.58	13.68	32.19	-101.75	-154.59	112.24	93.25	18.99	5.912		
4,000.00	3,994.86	3,992.51	3,981.44	13.93	14.06	33.02	-110.74	-165.20	115.01	95.52	19.48	5.903		
4,100.00	4,094.12	4,092.46	4,080.42	14.29	14.44	33.81	-119.73	-175.81	117.80	97.81	19.98	5.895		
4,200.00	4,193.37	4,192.40	4,179.40	14.65	14.83	34.56	-128.72	-186.42	120.61	100.12	20.49	5.887		
4,300.00	4,292.63	4,292.35	4,278.37	15.01	15.22	35.28	-137.71	-197.03	123.44	102.45	20.99	5.880		
4,400.00	4,391.88	4,392.30	4,377.35	15.38	15.61	35.97	-146.70	-207.64	126.29	104.79	21.50	5.873		
4,500.00	4,491.14	4,492.25	4,476.32	15.75	16.00	36.63	-155.69	-218.26	129.15	107.14	22.01	5.867		
4,600.00	4,590.39	4,592.20	4,575.30	16.12	16.39	37.25	-164.68	-228.87	132.04	109.51	22.53	5.862		
4,700.00	4,689.65	4,692.15	4,674.28	16.49	16.79	37.85	-173.67	-239.48	134.94	111.89	23.04	5.856		
4,800.00	4,788.90	4,792.09	4,773.25	16.86	17.18	38.43	-182.66	-250.09	137.85	114.29	23.56	5.851		
4,900.00	4,888.16	4,892.04	4,872.23	17.24	17.58	38.98	-191.65	-260.70	140.77	116.69	24.08	5.846		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - OH - Plan #2		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	4,987.41	4,991.99	4,971.20	17.61	17.98	39.51	-200.64	-271.31	143.71	119.11	24.60	5.842				
5,100.00	5,086.66	5,091.94	5,070.18	17.99	18.38	40.02	-209.63	-281.93	146.66	121.54	25.12	5.838				
5,200.00	5,185.92	5,191.89	5,169.15	18.37	18.78	40.50	-218.63	-292.54	149.62	123.97	25.65	5.834				
5,300.00	5,285.17	5,291.83	5,268.13	18.75	19.18	40.97	-227.62	-303.15	152.59	126.42	26.18	5.830				
5,400.00	5,384.43	5,391.78	5,367.11	19.14	19.58	41.42	-236.61	-313.76	155.57	128.87	26.70	5.826				
5,500.00	5,483.68	5,491.73	5,466.08	19.52	19.99	41.86	-245.60	-324.37	158.56	131.33	27.23	5.822				
5,600.00	5,582.94	5,591.68	5,565.06	19.90	20.39	42.27	-254.59	-334.98	161.56	133.80	27.76	5.819				
5,700.00	5,682.19	5,691.63	5,664.03	20.29	20.80	42.68	-263.58	-345.59	164.57	136.27	28.30	5.816				
5,800.00	5,781.45	5,791.58	5,763.01	20.68	21.20	43.06	-272.57	-356.21	167.58	138.75	28.83	5.813				
5,900.00	5,880.70	5,891.52	5,861.99	21.06	21.61	43.44	-281.56	-366.82	170.61	141.24	29.37	5.810				
6,000.00	5,979.96	5,991.47	5,960.96	21.45	22.02	43.80	-290.55	-377.43	173.64	143.73	29.90	5.807				
6,100.00	6,079.21	6,091.42	6,059.94	21.84	22.43	44.15	-299.54	-388.04	176.67	146.23	30.44	5.804				
6,200.00	6,178.46	6,191.37	6,158.91	22.23	22.83	44.49	-308.53	-398.65	179.72	148.74	30.98	5.801				
6,300.00	6,277.72	6,291.32	6,257.89	22.62	23.24	44.81	-317.52	-409.26	182.76	151.24	31.52	5.799				
6,400.00	6,376.97	6,391.27	6,356.86	23.01	23.65	45.13	-326.51	-419.88	185.82	153.76	32.06	5.796				
6,500.00	6,476.23	6,491.21	6,455.84	23.40	24.06	45.43	-335.50	-430.49	188.88	156.28	32.60	5.794				
6,600.00	6,575.48	6,591.16	6,554.82	23.80	24.47	45.73	-344.49	-441.10	191.94	158.80	33.14	5.791				
6,700.00	6,674.74	6,691.11	6,653.79	24.19	24.89	46.01	-353.48	-451.71	195.01	161.32	33.69	5.789				
6,800.00	6,773.99	6,791.06	6,752.77	24.58	25.30	46.29	-362.47	-462.32	198.09	163.85	34.23	5.787				
6,900.00	6,873.25	6,891.01	6,851.74	24.98	25.71	46.56	-371.46	-472.93	201.17	166.39	34.78	5.784				
7,000.00	6,972.50	6,990.95	6,950.72	25.37	26.12	46.82	-380.45	-483.54	204.25	168.93	35.32	5.782				
7,100.00	7,071.76	7,090.90	7,049.70	25.77	26.53	47.07	-389.45	-494.16	207.34	171.47	35.87	5.780				
7,200.00	7,171.01	7,190.85	7,148.67	26.16	26.95	47.32	-398.44	-504.77	210.43	174.01	36.42	5.778				
7,300.00	7,270.26	7,290.80	7,247.65	26.56	27.36	47.55	-407.43	-515.38	213.52	176.56	36.96	5.776				
7,400.00	7,369.52	7,390.75	7,346.62	26.95	27.77	47.78	-416.42	-525.99	216.62	179.11	37.51	5.774				
7,500.00	7,468.77	7,490.70	7,445.60	27.35	28.19	48.01	-425.41	-536.60	219.72	181.66	38.06	5.773				
7,600.00	7,568.03	7,590.64	7,544.57	27.75	28.60	48.23	-434.40	-547.21	222.83	184.21	38.61	5.771				
7,700.00	7,667.28	7,690.59	7,643.55	28.15	29.02	48.44	-443.39	-557.83	225.94	186.77	39.16	5.769				
7,800.00	7,766.54	7,790.54	7,742.53	28.54	29.43	48.65	-452.38	-568.44	229.05	189.33	39.71	5.767				
7,900.00	7,865.79	7,890.49	7,841.50	28.94	29.85	48.85	-461.37	-579.05	232.16	191.90	40.27	5.766				
8,000.00	7,965.05	7,990.44	7,940.48	29.34	30.26	49.04	-470.36	-589.66	235.28	194.46	40.82	5.764				
8,100.00	8,064.30	8,090.39	8,039.45	29.74	30.68	49.24	-479.35	-600.27	238.40	197.03	41.37	5.762				
8,200.00	8,163.56	8,190.33	8,138.43	30.14	31.09	49.42	-488.34	-610.88	241.52	199.60	41.92	5.761				
8,300.00	8,262.81	8,290.28	8,237.41	30.54	31.51	49.60	-497.33	-621.49	244.65	202.17	42.48	5.759				
8,400.00	8,362.06	8,390.23	8,336.38	30.94	31.93	49.78	-506.32	-632.11	247.77	204.74	43.03	5.758				
8,500.00	8,461.32	8,490.18	8,435.36	31.34	32.34	49.95	-515.31	-642.72	250.90	207.32	43.59	5.756				
8,600.00	8,560.57	8,590.13	8,534.33	31.74	32.76	50.12	-524.30	-653.33	254.03	209.89	44.14	5.755				
8,700.00	8,659.83	8,690.07	8,633.31	32.14	33.18	50.28	-533.29	-663.94	257.17	212.47	44.70	5.754				
8,800.00	8,759.08	8,790.02	8,732.28	32.54	33.59	50.44	-542.28	-674.55	260.30	215.05	45.25	5.752				
8,900.00	8,858.34	8,889.97	8,831.26	32.94	34.01	50.60	-551.27	-685.16	263.44	217.63	45.81	5.751				
9,000.00	8,957.59	8,989.92	8,930.24	33.34	34.43	50.75	-560.27	-695.78	266.58	220.22	46.36	5.750				
9,100.00	9,056.85	9,089.87	9,029.21	33.75	34.85	50.90	-569.26	-706.39	269.72	222.80	46.92	5.748				
9,200.00	9,156.10	9,189.82	9,128.19	34.15	35.26	51.04	-578.25	-717.00	272.87	225.39	47.48	5.747				
9,300.00	9,255.36	9,289.76	9,227.16	34.55	35.68	51.19	-587.24	-727.61	276.01	227.97	48.04	5.746				
9,400.00	9,354.61	9,389.71	9,326.14	34.95	36.10	51.33	-596.23	-738.22	279.16	230.56	48.59	5.745				
9,500.00	9,453.86	9,489.66	9,425.11	35.35	36.52	51.46	-605.22	-748.83	282.31	233.15	49.15	5.744				
9,600.00	9,553.12	9,589.61	9,524.09	35.76	36.94	51.59	-614.21	-759.44	285.45	235.75	49.71	5.742				
9,700.00	9,652.37	9,689.56	9,623.07	36.16	37.36	51.72	-623.20	-770.06	288.61	238.34	50.27	5.741				
9,800.00	9,751.63	9,789.50	9,722.04	36.56	37.77	51.85	-632.19	-780.67	291.76	240.93	50.83	5.740				
9,853.24	9,804.47	9,843.11	9,775.13	36.78	38.00	51.92	-637.01	-786.35	293.43	242.31	51.13	5.739				
9,900.00	9,850.92	9,892.77	9,824.36	36.96	38.20	52.00	-641.21	-791.32	294.79	243.38	51.41	5.734				
10,000.00	9,950.44	9,999.03	9,929.96	37.35	38.63	52.13	-648.82	-800.29	297.31	245.32	51.99	5.719				

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - OH - Plan #2													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	
10,100.00	10,050.19	10,105.35	10,035.91	37.73	39.03	52.20	-654.52	-807.03	299.32	246.79	52.53	5.698		
10,200.00	10,150.09	10,211.71	10,142.10	38.09	39.42	52.20	-658.32	-811.51	300.81	247.77	53.04	5.671		
10,300.00	10,250.07	10,318.11	10,248.46	38.43	39.78	52.15	-660.21	-813.73	301.78	248.28	53.51	5.640		
10,319.93	10,270.00	10,339.32	10,269.67	38.50	39.85	-90.07	-660.35	-813.91	301.91	248.32	53.59	5.633		
10,400.00	10,350.07	10,421.22	10,351.57	38.75	40.11	-90.08	-660.43	-814.00	302.00	248.05	53.95	5.598		
10,500.00	10,450.07	10,521.22	10,451.57	39.07	40.42	-90.08	-660.43	-814.00	302.00	247.60	54.40	5.551		
10,600.00	10,550.07	10,621.22	10,551.57	39.39	40.73	-90.08	-660.43	-814.00	302.00	247.14	54.86	5.505		
10,700.00	10,650.07	10,721.22	10,651.57	39.71	41.04	-90.08	-660.43	-814.00	302.00	246.68	55.32	5.459		
10,800.00	10,750.07	10,821.22	10,751.57	40.03	41.35	-90.08	-660.43	-814.00	302.00	246.22	55.78	5.415		
10,900.00	10,850.07	10,921.22	10,851.57	40.35	41.66	-90.08	-660.43	-814.00	302.00	245.77	56.23	5.370		
11,000.00	10,950.07	11,021.22	10,951.57	40.67	41.97	-90.08	-660.43	-814.00	302.00	245.31	56.69	5.327		
11,100.00	11,050.07	11,121.22	11,051.57	40.99	42.29	-90.08	-660.43	-814.00	302.00	244.85	57.15	5.284		
11,200.00	11,150.07	11,221.22	11,151.57	41.32	42.60	-90.08	-660.43	-814.00	302.00	244.38	57.62	5.242		
11,200.49	11,150.56	11,221.71	11,152.06	41.32	42.60	-90.08	-660.43	-814.00	302.00	244.38	57.62	5.241		
11,300.00	11,250.07	11,320.73	11,250.95	41.64	42.90	-89.42	-666.96	-814.03	302.05	243.93	58.11	5.198		
11,400.00	11,350.07	11,416.42	11,344.74	41.96	43.14	-85.94	-638.57	-814.19	303.02	244.26	58.76	5.157		
11,500.00	11,450.07	11,503.87	11,426.71	42.29	43.31	-80.31	-608.34	-814.44	307.83	248.43	59.40	5.182		
11,521.93	11,472.00	11,521.66	11,442.77	42.36	43.34	-78.90	-600.67	-814.51	309.80	250.30	59.50	5.207		
11,550.00	11,500.06	11,543.94	11,462.53	42.45	43.37	-76.35	-590.38	-814.60	312.79	253.20	59.58	5.250		
11,600.00	11,549.83	11,582.89	11,496.05	42.60	43.42	-72.81	-570.58	-814.77	319.02	259.43	59.59	5.354		
11,650.00	11,599.01	11,621.00	11,527.48	42.73	43.45	-69.48	-549.03	-814.95	326.18	266.77	59.41	5.491		
11,700.00	11,647.22	11,658.37	11,556.85	42.85	43.48	-66.38	-525.92	-815.15	334.02	274.97	59.05	5.657		
11,750.00	11,694.10	11,700.00	11,587.70	42.95	43.50	-63.25	-497.99	-815.38	342.33	283.63	58.70	5.832		
11,800.00	11,739.28	11,731.30	11,609.51	43.04	43.51	-60.89	-475.56	-815.58	350.77	292.85	57.91	6.057		
11,850.00	11,782.44	11,766.99	11,632.86	43.11	43.51	-58.52	-448.57	-815.81	359.25	302.06	57.20	6.281		
11,900.00	11,823.23	11,800.00	11,652.91	43.17	43.50	-56.47	-422.35	-816.03	367.57	311.23	56.35	6.524		
11,950.00	11,861.34	11,837.16	11,673.64	43.21	43.49	-54.49	-391.52	-816.29	375.54	319.92	55.62	6.751		
12,000.00	11,896.50	11,871.74	11,691.09	43.24	43.47	-52.82	-361.67	-816.55	383.05	328.22	54.83	6.986		
12,050.00	11,928.42	11,900.00	11,704.00	43.25	43.45	-51.51	-336.54	-816.76	390.04	336.14	53.89	7.237		
12,100.00	11,956.87	11,940.12	11,720.16	43.25	43.41	-50.13	-299.83	-817.07	396.21	342.84	53.36	7.425		
12,150.00	11,981.63	11,973.99	11,731.77	43.25	43.38	-49.09	-268.02	-817.34	401.68	348.94	52.74	7.616		
12,200.00	12,002.51	12,000.00	11,739.41	43.23	43.35	-48.33	-243.15	-817.56	406.41	354.35	52.07	7.806		
12,250.00	12,019.36	12,041.29	11,749.18	43.21	43.30	-47.57	-203.05	-817.90	410.04	358.25	51.80	7.917		
12,300.00	12,032.03	12,074.78	11,754.98	43.18	43.26	-47.08	-170.07	-818.18	412.84	361.34	51.51	8.016		
12,350.00	12,040.45	12,100.00	11,758.06	43.16	43.23	-46.79	-145.04	-818.39	414.80	363.50	51.30	8.085		
12,400.00	12,044.54	12,141.58	11,760.73	43.13	43.17	-46.62	-103.56	-818.75	415.53	364.19	51.33	8.095		
12,428.94	12,044.92	12,160.90	11,760.95	43.11	43.15	-46.61	-84.25	-818.91	415.56	364.18	51.39	8.087		
12,500.00	12,044.05	12,230.85	11,760.29	43.10	43.06	-46.63	-14.30	-819.51	415.43	363.86	51.56	8.057		
12,600.00	12,042.82	12,330.85	11,759.33	43.15	42.95	-46.66	85.69	-820.36	415.24	363.39	51.86	8.008		
12,700.00	12,041.60	12,430.85	11,758.38	43.31	42.83	-46.68	185.68	-821.21	415.06	362.85	52.21	7.950		
12,800.00	12,040.38	12,530.85	11,757.42	43.57	42.89	-46.71	285.68	-822.06	414.87	362.25	52.62	7.884		
12,900.00	12,039.15	12,630.85	11,756.47	43.92	43.30	-46.74	385.67	-822.92	414.69	361.59	53.10	7.810		
13,000.00	12,037.93	12,730.85	11,755.51	44.34	43.75	-46.77	485.66	-823.77	414.51	360.88	53.62	7.730		
13,100.00	12,036.71	12,830.85	11,754.56	44.81	44.26	-46.79	585.65	-824.62	414.32	360.11	54.21	7.643		
13,200.00	12,035.48	12,930.85	11,753.60	45.34	44.81	-46.82	685.64	-825.47	414.14	359.29	54.85	7.551		
13,300.00	12,034.26	13,030.85	11,752.65	45.92	45.40	-46.85	785.63	-826.33	413.95	358.42	55.53	7.454		
13,400.00	12,033.04	13,130.85	11,751.69	46.55	46.05	-46.87	885.62	-827.18	413.77	357.50	56.27	7.353		
13,500.00	12,031.81	13,230.85	11,750.74	47.23	46.74	-46.90	985.62	-828.03	413.59	356.53	57.06	7.249		
13,600.00	12,030.59	13,330.85	11,749.78	47.96	47.47	-46.93	1,085.61	-828.88	413.40	355.52	57.89	7.142		
13,700.00	12,029.37	13,430.85	11,748.83	48.73	48.25	-46.95	1,185.60	-829.73	413.22	354.46	58.76	7.032		
13,800.00	12,028.14	13,530.84	11,747.87	49.54	49.07	-46.98	1,285.59	-830.59	413.04	353.36	59.68	6.921		
13,900.00	12,026.92	13,630.84	11,746.92	50.39	49.93	-47.01	1,385.58	-831.44	412.85	352.22	60.63	6.809		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
14,000.00	12,025.70	13,730.84	11,745.96	51.28	50.82	-47.04	1,485.57	-832.29	412.67	351.04	61.63	6.696		
14,100.00	12,024.47	13,830.84	11,745.01	52.21	51.75	-47.06	1,585.56	-833.14	412.49	349.83	62.66	6.583		
14,200.00	12,023.25	13,930.84	11,744.05	53.17	52.72	-47.09	1,685.56	-834.00	412.30	348.58	63.72	6.471		
14,300.00	12,022.03	14,030.84	11,743.10	54.17	53.71	-47.12	1,785.55	-834.85	412.12	347.31	64.81	6.358		
14,400.00	12,020.80	14,130.84	11,742.14	55.19	54.74	-47.15	1,885.54	-835.70	411.94	346.00	65.94	6.247		
14,500.00	12,019.58	14,230.84	11,741.19	56.25	55.80	-47.17	1,985.53	-836.55	411.76	344.66	67.09	6.137		
14,600.00	12,018.35	14,330.84	11,740.23	57.33	56.88	-47.20	2,085.52	-837.40	411.57	343.30	68.27	6.028		
14,700.00	12,017.13	14,430.84	11,739.28	58.44	57.99	-47.23	2,185.51	-838.26	411.39	341.91	69.48	5.921		
14,800.00	12,015.91	14,530.84	11,738.32	59.57	59.13	-47.26	2,285.50	-839.11	411.21	340.50	70.71	5.815		
14,900.00	12,014.68	14,630.84	11,737.37	60.73	60.29	-47.28	2,385.50	-839.96	411.03	339.06	71.97	5.711		
15,000.00	12,013.46	14,730.84	11,736.41	61.91	61.47	-47.31	2,485.49	-840.81	410.84	337.60	73.24	5.609		
15,100.00	12,012.24	14,830.84	11,735.46	63.11	62.67	-47.34	2,585.48	-841.67	410.66	336.13	74.54	5.510		
15,200.00	12,011.01	14,930.84	11,734.50	64.33	63.89	-47.37	2,685.47	-842.52	410.48	334.63	75.85	5.412		
15,300.00	12,009.79	15,030.84	11,733.55	65.57	65.13	-47.39	2,785.46	-843.37	410.30	333.12	77.18	5.316		
15,400.00	12,008.57	15,130.84	11,732.59	66.82	66.39	-47.42	2,885.45	-844.22	410.12	331.58	78.53	5.222		
15,500.00	12,007.34	15,230.84	11,731.64	68.10	67.67	-47.45	2,985.44	-845.08	409.93	330.04	79.89	5.131		
15,600.00	12,006.12	15,330.84	11,730.68	69.39	68.96	-47.48	3,085.44	-845.93	409.75	328.48	81.27	5.042		
15,700.00	12,004.90	15,430.84	11,729.73	70.69	70.26	-47.50	3,185.43	-846.78	409.57	326.90	82.67	4.955		
15,800.00	12,003.67	15,530.84	11,728.77	72.01	71.58	-47.53	3,285.42	-847.63	409.39	325.32	84.07	4.869		
15,900.00	12,002.45	15,630.84	11,727.82	73.34	72.91	-47.56	3,385.41	-848.48	409.21	323.72	85.49	4.787		
16,000.00	12,001.23	15,730.84	11,726.86	74.69	74.26	-47.59	3,485.40	-849.34	409.03	322.11	86.92	4.706		
16,100.00	12,000.00	15,830.84	11,725.91	76.04	75.62	-47.61	3,585.39	-850.19	408.84	320.48	88.36	4.627		
16,200.00	11,998.78	15,930.84	11,724.95	77.41	76.98	-47.64	3,685.38	-851.04	408.66	318.85	89.81	4.550		
16,300.00	11,997.56	16,030.84	11,724.00	78.79	78.36	-47.67	3,785.38	-851.89	408.48	317.21	91.27	4.476		
16,400.00	11,996.33	16,130.84	11,723.04	80.18	79.75	-47.70	3,885.37	-852.75	408.30	315.56	92.74	4.403		
16,500.00	11,995.11	16,230.84	11,722.09	81.58	81.15	-47.73	3,985.36	-853.60	408.12	313.90	94.22	4.332		
16,600.00	11,993.89	16,330.83	11,721.13	82.99	82.56	-47.75	4,085.35	-854.45	407.94	312.24	95.70	4.263		
16,700.00	11,992.66	16,430.83	11,720.18	84.40	83.98	-47.78	4,185.34	-855.30	407.76	310.57	97.19	4.195		
16,800.00	11,991.44	16,530.83	11,719.22	85.83	85.40	-47.81	4,285.33	-856.15	407.58	308.89	98.69	4.130		
16,900.00	11,990.22	16,630.83	11,718.27	87.26	86.84	-47.84	4,385.32	-857.01	407.40	307.20	100.20	4.066		
17,000.00	11,988.99	16,730.83	11,717.31	88.70	88.28	-47.86	4,485.32	-857.86	407.22	305.51	101.71	4.004		
17,100.00	11,987.77	16,830.83	11,716.36	90.15	89.73	-47.89	4,585.31	-858.71	407.04	303.81	103.23	3.943		
17,200.00	11,986.55	16,930.83	11,715.40	91.60	91.18	-47.92	4,685.30	-859.56	406.86	302.11	104.75	3.884		
17,300.00	11,985.32	17,030.83	11,714.45	93.06	92.64	-47.95	4,785.29	-860.42	406.68	300.40	106.27	3.827		
17,400.00	11,984.10	17,130.83	11,713.49	94.53	94.11	-47.98	4,885.28	-861.27	406.50	298.69	107.80	3.771		
17,500.00	11,982.88	17,230.83	11,712.54	96.01	95.59	-48.01	4,985.27	-862.12	406.32	296.98	109.34	3.716		
17,600.00	11,981.65	17,330.83	11,711.58	97.49	97.07	-48.03	5,085.26	-862.97	406.14	295.26	110.88	3.663		
17,700.00	11,980.43	17,430.83	11,710.63	98.97	98.55	-48.06	5,185.26	-863.83	405.96	293.54	112.42	3.611		
17,800.00	11,979.21	17,530.83	11,709.67	100.46	100.04	-48.09	5,285.25	-864.68	405.78	291.81	113.97	3.561		
17,900.00	11,977.98	17,630.83	11,708.72	101.95	101.54	-48.12	5,385.24	-865.53	405.60	290.09	115.51	3.511		
18,000.00	11,976.76	17,730.83	11,707.76	103.45	103.04	-48.15	5,485.23	-866.38	405.42	288.36	117.07	3.463		
18,100.00	11,975.54	17,830.83	11,706.81	104.96	104.54	-48.17	5,585.22	-867.23	405.24	286.62	118.62	3.416		
18,200.00	11,974.31	17,930.83	11,705.85	106.47	106.05	-48.20	5,685.21	-868.09	405.06	284.89	120.17	3.371		
18,300.00	11,973.09	18,030.83	11,704.90	107.98	107.56	-48.23	5,785.21	-868.94	404.88	283.15	121.73	3.326		
18,400.00	11,971.87	18,130.83	11,703.94	109.50	109.08	-48.26	5,885.20	-869.79	404.70	281.41	123.29	3.282		
18,500.00	11,970.64	18,230.83	11,702.99	111.02	110.60	-48.29	5,985.19	-870.64	404.53	279.67	124.85	3.240		
18,600.00	11,969.42	18,330.83	11,702.03	112.54	112.12	-48.32	6,085.18	-871.50	404.35	277.93	126.42	3.199		
18,700.00	11,968.20	18,430.83	11,701.08	114.07	113.65	-48.34	6,185.17	-872.35	404.17	276.19	127.98	3.158		
18,800.00	11,966.97	18,530.83	11,700.12	115.60	115.18	-48.37	6,285.16	-873.20	403.99	274.44	129.54	3.119		
18,900.00	11,965.75	18,630.83	11,699.17	117.13	116.72	-48.40	6,385.15	-874.05	403.81	272.70	131.11	3.080		
19,000.00	11,964.53	18,730.83	11,698.21	118.67	118.26	-48.43	6,485.15	-874.90	403.63	270.95	132.68	3.042		
19,100.00	11,963.30	18,830.83	11,697.26	120.21	119.80	-48.46	6,585.14	-875.76	403.45	269.21	134.24	3.005		

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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	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		
19,200.00	11,962.08	18,930.83	11,696.30	121.76	121.34	-48.49	6,685.13	-876.61	403.28	267.46	135.81	2.969		
19,300.00	11,960.86	19,030.83	11,695.35	123.30	122.89	-48.51	6,785.12	-877.46	403.10	265.72	137.38	2.934		
19,400.00	11,959.63	19,130.82	11,694.39	124.85	124.44	-48.54	6,885.11	-878.31	402.92	263.97	138.95	2.900		
19,500.00	11,958.41	19,230.82	11,693.44	126.40	125.99	-48.57	6,985.10	-879.17	402.74	262.22	140.52	2.866		
19,600.00	11,957.19	19,330.82	11,692.48	127.96	127.54	-48.60	7,085.09	-880.02	402.56	260.48	142.09	2.833		
19,700.00	11,955.96	19,430.82	11,691.53	129.51	129.10	-48.63	7,185.09	-880.87	402.39	258.73	143.66	2.801		
19,800.00	11,954.74	19,530.82	11,690.57	131.07	130.66	-48.66	7,285.08	-881.72	402.21	256.98	145.23	2.770		
19,900.00	11,953.52	19,630.82	11,689.62	132.63	132.22	-48.69	7,385.07	-882.57	402.03	255.24	146.79	2.739		
20,000.00	11,952.29	19,730.82	11,688.66	134.20	133.78	-48.72	7,485.06	-883.43	401.85	253.49	148.36	2.709		
20,100.00	11,951.07	19,830.82	11,687.71	135.76	135.35	-48.74	7,585.05	-884.28	401.68	251.75	149.93	2.679		
20,200.00	11,949.85	19,930.82	11,686.75	137.33	136.92	-48.77	7,685.04	-885.13	401.50	250.00	151.50	2.650		
20,300.00	11,948.62	20,030.82	11,685.80	138.90	138.49	-48.80	7,785.03	-885.98	401.32	248.26	153.06	2.622		
20,400.00	11,947.40	20,130.82	11,684.84	140.47	140.06	-48.83	7,885.03	-886.84	401.15	246.52	154.63	2.594		
20,500.00	11,946.18	20,230.82	11,683.89	142.04	141.63	-48.86	7,985.02	-887.69	400.97	244.77	156.19	2.567		
20,600.00	11,944.95	20,330.82	11,682.93	143.62	143.20	-48.89	8,085.01	-888.54	400.79	243.03	157.76	2.541		
20,700.00	11,943.73	20,430.82	11,681.98	145.19	144.78	-48.92	8,185.00	-889.39	400.62	241.29	159.32	2.515		
20,800.00	11,942.51	20,530.82	11,681.02	146.77	146.36	-48.95	8,284.99	-890.25	400.44	239.55	160.88	2.489		
20,900.00	11,941.28	20,630.82	11,680.07	148.35	147.94	-48.98	8,384.98	-891.10	400.26	237.82	162.45	2.464		
21,000.00	11,940.06	20,730.82	11,679.11	149.93	149.52	-49.00	8,484.97	-891.95	400.09	236.08	164.01	2.439		
21,100.00	11,938.84	20,830.82	11,678.16	151.51	151.10	-49.03	8,584.97	-892.80	399.91	234.35	165.56	2.415		
21,200.00	11,937.61	20,930.82	11,677.20	153.10	152.69	-49.06	8,684.96	-893.65	399.73	232.61	167.12	2.392		
21,300.00	11,936.39	21,030.82	11,676.25	154.68	154.27	-49.09	8,784.95	-894.51	399.56	230.88	168.68	2.369		
21,400.00	11,935.17	21,130.82	11,675.29	156.27	155.86	-49.12	8,884.94	-895.36	399.38	229.15	170.24	2.346		
21,500.00	11,933.94	21,230.82	11,674.34	157.86	157.45	-49.15	8,984.93	-896.21	399.21	227.42	171.79	2.324		
21,600.00	11,932.72	21,330.82	11,673.38	159.45	159.04	-49.18	9,084.92	-897.06	399.03	225.69	173.34	2.302		
21,700.00	11,931.49	21,430.82	11,672.43	161.04	160.63	-49.21	9,184.91	-897.92	398.85	223.96	174.89	2.281		
21,800.00	11,930.27	21,530.82	11,671.47	162.63	162.22	-49.24	9,284.91	-898.77	398.68	222.24	176.44	2.260		
21,900.00	11,929.05	21,630.82	11,670.52	164.22	163.81	-49.27	9,384.90	-899.62	398.50	220.51	177.99	2.239		
22,000.00	11,927.82	21,730.82	11,669.56	165.82	165.41	-49.30	9,484.89	-900.47	398.33	218.79	179.54	2.219		
22,100.00	11,926.60	21,830.82	11,668.61	167.41	167.00	-49.32	9,584.88	-901.32	398.15	217.07	181.08	2.199		
22,206.36	11,925.30	21,937.17	11,667.59	169.11	168.70	-49.36	9,691.23	-902.23	397.97	215.24	182.73	2.178 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 Trinity Fed Com 703H
Project:	Lea County, NM (NAD83)	TVD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Reference Site:	Trinity Fed/Santa Fe Fed	MD Reference:	3097.6' GE + 30' KB @ 3127.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Trinity Fed Com 703H	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3097.6' GE + 30' KB @ 3127.60usft

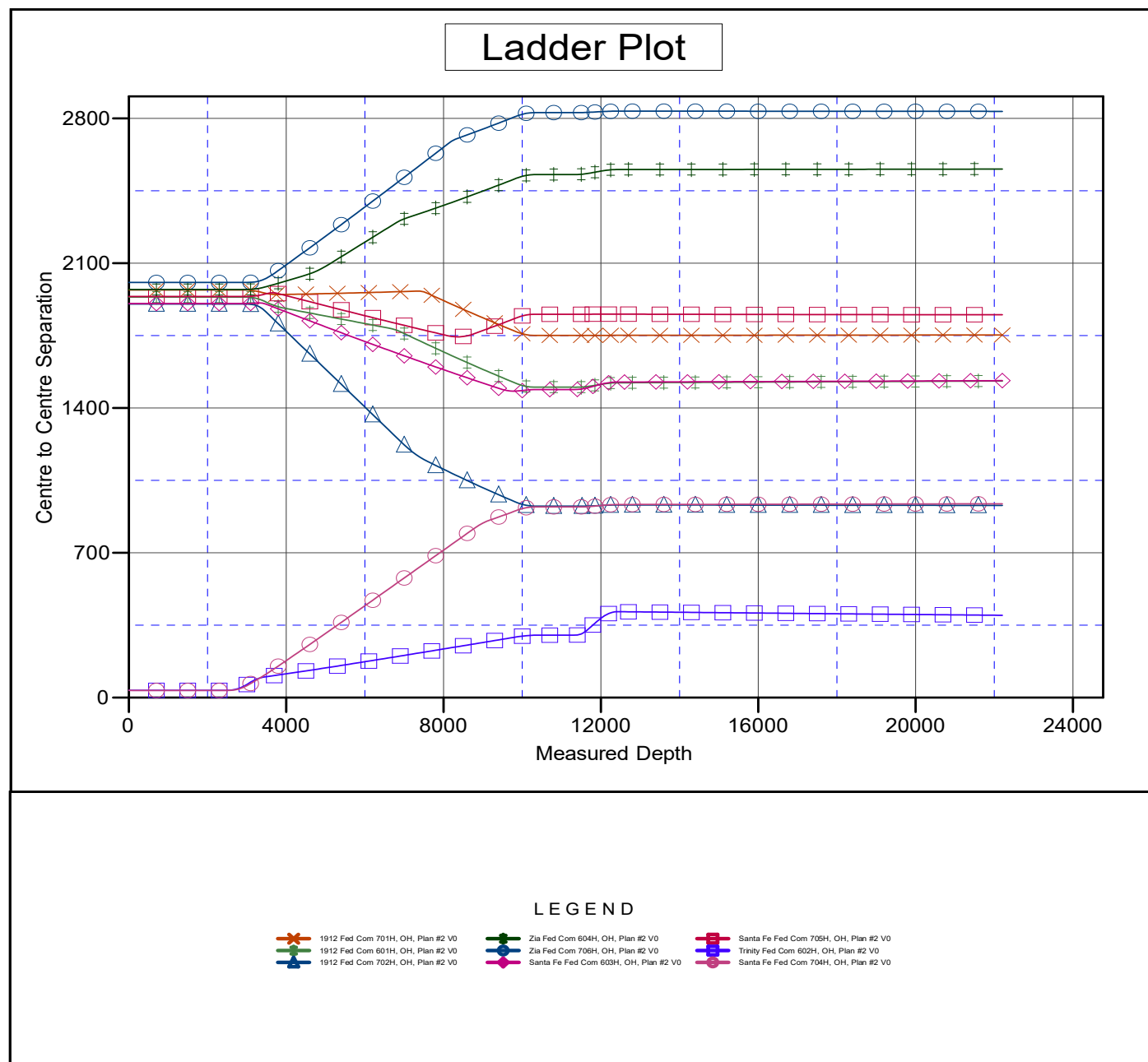
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

Coordinates are relative to: Trinity Fed Com 703H

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

Grid Convergence at Surface is: 0.54°



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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Trinity Fed Com 703H
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Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3097.6' GE + 30' KB @ 3127.60usft

Offset Depths are relative to Offset Datum

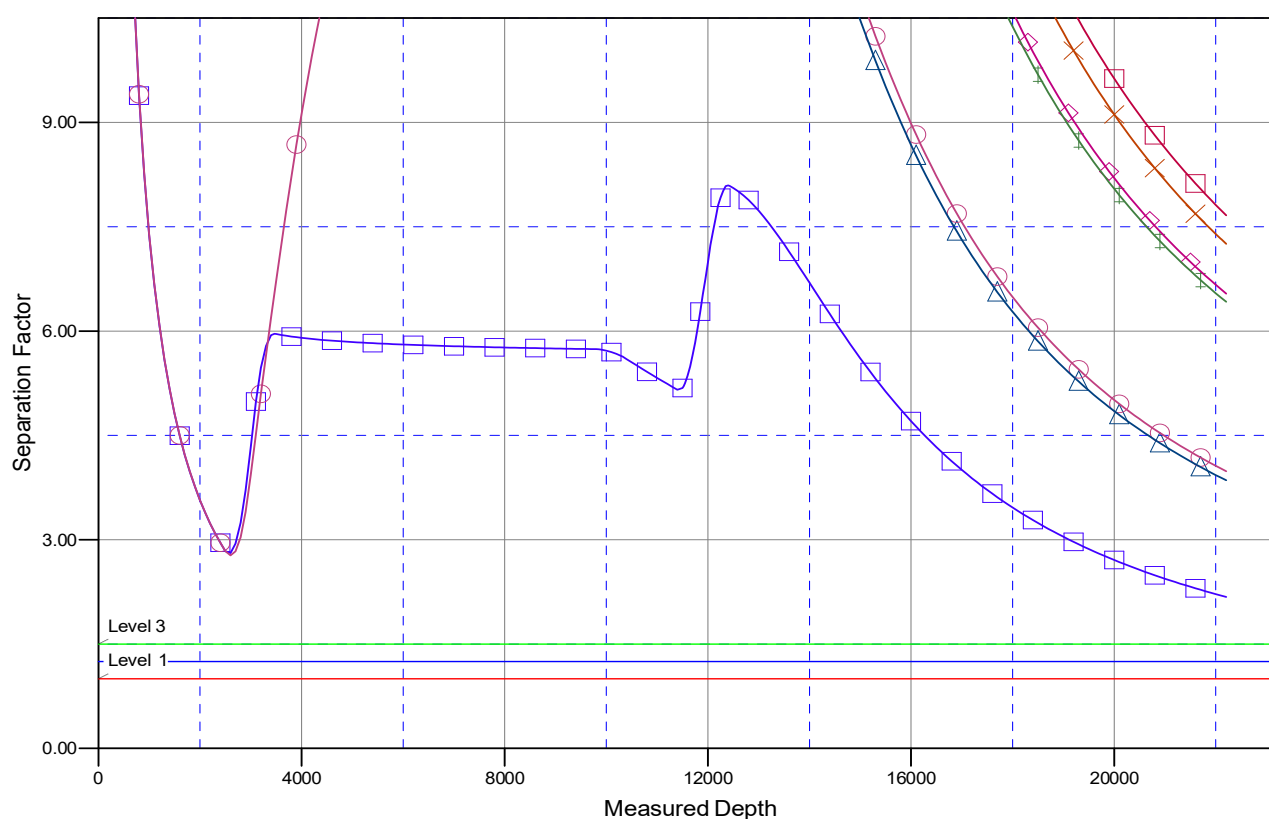
Central Meridian is -104.333334

Coordinates are relative to: Trinity Fed Com 703H

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

Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

1912 Fed Com 701H, OH, Plan #2 V0	Zia Fed Com 604H, OH, Plan #2 V0	Santa Fe Fed Com 705H, OH, Plan #2 V0
1912 Fed Com 601H, OH, Plan #2 V0	Zia Fed Com 706H, OH, Plan #2 V0	Trinity Fed Com 602H, OH, Plan #2 V0
1912 Fed Com 702H, OH, Plan #2 V0	Santa Fe Fed Com 603H, OH, Plan #2 V0	Santa Fe Fed Com 704H, OH, Plan #2 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: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC 1912 FEDERAL 601H 285'/S & 730'/W 150'/N & 600'/W Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC 1912 FEDERAL 701H 285'/S & 695'/W 150'/N & 350'/W Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC 1912 FEDERAL 702H 285'/S & 765'/W 150'/N & 1176'/W Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC SANTA FE FED COM 704H 710'/S & 2626'/W 150'/N & 2252'/E Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC SANTA FE FED COM 603H 250'/S & 812'/E 150'/N & 1689'/E Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC SANTA FE FED COM 705H 250'/S & 777'/E 150'/N & 1326'/E Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	FRANKLIN MOUNTAIN ENERGY LLC TRINITY FEDERAL 602H 710'/S & 2584'/W 150'/N & 1800'/W Section 24, T.25 S., R.35 E., NMP Lea County, New Mexico

OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	TRINITY FEDERAL 703H
SURFACE HOLE FOOTAGE:	710'/S & 2619'/W
BOTTOM HOLE FOOTAGE:	150'/N & 2102'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	ZIA FED COM 604H
SURFACE HOLE FOOTAGE:	250'/S & 742'/E
BOTTOM HOLE FOOTAGE:	150'/N & 650'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	ZIA FED COM 706H
SURFACE HOLE FOOTAGE:	250'/S & 707'/E
BOTTOM HOLE FOOTAGE:	150'/N & 350'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico

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**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

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 and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

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

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

Timing Limitation Exceptions:

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

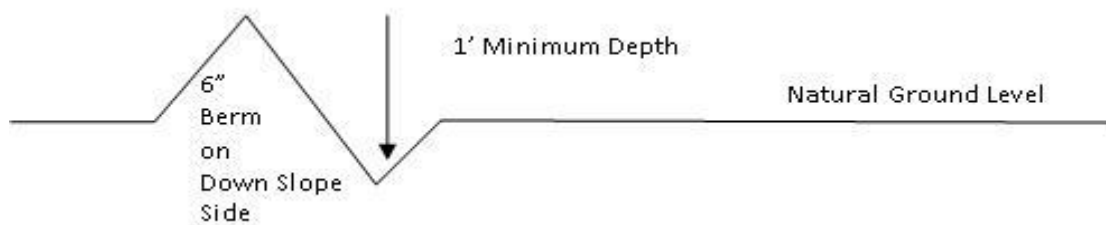
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

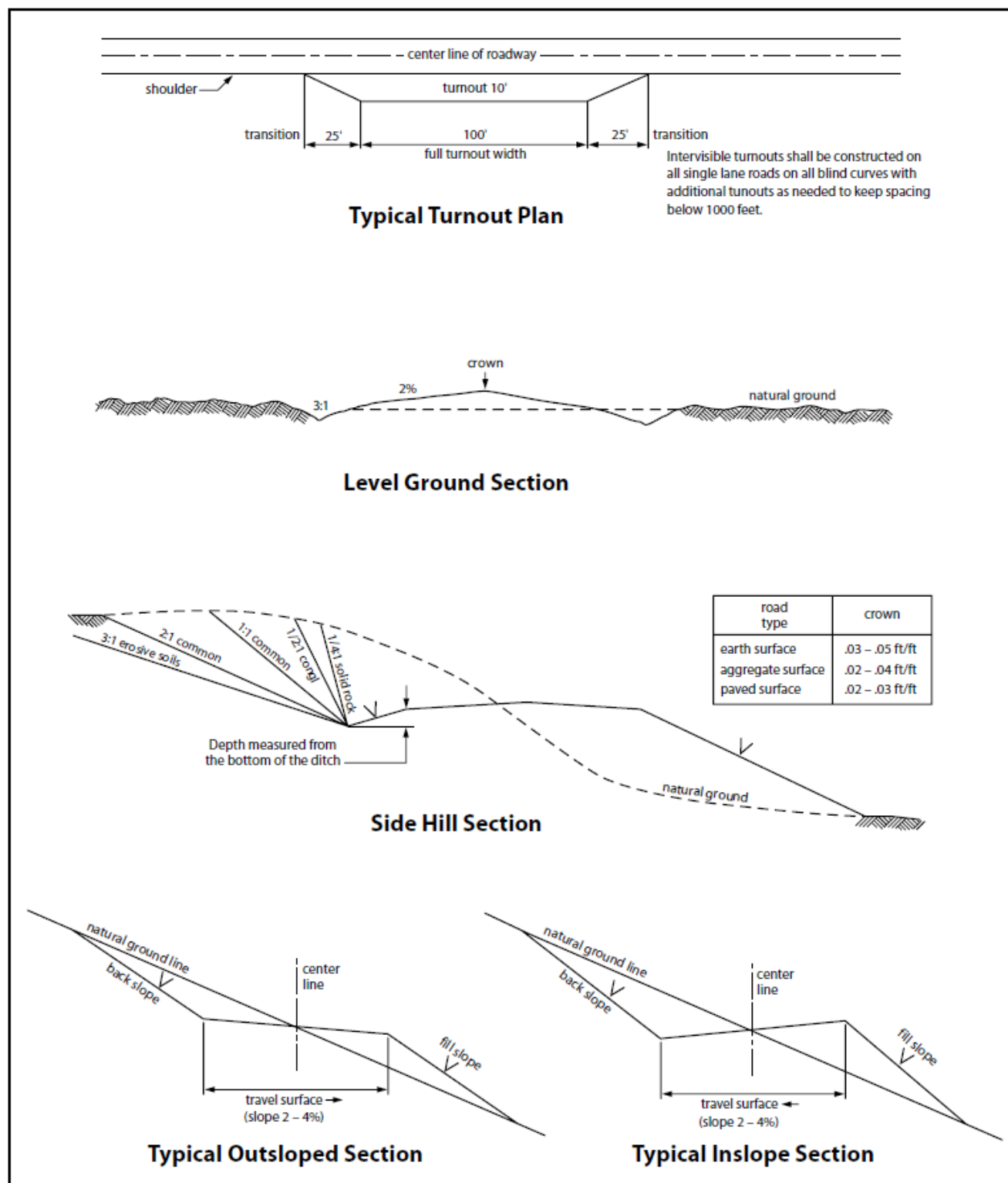


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

B. BURIED PIPELINE STIPULATIONS

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

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

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting

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

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

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

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

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless

otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

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

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

- | | |
|--|--|
| ☐ seed mixture 1 | ☒ seed mixture 3 |
| ☒ seed mixture 2 | ☐ seed mixture 4 |
| ☐ seed mixture 2/LPC | ☐ Aplomado Falcon Mixture |

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

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

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

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist,

which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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

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

19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

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

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

Range:

Cattleguards

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

Fence Requirement

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

Livestock Watering Requirement

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

C. STIPULATIONS FOR OVERHEAD ELECTRIC LINES

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

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

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 *et seq.* (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b.

A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

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

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

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

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

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

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

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply

with those abandonment procedures as prescribed by the Authorized Officer.

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

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Range:

Cattleguards

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

Fence Requirement

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

Livestock Watering Requirement

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

D. STIPULATIONS FOR OIL AND GAS RELATED SITES

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

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statutes.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or

requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

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

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

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or 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.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. 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.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site 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 the abandonment of the site. All pads and 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. 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).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

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

() seed mixture 1

(X) seed mixture 3

- (X) seed mixture 2 () seed mixture 4
() seed mixture 2/LPC () Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - 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

16. 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 exposure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. 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.

18. 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.

19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

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 top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

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

Range:

Cattleguards

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

Fence Requirement

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

Livestock Watering Requirement

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture 2, for Sandy Sites

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

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

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

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

*Pounds of pure live seed:

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

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.:	NMNM138898
LOCATION:	Section 24, T.25 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Trinity Federal 602H
SURFACE HOLE FOOTAGE:	710'/S & 2584'/W
BOTTOM HOLE FOOTAGE:	150'/N & 1800'/W

WELL NAME & NO.:	Trinity Federal 703H
SURFACE HOLE FOOTAGE:	710'/S & 2619'/W
BOTTOM HOLE FOOTAGE:	150'/N & 2102'/W

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1225 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

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

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing shall be set at approximately **5400 feet** is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 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.

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

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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.

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

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.



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.



Emergency Contact List:

Vladimir Roudakov, Drilling Engineer	Cell 720 933 9784
Rachael Overbey, Project and Regulatory Director	Cell 303 570 4057
Franklin Mountain Energy Afterhours Emergency Call Tree:	720-640-7517

EMERGENCY NUMBERS:

<u>Agency</u>	<u>Telephone Number</u>
BLM – Carlsbad Mainline	575-234-5972
BLM – Spill Emergency	575-234-6235
BLM – Engineering Emergency	575-361-2822
NMOCD District 1 – Hobbs Mainline	575-393-6161
NMOCD Emergency Line	575-370-3186
Wild Well Control	281-784-4700
H2S Emergency response:	
Air Ambulance New Mexico – Lea Co Reginal	575-391-2934
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222



Trinity Federal 703H

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)	3,098'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,378'	750'			Carbonates
Salado	1,775'	1,353'			Salt, Carbonate & Clastics
Base Salt	-1,026'	4,154'			Shaley Carbonate & Shale
Lamar	-1,792'	4,920'			Carbonate & Clastics
Bell Canyon	-1,844'	4,972'			Sandstone - oil/gas/water
Cherry Canyon	-2,877'	6,005'			Sandstone - oil/gas/water
Brushy Canyon	-4,179'	7,307'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,430'	8,558'			Shale/Carbonates - oil/gas
Avalon	-5,453'	8,581'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,842'	9,970'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,970'	10,098'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,364'	10,492'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,813'	10,941'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,464'	11,592'			Sandstone - oil/gas/water
Wolfcamp	-8,767'	11,895'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,801'	11,929'			Overpressure Shale - Oil/Gas
HZ Target	-8,916'	12,044'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,994'	12,122'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	4,972'	Oil
Bone Spring	9,970'	Oil
Wolfcamp	11,895'	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. Capitan Reef boundary is near surface hole locations, but exact location is unknown. While drilling, FME will be prepared to switch over to fresh water should we encounter the reef and have losses up to 50%.

4. Casing Program:

All casings 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	5400	1.72	1.67	2.90	3.30
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	11950	1.11	1.28	1.82	1.24
Long string 5 1/2"	23	P-110	14520	14520	729	Anaconda 656	22206	1.32	1.4	1.19	1.07



Preliminary plan is to set 7 5/8" string before entering Wolfcamp formation at 11,861'TVD/11,550'MD at 42° Inc due too potential overpressure. Safety factors calculated assuming the well is vertical.

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 ft3/sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Tail Yield ft3/sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	795	Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	334	HalCem TM, 14.8 ppg, Class C, 1% CaCl ₂ , 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5400	1167	0.125pps Poly-E-Flake Neocem TM, 11.5 ppg, Class C 5% Salt,	2.444	14.32	0	153	HalCem TM, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.334	6.42	5100	100%
Int2	8.75	7.625	11950	338	0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal NeoCem, 11 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake NeoCem, 13.5 ppg, Gas Migration Control	2.798	17.15	4400	112	NeoCem 13.2 ppg, Class C 0.25 pps Cello-Flake, 2% CaCl ₂	1.44	7.29	10950	50%
Prod	6.75	5.5	22206	829		1.357	6.65	10950						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' – 11,950'	Brine	8.8-10.2	28-34	N/c
11,950' – 22,206' Lateral	Oil Base	10.0-11.0	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 12.5 ppg may be utilized.

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

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

7. Auxiliary well control and monitoring equipment:

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

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

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

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

8. Logging, testing and coring program:

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

Open-hole logs are not planned for this well.

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

The estimated bottom-hole temperature at 12,044' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 7,828 psig (based on 12.5 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 be 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 Cameron 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.

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 22167

CONDITIONS OF APPROVAL

Operator:		OGRID:	Action Number:	Action Type:
FRANKLIN MOUNTAIN ENERGY LLC	44 Cook Street	373910	22167	FORM 3160-3
Suite 1000	Denver, CO80206			

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string