Form 3160-3
(June 2015)

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

OCD – HOBBS
11/18/2020
RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM117126

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: JUDGE BAYLOR FED COM [329876] 601H

2. Name of Operator: FRANKLIN MOUNTAIN ENERGY LLC [373910]

9. API Well No.: 30-025-48102

3a. Address: 2401 E 2nd Avenue, Suite 300, Denver, CO 80206

3b. Phone No. *(include area code)*: (720) 414-7868

10. Field and Pool, or Exploratory: [97088] BONE SPRING/WC-025 G-09 S253502B

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

At surface: SWSW / 250 FSL / 488 FWL / LAT 32.08026 / LONG -103.328211

At proposed prod. zone: SWSW / 150 FSL / 350 FWL / LAT 32.050935 / LONG -103.328637

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 36/T25S/R35E/NMP

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

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 250 feet

16. No of acres in lease: 1080

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 35 feet

19. Proposed Depth: 12050 feet / 22573 feet

20. BLM/BIA Bond No. in file: FED: NMB001761

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3070 feet

22. Approximate date work will start*: 09/01/2020

23. Estimated duration: 30 days

## 24. Attachments

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

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

| 25. Signature | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | LARA THOMPSON / Ph: (720) 414-7868 | 04/29/2020 |

Title: Project Manager

| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | Cody Layton / Ph: (575) 234-5959 | 10/09/2020 |

| Title | Office |
|---|---|
| Assistant Field Manager Lands & Minerals | Carlsbad Field 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 11/18/2020**

APPROVED WITH CONDITIONS

KZ 12/01/2020

**SL**

**Approval Date: 10/09/2020**

(Continued on page 2)

*(Instructions on page 2)

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## INSTRUCTIONS

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

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

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

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

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

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

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

## NOTICES

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

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

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

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

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

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

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



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## Additional Operator Remarks

### Location of Well

0. SHL: SWSW / 250 FSL / 488 FWL / TWSP: 25S / RANGE: 35E / SECTION: 36 / LAT: 32.08026 / LONG: -103.328211 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNW / 0 FNL / 356 FWL / TWSP: 26S / RANGE: 35E / SECTION: 12 / LAT: 32.065046 / LONG: -103.328628 ( TVD: 11961 feet, MD: 14406 feet )

PPP: NWNW / 116 FNL / 361 FWL / TWSP: 26S / RANGE: 35E / SECTION: 1 / LAT: 32.079256 / LONG: -103.32862 ( TVD: 11713 feet, MD: 11762 feet )

PPP: NWNW / 0 FNL / 401 FWL / TWSP: 26S / RANGE: 35E / SECTION: 1 / LAT: 32.079573 / LONG: -103.32849 ( TVD: 11630 feet, MD: 11640 feet )

BHL: SWSW / 150 FSL / 350 FWL / TWSP: 26S / RANGE: 35E / SECTION: 12 / LAT: 32.050935 / LONG: -103.328637 ( TVD: 12050 feet, MD: 22573 feet )

## BLM Point of Contact

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

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**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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FRANKLIN MOUNTAIN ENERGY

Hydrogen Sulfide Plan

A. All personnel shall receive proper awareness $H_2S$ training.
B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
C. Required Emergency Equipment
    a. Well Control Equipment
        i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.
        ii. Choke manifold with a remotely operated hydraulic choke.
        iii. Mud/gas separator
    b. Protective equipment for essential personnel
        i. Breathing Apparatus
            1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
            2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
            3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
        ii. Auxiliary Rescue Equipment
            1. Stretcher
            2. Two OSHA full body harnesses
            3. 100 feet of 5/8 inches OSHA approved rope
            4. 1-20# class ABC fire extinguisher
    c. $H_2S$ 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 $H_2S$ 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 $H_2S$ circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in $H_2S$ 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 $H_2S$ 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 $H_2S$ 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 $H_2S$ contingency plan. This will be reevaluated during wellbore construction if $H_2S$ 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:**

| Agency | Telephone Number |
|---|---|
| **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** |

# PECOS DISTRICT
# DRILLING CONDITIONS OF APPROVAL

| | |
|---|---|
| **OPERATOR'S NAME:** | **Franklin Mountain Energy LLC** |
| **LEASE NO.:** | **NMNM117126** |
| **LOCATION:** | Section 36, T.25 S., R.35 E., NMPM |
| **COUNTY:** | Lea County, New Mexico |

| | |
|---|---|
| **WELL NAME & NO.:** | Judge Baylor Fed Com 701H |
| **SURFACE HOLE FOOTAGE:** | 250'/S & 523'/W |
| **BOTTOM HOLE FOOTAGE** | 150'/S & 660'/W |

| | |
|---|---|
| **WELL NAME & NO.:** | Judge Baylor Fed Com 601H |
| **SURFACE HOLE FOOTAGE:** | 250'/S & 488'/W |
| **BOTTOM HOLE FOOTAGE** | 150'/S & 350'/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 **1150 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. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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

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

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

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

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

## C. PRESSURE CONTROL

1.

**Option 1:**

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing

shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

**Option 2:**

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

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

## D. SPECIAL REQUIREMENT (S)

**Communitization Agreement**

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

# GENERAL REQUIREMENTS

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

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

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

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

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

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

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

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

A. CASING

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

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

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

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

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

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

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

B. PRESSURE CONTROL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

# Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Judge Baylor Fed Com
Well: Judge Baylor Fed Com 601H
Wellbore: OH
Design: Plan #2

3070' GE + 21' KB @ 3091.00usft


**Azimuths to Grid North**
**True North: -0.53°**
**Magnetic North: 6.00°**

**Magnetic Field**
**Strength: 47603.8nT**
**Dip Angle: 59.93°**
**Date: 2/25/2020**
**Model: IGRF2015**

**PROJECT DETAILS: Lea County, NM (NAD83)**

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

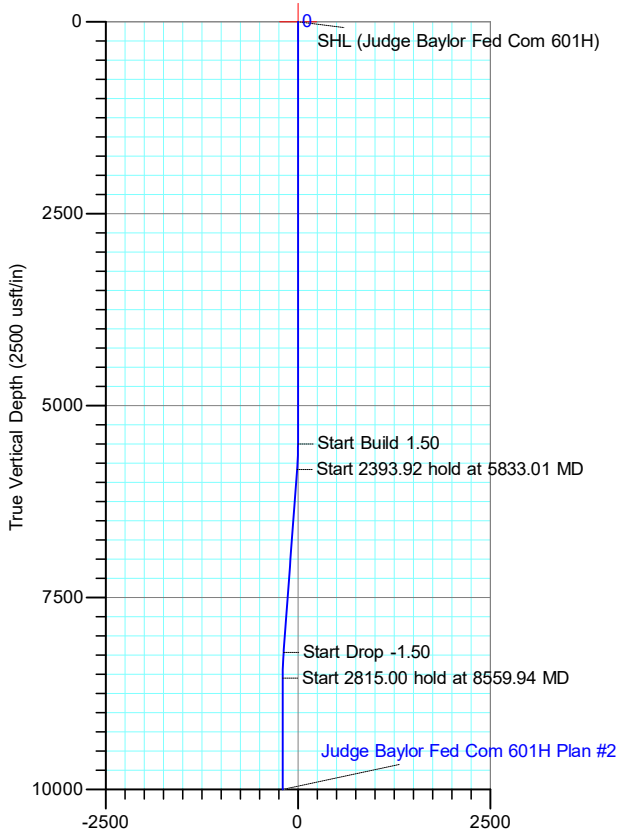
FRANKLIN MOUNTAIN ENERGY

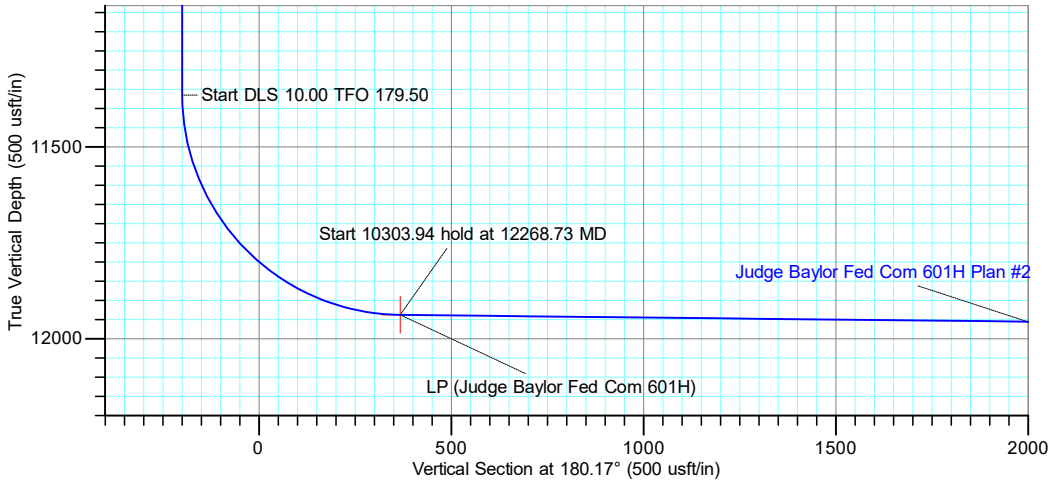
SECTION DETAILS

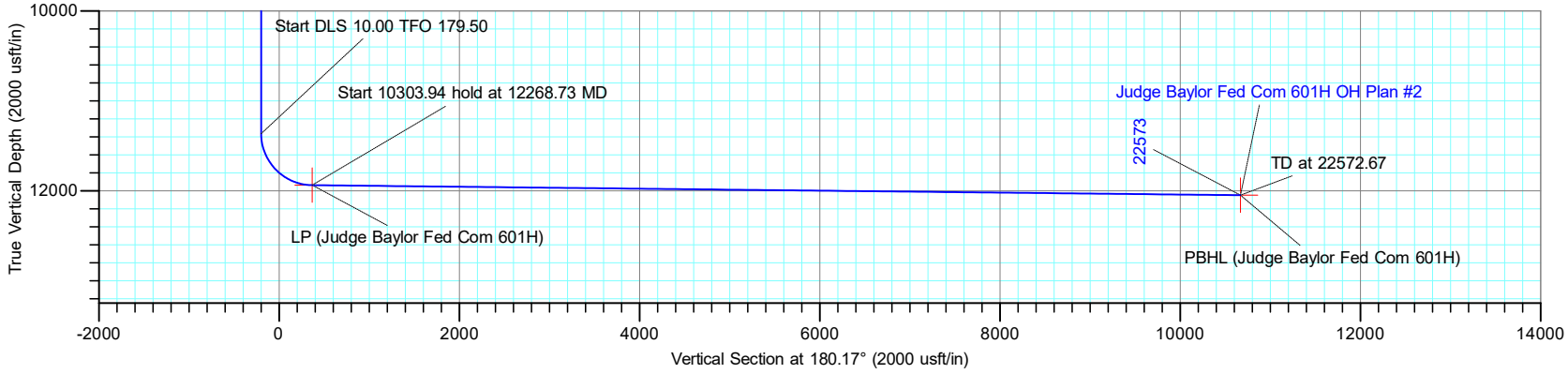
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Annotation |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5500.00 | 0.00 | 0.00 | 5500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Start Build 1.50 |
| 5833.01 | 5.00 | 327.38 | 5832.58 | 12.22 | -7.82 | 1.50 | 327.38 | -12.19 | Start 2393.92 hold at 5833.01 MD |
| 8226.93 | 5.00 | 327.38 | 8217.42 | 187.78 | -120.18 | 0.00 | 0.00 | -187.41 | Start Drop -1.50 |
| 8559.94 | 0.00 | 0.00 | 8550.00 | 200.00 | -128.00 | 1.50 | 180.00 | -199.61 | Start 2815.00 hold at 8559.94 MD |
| 11374.94 | 0.00 | 0.00 | 11365.00 | 200.00 | -128.00 | 0.00 | 0.00 | -199.61 | Start DLS 10.00 TFO 179.50 |
| 12268.73 | 89.38 | 179.50 | 11937.92 | -366.73 | -123.02 | 10.00 | 179.50 | 367.11 | Start 10303.94 hold at 12268.73 MD |
| 22572.67 | 89.38 | 179.50 | 12049.46 | -10669.67 | -32.58 | 0.00 | 0.00 | 10669.72 | TD at 22572.67 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
|---|---|---|---|---|---|
| LP (Judge Baylor Fed Com 601H) | 11937.92 | -366.73 | -123.02 | 32.079256 | -103.328620 |
| PBHL (Judge Baylor Fed Com 601H) | 12049.46 | -10669.67 | -32.58 | 32.050935 | -103.328637 |
| SHL (Judge Baylor Fed Com 601H) | 0.00 | 0.00 | 0.00 | 32.080260 | -103.328211 |





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


Plan: Plan #2 (Judge Baylor Fed Com 601H/OH)
Judge Baylor Fed Com
Created By: Dustin Ault Date: 23:09, February 25 2020
Date: _____
Approved: _____ Date: _____

# Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Judge Baylor Fed Com
Well: Judge Baylor Fed Com 601H
Wellbore: OH
Design: Plan #2


**Azimuths to Grid North**
**True North: -0.53°**
**Magnetic North: 6.00°**

**Magnetic Field**
**Strength: 47603.8nT**
**Dip Angle: 59.93°**
**Date: 2/25/2020**
**Model: IGRF2015**

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

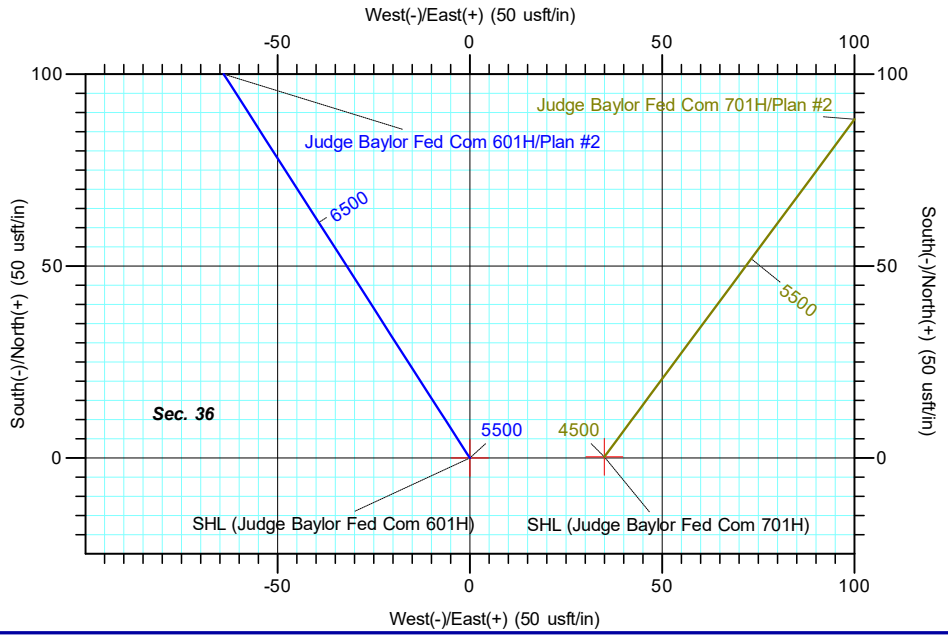
FRANKLIN MOUNTAIN ENERGY

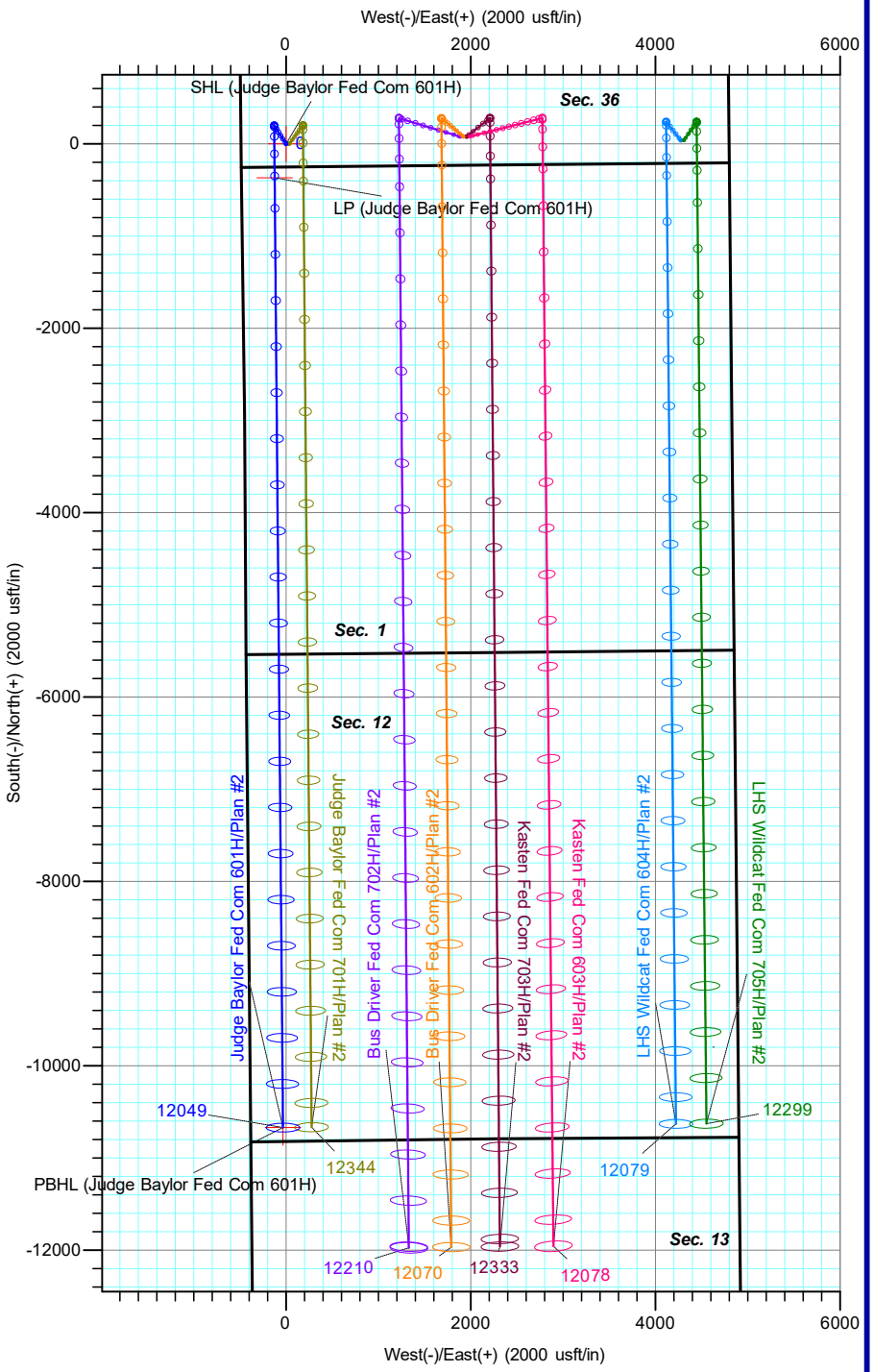
DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| LP (Judge Baylor Fed Com 601H) | 11937.92 | -366.73 | -123.02 | 394019.50 | 852525.59 | 32.079256 | -103.328620 |
| PBHL (Judge Baylor Fed Com 601H) | 12049.46 | -10669.67 | -32.58 | 383716.56 | 852616.03 | 32.050935 | -103.328637 |
| SHL (Judge Baylor Fed Com 601H) | 0.00 | 0.00 | 0.00 | 394386.23 | 852648.61 | 32.080260 | -103.328211 |

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 | |
| 5500.00 | 0.00 | 0.00 | 5500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Start Build 1.50 |
| 5833.01 | 5.00 | 327.38 | 5832.58 | 12.22 | -7.82 | 1.50 | 327.38 | -12.19 | Start 2393.92 hold at 5833.01 MD |
| 8226.93 | 5.00 | 327.38 | 8217.42 | 187.78 | -120.18 | 0.00 | 0.00 | -187.41 | Start Drop -1.50 |
| 8559.94 | 0.00 | 0.00 | 8550.00 | 200.00 | -128.00 | 1.50 | 180.00 | -199.61 | Start 2815.00 hold at 8559.94 MD |
| 11374.94 | 0.00 | 0.00 | 11365.00 | 200.00 | -128.00 | 0.00 | 0.00 | -199.61 | Start DLS 10.00 TFO 179.50 |
| 12268.73 | 89.38 | 179.50 | 11937.92 | -366.73 | -123.02 | 10.00 | 179.50 | 367.11 | Start 10303.94 hold at 12268.73 MD |
| 22572.67 | 89.38 | 179.50 | 12049.46 | -10669.67 | -32.58 | 0.00 | 0.00 | 10669.72 | TD at 22572.67 |





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


Plan: Plan #2 (Judge Baylor Fed Com 601H/OH)
Judge Baylor Fed Com
Created By: Dustin Ault Date: 23:10, February 25 2020
Date: _____
Approved: _____ Date: _____

# Franklin Mountain Energy

**Lea County, NM (NAD83)**
**Judge Baylor Fed Com**
**Judge Baylor Fed Com 601H**

**OH**

**Plan: Plan #2**

# Standard Planning Report

**25 February, 2020**

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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** Judge Baylor Fed Com

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 394,386.23 usft | **Latitude:** | 32.080260 |
| **From:** | Map | **Easting:** | 852,648.61 usft | **Longitude:** | -103.328212 |
| **Position Uncertainty:** | 0.00 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.53 ° |

**Well** Judge Baylor Fed Com 601H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 usft | **Northing:** | 394,386.23 usft | **Latitude:** | 32.080260 |
| | **+E/-W** | 0.00 usft | **Easting:** | 852,648.61 usft | **Longitude:** | -103.328212 |
| **Position Uncertainty** | | 0.00 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,070.00 usft |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2015 | 2/25/2020 | 6.54 | 59.93 | 47,603.84823561 |

**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 | 180.17 |

**Plan Survey Tool Program** **Date** 2/25/2020

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.00 | 22,572.67 | 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 | |
| 5,500.00 | 0.00 | 0.00 | 5,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,833.01 | 5.00 | 327.38 | 5,832.58 | 12.22 | -7.82 | 1.50 | 1.50 | 0.00 | 327.38 | |
| 8,226.93 | 5.00 | 327.38 | 8,217.42 | 187.78 | -120.18 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,559.94 | 0.00 | 0.00 | 8,550.00 | 200.00 | -128.00 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 11,374.94 | 0.00 | 0.00 | 11,365.00 | 200.00 | -128.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 12,268.73 | 89.38 | 179.50 | 11,937.92 | -366.73 | -123.02 | 10.00 | 10.00 | 20.08 | 179.50 | |
| 22,572.67 | 89.38 | 179.50 | 12,049.46 | -10,669.67 | -32.58 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL (Judge Baylor F |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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 (Judge Baylor Fed Com 601H)** | | | | | | | | | |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.00 | 0.00 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 0.00 | 0.00 | 2,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 0.00 | 0.00 | 2,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 0.00 | 0.00 | 2,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 0.00 | 0.00 | 3,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 0.00 | 0.00 | 3,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 0.00 | 0.00 | 3,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 0.00 | 0.00 | 3,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 0.00 | 0.00 | 3,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 0.00 | 0.00 | 3,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 0.00 | 0.00 | 3,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 0.00 | 0.00 | 3,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.00 | 0.00 | 3,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.00 | 0.00 | 3,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.00 | 0.00 | 4,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 0.00 | 0.00 | 4,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.00 | 0.00 | 4,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 0.00 | 0.00 | 4,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.00 | 0.00 | 4,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.00 | 0.00 | 4,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 0.00 | 0.00 | 4,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.00 | 0.00 | 4,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.00 | 0.00 | 5,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 5,300.00 | 0.00 | 0.00 | 5,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Start Build 1.50** | | | | | | | | | |
| 5,600.00 | 1.50 | 327.38 | 5,599.99 | 1.10 | -0.71 | -1.10 | 1.50 | 1.50 | 0.00 |
| 5,700.00 | 3.00 | 327.38 | 5,699.91 | 4.41 | -2.82 | -4.40 | 1.50 | 1.50 | 0.00 |
| 5,800.00 | 4.50 | 327.38 | 5,799.69 | 9.92 | -6.35 | -9.90 | 1.50 | 1.50 | 0.00 |
| 5,833.01 | 5.00 | 327.38 | 5,832.58 | 12.22 | -7.82 | -12.19 | 1.50 | 1.50 | 0.00 |
| **Start 2393.92 hold at 5833.01 MD** | | | | | | | | | |
| 5,900.00 | 5.00 | 327.38 | 5,899.32 | 17.13 | -10.96 | -17.10 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 5.00 | 327.38 | 5,998.94 | 24.47 | -15.66 | -24.42 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 5.00 | 327.38 | 6,098.56 | 31.80 | -20.35 | -31.74 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 5.00 | 327.38 | 6,198.18 | 39.13 | -25.04 | -39.06 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 5.00 | 327.38 | 6,297.80 | 46.47 | -29.74 | -46.38 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 5.00 | 327.38 | 6,397.43 | 53.80 | -34.43 | -53.69 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 5.00 | 327.38 | 6,497.05 | 61.13 | -39.13 | -61.01 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 5.00 | 327.38 | 6,596.67 | 68.47 | -43.82 | -68.33 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 5.00 | 327.38 | 6,696.29 | 75.80 | -48.51 | -75.65 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 5.00 | 327.38 | 6,795.91 | 83.13 | -53.21 | -82.97 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 5.00 | 327.38 | 6,895.53 | 90.47 | -57.90 | -90.29 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 5.00 | 327.38 | 6,995.15 | 97.80 | -62.59 | -97.61 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 5.00 | 327.38 | 7,094.77 | 105.14 | -67.29 | -104.93 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 5.00 | 327.38 | 7,194.39 | 112.47 | -71.98 | -112.25 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 5.00 | 327.38 | 7,294.01 | 119.80 | -76.67 | -119.57 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 5.00 | 327.38 | 7,393.63 | 127.14 | -81.37 | -126.89 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 5.00 | 327.38 | 7,493.25 | 134.47 | -86.06 | -134.21 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 5.00 | 327.38 | 7,592.87 | 141.80 | -90.75 | -141.53 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 5.00 | 327.38 | 7,692.49 | 149.14 | -95.45 | -148.85 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 5.00 | 327.38 | 7,792.11 | 156.47 | -100.14 | -156.17 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 5.00 | 327.38 | 7,891.73 | 163.81 | -104.84 | -163.48 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 5.00 | 327.38 | 7,991.35 | 171.14 | -109.53 | -170.80 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 5.00 | 327.38 | 8,090.97 | 178.47 | -114.22 | -178.12 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 5.00 | 327.38 | 8,190.59 | 185.81 | -118.92 | -185.44 | 0.00 | 0.00 | 0.00 |
| 8,226.93 | 5.00 | 327.38 | 8,217.42 | 187.78 | -120.18 | -187.41 | 0.00 | 0.00 | 0.00 |
| **Start Drop -1.50** | | | | | | | | | |
| 8,300.00 | 3.90 | 327.38 | 8,290.27 | 192.55 | -123.23 | -192.18 | 1.50 | -1.50 | 0.00 |
| 8,400.00 | 2.40 | 327.38 | 8,390.11 | 197.18 | -126.20 | -196.79 | 1.50 | -1.50 | 0.00 |
| 8,500.00 | 0.90 | 327.38 | 8,490.07 | 199.60 | -127.75 | -199.21 | 1.50 | -1.50 | 0.00 |
| 8,559.94 | 0.00 | 0.00 | 8,550.00 | 200.00 | -128.00 | -199.61 | 1.50 | -1.50 | 0.00 |
| **Start 2815.00 hold at 8559.94 MD** | | | | | | | | | |
| 8,600.00 | 0.00 | 0.00 | 8,590.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 0.00 | 0.00 | 8,690.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 0.00 | 0.00 | 8,790.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 0.00 | 0.00 | 8,890.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.00 | 0.00 | 8,990.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 0.00 | 0.00 | 9,090.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 0.00 | 0.00 | 9,190.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 0.00 | 0.00 | 9,290.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 0.00 | 0.00 | 9,390.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 0.00 | 0.00 | 9,490.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 0.00 | 0.00 | 9,590.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 0.00 | 0.00 | 9,690.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 0.00 | 0.00 | 9,790.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 9,900.00 | 0.00 | 0.00 | 9,890.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 0.00 | 0.00 | 9,990.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 0.00 | 0.00 | 10,090.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 0.00 | 0.00 | 10,190.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 0.00 | 0.00 | 10,290.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 0.00 | 0.00 | 10,390.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 0.00 | 0.00 | 10,490.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 0.00 | 0.00 | 10,590.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 0.00 | 0.00 | 10,690.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 0.00 | 0.00 | 10,790.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 0.00 | 0.00 | 10,890.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 0.00 | 0.00 | 10,990.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 0.00 | 0.00 | 11,090.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 0.00 | 0.00 | 11,190.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 0.00 | 0.00 | 11,290.07 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| 11,374.94 | 0.00 | 0.00 | 11,365.00 | 200.00 | -128.00 | -199.61 | 0.00 | 0.00 | 0.00 |
| **Start DLS 10.00 TFO 179.50** | | | | | | | | | |
| 11,400.00 | 2.51 | 179.50 | 11,390.06 | 199.45 | -128.00 | -199.06 | 10.00 | 10.00 | 0.00 |
| 11,450.00 | 7.51 | 179.50 | 11,439.85 | 195.09 | -127.96 | -194.70 | 10.00 | 10.00 | 0.00 |
| 11,500.00 | 12.51 | 179.50 | 11,489.07 | 186.41 | -127.88 | -186.01 | 10.00 | 10.00 | 0.00 |
| 11,550.00 | 17.51 | 179.50 | 11,537.35 | 173.46 | -127.77 | -173.07 | 10.00 | 10.00 | 0.00 |
| 11,600.00 | 22.51 | 179.50 | 11,584.32 | 156.36 | -127.62 | -155.97 | 10.00 | 10.00 | 0.00 |
| 11,650.00 | 27.51 | 179.50 | 11,629.62 | 135.23 | -127.43 | -134.84 | 10.00 | 10.00 | 0.00 |
| 11,700.00 | 32.51 | 179.50 | 11,672.90 | 110.24 | -127.21 | -109.85 | 10.00 | 10.00 | 0.00 |
| 11,750.00 | 37.51 | 179.50 | 11,713.85 | 81.57 | -126.96 | -81.18 | 10.00 | 10.00 | 0.00 |
| 11,800.00 | 42.51 | 179.50 | 11,752.13 | 49.43 | -126.68 | -49.05 | 10.00 | 10.00 | 0.00 |
| 11,850.00 | 47.51 | 179.50 | 11,787.47 | 14.09 | -126.37 | -13.70 | 10.00 | 10.00 | 0.00 |
| 11,900.00 | 52.51 | 179.50 | 11,819.60 | -24.21 | -126.03 | 24.59 | 10.00 | 10.00 | 0.00 |
| 11,950.00 | 57.51 | 179.50 | 11,848.26 | -65.15 | -125.67 | 65.54 | 10.00 | 10.00 | 0.00 |
| 12,000.00 | 62.51 | 179.50 | 11,873.25 | -108.44 | -125.29 | 108.82 | 10.00 | 10.00 | 0.00 |
| 12,050.00 | 67.51 | 179.50 | 11,894.37 | -153.74 | -124.89 | 154.12 | 10.00 | 10.00 | 0.00 |
| 12,100.00 | 72.51 | 179.50 | 11,911.46 | -200.71 | -124.48 | 201.09 | 10.00 | 10.00 | 0.00 |
| 12,150.00 | 77.51 | 179.50 | 11,924.39 | -248.99 | -124.06 | 249.37 | 10.00 | 10.00 | 0.00 |
| 12,200.00 | 82.51 | 179.50 | 11,933.06 | -298.22 | -123.63 | 298.59 | 10.00 | 10.00 | 0.00 |
| 12,250.00 | 87.51 | 179.50 | 11,937.42 | -348.01 | -123.19 | 348.38 | 10.00 | 10.00 | 0.00 |
| 12,268.73 | 89.38 | 179.50 | 11,937.92 | -366.73 | -123.02 | 367.10 | 10.00 | 10.00 | 0.00 |
| **Start 10303.94 hold at 12268.73 MD - LP (Judge Baylor Fed Com 601H)** | | | | | | | | | |
| 12,300.00 | 89.38 | 179.50 | 11,938.26 | -398.00 | -122.75 | 398.37 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 89.38 | 179.50 | 11,939.35 | -497.99 | -121.87 | 498.36 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 89.38 | 179.50 | 11,940.43 | -597.98 | -120.99 | 598.35 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 89.38 | 179.50 | 11,941.51 | -697.97 | -120.12 | 698.33 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.38 | 179.50 | 11,942.59 | -797.96 | -119.24 | 798.32 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.38 | 179.50 | 11,943.68 | -897.95 | -118.36 | 898.31 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 89.38 | 179.50 | 11,944.76 | -997.94 | -117.48 | 998.29 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 89.38 | 179.50 | 11,945.84 | -1,097.93 | -116.61 | 1,098.28 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 89.38 | 179.50 | 11,946.92 | -1,197.92 | -115.73 | 1,198.27 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 89.38 | 179.50 | 11,948.01 | -1,297.91 | -114.85 | 1,298.26 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 89.38 | 179.50 | 11,949.09 | -1,397.90 | -113.97 | 1,398.24 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 89.38 | 179.50 | 11,950.17 | -1,497.89 | -113.09 | 1,498.23 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 89.38 | 179.50 | 11,951.25 | -1,597.88 | -112.22 | 1,598.22 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 89.38 | 179.50 | 11,952.33 | -1,697.87 | -111.34 | 1,698.20 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 89.38 | 179.50 | 11,953.42 | -1,797.86 | -110.46 | 1,798.19 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 89.38 | 179.50 | 11,954.50 | -1,897.85 | -109.58 | 1,898.18 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 89.38 | 179.50 | 11,955.58 | -1,997.84 | -108.71 | 1,998.17 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
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| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 14,000.00 | 89.38 | 179.50 | 11,956.66 | -2,097.83 | -107.83 | 2,098.15 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 89.38 | 179.50 | 11,957.75 | -2,197.82 | -106.95 | 2,198.14 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 89.38 | 179.50 | 11,958.83 | -2,297.81 | -106.07 | 2,298.13 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 89.38 | 179.50 | 11,959.91 | -2,397.80 | -105.20 | 2,398.11 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 89.38 | 179.50 | 11,960.99 | -2,497.79 | -104.32 | 2,498.10 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 89.38 | 179.50 | 11,962.08 | -2,597.78 | -103.44 | 2,598.09 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 89.38 | 179.50 | 11,963.16 | -2,697.77 | -102.56 | 2,698.08 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 89.38 | 179.50 | 11,964.24 | -2,797.76 | -101.68 | 2,798.06 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 89.38 | 179.50 | 11,965.32 | -2,897.76 | -100.81 | 2,898.05 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 89.38 | 179.50 | 11,966.41 | -2,997.75 | -99.93 | 2,998.04 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 89.38 | 179.50 | 11,967.49 | -3,097.74 | -99.05 | 3,098.02 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 89.38 | 179.50 | 11,968.57 | -3,197.73 | -98.17 | 3,198.01 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 89.38 | 179.50 | 11,969.65 | -3,297.72 | -97.30 | 3,298.00 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 89.38 | 179.50 | 11,970.74 | -3,397.71 | -96.42 | 3,397.99 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 89.38 | 179.50 | 11,971.82 | -3,497.70 | -95.54 | 3,497.97 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 89.38 | 179.50 | 11,972.90 | -3,597.69 | -94.66 | 3,597.96 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 89.38 | 179.50 | 11,973.98 | -3,697.68 | -93.78 | 3,697.95 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 89.38 | 179.50 | 11,975.07 | -3,797.67 | -92.91 | 3,797.93 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 89.38 | 179.50 | 11,976.15 | -3,897.66 | -92.03 | 3,897.92 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 89.38 | 179.50 | 11,977.23 | -3,997.65 | -91.15 | 3,997.91 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 89.38 | 179.50 | 11,978.31 | -4,097.64 | -90.27 | 4,097.90 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 89.38 | 179.50 | 11,979.40 | -4,197.63 | -89.40 | 4,197.88 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 89.38 | 179.50 | 11,980.48 | -4,297.62 | -88.52 | 4,297.87 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 89.38 | 179.50 | 11,981.56 | -4,397.61 | -87.64 | 4,397.86 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 89.38 | 179.50 | 11,982.64 | -4,497.60 | -86.76 | 4,497.84 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 89.38 | 179.50 | 11,983.73 | -4,597.59 | -85.88 | 4,597.83 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 89.38 | 179.50 | 11,984.81 | -4,697.58 | -85.01 | 4,697.82 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 89.38 | 179.50 | 11,985.89 | -4,797.57 | -84.13 | 4,797.81 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 89.38 | 179.50 | 11,986.97 | -4,897.56 | -83.25 | 4,897.79 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 89.38 | 179.50 | 11,988.06 | -4,997.55 | -82.37 | 4,997.78 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 89.38 | 179.50 | 11,989.14 | -5,097.54 | -81.50 | 5,097.77 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 89.38 | 179.50 | 11,990.22 | -5,197.53 | -80.62 | 5,197.75 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 89.38 | 179.50 | 11,991.30 | -5,297.52 | -79.74 | 5,297.74 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 89.38 | 179.50 | 11,992.39 | -5,397.51 | -78.86 | 5,397.73 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 89.38 | 179.50 | 11,993.47 | -5,497.50 | -77.98 | 5,497.72 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 89.38 | 179.50 | 11,994.55 | -5,597.49 | -77.11 | 5,597.70 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 89.38 | 179.50 | 11,995.63 | -5,697.48 | -76.23 | 5,697.69 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 89.38 | 179.50 | 11,996.72 | -5,797.47 | -75.35 | 5,797.68 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 89.38 | 179.50 | 11,997.80 | -5,897.46 | -74.47 | 5,897.66 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 89.38 | 179.50 | 11,998.88 | -5,997.45 | -73.60 | 5,997.65 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 89.38 | 179.50 | 11,999.96 | -6,097.44 | -72.72 | 6,097.64 | 0.00 | 0.00 | 0.00 |
| 18,100.00 | 89.38 | 179.50 | 12,001.05 | -6,197.43 | -71.84 | 6,197.63 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 89.38 | 179.50 | 12,002.13 | -6,297.43 | -70.96 | 6,297.61 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 89.38 | 179.50 | 12,003.21 | -6,397.42 | -70.08 | 6,397.60 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 89.38 | 179.50 | 12,004.29 | -6,497.41 | -69.21 | 6,497.59 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 89.38 | 179.50 | 12,005.38 | -6,597.40 | -68.33 | 6,597.57 | 0.00 | 0.00 | 0.00 |
| 18,600.00 | 89.38 | 179.50 | 12,006.46 | -6,697.39 | -67.45 | 6,697.56 | 0.00 | 0.00 | 0.00 |
| 18,700.00 | 89.38 | 179.50 | 12,007.54 | -6,797.38 | -66.57 | 6,797.55 | 0.00 | 0.00 | 0.00 |
| 18,800.00 | 89.38 | 179.50 | 12,008.62 | -6,897.37 | -65.70 | 6,897.54 | 0.00 | 0.00 | 0.00 |
| 18,900.00 | 89.38 | 179.50 | 12,009.71 | -6,997.36 | -64.82 | 6,997.52 | 0.00 | 0.00 | 0.00 |
| 19,000.00 | 89.38 | 179.50 | 12,010.79 | -7,097.35 | -63.94 | 7,097.51 | 0.00 | 0.00 | 0.00 |
| 19,100.00 | 89.38 | 179.50 | 12,011.87 | -7,197.34 | -63.06 | 7,197.50 | 0.00 | 0.00 | 0.00 |
| 19,200.00 | 89.38 | 179.50 | 12,012.95 | -7,297.33 | -62.18 | 7,297.48 | 0.00 | 0.00 | 0.00 |
| 19,300.00 | 89.38 | 179.50 | 12,014.03 | -7,397.32 | -61.31 | 7,397.47 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 19,400.00 | 89.38 | 179.50 | 12,015.12 | -7,497.31 | -60.43 | 7,497.46 | 0.00 | 0.00 | 0.00 |
| 19,500.00 | 89.38 | 179.50 | 12,016.20 | -7,597.30 | -59.55 | 7,597.45 | 0.00 | 0.00 | 0.00 |
| 19,600.00 | 89.38 | 179.50 | 12,017.28 | -7,697.29 | -58.67 | 7,697.43 | 0.00 | 0.00 | 0.00 |
| 19,700.00 | 89.38 | 179.50 | 12,018.36 | -7,797.28 | -57.80 | 7,797.42 | 0.00 | 0.00 | 0.00 |
| 19,800.00 | 89.38 | 179.50 | 12,019.45 | -7,897.27 | -56.92 | 7,897.41 | 0.00 | 0.00 | 0.00 |
| 19,900.00 | 89.38 | 179.50 | 12,020.53 | -7,997.26 | -56.04 | 7,997.39 | 0.00 | 0.00 | 0.00 |
| 20,000.00 | 89.38 | 179.50 | 12,021.61 | -8,097.25 | -55.16 | 8,097.38 | 0.00 | 0.00 | 0.00 |
| 20,100.00 | 89.38 | 179.50 | 12,022.69 | -8,197.24 | -54.28 | 8,197.37 | 0.00 | 0.00 | 0.00 |
| 20,200.00 | 89.38 | 179.50 | 12,023.78 | -8,297.23 | -53.41 | 8,297.36 | 0.00 | 0.00 | 0.00 |
| 20,300.00 | 89.38 | 179.50 | 12,024.86 | -8,397.22 | -52.53 | 8,397.34 | 0.00 | 0.00 | 0.00 |
| 20,400.00 | 89.38 | 179.50 | 12,025.94 | -8,497.21 | -51.65 | 8,497.33 | 0.00 | 0.00 | 0.00 |
| 20,500.00 | 89.38 | 179.50 | 12,027.02 | -8,597.20 | -50.77 | 8,597.32 | 0.00 | 0.00 | 0.00 |
| 20,600.00 | 89.38 | 179.50 | 12,028.11 | -8,697.19 | -49.90 | 8,697.30 | 0.00 | 0.00 | 0.00 |
| 20,700.00 | 89.38 | 179.50 | 12,029.19 | -8,797.18 | -49.02 | 8,797.29 | 0.00 | 0.00 | 0.00 |
| 20,800.00 | 89.38 | 179.50 | 12,030.27 | -8,897.17 | -48.14 | 8,897.28 | 0.00 | 0.00 | 0.00 |
| 20,900.00 | 89.38 | 179.50 | 12,031.35 | -8,997.16 | -47.26 | 8,997.27 | 0.00 | 0.00 | 0.00 |
| 21,000.00 | 89.38 | 179.50 | 12,032.44 | -9,097.15 | -46.38 | 9,097.25 | 0.00 | 0.00 | 0.00 |
| 21,100.00 | 89.38 | 179.50 | 12,033.52 | -9,197.14 | -45.51 | 9,197.24 | 0.00 | 0.00 | 0.00 |
| 21,200.00 | 89.38 | 179.50 | 12,034.60 | -9,297.13 | -44.63 | 9,297.23 | 0.00 | 0.00 | 0.00 |
| 21,300.00 | 89.38 | 179.50 | 12,035.68 | -9,397.12 | -43.75 | 9,397.21 | 0.00 | 0.00 | 0.00 |
| 21,400.00 | 89.38 | 179.50 | 12,036.77 | -9,497.11 | -42.87 | 9,497.20 | 0.00 | 0.00 | 0.00 |
| 21,500.00 | 89.38 | 179.50 | 12,037.85 | -9,597.10 | -42.00 | 9,597.19 | 0.00 | 0.00 | 0.00 |
| 21,600.00 | 89.38 | 179.50 | 12,038.93 | -9,697.10 | -41.12 | 9,697.18 | 0.00 | 0.00 | 0.00 |
| 21,700.00 | 89.38 | 179.50 | 12,040.01 | -9,797.09 | -40.24 | 9,797.16 | 0.00 | 0.00 | 0.00 |
| 21,800.00 | 89.38 | 179.50 | 12,041.10 | -9,897.08 | -39.36 | 9,897.15 | 0.00 | 0.00 | 0.00 |
| 21,900.00 | 89.38 | 179.50 | 12,042.18 | -9,997.07 | -38.48 | 9,997.14 | 0.00 | 0.00 | 0.00 |
| 22,000.00 | 89.38 | 179.50 | 12,043.26 | -10,097.06 | -37.61 | 10,097.12 | 0.00 | 0.00 | 0.00 |
| 22,100.00 | 89.38 | 179.50 | 12,044.34 | -10,197.05 | -36.73 | 10,197.11 | 0.00 | 0.00 | 0.00 |
| 22,200.00 | 89.38 | 179.50 | 12,045.43 | -10,297.04 | -35.85 | 10,297.10 | 0.00 | 0.00 | 0.00 |
| 22,300.00 | 89.38 | 179.50 | 12,046.51 | -10,397.03 | -34.97 | 10,397.09 | 0.00 | 0.00 | 0.00 |
| 22,400.00 | 89.38 | 179.50 | 12,047.59 | -10,497.02 | -34.10 | 10,497.07 | 0.00 | 0.00 | 0.00 |
| 22,500.00 | 89.38 | 179.50 | 12,048.67 | -10,597.01 | -33.22 | 10,597.06 | 0.00 | 0.00 | 0.00 |
| 22,572.67 | 89.38 | 179.50 | 12,049.46 | -10,669.67 | -32.58 | 10,669.72 | 0.00 | 0.00 | 0.00 |

**TD at 22572.67 - PBHL (Judge Baylor Fed Com 601H)**

**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 (Judge Baylor Fed C<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 394,386.23 | 852,648.61 | 32.080260 | -103.328212 |
| LP (Judge Baylor Fed C<br>- plan misses target center by 0.01usft at 12268.73usft MD (11937.92 TVD, -366.73 N, -123.02 E)<br>- Point | 0.00 | 0.00 | 11,937.92 | -366.73 | -123.02 | 394,019.50 | 852,525.59 | 32.079256 | -103.328620 |
| PBHL (Judge Baylor Fec<br>- plan hits target center<br>- Point | 0.00 | 0.01 | 12,049.46 | -10,669.67 | -32.58 | 383,716.56 | 852,616.03 | 32.050935 | -103.328637 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Company:** | Franklin Mountain Energy | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Project:** | Lea County, NM (NAD83) | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site:** | Judge Baylor Fed Com | **North Reference:** | Grid |
| **Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #2 | | |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 5,500.00 | 5,500.00 | 0.00 | 0.00 | Start Build 1.50 |
| 5,833.01 | 5,832.58 | 12.22 | -7.82 | Start 2393.92 hold at 5833.01 MD |
| 8,226.93 | 8,217.42 | 187.78 | -120.18 | Start Drop -1.50 |
| 8,559.94 | 8,550.00 | 200.00 | -128.00 | Start 2815.00 hold at 8559.94 MD |
| 11,374.94 | 11,365.00 | 200.00 | -128.00 | Start DLS 10.00 TFO 179.50 |
| 12,268.73 | 11,937.92 | -366.73 | -123.02 | Start 10303.94 hold at 12268.73 MD |
| 22,572.67 | 12,049.46 | -10,669.67 | -32.58 | TD at 22572.67 |

# Franklin Mountain Energy

**Lea County, NM (NAD83)**
**Judge Baylor Fed Com**
**Judge Baylor Fed Com 601H**

**OH**
**Plan #2**

# Anticollision Report

**25 February, 2020**

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** 2/25/2020

| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 0.00 | 22,572.67 | Plan #2 (OH) | OWSG (Rev2) MWD | OWSG MWD - Standard |

**Summary**

| Site Name<br>Offset Well - Wellbore - Design | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|
| Bus Driver/Kasten Fed Com | | | | | | |
| Bus Driver Fed Com 602H - OH - Plan #2 | 8,158.00 | 8,227.46 | 1,808.90 | 1,767.66 | 43.858 | CC |
| Bus Driver Fed Com 602H - OH - Plan #2 | 22,572.67 | 22,575.57 | 1,811.11 | 1,553.45 | 7.029 | ES, SF |
| Bus Driver Fed Com 702H - OH - Plan #2 | 11,374.94 | 11,409.90 | 1,353.13 | 1,295.85 | 23.624 | CC |
| Bus Driver Fed Com 702H - OH - Plan #2 | 22,572.67 | 22,794.03 | 1,358.80 | 1,102.10 | 5.293 | ES, SF |
| Kasten Fed Com 603H - OH - Plan #2 | 4,500.00 | 4,486.10 | 1,992.40 | 1,969.93 | 88.665 | CC, ES |
| Kasten Fed Com 603H - OH - Plan #2 | 22,572.67 | 22,573.10 | 2,916.11 | 2,658.39 | 11.315 | SF |
| Kasten Fed Com 703H - OH - Plan #2 | 5,500.00 | 5,486.50 | 1,957.41 | 1,929.87 | 71.071 | CC, ES |
| Kasten Fed Com 703H - OH - Plan #2 | 22,572.67 | 22,867.97 | 2,352.61 | 2,096.32 | 9.179 | SF |
| Judge Baylor Fed Com | | | | | | |
| Judge Baylor Fed Com 701H - OH - Plan #2 | 4,600.00 | 4,599.70 | 34.99 | 11.98 | 1.521 | CC, ES, SF |
| LHS Wildcat Fed Com | | | | | | |
| LHS Wildcat Fed Com 604H - OH - Plan #2 | 7,889.50 | 8,049.28 | 4,232.76 | 4,192.66 | 105.538 | CC |
| LHS Wildcat Fed Com 604H - OH - Plan #2 | 22,572.67 | 22,488.23 | 4,256.02 | 3,999.08 | 16.564 | ES, SF |
| LHS Wildcat Fed Com 705H - OH - Plan #2 | 4,502.51 | 4,464.41 | 4,309.86 | 4,287.43 | 192.210 | CC |
| LHS Wildcat Fed Com 705H - OH - Plan #2 | 4,600.00 | 4,537.60 | 4,310.03 | 4,287.18 | 188.583 | ES |
| LHS Wildcat Fed Com 705H - OH - Plan #2 | 22,572.67 | 22,687.57 | 4,592.64 | 4,335.93 | 17.891 | SF |

**Offset Design** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 87.62 | 79.85 | 1,920.78 | 1,922.48 | | | | |
| 100.00 | 100.00 | 87.50 | 87.50 | 0.14 | 0.12 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,922.25 | 0.19 | N/A | |
| 200.00 | 200.00 | 187.50 | 187.50 | 0.50 | 0.46 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,921.76 | 0.68 | 2,842.748 | |
| 300.00 | 300.00 | 287.50 | 287.50 | 0.86 | 0.81 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,921.26 | 1.18 | 1,625.194 | |
| 400.00 | 400.00 | 387.50 | 387.50 | 1.22 | 1.17 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,920.75 | 1.69 | 1,137.722 | |
| 500.00 | 500.00 | 487.50 | 487.50 | 1.58 | 1.53 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,920.24 | 2.20 | 875.183 | |
| 600.00 | 600.00 | 587.50 | 587.50 | 1.93 | 1.89 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,919.74 | 2.70 | 711.086 | |
| 700.00 | 700.00 | 687.50 | 687.50 | 2.29 | 2.25 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,919.23 | 3.21 | 598.807 | |
| 800.00 | 800.00 | 787.50 | 787.50 | 2.65 | 2.61 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,918.72 | 3.72 | 517.148 | |
| 900.00 | 900.00 | 887.50 | 887.50 | 3.01 | 2.96 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,918.21 | 4.22 | 455.088 | |
| 1,000.00 | 1,000.00 | 987.50 | 987.50 | 3.37 | 3.32 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,917.71 | 4.73 | 406.327 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,100.00 | 1,100.00 | 1,087.50 | 1,087.50 | 3.73 | 3.68 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,917.20 | 5.24 | 367.003 | |
| 1,200.00 | 1,200.00 | 1,187.50 | 1,187.50 | 4.08 | 4.04 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,916.69 | 5.75 | 334.619 | |
| 1,300.00 | 1,300.00 | 1,287.50 | 1,287.50 | 4.44 | 4.40 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,916.19 | 6.25 | 307.487 | |
| 1,400.00 | 1,400.00 | 1,387.50 | 1,387.50 | 4.80 | 4.76 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,915.68 | 6.76 | 284.424 | |
| 1,500.00 | 1,500.00 | 1,487.50 | 1,487.50 | 5.16 | 5.12 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,915.17 | 7.27 | 264.580 | |
| 1,600.00 | 1,600.00 | 1,587.50 | 1,587.50 | 5.52 | 5.47 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,914.67 | 7.77 | 247.324 | |
| 1,700.00 | 1,700.00 | 1,687.50 | 1,687.50 | 5.88 | 5.83 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,914.16 | 8.28 | 232.181 | |
| 1,800.00 | 1,800.00 | 1,787.50 | 1,787.50 | 6.24 | 6.19 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,913.65 | 8.79 | 218.786 | |
| 1,900.00 | 1,900.00 | 1,887.50 | 1,887.50 | 6.59 | 6.55 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,913.15 | 9.29 | 206.852 | |
| 2,000.00 | 2,000.00 | 1,987.50 | 1,987.50 | 6.95 | 6.91 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,912.64 | 9.80 | 196.152 | |
| 2,100.00 | 2,100.00 | 2,087.50 | 2,087.50 | 7.31 | 7.27 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,912.13 | 10.31 | 186.505 | |
| 2,200.00 | 2,200.00 | 2,187.50 | 2,187.50 | 7.67 | 7.62 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,911.62 | 10.81 | 177.762 | |
| 2,300.00 | 2,300.00 | 2,287.50 | 2,287.50 | 8.03 | 7.98 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,911.12 | 11.32 | 169.802 | |
| 2,400.00 | 2,400.00 | 2,387.50 | 2,387.50 | 8.39 | 8.34 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,910.61 | 11.83 | 162.525 | |
| 2,500.00 | 2,500.00 | 2,487.50 | 2,487.50 | 8.74 | 8.70 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,910.10 | 12.34 | 155.846 | |
| 2,600.00 | 2,600.00 | 2,587.50 | 2,587.50 | 9.10 | 9.06 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,909.60 | 12.84 | 149.694 | |
| 2,700.00 | 2,700.00 | 2,687.50 | 2,687.50 | 9.46 | 9.42 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,909.09 | 13.35 | 144.009 | |
| 2,800.00 | 2,800.00 | 2,787.50 | 2,787.50 | 9.82 | 9.78 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,908.58 | 13.86 | 138.740 | |
| 2,900.00 | 2,900.00 | 2,887.50 | 2,887.50 | 10.18 | 10.13 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,908.08 | 14.36 | 133.843 | |
| 3,000.00 | 3,000.00 | 2,987.50 | 2,987.50 | 10.54 | 10.49 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,907.57 | 14.87 | 129.280 | |
| 3,100.00 | 3,100.00 | 3,087.50 | 3,087.50 | 10.90 | 10.85 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,907.06 | 15.38 | 125.018 | |
| 3,200.00 | 3,200.00 | 3,187.50 | 3,187.50 | 11.25 | 11.21 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,906.55 | 15.88 | 121.028 | |
| 3,300.00 | 3,300.00 | 3,287.50 | 3,287.50 | 11.61 | 11.57 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,906.05 | 16.39 | 117.285 | |
| 3,400.00 | 3,400.00 | 3,387.50 | 3,387.50 | 11.97 | 11.93 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,905.54 | 16.90 | 113.766 | |
| 3,500.00 | 3,500.00 | 3,487.50 | 3,487.50 | 12.33 | 12.28 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,905.03 | 17.41 | 110.453 | |
| 3,600.00 | 3,600.00 | 3,587.50 | 3,587.50 | 12.69 | 12.64 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,904.53 | 17.91 | 107.327 | |
| 3,700.00 | 3,700.00 | 3,687.50 | 3,687.50 | 13.05 | 13.00 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,904.02 | 18.42 | 104.373 | |
| 3,800.00 | 3,800.00 | 3,787.50 | 3,787.50 | 13.41 | 13.36 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,903.51 | 18.93 | 101.577 | |
| 3,900.00 | 3,900.00 | 3,887.50 | 3,887.50 | 13.76 | 13.72 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,903.01 | 19.43 | 98.927 | |
| 4,000.00 | 4,000.00 | 3,987.50 | 3,987.50 | 14.12 | 14.08 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,902.50 | 19.94 | 96.412 | |
| 4,100.00 | 4,100.00 | 4,087.50 | 4,087.50 | 14.48 | 14.44 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,901.99 | 20.45 | 94.022 | |
| 4,200.00 | 4,200.00 | 4,187.50 | 4,187.50 | 14.84 | 14.79 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,901.49 | 20.95 | 91.747 | |
| 4,300.00 | 4,300.00 | 4,287.50 | 4,287.50 | 15.20 | 15.15 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,900.98 | 21.46 | 89.579 | |
| 4,400.00 | 4,400.00 | 4,387.50 | 4,387.50 | 15.56 | 15.51 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,900.47 | 21.97 | 87.512 | |
| 4,500.00 | 4,500.00 | 4,487.50 | 4,487.50 | 15.91 | 15.87 | 87.62 | 79.85 | 1,920.78 | 1,922.44 | 1,899.96 | 22.47 | 85.538 | |
| 4,600.00 | 4,600.00 | 4,609.66 | 4,609.66 | 16.27 | 16.31 | 87.61 | 80.15 | 1,920.42 | 1,922.22 | 1,899.19 | 23.03 | 83.449 | |
| 4,700.00 | 4,700.00 | 4,768.55 | 4,768.43 | 16.63 | 16.87 | 87.49 | 83.87 | 1,915.99 | 1,919.54 | 1,895.87 | 23.67 | 81.104 | |
| 4,800.00 | 4,800.00 | 4,910.59 | 4,910.06 | 16.99 | 17.37 | 87.28 | 90.73 | 1,907.84 | 1,913.92 | 1,889.67 | 24.25 | 78.921 | |
| 4,900.00 | 4,900.00 | 5,010.21 | 5,009.30 | 17.35 | 17.72 | 87.10 | 96.31 | 1,901.19 | 1,907.53 | 1,882.77 | 24.75 | 77.065 | |
| 5,000.00 | 5,000.00 | 5,109.83 | 5,108.54 | 17.71 | 18.08 | 86.92 | 101.89 | 1,894.55 | 1,901.15 | 1,875.90 | 25.25 | 75.281 | |
| 5,100.00 | 5,100.00 | 5,209.45 | 5,207.79 | 18.07 | 18.43 | 86.74 | 107.47 | 1,887.91 | 1,894.79 | 1,869.04 | 25.76 | 73.566 | |
| 5,200.00 | 5,200.00 | 5,309.07 | 5,307.03 | 18.42 | 18.79 | 86.56 | 113.05 | 1,881.27 | 1,888.45 | 1,862.19 | 26.26 | 71.916 | |
| 5,300.00 | 5,300.00 | 5,408.69 | 5,406.27 | 18.78 | 19.15 | 86.38 | 118.63 | 1,874.63 | 1,882.13 | 1,855.37 | 26.76 | 70.328 | |
| 5,400.00 | 5,400.00 | 5,508.31 | 5,505.51 | 19.14 | 19.51 | 86.20 | 124.21 | 1,867.99 | 1,875.83 | 1,848.57 | 27.27 | 68.797 | |
| 5,500.00 | 5,500.00 | 5,607.93 | 5,604.75 | 19.50 | 19.87 | 86.01 | 129.79 | 1,861.35 | 1,869.55 | 1,841.78 | 27.77 | 67.322 | |
| 5,600.00 | 5,599.99 | 5,707.65 | 5,704.09 | 19.86 | 20.23 | 118.55 | 135.38 | 1,854.70 | 1,863.91 | 1,835.64 | 28.27 | 65.923 | |
| 5,700.00 | 5,699.91 | 5,807.51 | 5,803.58 | 20.21 | 20.59 | 118.53 | 140.97 | 1,848.05 | 1,859.53 | 1,830.75 | 28.78 | 64.619 | |
| 5,800.00 | 5,799.69 | 5,907.46 | 5,903.15 | 20.57 | 20.95 | 118.56 | 146.57 | 1,841.38 | 1,856.40 | 1,827.12 | 29.28 | 63.402 | |
| 5,833.01 | 5,832.58 | 5,940.46 | 5,936.02 | 20.69 | 21.07 | 118.59 | 148.42 | 1,839.18 | 1,855.64 | 1,826.20 | 29.45 | 63.018 | |
| 5,900.00 | 5,899.32 | 6,007.43 | 6,002.73 | 20.92 | 21.31 | 118.62 | 152.17 | 1,834.72 | 1,854.24 | 1,824.46 | 29.78 | 62.257 | |
| 6,000.00 | 5,998.94 | 6,107.39 | 6,102.32 | 21.28 | 21.68 | 118.67 | 157.77 | 1,828.06 | 1,852.15 | 1,821.87 | 30.29 | 61.152 | |
| 6,100.00 | 6,098.56 | 6,207.36 | 6,201.91 | 21.64 | 22.04 | 118.72 | 163.37 | 1,821.39 | 1,850.07 | 1,819.27 | 30.79 | 60.081 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,200.00 | 6,198.18 | 6,307.32 | 6,301.49 | 22.00 | 22.41 | 118.77 | 168.97 | 1,814.73 | 1,847.98 | 1,816.68 | 31.30 | 59.043 | |
| 6,300.00 | 6,297.80 | 6,407.29 | 6,401.08 | 22.35 | 22.78 | 118.82 | 174.57 | 1,808.06 | 1,845.90 | 1,814.09 | 31.81 | 58.037 | |
| 6,400.00 | 6,397.43 | 6,507.25 | 6,500.66 | 22.71 | 23.14 | 118.86 | 180.17 | 1,801.40 | 1,843.81 | 1,811.50 | 32.31 | 57.061 | |
| 6,500.00 | 6,497.05 | 6,607.22 | 6,600.25 | 23.07 | 23.51 | 118.91 | 185.77 | 1,794.74 | 1,841.73 | 1,808.91 | 32.82 | 56.114 | |
| 6,600.00 | 6,596.67 | 6,707.18 | 6,699.83 | 23.44 | 23.88 | 118.96 | 191.37 | 1,788.07 | 1,839.65 | 1,806.32 | 33.33 | 55.195 | |
| 6,700.00 | 6,696.29 | 6,807.15 | 6,799.42 | 23.80 | 24.24 | 119.01 | 196.97 | 1,781.41 | 1,837.57 | 1,803.73 | 33.84 | 54.303 | |
| 6,800.00 | 6,795.91 | 6,907.12 | 6,899.01 | 24.16 | 24.61 | 119.06 | 202.57 | 1,774.75 | 1,835.49 | 1,801.14 | 34.35 | 53.436 | |
| 6,900.00 | 6,895.53 | 7,007.08 | 6,998.59 | 24.52 | 24.98 | 119.11 | 208.17 | 1,768.08 | 1,833.42 | 1,798.56 | 34.86 | 52.594 | |
| 7,000.00 | 6,995.15 | 7,107.05 | 7,098.18 | 24.89 | 25.35 | 119.16 | 213.77 | 1,761.42 | 1,831.34 | 1,795.97 | 35.37 | 51.776 | |
| 7,100.00 | 7,094.77 | 7,207.01 | 7,197.76 | 25.25 | 25.72 | 119.22 | 219.37 | 1,754.75 | 1,829.27 | 1,793.39 | 35.88 | 50.980 | |
| 7,200.00 | 7,194.39 | 7,306.98 | 7,297.35 | 25.61 | 26.09 | 119.27 | 224.97 | 1,748.09 | 1,827.20 | 1,790.80 | 36.39 | 50.206 | |
| 7,300.00 | 7,294.01 | 7,406.94 | 7,396.94 | 25.98 | 26.46 | 119.32 | 230.57 | 1,741.43 | 1,825.13 | 1,788.22 | 36.91 | 49.453 | |
| 7,400.00 | 7,393.63 | 7,506.91 | 7,496.52 | 26.35 | 26.83 | 119.37 | 236.17 | 1,734.76 | 1,823.06 | 1,785.64 | 37.42 | 48.719 | |
| 7,500.00 | 7,493.25 | 7,606.87 | 7,596.11 | 26.71 | 27.20 | 119.42 | 241.77 | 1,728.10 | 1,820.99 | 1,783.06 | 37.93 | 48.006 | |
| 7,600.00 | 7,592.87 | 7,706.84 | 7,695.69 | 27.08 | 27.58 | 119.47 | 247.37 | 1,721.44 | 1,818.92 | 1,780.48 | 38.45 | 47.310 | |
| 7,700.00 | 7,692.49 | 7,806.81 | 7,795.28 | 27.44 | 27.95 | 119.52 | 252.97 | 1,714.77 | 1,816.86 | 1,777.90 | 38.96 | 46.633 | |
| 7,800.00 | 7,792.11 | 7,906.77 | 7,894.87 | 27.81 | 28.32 | 119.57 | 258.57 | 1,708.11 | 1,814.79 | 1,775.32 | 39.48 | 45.973 | |
| 7,900.00 | 7,891.73 | 8,006.74 | 7,994.45 | 28.18 | 28.69 | 119.62 | 264.17 | 1,701.44 | 1,812.73 | 1,772.74 | 39.99 | 45.330 | |
| 8,000.00 | 7,991.35 | 8,106.70 | 8,094.04 | 28.55 | 29.06 | 119.67 | 269.76 | 1,694.78 | 1,810.67 | 1,770.17 | 40.51 | 44.702 | |
| 8,100.00 | 8,090.97 | 8,184.40 | 8,171.49 | 28.92 | 29.35 | 119.73 | 273.77 | 1,690.01 | 1,809.14 | 1,768.17 | 40.98 | 44.150 | |
| 8,158.00 | 8,148.75 | 8,227.46 | 8,214.45 | 29.13 | 29.51 | 119.77 | 275.56 | 1,687.88 | 1,808.90 | 1,767.66 | 41.24 | 43.858 CC | |
| 8,200.00 | 8,190.59 | 8,258.62 | 8,245.56 | 29.28 | 29.62 | 119.81 | 276.66 | 1,686.57 | 1,809.03 | 1,767.59 | 41.44 | 43.658 | |
| 8,226.93 | 8,217.42 | 8,278.59 | 8,265.51 | 29.38 | 29.70 | 119.83 | 277.28 | 1,685.83 | 1,809.24 | 1,767.69 | 41.56 | 43.535 | |
| 8,300.00 | 8,290.27 | 8,332.76 | 8,319.64 | 29.65 | 29.89 | 119.91 | 278.63 | 1,684.23 | 1,810.00 | 1,768.11 | 41.89 | 43.211 | |
| 8,400.00 | 8,390.11 | 8,406.88 | 8,393.74 | 30.02 | 30.16 | 120.01 | 279.67 | 1,682.99 | 1,811.14 | 1,768.81 | 42.33 | 42.788 | |
| 8,500.00 | 8,490.07 | 8,490.71 | 8,477.57 | 30.38 | 30.45 | 120.08 | 279.85 | 1,682.78 | 1,812.30 | 1,769.52 | 42.79 | 42.355 | |
| 8,559.94 | 8,550.00 | 8,550.64 | 8,537.50 | 30.59 | 30.66 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,769.45 | 43.09 | 42.065 | |
| 8,600.00 | 8,590.07 | 8,590.70 | 8,577.57 | 30.73 | 30.81 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,769.25 | 43.29 | 41.869 | |
| 8,700.00 | 8,690.07 | 8,690.70 | 8,677.57 | 31.09 | 31.16 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,768.75 | 43.79 | 41.389 | |
| 8,800.00 | 8,790.07 | 8,790.70 | 8,777.57 | 31.44 | 31.51 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,768.24 | 44.29 | 40.920 | |
| 8,900.00 | 8,890.07 | 8,890.70 | 8,877.57 | 31.80 | 31.86 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,767.74 | 44.80 | 40.461 | |
| 9,000.00 | 8,990.07 | 8,990.70 | 8,977.57 | 32.15 | 32.22 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,767.24 | 45.30 | 40.012 | |
| 9,100.00 | 9,090.07 | 9,090.70 | 9,077.57 | 32.51 | 32.57 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,766.74 | 45.80 | 39.573 | |
| 9,200.00 | 9,190.07 | 9,190.70 | 9,177.57 | 32.87 | 32.92 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,766.23 | 46.31 | 39.143 | |
| 9,300.00 | 9,290.07 | 9,290.70 | 9,277.57 | 33.22 | 33.28 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,765.73 | 46.81 | 38.723 | |
| 9,400.00 | 9,390.07 | 9,390.70 | 9,377.57 | 33.58 | 33.63 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,765.23 | 47.31 | 38.311 | |
| 9,500.00 | 9,490.07 | 9,490.70 | 9,477.57 | 33.93 | 33.99 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,764.73 | 47.81 | 37.908 | |
| 9,600.00 | 9,590.07 | 9,590.70 | 9,577.57 | 34.29 | 34.34 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,764.22 | 48.32 | 37.513 | |
| 9,700.00 | 9,690.07 | 9,690.70 | 9,677.57 | 34.65 | 34.69 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,763.72 | 48.82 | 37.127 | |
| 9,800.00 | 9,790.07 | 9,790.70 | 9,777.57 | 35.00 | 35.05 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,763.22 | 49.32 | 36.748 | |
| 9,900.00 | 9,890.07 | 9,890.70 | 9,877.57 | 35.36 | 35.40 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,762.71 | 49.83 | 36.377 | |
| 10,000.00 | 9,990.07 | 9,990.70 | 9,977.57 | 35.71 | 35.76 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,762.21 | 50.33 | 36.013 | |
| 10,100.00 | 10,090.07 | 10,090.70 | 10,077.57 | 36.07 | 36.11 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,761.71 | 50.83 | 35.656 | |
| 10,200.00 | 10,190.07 | 10,190.70 | 10,177.57 | 36.43 | 36.46 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,761.20 | 51.34 | 35.306 | |
| 10,300.00 | 10,290.07 | 10,290.70 | 10,277.57 | 36.78 | 36.82 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,760.70 | 51.84 | 34.963 | |
| 10,400.00 | 10,390.07 | 10,390.70 | 10,377.57 | 37.14 | 37.17 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,760.19 | 52.34 | 34.627 | |
| 10,500.00 | 10,490.07 | 10,490.70 | 10,477.57 | 37.50 | 37.53 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,759.69 | 52.85 | 34.297 | |
| 10,600.00 | 10,590.07 | 10,590.70 | 10,577.57 | 37.85 | 37.88 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,759.19 | 53.35 | 33.973 | |
| 10,700.00 | 10,690.07 | 10,690.70 | 10,677.57 | 38.21 | 38.24 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,758.68 | 53.86 | 33.655 | |
| 10,800.00 | 10,790.07 | 10,790.70 | 10,777.57 | 38.57 | 38.59 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,758.18 | 54.36 | 33.343 | |
| 10,900.00 | 10,890.07 | 10,890.70 | 10,877.57 | 38.92 | 38.95 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,757.68 | 54.86 | 33.037 | |
| 11,000.00 | 10,990.07 | 10,990.70 | 10,977.57 | 39.28 | 39.30 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,757.17 | 55.37 | 32.736 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11,100.00 | 11,090.07 | 11,090.70 | 11,077.57 | 39.64 | 39.66 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,756.67 | 55.87 | 32.441 | |
| 11,200.00 | 11,190.07 | 11,190.70 | 11,177.57 | 39.99 | 40.01 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,756.16 | 56.38 | 32.151 | |
| 11,300.00 | 11,290.07 | 11,290.70 | 11,277.57 | 40.35 | 40.37 | 87.48 | 279.85 | 1,682.78 | 1,812.54 | 1,755.66 | 56.88 | 31.866 | |
| 11,374.94 | 11,365.00 | 11,372.03 | 11,358.79 | 40.62 | 40.64 | 87.57 | 276.83 | 1,682.81 | 1,812.45 | 1,755.18 | 57.26 | 31.651 | |
| 11,400.00 | 11,390.06 | 11,399.87 | 11,386.40 | 40.70 | 40.72 | -91.84 | 273.30 | 1,682.84 | 1,812.36 | 1,754.98 | 57.38 | 31.583 | |
| 11,450.00 | 11,439.85 | 11,454.93 | 11,440.35 | 40.86 | 40.89 | -91.67 | 262.39 | 1,682.93 | 1,812.19 | 1,754.58 | 57.61 | 31.458 | |
| 11,500.00 | 11,489.07 | 11,509.33 | 11,492.38 | 41.01 | 41.04 | -91.48 | 246.59 | 1,683.07 | 1,812.02 | 1,754.20 | 57.82 | 31.340 | |
| 11,550.00 | 11,537.35 | 11,563.04 | 11,542.05 | 41.15 | 41.18 | -91.28 | 226.21 | 1,683.25 | 1,811.87 | 1,753.85 | 58.02 | 31.230 | |
| 11,600.00 | 11,584.32 | 11,616.06 | 11,589.00 | 41.28 | 41.30 | -91.07 | 201.63 | 1,683.46 | 1,811.73 | 1,753.52 | 58.21 | 31.127 | |
| 11,650.00 | 11,629.62 | 11,668.38 | 11,632.92 | 41.41 | 41.42 | -90.85 | 173.21 | 1,683.71 | 1,811.61 | 1,753.23 | 58.38 | 31.030 | |
| 11,700.00 | 11,672.90 | 11,720.01 | 11,673.53 | 41.53 | 41.51 | -90.63 | 141.36 | 1,683.99 | 1,811.52 | 1,752.97 | 58.55 | 30.938 | |
| 11,750.00 | 11,713.85 | 11,770.97 | 11,710.64 | 41.63 | 41.60 | -90.40 | 106.46 | 1,684.30 | 1,811.45 | 1,752.74 | 58.72 | 30.852 | |
| 11,800.00 | 11,752.13 | 11,821.27 | 11,744.10 | 41.73 | 41.67 | -90.18 | 68.92 | 1,684.63 | 1,811.41 | 1,752.54 | 58.87 | 30.768 | |
| 11,841.62 | 11,781.77 | 11,862.66 | 11,769.06 | 41.81 | 41.71 | -89.99 | 35.93 | 1,684.91 | 1,811.40 | 1,752.40 | 59.00 | 30.702 | |
| 11,850.00 | 11,787.47 | 11,870.94 | 11,773.77 | 41.82 | 41.72 | -89.95 | 29.12 | 1,684.97 | 1,811.41 | 1,752.38 | 59.03 | 30.688 | |
| 11,900.00 | 11,819.60 | 11,919.99 | 11,799.59 | 41.92 | 41.79 | -89.73 | -12.57 | 1,685.34 | 1,811.42 | 1,752.25 | 59.18 | 30.610 | |
| 11,950.00 | 11,848.26 | 11,968.46 | 11,821.50 | 42.02 | 41.90 | -89.51 | -55.79 | 1,685.72 | 1,811.47 | 1,752.14 | 59.33 | 30.533 | |
| 12,000.00 | 11,873.25 | 12,016.39 | 11,839.51 | 42.13 | 42.02 | -89.29 | -100.18 | 1,686.11 | 1,811.54 | 1,752.06 | 59.48 | 30.456 | |
| 12,050.00 | 11,894.37 | 12,063.79 | 11,853.60 | 42.24 | 42.13 | -89.08 | -145.43 | 1,686.50 | 1,811.64 | 1,752.00 | 59.63 | 30.380 | |
| 12,100.00 | 11,911.46 | 12,110.71 | 11,863.83 | 42.35 | 42.25 | -88.88 | -191.21 | 1,686.90 | 1,811.75 | 1,751.96 | 59.79 | 30.304 | |
| 12,150.00 | 11,924.39 | 12,157.18 | 11,870.23 | 42.47 | 42.37 | -88.69 | -237.22 | 1,687.31 | 1,811.88 | 1,751.94 | 59.94 | 30.227 | |
| 12,200.00 | 11,933.06 | 12,204.10 | 11,872.89 | 42.59 | 42.49 | -88.50 | -284.05 | 1,687.71 | 1,812.02 | 1,751.92 | 60.10 | 30.148 | |
| 12,250.00 | 11,937.42 | 12,253.03 | 11,873.66 | 42.72 | 42.63 | -88.38 | -332.97 | 1,688.14 | 1,812.12 | 1,751.84 | 60.28 | 30.060 | |
| 12,268.73 | 11,937.92 | 12,271.76 | 11,873.95 | 42.76 | 42.69 | -88.37 | -351.69 | 1,688.31 | 1,812.13 | 1,751.77 | 60.35 | 30.026 | |
| 12,300.00 | 11,938.26 | 12,303.02 | 11,874.45 | 42.84 | 42.78 | -88.38 | -382.96 | 1,688.58 | 1,812.12 | 1,751.65 | 60.47 | 29.966 | |
| 12,400.00 | 11,939.35 | 12,403.02 | 11,876.03 | 43.15 | 43.13 | -88.39 | -482.94 | 1,689.46 | 1,812.10 | 1,751.18 | 60.93 | 29.743 | |
| 12,500.00 | 11,940.43 | 12,503.02 | 11,877.60 | 43.51 | 43.54 | -88.41 | -582.92 | 1,690.33 | 1,812.09 | 1,750.62 | 61.46 | 29.482 | |
| 12,600.00 | 11,941.51 | 12,603.02 | 11,879.18 | 43.93 | 44.00 | -88.42 | -682.90 | 1,691.21 | 1,812.07 | 1,749.98 | 62.09 | 29.186 | |
| 12,700.00 | 11,942.59 | 12,703.02 | 11,880.76 | 44.41 | 44.53 | -88.44 | -782.89 | 1,692.08 | 1,812.05 | 1,749.26 | 62.79 | 28.859 | |
| 12,800.00 | 11,943.68 | 12,803.02 | 11,882.34 | 44.94 | 45.10 | -88.46 | -882.87 | 1,692.96 | 1,812.04 | 1,748.47 | 63.57 | 28.504 | |
| 12,900.00 | 11,944.76 | 12,903.02 | 11,883.92 | 45.53 | 45.73 | -88.47 | -982.85 | 1,693.83 | 1,812.02 | 1,747.59 | 64.43 | 28.125 | |
| 13,000.00 | 11,945.84 | 13,003.02 | 11,885.49 | 46.17 | 46.40 | -88.49 | -1,082.83 | 1,694.71 | 1,812.01 | 1,746.65 | 65.36 | 27.725 | |
| 13,100.00 | 11,946.92 | 13,103.01 | 11,887.07 | 46.86 | 47.13 | -88.50 | -1,182.82 | 1,695.58 | 1,811.99 | 1,745.64 | 66.35 | 27.308 | |
| 13,200.00 | 11,948.01 | 13,203.01 | 11,888.65 | 47.59 | 47.90 | -88.52 | -1,282.80 | 1,696.46 | 1,811.97 | 1,744.56 | 67.42 | 26.876 | |
| 13,300.00 | 11,949.09 | 13,303.01 | 11,890.23 | 48.37 | 48.71 | -88.53 | -1,382.78 | 1,697.33 | 1,811.96 | 1,743.41 | 68.55 | 26.434 | |
| 13,400.00 | 11,950.17 | 13,403.01 | 11,891.80 | 49.20 | 49.57 | -88.55 | -1,482.76 | 1,698.21 | 1,811.94 | 1,742.21 | 69.73 | 25.984 | |
| 13,500.00 | 11,951.25 | 13,503.01 | 11,893.38 | 50.06 | 50.46 | -88.57 | -1,582.75 | 1,699.08 | 1,811.93 | 1,740.95 | 70.98 | 25.528 | |
| 13,600.00 | 11,952.33 | 13,603.01 | 11,894.96 | 50.97 | 51.40 | -88.58 | -1,682.73 | 1,699.96 | 1,811.91 | 1,739.64 | 72.28 | 25.069 | |
| 13,700.00 | 11,953.42 | 13,703.01 | 11,896.54 | 51.91 | 52.37 | -88.60 | -1,782.71 | 1,700.83 | 1,811.90 | 1,738.27 | 73.63 | 24.609 | |
| 13,800.00 | 11,954.50 | 13,803.01 | 11,898.12 | 52.88 | 53.37 | -88.61 | -1,882.69 | 1,701.71 | 1,811.88 | 1,736.86 | 75.03 | 24.150 | |
| 13,900.00 | 11,955.58 | 13,903.00 | 11,899.69 | 53.89 | 54.40 | -88.63 | -1,982.68 | 1,702.58 | 1,811.87 | 1,735.40 | 76.47 | 23.693 | |
| 14,000.00 | 11,956.66 | 14,003.00 | 11,901.27 | 54.93 | 55.46 | -88.64 | -2,082.66 | 1,703.46 | 1,811.85 | 1,733.90 | 77.96 | 23.241 | |
| 14,100.00 | 11,957.75 | 14,103.00 | 11,902.85 | 56.00 | 56.56 | -88.66 | -2,182.64 | 1,704.33 | 1,811.84 | 1,732.35 | 79.49 | 22.794 | |
| 14,200.00 | 11,958.83 | 14,203.00 | 11,904.43 | 57.10 | 57.67 | -88.67 | -2,282.62 | 1,705.21 | 1,811.83 | 1,730.77 | 81.06 | 22.353 | |
| 14,300.00 | 11,959.91 | 14,303.00 | 11,906.01 | 58.22 | 58.82 | -88.69 | -2,382.61 | 1,706.08 | 1,811.81 | 1,729.15 | 82.66 | 21.919 | |
| 14,400.00 | 11,960.99 | 14,403.00 | 11,907.58 | 59.37 | 59.98 | -88.71 | -2,482.59 | 1,706.96 | 1,811.80 | 1,727.50 | 84.30 | 21.493 | |
| 14,500.00 | 11,962.08 | 14,503.00 | 11,909.16 | 60.54 | 61.17 | -88.72 | -2,582.57 | 1,707.83 | 1,811.78 | 1,725.82 | 85.97 | 21.075 | |
| 14,600.00 | 11,963.16 | 14,603.00 | 11,910.74 | 61.73 | 62.38 | -88.74 | -2,682.55 | 1,708.71 | 1,811.77 | 1,724.10 | 87.67 | 20.666 | |
| 14,700.00 | 11,964.24 | 14,702.99 | 11,912.32 | 62.94 | 63.61 | -88.75 | -2,782.54 | 1,709.58 | 1,811.76 | 1,722.36 | 89.40 | 20.266 | |
| 14,800.00 | 11,965.32 | 14,802.99 | 11,913.89 | 64.18 | 64.86 | -88.77 | -2,882.52 | 1,710.46 | 1,811.74 | 1,720.59 | 91.15 | 19.875 | |
| 14,900.00 | 11,966.41 | 14,902.99 | 11,915.47 | 65.43 | 66.13 | -88.78 | -2,982.50 | 1,711.33 | 1,811.73 | 1,718.79 | 92.94 | 19.494 | |
| 15,000.00 | 11,967.49 | 15,002.99 | 11,917.05 | 66.70 | 67.41 | -88.80 | -3,082.48 | 1,712.21 | 1,811.72 | 1,716.97 | 94.74 | 19.122 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,100.00 | 11,968.57 | 15,102.99 | 11,918.63 | 67.99 | 68.71 | -88.82 | -3,182.47 | 1,713.08 | 1,811.70 | 1,715.13 | 96.57 | 18.760 | |
| 15,200.00 | 11,969.65 | 15,202.99 | 11,920.21 | 69.29 | 70.03 | -88.83 | -3,282.45 | 1,713.96 | 1,811.69 | 1,713.27 | 98.42 | 18.407 | |
| 15,300.00 | 11,970.74 | 15,302.99 | 11,921.78 | 70.60 | 71.36 | -88.85 | -3,382.43 | 1,714.83 | 1,811.68 | 1,711.38 | 100.29 | 18.064 | |
| 15,400.00 | 11,971.82 | 15,402.99 | 11,923.36 | 71.93 | 72.70 | -88.86 | -3,482.41 | 1,715.71 | 1,811.67 | 1,709.48 | 102.18 | 17.729 | |
| 15,500.00 | 11,972.90 | 15,502.98 | 11,924.94 | 73.28 | 74.05 | -88.88 | -3,582.40 | 1,716.58 | 1,811.65 | 1,707.56 | 104.09 | 17.404 | |
| 15,600.00 | 11,973.98 | 15,602.98 | 11,926.52 | 74.63 | 75.42 | -88.89 | -3,682.38 | 1,717.46 | 1,811.64 | 1,705.62 | 106.02 | 17.088 | |
| 15,700.00 | 11,975.07 | 15,702.98 | 11,928.10 | 76.00 | 76.79 | -88.91 | -3,782.36 | 1,718.33 | 1,811.63 | 1,703.67 | 107.96 | 16.781 | |
| 15,800.00 | 11,976.15 | 15,802.98 | 11,929.67 | 77.38 | 78.18 | -88.93 | -3,882.34 | 1,719.21 | 1,811.62 | 1,701.70 | 109.92 | 16.482 | |
| 15,900.00 | 11,977.23 | 15,902.98 | 11,931.25 | 78.77 | 79.58 | -88.94 | -3,982.33 | 1,720.08 | 1,811.60 | 1,699.72 | 111.89 | 16.191 | |
| 16,000.00 | 11,978.31 | 16,002.98 | 11,932.83 | 80.17 | 80.99 | -88.96 | -4,082.31 | 1,720.96 | 1,811.59 | 1,697.72 | 113.87 | 15.909 | |
| 16,100.00 | 11,979.40 | 16,102.98 | 11,934.41 | 81.57 | 82.40 | -88.97 | -4,182.29 | 1,721.83 | 1,811.58 | 1,695.71 | 115.87 | 15.634 | |
| 16,200.00 | 11,980.48 | 16,202.98 | 11,935.99 | 82.99 | 83.83 | -88.99 | -4,282.27 | 1,722.70 | 1,811.57 | 1,693.69 | 117.88 | 15.367 | |
| 16,300.00 | 11,981.56 | 16,302.97 | 11,937.56 | 84.42 | 85.26 | -89.00 | -4,382.26 | 1,723.58 | 1,811.56 | 1,691.65 | 119.91 | 15.108 | |
| 16,400.00 | 11,982.64 | 16,402.97 | 11,939.14 | 85.85 | 86.70 | -89.02 | -4,482.24 | 1,724.45 | 1,811.55 | 1,689.61 | 121.94 | 14.856 | |
| 16,500.00 | 11,983.73 | 16,502.97 | 11,940.72 | 87.29 | 88.15 | -89.03 | -4,582.22 | 1,725.33 | 1,811.54 | 1,687.55 | 123.99 | 14.611 | |
| 16,600.00 | 11,984.81 | 16,602.97 | 11,942.30 | 88.74 | 89.61 | -89.05 | -4,682.20 | 1,726.20 | 1,811.53 | 1,685.48 | 126.04 | 14.372 | |
| 16,700.00 | 11,985.89 | 16,702.97 | 11,943.87 | 90.20 | 91.07 | -89.07 | -4,782.19 | 1,727.08 | 1,811.51 | 1,683.41 | 128.11 | 14.141 | |
| 16,800.00 | 11,986.97 | 16,802.97 | 11,945.45 | 91.66 | 92.54 | -89.08 | -4,882.17 | 1,727.95 | 1,811.50 | 1,681.32 | 130.18 | 13.915 | |
| 16,900.00 | 11,988.06 | 16,902.97 | 11,947.03 | 93.13 | 94.01 | -89.10 | -4,982.15 | 1,728.83 | 1,811.49 | 1,679.23 | 132.26 | 13.696 | |
| 17,000.00 | 11,989.14 | 17,002.97 | 11,948.61 | 94.61 | 95.50 | -89.11 | -5,082.13 | 1,729.70 | 1,811.48 | 1,677.13 | 134.35 | 13.483 | |
| 17,100.00 | 11,990.22 | 17,102.96 | 11,950.19 | 96.09 | 96.98 | -89.13 | -5,182.12 | 1,730.58 | 1,811.47 | 1,675.02 | 136.45 | 13.275 | |
| 17,200.00 | 11,991.30 | 17,202.96 | 11,951.76 | 97.57 | 98.47 | -89.14 | -5,282.10 | 1,731.45 | 1,811.46 | 1,672.90 | 138.56 | 13.073 | |
| 17,300.00 | 11,992.39 | 17,302.96 | 11,953.34 | 99.06 | 99.97 | -89.16 | -5,382.08 | 1,732.33 | 1,811.45 | 1,670.78 | 140.67 | 12.877 | |
| 17,400.00 | 11,993.47 | 17,402.96 | 11,954.92 | 100.56 | 101.47 | -89.18 | -5,482.06 | 1,733.20 | 1,811.44 | 1,668.65 | 142.80 | 12.686 | |
| 17,500.00 | 11,994.55 | 17,502.96 | 11,956.50 | 102.06 | 102.98 | -89.19 | -5,582.05 | 1,734.08 | 1,811.43 | 1,666.51 | 144.92 | 12.499 | |
| 17,600.00 | 11,995.63 | 17,602.96 | 11,958.08 | 103.57 | 104.49 | -89.21 | -5,682.03 | 1,734.95 | 1,811.42 | 1,664.37 | 147.06 | 12.318 | |
| 17,700.00 | 11,996.72 | 17,702.96 | 11,959.65 | 105.08 | 106.00 | -89.22 | -5,782.01 | 1,735.83 | 1,811.41 | 1,662.22 | 149.20 | 12.141 | |
| 17,800.00 | 11,997.80 | 17,802.96 | 11,961.23 | 106.59 | 107.52 | -89.24 | -5,881.99 | 1,736.70 | 1,811.40 | 1,660.06 | 151.34 | 11.969 | |
| 17,900.00 | 11,998.88 | 17,902.96 | 11,962.81 | 108.11 | 109.04 | -89.25 | -5,981.98 | 1,737.58 | 1,811.39 | 1,657.90 | 153.50 | 11.801 | |
| 18,000.00 | 11,999.96 | 18,002.95 | 11,964.39 | 109.64 | 110.57 | -89.27 | -6,081.96 | 1,738.45 | 1,811.39 | 1,655.73 | 155.65 | 11.637 | |
| 18,100.00 | 12,001.05 | 18,102.95 | 11,965.97 | 111.16 | 112.10 | -89.29 | -6,181.94 | 1,739.33 | 1,811.38 | 1,653.56 | 157.81 | 11.478 | |
| 18,200.00 | 12,002.13 | 18,202.95 | 11,967.54 | 112.69 | 113.63 | -89.30 | -6,281.92 | 1,740.20 | 1,811.37 | 1,651.39 | 159.98 | 11.322 | |
| 18,300.00 | 12,003.21 | 18,302.95 | 11,969.12 | 114.23 | 115.17 | -89.32 | -6,381.91 | 1,741.08 | 1,811.36 | 1,649.21 | 162.15 | 11.171 | |
| 18,400.00 | 12,004.29 | 18,402.95 | 11,970.70 | 115.76 | 116.71 | -89.33 | -6,481.89 | 1,741.95 | 1,811.35 | 1,647.02 | 164.33 | 11.023 | |
| 18,500.00 | 12,005.38 | 18,502.95 | 11,972.28 | 117.30 | 118.25 | -89.35 | -6,581.87 | 1,742.83 | 1,811.34 | 1,644.83 | 166.51 | 10.878 | |
| 18,600.00 | 12,006.46 | 18,602.95 | 11,973.85 | 118.84 | 119.80 | -89.36 | -6,681.85 | 1,743.70 | 1,811.33 | 1,642.64 | 168.70 | 10.737 | |
| 18,700.00 | 12,007.54 | 18,702.95 | 11,975.43 | 120.39 | 121.35 | -89.38 | -6,781.84 | 1,744.58 | 1,811.33 | 1,640.44 | 170.88 | 10.600 | |
| 18,800.00 | 12,008.62 | 18,802.94 | 11,977.01 | 121.94 | 122.90 | -89.40 | -6,881.82 | 1,745.45 | 1,811.32 | 1,638.24 | 173.08 | 10.465 | |
| 18,900.00 | 12,009.71 | 18,902.94 | 11,978.59 | 123.49 | 124.45 | -89.41 | -6,981.80 | 1,746.33 | 1,811.31 | 1,636.04 | 175.27 | 10.334 | |
| 19,000.00 | 12,010.79 | 19,002.94 | 11,980.17 | 125.04 | 126.01 | -89.43 | -7,081.78 | 1,747.20 | 1,811.30 | 1,633.83 | 177.47 | 10.206 | |
| 19,100.00 | 12,011.87 | 19,102.94 | 11,981.74 | 126.60 | 127.57 | -89.44 | -7,181.77 | 1,748.08 | 1,811.29 | 1,631.62 | 179.68 | 10.081 | |
| 19,200.00 | 12,012.95 | 19,202.94 | 11,983.32 | 128.16 | 129.13 | -89.46 | -7,281.75 | 1,748.95 | 1,811.29 | 1,629.40 | 181.88 | 9.958 | |
| 19,300.00 | 12,014.03 | 19,302.94 | 11,984.90 | 129.72 | 130.69 | -89.47 | -7,381.73 | 1,749.83 | 1,811.28 | 1,627.18 | 184.10 | 9.839 | |
| 19,400.00 | 12,015.12 | 19,402.94 | 11,986.48 | 131.28 | 132.26 | -89.49 | -7,481.71 | 1,750.70 | 1,811.27 | 1,624.96 | 186.31 | 9.722 | |
| 19,500.00 | 12,016.20 | 19,502.94 | 11,988.06 | 132.85 | 133.83 | -89.51 | -7,581.70 | 1,751.58 | 1,811.27 | 1,622.74 | 188.52 | 9.608 | |
| 19,600.00 | 12,017.28 | 19,602.93 | 11,989.63 | 134.42 | 135.40 | -89.52 | -7,681.68 | 1,752.45 | 1,811.26 | 1,620.51 | 190.74 | 9.496 | |
| 19,700.00 | 12,018.36 | 19,702.93 | 11,991.21 | 135.98 | 136.97 | -89.54 | -7,781.66 | 1,753.33 | 1,811.25 | 1,618.29 | 192.97 | 9.386 | |
| 19,800.00 | 12,019.45 | 19,802.93 | 11,992.79 | 137.56 | 138.54 | -89.55 | -7,881.64 | 1,754.20 | 1,811.24 | 1,616.05 | 195.19 | 9.279 | |
| 19,900.00 | 12,020.53 | 19,902.93 | 11,994.37 | 139.13 | 140.12 | -89.57 | -7,981.63 | 1,755.08 | 1,811.24 | 1,613.82 | 197.42 | 9.175 | |
| 20,000.00 | 12,021.61 | 20,002.93 | 11,995.95 | 140.70 | 141.69 | -89.58 | -8,081.61 | 1,755.95 | 1,811.23 | 1,611.58 | 199.65 | 9.072 | |
| 20,100.00 | 12,022.69 | 20,102.93 | 11,997.52 | 142.28 | 143.27 | -89.60 | -8,181.59 | 1,756.83 | 1,811.23 | 1,609.35 | 201.88 | 8.972 | |
| 20,200.00 | 12,023.78 | 20,202.93 | 11,999.10 | 143.86 | 144.85 | -89.61 | -8,281.57 | 1,757.70 | 1,811.22 | 1,607.10 | 204.11 | 8.874 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,300.00 | 12,024.86 | 20,302.93 | 12,000.68 | 145.44 | 146.43 | -89.63 | -8,381.56 | 1,758.58 | 1,811.21 | 1,604.86 | 206.35 | 8.777 | |
| 20,400.00 | 12,025.94 | 20,402.92 | 12,002.26 | 147.02 | 148.02 | -89.65 | -8,481.54 | 1,759.45 | 1,811.21 | 1,602.62 | 208.59 | 8.683 | |
| 20,500.00 | 12,027.02 | 20,502.92 | 12,003.83 | 148.61 | 149.60 | -89.66 | -8,581.52 | 1,760.33 | 1,811.20 | 1,600.37 | 210.83 | 8.591 | |
| 20,600.00 | 12,028.11 | 20,602.92 | 12,005.41 | 150.19 | 151.19 | -89.68 | -8,681.50 | 1,761.20 | 1,811.20 | 1,598.12 | 213.08 | 8.500 | |
| 20,700.00 | 12,029.19 | 20,702.92 | 12,006.99 | 151.78 | 152.78 | -89.69 | -8,781.49 | 1,762.08 | 1,811.19 | 1,595.87 | 215.32 | 8.412 | |
| 20,800.00 | 12,030.27 | 20,802.92 | 12,008.57 | 153.36 | 154.37 | -89.71 | -8,881.47 | 1,762.95 | 1,811.19 | 1,593.62 | 217.57 | 8.325 | |
| 20,900.00 | 12,031.35 | 20,902.92 | 12,010.15 | 154.95 | 155.96 | -89.72 | -8,981.45 | 1,763.83 | 1,811.18 | 1,591.36 | 219.82 | 8.240 | |
| 21,000.00 | 12,032.44 | 21,002.92 | 12,011.72 | 156.54 | 157.55 | -89.74 | -9,081.43 | 1,764.70 | 1,811.18 | 1,589.11 | 222.07 | 8.156 | |
| 21,100.00 | 12,033.52 | 21,102.92 | 12,013.30 | 158.14 | 159.14 | -89.76 | -9,181.42 | 1,765.58 | 1,811.17 | 1,586.85 | 224.32 | 8.074 | |
| 21,200.00 | 12,034.60 | 21,202.91 | 12,014.88 | 159.73 | 160.74 | -89.77 | -9,281.40 | 1,766.45 | 1,811.17 | 1,584.59 | 226.57 | 7.994 | |
| 21,300.00 | 12,035.68 | 21,302.91 | 12,016.46 | 161.32 | 162.33 | -89.79 | -9,381.38 | 1,767.33 | 1,811.16 | 1,582.33 | 228.83 | 7.915 | |
| 21,400.00 | 12,036.77 | 21,402.91 | 12,018.04 | 162.92 | 163.93 | -89.80 | -9,481.36 | 1,768.20 | 1,811.16 | 1,580.07 | 231.09 | 7.838 | |
| 21,500.00 | 12,037.85 | 21,502.91 | 12,019.61 | 164.51 | 165.53 | -89.82 | -9,581.35 | 1,769.08 | 1,811.15 | 1,577.81 | 233.35 | 7.762 | |
| 21,600.00 | 12,038.93 | 21,602.91 | 12,021.19 | 166.11 | 167.13 | -89.83 | -9,681.33 | 1,769.95 | 1,811.15 | 1,575.54 | 235.61 | 7.687 | |
| 21,700.00 | 12,040.01 | 21,702.91 | 12,022.77 | 167.71 | 168.72 | -89.85 | -9,781.31 | 1,770.83 | 1,811.14 | 1,573.27 | 237.87 | 7.614 | |
| 21,800.00 | 12,041.10 | 21,802.91 | 12,024.35 | 169.31 | 170.33 | -89.87 | -9,881.29 | 1,771.70 | 1,811.14 | 1,571.01 | 240.13 | 7.542 | |
| 21,900.00 | 12,042.18 | 21,902.91 | 12,025.92 | 170.91 | 171.93 | -89.88 | -9,981.28 | 1,772.58 | 1,811.14 | 1,568.74 | 242.40 | 7.472 | |
| 22,000.00 | 12,043.26 | 22,002.90 | 12,027.50 | 172.51 | 173.53 | -89.90 | -10,081.26 | 1,773.45 | 1,811.13 | 1,566.47 | 244.66 | 7.403 | |
| 22,100.00 | 12,044.34 | 22,102.90 | 12,029.08 | 174.11 | 175.13 | -89.91 | -10,181.24 | 1,774.33 | 1,811.13 | 1,564.20 | 246.93 | 7.335 | |
| 22,200.00 | 12,045.43 | 22,202.90 | 12,030.66 | 175.72 | 176.74 | -89.93 | -10,281.22 | 1,775.20 | 1,811.13 | 1,561.93 | 249.20 | 7.268 | |
| 22,300.00 | 12,046.51 | 22,302.90 | 12,032.24 | 177.32 | 178.34 | -89.94 | -10,381.21 | 1,776.08 | 1,811.12 | 1,559.65 | 251.47 | 7.202 | |
| 22,400.00 | 12,047.59 | 22,402.90 | 12,033.81 | 178.93 | 179.95 | -89.96 | -10,481.19 | 1,776.95 | 1,811.12 | 1,557.38 | 253.74 | 7.138 | |
| 22,500.00 | 12,048.67 | 22,502.90 | 12,035.39 | 180.53 | 181.56 | -89.98 | -10,581.17 | 1,777.83 | 1,811.12 | 1,555.10 | 256.01 | 7.074 | |
| 22,572.67 | 12,049.46 | 22,575.57 | 12,036.54 | 181.70 | 182.73 | -89.99 | -10,653.83 | 1,778.46 | 1,811.11 | 1,553.45 | 257.67 | 7.029 | ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 87.59 | 79.52 | 1,885.79 | 1,887.51 | | | | |
| 100.00 | 100.00 | 87.70 | 87.70 | 0.14 | 0.12 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,887.28 | 0.19 | N/A | |
| 200.00 | 200.00 | 187.70 | 187.70 | 0.50 | 0.46 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,886.79 | 0.68 | 2,789.041 | |
| 300.00 | 300.00 | 287.70 | 287.70 | 0.86 | 0.81 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,886.28 | 1.18 | 1,594.964 | |
| 400.00 | 400.00 | 387.70 | 387.70 | 1.22 | 1.17 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,885.78 | 1.69 | 1,116.696 | |
| 500.00 | 500.00 | 487.70 | 487.70 | 1.58 | 1.53 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,885.27 | 2.20 | 859.067 | |
| 600.00 | 600.00 | 587.70 | 587.70 | 1.93 | 1.89 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,884.76 | 2.70 | 698.021 | |
| 700.00 | 700.00 | 687.70 | 687.70 | 2.29 | 2.25 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,884.25 | 3.21 | 587.821 | |
| 800.00 | 800.00 | 787.70 | 787.70 | 2.65 | 2.61 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,883.75 | 3.72 | 507.672 | |
| 900.00 | 900.00 | 887.70 | 887.70 | 3.01 | 2.97 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,883.24 | 4.22 | 446.756 | |
| 1,000.00 | 1,000.00 | 987.70 | 987.70 | 3.37 | 3.32 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,882.73 | 4.73 | 398.892 | |
| 1,100.00 | 1,100.00 | 1,087.70 | 1,087.70 | 3.73 | 3.68 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,882.23 | 5.24 | 360.292 | |
| 1,200.00 | 1,200.00 | 1,187.70 | 1,187.70 | 4.08 | 4.04 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,881.72 | 5.75 | 328.503 | |
| 1,300.00 | 1,300.00 | 1,287.70 | 1,287.70 | 4.44 | 4.40 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,881.21 | 6.25 | 301.868 | |
| 1,400.00 | 1,400.00 | 1,387.70 | 1,387.70 | 4.80 | 4.76 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,880.71 | 6.76 | 279.229 | |
| 1,500.00 | 1,500.00 | 1,487.70 | 1,487.70 | 5.16 | 5.12 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,880.20 | 7.27 | 259.749 | |
| 1,600.00 | 1,600.00 | 1,587.70 | 1,587.70 | 5.52 | 5.47 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,879.69 | 7.77 | 242.809 | |
| 1,700.00 | 1,700.00 | 1,687.70 | 1,687.70 | 5.88 | 5.83 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,879.19 | 8.28 | 227.943 | |
| 1,800.00 | 1,800.00 | 1,787.70 | 1,787.70 | 6.24 | 6.19 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,878.68 | 8.79 | 214.793 | |
| 1,900.00 | 1,900.00 | 1,887.70 | 1,887.70 | 6.59 | 6.55 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,878.17 | 9.29 | 203.077 | |
| 2,000.00 | 2,000.00 | 1,987.70 | 1,987.70 | 6.95 | 6.91 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,877.66 | 9.80 | 192.574 | |
| 2,100.00 | 2,100.00 | 2,087.70 | 2,087.70 | 7.31 | 7.27 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,877.16 | 10.31 | 183.103 | |
| 2,200.00 | 2,200.00 | 2,187.70 | 2,187.70 | 7.67 | 7.63 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,876.65 | 10.82 | 174.520 | |
| 2,300.00 | 2,300.00 | 2,287.70 | 2,287.70 | 8.03 | 7.98 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,876.14 | 11.32 | 166.706 | |
| 2,400.00 | 2,400.00 | 2,387.70 | 2,387.70 | 8.39 | 8.34 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,875.64 | 11.83 | 159.561 | |
| 2,500.00 | 2,500.00 | 2,487.70 | 2,487.70 | 8.74 | 8.70 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,875.13 | 12.34 | 153.004 | |
| 2,600.00 | 2,600.00 | 2,587.70 | 2,587.70 | 9.10 | 9.06 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,874.62 | 12.84 | 146.965 | |
| 2,700.00 | 2,700.00 | 2,687.70 | 2,687.70 | 9.46 | 9.42 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,874.12 | 13.35 | 141.384 | |
| 2,800.00 | 2,800.00 | 2,787.70 | 2,787.70 | 9.82 | 9.78 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,873.61 | 13.86 | 136.211 | |
| 2,900.00 | 2,900.00 | 2,887.70 | 2,887.70 | 10.18 | 10.13 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,873.10 | 14.36 | 131.404 | |
| 3,000.00 | 3,000.00 | 2,987.70 | 2,987.70 | 10.54 | 10.49 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,872.60 | 14.87 | 126.924 | |
| 3,100.00 | 3,100.00 | 3,087.70 | 3,087.70 | 10.90 | 10.85 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,872.09 | 15.38 | 122.740 | |
| 3,200.00 | 3,200.00 | 3,187.70 | 3,187.70 | 11.25 | 11.21 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,871.58 | 15.88 | 118.823 | |
| 3,300.00 | 3,300.00 | 3,287.70 | 3,287.70 | 11.61 | 11.57 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,871.07 | 16.39 | 115.148 | |
| 3,400.00 | 3,400.00 | 3,387.70 | 3,387.70 | 11.97 | 11.93 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,870.57 | 16.90 | 111.693 | |
| 3,500.00 | 3,500.00 | 3,487.70 | 3,487.70 | 12.33 | 12.29 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,870.06 | 17.41 | 108.440 | |
| 3,600.00 | 3,600.00 | 3,587.70 | 3,587.70 | 12.69 | 12.64 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,869.55 | 17.91 | 105.371 | |
| 3,700.00 | 3,700.00 | 3,687.70 | 3,687.70 | 13.05 | 13.00 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,869.05 | 18.42 | 102.471 | |
| 3,800.00 | 3,800.00 | 3,787.70 | 3,787.70 | 13.41 | 13.36 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,868.54 | 18.93 | 99.726 | |
| 3,900.00 | 3,900.00 | 3,887.70 | 3,887.70 | 13.76 | 13.72 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,868.03 | 19.43 | 97.125 | |
| 4,000.00 | 4,000.00 | 3,987.70 | 3,987.70 | 14.12 | 14.08 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,867.53 | 19.94 | 94.656 | |
| 4,100.00 | 4,100.00 | 4,087.70 | 4,087.70 | 14.48 | 14.44 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,867.02 | 20.45 | 92.309 | |
| 4,200.00 | 4,200.00 | 4,187.70 | 4,187.70 | 14.84 | 14.79 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,866.51 | 20.95 | 90.076 | |
| 4,300.00 | 4,300.00 | 4,287.70 | 4,287.70 | 15.20 | 15.15 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,866.00 | 21.46 | 87.948 | |
| 4,400.00 | 4,400.00 | 4,387.70 | 4,387.70 | 15.56 | 15.51 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,865.50 | 21.97 | 85.918 | |
| 4,500.00 | 4,500.00 | 4,487.70 | 4,487.70 | 15.91 | 15.87 | 87.59 | 79.52 | 1,885.79 | 1,887.47 | 1,864.99 | 22.48 | 83.980 | |
| 4,600.00 | 4,600.00 | 4,620.68 | 4,620.67 | 16.27 | 16.34 | 87.58 | 79.71 | 1,885.16 | 1,887.14 | 1,864.08 | 23.06 | 81.841 | |
| 4,700.00 | 4,700.00 | 4,807.79 | 4,807.59 | 16.63 | 16.99 | 87.50 | 82.03 | 1,877.47 | 1,883.08 | 1,859.34 | 23.73 | 79.343 | |
| 4,800.00 | 4,800.00 | 4,993.67 | 4,992.67 | 16.99 | 17.64 | 87.33 | 86.95 | 1,861.15 | 1,874.42 | 1,850.06 | 24.36 | 76.935 | |
| 4,900.00 | 4,900.00 | 5,177.46 | 5,174.64 | 17.35 | 18.30 | 87.06 | 94.37 | 1,836.56 | 1,861.24 | 1,836.29 | 24.95 | 74.606 | |
| 5,000.00 | 5,000.00 | 5,294.02 | 5,289.47 | 17.71 | 18.72 | 86.85 | 100.16 | 1,817.37 | 1,844.97 | 1,819.52 | 25.45 | 72.483 | |
| 5,100.00 | 5,100.00 | 5,392.50 | 5,386.45 | 18.07 | 19.08 | 86.66 | 105.10 | 1,800.99 | 1,828.63 | 1,802.68 | 25.95 | 70.474 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 5,200.00 | 5,490.98 | 5,483.43 | 18.42 | 19.44 | 86.47 | 110.04 | 1,784.62 | 1,812.30 | 1,785.86 | 26.44 | 68.537 | |
| 5,300.00 | 5,300.00 | 5,589.46 | 5,580.42 | 18.78 | 19.81 | 86.28 | 114.98 | 1,768.24 | 1,795.99 | 1,769.05 | 26.94 | 66.670 | |
| 5,400.00 | 5,400.00 | 5,687.94 | 5,677.40 | 19.14 | 20.18 | 86.08 | 119.92 | 1,751.87 | 1,779.70 | 1,752.27 | 27.44 | 64.868 | |
| 5,500.00 | 5,500.00 | 5,786.42 | 5,774.38 | 19.50 | 20.56 | 85.88 | 124.86 | 1,735.49 | 1,763.43 | 1,735.50 | 27.93 | 63.129 | |
| 5,600.00 | 5,599.99 | 5,885.06 | 5,871.53 | 19.86 | 20.93 | 118.55 | 129.81 | 1,719.09 | 1,747.80 | 1,719.37 | 28.43 | 61.473 | |
| 5,700.00 | 5,699.91 | 5,983.98 | 5,968.94 | 20.21 | 21.32 | 118.65 | 134.77 | 1,702.64 | 1,733.42 | 1,704.49 | 28.93 | 59.917 | |
| 5,800.00 | 5,799.69 | 6,083.11 | 6,066.56 | 20.57 | 21.70 | 118.81 | 139.74 | 1,686.15 | 1,720.28 | 1,690.85 | 29.43 | 58.454 | |
| 5,833.01 | 5,832.58 | 6,115.87 | 6,098.82 | 20.69 | 21.83 | 118.87 | 141.39 | 1,680.71 | 1,716.21 | 1,686.62 | 29.59 | 57.992 | |
| 5,900.00 | 5,899.32 | 6,182.36 | 6,164.30 | 20.92 | 22.09 | 118.91 | 144.72 | 1,669.65 | 1,708.11 | 1,678.18 | 29.93 | 57.071 | |
| 6,000.00 | 5,998.94 | 6,281.61 | 6,262.05 | 21.28 | 22.48 | 118.96 | 149.70 | 1,653.15 | 1,696.01 | 1,665.57 | 30.43 | 55.733 | |
| 6,100.00 | 6,098.56 | 6,380.87 | 6,359.79 | 21.64 | 22.87 | 119.01 | 154.68 | 1,636.64 | 1,683.91 | 1,652.97 | 30.93 | 54.436 | |
| 6,200.00 | 6,198.18 | 6,480.12 | 6,457.54 | 22.00 | 23.27 | 119.06 | 159.66 | 1,620.14 | 1,671.81 | 1,640.37 | 31.44 | 53.179 | |
| 6,300.00 | 6,297.80 | 6,579.38 | 6,555.29 | 22.35 | 23.66 | 119.11 | 164.64 | 1,603.63 | 1,659.71 | 1,627.77 | 31.94 | 51.960 | |
| 6,400.00 | 6,397.43 | 6,678.63 | 6,653.03 | 22.71 | 24.06 | 119.16 | 169.61 | 1,587.13 | 1,647.62 | 1,615.17 | 32.45 | 50.778 | |
| 6,500.00 | 6,497.05 | 6,777.89 | 6,750.78 | 23.07 | 24.46 | 119.21 | 174.59 | 1,570.62 | 1,635.52 | 1,602.57 | 32.95 | 49.630 | |
| 6,600.00 | 6,596.67 | 6,877.14 | 6,848.52 | 23.44 | 24.86 | 119.27 | 179.57 | 1,554.12 | 1,623.43 | 1,589.97 | 33.46 | 48.516 | |
| 6,700.00 | 6,696.29 | 6,976.40 | 6,946.27 | 23.80 | 25.27 | 119.32 | 184.55 | 1,537.61 | 1,611.34 | 1,577.37 | 33.97 | 47.434 | |
| 6,800.00 | 6,795.91 | 7,075.65 | 7,044.02 | 24.16 | 25.67 | 119.38 | 189.53 | 1,521.11 | 1,599.25 | 1,564.77 | 34.48 | 46.383 | |
| 6,900.00 | 6,895.53 | 7,174.90 | 7,141.76 | 24.52 | 26.08 | 119.44 | 194.51 | 1,504.60 | 1,587.16 | 1,552.17 | 34.99 | 45.361 | |
| 7,000.00 | 6,995.15 | 7,274.16 | 7,239.51 | 24.89 | 26.49 | 119.49 | 199.49 | 1,488.10 | 1,575.07 | 1,539.57 | 35.50 | 44.368 | |
| 7,100.00 | 7,094.77 | 7,373.41 | 7,337.25 | 25.25 | 26.90 | 119.55 | 204.47 | 1,471.59 | 1,562.99 | 1,526.98 | 36.01 | 43.402 | |
| 7,200.00 | 7,194.39 | 7,472.67 | 7,435.00 | 25.61 | 27.31 | 119.61 | 209.44 | 1,455.09 | 1,550.91 | 1,514.38 | 36.52 | 42.463 | |
| 7,300.00 | 7,294.01 | 7,571.92 | 7,532.74 | 25.98 | 27.72 | 119.67 | 214.42 | 1,438.58 | 1,538.82 | 1,501.79 | 37.04 | 41.549 | |
| 7,400.00 | 7,393.63 | 7,671.18 | 7,630.49 | 26.35 | 28.13 | 119.73 | 219.40 | 1,422.08 | 1,526.74 | 1,489.19 | 37.55 | 40.659 | |
| 7,500.00 | 7,493.25 | 7,770.43 | 7,728.24 | 26.71 | 28.55 | 119.79 | 224.38 | 1,405.57 | 1,514.67 | 1,476.60 | 38.06 | 39.793 | |
| 7,600.00 | 7,592.87 | 7,869.69 | 7,825.98 | 27.08 | 28.96 | 119.86 | 229.36 | 1,389.07 | 1,502.59 | 1,464.01 | 38.58 | 38.949 | |
| 7,700.00 | 7,692.49 | 7,968.94 | 7,923.73 | 27.44 | 29.38 | 119.92 | 234.34 | 1,372.57 | 1,490.51 | 1,451.42 | 39.09 | 38.127 | |
| 7,800.00 | 7,792.11 | 8,068.19 | 8,021.47 | 27.81 | 29.80 | 119.99 | 239.32 | 1,356.06 | 1,478.44 | 1,438.83 | 39.61 | 37.326 | |
| 7,900.00 | 7,891.73 | 8,167.45 | 8,119.22 | 28.18 | 30.22 | 120.05 | 244.30 | 1,339.56 | 1,466.37 | 1,426.25 | 40.12 | 36.546 | |
| 8,000.00 | 7,991.35 | 8,266.70 | 8,216.96 | 28.55 | 30.64 | 120.12 | 249.28 | 1,323.05 | 1,454.30 | 1,413.66 | 40.64 | 35.784 | |
| 8,100.00 | 8,090.97 | 8,365.96 | 8,314.71 | 28.92 | 31.06 | 120.19 | 254.25 | 1,306.55 | 1,442.24 | 1,401.08 | 41.16 | 35.042 | |
| 8,200.00 | 8,190.59 | 8,465.21 | 8,412.46 | 29.28 | 31.48 | 120.26 | 259.23 | 1,290.04 | 1,430.17 | 1,388.50 | 41.67 | 34.317 | |
| 8,226.93 | 8,217.42 | 8,491.94 | 8,438.78 | 29.38 | 31.59 | 120.28 | 260.57 | 1,285.60 | 1,426.92 | 1,385.11 | 41.81 | 34.125 | |
| 8,300.00 | 8,290.27 | 8,556.90 | 8,502.76 | 29.65 | 31.87 | 120.19 | 263.81 | 1,274.85 | 1,417.84 | 1,375.64 | 42.19 | 33.603 | |
| 8,400.00 | 8,390.11 | 8,630.50 | 8,575.42 | 30.02 | 32.18 | 120.01 | 267.19 | 1,263.67 | 1,405.59 | 1,362.88 | 42.71 | 32.912 | |
| 8,500.00 | 8,490.07 | 8,700.00 | 8,644.24 | 30.38 | 32.46 | 119.79 | 270.00 | 1,254.35 | 1,393.87 | 1,350.66 | 43.21 | 32.260 | |
| 8,559.94 | 8,550.00 | 8,748.61 | 8,692.47 | 30.59 | 32.65 | 87.02 | 271.75 | 1,248.54 | 1,387.07 | 1,343.57 | 43.50 | 31.883 | |
| 8,600.00 | 8,590.07 | 8,778.28 | 8,721.94 | 30.73 | 32.77 | 86.97 | 272.73 | 1,245.29 | 1,382.75 | 1,339.05 | 43.70 | 31.643 | |
| 8,700.00 | 8,690.07 | 8,852.55 | 8,795.84 | 31.09 | 33.06 | 86.86 | 274.90 | 1,238.10 | 1,373.24 | 1,329.06 | 44.18 | 31.086 | |
| 8,800.00 | 8,790.07 | 8,927.09 | 8,870.13 | 31.44 | 33.34 | 86.77 | 276.66 | 1,232.27 | 1,365.56 | 1,320.92 | 44.64 | 30.589 | |
| 8,900.00 | 8,890.07 | 9,000.00 | 8,942.89 | 31.80 | 33.61 | 86.71 | 277.97 | 1,227.91 | 1,359.71 | 1,314.62 | 45.09 | 30.155 | |
| 9,000.00 | 8,990.07 | 9,076.75 | 9,019.57 | 32.15 | 33.88 | 86.66 | 278.93 | 1,224.76 | 1,355.71 | 1,310.17 | 45.54 | 29.773 | |
| 9,100.00 | 9,090.07 | 9,151.75 | 9,094.55 | 32.51 | 34.14 | 86.64 | 279.42 | 1,223.11 | 1,353.55 | 1,307.58 | 45.96 | 29.448 | |
| 9,200.00 | 9,190.07 | 9,234.97 | 9,177.77 | 32.87 | 34.42 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,306.72 | 46.41 | 29.158 | |
| 9,300.00 | 9,290.07 | 9,334.97 | 9,277.77 | 33.22 | 34.76 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,306.22 | 46.91 | 28.848 | |
| 9,400.00 | 9,390.07 | 9,434.97 | 9,377.77 | 33.58 | 35.10 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,305.72 | 47.40 | 28.545 | |
| 9,500.00 | 9,490.07 | 9,534.97 | 9,477.77 | 33.93 | 35.43 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,305.23 | 47.90 | 28.248 | |
| 9,600.00 | 9,590.07 | 9,634.97 | 9,577.77 | 34.29 | 35.77 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,304.73 | 48.40 | 27.957 | |
| 9,700.00 | 9,690.07 | 9,734.97 | 9,677.77 | 34.65 | 36.11 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,304.23 | 48.90 | 27.671 | |
| 9,800.00 | 9,790.07 | 9,834.97 | 9,777.77 | 35.00 | 36.45 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,303.73 | 49.40 | 27.392 | |
| 9,900.00 | 9,890.07 | 9,934.97 | 9,877.77 | 35.36 | 36.79 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,303.23 | 49.90 | 27.118 | |
| 10,000.00 | 9,990.07 | 10,034.97 | 9,977.77 | 35.71 | 37.13 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,302.73 | 50.40 | 26.849 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,100.00 | 10,090.07 | 10,134.97 | 10,077.77 | 36.07 | 37.47 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,302.23 | 50.90 | 26.585 | |
| 10,200.00 | 10,190.07 | 10,234.97 | 10,177.77 | 36.43 | 37.81 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,301.73 | 51.40 | 26.327 | |
| 10,300.00 | 10,290.07 | 10,334.97 | 10,277.77 | 36.78 | 38.15 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,301.23 | 51.90 | 26.073 | |
| 10,400.00 | 10,390.07 | 10,434.97 | 10,377.77 | 37.14 | 38.49 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,300.73 | 52.40 | 25.825 | |
| 10,500.00 | 10,490.07 | 10,534.97 | 10,477.77 | 37.50 | 38.83 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,300.23 | 52.90 | 25.580 | |
| 10,600.00 | 10,590.07 | 10,634.97 | 10,577.77 | 37.85 | 39.17 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,299.73 | 53.40 | 25.341 | |
| 10,700.00 | 10,690.07 | 10,734.97 | 10,677.77 | 38.21 | 39.51 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,299.23 | 53.90 | 25.105 | |
| 10,800.00 | 10,790.07 | 10,834.97 | 10,777.77 | 38.57 | 39.85 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,298.73 | 54.40 | 24.874 | |
| 10,900.00 | 10,890.07 | 10,934.97 | 10,877.77 | 38.92 | 40.19 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,298.23 | 54.90 | 24.648 | |
| 11,000.00 | 10,990.07 | 11,034.97 | 10,977.77 | 39.28 | 40.54 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,297.73 | 55.40 | 24.425 | |
| 11,100.00 | 11,090.07 | 11,134.97 | 11,077.77 | 39.64 | 40.88 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,297.23 | 55.90 | 24.206 | |
| 11,200.00 | 11,190.07 | 11,234.97 | 11,177.77 | 39.99 | 41.22 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,296.73 | 56.40 | 23.991 | |
| 11,300.00 | 11,290.07 | 11,334.97 | 11,277.77 | 40.35 | 41.57 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,296.23 | 56.90 | 23.780 | |
| 11,374.94 | 11,365.00 | 11,409.90 | 11,352.70 | 40.62 | 41.82 | 86.63 | 279.52 | 1,222.79 | 1,353.13 | 1,295.85 | 57.28 | 23.624 | CC |
| 11,400.00 | 11,390.06 | 11,434.96 | 11,377.76 | 40.70 | 41.91 | -92.89 | 279.52 | 1,222.79 | 1,353.16 | 1,295.76 | 57.40 | 23.574 | |
| 11,450.00 | 11,439.85 | 11,484.75 | 11,427.55 | 40.86 | 42.08 | -93.05 | 279.52 | 1,222.79 | 1,353.38 | 1,295.75 | 57.64 | 23.482 | |
| 11,500.00 | 11,489.07 | 11,534.60 | 11,477.40 | 41.01 | 42.25 | -93.36 | 279.50 | 1,222.79 | 1,353.88 | 1,296.01 | 57.87 | 23.395 | |
| 11,550.00 | 11,537.35 | 11,592.26 | 11,534.93 | 41.15 | 42.43 | -93.79 | 276.16 | 1,222.82 | 1,354.52 | 1,296.41 | 58.11 | 23.309 | |
| 11,600.00 | 11,584.32 | 11,651.27 | 11,593.17 | 41.28 | 42.61 | -94.20 | 266.78 | 1,222.90 | 1,355.19 | 1,296.85 | 58.34 | 23.228 | |
| 11,650.00 | 11,629.62 | 11,711.61 | 11,651.39 | 41.41 | 42.77 | -94.57 | 251.04 | 1,223.04 | 1,355.86 | 1,297.30 | 58.56 | 23.154 | |
| 11,700.00 | 11,672.90 | 11,773.20 | 11,708.78 | 41.53 | 42.93 | -94.90 | 228.76 | 1,223.23 | 1,356.49 | 1,297.73 | 58.76 | 23.086 | |
| 11,750.00 | 11,713.85 | 11,835.96 | 11,764.45 | 41.63 | 43.07 | -95.19 | 199.86 | 1,223.49 | 1,357.08 | 1,298.13 | 58.95 | 23.022 | |
| 11,800.00 | 11,752.13 | 11,899.74 | 11,817.45 | 41.73 | 43.20 | -95.43 | 164.43 | 1,223.80 | 1,357.58 | 1,298.46 | 59.12 | 22.963 | |
| 11,850.00 | 11,787.47 | 11,964.38 | 11,866.80 | 41.82 | 43.30 | -95.62 | 122.75 | 1,224.16 | 1,357.99 | 1,298.70 | 59.28 | 22.906 | |
| 11,900.00 | 11,819.60 | 12,029.66 | 11,911.56 | 41.92 | 43.39 | -95.75 | 75.28 | 1,224.58 | 1,358.28 | 1,298.83 | 59.44 | 22.850 | |
| 11,950.00 | 11,848.26 | 12,095.35 | 11,950.86 | 42.02 | 43.47 | -95.82 | 22.69 | 1,225.04 | 1,358.43 | 1,298.83 | 59.60 | 22.791 | |
| 12,000.00 | 11,873.25 | 12,161.21 | 11,983.96 | 42.13 | 43.53 | -95.83 | -34.20 | 1,225.54 | 1,358.45 | 1,298.68 | 59.77 | 22.729 | |
| 12,050.00 | 11,894.37 | 12,226.97 | 12,010.29 | 42.24 | 43.59 | -95.77 | -94.42 | 1,226.06 | 1,358.33 | 1,298.38 | 59.94 | 22.661 | |
| 12,100.00 | 11,911.46 | 12,292.38 | 12,029.46 | 42.35 | 43.65 | -95.66 | -156.92 | 1,226.61 | 1,358.07 | 1,297.94 | 60.13 | 22.586 | |
| 12,150.00 | 11,924.39 | 12,357.19 | 12,041.31 | 42.47 | 43.72 | -95.48 | -220.61 | 1,227.17 | 1,357.69 | 1,297.36 | 60.33 | 22.505 | |
| 12,200.00 | 11,933.06 | 12,421.21 | 12,045.89 | 42.59 | 43.83 | -95.26 | -284.42 | 1,227.73 | 1,357.20 | 1,296.67 | 60.54 | 22.419 | |
| 12,250.00 | 11,937.42 | 12,471.39 | 12,046.54 | 42.72 | 43.93 | -95.13 | -334.60 | 1,228.17 | 1,356.87 | 1,296.14 | 60.73 | 22.344 | |
| 12,267.63 | 11,937.91 | 12,489.02 | 12,046.77 | 42.76 | 43.97 | -95.12 | -352.22 | 1,228.32 | 1,356.84 | 1,296.05 | 60.79 | 22.319 | |
| 12,268.73 | 11,937.92 | 12,490.12 | 12,046.79 | 42.76 | 43.98 | -95.12 | -353.33 | 1,228.33 | 1,356.84 | 1,296.05 | 60.80 | 22.318 | |
| 12,300.00 | 11,938.26 | 12,521.39 | 12,047.19 | 42.84 | 44.06 | -95.13 | -384.59 | 1,228.60 | 1,356.85 | 1,295.93 | 60.92 | 22.272 | |
| 12,400.00 | 11,939.35 | 12,621.39 | 12,048.49 | 43.15 | 44.36 | -95.14 | -484.58 | 1,229.48 | 1,356.87 | 1,295.49 | 61.38 | 22.108 | |
| 12,500.00 | 11,940.43 | 12,721.39 | 12,049.79 | 43.51 | 44.74 | -95.14 | -584.56 | 1,230.36 | 1,356.88 | 1,294.97 | 61.91 | 21.916 | |
| 12,600.00 | 11,941.51 | 12,821.39 | 12,051.09 | 43.93 | 45.18 | -95.15 | -684.55 | 1,231.23 | 1,356.90 | 1,294.37 | 62.53 | 21.699 | |
| 12,700.00 | 11,942.59 | 12,921.39 | 12,052.40 | 44.41 | 45.69 | -95.16 | -784.54 | 1,232.11 | 1,356.92 | 1,293.68 | 63.23 | 21.459 | |
| 12,800.00 | 11,943.68 | 13,021.39 | 12,053.70 | 44.94 | 46.25 | -95.17 | -884.53 | 1,232.98 | 1,356.93 | 1,292.92 | 64.01 | 21.199 | |
| 12,900.00 | 11,944.76 | 13,121.39 | 12,055.00 | 45.53 | 46.86 | -95.18 | -984.51 | 1,233.86 | 1,356.95 | 1,292.09 | 64.86 | 20.921 | |
| 13,000.00 | 11,945.84 | 13,221.39 | 12,056.30 | 46.17 | 47.52 | -95.19 | -1,084.50 | 1,234.73 | 1,356.97 | 1,291.18 | 65.78 | 20.627 | |
| 13,100.00 | 11,946.92 | 13,321.39 | 12,057.60 | 46.86 | 48.23 | -95.20 | -1,184.49 | 1,235.61 | 1,356.99 | 1,290.21 | 66.78 | 20.322 | |
| 13,200.00 | 11,948.01 | 13,421.39 | 12,058.90 | 47.59 | 48.98 | -95.21 | -1,284.48 | 1,236.48 | 1,357.00 | 1,289.17 | 67.83 | 20.006 | |
| 13,300.00 | 11,949.09 | 13,521.39 | 12,060.20 | 48.37 | 49.78 | -95.22 | -1,384.46 | 1,237.36 | 1,357.02 | 1,288.07 | 68.95 | 19.681 | |
| 13,400.00 | 11,950.17 | 13,621.39 | 12,061.50 | 49.20 | 50.62 | -95.23 | -1,484.45 | 1,238.23 | 1,357.04 | 1,286.91 | 70.13 | 19.351 | |
| 13,500.00 | 11,951.25 | 13,721.39 | 12,062.80 | 50.06 | 51.50 | -95.24 | -1,584.44 | 1,239.11 | 1,357.06 | 1,285.69 | 71.36 | 19.016 | |
| 13,600.00 | 11,952.33 | 13,821.39 | 12,064.10 | 50.97 | 52.41 | -95.25 | -1,684.43 | 1,239.99 | 1,357.07 | 1,284.42 | 72.65 | 18.679 | |
| 13,700.00 | 11,953.42 | 13,921.39 | 12,065.40 | 51.91 | 53.37 | -95.26 | -1,784.41 | 1,240.86 | 1,357.09 | 1,283.10 | 73.99 | 18.341 | |
| 13,800.00 | 11,954.50 | 14,021.39 | 12,066.70 | 52.88 | 54.35 | -95.26 | -1,884.40 | 1,241.74 | 1,357.11 | 1,281.73 | 75.38 | 18.004 | |
| 13,900.00 | 11,955.58 | 14,121.38 | 12,068.00 | 53.89 | 55.37 | -95.27 | -1,984.39 | 1,242.61 | 1,357.13 | 1,280.32 | 76.81 | 17.668 | |
| 14,000.00 | 11,956.66 | 14,221.38 | 12,069.30 | 54.93 | 56.41 | -95.28 | -2,084.38 | 1,243.49 | 1,357.15 | 1,278.86 | 78.29 | 17.336 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,100.00 | 11,957.75 | 14,321.38 | 12,070.61 | 56.00 | 57.49 | -95.29 | -2,184.36 | 1,244.36 | 1,357.16 | 1,277.36 | 79.80 | 17.006 | |
| 14,200.00 | 11,958.83 | 14,421.38 | 12,071.91 | 57.10 | 58.59 | -95.30 | -2,284.35 | 1,245.24 | 1,357.18 | 1,275.82 | 81.36 | 16.682 | |
| 14,300.00 | 11,959.91 | 14,521.38 | 12,073.21 | 58.22 | 59.71 | -95.31 | -2,384.34 | 1,246.11 | 1,357.20 | 1,274.25 | 82.95 | 16.362 | |
| 14,400.00 | 11,960.99 | 14,621.38 | 12,074.51 | 59.37 | 60.86 | -95.32 | -2,484.33 | 1,246.99 | 1,357.22 | 1,272.64 | 84.57 | 16.048 | |
| 14,500.00 | 11,962.08 | 14,721.38 | 12,075.81 | 60.54 | 62.04 | -95.33 | -2,584.31 | 1,247.86 | 1,357.24 | 1,271.00 | 86.23 | 15.739 | |
| 14,600.00 | 11,963.16 | 14,821.38 | 12,077.11 | 61.73 | 63.23 | -95.34 | -2,684.30 | 1,248.74 | 1,357.25 | 1,269.33 | 87.92 | 15.437 | |
| 14,700.00 | 11,964.24 | 14,921.38 | 12,078.41 | 62.94 | 64.45 | -95.35 | -2,784.29 | 1,249.62 | 1,357.27 | 1,267.64 | 89.64 | 15.142 | |
| 14,800.00 | 11,965.32 | 15,021.38 | 12,079.71 | 64.18 | 65.68 | -95.36 | -2,884.28 | 1,250.49 | 1,357.29 | 1,265.91 | 91.38 | 14.853 | |
| 14,900.00 | 11,966.41 | 15,121.38 | 12,081.01 | 65.43 | 66.93 | -95.37 | -2,984.26 | 1,251.37 | 1,357.31 | 1,264.16 | 93.15 | 14.571 | |
| 15,000.00 | 11,967.49 | 15,221.38 | 12,082.31 | 66.70 | 68.20 | -95.37 | -3,084.25 | 1,252.24 | 1,357.33 | 1,262.38 | 94.94 | 14.296 | |
| 15,100.00 | 11,968.57 | 15,321.38 | 12,083.61 | 67.99 | 69.49 | -95.38 | -3,184.24 | 1,253.12 | 1,357.34 | 1,260.59 | 96.76 | 14.028 | |
| 15,200.00 | 11,969.65 | 15,421.38 | 12,084.91 | 69.29 | 70.78 | -95.39 | -3,284.23 | 1,253.99 | 1,357.36 | 1,258.77 | 98.59 | 13.767 | |
| 15,300.00 | 11,970.74 | 15,521.38 | 12,086.21 | 70.60 | 72.10 | -95.40 | -3,384.21 | 1,254.87 | 1,357.38 | 1,256.93 | 100.45 | 13.513 | |
| 15,400.00 | 11,971.82 | 15,621.38 | 12,087.51 | 71.93 | 73.43 | -95.41 | -3,484.20 | 1,255.74 | 1,357.40 | 1,255.07 | 102.33 | 13.265 | |
| 15,500.00 | 11,972.90 | 15,721.38 | 12,088.81 | 73.28 | 74.77 | -95.42 | -3,584.19 | 1,256.62 | 1,357.42 | 1,253.19 | 104.22 | 13.024 | |
| 15,600.00 | 11,973.98 | 15,821.38 | 12,090.12 | 74.63 | 76.12 | -95.43 | -3,684.18 | 1,257.49 | 1,357.44 | 1,251.30 | 106.14 | 12.790 | |
| 15,700.00 | 11,975.07 | 15,921.38 | 12,091.42 | 76.00 | 77.49 | -95.44 | -3,784.16 | 1,258.37 | 1,357.45 | 1,249.39 | 108.06 | 12.562 | |
| 15,800.00 | 11,976.15 | 16,021.38 | 12,092.72 | 77.38 | 78.86 | -95.45 | -3,884.15 | 1,259.25 | 1,357.47 | 1,247.46 | 110.01 | 12.340 | |
| 15,900.00 | 11,977.23 | 16,121.38 | 12,094.02 | 78.77 | 80.25 | -95.46 | -3,984.14 | 1,260.12 | 1,357.49 | 1,245.53 | 111.97 | 12.124 | |
| 16,000.00 | 11,978.31 | 16,221.38 | 12,095.32 | 80.17 | 81.64 | -95.47 | -4,084.13 | 1,261.00 | 1,357.51 | 1,243.57 | 113.94 | 11.915 | |
| 16,100.00 | 11,979.40 | 16,321.38 | 12,096.62 | 81.57 | 83.05 | -95.48 | -4,184.11 | 1,261.87 | 1,357.53 | 1,241.61 | 115.92 | 11.711 | |
| 16,200.00 | 11,980.48 | 16,421.38 | 12,097.92 | 82.99 | 84.46 | -95.48 | -4,284.10 | 1,262.75 | 1,357.55 | 1,239.63 | 117.92 | 11.513 | |
| 16,300.00 | 11,981.56 | 16,521.38 | 12,099.22 | 84.42 | 85.89 | -95.49 | -4,384.09 | 1,263.62 | 1,357.56 | 1,237.64 | 119.93 | 11.320 | |
| 16,400.00 | 11,982.64 | 16,621.38 | 12,100.52 | 85.85 | 87.32 | -95.50 | -4,484.08 | 1,264.50 | 1,357.58 | 1,235.63 | 121.95 | 11.132 | |
| 16,500.00 | 11,983.73 | 16,721.38 | 12,101.82 | 87.29 | 88.76 | -95.51 | -4,584.06 | 1,265.37 | 1,357.60 | 1,233.62 | 123.98 | 10.950 | |
| 16,600.00 | 11,984.81 | 16,821.38 | 12,103.12 | 88.74 | 90.20 | -95.52 | -4,684.05 | 1,266.25 | 1,357.62 | 1,231.60 | 126.02 | 10.773 | |
| 16,700.00 | 11,985.89 | 16,921.38 | 12,104.42 | 90.20 | 91.65 | -95.53 | -4,784.04 | 1,267.12 | 1,357.64 | 1,229.57 | 128.07 | 10.601 | |
| 16,800.00 | 11,986.97 | 17,021.38 | 12,105.72 | 91.66 | 93.11 | -95.54 | -4,884.03 | 1,268.00 | 1,357.66 | 1,227.53 | 130.13 | 10.433 | |
| 16,900.00 | 11,988.06 | 17,121.38 | 12,107.02 | 93.13 | 94.58 | -95.55 | -4,984.01 | 1,268.88 | 1,357.68 | 1,225.48 | 132.20 | 10.270 | |
| 17,000.00 | 11,989.14 | 17,221.38 | 12,108.33 | 94.61 | 96.05 | -95.56 | -5,084.00 | 1,269.75 | 1,357.70 | 1,223.42 | 134.28 | 10.111 | |
| 17,100.00 | 11,990.22 | 17,321.38 | 12,109.63 | 96.09 | 97.53 | -95.57 | -5,183.99 | 1,270.63 | 1,357.71 | 1,221.35 | 136.36 | 9.957 | |
| 17,200.00 | 11,991.30 | 17,421.38 | 12,110.93 | 97.57 | 99.01 | -95.58 | -5,283.98 | 1,271.50 | 1,357.73 | 1,219.28 | 138.45 | 9.806 | |
| 17,300.00 | 11,992.39 | 17,521.38 | 12,112.23 | 99.06 | 100.50 | -95.59 | -5,383.96 | 1,272.38 | 1,357.75 | 1,217.20 | 140.55 | 9.660 | |
| 17,400.00 | 11,993.47 | 17,621.38 | 12,113.53 | 100.56 | 101.99 | -95.59 | -5,483.95 | 1,273.25 | 1,357.77 | 1,215.11 | 142.66 | 9.517 | |
| 17,500.00 | 11,994.55 | 17,721.38 | 12,114.83 | 102.06 | 103.49 | -95.60 | -5,583.94 | 1,274.13 | 1,357.79 | 1,213.02 | 144.77 | 9.379 | |
| 17,600.00 | 11,995.63 | 17,821.38 | 12,116.13 | 103.57 | 104.99 | -95.61 | -5,683.93 | 1,275.00 | 1,357.81 | 1,210.92 | 146.89 | 9.243 | |
| 17,700.00 | 11,996.72 | 17,921.38 | 12,117.43 | 105.08 | 106.50 | -95.62 | -5,783.91 | 1,275.88 | 1,357.83 | 1,208.81 | 149.02 | 9.112 | |
| 17,800.00 | 11,997.80 | 18,021.38 | 12,118.73 | 106.59 | 108.01 | -95.63 | -5,883.90 | 1,276.75 | 1,357.85 | 1,206.70 | 151.15 | 8.983 | |
| 17,900.00 | 11,998.88 | 18,121.38 | 12,120.03 | 108.11 | 109.53 | -95.64 | -5,983.89 | 1,277.63 | 1,357.87 | 1,204.58 | 153.29 | 8.858 | |
| 18,000.00 | 11,999.96 | 18,221.38 | 12,121.33 | 109.64 | 111.05 | -95.65 | -6,083.87 | 1,278.51 | 1,357.89 | 1,202.45 | 155.43 | 8.736 | |
| 18,100.00 | 12,001.05 | 18,321.38 | 12,122.63 | 111.16 | 112.57 | -95.66 | -6,183.86 | 1,279.38 | 1,357.91 | 1,200.33 | 157.58 | 8.617 | |
| 18,200.00 | 12,002.13 | 18,421.37 | 12,123.93 | 112.69 | 114.10 | -95.67 | -6,283.85 | 1,280.26 | 1,357.92 | 1,198.19 | 159.73 | 8.501 | |
| 18,300.00 | 12,003.21 | 18,521.37 | 12,125.23 | 114.23 | 115.63 | -95.68 | -6,383.84 | 1,281.13 | 1,357.94 | 1,196.06 | 161.89 | 8.388 | |
| 18,400.00 | 12,004.29 | 18,621.37 | 12,126.54 | 115.76 | 117.16 | -95.69 | -6,483.82 | 1,282.01 | 1,357.96 | 1,193.91 | 164.05 | 8.278 | |
| 18,500.00 | 12,005.38 | 18,721.37 | 12,127.84 | 117.30 | 118.70 | -95.70 | -6,583.81 | 1,282.88 | 1,357.98 | 1,191.77 | 166.22 | 8.170 | |
| 18,600.00 | 12,006.46 | 18,821.37 | 12,129.14 | 118.84 | 120.24 | -95.70 | -6,683.80 | 1,283.76 | 1,358.00 | 1,189.62 | 168.39 | 8.065 | |
| 18,700.00 | 12,007.54 | 18,921.37 | 12,130.44 | 120.39 | 121.78 | -95.71 | -6,783.79 | 1,284.63 | 1,358.02 | 1,187.46 | 170.56 | 7.962 | |
| 18,800.00 | 12,008.62 | 19,021.37 | 12,131.74 | 121.94 | 123.33 | -95.72 | -6,883.77 | 1,285.51 | 1,358.04 | 1,185.30 | 172.74 | 7.862 | |
| 18,900.00 | 12,009.71 | 19,121.37 | 12,133.04 | 123.49 | 124.88 | -95.73 | -6,983.76 | 1,286.38 | 1,358.06 | 1,183.14 | 174.92 | 7.764 | |
| 19,000.00 | 12,010.79 | 19,221.37 | 12,134.34 | 125.04 | 126.43 | -95.74 | -7,083.75 | 1,287.26 | 1,358.08 | 1,180.98 | 177.10 | 7.668 | |
| 19,100.00 | 12,011.87 | 19,321.37 | 12,135.64 | 126.60 | 127.98 | -95.75 | -7,183.74 | 1,288.14 | 1,358.10 | 1,178.81 | 179.29 | 7.575 | |
| 19,200.00 | 12,012.95 | 19,421.37 | 12,136.94 | 128.16 | 129.54 | -95.76 | -7,283.72 | 1,289.01 | 1,358.12 | 1,176.64 | 181.48 | 7.483 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Bus Driver 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,300.00 | 12,014.03 | 19,521.37 | 12,138.24 | 129.72 | 131.09 | -95.77 | -7,383.71 | 1,289.89 | 1,358.14 | 1,174.46 | 183.68 | 7.394 | |
| 19,400.00 | 12,015.12 | 19,621.37 | 12,139.54 | 131.28 | 132.66 | -95.78 | -7,483.70 | 1,290.76 | 1,358.16 | 1,172.28 | 185.88 | 7.307 | |
| 19,500.00 | 12,016.20 | 19,721.37 | 12,140.84 | 132.85 | 134.22 | -95.79 | -7,583.69 | 1,291.64 | 1,358.18 | 1,170.10 | 188.08 | 7.221 | |
| 19,600.00 | 12,017.28 | 19,821.37 | 12,142.14 | 134.42 | 135.78 | -95.80 | -7,683.67 | 1,292.51 | 1,358.20 | 1,167.92 | 190.28 | 7.138 | |
| 19,700.00 | 12,018.36 | 19,921.37 | 12,143.44 | 135.98 | 137.35 | -95.81 | -7,783.66 | 1,293.39 | 1,358.22 | 1,165.73 | 192.49 | 7.056 | |
| 19,800.00 | 12,019.45 | 20,021.37 | 12,144.75 | 137.56 | 138.92 | -95.81 | -7,883.65 | 1,294.26 | 1,358.24 | 1,163.54 | 194.69 | 6.976 | |
| 19,900.00 | 12,020.53 | 20,121.37 | 12,146.05 | 139.13 | 140.49 | -95.82 | -7,983.64 | 1,295.14 | 1,358.26 | 1,161.35 | 196.91 | 6.898 | |
| 20,000.00 | 12,021.61 | 20,221.37 | 12,147.35 | 140.70 | 142.06 | -95.83 | -8,083.62 | 1,296.01 | 1,358.28 | 1,159.16 | 199.12 | 6.821 | |
| 20,100.00 | 12,022.69 | 20,321.37 | 12,148.65 | 142.28 | 143.64 | -95.84 | -8,183.61 | 1,296.89 | 1,358.30 | 1,156.96 | 201.34 | 6.746 | |
| 20,200.00 | 12,023.78 | 20,421.37 | 12,149.95 | 143.86 | 145.21 | -95.85 | -8,283.60 | 1,297.77 | 1,358.32 | 1,154.76 | 203.55 | 6.673 | |
| 20,300.00 | 12,024.86 | 20,521.37 | 12,151.25 | 145.44 | 146.79 | -95.86 | -8,383.59 | 1,298.64 | 1,358.34 | 1,152.56 | 205.77 | 6.601 | |
| 20,400.00 | 12,025.94 | 20,621.37 | 12,152.55 | 147.02 | 148.37 | -95.87 | -8,483.57 | 1,299.52 | 1,358.36 | 1,150.36 | 208.00 | 6.531 | |
| 20,500.00 | 12,027.02 | 20,721.37 | 12,153.85 | 148.61 | 149.95 | -95.88 | -8,583.56 | 1,300.39 | 1,358.38 | 1,148.15 | 210.22 | 6.462 | |
| 20,600.00 | 12,028.11 | 20,821.37 | 12,155.15 | 150.19 | 151.53 | -95.89 | -8,683.55 | 1,301.27 | 1,358.40 | 1,145.95 | 212.45 | 6.394 | |
| 20,700.00 | 12,029.19 | 20,921.37 | 12,156.45 | 151.78 | 153.12 | -95.90 | -8,783.54 | 1,302.14 | 1,358.42 | 1,143.74 | 214.68 | 6.328 | |
| 20,800.00 | 12,030.27 | 21,021.37 | 12,157.75 | 153.36 | 154.70 | -95.91 | -8,883.52 | 1,303.02 | 1,358.44 | 1,141.53 | 216.91 | 6.263 | |
| 20,900.00 | 12,031.35 | 21,121.37 | 12,159.05 | 154.95 | 156.29 | -95.92 | -8,983.51 | 1,303.89 | 1,358.46 | 1,139.32 | 219.14 | 6.199 | |
| 21,000.00 | 12,032.44 | 21,221.37 | 12,160.35 | 156.54 | 157.88 | -95.92 | -9,083.50 | 1,304.77 | 1,358.48 | 1,137.10 | 221.37 | 6.137 | |
| 21,100.00 | 12,033.52 | 21,321.37 | 12,161.65 | 158.14 | 159.47 | -95.93 | -9,183.49 | 1,305.64 | 1,358.50 | 1,134.89 | 223.61 | 6.075 | |
| 21,200.00 | 12,034.60 | 21,421.37 | 12,162.95 | 159.73 | 161.06 | -95.94 | -9,283.47 | 1,306.52 | 1,358.52 | 1,132.67 | 225.85 | 6.015 | |
| 21,300.00 | 12,035.68 | 21,521.37 | 12,164.26 | 161.32 | 162.65 | -95.95 | -9,383.46 | 1,307.40 | 1,358.54 | 1,130.45 | 228.09 | 5.956 | |
| 21,400.00 | 12,036.77 | 21,621.37 | 12,165.56 | 162.92 | 164.25 | -95.96 | -9,483.45 | 1,308.27 | 1,358.56 | 1,128.23 | 230.33 | 5.898 | |
| 21,500.00 | 12,037.85 | 21,721.37 | 12,166.86 | 164.51 | 165.84 | -95.97 | -9,583.44 | 1,309.15 | 1,358.58 | 1,126.01 | 232.57 | 5.842 | |
| 21,600.00 | 12,038.93 | 21,821.37 | 12,168.16 | 166.11 | 167.44 | -95.98 | -9,683.42 | 1,310.02 | 1,358.60 | 1,123.79 | 234.81 | 5.786 | |
| 21,700.00 | 12,040.01 | 21,921.37 | 12,169.46 | 167.71 | 169.03 | -95.99 | -9,783.41 | 1,310.90 | 1,358.62 | 1,121.56 | 237.06 | 5.731 | |
| 21,800.00 | 12,041.10 | 22,021.37 | 12,170.76 | 169.31 | 170.63 | -96.00 | -9,883.40 | 1,311.77 | 1,358.64 | 1,119.34 | 239.30 | 5.677 | |
| 21,900.00 | 12,042.18 | 22,121.37 | 12,172.06 | 170.91 | 172.23 | -96.01 | -9,983.39 | 1,312.65 | 1,358.66 | 1,117.11 | 241.55 | 5.625 | |
| 22,000.00 | 12,043.26 | 22,221.37 | 12,173.36 | 172.51 | 173.83 | -96.02 | -10,083.37 | 1,313.52 | 1,358.68 | 1,114.88 | 243.80 | 5.573 | |
| 22,100.00 | 12,044.34 | 22,321.37 | 12,174.66 | 174.11 | 175.43 | -96.03 | -10,183.36 | 1,314.40 | 1,358.70 | 1,112.65 | 246.05 | 5.522 | |
| 22,200.00 | 12,045.43 | 22,421.37 | 12,175.96 | 175.72 | 177.03 | -96.03 | -10,283.35 | 1,315.27 | 1,358.72 | 1,110.42 | 248.30 | 5.472 | |
| 22,300.00 | 12,046.51 | 22,521.37 | 12,177.26 | 177.32 | 178.63 | -96.04 | -10,383.34 | 1,316.15 | 1,358.74 | 1,108.19 | 250.55 | 5.423 | |
| 22,400.00 | 12,047.59 | 22,621.36 | 12,178.56 | 178.93 | 180.24 | -96.05 | -10,483.32 | 1,317.02 | 1,358.76 | 1,105.96 | 252.81 | 5.375 | |
| 22,500.00 | 12,048.67 | 22,721.36 | 12,179.86 | 180.53 | 181.84 | -96.06 | -10,583.31 | 1,317.90 | 1,358.79 | 1,103.72 | 255.06 | 5.327 | |
| 22,572.67 | 12,049.46 | 22,794.03 | 12,180.81 | 181.70 | 183.01 | -96.07 | -10,655.97 | 1,318.54 | 1,358.80 | 1,102.10 | 256.70 | 5.293 | ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 603H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 87.68 | 80.51 | 1,990.77 | 1,992.45 | | | | |
| 100.00 | 100.00 | 86.10 | 86.10 | 0.14 | 0.12 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,992.21 | 0.19 | N/A | |
| 200.00 | 200.00 | 186.10 | 186.10 | 0.50 | 0.45 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,991.72 | 0.67 | 2,960.944 | |
| 300.00 | 300.00 | 286.10 | 286.10 | 0.86 | 0.81 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,991.22 | 1.18 | 1,689.258 | |
| 400.00 | 400.00 | 386.10 | 386.10 | 1.22 | 1.17 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,990.71 | 1.69 | 1,181.556 | |
| 500.00 | 500.00 | 486.10 | 486.10 | 1.58 | 1.53 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,990.20 | 2.19 | 908.477 | |
| 600.00 | 600.00 | 586.10 | 586.10 | 1.93 | 1.88 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,989.70 | 2.70 | 737.919 | |
| 700.00 | 700.00 | 686.10 | 686.10 | 2.29 | 2.24 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,989.19 | 3.21 | 621.277 | |
| 800.00 | 800.00 | 786.10 | 786.10 | 2.65 | 2.60 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,988.68 | 3.71 | 536.475 | |
| 900.00 | 900.00 | 886.10 | 886.10 | 3.01 | 2.96 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,988.18 | 4.22 | 472.042 | |
| 1,000.00 | 1,000.00 | 986.10 | 986.10 | 3.37 | 3.32 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,987.67 | 4.73 | 421.427 | |
| 1,100.00 | 1,100.00 | 1,086.10 | 1,086.10 | 3.73 | 3.68 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,987.16 | 5.23 | 380.615 | |
| 1,200.00 | 1,200.00 | 1,186.10 | 1,186.10 | 4.08 | 4.03 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,986.66 | 5.74 | 347.009 | |
| 1,300.00 | 1,300.00 | 1,286.10 | 1,286.10 | 4.44 | 4.39 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,986.15 | 6.25 | 318.856 | |
| 1,400.00 | 1,400.00 | 1,386.10 | 1,386.10 | 4.80 | 4.75 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,985.64 | 6.76 | 294.929 | |
| 1,500.00 | 1,500.00 | 1,486.10 | 1,486.10 | 5.16 | 5.11 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,985.13 | 7.26 | 274.341 | |
| 1,600.00 | 1,600.00 | 1,586.10 | 1,586.10 | 5.52 | 5.47 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,984.63 | 7.77 | 256.441 | |
| 1,700.00 | 1,700.00 | 1,686.10 | 1,686.10 | 5.88 | 5.83 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,984.12 | 8.28 | 240.733 | |
| 1,800.00 | 1,800.00 | 1,786.10 | 1,786.10 | 6.24 | 6.19 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,983.61 | 8.78 | 226.839 | |
| 1,900.00 | 1,900.00 | 1,886.10 | 1,886.10 | 6.59 | 6.54 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,983.11 | 9.29 | 214.461 | |
| 2,000.00 | 2,000.00 | 1,986.10 | 1,986.10 | 6.95 | 6.90 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,982.60 | 9.80 | 203.363 | |
| 2,100.00 | 2,100.00 | 2,086.10 | 2,086.10 | 7.31 | 7.26 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,982.09 | 10.30 | 193.358 | |
| 2,200.00 | 2,200.00 | 2,186.10 | 2,186.10 | 7.67 | 7.62 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,981.59 | 10.81 | 184.291 | |
| 2,300.00 | 2,300.00 | 2,286.10 | 2,286.10 | 8.03 | 7.98 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,981.08 | 11.32 | 176.037 | |
| 2,400.00 | 2,400.00 | 2,386.10 | 2,386.10 | 8.39 | 8.34 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,980.57 | 11.83 | 168.490 | |
| 2,500.00 | 2,500.00 | 2,486.10 | 2,486.10 | 8.74 | 8.70 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,980.07 | 12.33 | 161.563 | |
| 2,600.00 | 2,600.00 | 2,586.10 | 2,586.10 | 9.10 | 9.05 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,979.56 | 12.84 | 155.184 | |
| 2,700.00 | 2,700.00 | 2,686.10 | 2,686.10 | 9.46 | 9.41 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,979.05 | 13.35 | 149.289 | |
| 2,800.00 | 2,800.00 | 2,786.10 | 2,786.10 | 9.82 | 9.77 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,978.54 | 13.85 | 143.826 | |
| 2,900.00 | 2,900.00 | 2,886.10 | 2,886.10 | 10.18 | 10.13 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,978.04 | 14.36 | 138.748 | |
| 3,000.00 | 3,000.00 | 2,986.10 | 2,986.10 | 10.54 | 10.49 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,977.53 | 14.87 | 134.017 | |
| 3,100.00 | 3,100.00 | 3,086.10 | 3,086.10 | 10.90 | 10.85 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,977.02 | 15.37 | 129.598 | |
| 3,200.00 | 3,200.00 | 3,186.10 | 3,186.10 | 11.25 | 11.20 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,976.52 | 15.88 | 125.461 | |
| 3,300.00 | 3,300.00 | 3,286.10 | 3,286.10 | 11.61 | 11.56 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,976.01 | 16.39 | 121.579 | |
| 3,400.00 | 3,400.00 | 3,386.10 | 3,386.10 | 11.97 | 11.92 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,975.50 | 16.89 | 117.931 | |
| 3,500.00 | 3,500.00 | 3,486.10 | 3,486.10 | 12.33 | 12.28 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,975.00 | 17.40 | 114.496 | |
| 3,600.00 | 3,600.00 | 3,586.10 | 3,586.10 | 12.69 | 12.64 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,974.49 | 17.91 | 111.254 | |
| 3,700.00 | 3,700.00 | 3,686.10 | 3,686.10 | 13.05 | 13.00 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,973.98 | 18.42 | 108.192 | |
| 3,800.00 | 3,800.00 | 3,786.10 | 3,786.10 | 13.41 | 13.36 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,973.47 | 18.92 | 105.293 | |
| 3,900.00 | 3,900.00 | 3,886.10 | 3,886.10 | 13.76 | 13.71 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,972.97 | 19.43 | 102.546 | |
| 4,000.00 | 4,000.00 | 3,986.10 | 3,986.10 | 14.12 | 14.07 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,972.46 | 19.94 | 99.938 | |
| 4,100.00 | 4,100.00 | 4,086.10 | 4,086.10 | 14.48 | 14.43 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,971.95 | 20.44 | 97.460 | |
| 4,200.00 | 4,200.00 | 4,186.10 | 4,186.10 | 14.84 | 14.79 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,971.45 | 20.95 | 95.102 | |
| 4,300.00 | 4,300.00 | 4,286.10 | 4,286.10 | 15.20 | 15.15 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,970.94 | 21.46 | 92.855 | |
| 4,400.00 | 4,400.00 | 4,386.10 | 4,386.10 | 15.56 | 15.51 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,970.43 | 21.96 | 90.711 | |
| 4,500.00 | 4,500.00 | 4,486.10 | 4,486.10 | 15.91 | 15.86 | 87.68 | 80.51 | 1,990.77 | 1,992.40 | 1,969.93 | 22.47 | 88.665 | CC, ES |
| 4,600.00 | 4,600.00 | 4,557.00 | 4,557.00 | 16.27 | 16.11 | 87.68 | 80.61 | 1,991.18 | 1,993.03 | 1,970.13 | 22.90 | 87.033 | |
| 4,700.00 | 4,700.00 | 4,623.18 | 4,623.16 | 16.63 | 16.35 | 87.67 | 81.00 | 1,992.69 | 1,995.33 | 1,972.02 | 23.31 | 85.602 | |
| 4,800.00 | 4,800.00 | 4,700.00 | 4,699.91 | 16.99 | 16.61 | 87.65 | 81.80 | 1,995.84 | 1,999.38 | 1,975.64 | 23.74 | 84.212 | |
| 4,900.00 | 4,900.00 | 4,755.27 | 4,755.08 | 17.35 | 16.80 | 87.63 | 82.61 | 1,999.03 | 2,005.03 | 1,980.92 | 24.11 | 83.171 | |
| 5,000.00 | 5,000.00 | 4,821.10 | 4,820.72 | 17.71 | 17.03 | 87.60 | 83.84 | 2,003.84 | 2,012.40 | 1,987.90 | 24.50 | 82.149 | |
| 5,100.00 | 5,100.00 | 4,900.00 | 4,899.27 | 18.07 | 17.31 | 87.56 | 85.67 | 2,011.05 | 2,021.52 | 1,996.60 | 24.92 | 81.105 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 603H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 5,200.00 | 4,952.16 | 4,951.11 | 18.42 | 17.49 | 87.53 | 87.10 | 2,016.68 | 2,032.19 | 2,006.93 | 25.26 | 80.461 | |
| 5,300.00 | 5,300.00 | 5,017.31 | 5,015.73 | 18.78 | 17.72 | 87.48 | 89.14 | 2,024.67 | 2,044.58 | 2,018.96 | 25.63 | 79.785 | |
| 5,400.00 | 5,400.00 | 5,107.93 | 5,105.48 | 19.14 | 18.04 | 87.41 | 92.24 | 2,036.86 | 2,058.17 | 2,032.08 | 26.09 | 78.893 | |
| 5,500.00 | 5,500.00 | 5,206.96 | 5,203.54 | 19.50 | 18.40 | 87.33 | 95.64 | 2,050.21 | 2,071.80 | 2,045.22 | 26.58 | 77.940 | |
| 5,600.00 | 5,599.99 | 5,305.92 | 5,301.53 | 19.86 | 18.75 | 119.72 | 99.03 | 2,063.56 | 2,086.09 | 2,059.01 | 27.08 | 77.047 | |
| 5,700.00 | 5,699.91 | 5,404.69 | 5,399.35 | 20.21 | 19.11 | 119.53 | 102.42 | 2,076.88 | 2,101.66 | 2,074.09 | 27.57 | 76.237 | |
| 5,800.00 | 5,799.69 | 5,503.22 | 5,496.92 | 20.57 | 19.47 | 119.38 | 105.80 | 2,090.17 | 2,118.50 | 2,090.44 | 28.06 | 75.502 | |
| 5,833.01 | 5,832.58 | 5,535.67 | 5,529.05 | 20.69 | 19.59 | 119.35 | 106.92 | 2,094.55 | 2,124.34 | 2,096.12 | 28.22 | 75.275 | |
| 5,900.00 | 5,899.32 | 5,601.51 | 5,594.25 | 20.92 | 19.83 | 119.43 | 109.18 | 2,103.43 | 2,136.33 | 2,107.78 | 28.55 | 74.828 | |
| 6,000.00 | 5,998.94 | 5,699.78 | 5,691.56 | 21.28 | 20.20 | 119.56 | 112.55 | 2,116.68 | 2,154.25 | 2,125.20 | 29.04 | 74.177 | |
| 6,100.00 | 6,098.56 | 5,798.05 | 5,788.87 | 21.64 | 20.56 | 119.69 | 115.92 | 2,129.94 | 2,172.17 | 2,142.63 | 29.53 | 73.546 | |
| 6,200.00 | 6,198.18 | 5,896.32 | 5,886.19 | 22.00 | 20.93 | 119.81 | 119.29 | 2,143.19 | 2,190.10 | 2,160.07 | 30.03 | 72.933 | |
| 6,300.00 | 6,297.80 | 5,994.58 | 5,983.50 | 22.35 | 21.30 | 119.93 | 122.67 | 2,156.45 | 2,208.04 | 2,177.52 | 30.52 | 72.339 | |
| 6,400.00 | 6,397.43 | 6,092.85 | 6,080.81 | 22.71 | 21.67 | 120.05 | 126.04 | 2,169.70 | 2,226.00 | 2,194.98 | 31.02 | 71.761 | |
| 6,500.00 | 6,497.05 | 6,191.12 | 6,178.12 | 23.07 | 22.04 | 120.17 | 129.41 | 2,182.96 | 2,243.96 | 2,212.44 | 31.52 | 71.200 | |
| 6,600.00 | 6,596.67 | 6,289.39 | 6,275.44 | 23.44 | 22.41 | 120.29 | 132.78 | 2,196.21 | 2,261.93 | 2,229.91 | 32.01 | 70.654 | |
| 6,700.00 | 6,696.29 | 6,387.66 | 6,372.75 | 23.80 | 22.79 | 120.40 | 136.16 | 2,209.46 | 2,279.91 | 2,247.39 | 32.51 | 70.124 | |
| 6,800.00 | 6,795.91 | 6,485.93 | 6,470.06 | 24.16 | 23.16 | 120.51 | 139.53 | 2,222.72 | 2,297.90 | 2,264.88 | 33.01 | 69.609 | |
| 6,900.00 | 6,895.53 | 6,584.20 | 6,567.38 | 24.52 | 23.54 | 120.62 | 142.90 | 2,235.97 | 2,315.89 | 2,282.38 | 33.51 | 69.107 | |
| 7,000.00 | 6,995.15 | 6,682.47 | 6,664.69 | 24.89 | 23.92 | 120.73 | 146.28 | 2,249.23 | 2,333.90 | 2,299.88 | 34.01 | 68.619 | |
| 7,100.00 | 7,094.77 | 6,780.74 | 6,762.00 | 25.25 | 24.30 | 120.84 | 149.65 | 2,262.48 | 2,351.91 | 2,317.40 | 34.51 | 68.144 | |
| 7,200.00 | 7,194.39 | 6,879.01 | 6,859.31 | 25.61 | 24.68 | 120.95 | 153.02 | 2,275.74 | 2,369.93 | 2,334.91 | 35.02 | 67.682 | |
| 7,300.00 | 7,294.01 | 6,977.28 | 6,956.63 | 25.98 | 25.06 | 121.05 | 156.39 | 2,288.99 | 2,387.96 | 2,352.44 | 35.52 | 67.231 | |
| 7,400.00 | 7,393.63 | 7,075.55 | 7,053.94 | 26.35 | 25.44 | 121.15 | 159.77 | 2,302.24 | 2,405.99 | 2,369.97 | 36.02 | 66.792 | |
| 7,500.00 | 7,493.25 | 7,173.82 | 7,151.25 | 26.71 | 25.83 | 121.25 | 163.14 | 2,315.50 | 2,424.04 | 2,387.51 | 36.53 | 66.365 | |
| 7,600.00 | 7,592.87 | 7,272.09 | 7,248.57 | 27.08 | 26.21 | 121.35 | 166.51 | 2,328.75 | 2,442.09 | 2,405.06 | 37.03 | 65.948 | |
| 7,700.00 | 7,692.49 | 7,370.36 | 7,345.88 | 27.44 | 26.60 | 121.45 | 169.88 | 2,342.01 | 2,460.15 | 2,422.61 | 37.54 | 65.542 | |
| 7,800.00 | 7,792.11 | 7,468.62 | 7,443.19 | 27.81 | 26.98 | 121.55 | 173.26 | 2,355.26 | 2,478.21 | 2,440.17 | 38.04 | 65.146 | |
| 7,900.00 | 7,891.73 | 7,566.89 | 7,540.51 | 28.18 | 27.37 | 121.64 | 176.63 | 2,368.52 | 2,496.28 | 2,457.73 | 38.55 | 64.759 | |
| 8,000.00 | 7,991.35 | 7,665.16 | 7,637.82 | 28.55 | 27.76 | 121.74 | 180.00 | 2,381.77 | 2,514.36 | 2,475.31 | 39.05 | 64.382 | |
| 8,100.00 | 8,090.97 | 7,763.43 | 7,735.13 | 28.92 | 28.14 | 121.83 | 183.37 | 2,395.02 | 2,532.44 | 2,492.88 | 39.56 | 64.014 | |
| 8,200.00 | 8,190.59 | 7,861.70 | 7,832.44 | 29.28 | 28.53 | 121.92 | 186.75 | 2,408.28 | 2,550.53 | 2,510.47 | 40.07 | 63.655 | |
| 8,226.93 | 8,217.42 | 7,888.17 | 7,858.65 | 29.38 | 28.64 | 121.95 | 187.65 | 2,411.85 | 2,555.41 | 2,515.20 | 40.21 | 63.559 | |
| 8,300.00 | 8,290.27 | 7,960.06 | 7,929.84 | 29.65 | 28.92 | 122.16 | 190.12 | 2,421.55 | 2,568.27 | 2,527.69 | 40.58 | 63.295 | |
| 8,400.00 | 8,390.11 | 8,058.69 | 8,027.52 | 30.02 | 29.32 | 122.40 | 193.51 | 2,434.85 | 2,584.68 | 2,543.59 | 41.08 | 62.914 | |
| 8,500.00 | 8,490.07 | 8,157.55 | 8,125.41 | 30.38 | 29.71 | 122.57 | 196.90 | 2,448.18 | 2,599.70 | 2,558.11 | 41.59 | 62.511 | |
| 8,559.94 | 8,550.00 | 8,216.88 | 8,184.16 | 30.59 | 29.95 | 90.02 | 198.94 | 2,456.18 | 2,608.04 | 2,566.15 | 41.89 | 62.258 | |
| 8,600.00 | 8,590.07 | 8,256.55 | 8,223.45 | 30.73 | 30.10 | 89.99 | 200.30 | 2,461.54 | 2,613.45 | 2,571.35 | 42.09 | 62.088 | |
| 8,700.00 | 8,690.07 | 8,355.58 | 8,321.51 | 31.09 | 30.50 | 89.92 | 203.70 | 2,474.89 | 2,626.94 | 2,584.35 | 42.60 | 61.669 | |
| 8,800.00 | 8,790.07 | 8,454.61 | 8,419.58 | 31.44 | 30.89 | 89.84 | 207.09 | 2,488.25 | 2,640.45 | 2,597.34 | 43.10 | 61.259 | |
| 8,900.00 | 8,890.07 | 8,553.63 | 8,517.64 | 31.80 | 31.29 | 89.77 | 210.49 | 2,501.60 | 2,653.95 | 2,610.35 | 43.61 | 60.859 | |
| 9,000.00 | 8,990.07 | 8,652.66 | 8,615.70 | 32.15 | 31.69 | 89.70 | 213.89 | 2,514.96 | 2,667.47 | 2,623.35 | 44.11 | 60.468 | |
| 9,100.00 | 9,090.07 | 8,751.69 | 8,713.77 | 32.51 | 32.09 | 89.63 | 217.29 | 2,528.32 | 2,680.98 | 2,636.36 | 44.62 | 60.085 | |
| 9,200.00 | 9,190.07 | 8,850.71 | 8,811.83 | 32.87 | 32.48 | 89.56 | 220.69 | 2,541.67 | 2,694.50 | 2,649.37 | 45.13 | 59.711 | |
| 9,300.00 | 9,290.07 | 8,949.74 | 8,909.89 | 33.22 | 32.88 | 89.49 | 224.09 | 2,555.03 | 2,708.02 | 2,662.39 | 45.63 | 59.345 | |
| 9,400.00 | 9,390.07 | 9,048.77 | 9,007.96 | 33.58 | 33.28 | 89.42 | 227.49 | 2,568.39 | 2,721.55 | 2,675.41 | 46.14 | 58.987 | |
| 9,500.00 | 9,490.07 | 9,147.79 | 9,106.02 | 33.93 | 33.68 | 89.35 | 230.89 | 2,581.74 | 2,735.08 | 2,688.44 | 46.64 | 58.637 | |
| 9,600.00 | 9,590.07 | 9,246.82 | 9,204.08 | 34.29 | 34.08 | 89.28 | 234.28 | 2,595.10 | 2,748.62 | 2,701.47 | 47.15 | 58.294 | |
| 9,700.00 | 9,690.07 | 9,345.85 | 9,302.14 | 34.65 | 34.48 | 89.21 | 237.68 | 2,608.46 | 2,762.16 | 2,714.50 | 47.66 | 57.958 | |
| 9,800.00 | 9,790.07 | 9,444.87 | 9,400.21 | 35.00 | 34.88 | 89.14 | 241.08 | 2,621.81 | 2,775.70 | 2,727.53 | 48.16 | 57.629 | |
| 9,900.00 | 9,890.07 | 9,543.90 | 9,498.27 | 35.36 | 35.28 | 89.08 | 244.48 | 2,635.17 | 2,789.25 | 2,740.57 | 48.67 | 57.307 | |
| 10,000.00 | 9,990.07 | 9,642.93 | 9,596.33 | 35.71 | 35.68 | 89.01 | 247.88 | 2,648.53 | 2,802.80 | 2,753.62 | 49.18 | 56.992 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 603H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,100.00 | 10,090.07 | 9,741.95 | 9,694.40 | 36.07 | 36.08 | 88.95 | 251.28 | 2,661.88 | 2,816.35 | 2,766.66 | 49.69 | 56.682 | |
| 10,200.00 | 10,190.07 | 9,840.98 | 9,792.46 | 36.43 | 36.49 | 88.88 | 254.68 | 2,675.24 | 2,829.91 | 2,779.71 | 50.19 | 56.379 | |
| 10,300.00 | 10,290.07 | 9,940.01 | 9,890.52 | 36.78 | 36.89 | 88.82 | 258.07 | 2,688.60 | 2,843.47 | 2,792.77 | 50.70 | 56.082 | |
| 10,400.00 | 10,390.07 | 10,039.03 | 9,988.59 | 37.14 | 37.29 | 88.76 | 261.47 | 2,701.95 | 2,857.03 | 2,805.82 | 51.21 | 55.791 | |
| 10,500.00 | 10,490.07 | 10,138.06 | 10,086.65 | 37.50 | 37.69 | 88.69 | 264.87 | 2,715.31 | 2,870.60 | 2,818.88 | 51.72 | 55.505 | |
| 10,600.00 | 10,590.07 | 10,237.09 | 10,184.71 | 37.85 | 38.10 | 88.63 | 268.27 | 2,728.67 | 2,884.17 | 2,831.94 | 52.23 | 55.225 | |
| 10,700.00 | 10,690.07 | 10,363.09 | 10,309.51 | 38.21 | 38.61 | 88.55 | 272.55 | 2,745.49 | 2,897.70 | 2,844.86 | 52.84 | 54.841 | |
| 10,800.00 | 10,790.07 | 10,675.32 | 10,620.42 | 38.57 | 39.80 | 88.43 | 279.35 | 2,772.21 | 2,905.47 | 2,851.42 | 54.05 | 53.753 | |
| 10,900.00 | 10,890.07 | 10,931.14 | 10,876.17 | 38.92 | 40.68 | 88.41 | 280.51 | 2,776.77 | 2,905.89 | 2,850.95 | 54.94 | 52.895 | |
| 11,000.00 | 10,990.07 | 11,031.14 | 10,976.17 | 39.28 | 41.02 | 88.41 | 280.51 | 2,776.77 | 2,905.89 | 2,850.45 | 55.43 | 52.420 | |
| 11,100.00 | 11,090.07 | 11,131.14 | 11,076.17 | 39.64 | 41.36 | 88.41 | 280.51 | 2,776.77 | 2,905.89 | 2,849.95 | 55.93 | 51.953 | |
| 11,200.00 | 11,190.07 | 11,231.14 | 11,176.17 | 39.99 | 41.69 | 88.41 | 280.51 | 2,776.77 | 2,905.89 | 2,849.45 | 56.43 | 51.493 | |
| 11,300.00 | 11,290.07 | 11,332.06 | 11,277.08 | 40.35 | 42.03 | 88.41 | 280.42 | 2,776.77 | 2,905.88 | 2,848.95 | 56.93 | 51.041 | |
| 11,374.94 | 11,365.00 | 11,413.71 | 11,358.34 | 40.62 | 42.28 | 88.56 | 273.18 | 2,776.84 | 2,905.77 | 2,848.47 | 57.30 | 50.709 | |
| 11,400.00 | 11,390.06 | 11,440.47 | 11,384.65 | 40.70 | 42.36 | -90.86 | 268.30 | 2,776.89 | 2,905.71 | 2,848.29 | 57.42 | 50.604 | |
| 11,450.00 | 11,439.85 | 11,493.22 | 11,435.71 | 40.86 | 42.51 | -90.70 | 255.11 | 2,777.02 | 2,905.61 | 2,847.97 | 57.64 | 50.410 | |
| 11,500.00 | 11,489.07 | 11,545.13 | 11,484.55 | 41.01 | 42.64 | -90.53 | 237.60 | 2,777.19 | 2,905.54 | 2,847.69 | 57.85 | 50.227 | |
| 11,550.00 | 11,537.35 | 11,596.21 | 11,530.88 | 41.15 | 42.76 | -90.37 | 216.13 | 2,777.40 | 2,905.49 | 2,847.44 | 58.05 | 50.055 | |
| 11,600.00 | 11,584.32 | 11,646.49 | 11,574.44 | 41.28 | 42.87 | -90.20 | 191.05 | 2,777.64 | 2,905.47 | 2,847.24 | 58.23 | 49.894 | |
| 11,605.78 | 11,589.65 | 11,652.26 | 11,579.29 | 41.30 | 42.89 | -90.18 | 187.93 | 2,777.67 | 2,905.47 | 2,847.22 | 58.25 | 49.876 | |
| 11,650.00 | 11,629.62 | 11,696.02 | 11,615.03 | 41.41 | 42.97 | -90.03 | 162.70 | 2,777.92 | 2,905.48 | 2,847.07 | 58.41 | 49.742 | |
| 11,700.00 | 11,672.90 | 11,744.82 | 11,652.49 | 41.53 | 43.06 | -89.86 | 131.44 | 2,778.23 | 2,905.52 | 2,846.94 | 58.58 | 49.598 | |
| 11,750.00 | 11,713.85 | 11,792.94 | 11,686.69 | 41.63 | 43.13 | -89.69 | 97.61 | 2,778.56 | 2,905.59 | 2,846.84 | 58.75 | 49.461 | |
| 11,800.00 | 11,752.13 | 11,840.42 | 11,717.54 | 41.73 | 43.20 | -89.53 | 61.54 | 2,778.91 | 2,905.68 | 2,846.78 | 58.90 | 49.329 | |
| 11,850.00 | 11,787.47 | 11,887.30 | 11,744.96 | 41.82 | 43.26 | -89.37 | 23.53 | 2,779.28 | 2,905.80 | 2,846.74 | 59.06 | 49.200 | |
| 11,900.00 | 11,819.60 | 11,933.62 | 11,768.91 | 41.92 | 43.31 | -89.22 | -16.09 | 2,779.67 | 2,905.94 | 2,846.73 | 59.21 | 49.074 | |
| 11,950.00 | 11,848.26 | 11,979.42 | 11,789.38 | 42.02 | 43.37 | -89.07 | -57.06 | 2,780.07 | 2,906.10 | 2,846.73 | 59.37 | 48.950 | |
| 12,000.00 | 11,873.25 | 12,024.75 | 11,806.35 | 42.13 | 43.42 | -88.93 | -99.08 | 2,780.48 | 2,906.27 | 2,846.74 | 59.52 | 48.825 | |
| 12,050.00 | 11,894.37 | 12,069.65 | 11,819.83 | 42.24 | 43.48 | -88.79 | -141.89 | 2,780.89 | 2,906.45 | 2,846.76 | 59.68 | 48.699 | |
| 12,100.00 | 11,911.46 | 12,114.16 | 11,829.84 | 42.35 | 43.55 | -88.67 | -185.24 | 2,781.32 | 2,906.63 | 2,846.79 | 59.84 | 48.572 | |
| 12,150.00 | 11,924.39 | 12,158.31 | 11,836.42 | 42.47 | 43.62 | -88.55 | -228.89 | 2,781.74 | 2,906.81 | 2,846.81 | 60.00 | 48.443 | |
| 12,200.00 | 11,933.06 | 12,202.16 | 11,839.62 | 42.59 | 43.71 | -88.45 | -272.60 | 2,782.17 | 2,907.00 | 2,846.83 | 60.17 | 48.313 | |
| 12,250.00 | 11,937.42 | 12,250.80 | 11,840.62 | 42.72 | 43.82 | -88.37 | -321.23 | 2,782.64 | 2,907.14 | 2,846.79 | 60.35 | 48.168 | |
| 12,268.73 | 11,937.92 | 12,269.53 | 11,840.98 | 42.76 | 43.86 | -88.36 | -339.96 | 2,782.83 | 2,907.16 | 2,846.74 | 60.42 | 48.112 | |
| 12,300.00 | 11,938.26 | 12,300.80 | 11,841.57 | 42.84 | 43.95 | -88.37 | -371.22 | 2,783.13 | 2,907.19 | 2,846.64 | 60.54 | 48.017 | |
| 12,400.00 | 11,939.35 | 12,400.79 | 11,843.49 | 43.15 | 44.26 | -88.39 | -471.19 | 2,784.11 | 2,907.26 | 2,846.26 | 61.00 | 47.659 | |
| 12,500.00 | 11,940.43 | 12,500.79 | 11,845.41 | 43.51 | 44.64 | -88.40 | -571.16 | 2,785.08 | 2,907.33 | 2,845.79 | 61.54 | 47.241 | |
| 12,600.00 | 11,941.51 | 12,600.79 | 11,847.33 | 43.93 | 45.08 | -88.42 | -671.14 | 2,786.06 | 2,907.41 | 2,845.24 | 62.17 | 46.767 | |
| 12,700.00 | 11,942.59 | 12,700.78 | 11,849.24 | 44.41 | 45.59 | -88.43 | -771.11 | 2,787.04 | 2,907.49 | 2,844.61 | 62.87 | 46.243 | |
| 12,800.00 | 11,943.68 | 12,800.78 | 11,851.16 | 44.94 | 46.14 | -88.45 | -871.08 | 2,788.01 | 2,907.56 | 2,843.90 | 63.66 | 45.675 | |
| 12,900.00 | 11,944.76 | 12,900.77 | 11,853.08 | 45.53 | 46.76 | -88.47 | -971.06 | 2,788.99 | 2,907.64 | 2,843.12 | 64.52 | 45.069 | |
| 13,000.00 | 11,945.84 | 13,000.77 | 11,855.00 | 46.17 | 47.42 | -88.48 | -1,071.03 | 2,789.96 | 2,907.71 | 2,842.27 | 65.45 | 44.429 | |
| 13,100.00 | 11,946.92 | 13,100.77 | 11,856.91 | 46.86 | 48.13 | -88.50 | -1,171.00 | 2,790.94 | 2,907.79 | 2,841.34 | 66.45 | 43.761 | |
| 13,200.00 | 11,948.01 | 13,200.76 | 11,858.83 | 47.59 | 48.89 | -88.52 | -1,270.98 | 2,791.92 | 2,907.87 | 2,840.35 | 67.51 | 43.071 | |
| 13,300.00 | 11,949.09 | 13,300.76 | 11,860.75 | 48.37 | 49.69 | -88.53 | -1,370.95 | 2,792.89 | 2,907.94 | 2,839.30 | 68.64 | 42.364 | |
| 13,400.00 | 11,950.17 | 13,400.76 | 11,862.67 | 49.20 | 50.53 | -88.55 | -1,470.92 | 2,793.87 | 2,908.02 | 2,838.19 | 69.83 | 41.644 | |
| 13,500.00 | 11,951.25 | 13,500.75 | 11,864.58 | 50.06 | 51.41 | -88.57 | -1,570.90 | 2,794.84 | 2,908.10 | 2,837.02 | 71.08 | 40.915 | |
| 13,600.00 | 11,952.33 | 13,600.75 | 11,866.50 | 50.97 | 52.33 | -88.58 | -1,670.87 | 2,795.82 | 2,908.17 | 2,835.80 | 72.38 | 40.181 | |
| 13,700.00 | 11,953.42 | 13,700.75 | 11,868.42 | 51.91 | 53.29 | -88.60 | -1,770.84 | 2,796.80 | 2,908.25 | 2,834.52 | 73.73 | 39.446 | |
| 13,800.00 | 11,954.50 | 13,800.74 | 11,870.34 | 52.88 | 54.27 | -88.62 | -1,870.82 | 2,797.77 | 2,908.33 | 2,833.20 | 75.13 | 38.712 | |
| 13,900.00 | 11,955.58 | 13,900.74 | 11,872.25 | 53.89 | 55.29 | -88.63 | -1,970.79 | 2,798.75 | 2,908.41 | 2,831.84 | 76.57 | 37.983 | |
| 14,000.00 | 11,956.66 | 14,000.74 | 11,874.17 | 54.93 | 56.34 | -88.65 | -2,070.76 | 2,799.72 | 2,908.49 | 2,830.43 | 78.06 | 37.260 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 603H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,100.00 | 11,957.75 | 14,100.73 | 11,876.09 | 56.00 | 57.42 | -88.67 | -2,170.74 | 2,800.70 | 2,908.57 | 2,828.98 | 79.59 | 36.545 | |
| 14,200.00 | 11,958.83 | 14,200.73 | 11,878.01 | 57.10 | 58.53 | -88.68 | -2,270.71 | 2,801.68 | 2,908.64 | 2,827.49 | 81.16 | 35.840 | |
| 14,300.00 | 11,959.91 | 14,300.73 | 11,879.92 | 58.22 | 59.66 | -88.70 | -2,370.68 | 2,802.65 | 2,908.72 | 2,825.96 | 82.76 | 35.146 | |
| 14,400.00 | 11,960.99 | 14,400.72 | 11,881.84 | 59.37 | 60.81 | -88.72 | -2,470.66 | 2,803.63 | 2,908.80 | 2,824.40 | 84.40 | 34.465 | |
| 14,500.00 | 11,962.08 | 14,500.72 | 11,883.76 | 60.54 | 61.99 | -88.73 | -2,570.63 | 2,804.60 | 2,908.88 | 2,822.81 | 86.07 | 33.797 | |
| 14,600.00 | 11,963.16 | 14,600.71 | 11,885.68 | 61.73 | 63.18 | -88.75 | -2,670.60 | 2,805.58 | 2,908.96 | 2,821.19 | 87.77 | 33.143 | |
| 14,700.00 | 11,964.24 | 14,700.71 | 11,887.59 | 62.94 | 64.40 | -88.76 | -2,770.58 | 2,806.56 | 2,909.04 | 2,819.54 | 89.50 | 32.504 | |
| 14,800.00 | 11,965.32 | 14,800.71 | 11,889.51 | 64.18 | 65.64 | -88.78 | -2,870.55 | 2,807.53 | 2,909.12 | 2,817.87 | 91.26 | 31.879 | |
| 14,900.00 | 11,966.41 | 14,900.70 | 11,891.43 | 65.43 | 66.89 | -88.80 | -2,970.52 | 2,808.51 | 2,909.20 | 2,816.17 | 93.04 | 31.269 | |
| 15,000.00 | 11,967.49 | 15,000.70 | 11,893.35 | 66.70 | 68.16 | -88.81 | -3,070.50 | 2,809.48 | 2,909.29 | 2,814.44 | 94.84 | 30.674 | |
| 15,100.00 | 11,968.57 | 15,100.70 | 11,895.26 | 67.99 | 69.45 | -88.83 | -3,170.47 | 2,810.46 | 2,909.37 | 2,812.69 | 96.67 | 30.095 | |
| 15,200.00 | 11,969.65 | 15,200.69 | 11,897.18 | 69.29 | 70.75 | -88.85 | -3,270.44 | 2,811.44 | 2,909.45 | 2,810.92 | 98.52 | 29.531 | |
| 15,300.00 | 11,970.74 | 15,300.69 | 11,899.10 | 70.60 | 72.07 | -88.86 | -3,370.42 | 2,812.41 | 2,909.53 | 2,809.14 | 100.39 | 28.981 | |
| 15,400.00 | 11,971.82 | 15,400.69 | 11,901.02 | 71.93 | 73.40 | -88.88 | -3,470.39 | 2,813.39 | 2,909.61 | 2,807.33 | 102.28 | 28.446 | |
| 15,500.00 | 11,972.90 | 15,500.68 | 11,902.93 | 73.28 | 74.74 | -88.90 | -3,570.36 | 2,814.36 | 2,909.69 | 2,805.50 | 104.19 | 27.926 | |
| 15,600.00 | 11,973.98 | 15,600.68 | 11,904.85 | 74.63 | 76.10 | -88.91 | -3,670.34 | 2,815.34 | 2,909.78 | 2,803.66 | 106.12 | 27.420 | |
| 15,700.00 | 11,975.07 | 15,700.68 | 11,906.77 | 76.00 | 77.47 | -88.93 | -3,770.31 | 2,816.31 | 2,909.86 | 2,801.80 | 108.06 | 26.929 | |
| 15,800.00 | 11,976.15 | 15,800.67 | 11,908.69 | 77.38 | 78.84 | -88.95 | -3,870.28 | 2,817.29 | 2,909.94 | 2,799.93 | 110.01 | 26.450 | |
| 15,900.00 | 11,977.23 | 15,900.67 | 11,910.60 | 78.77 | 80.23 | -88.96 | -3,970.26 | 2,818.27 | 2,910.02 | 2,798.04 | 111.99 | 25.986 | |
| 16,000.00 | 11,978.31 | 16,000.67 | 11,912.52 | 80.17 | 81.63 | -88.98 | -4,070.23 | 2,819.24 | 2,910.11 | 2,796.14 | 113.97 | 25.534 | |
| 16,100.00 | 11,979.40 | 16,100.66 | 11,914.44 | 81.57 | 83.04 | -89.00 | -4,170.20 | 2,820.22 | 2,910.19 | 2,794.22 | 115.97 | 25.094 | |
| 16,200.00 | 11,980.48 | 16,200.66 | 11,916.36 | 82.99 | 84.45 | -89.01 | -4,270.18 | 2,821.19 | 2,910.27 | 2,792.29 | 117.98 | 24.667 | |
| 16,300.00 | 11,981.56 | 16,300.65 | 11,918.27 | 84.42 | 85.88 | -89.03 | -4,370.15 | 2,822.17 | 2,910.36 | 2,790.36 | 120.00 | 24.252 | |
| 16,400.00 | 11,982.64 | 16,400.65 | 11,920.19 | 85.85 | 87.31 | -89.04 | -4,470.12 | 2,823.15 | 2,910.44 | 2,788.41 | 122.04 | 23.849 | |
| 16,500.00 | 11,983.73 | 16,500.65 | 11,922.11 | 87.29 | 88.75 | -89.06 | -4,570.10 | 2,824.12 | 2,910.53 | 2,786.45 | 124.08 | 23.457 | |
| 16,600.00 | 11,984.81 | 16,600.64 | 11,924.03 | 88.74 | 90.20 | -89.08 | -4,670.07 | 2,825.10 | 2,910.61 | 2,784.48 | 126.14 | 23.075 | |
| 16,700.00 | 11,985.89 | 16,700.64 | 11,925.94 | 90.20 | 91.66 | -89.09 | -4,770.04 | 2,826.07 | 2,910.70 | 2,782.50 | 128.20 | 22.704 | |
| 16,800.00 | 11,986.97 | 16,800.64 | 11,927.86 | 91.66 | 93.12 | -89.11 | -4,870.02 | 2,827.05 | 2,910.78 | 2,780.51 | 130.27 | 22.344 | |
| 16,900.00 | 11,988.06 | 16,900.63 | 11,929.78 | 93.13 | 94.58 | -89.13 | -4,969.99 | 2,828.03 | 2,910.87 | 2,778.51 | 132.35 | 21.993 | |
| 17,000.00 | 11,989.14 | 17,000.63 | 11,931.70 | 94.61 | 96.06 | -89.14 | -5,069.96 | 2,829.00 | 2,910.95 | 2,776.51 | 134.45 | 21.652 | |
| 17,100.00 | 11,990.22 | 17,100.63 | 11,933.61 | 96.09 | 97.54 | -89.16 | -5,169.94 | 2,829.98 | 2,911.04 | 2,774.50 | 136.54 | 21.319 | |
| 17,200.00 | 11,991.30 | 17,200.62 | 11,935.53 | 97.57 | 99.02 | -89.18 | -5,269.91 | 2,830.95 | 2,911.13 | 2,772.48 | 138.65 | 20.996 | |
| 17,300.00 | 11,992.39 | 17,300.62 | 11,937.45 | 99.06 | 100.51 | -89.19 | -5,369.88 | 2,831.93 | 2,911.21 | 2,770.45 | 140.76 | 20.682 | |
| 17,400.00 | 11,993.47 | 17,400.62 | 11,939.37 | 100.56 | 102.01 | -89.21 | -5,469.86 | 2,832.91 | 2,911.30 | 2,768.42 | 142.88 | 20.375 | |
| 17,500.00 | 11,994.55 | 17,500.61 | 11,941.28 | 102.06 | 103.51 | -89.23 | -5,569.83 | 2,833.88 | 2,911.39 | 2,766.38 | 145.01 | 20.077 | |
| 17,600.00 | 11,995.63 | 17,600.61 | 11,943.20 | 103.57 | 105.01 | -89.24 | -5,669.80 | 2,834.86 | 2,911.47 | 2,764.33 | 147.14 | 19.787 | |
| 17,700.00 | 11,996.72 | 17,700.61 | 11,945.12 | 105.08 | 106.52 | -89.26 | -5,769.78 | 2,835.83 | 2,911.56 | 2,762.28 | 149.28 | 19.504 | |
| 17,800.00 | 11,997.80 | 17,800.60 | 11,947.04 | 106.59 | 108.03 | -89.28 | -5,869.75 | 2,836.81 | 2,911.65 | 2,760.22 | 151.43 | 19.228 | |
| 17,900.00 | 11,998.88 | 17,900.60 | 11,948.95 | 108.11 | 109.55 | -89.29 | -5,969.72 | 2,837.79 | 2,911.74 | 2,758.16 | 153.58 | 18.959 | |
| 18,000.00 | 11,999.96 | 18,000.59 | 11,950.87 | 109.64 | 111.07 | -89.31 | -6,069.70 | 2,838.76 | 2,911.82 | 2,756.09 | 155.74 | 18.697 | |
| 18,100.00 | 12,001.05 | 18,100.59 | 11,952.79 | 111.16 | 112.59 | -89.32 | -6,169.67 | 2,839.74 | 2,911.91 | 2,754.01 | 157.90 | 18.442 | |
| 18,200.00 | 12,002.13 | 18,200.59 | 11,954.71 | 112.69 | 114.12 | -89.34 | -6,269.64 | 2,840.71 | 2,912.00 | 2,751.94 | 160.06 | 18.193 | |
| 18,300.00 | 12,003.21 | 18,300.58 | 11,956.62 | 114.23 | 115.65 | -89.36 | -6,369.62 | 2,841.69 | 2,912.09 | 2,749.85 | 162.24 | 17.950 | |
| 18,400.00 | 12,004.29 | 18,400.58 | 11,958.54 | 115.76 | 117.19 | -89.37 | -6,469.59 | 2,842.67 | 2,912.18 | 2,747.77 | 164.41 | 17.713 | |
| 18,500.00 | 12,005.38 | 18,500.58 | 11,960.46 | 117.30 | 118.73 | -89.39 | -6,569.56 | 2,843.64 | 2,912.27 | 2,745.68 | 166.59 | 17.482 | |
| 18,600.00 | 12,006.46 | 18,600.57 | 11,962.38 | 118.84 | 120.27 | -89.41 | -6,669.54 | 2,844.62 | 2,912.36 | 2,743.58 | 168.77 | 17.256 | |
| 18,700.00 | 12,007.54 | 18,700.57 | 11,964.29 | 120.39 | 121.81 | -89.42 | -6,769.51 | 2,845.59 | 2,912.45 | 2,741.48 | 170.96 | 17.036 | |
| 18,800.00 | 12,008.62 | 18,800.57 | 11,966.21 | 121.94 | 123.36 | -89.44 | -6,869.48 | 2,846.57 | 2,912.54 | 2,739.38 | 173.16 | 16.820 | |
| 18,900.00 | 12,009.71 | 18,900.56 | 11,968.13 | 123.49 | 124.91 | -89.46 | -6,969.46 | 2,847.55 | 2,912.63 | 2,737.28 | 175.35 | 16.610 | |
| 19,000.00 | 12,010.79 | 19,000.56 | 11,970.05 | 125.04 | 126.46 | -89.47 | -7,069.43 | 2,848.52 | 2,912.72 | 2,735.17 | 177.55 | 16.405 | |
| 19,100.00 | 12,011.87 | 19,100.56 | 11,971.96 | 126.60 | 128.01 | -89.49 | -7,169.40 | 2,849.50 | 2,912.81 | 2,733.06 | 179.75 | 16.204 | |
| 19,200.00 | 12,012.95 | 19,200.55 | 11,973.88 | 128.16 | 129.57 | -89.51 | -7,269.38 | 2,850.47 | 2,912.90 | 2,730.94 | 181.96 | 16.008 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 603H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,300.00 | 12,014.03 | 19,300.55 | 11,975.80 | 129.72 | 131.13 | -89.52 | -7,369.35 | 2,851.45 | 2,912.99 | 2,728.82 | 184.17 | 15.817 | |
| 19,400.00 | 12,015.12 | 19,400.55 | 11,977.72 | 131.28 | 132.69 | -89.54 | -7,469.32 | 2,852.43 | 2,913.08 | 2,726.70 | 186.38 | 15.630 | |
| 19,500.00 | 12,016.20 | 19,500.54 | 11,979.63 | 132.85 | 134.26 | -89.55 | -7,569.30 | 2,853.40 | 2,913.17 | 2,724.58 | 188.60 | 15.447 | |
| 19,600.00 | 12,017.28 | 19,600.54 | 11,981.55 | 134.42 | 135.82 | -89.57 | -7,669.27 | 2,854.38 | 2,913.27 | 2,722.45 | 190.82 | 15.267 | |
| 19,700.00 | 12,018.36 | 19,700.53 | 11,983.47 | 135.98 | 137.39 | -89.59 | -7,769.24 | 2,855.35 | 2,913.36 | 2,720.32 | 193.04 | 15.092 | |
| 19,800.00 | 12,019.45 | 19,800.53 | 11,985.39 | 137.56 | 138.96 | -89.60 | -7,869.22 | 2,856.33 | 2,913.45 | 2,718.19 | 195.26 | 14.921 | |
| 19,900.00 | 12,020.53 | 19,900.53 | 11,987.30 | 139.13 | 140.53 | -89.62 | -7,969.19 | 2,857.31 | 2,913.54 | 2,716.06 | 197.49 | 14.753 | |
| 20,000.00 | 12,021.61 | 20,000.52 | 11,989.22 | 140.70 | 142.10 | -89.64 | -8,069.16 | 2,858.28 | 2,913.64 | 2,713.92 | 199.72 | 14.589 | |
| 20,100.00 | 12,022.69 | 20,100.52 | 11,991.14 | 142.28 | 143.68 | -89.65 | -8,169.14 | 2,859.26 | 2,913.73 | 2,711.78 | 201.95 | 14.428 | |
| 20,200.00 | 12,023.78 | 20,200.52 | 11,993.06 | 143.86 | 145.26 | -89.67 | -8,269.11 | 2,860.23 | 2,913.82 | 2,709.64 | 204.18 | 14.271 | |
| 20,300.00 | 12,024.86 | 20,300.51 | 11,994.97 | 145.44 | 146.84 | -89.69 | -8,369.08 | 2,861.21 | 2,913.92 | 2,707.50 | 206.42 | 14.117 | |
| 20,400.00 | 12,025.94 | 20,400.51 | 11,996.89 | 147.02 | 148.42 | -89.70 | -8,469.06 | 2,862.18 | 2,914.01 | 2,705.35 | 208.66 | 13.966 | |
| 20,500.00 | 12,027.02 | 20,500.51 | 11,998.81 | 148.61 | 150.00 | -89.72 | -8,569.03 | 2,863.16 | 2,914.11 | 2,703.21 | 210.90 | 13.818 | |
| 20,600.00 | 12,028.11 | 20,600.50 | 12,000.73 | 150.19 | 151.58 | -89.74 | -8,669.00 | 2,864.14 | 2,914.20 | 2,701.06 | 213.14 | 13.673 | |
| 20,700.00 | 12,029.19 | 20,700.50 | 12,002.64 | 151.78 | 153.17 | -89.75 | -8,768.98 | 2,865.11 | 2,914.29 | 2,698.91 | 215.38 | 13.531 | |
| 20,800.00 | 12,030.27 | 20,800.50 | 12,004.56 | 153.36 | 154.75 | -89.77 | -8,868.95 | 2,866.09 | 2,914.39 | 2,696.76 | 217.63 | 13.391 | |
| 20,900.00 | 12,031.35 | 20,900.49 | 12,006.48 | 154.95 | 156.34 | -89.78 | -8,968.92 | 2,867.06 | 2,914.48 | 2,694.61 | 219.88 | 13.255 | |
| 21,000.00 | 12,032.44 | 21,000.49 | 12,008.40 | 156.54 | 157.93 | -89.80 | -9,068.90 | 2,868.04 | 2,914.58 | 2,692.45 | 222.13 | 13.121 | |
| 21,100.00 | 12,033.52 | 21,100.49 | 12,010.31 | 158.14 | 159.52 | -89.82 | -9,168.87 | 2,869.02 | 2,914.68 | 2,690.29 | 224.38 | 12.990 | |
| 21,200.00 | 12,034.60 | 21,200.48 | 12,012.23 | 159.73 | 161.11 | -89.83 | -9,268.84 | 2,869.99 | 2,914.77 | 2,688.14 | 226.63 | 12.861 | |
| 21,300.00 | 12,035.68 | 21,300.48 | 12,014.15 | 161.32 | 162.70 | -89.85 | -9,368.82 | 2,870.97 | 2,914.87 | 2,685.98 | 228.89 | 12.735 | |
| 21,400.00 | 12,036.77 | 21,400.47 | 12,016.07 | 162.92 | 164.30 | -89.87 | -9,468.79 | 2,871.94 | 2,914.96 | 2,683.82 | 231.15 | 12.611 | |
| 21,500.00 | 12,037.85 | 21,500.47 | 12,017.98 | 164.51 | 165.89 | -89.88 | -9,568.76 | 2,872.92 | 2,915.06 | 2,681.66 | 233.40 | 12.489 | |
| 21,600.00 | 12,038.93 | 21,600.47 | 12,019.90 | 166.11 | 167.49 | -89.90 | -9,668.74 | 2,873.90 | 2,915.16 | 2,679.49 | 235.66 | 12.370 | |
| 21,700.00 | 12,040.01 | 21,700.46 | 12,021.82 | 167.71 | 169.09 | -89.92 | -9,768.71 | 2,874.87 | 2,915.25 | 2,677.33 | 237.93 | 12.253 | |
| 21,800.00 | 12,041.10 | 21,800.46 | 12,023.74 | 169.31 | 170.69 | -89.93 | -9,868.68 | 2,875.85 | 2,915.35 | 2,675.16 | 240.19 | 12.138 | |
| 21,900.00 | 12,042.18 | 21,900.46 | 12,025.65 | 170.91 | 172.28 | -89.95 | -9,968.66 | 2,876.82 | 2,915.45 | 2,673.00 | 242.45 | 12.025 | |
| 22,000.00 | 12,043.26 | 22,000.45 | 12,027.57 | 172.51 | 173.88 | -89.97 | -10,068.63 | 2,877.80 | 2,915.55 | 2,670.83 | 244.72 | 11.914 | |
| 22,100.00 | 12,044.34 | 22,100.45 | 12,029.49 | 174.11 | 175.49 | -89.98 | -10,168.60 | 2,878.78 | 2,915.64 | 2,668.66 | 246.99 | 11.805 | |
| 22,200.00 | 12,045.43 | 22,200.45 | 12,031.41 | 175.72 | 177.09 | -90.00 | -10,268.58 | 2,879.75 | 2,915.74 | 2,666.49 | 249.25 | 11.698 | |
| 22,300.00 | 12,046.51 | 22,300.44 | 12,033.32 | 177.32 | 178.69 | -90.01 | -10,368.55 | 2,880.73 | 2,915.84 | 2,664.32 | 251.52 | 11.593 | |
| 22,400.00 | 12,047.59 | 22,400.44 | 12,035.24 | 178.93 | 180.30 | -90.03 | -10,468.52 | 2,881.70 | 2,915.94 | 2,662.15 | 253.79 | 11.489 | |
| 22,500.00 | 12,048.67 | 22,500.44 | 12,037.16 | 180.53 | 181.90 | -90.05 | -10,568.50 | 2,882.68 | 2,916.04 | 2,659.97 | 256.07 | 11.388 | |
| 22,572.67 | 12,049.46 | 22,573.10 | 12,038.55 | 181.70 | 183.07 | -90.06 | -10,641.15 | 2,883.39 | 2,916.11 | 2,658.39 | 257.72 | 11.315 SF | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 703H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 87.65 | 80.18 | 1,955.77 | 1,957.46 | | | | |
| 100.00 | 100.00 | 86.50 | 86.50 | 0.14 | 0.12 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,957.23 | 0.19 | N/A | |
| 200.00 | 200.00 | 186.50 | 186.50 | 0.50 | 0.45 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,956.74 | 0.67 | 2,904.808 | |
| 300.00 | 300.00 | 286.50 | 286.50 | 0.86 | 0.81 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,956.23 | 1.18 | 1,658.213 | |
| 400.00 | 400.00 | 386.50 | 386.50 | 1.22 | 1.17 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,955.73 | 1.69 | 1,160.126 | |
| 500.00 | 500.00 | 486.50 | 486.50 | 1.58 | 1.53 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,955.22 | 2.19 | 892.119 | |
| 600.00 | 600.00 | 586.50 | 586.50 | 1.93 | 1.89 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,954.71 | 2.70 | 724.694 | |
| 700.00 | 700.00 | 686.50 | 686.50 | 2.29 | 2.24 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,954.20 | 3.21 | 610.177 | |
| 800.00 | 800.00 | 786.50 | 786.50 | 2.65 | 2.60 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,953.70 | 3.71 | 526.912 | |
| 900.00 | 900.00 | 886.50 | 886.50 | 3.01 | 2.96 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,953.19 | 4.22 | 463.643 | |
| 1,000.00 | 1,000.00 | 986.50 | 986.50 | 3.37 | 3.32 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,952.68 | 4.73 | 413.939 | |
| 1,100.00 | 1,100.00 | 1,086.50 | 1,086.50 | 3.73 | 3.68 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,952.18 | 5.24 | 373.859 | |
| 1,200.00 | 1,200.00 | 1,186.50 | 1,186.50 | 4.08 | 4.04 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,951.67 | 5.74 | 340.856 | |
| 1,300.00 | 1,300.00 | 1,286.50 | 1,286.50 | 4.44 | 4.39 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,951.16 | 6.25 | 313.207 | |
| 1,400.00 | 1,400.00 | 1,386.50 | 1,386.50 | 4.80 | 4.75 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,950.66 | 6.76 | 289.707 | |
| 1,500.00 | 1,500.00 | 1,486.50 | 1,486.50 | 5.16 | 5.11 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,950.15 | 7.26 | 269.487 | |
| 1,600.00 | 1,600.00 | 1,586.50 | 1,586.50 | 5.52 | 5.47 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,949.64 | 7.77 | 251.905 | |
| 1,700.00 | 1,700.00 | 1,686.50 | 1,686.50 | 5.88 | 5.83 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,949.14 | 8.28 | 236.477 | |
| 1,800.00 | 1,800.00 | 1,786.50 | 1,786.50 | 6.24 | 6.19 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,948.63 | 8.78 | 222.830 | |
| 1,900.00 | 1,900.00 | 1,886.50 | 1,886.50 | 6.59 | 6.55 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,948.12 | 9.29 | 210.672 | |
| 2,000.00 | 2,000.00 | 1,986.50 | 1,986.50 | 6.95 | 6.90 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,947.61 | 9.80 | 199.772 | |
| 2,100.00 | 2,100.00 | 2,086.50 | 2,086.50 | 7.31 | 7.26 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,947.11 | 10.31 | 189.944 | |
| 2,200.00 | 2,200.00 | 2,186.50 | 2,186.50 | 7.67 | 7.62 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,946.60 | 10.81 | 181.038 | |
| 2,300.00 | 2,300.00 | 2,286.50 | 2,286.50 | 8.03 | 7.98 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,946.09 | 11.32 | 172.930 | |
| 2,400.00 | 2,400.00 | 2,386.50 | 2,386.50 | 8.39 | 8.34 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,945.59 | 11.83 | 165.517 | |
| 2,500.00 | 2,500.00 | 2,486.50 | 2,486.50 | 8.74 | 8.70 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,945.08 | 12.33 | 158.713 | |
| 2,600.00 | 2,600.00 | 2,586.50 | 2,586.50 | 9.10 | 9.05 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,944.57 | 12.84 | 152.447 | |
| 2,700.00 | 2,700.00 | 2,686.50 | 2,686.50 | 9.46 | 9.41 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,944.07 | 13.35 | 146.657 | |
| 2,800.00 | 2,800.00 | 2,786.50 | 2,786.50 | 9.82 | 9.77 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,943.56 | 13.85 | 141.290 | |
| 2,900.00 | 2,900.00 | 2,886.50 | 2,886.50 | 10.18 | 10.13 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,943.05 | 14.36 | 136.302 | |
| 3,000.00 | 3,000.00 | 2,986.50 | 2,986.50 | 10.54 | 10.49 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,942.55 | 14.87 | 131.655 | |
| 3,100.00 | 3,100.00 | 3,086.50 | 3,086.50 | 10.90 | 10.85 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,942.04 | 15.37 | 127.314 | |
| 3,200.00 | 3,200.00 | 3,186.50 | 3,186.50 | 11.25 | 11.21 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,941.53 | 15.88 | 123.250 | |
| 3,300.00 | 3,300.00 | 3,286.50 | 3,286.50 | 11.61 | 11.56 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,941.02 | 16.39 | 119.437 | |
| 3,400.00 | 3,400.00 | 3,386.50 | 3,386.50 | 11.97 | 11.92 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,940.52 | 16.90 | 115.853 | |
| 3,500.00 | 3,500.00 | 3,486.50 | 3,486.50 | 12.33 | 12.28 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,940.01 | 17.40 | 112.479 | |
| 3,600.00 | 3,600.00 | 3,586.50 | 3,586.50 | 12.69 | 12.64 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,939.50 | 17.91 | 109.295 | |
| 3,700.00 | 3,700.00 | 3,686.50 | 3,686.50 | 13.05 | 13.00 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,939.00 | 18.42 | 106.286 | |
| 3,800.00 | 3,800.00 | 3,786.50 | 3,786.50 | 13.41 | 13.36 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,938.49 | 18.92 | 103.439 | |
| 3,900.00 | 3,900.00 | 3,886.50 | 3,886.50 | 13.76 | 13.72 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,937.98 | 19.43 | 100.740 | |
| 4,000.00 | 4,000.00 | 3,986.50 | 3,986.50 | 14.12 | 14.07 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,937.48 | 19.94 | 98.178 | |
| 4,100.00 | 4,100.00 | 4,086.50 | 4,086.50 | 14.48 | 14.43 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,936.97 | 20.44 | 95.744 | |
| 4,200.00 | 4,200.00 | 4,186.50 | 4,186.50 | 14.84 | 14.79 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,936.46 | 20.95 | 93.427 | |
| 4,300.00 | 4,300.00 | 4,286.50 | 4,286.50 | 15.20 | 15.15 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,935.95 | 21.46 | 91.220 | |
| 4,400.00 | 4,400.00 | 4,386.50 | 4,386.50 | 15.56 | 15.51 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,935.45 | 21.97 | 89.115 | |
| 4,500.00 | 4,500.00 | 4,486.50 | 4,486.50 | 15.91 | 15.87 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,934.94 | 22.47 | 87.104 | |
| 4,600.00 | 4,600.00 | 4,586.50 | 4,586.50 | 16.27 | 16.22 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,934.43 | 22.98 | 85.183 | |
| 4,700.00 | 4,700.00 | 4,686.50 | 4,686.50 | 16.63 | 16.58 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,933.93 | 23.49 | 83.344 | |
| 4,800.00 | 4,800.00 | 4,786.50 | 4,786.50 | 16.99 | 16.94 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,933.42 | 23.99 | 81.583 | |
| 4,900.00 | 4,900.00 | 4,886.50 | 4,886.50 | 17.35 | 17.30 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,932.91 | 24.50 | 79.895 | |
| 5,000.00 | 5,000.00 | 4,986.50 | 4,986.50 | 17.71 | 17.66 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,932.41 | 25.01 | 78.275 | |
| 5,100.00 | 5,100.00 | 5,086.50 | 5,086.50 | 18.07 | 18.02 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,931.90 | 25.51 | 76.720 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 703H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 5,200.00 | 5,186.50 | 5,186.50 | 18.42 | 18.38 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,931.39 | 26.02 | 75.225 | |
| 5,300.00 | 5,300.00 | 5,286.50 | 5,286.50 | 18.78 | 18.73 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,930.89 | 26.53 | 73.787 | |
| 5,400.00 | 5,400.00 | 5,386.50 | 5,386.50 | 19.14 | 19.09 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,930.38 | 27.03 | 72.404 | |
| 5,500.00 | 5,500.00 | 5,486.50 | 5,486.50 | 19.50 | 19.45 | 87.65 | 80.18 | 1,955.77 | 1,957.41 | 1,929.87 | 27.54 | 71.071 | CC, ES |
| 5,600.00 | 5,599.99 | 5,561.13 | 5,561.13 | 19.86 | 19.72 | 120.27 | 80.48 | 1,956.15 | 1,958.63 | 1,930.65 | 27.98 | 70.002 | |
| 5,700.00 | 5,699.91 | 5,631.73 | 5,631.70 | 20.21 | 19.97 | 120.26 | 81.59 | 1,957.55 | 1,962.65 | 1,934.26 | 28.40 | 69.108 | |
| 5,800.00 | 5,799.69 | 5,700.00 | 5,699.91 | 20.57 | 20.21 | 120.23 | 83.43 | 1,959.88 | 1,969.49 | 1,940.68 | 28.81 | 68.370 | |
| 5,833.01 | 5,832.58 | 5,725.35 | 5,725.22 | 20.69 | 20.30 | 120.22 | 84.30 | 1,960.98 | 1,972.36 | 1,943.41 | 28.95 | 68.135 | |
| 5,900.00 | 5,899.32 | 5,772.37 | 5,772.14 | 20.92 | 20.46 | 120.27 | 86.20 | 1,963.38 | 1,978.83 | 1,949.61 | 29.22 | 67.723 | |
| 6,000.00 | 5,998.94 | 5,842.41 | 5,841.95 | 21.28 | 20.71 | 120.33 | 89.69 | 1,967.80 | 1,989.71 | 1,960.09 | 29.62 | 67.174 | |
| 6,100.00 | 6,098.56 | 5,900.00 | 5,899.27 | 21.64 | 20.91 | 120.36 | 93.16 | 1,972.19 | 2,002.12 | 1,972.15 | 29.97 | 66.800 | |
| 6,200.00 | 6,198.18 | 5,981.82 | 5,980.55 | 22.00 | 21.20 | 120.37 | 99.00 | 1,979.58 | 2,015.88 | 1,985.47 | 30.40 | 66.302 | |
| 6,300.00 | 6,297.80 | 6,058.85 | 6,056.87 | 22.35 | 21.48 | 120.36 | 105.43 | 1,987.72 | 2,031.09 | 2,000.27 | 30.82 | 65.907 | |
| 6,400.00 | 6,397.43 | 6,157.62 | 6,154.69 | 22.71 | 21.83 | 120.34 | 113.95 | 1,998.49 | 2,046.69 | 2,015.38 | 31.31 | 65.362 | |
| 6,500.00 | 6,497.05 | 6,256.40 | 6,252.50 | 23.07 | 22.18 | 120.32 | 122.47 | 2,009.27 | 2,062.30 | 2,030.49 | 31.81 | 64.832 | |
| 6,600.00 | 6,596.67 | 6,355.17 | 6,350.31 | 23.44 | 22.54 | 120.30 | 130.99 | 2,020.05 | 2,077.90 | 2,045.60 | 32.31 | 64.315 | |
| 6,700.00 | 6,696.29 | 6,453.94 | 6,448.12 | 23.80 | 22.90 | 120.28 | 139.51 | 2,030.83 | 2,093.51 | 2,060.70 | 32.81 | 63.812 | |
| 6,800.00 | 6,795.91 | 6,552.71 | 6,545.93 | 24.16 | 23.26 | 120.26 | 148.03 | 2,041.60 | 2,109.11 | 2,075.81 | 33.31 | 63.322 | |
| 6,900.00 | 6,895.53 | 6,651.49 | 6,643.75 | 24.52 | 23.62 | 120.24 | 156.55 | 2,052.38 | 2,124.72 | 2,090.91 | 33.81 | 62.844 | |
| 7,000.00 | 6,995.15 | 6,750.26 | 6,741.56 | 24.89 | 23.99 | 120.22 | 165.07 | 2,063.16 | 2,140.33 | 2,106.01 | 34.31 | 62.379 | |
| 7,100.00 | 7,094.77 | 6,849.03 | 6,839.37 | 25.25 | 24.35 | 120.20 | 173.59 | 2,073.94 | 2,155.93 | 2,121.12 | 34.82 | 61.925 | |
| 7,200.00 | 7,194.39 | 6,947.80 | 6,937.18 | 25.61 | 24.72 | 120.19 | 182.11 | 2,084.71 | 2,171.54 | 2,136.22 | 35.32 | 61.482 | |
| 7,300.00 | 7,294.01 | 7,046.58 | 7,035.00 | 25.98 | 25.09 | 120.17 | 190.63 | 2,095.49 | 2,187.14 | 2,151.32 | 35.82 | 61.051 | |
| 7,400.00 | 7,393.63 | 7,145.35 | 7,132.81 | 26.35 | 25.46 | 120.15 | 199.15 | 2,106.27 | 2,202.75 | 2,166.42 | 36.33 | 60.630 | |
| 7,500.00 | 7,493.25 | 7,244.12 | 7,230.62 | 26.71 | 25.83 | 120.13 | 207.67 | 2,117.05 | 2,218.36 | 2,181.52 | 36.84 | 60.219 | |
| 7,600.00 | 7,592.87 | 7,342.89 | 7,328.43 | 27.08 | 26.20 | 120.11 | 216.19 | 2,127.82 | 2,233.96 | 2,196.62 | 37.35 | 59.818 | |
| 7,700.00 | 7,692.49 | 7,441.66 | 7,426.24 | 27.44 | 26.58 | 120.10 | 224.71 | 2,138.60 | 2,249.57 | 2,211.72 | 37.85 | 59.427 | |
| 7,800.00 | 7,792.11 | 7,540.44 | 7,524.06 | 27.81 | 26.95 | 120.08 | 233.23 | 2,149.38 | 2,265.18 | 2,226.82 | 38.36 | 59.045 | |
| 7,900.00 | 7,891.73 | 7,639.21 | 7,621.87 | 28.18 | 27.33 | 120.06 | 241.75 | 2,160.16 | 2,280.79 | 2,241.91 | 38.87 | 58.672 | |
| 8,000.00 | 7,991.35 | 7,737.98 | 7,719.68 | 28.55 | 27.71 | 120.05 | 250.27 | 2,170.93 | 2,296.39 | 2,257.01 | 39.38 | 58.307 | |
| 8,100.00 | 8,090.97 | 7,854.93 | 7,835.51 | 28.92 | 28.15 | 120.03 | 260.25 | 2,183.55 | 2,311.93 | 2,271.96 | 39.97 | 57.846 | |
| 8,200.00 | 8,190.59 | 8,049.61 | 8,029.11 | 29.28 | 28.88 | 120.10 | 272.82 | 2,199.46 | 2,324.72 | 2,283.90 | 40.82 | 56.950 | |
| 8,226.93 | 8,217.42 | 8,102.31 | 8,081.68 | 29.38 | 29.08 | 120.14 | 275.17 | 2,202.43 | 2,327.47 | 2,286.43 | 41.04 | 56.710 | |
| 8,300.00 | 8,290.27 | 8,245.80 | 8,225.01 | 29.65 | 29.60 | 120.36 | 279.28 | 2,207.64 | 2,333.06 | 2,291.44 | 41.62 | 56.057 | |
| 8,400.00 | 8,390.11 | 8,397.42 | 8,376.61 | 30.02 | 30.13 | 120.56 | 280.18 | 2,208.77 | 2,336.44 | 2,294.18 | 42.26 | 55.290 | |
| 8,500.00 | 8,490.07 | 8,497.37 | 8,476.57 | 30.38 | 30.49 | 120.64 | 280.18 | 2,208.77 | 2,337.91 | 2,295.14 | 42.76 | 54.672 | |
| 8,559.94 | 8,550.00 | 8,557.31 | 8,536.50 | 30.59 | 30.70 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,295.08 | 43.06 | 54.294 | |
| 8,600.00 | 8,590.07 | 8,597.37 | 8,576.57 | 30.73 | 30.84 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,294.88 | 43.27 | 54.042 | |
| 8,700.00 | 8,690.07 | 8,697.37 | 8,676.57 | 31.09 | 31.19 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,294.38 | 43.77 | 53.421 | |
| 8,800.00 | 8,790.07 | 8,797.37 | 8,776.57 | 31.44 | 31.55 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,293.87 | 44.27 | 52.814 | |
| 8,900.00 | 8,890.07 | 8,897.37 | 8,876.57 | 31.80 | 31.90 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,293.37 | 44.77 | 52.221 | |
| 9,000.00 | 8,990.07 | 8,997.37 | 8,976.57 | 32.15 | 32.25 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,292.87 | 45.28 | 51.641 | |
| 9,100.00 | 9,090.07 | 9,097.37 | 9,076.57 | 32.51 | 32.61 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,292.36 | 45.78 | 51.073 | |
| 9,200.00 | 9,190.07 | 9,197.37 | 9,176.57 | 32.87 | 32.96 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,291.86 | 46.28 | 50.518 | |
| 9,300.00 | 9,290.07 | 9,297.37 | 9,276.57 | 33.22 | 33.31 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,291.36 | 46.79 | 49.974 | |
| 9,400.00 | 9,390.07 | 9,397.37 | 9,376.57 | 33.58 | 33.67 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,290.86 | 47.29 | 49.442 | |
| 9,500.00 | 9,490.07 | 9,497.37 | 9,476.57 | 33.93 | 34.02 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,290.35 | 47.79 | 48.922 | |
| 9,600.00 | 9,590.07 | 9,597.37 | 9,576.57 | 34.29 | 34.37 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,289.85 | 48.30 | 48.412 | |
| 9,700.00 | 9,690.07 | 9,697.37 | 9,676.57 | 34.65 | 34.73 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,289.34 | 48.80 | 47.912 | |
| 9,800.00 | 9,790.07 | 9,797.37 | 9,776.57 | 35.00 | 35.08 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,288.84 | 49.30 | 47.423 | |
| 9,900.00 | 9,890.07 | 9,897.37 | 9,876.57 | 35.36 | 35.44 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,288.34 | 49.81 | 46.943 | |
| 10,000.00 | 9,990.07 | 9,997.37 | 9,976.57 | 35.71 | 35.79 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,287.83 | 50.31 | 46.473 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 703H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,100.00 | 10,090.07 | 10,097.37 | 10,076.57 | 36.07 | 36.14 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,287.33 | 50.82 | 46.012 | |
| 10,200.00 | 10,190.07 | 10,197.37 | 10,176.57 | 36.43 | 36.50 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,286.83 | 51.32 | 45.560 | |
| 10,300.00 | 10,290.07 | 10,297.37 | 10,276.57 | 36.78 | 36.85 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,286.32 | 51.82 | 45.117 | |
| 10,400.00 | 10,390.07 | 10,397.37 | 10,376.57 | 37.14 | 37.21 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,285.82 | 52.33 | 44.683 | |
| 10,500.00 | 10,490.07 | 10,497.37 | 10,476.57 | 37.50 | 37.56 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,285.31 | 52.83 | 44.256 | |
| 10,600.00 | 10,590.07 | 10,597.37 | 10,576.57 | 37.85 | 37.92 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,284.81 | 53.34 | 43.838 | |
| 10,700.00 | 10,690.07 | 10,697.37 | 10,676.57 | 38.21 | 38.27 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,284.31 | 53.84 | 43.428 | |
| 10,800.00 | 10,790.07 | 10,797.37 | 10,776.57 | 38.57 | 38.63 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,283.80 | 54.34 | 43.025 | |
| 10,900.00 | 10,890.07 | 10,897.37 | 10,876.57 | 38.92 | 38.98 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,283.30 | 54.85 | 42.629 | |
| 11,000.00 | 10,990.07 | 10,997.37 | 10,976.57 | 39.28 | 39.34 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,282.79 | 55.35 | 42.241 | |
| 11,100.00 | 11,090.07 | 11,097.37 | 11,076.57 | 39.64 | 39.69 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,282.29 | 55.86 | 41.859 | |
| 11,200.00 | 11,190.07 | 11,197.37 | 11,176.57 | 39.99 | 40.05 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,281.78 | 56.36 | 41.485 | |
| 11,300.00 | 11,290.07 | 11,297.37 | 11,276.57 | 40.35 | 40.40 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,281.28 | 56.87 | 41.117 | |
| 11,374.94 | 11,365.00 | 11,372.31 | 11,351.50 | 40.62 | 40.67 | 88.03 | 280.18 | 2,208.77 | 2,338.15 | 2,280.90 | 57.24 | 40.845 | |
| 11,400.00 | 11,390.06 | 11,397.36 | 11,376.56 | 40.70 | 40.76 | -91.47 | 280.18 | 2,208.77 | 2,338.16 | 2,280.79 | 57.37 | 40.758 | |
| 11,450.00 | 11,439.85 | 11,447.16 | 11,426.35 | 40.86 | 40.93 | -91.57 | 280.18 | 2,208.77 | 2,338.28 | 2,280.67 | 57.60 | 40.594 | |
| 11,500.00 | 11,489.07 | 11,496.38 | 11,475.57 | 41.01 | 41.11 | -91.75 | 280.18 | 2,208.77 | 2,338.53 | 2,280.70 | 57.83 | 40.438 | |
| 11,550.00 | 11,537.35 | 11,544.66 | 11,523.85 | 41.15 | 41.28 | -92.01 | 280.18 | 2,208.77 | 2,338.97 | 2,280.92 | 58.05 | 40.291 | |
| 11,600.00 | 11,584.32 | 11,591.63 | 11,570.82 | 41.28 | 41.45 | -92.34 | 280.18 | 2,208.77 | 2,339.67 | 2,281.40 | 58.26 | 40.156 | |
| 11,650.00 | 11,629.62 | 11,643.31 | 11,622.49 | 41.41 | 41.63 | -92.76 | 279.42 | 2,208.78 | 2,340.66 | 2,282.18 | 58.48 | 40.025 | |
| 11,700.00 | 11,672.90 | 11,702.91 | 11,681.75 | 41.53 | 41.81 | -93.24 | 273.27 | 2,208.83 | 2,341.83 | 2,283.14 | 58.69 | 39.899 | |
| 11,750.00 | 11,713.85 | 11,765.89 | 11,743.30 | 41.63 | 42.00 | -93.71 | 260.11 | 2,208.95 | 2,343.11 | 2,284.22 | 58.90 | 39.782 | |
| 11,800.00 | 11,752.13 | 11,832.55 | 11,806.47 | 41.73 | 42.18 | -94.17 | 238.93 | 2,209.13 | 2,344.47 | 2,285.37 | 59.10 | 39.672 | |
| 11,850.00 | 11,787.47 | 11,903.13 | 11,870.19 | 41.82 | 42.35 | -94.61 | 208.67 | 2,209.40 | 2,345.83 | 2,286.55 | 59.29 | 39.568 | |
| 11,900.00 | 11,819.60 | 11,977.75 | 11,932.96 | 41.92 | 42.51 | -95.02 | 168.43 | 2,209.75 | 2,347.14 | 2,287.68 | 59.46 | 39.471 | |
| 11,950.00 | 11,848.26 | 12,056.34 | 11,992.83 | 42.02 | 42.65 | -95.39 | 117.62 | 2,210.20 | 2,348.34 | 2,288.70 | 59.64 | 39.377 | |
| 12,000.00 | 11,873.25 | 12,138.57 | 12,047.41 | 42.13 | 42.76 | -95.69 | 56.21 | 2,210.74 | 2,349.33 | 2,289.53 | 59.81 | 39.283 | |
| 12,050.00 | 11,894.37 | 12,223.82 | 12,094.13 | 42.24 | 42.85 | -95.92 | -15.01 | 2,211.36 | 2,350.07 | 2,290.09 | 59.98 | 39.181 | |
| 12,100.00 | 11,911.46 | 12,311.17 | 12,130.50 | 42.35 | 43.05 | -96.05 | -94.33 | 2,212.06 | 2,350.49 | 2,290.33 | 60.17 | 39.066 | |
| 12,150.00 | 11,924.39 | 12,399.45 | 12,154.58 | 42.47 | 43.26 | -96.07 | -179.16 | 2,212.81 | 2,350.57 | 2,290.20 | 60.37 | 38.934 | |
| 12,200.00 | 11,933.06 | 12,487.37 | 12,165.35 | 42.59 | 43.49 | -95.99 | -266.33 | 2,213.57 | 2,350.30 | 2,289.70 | 60.60 | 38.783 | |
| 12,250.00 | 11,937.42 | 12,545.33 | 12,166.42 | 42.72 | 43.65 | -95.92 | -324.28 | 2,214.08 | 2,349.94 | 2,289.14 | 60.80 | 38.651 | |
| 12,267.34 | 11,937.91 | 12,562.67 | 12,166.65 | 42.76 | 43.69 | -95.92 | -341.62 | 2,214.23 | 2,349.91 | 2,289.05 | 60.86 | 38.610 | |
| 12,268.73 | 11,937.92 | 12,564.06 | 12,166.67 | 42.76 | 43.70 | -95.92 | -343.01 | 2,214.25 | 2,349.91 | 2,289.04 | 60.87 | 38.607 | |
| 12,300.00 | 11,938.26 | 12,595.33 | 12,167.08 | 42.84 | 43.79 | -95.92 | -374.27 | 2,214.52 | 2,349.92 | 2,288.94 | 60.98 | 38.534 | |
| 12,400.00 | 11,939.35 | 12,695.33 | 12,168.40 | 43.15 | 44.13 | -95.92 | -474.26 | 2,215.40 | 2,349.94 | 2,288.52 | 61.42 | 38.258 | |
| 12,500.00 | 11,940.43 | 12,795.33 | 12,169.72 | 43.51 | 44.52 | -95.93 | -574.24 | 2,216.28 | 2,349.97 | 2,288.02 | 61.95 | 37.934 | |
| 12,600.00 | 11,941.51 | 12,895.33 | 12,171.03 | 43.93 | 44.97 | -95.94 | -674.23 | 2,217.16 | 2,349.99 | 2,287.44 | 62.56 | 37.566 | |
| 12,700.00 | 11,942.59 | 12,995.33 | 12,172.35 | 44.41 | 45.47 | -95.94 | -774.22 | 2,218.03 | 2,350.02 | 2,286.78 | 63.24 | 37.159 | |
| 12,800.00 | 11,943.68 | 13,095.33 | 12,173.67 | 44.94 | 46.03 | -95.95 | -874.21 | 2,218.91 | 2,350.04 | 2,286.04 | 64.01 | 36.715 | |
| 12,900.00 | 11,944.76 | 13,195.33 | 12,174.98 | 45.53 | 46.64 | -95.95 | -974.19 | 2,219.79 | 2,350.07 | 2,285.22 | 64.85 | 36.241 | |
| 13,000.00 | 11,945.84 | 13,295.33 | 12,176.30 | 46.17 | 47.30 | -95.96 | -1,074.18 | 2,220.67 | 2,350.09 | 2,284.34 | 65.76 | 35.739 | |
| 13,100.00 | 11,946.92 | 13,395.33 | 12,177.62 | 46.86 | 48.00 | -95.96 | -1,174.17 | 2,221.55 | 2,350.12 | 2,283.38 | 66.74 | 35.216 | |
| 13,200.00 | 11,948.01 | 13,495.33 | 12,178.93 | 47.59 | 48.75 | -95.97 | -1,274.15 | 2,222.43 | 2,350.14 | 2,282.36 | 67.78 | 34.673 | |
| 13,300.00 | 11,949.09 | 13,595.33 | 12,180.25 | 48.37 | 49.55 | -95.98 | -1,374.14 | 2,223.31 | 2,350.17 | 2,281.28 | 68.89 | 34.116 | |
| 13,400.00 | 11,950.17 | 13,695.33 | 12,181.57 | 49.20 | 50.39 | -95.98 | -1,474.13 | 2,224.18 | 2,350.20 | 2,280.14 | 70.05 | 33.548 | |
| 13,500.00 | 11,951.25 | 13,795.33 | 12,182.89 | 50.06 | 51.26 | -95.99 | -1,574.12 | 2,225.06 | 2,350.22 | 2,278.94 | 71.28 | 32.973 | |
| 13,600.00 | 11,952.33 | 13,895.33 | 12,184.20 | 50.97 | 52.17 | -95.99 | -1,674.10 | 2,225.94 | 2,350.25 | 2,277.69 | 72.56 | 32.392 | |
| 13,700.00 | 11,953.42 | 13,995.33 | 12,185.52 | 51.91 | 53.12 | -96.00 | -1,774.09 | 2,226.82 | 2,350.27 | 2,276.39 | 73.88 | 31.810 | |
| 13,800.00 | 11,954.50 | 14,095.33 | 12,186.84 | 52.88 | 54.11 | -96.00 | -1,874.08 | 2,227.70 | 2,350.30 | 2,275.03 | 75.26 | 31.228 | |
| 13,900.00 | 11,955.58 | 14,195.33 | 12,188.15 | 53.89 | 55.12 | -96.01 | -1,974.06 | 2,228.58 | 2,350.32 | 2,273.64 | 76.68 | 30.649 | |
| 14,000.00 | 11,956.66 | 14,295.32 | 12,189.47 | 54.93 | 56.17 | -96.02 | -2,074.05 | 2,229.46 | 2,350.35 | 2,272.20 | 78.15 | 30.075 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 703H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,100.00 | 11,957.75 | 14,395.32 | 12,190.79 | 56.00 | 57.24 | -96.02 | -2,174.04 | 2,230.33 | 2,350.37 | 2,270.71 | 79.66 | 29.506 | |
| 14,200.00 | 11,958.83 | 14,495.32 | 12,192.10 | 57.10 | 58.34 | -96.03 | -2,274.03 | 2,231.21 | 2,350.40 | 2,269.19 | 81.20 | 28.945 | |
| 14,300.00 | 11,959.91 | 14,595.32 | 12,193.42 | 58.22 | 59.47 | -96.03 | -2,374.01 | 2,232.09 | 2,350.42 | 2,267.64 | 82.79 | 28.392 | |
| 14,400.00 | 11,960.99 | 14,695.32 | 12,194.74 | 59.37 | 60.62 | -96.04 | -2,474.00 | 2,232.97 | 2,350.45 | 2,266.05 | 84.40 | 27.848 | |
| 14,500.00 | 11,962.08 | 14,795.32 | 12,196.06 | 60.54 | 61.79 | -96.04 | -2,573.99 | 2,233.85 | 2,350.47 | 2,264.42 | 86.05 | 27.315 | |
| 14,600.00 | 11,963.16 | 14,895.32 | 12,197.37 | 61.73 | 62.98 | -96.05 | -2,673.97 | 2,234.73 | 2,350.50 | 2,262.77 | 87.73 | 26.792 | |
| 14,700.00 | 11,964.24 | 14,995.32 | 12,198.69 | 62.94 | 64.20 | -96.06 | -2,773.96 | 2,235.61 | 2,350.53 | 2,261.09 | 89.44 | 26.281 | |
| 14,800.00 | 11,965.32 | 15,095.32 | 12,200.01 | 64.18 | 65.43 | -96.06 | -2,873.95 | 2,236.48 | 2,350.55 | 2,259.38 | 91.18 | 25.781 | |
| 14,900.00 | 11,966.41 | 15,195.32 | 12,201.32 | 65.43 | 66.68 | -96.07 | -2,973.94 | 2,237.36 | 2,350.58 | 2,257.64 | 92.94 | 25.292 | |
| 15,000.00 | 11,967.49 | 15,295.32 | 12,202.64 | 66.70 | 67.95 | -96.07 | -3,073.92 | 2,238.24 | 2,350.60 | 2,255.88 | 94.72 | 24.816 | |
| 15,100.00 | 11,968.57 | 15,395.32 | 12,203.96 | 67.99 | 69.24 | -96.08 | -3,173.91 | 2,239.12 | 2,350.63 | 2,254.10 | 96.53 | 24.351 | |
| 15,200.00 | 11,969.65 | 15,495.32 | 12,205.27 | 69.29 | 70.54 | -96.08 | -3,273.90 | 2,240.00 | 2,350.65 | 2,252.29 | 98.36 | 23.898 | |
| 15,300.00 | 11,970.74 | 15,595.32 | 12,206.59 | 70.60 | 71.85 | -96.09 | -3,373.88 | 2,240.88 | 2,350.68 | 2,250.47 | 100.21 | 23.457 | |
| 15,400.00 | 11,971.82 | 15,695.32 | 12,207.91 | 71.93 | 73.18 | -96.10 | -3,473.87 | 2,241.76 | 2,350.70 | 2,248.62 | 102.08 | 23.027 | |
| 15,500.00 | 11,972.90 | 15,795.32 | 12,209.22 | 73.28 | 74.52 | -96.10 | -3,573.86 | 2,242.63 | 2,350.73 | 2,246.76 | 103.97 | 22.609 | |
| 15,600.00 | 11,973.98 | 15,895.32 | 12,210.54 | 74.63 | 75.88 | -96.11 | -3,673.85 | 2,243.51 | 2,350.76 | 2,244.88 | 105.88 | 22.203 | |
| 15,700.00 | 11,975.07 | 15,995.32 | 12,211.86 | 76.00 | 77.24 | -96.11 | -3,773.83 | 2,244.39 | 2,350.78 | 2,242.98 | 107.80 | 21.807 | |
| 15,800.00 | 11,976.15 | 16,095.32 | 12,213.18 | 77.38 | 78.62 | -96.12 | -3,873.82 | 2,245.27 | 2,350.81 | 2,241.07 | 109.74 | 21.422 | |
| 15,900.00 | 11,977.23 | 16,195.32 | 12,214.49 | 78.77 | 80.01 | -96.12 | -3,973.81 | 2,246.15 | 2,350.83 | 2,239.14 | 111.69 | 21.048 | |
| 16,000.00 | 11,978.31 | 16,295.32 | 12,215.81 | 80.17 | 81.40 | -96.13 | -4,073.80 | 2,247.03 | 2,350.86 | 2,237.20 | 113.66 | 20.684 | |
| 16,100.00 | 11,979.40 | 16,395.32 | 12,217.13 | 81.57 | 82.81 | -96.14 | -4,173.78 | 2,247.91 | 2,350.89 | 2,235.25 | 115.64 | 20.330 | |
| 16,200.00 | 11,980.48 | 16,495.32 | 12,218.44 | 82.99 | 84.22 | -96.14 | -4,273.77 | 2,248.78 | 2,350.91 | 2,233.28 | 117.63 | 19.986 | |
| 16,300.00 | 11,981.56 | 16,595.32 | 12,219.76 | 84.42 | 85.65 | -96.15 | -4,373.76 | 2,249.66 | 2,350.94 | 2,231.30 | 119.63 | 19.651 | |
| 16,400.00 | 11,982.64 | 16,695.32 | 12,221.08 | 85.85 | 87.08 | -96.15 | -4,473.74 | 2,250.54 | 2,350.96 | 2,229.31 | 121.65 | 19.326 | |
| 16,500.00 | 11,983.73 | 16,795.32 | 12,222.39 | 87.29 | 88.52 | -96.16 | -4,573.73 | 2,251.42 | 2,350.99 | 2,227.31 | 123.68 | 19.009 | |
| 16,600.00 | 11,984.81 | 16,895.32 | 12,223.71 | 88.74 | 89.97 | -96.16 | -4,673.72 | 2,252.30 | 2,351.02 | 2,225.30 | 125.71 | 18.701 | |
| 16,700.00 | 11,985.89 | 16,995.32 | 12,225.03 | 90.20 | 91.42 | -96.17 | -4,773.71 | 2,253.18 | 2,351.04 | 2,223.28 | 127.76 | 18.402 | |
| 16,800.00 | 11,986.97 | 17,095.32 | 12,226.35 | 91.66 | 92.88 | -96.17 | -4,873.69 | 2,254.06 | 2,351.07 | 2,221.25 | 129.82 | 18.111 | |
| 16,900.00 | 11,988.06 | 17,195.32 | 12,227.66 | 93.13 | 94.35 | -96.18 | -4,973.68 | 2,254.93 | 2,351.09 | 2,219.21 | 131.88 | 17.827 | |
| 17,000.00 | 11,989.14 | 17,295.32 | 12,228.98 | 94.61 | 95.82 | -96.19 | -5,073.67 | 2,255.81 | 2,351.12 | 2,217.17 | 133.95 | 17.552 | |
| 17,100.00 | 11,990.22 | 17,395.32 | 12,230.30 | 96.09 | 97.30 | -96.19 | -5,173.65 | 2,256.69 | 2,351.15 | 2,215.11 | 136.04 | 17.283 | |
| 17,200.00 | 11,991.30 | 17,495.32 | 12,231.61 | 97.57 | 98.78 | -96.20 | -5,273.64 | 2,257.57 | 2,351.17 | 2,213.05 | 138.12 | 17.022 | |
| 17,300.00 | 11,992.39 | 17,595.32 | 12,232.93 | 99.06 | 100.27 | -96.20 | -5,373.63 | 2,258.45 | 2,351.20 | 2,210.98 | 140.22 | 16.768 | |
| 17,400.00 | 11,993.47 | 17,695.32 | 12,234.25 | 100.56 | 101.76 | -96.21 | -5,473.62 | 2,259.33 | 2,351.22 | 2,208.90 | 142.32 | 16.520 | |
| 17,500.00 | 11,994.55 | 17,795.32 | 12,235.56 | 102.06 | 103.26 | -96.21 | -5,573.60 | 2,260.21 | 2,351.25 | 2,206.82 | 144.43 | 16.279 | |
| 17,600.00 | 11,995.63 | 17,895.31 | 12,236.88 | 103.57 | 104.77 | -96.22 | -5,673.59 | 2,261.08 | 2,351.28 | 2,204.72 | 146.55 | 16.044 | |
| 17,700.00 | 11,996.72 | 17,995.31 | 12,238.20 | 105.08 | 106.28 | -96.23 | -5,773.58 | 2,261.96 | 2,351.30 | 2,202.63 | 148.67 | 15.815 | |
| 17,800.00 | 11,997.80 | 18,095.31 | 12,239.52 | 106.59 | 107.79 | -96.23 | -5,873.56 | 2,262.84 | 2,351.33 | 2,200.53 | 150.80 | 15.592 | |
| 17,900.00 | 11,998.88 | 18,195.31 | 12,240.83 | 108.11 | 109.30 | -96.24 | -5,973.55 | 2,263.72 | 2,351.36 | 2,198.42 | 152.94 | 15.375 | |
| 18,000.00 | 11,999.96 | 18,295.31 | 12,242.15 | 109.64 | 110.82 | -96.24 | -6,073.54 | 2,264.60 | 2,351.38 | 2,196.30 | 155.08 | 15.163 | |
| 18,100.00 | 12,001.05 | 18,395.31 | 12,243.47 | 111.16 | 112.35 | -96.25 | -6,173.53 | 2,265.48 | 2,351.41 | 2,194.19 | 157.22 | 14.956 | |
| 18,200.00 | 12,002.13 | 18,495.31 | 12,244.78 | 112.69 | 113.88 | -96.25 | -6,273.51 | 2,266.36 | 2,351.43 | 2,192.06 | 159.37 | 14.754 | |
| 18,300.00 | 12,003.21 | 18,595.31 | 12,246.10 | 114.23 | 115.41 | -96.26 | -6,373.50 | 2,267.23 | 2,351.46 | 2,189.93 | 161.53 | 14.558 | |
| 18,400.00 | 12,004.29 | 18,695.31 | 12,247.42 | 115.76 | 116.94 | -96.27 | -6,473.49 | 2,268.11 | 2,351.49 | 2,187.80 | 163.69 | 14.366 | |
| 18,500.00 | 12,005.38 | 18,795.31 | 12,248.73 | 117.30 | 118.48 | -96.27 | -6,573.48 | 2,268.99 | 2,351.51 | 2,185.66 | 165.85 | 14.179 | |
| 18,600.00 | 12,006.46 | 18,895.31 | 12,250.05 | 118.84 | 120.02 | -96.28 | -6,673.46 | 2,269.87 | 2,351.54 | 2,183.52 | 168.02 | 13.996 | |
| 18,700.00 | 12,007.54 | 18,995.31 | 12,251.37 | 120.39 | 121.56 | -96.28 | -6,773.45 | 2,270.75 | 2,351.57 | 2,181.38 | 170.19 | 13.817 | |
| 18,800.00 | 12,008.62 | 19,095.31 | 12,252.69 | 121.94 | 123.11 | -96.29 | -6,873.44 | 2,271.63 | 2,351.59 | 2,179.23 | 172.36 | 13.643 | |
| 18,900.00 | 12,009.71 | 19,195.31 | 12,254.00 | 123.49 | 124.66 | -96.29 | -6,973.42 | 2,272.51 | 2,351.62 | 2,177.08 | 174.54 | 13.473 | |
| 19,000.00 | 12,010.79 | 19,295.31 | 12,255.32 | 125.04 | 126.21 | -96.30 | -7,073.41 | 2,273.38 | 2,351.65 | 2,174.92 | 176.73 | 13.307 | |
| 19,100.00 | 12,011.87 | 19,395.31 | 12,256.64 | 126.60 | 127.77 | -96.31 | -7,173.40 | 2,274.26 | 2,351.67 | 2,172.76 | 178.91 | 13.144 | |
| 19,200.00 | 12,012.95 | 19,495.31 | 12,257.95 | 128.16 | 129.32 | -96.31 | -7,273.39 | 2,275.14 | 2,351.70 | 2,170.60 | 181.10 | 12.985 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Bus Driver/Kasten Fed Com - Kasten Fed Com 703H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,300.00 | 12,014.03 | 19,595.31 | 12,259.27 | 129.72 | 130.88 | -96.32 | -7,373.37 | 2,276.02 | 2,351.73 | 2,168.43 | 183.29 | 12.830 | |
| 19,400.00 | 12,015.12 | 19,695.31 | 12,260.59 | 131.28 | 132.44 | -96.32 | -7,473.36 | 2,276.90 | 2,351.75 | 2,166.26 | 185.49 | 12.679 | |
| 19,500.00 | 12,016.20 | 19,795.31 | 12,261.90 | 132.85 | 134.01 | -96.33 | -7,573.35 | 2,277.78 | 2,351.78 | 2,164.09 | 187.69 | 12.530 | |
| 19,600.00 | 12,017.28 | 19,895.31 | 12,263.22 | 134.42 | 135.57 | -96.33 | -7,673.33 | 2,278.66 | 2,351.81 | 2,161.91 | 189.89 | 12.385 | |
| 19,700.00 | 12,018.36 | 19,995.31 | 12,264.54 | 135.98 | 137.14 | -96.34 | -7,773.32 | 2,279.53 | 2,351.83 | 2,159.74 | 192.10 | 12.243 | |
| 19,800.00 | 12,019.45 | 20,095.31 | 12,265.86 | 137.56 | 138.71 | -96.35 | -7,873.31 | 2,280.41 | 2,351.86 | 2,157.56 | 194.30 | 12.104 | |
| 19,900.00 | 12,020.53 | 20,195.31 | 12,267.17 | 139.13 | 140.28 | -96.35 | -7,973.30 | 2,281.29 | 2,351.89 | 2,155.37 | 196.51 | 11.968 | |
| 20,000.00 | 12,021.61 | 20,295.31 | 12,268.49 | 140.70 | 141.85 | -96.36 | -8,073.28 | 2,282.17 | 2,351.91 | 2,153.19 | 198.73 | 11.835 | |
| 20,100.00 | 12,022.69 | 20,395.31 | 12,269.81 | 142.28 | 143.43 | -96.36 | -8,173.27 | 2,283.05 | 2,351.94 | 2,151.00 | 200.94 | 11.705 | |
| 20,200.00 | 12,023.78 | 20,495.31 | 12,271.12 | 143.86 | 145.00 | -96.37 | -8,273.26 | 2,283.93 | 2,351.97 | 2,148.81 | 203.16 | 11.577 | |
| 20,300.00 | 12,024.86 | 20,595.31 | 12,272.44 | 145.44 | 146.58 | -96.37 | -8,373.24 | 2,284.81 | 2,351.99 | 2,146.62 | 205.38 | 11.452 | |
| 20,400.00 | 12,025.94 | 20,695.31 | 12,273.76 | 147.02 | 148.16 | -96.38 | -8,473.23 | 2,285.68 | 2,352.02 | 2,144.42 | 207.60 | 11.330 | |
| 20,500.00 | 12,027.02 | 20,795.31 | 12,275.07 | 148.61 | 149.75 | -96.39 | -8,573.22 | 2,286.56 | 2,352.05 | 2,142.22 | 209.82 | 11.210 | |
| 20,600.00 | 12,028.11 | 20,895.31 | 12,276.39 | 150.19 | 151.33 | -96.39 | -8,673.21 | 2,287.44 | 2,352.07 | 2,140.03 | 212.05 | 11.092 | |
| 20,700.00 | 12,029.19 | 20,995.31 | 12,277.71 | 151.78 | 152.91 | -96.40 | -8,773.19 | 2,288.32 | 2,352.10 | 2,137.82 | 214.28 | 10.977 | |
| 20,800.00 | 12,030.27 | 21,095.31 | 12,279.03 | 153.36 | 154.50 | -96.40 | -8,873.18 | 2,289.20 | 2,352.13 | 2,135.62 | 216.51 | 10.864 | |
| 20,900.00 | 12,031.35 | 21,195.31 | 12,280.34 | 154.95 | 156.09 | -96.41 | -8,973.17 | 2,290.08 | 2,352.15 | 2,133.42 | 218.74 | 10.753 | |
| 21,000.00 | 12,032.44 | 21,295.31 | 12,281.66 | 156.54 | 157.68 | -96.41 | -9,073.16 | 2,290.96 | 2,352.18 | 2,131.21 | 220.97 | 10.645 | |
| 21,100.00 | 12,033.52 | 21,395.31 | 12,282.98 | 158.14 | 159.27 | -96.42 | -9,173.14 | 2,291.83 | 2,352.21 | 2,129.00 | 223.21 | 10.538 | |
| 21,200.00 | 12,034.60 | 21,495.31 | 12,284.29 | 159.73 | 160.86 | -96.42 | -9,273.13 | 2,292.71 | 2,352.24 | 2,126.79 | 225.44 | 10.434 | |
| 21,300.00 | 12,035.68 | 21,595.30 | 12,285.61 | 161.32 | 162.45 | -96.43 | -9,373.12 | 2,293.59 | 2,352.26 | 2,124.58 | 227.68 | 10.331 | |
| 21,400.00 | 12,036.77 | 21,695.30 | 12,286.93 | 162.92 | 164.04 | -96.44 | -9,473.10 | 2,294.47 | 2,352.29 | 2,122.37 | 229.92 | 10.231 | |
| 21,500.00 | 12,037.85 | 21,795.30 | 12,288.24 | 164.51 | 165.64 | -96.44 | -9,573.09 | 2,295.35 | 2,352.32 | 2,120.16 | 232.16 | 10.132 | |
| 21,600.00 | 12,038.93 | 21,895.30 | 12,289.56 | 166.11 | 167.23 | -96.45 | -9,673.08 | 2,296.23 | 2,352.34 | 2,117.94 | 234.40 | 10.035 | |
| 21,700.00 | 12,040.01 | 21,995.30 | 12,290.88 | 167.71 | 168.83 | -96.45 | -9,773.07 | 2,297.11 | 2,352.37 | 2,115.72 | 236.65 | 9.940 | |
| 21,800.00 | 12,041.10 | 22,095.30 | 12,292.20 | 169.31 | 170.43 | -96.46 | -9,873.05 | 2,297.98 | 2,352.40 | 2,113.50 | 238.89 | 9.847 | |
| 21,900.00 | 12,042.18 | 22,195.30 | 12,293.51 | 170.91 | 172.03 | -96.46 | -9,973.04 | 2,298.86 | 2,352.43 | 2,111.28 | 241.14 | 9.755 | |
| 22,000.00 | 12,043.26 | 22,295.30 | 12,294.83 | 172.51 | 173.63 | -96.47 | -10,073.03 | 2,299.74 | 2,352.45 | 2,109.06 | 243.39 | 9.665 | |
| 22,100.00 | 12,044.34 | 22,395.30 | 12,296.15 | 174.11 | 175.23 | -96.48 | -10,173.01 | 2,300.62 | 2,352.48 | 2,106.84 | 245.64 | 9.577 | |
| 22,200.00 | 12,045.43 | 22,495.30 | 12,297.46 | 175.72 | 176.83 | -96.48 | -10,273.00 | 2,301.50 | 2,352.51 | 2,104.62 | 247.89 | 9.490 | |
| 22,300.00 | 12,046.51 | 22,595.30 | 12,298.78 | 177.32 | 178.43 | -96.49 | -10,372.99 | 2,302.38 | 2,352.54 | 2,102.39 | 250.14 | 9.405 | |
| 22,400.00 | 12,047.59 | 22,695.30 | 12,300.10 | 178.93 | 180.04 | -96.49 | -10,472.98 | 2,303.26 | 2,352.56 | 2,100.17 | 252.40 | 9.321 | |
| 22,500.00 | 12,048.67 | 22,795.30 | 12,301.41 | 180.53 | 181.64 | -96.50 | -10,572.96 | 2,304.13 | 2,352.59 | 2,097.94 | 254.65 | 9.239 | |
| 22,572.67 | 12,049.46 | 22,867.97 | 12,302.37 | 181.70 | 182.81 | -96.50 | -10,645.62 | 2,304.77 | 2,352.61 | 2,096.32 | 256.29 | 9.179 | SF |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Judge Baylor Fed Com - Judge Baylor 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.48 | 0.32 | 34.99 | 34.99 | | | | |
| 100.00 | 100.00 | 99.70 | 99.70 | 0.14 | 0.14 | 89.48 | 0.32 | 34.99 | 34.99 | 34.79 | 0.20 | 175.003 | |
| 200.00 | 200.00 | 199.70 | 199.70 | 0.50 | 0.50 | 89.48 | 0.32 | 34.99 | 34.99 | 34.29 | 0.71 | 49.532 | |
| 300.00 | 300.00 | 299.70 | 299.70 | 0.86 | 0.86 | 89.48 | 0.32 | 34.99 | 34.99 | 33.78 | 1.21 | 28.838 | |
| 400.00 | 400.00 | 399.70 | 399.70 | 1.22 | 1.22 | 89.48 | 0.32 | 34.99 | 34.99 | 33.27 | 1.72 | 20.340 | |
| 500.00 | 500.00 | 499.70 | 499.70 | 1.58 | 1.57 | 89.48 | 0.32 | 34.99 | 34.99 | 32.76 | 2.23 | 15.710 | |
| 600.00 | 600.00 | 599.70 | 599.70 | 1.93 | 1.93 | 89.48 | 0.32 | 34.99 | 34.99 | 32.26 | 2.73 | 12.797 | |
| 700.00 | 700.00 | 699.70 | 699.70 | 2.29 | 2.29 | 89.48 | 0.32 | 34.99 | 34.99 | 31.75 | 3.24 | 10.796 | |
| 800.00 | 800.00 | 799.70 | 799.70 | 2.65 | 2.65 | 89.48 | 0.32 | 34.99 | 34.99 | 31.24 | 3.75 | 9.336 | |
| 900.00 | 900.00 | 899.70 | 899.70 | 3.01 | 3.01 | 89.48 | 0.32 | 34.99 | 34.99 | 30.74 | 4.26 | 8.223 | |
| 1,000.00 | 1,000.00 | 999.70 | 999.70 | 3.37 | 3.37 | 89.48 | 0.32 | 34.99 | 34.99 | 30.23 | 4.76 | 7.348 | |
| 1,100.00 | 1,100.00 | 1,099.70 | 1,099.70 | 3.73 | 3.73 | 89.48 | 0.32 | 34.99 | 34.99 | 29.72 | 5.27 | 6.641 | |
| 1,200.00 | 1,200.00 | 1,199.70 | 1,199.70 | 4.08 | 4.08 | 89.48 | 0.32 | 34.99 | 34.99 | 29.22 | 5.78 | 6.058 | |
| 1,300.00 | 1,300.00 | 1,299.70 | 1,299.70 | 4.44 | 4.44 | 89.48 | 0.32 | 34.99 | 34.99 | 28.71 | 6.28 | 5.569 | |
| 1,400.00 | 1,400.00 | 1,399.70 | 1,399.70 | 4.80 | 4.80 | 89.48 | 0.32 | 34.99 | 34.99 | 28.20 | 6.79 | 5.153 | |
| 1,500.00 | 1,500.00 | 1,499.70 | 1,499.70 | 5.16 | 5.16 | 89.48 | 0.32 | 34.99 | 34.99 | 27.69 | 7.30 | 4.795 | |
| 1,600.00 | 1,600.00 | 1,599.70 | 1,599.70 | 5.52 | 5.52 | 89.48 | 0.32 | 34.99 | 34.99 | 27.19 | 7.80 | 4.484 | |
| 1,700.00 | 1,700.00 | 1,699.70 | 1,699.70 | 5.88 | 5.88 | 89.48 | 0.32 | 34.99 | 34.99 | 26.68 | 8.31 | 4.210 | |
| 1,800.00 | 1,800.00 | 1,799.70 | 1,799.70 | 6.24 | 6.23 | 89.48 | 0.32 | 34.99 | 34.99 | 26.17 | 8.82 | 3.968 | |
| 1,900.00 | 1,900.00 | 1,899.70 | 1,899.70 | 6.59 | 6.59 | 89.48 | 0.32 | 34.99 | 34.99 | 25.67 | 9.32 | 3.753 | |
| 2,000.00 | 2,000.00 | 1,999.70 | 1,999.70 | 6.95 | 6.95 | 89.48 | 0.32 | 34.99 | 34.99 | 25.16 | 9.83 | 3.559 | |
| 2,100.00 | 2,100.00 | 2,099.70 | 2,099.70 | 7.31 | 7.31 | 89.48 | 0.32 | 34.99 | 34.99 | 24.65 | 10.34 | 3.385 | |
| 2,200.00 | 2,200.00 | 2,199.70 | 2,199.70 | 7.67 | 7.67 | 89.48 | 0.32 | 34.99 | 34.99 | 24.15 | 10.85 | 3.226 | |
| 2,300.00 | 2,300.00 | 2,299.70 | 2,299.70 | 8.03 | 8.03 | 89.48 | 0.32 | 34.99 | 34.99 | 23.64 | 11.35 | 3.082 | |
| 2,400.00 | 2,400.00 | 2,399.70 | 2,399.70 | 8.39 | 8.39 | 89.48 | 0.32 | 34.99 | 34.99 | 23.13 | 11.86 | 2.951 | |
| 2,500.00 | 2,500.00 | 2,499.70 | 2,499.70 | 8.74 | 8.74 | 89.48 | 0.32 | 34.99 | 34.99 | 22.63 | 12.37 | 2.830 | |
| 2,600.00 | 2,600.00 | 2,599.70 | 2,599.70 | 9.10 | 9.10 | 89.48 | 0.32 | 34.99 | 34.99 | 22.12 | 12.87 | 2.718 | |
| 2,700.00 | 2,700.00 | 2,699.70 | 2,699.70 | 9.46 | 9.46 | 89.48 | 0.32 | 34.99 | 34.99 | 21.61 | 13.38 | 2.615 | |
| 2,800.00 | 2,800.00 | 2,799.70 | 2,799.70 | 9.82 | 9.82 | 89.48 | 0.32 | 34.99 | 34.99 | 21.10 | 13.89 | 2.520 | |
| 2,900.00 | 2,900.00 | 2,899.70 | 2,899.70 | 10.18 | 10.18 | 89.48 | 0.32 | 34.99 | 34.99 | 20.60 | 14.39 | 2.431 | |
| 3,000.00 | 3,000.00 | 2,999.70 | 2,999.70 | 10.54 | 10.54 | 89.48 | 0.32 | 34.99 | 34.99 | 20.09 | 14.90 | 2.348 | |
| 3,100.00 | 3,100.00 | 3,099.70 | 3,099.70 | 10.90 | 10.89 | 89.48 | 0.32 | 34.99 | 34.99 | 19.58 | 15.41 | 2.271 | |
| 3,200.00 | 3,200.00 | 3,199.70 | 3,199.70 | 11.25 | 11.25 | 89.48 | 0.32 | 34.99 | 34.99 | 19.08 | 15.92 | 2.199 | |
| 3,300.00 | 3,300.00 | 3,299.70 | 3,299.70 | 11.61 | 11.61 | 89.48 | 0.32 | 34.99 | 34.99 | 18.57 | 16.42 | 2.131 | |
| 3,400.00 | 3,400.00 | 3,399.70 | 3,399.70 | 11.97 | 11.97 | 89.48 | 0.32 | 34.99 | 34.99 | 18.06 | 16.93 | 2.067 | |
| 3,500.00 | 3,500.00 | 3,499.70 | 3,499.70 | 12.33 | 12.33 | 89.48 | 0.32 | 34.99 | 34.99 | 17.56 | 17.44 | 2.007 | |
| 3,600.00 | 3,600.00 | 3,599.70 | 3,599.70 | 12.69 | 12.69 | 89.48 | 0.32 | 34.99 | 34.99 | 17.05 | 17.94 | 1.950 | |
| 3,700.00 | 3,700.00 | 3,699.70 | 3,699.70 | 13.05 | 13.05 | 89.48 | 0.32 | 34.99 | 34.99 | 16.54 | 18.45 | 1.897 | |
| 3,800.00 | 3,800.00 | 3,799.70 | 3,799.70 | 13.41 | 13.40 | 89.48 | 0.32 | 34.99 | 34.99 | 16.03 | 18.96 | 1.846 | |
| 3,900.00 | 3,900.00 | 3,899.70 | 3,899.70 | 13.76 | 13.76 | 89.48 | 0.32 | 34.99 | 34.99 | 15.53 | 19.46 | 1.798 | |
| 4,000.00 | 4,000.00 | 3,999.70 | 3,999.70 | 14.12 | 14.12 | 89.48 | 0.32 | 34.99 | 34.99 | 15.02 | 19.97 | 1.752 | |
| 4,100.00 | 4,100.00 | 4,099.70 | 4,099.70 | 14.48 | 14.48 | 89.48 | 0.32 | 34.99 | 34.99 | 14.51 | 20.48 | 1.709 | |
| 4,200.00 | 4,200.00 | 4,199.70 | 4,199.70 | 14.84 | 14.84 | 89.48 | 0.32 | 34.99 | 34.99 | 14.01 | 20.98 | 1.667 | |
| 4,300.00 | 4,300.00 | 4,299.70 | 4,299.70 | 15.20 | 15.20 | 89.48 | 0.32 | 34.99 | 34.99 | 13.50 | 21.49 | 1.628 | |
| 4,400.00 | 4,400.00 | 4,399.70 | 4,399.70 | 15.56 | 15.55 | 89.48 | 0.32 | 34.99 | 34.99 | 12.99 | 22.00 | 1.591 | |
| 4,500.00 | 4,500.00 | 4,499.70 | 4,499.70 | 15.91 | 15.91 | 89.48 | 0.32 | 34.99 | 34.99 | 12.49 | 22.51 | 1.555 | |
| 4,600.00 | 4,600.00 | 4,599.70 | 4,599.70 | 16.27 | 16.27 | 89.48 | 0.32 | 34.99 | 34.99 | 11.98 | 23.01 | 1.521 | CC, ES, SF |
| 4,700.00 | 4,700.00 | 4,699.13 | 4,699.12 | 16.63 | 16.63 | 87.83 | 1.35 | 35.76 | 35.79 | 12.27 | 23.51 | 1.522 | |
| 4,800.00 | 4,800.00 | 4,798.43 | 4,798.34 | 16.99 | 16.98 | 83.31 | 4.46 | 38.06 | 38.34 | 14.35 | 23.99 | 1.598 | |
| 4,900.00 | 4,900.00 | 4,897.45 | 4,897.15 | 17.35 | 17.33 | 77.06 | 9.63 | 41.88 | 43.04 | 18.59 | 24.45 | 1.760 | |
| 5,000.00 | 5,000.00 | 4,996.76 | 4,996.10 | 17.71 | 17.68 | 70.68 | 16.45 | 46.93 | 49.86 | 24.93 | 24.93 | 2.000 | |
| 5,100.00 | 5,100.00 | 5,096.38 | 5,095.34 | 18.07 | 18.04 | 65.78 | 23.44 | 52.10 | 57.29 | 31.86 | 25.43 | 2.253 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Judge Baylor Fed Com - Judge Baylor 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 5,200.00 | 5,196.00 | 5,194.58 | 18.42 | 18.39 | 62.02 | 30.42 | 57.27 | 65.05 | 39.12 | 25.93 | 2.509 | |
| 5,300.00 | 5,300.00 | 5,295.62 | 5,293.81 | 18.78 | 18.75 | 59.07 | 37.41 | 62.44 | 73.02 | 46.59 | 26.43 | 2.763 | |
| 5,400.00 | 5,400.00 | 5,395.24 | 5,393.05 | 19.14 | 19.11 | 56.71 | 44.40 | 67.61 | 81.15 | 54.22 | 26.94 | 3.013 | |
| 5,500.00 | 5,500.00 | 5,494.86 | 5,492.29 | 19.50 | 19.47 | 54.78 | 51.38 | 72.78 | 89.39 | 61.95 | 27.44 | 3.258 | |
| 5,600.00 | 5,599.99 | 5,594.50 | 5,591.56 | 19.86 | 19.83 | 86.44 | 58.37 | 77.95 | 97.63 | 69.69 | 27.94 | 3.494 | |
| 5,700.00 | 5,699.91 | 5,694.17 | 5,690.84 | 20.21 | 20.19 | 87.03 | 65.36 | 83.12 | 105.72 | 77.27 | 28.45 | 3.716 | |
| 5,800.00 | 5,799.69 | 5,793.77 | 5,790.07 | 20.57 | 20.55 | 88.84 | 72.34 | 88.29 | 113.75 | 84.80 | 28.95 | 3.929 | |
| 5,833.01 | 5,832.58 | 5,826.62 | 5,822.79 | 20.69 | 20.67 | 89.66 | 74.65 | 89.99 | 116.42 | 87.30 | 29.12 | 3.998 | |
| 5,900.00 | 5,899.32 | 5,893.29 | 5,889.21 | 20.92 | 20.91 | 91.43 | 79.32 | 93.45 | 121.93 | 92.47 | 29.46 | 4.139 | |
| 6,000.00 | 5,998.94 | 5,992.80 | 5,988.34 | 21.28 | 21.27 | 93.79 | 86.30 | 98.62 | 130.34 | 100.37 | 29.97 | 4.349 | |
| 6,100.00 | 6,098.56 | 6,092.31 | 6,087.47 | 21.64 | 21.63 | 95.86 | 93.28 | 103.78 | 138.94 | 108.47 | 30.47 | 4.559 | |
| 6,200.00 | 6,198.18 | 6,191.82 | 6,186.60 | 22.00 | 21.99 | 97.69 | 100.26 | 108.94 | 147.70 | 116.72 | 30.98 | 4.767 | |
| 6,300.00 | 6,297.80 | 6,291.33 | 6,285.73 | 22.35 | 22.36 | 99.31 | 107.24 | 114.11 | 156.60 | 125.11 | 31.49 | 4.973 | |
| 6,400.00 | 6,397.43 | 6,390.85 | 6,384.87 | 22.71 | 22.72 | 100.76 | 114.21 | 119.27 | 165.60 | 133.61 | 32.00 | 5.175 | |
| 6,500.00 | 6,497.05 | 6,490.36 | 6,484.00 | 23.07 | 23.09 | 102.05 | 121.19 | 124.44 | 174.70 | 142.20 | 32.51 | 5.374 | |
| 6,600.00 | 6,596.67 | 6,589.87 | 6,583.13 | 23.44 | 23.45 | 103.22 | 128.17 | 129.60 | 183.88 | 150.87 | 33.02 | 5.569 | |
| 6,700.00 | 6,696.29 | 6,689.38 | 6,682.26 | 23.80 | 23.82 | 104.28 | 135.15 | 134.76 | 193.13 | 159.60 | 33.53 | 5.760 | |
| 6,800.00 | 6,795.91 | 6,788.89 | 6,781.39 | 24.16 | 24.18 | 105.24 | 142.13 | 139.93 | 202.44 | 168.40 | 34.04 | 5.947 | |
| 6,900.00 | 6,895.53 | 6,888.40 | 6,880.52 | 24.52 | 24.55 | 106.11 | 149.10 | 145.09 | 211.80 | 177.25 | 34.55 | 6.130 | |
| 7,000.00 | 6,995.15 | 6,987.91 | 6,979.66 | 24.89 | 24.92 | 106.92 | 156.08 | 150.25 | 221.21 | 186.14 | 35.06 | 6.309 | |
| 7,100.00 | 7,094.77 | 7,087.42 | 7,078.79 | 25.25 | 25.28 | 107.65 | 163.06 | 155.42 | 230.65 | 195.07 | 35.57 | 6.484 | |
| 7,200.00 | 7,194.39 | 7,186.93 | 7,177.92 | 25.61 | 25.65 | 108.33 | 170.04 | 160.58 | 240.13 | 204.04 | 36.09 | 6.654 | |
| 7,300.00 | 7,294.01 | 7,286.45 | 7,277.05 | 25.98 | 26.02 | 108.96 | 177.02 | 165.75 | 249.64 | 213.04 | 36.60 | 6.821 | |
| 7,400.00 | 7,393.63 | 7,385.96 | 7,376.18 | 26.35 | 26.39 | 109.54 | 184.00 | 170.91 | 259.17 | 222.06 | 37.11 | 6.983 | |
| 7,500.00 | 7,493.25 | 7,487.35 | 7,477.20 | 26.71 | 26.76 | 110.11 | 190.97 | 176.07 | 268.62 | 230.97 | 37.65 | 7.136 | |
| 7,600.00 | 7,592.87 | 7,592.57 | 7,582.21 | 27.08 | 27.15 | 110.97 | 196.41 | 180.09 | 276.49 | 238.29 | 38.20 | 7.238 | |
| 7,700.00 | 7,692.49 | 7,697.91 | 7,687.47 | 27.44 | 27.53 | 112.19 | 199.51 | 182.39 | 282.41 | 243.67 | 38.74 | 7.290 | |
| 7,800.00 | 7,792.11 | 7,802.26 | 7,791.81 | 27.81 | 27.90 | 113.74 | 200.32 | 182.99 | 286.51 | 247.24 | 39.26 | 7.297 | |
| 7,900.00 | 7,891.73 | 7,901.88 | 7,891.43 | 28.18 | 28.25 | 115.30 | 200.32 | 182.99 | 290.13 | 250.36 | 39.77 | 7.295 | |
| 8,000.00 | 7,991.35 | 8,001.50 | 7,991.05 | 28.55 | 28.61 | 116.83 | 200.32 | 182.99 | 293.97 | 253.69 | 40.28 | 7.297 | |
| 8,100.00 | 8,090.97 | 8,101.12 | 8,090.67 | 28.92 | 28.96 | 118.32 | 200.32 | 182.99 | 298.01 | 257.22 | 40.79 | 7.305 | |
| 8,200.00 | 8,190.59 | 8,200.74 | 8,190.29 | 29.28 | 29.31 | 119.77 | 200.32 | 182.99 | 302.25 | 260.95 | 41.30 | 7.318 | |
| 8,226.93 | 8,217.42 | 8,227.56 | 8,217.12 | 29.38 | 29.41 | 120.16 | 200.32 | 182.99 | 303.43 | 261.99 | 41.44 | 7.322 | |
| 8,300.00 | 8,290.27 | 8,300.41 | 8,289.97 | 29.65 | 29.67 | 121.11 | 200.32 | 182.99 | 306.32 | 264.51 | 41.81 | 7.326 | |
| 8,400.00 | 8,390.11 | 8,400.26 | 8,389.81 | 30.02 | 30.02 | 122.01 | 200.32 | 182.99 | 309.20 | 266.88 | 42.32 | 7.306 | |
| 8,500.00 | 8,490.07 | 8,500.22 | 8,489.77 | 30.38 | 30.37 | 122.48 | 200.32 | 182.99 | 310.74 | 267.91 | 42.82 | 7.256 | |
| 8,559.94 | 8,550.00 | 8,560.15 | 8,549.70 | 30.59 | 30.59 | 89.94 | 200.32 | 182.99 | 310.99 | 267.86 | 43.13 | 7.211 | |
| 8,600.00 | 8,590.07 | 8,600.21 | 8,589.77 | 30.73 | 30.73 | 89.94 | 200.32 | 182.99 | 310.99 | 267.66 | 43.33 | 7.178 | |
| 8,700.00 | 8,690.07 | 8,700.21 | 8,689.77 | 31.09 | 31.09 | 89.94 | 200.32 | 182.99 | 310.99 | 267.16 | 43.83 | 7.095 | |
| 8,800.00 | 8,790.07 | 8,800.21 | 8,789.77 | 31.44 | 31.44 | 89.94 | 200.32 | 182.99 | 310.99 | 266.66 | 44.33 | 7.015 | |
| 8,900.00 | 8,890.07 | 8,900.21 | 8,889.77 | 31.80 | 31.80 | 89.94 | 200.32 | 182.99 | 310.99 | 266.15 | 44.84 | 6.936 | |
| 9,000.00 | 8,990.07 | 9,000.21 | 8,989.77 | 32.15 | 32.15 | 89.94 | 200.32 | 182.99 | 310.99 | 265.65 | 45.34 | 6.859 | |
| 9,100.00 | 9,090.07 | 9,100.21 | 9,089.77 | 32.51 | 32.51 | 89.94 | 200.32 | 182.99 | 310.99 | 265.15 | 45.84 | 6.784 | |
| 9,200.00 | 9,190.07 | 9,200.21 | 9,189.77 | 32.87 | 32.86 | 89.94 | 200.32 | 182.99 | 310.99 | 264.64 | 46.35 | 6.710 | |
| 9,300.00 | 9,290.07 | 9,300.21 | 9,289.77 | 33.22 | 33.22 | 89.94 | 200.32 | 182.99 | 310.99 | 264.14 | 46.85 | 6.638 | |
| 9,400.00 | 9,390.07 | 9,400.21 | 9,389.77 | 33.58 | 33.57 | 89.94 | 200.32 | 182.99 | 310.99 | 263.63 | 47.36 | 6.567 | |
| 9,500.00 | 9,490.07 | 9,500.21 | 9,489.77 | 33.93 | 33.93 | 89.94 | 200.32 | 182.99 | 310.99 | 263.13 | 47.86 | 6.498 | |
| 9,600.00 | 9,590.07 | 9,600.21 | 9,589.77 | 34.29 | 34.28 | 89.94 | 200.32 | 182.99 | 310.99 | 262.63 | 48.36 | 6.430 | |
| 9,700.00 | 9,690.07 | 9,700.21 | 9,689.77 | 34.65 | 34.64 | 89.94 | 200.32 | 182.99 | 310.99 | 262.12 | 48.87 | 6.364 | |
| 9,800.00 | 9,790.07 | 9,800.21 | 9,789.77 | 35.00 | 35.00 | 89.94 | 200.32 | 182.99 | 310.99 | 261.62 | 49.37 | 6.299 | |
| 9,900.00 | 9,890.07 | 9,900.21 | 9,889.77 | 35.36 | 35.35 | 89.94 | 200.32 | 182.99 | 310.99 | 261.11 | 49.88 | 6.235 | |
| 10,000.00 | 9,990.07 | 10,000.21 | 9,989.77 | 35.71 | 35.71 | 89.94 | 200.32 | 182.99 | 310.99 | 260.61 | 50.38 | 6.173 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Judge Baylor Fed Com - Judge Baylor 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,100.00 | 10,090.07 | 10,100.21 | 10,089.77 | 36.07 | 36.06 | 89.94 | 200.32 | 182.99 | 310.99 | 260.11 | 50.88 | 6.112 | |
| 10,200.00 | 10,190.07 | 10,200.21 | 10,189.77 | 36.43 | 36.42 | 89.94 | 200.32 | 182.99 | 310.99 | 259.60 | 51.39 | 6.052 | |
| 10,300.00 | 10,290.07 | 10,300.21 | 10,289.77 | 36.78 | 36.78 | 89.94 | 200.32 | 182.99 | 310.99 | 259.10 | 51.89 | 5.993 | |
| 10,400.00 | 10,390.07 | 10,400.21 | 10,389.77 | 37.14 | 37.13 | 89.94 | 200.32 | 182.99 | 310.99 | 258.59 | 52.40 | 5.935 | |
| 10,500.00 | 10,490.07 | 10,500.21 | 10,489.77 | 37.50 | 37.49 | 89.94 | 200.32 | 182.99 | 310.99 | 258.09 | 52.90 | 5.879 | |
| 10,600.00 | 10,590.07 | 10,600.21 | 10,589.77 | 37.85 | 37.85 | 89.94 | 200.32 | 182.99 | 310.99 | 257.58 | 53.41 | 5.823 | |
| 10,700.00 | 10,690.07 | 10,700.21 | 10,689.77 | 38.21 | 38.20 | 89.94 | 200.32 | 182.99 | 310.99 | 257.08 | 53.91 | 5.769 | |
| 10,800.00 | 10,790.07 | 10,800.21 | 10,789.77 | 38.57 | 38.56 | 89.94 | 200.32 | 182.99 | 310.99 | 256.57 | 54.42 | 5.715 | |
| 10,900.00 | 10,890.07 | 10,900.21 | 10,889.77 | 38.92 | 38.91 | 89.94 | 200.32 | 182.99 | 310.99 | 256.07 | 54.92 | 5.663 | |
| 11,000.00 | 10,990.07 | 11,000.21 | 10,989.77 | 39.28 | 39.27 | 89.94 | 200.32 | 182.99 | 310.99 | 255.57 | 55.42 | 5.611 | |
| 11,100.00 | 11,090.07 | 11,100.21 | 11,089.77 | 39.64 | 39.63 | 89.94 | 200.32 | 182.99 | 310.99 | 255.06 | 55.93 | 5.560 | |
| 11,200.00 | 11,190.07 | 11,200.21 | 11,189.77 | 39.99 | 39.98 | 89.94 | 200.32 | 182.99 | 310.99 | 254.56 | 56.43 | 5.511 | |
| 11,300.00 | 11,290.07 | 11,300.21 | 11,289.77 | 40.35 | 40.34 | 89.94 | 200.32 | 182.99 | 310.99 | 254.05 | 56.94 | 5.462 | |
| 11,374.94 | 11,365.00 | 11,375.15 | 11,364.70 | 40.62 | 40.61 | 89.94 | 200.32 | 182.99 | 310.99 | 253.67 | 57.32 | 5.426 | |
| 11,400.00 | 11,390.06 | 11,400.21 | 11,389.76 | 40.70 | 40.70 | -89.66 | 200.32 | 182.99 | 310.99 | 253.55 | 57.44 | 5.414 | |
| 11,427.50 | 11,417.49 | 11,427.64 | 11,417.19 | 40.79 | 40.79 | -90.00 | 200.32 | 182.99 | 310.98 | 253.41 | 57.57 | 5.402 | |
| 11,450.00 | 11,439.85 | 11,450.00 | 11,439.55 | 40.86 | 40.87 | -90.46 | 200.32 | 182.99 | 310.99 | 253.32 | 57.68 | 5.392 | |
| 11,500.00 | 11,489.07 | 11,499.22 | 11,488.77 | 41.01 | 41.05 | -92.01 | 200.32 | 182.99 | 311.18 | 253.28 | 57.90 | 5.374 | |
| 11,550.00 | 11,537.35 | 11,547.50 | 11,537.05 | 41.15 | 41.22 | -94.23 | 200.32 | 182.99 | 311.92 | 253.79 | 58.13 | 5.366 | |
| 11,600.00 | 11,584.32 | 11,594.47 | 11,584.02 | 41.28 | 41.39 | -96.98 | 200.32 | 182.99 | 313.70 | 255.36 | 58.34 | 5.377 | |
| 11,650.00 | 11,629.62 | 11,639.77 | 11,629.32 | 41.41 | 41.55 | -100.08 | 200.32 | 182.99 | 317.17 | 258.63 | 58.54 | 5.418 | |
| 11,700.00 | 11,672.90 | 11,685.50 | 11,675.05 | 41.53 | 41.71 | -103.52 | 200.10 | 182.99 | 322.97 | 264.23 | 58.74 | 5.498 | |
| 11,750.00 | 11,713.85 | 11,737.53 | 11,726.92 | 41.63 | 41.88 | -107.32 | 196.28 | 183.03 | 330.80 | 271.91 | 58.89 | 5.617 | |
| 11,800.00 | 11,752.13 | 11,792.73 | 11,781.33 | 41.73 | 42.04 | -111.01 | 187.11 | 183.10 | 340.28 | 281.34 | 58.94 | 5.773 | |
| 11,850.00 | 11,787.47 | 11,851.63 | 11,838.13 | 41.82 | 42.21 | -114.56 | 171.60 | 183.24 | 351.09 | 292.27 | 58.82 | 5.969 | |
| 11,900.00 | 11,819.60 | 11,914.83 | 11,896.95 | 41.92 | 42.38 | -117.97 | 148.58 | 183.44 | 362.84 | 304.38 | 58.46 | 6.207 | |
| 11,950.00 | 11,848.26 | 11,982.95 | 11,957.09 | 42.02 | 42.54 | -121.19 | 116.67 | 183.72 | 375.09 | 317.29 | 57.80 | 6.490 | |
| 12,000.00 | 11,873.25 | 12,056.62 | 12,017.37 | 42.13 | 42.70 | -124.19 | 74.41 | 184.08 | 387.31 | 330.51 | 56.79 | 6.820 | |
| 12,050.00 | 11,894.37 | 12,136.37 | 12,075.93 | 42.24 | 42.84 | -126.91 | 20.37 | 184.55 | 398.93 | 343.46 | 55.47 | 7.191 | |
| 12,100.00 | 11,911.46 | 12,222.44 | 12,130.05 | 42.35 | 43.00 | -129.28 | -46.45 | 185.13 | 409.36 | 355.41 | 53.94 | 7.589 | |
| 12,150.00 | 11,924.39 | 12,314.65 | 12,176.23 | 42.47 | 43.21 | -131.19 | -126.14 | 185.82 | 417.96 | 365.56 | 52.40 | 7.976 | |
| 12,200.00 | 11,933.06 | 12,412.16 | 12,210.50 | 42.59 | 43.43 | -132.56 | -217.30 | 186.62 | 424.19 | 373.03 | 51.16 | 8.292 | |
| 12,250.00 | 11,937.42 | 12,513.37 | 12,229.22 | 42.72 | 43.67 | -133.31 | -316.63 | 187.48 | 427.58 | 377.05 | 50.53 | 8.463 | |
| 12,268.73 | 11,937.92 | 12,551.81 | 12,231.69 | 42.76 | 43.77 | -133.41 | -354.98 | 187.81 | 428.05 | 377.55 | 50.50 | 8.476 | |
| 12,300.00 | 11,938.26 | 12,588.95 | 12,232.20 | 42.84 | 43.86 | -133.42 | -392.11 | 188.13 | 428.09 | 377.50 | 50.59 | 8.463 | |
| 12,400.00 | 11,939.35 | 12,688.95 | 12,233.29 | 43.15 | 44.16 | -133.42 | -492.10 | 189.00 | 428.08 | 377.19 | 50.90 | 8.411 | |
| 12,500.00 | 11,940.43 | 12,788.95 | 12,234.37 | 43.51 | 44.51 | -133.42 | -592.09 | 189.87 | 428.08 | 376.81 | 51.27 | 8.350 | |
| 12,600.00 | 11,941.51 | 12,888.95 | 12,235.45 | 43.93 | 44.92 | -133.43 | -692.08 | 190.74 | 428.07 | 376.37 | 51.70 | 8.280 | |
| 12,700.00 | 11,942.59 | 12,988.95 | 12,236.53 | 44.41 | 45.38 | -133.43 | -792.07 | 191.61 | 428.06 | 375.87 | 52.19 | 8.202 | |
| 12,800.00 | 11,943.68 | 13,088.95 | 12,237.62 | 44.94 | 45.90 | -133.43 | -892.06 | 192.48 | 428.06 | 375.32 | 52.74 | 8.117 | |
| 12,900.00 | 11,944.76 | 13,188.95 | 12,238.70 | 45.53 | 46.47 | -133.43 | -992.05 | 193.34 | 428.05 | 374.71 | 53.34 | 8.025 | |
| 13,000.00 | 11,945.84 | 13,288.95 | 12,239.78 | 46.17 | 47.10 | -133.43 | -1,092.04 | 194.21 | 428.04 | 374.05 | 53.99 | 7.928 | |
| 13,100.00 | 11,946.92 | 13,388.95 | 12,240.87 | 46.86 | 47.77 | -133.43 | -1,192.03 | 195.08 | 428.04 | 373.34 | 54.70 | 7.826 | |
| 13,200.00 | 11,948.01 | 13,488.95 | 12,241.95 | 47.59 | 48.49 | -133.43 | -1,292.03 | 195.95 | 428.03 | 372.58 | 55.45 | 7.719 | |
| 13,300.00 | 11,949.09 | 13,588.95 | 12,243.03 | 48.37 | 49.25 | -133.43 | -1,392.02 | 196.82 | 428.02 | 371.77 | 56.25 | 7.609 | |
| 13,400.00 | 11,950.17 | 13,688.95 | 12,244.11 | 49.20 | 50.06 | -133.43 | -1,492.01 | 197.69 | 428.02 | 370.92 | 57.09 | 7.497 | |
| 13,500.00 | 11,951.25 | 13,788.95 | 12,245.20 | 50.06 | 50.90 | -133.43 | -1,592.00 | 198.55 | 428.01 | 370.03 | 57.98 | 7.382 | |
| 13,600.00 | 11,952.33 | 13,888.95 | 12,246.28 | 50.97 | 51.79 | -133.43 | -1,691.99 | 199.42 | 428.00 | 369.10 | 58.91 | 7.266 | |
| 13,700.00 | 11,953.42 | 13,988.95 | 12,247.36 | 51.91 | 52.71 | -133.44 | -1,791.98 | 200.29 | 428.00 | 368.13 | 59.87 | 7.149 | |
| 13,800.00 | 11,954.50 | 14,088.95 | 12,248.45 | 52.88 | 53.67 | -133.44 | -1,891.97 | 201.16 | 427.99 | 367.12 | 60.87 | 7.031 | |
| 13,900.00 | 11,955.58 | 14,188.95 | 12,249.53 | 53.89 | 54.66 | -133.44 | -1,991.96 | 202.03 | 427.98 | 366.08 | 61.90 | 6.914 | |
| 14,000.00 | 11,956.66 | 14,288.95 | 12,250.61 | 54.93 | 55.69 | -133.44 | -2,091.95 | 202.90 | 427.98 | 365.01 | 62.97 | 6.797 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Judge Baylor Fed Com - Judge Baylor 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,100.00 | 11,957.75 | 14,388.95 | 12,251.69 | 56.00 | 56.74 | -133.44 | -2,191.94 | 203.76 | 427.97 | 363.91 | 64.06 | 6.680 | |
| 14,200.00 | 11,958.83 | 14,488.95 | 12,252.78 | 57.10 | 57.82 | -133.44 | -2,291.93 | 204.63 | 427.96 | 362.78 | 65.19 | 6.565 | |
| 14,300.00 | 11,959.91 | 14,588.95 | 12,253.86 | 58.22 | 58.92 | -133.44 | -2,391.92 | 205.50 | 427.96 | 361.62 | 66.34 | 6.451 | |
| 14,400.00 | 11,960.99 | 14,688.95 | 12,254.94 | 59.37 | 60.06 | -133.44 | -2,491.91 | 206.37 | 427.95 | 360.44 | 67.51 | 6.339 | |
| 14,500.00 | 11,962.08 | 14,788.95 | 12,256.03 | 60.54 | 61.21 | -133.44 | -2,591.90 | 207.24 | 427.94 | 359.23 | 68.71 | 6.228 | |
| 14,600.00 | 11,963.16 | 14,888.95 | 12,257.11 | 61.73 | 62.39 | -133.44 | -2,691.89 | 208.11 | 427.94 | 358.01 | 69.93 | 6.119 | |
| 14,700.00 | 11,964.24 | 14,988.95 | 12,258.19 | 62.94 | 63.59 | -133.44 | -2,791.88 | 208.97 | 427.93 | 356.76 | 71.17 | 6.013 | |
| 14,800.00 | 11,965.32 | 15,088.95 | 12,259.27 | 64.18 | 64.81 | -133.45 | -2,891.87 | 209.84 | 427.93 | 355.49 | 72.43 | 5.908 | |
| 14,900.00 | 11,966.41 | 15,188.95 | 12,260.36 | 65.43 | 66.05 | -133.45 | -2,991.86 | 210.71 | 427.92 | 354.21 | 73.71 | 5.805 | |
| 15,000.00 | 11,967.49 | 15,288.95 | 12,261.44 | 66.70 | 67.30 | -133.45 | -3,091.85 | 211.58 | 427.91 | 352.91 | 75.01 | 5.705 | |
| 15,100.00 | 11,968.57 | 15,388.95 | 12,262.52 | 67.99 | 68.57 | -133.45 | -3,191.84 | 212.45 | 427.91 | 351.59 | 76.32 | 5.607 | |
| 15,200.00 | 11,969.65 | 15,488.95 | 12,263.61 | 69.29 | 69.86 | -133.45 | -3,291.83 | 213.32 | 427.90 | 350.26 | 77.64 | 5.511 | |
| 15,300.00 | 11,970.74 | 15,588.95 | 12,264.69 | 70.60 | 71.17 | -133.45 | -3,391.82 | 214.18 | 427.89 | 348.91 | 78.98 | 5.418 | |
| 15,400.00 | 11,971.82 | 15,688.95 | 12,265.77 | 71.93 | 72.48 | -133.45 | -3,491.81 | 215.05 | 427.89 | 347.55 | 80.33 | 5.326 | |
| 15,500.00 | 11,972.90 | 15,788.95 | 12,266.85 | 73.28 | 73.81 | -133.45 | -3,591.80 | 215.92 | 427.88 | 346.18 | 81.70 | 5.237 | |
| 15,600.00 | 11,973.98 | 15,888.95 | 12,267.94 | 74.63 | 75.16 | -133.45 | -3,691.79 | 216.79 | 427.87 | 344.80 | 83.07 | 5.151 | |
| 15,700.00 | 11,975.07 | 15,988.95 | 12,269.02 | 76.00 | 76.51 | -133.45 | -3,791.78 | 217.66 | 427.87 | 343.41 | 84.46 | 5.066 | |
| 15,800.00 | 11,976.15 | 16,088.95 | 12,270.10 | 77.38 | 77.88 | -133.45 | -3,891.77 | 218.53 | 427.86 | 342.00 | 85.86 | 4.983 | |
| 15,900.00 | 11,977.23 | 16,188.95 | 12,271.19 | 78.77 | 79.26 | -133.46 | -3,991.77 | 219.39 | 427.85 | 340.59 | 87.26 | 4.903 | |
| 16,000.00 | 11,978.31 | 16,288.95 | 12,272.27 | 80.17 | 80.65 | -133.46 | -4,091.76 | 220.26 | 427.85 | 339.17 | 88.67 | 4.825 | |
| 16,100.00 | 11,979.40 | 16,388.95 | 12,273.35 | 81.57 | 82.05 | -133.46 | -4,191.75 | 221.13 | 427.84 | 337.75 | 90.09 | 4.749 | |
| 16,200.00 | 11,980.48 | 16,488.95 | 12,274.43 | 82.99 | 83.45 | -133.46 | -4,291.74 | 222.00 | 427.83 | 336.31 | 91.52 | 4.675 | |
| 16,300.00 | 11,981.56 | 16,588.95 | 12,275.52 | 84.42 | 84.87 | -133.46 | -4,391.73 | 222.87 | 427.83 | 334.87 | 92.96 | 4.602 | |
| 16,400.00 | 11,982.64 | 16,688.95 | 12,276.60 | 85.85 | 86.30 | -133.46 | -4,491.72 | 223.74 | 427.82 | 333.42 | 94.40 | 4.532 | |
| 16,500.00 | 11,983.73 | 16,788.95 | 12,277.68 | 87.29 | 87.73 | -133.46 | -4,591.71 | 224.60 | 427.81 | 331.97 | 95.84 | 4.464 | |
| 16,600.00 | 11,984.81 | 16,888.95 | 12,278.77 | 88.74 | 89.17 | -133.46 | -4,691.70 | 225.47 | 427.81 | 330.51 | 97.30 | 4.397 | |
| 16,700.00 | 11,985.89 | 16,988.95 | 12,279.85 | 90.20 | 90.62 | -133.46 | -4,791.69 | 226.34 | 427.80 | 329.05 | 98.75 | 4.332 | |
| 16,800.00 | 11,986.97 | 17,088.95 | 12,280.93 | 91.66 | 92.07 | -133.46 | -4,891.68 | 227.21 | 427.79 | 327.58 | 100.21 | 4.269 | |
| 16,900.00 | 11,988.06 | 17,188.95 | 12,282.01 | 93.13 | 93.53 | -133.46 | -4,991.67 | 228.08 | 427.79 | 326.11 | 101.68 | 4.207 | |
| 17,000.00 | 11,989.14 | 17,288.95 | 12,283.10 | 94.61 | 95.00 | -133.47 | -5,091.66 | 228.95 | 427.78 | 324.63 | 103.15 | 4.147 | |
| 17,100.00 | 11,990.22 | 17,388.95 | 12,284.18 | 96.09 | 96.47 | -133.47 | -5,191.65 | 229.81 | 427.77 | 323.15 | 104.62 | 4.089 | |
| 17,200.00 | 11,991.30 | 17,488.95 | 12,285.26 | 97.57 | 97.95 | -133.47 | -5,291.64 | 230.68 | 427.77 | 321.67 | 106.10 | 4.032 | |
| 17,300.00 | 11,992.39 | 17,588.95 | 12,286.34 | 99.06 | 99.44 | -133.47 | -5,391.63 | 231.55 | 427.76 | 320.19 | 107.57 | 3.976 | |
| 17,400.00 | 11,993.47 | 17,688.95 | 12,287.43 | 100.56 | 100.93 | -133.47 | -5,491.62 | 232.42 | 427.75 | 318.70 | 109.05 | 3.922 | |
| 17,500.00 | 11,994.55 | 17,788.95 | 12,288.51 | 102.06 | 102.42 | -133.47 | -5,591.61 | 233.29 | 427.75 | 317.21 | 110.54 | 3.870 | |
| 17,600.00 | 11,995.63 | 17,888.95 | 12,289.59 | 103.57 | 103.92 | -133.47 | -5,691.60 | 234.16 | 427.74 | 315.72 | 112.02 | 3.818 | |
| 17,700.00 | 11,996.72 | 17,988.95 | 12,290.68 | 105.08 | 105.42 | -133.47 | -5,791.59 | 235.02 | 427.73 | 314.23 | 113.51 | 3.768 | |
| 17,800.00 | 11,997.80 | 18,088.95 | 12,291.76 | 106.59 | 106.93 | -133.47 | -5,891.58 | 235.89 | 427.73 | 312.73 | 115.00 | 3.719 | |
| 17,900.00 | 11,998.88 | 18,188.95 | 12,292.84 | 108.11 | 108.45 | -133.47 | -5,991.57 | 236.76 | 427.72 | 311.24 | 116.48 | 3.672 | |
| 18,000.00 | 11,999.96 | 18,288.95 | 12,293.92 | 109.64 | 109.96 | -133.47 | -6,091.56 | 237.63 | 427.71 | 309.74 | 117.98 | 3.625 | |
| 18,100.00 | 12,001.05 | 18,388.95 | 12,295.01 | 111.16 | 111.48 | -133.48 | -6,191.55 | 238.50 | 427.71 | 308.24 | 119.47 | 3.580 | |
| 18,200.00 | 12,002.13 | 18,488.95 | 12,296.09 | 112.69 | 113.01 | -133.48 | -6,291.54 | 239.37 | 427.70 | 306.74 | 120.96 | 3.536 | |
| 18,300.00 | 12,003.21 | 18,588.95 | 12,297.17 | 114.23 | 114.53 | -133.48 | -6,391.53 | 240.23 | 427.69 | 305.24 | 122.45 | 3.493 | |
| 18,400.00 | 12,004.29 | 18,688.95 | 12,298.26 | 115.76 | 116.07 | -133.48 | -6,491.52 | 241.10 | 427.69 | 303.74 | 123.94 | 3.451 | |
| 18,500.00 | 12,005.38 | 18,788.95 | 12,299.34 | 117.30 | 117.60 | -133.48 | -6,591.51 | 241.97 | 427.68 | 302.24 | 125.44 | 3.410 | |
| 18,600.00 | 12,006.46 | 18,888.95 | 12,300.42 | 118.84 | 119.14 | -133.48 | -6,691.51 | 242.84 | 427.67 | 300.74 | 126.93 | 3.369 | |
| 18,700.00 | 12,007.54 | 18,988.95 | 12,301.50 | 120.39 | 120.68 | -133.48 | -6,791.50 | 243.71 | 427.67 | 299.24 | 128.42 | 3.330 | |
| 18,800.00 | 12,008.62 | 19,088.95 | 12,302.59 | 121.94 | 122.22 | -133.48 | -6,891.49 | 244.57 | 427.66 | 297.74 | 129.92 | 3.292 | |
| 18,900.00 | 12,009.71 | 19,188.95 | 12,303.67 | 123.49 | 123.77 | -133.48 | -6,991.48 | 245.44 | 427.65 | 296.25 | 131.41 | 3.254 | |
| 19,000.00 | 12,010.79 | 19,288.95 | 12,304.75 | 125.04 | 125.32 | -133.48 | -7,091.47 | 246.31 | 427.65 | 294.75 | 132.90 | 3.218 | |
| 19,100.00 | 12,011.87 | 19,388.95 | 12,305.84 | 126.60 | 126.87 | -133.48 | -7,191.46 | 247.18 | 427.64 | 293.25 | 134.39 | 3.182 | |
| 19,200.00 | 12,012.95 | 19,488.95 | 12,306.92 | 128.16 | 128.42 | -133.49 | -7,291.45 | 248.05 | 427.63 | 291.75 | 135.88 | 3.147 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** Judge Baylor Fed Com - Judge Baylor 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 Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,300.00 | 12,014.03 | 19,588.95 | 12,308.00 | 129.72 | 129.98 | -133.49 | -7,391.44 | 248.92 | 427.63 | 290.25 | 137.37 | 3.113 | |
| 19,400.00 | 12,015.12 | 19,688.95 | 12,309.08 | 131.28 | 131.54 | -133.49 | -7,491.43 | 249.78 | 427.62 | 288.76 | 138.86 | 3.079 | |
| 19,500.00 | 12,016.20 | 19,788.95 | 12,310.17 | 132.85 | 133.10 | -133.49 | -7,591.42 | 250.65 | 427.62 | 287.26 | 140.35 | 3.047 | |
| 19,600.00 | 12,017.28 | 19,888.95 | 12,311.25 | 134.42 | 134.66 | -133.49 | -7,691.41 | 251.52 | 427.61 | 285.77 | 141.84 | 3.015 | |
| 19,700.00 | 12,018.36 | 19,988.95 | 12,312.33 | 135.98 | 136.23 | -133.49 | -7,791.40 | 252.39 | 427.60 | 284.28 | 143.33 | 2.983 | |
| 19,800.00 | 12,019.45 | 20,088.95 | 12,313.42 | 137.56 | 137.80 | -133.49 | -7,891.39 | 253.26 | 427.60 | 282.78 | 144.81 | 2.953 | |
| 19,900.00 | 12,020.53 | 20,188.95 | 12,314.50 | 139.13 | 139.37 | -133.49 | -7,991.38 | 254.13 | 427.59 | 281.29 | 146.30 | 2.923 | |
| 20,000.00 | 12,021.61 | 20,288.95 | 12,315.58 | 140.70 | 140.94 | -133.49 | -8,091.37 | 254.99 | 427.58 | 279.80 | 147.78 | 2.893 | |
| 20,100.00 | 12,022.69 | 20,388.95 | 12,316.66 | 142.28 | 142.51 | -133.49 | -8,191.36 | 255.86 | 427.58 | 278.31 | 149.26 | 2.865 | |
| 20,200.00 | 12,023.78 | 20,488.95 | 12,317.75 | 143.86 | 144.09 | -133.49 | -8,291.35 | 256.73 | 427.57 | 276.83 | 150.74 | 2.836 | |
| 20,300.00 | 12,024.86 | 20,588.95 | 12,318.83 | 145.44 | 145.66 | -133.50 | -8,391.34 | 257.60 | 427.56 | 275.34 | 152.22 | 2.809 | |
| 20,400.00 | 12,025.94 | 20,688.95 | 12,319.91 | 147.02 | 147.24 | -133.50 | -8,491.33 | 258.47 | 427.56 | 273.86 | 153.70 | 2.782 | |
| 20,500.00 | 12,027.02 | 20,788.95 | 12,321.00 | 148.61 | 148.82 | -133.50 | -8,591.32 | 259.34 | 427.55 | 272.38 | 155.17 | 2.755 | |
| 20,600.00 | 12,028.11 | 20,888.95 | 12,322.08 | 150.19 | 150.40 | -133.50 | -8,691.31 | 260.20 | 427.54 | 270.90 | 156.65 | 2.729 | |
| 20,700.00 | 12,029.19 | 20,988.95 | 12,323.16 | 151.78 | 151.99 | -133.50 | -8,791.30 | 261.07 | 427.54 | 269.42 | 158.12 | 2.704 | |
| 20,800.00 | 12,030.27 | 21,088.95 | 12,324.24 | 153.36 | 153.57 | -133.50 | -8,891.29 | 261.94 | 427.53 | 267.94 | 159.59 | 2.679 | |
| 20,900.00 | 12,031.35 | 21,188.95 | 12,325.33 | 154.95 | 155.16 | -133.50 | -8,991.28 | 262.81 | 427.52 | 266.47 | 161.06 | 2.654 | |
| 21,000.00 | 12,032.44 | 21,288.95 | 12,326.41 | 156.54 | 156.74 | -133.50 | -9,091.27 | 263.68 | 427.52 | 264.99 | 162.52 | 2.630 | |
| 21,100.00 | 12,033.52 | 21,388.95 | 12,327.49 | 158.14 | 158.33 | -133.50 | -9,191.26 | 264.55 | 427.51 | 263.52 | 163.99 | 2.607 | |
| 21,200.00 | 12,034.60 | 21,488.95 | 12,328.58 | 159.73 | 159.92 | -133.50 | -9,291.25 | 265.41 | 427.50 | 262.05 | 165.45 | 2.584 | |
| 21,300.00 | 12,035.68 | 21,588.95 | 12,329.66 | 161.32 | 161.51 | -133.50 | -9,391.24 | 266.28 | 427.50 | 260.58 | 166.91 | 2.561 | |
| 21,400.00 | 12,036.77 | 21,688.95 | 12,330.74 | 162.92 | 163.11 | -133.51 | -9,491.24 | 267.15 | 427.49 | 259.12 | 168.37 | 2.539 | |
| 21,500.00 | 12,037.85 | 21,788.95 | 12,331.82 | 164.51 | 164.70 | -133.51 | -9,591.23 | 268.02 | 427.48 | 257.65 | 169.83 | 2.517 | |
| 21,600.00 | 12,038.93 | 21,888.95 | 12,332.91 | 166.11 | 166.29 | -133.51 | -9,691.22 | 268.89 | 427.48 | 256.19 | 171.29 | 2.496 | |
| 21,700.00 | 12,040.01 | 21,988.95 | 12,333.99 | 167.71 | 167.89 | -133.51 | -9,791.21 | 269.76 | 427.47 | 254.73 | 172.74 | 2.475 | |
| 21,800.00 | 12,041.10 | 22,088.95 | 12,335.07 | 169.31 | 169.49 | -133.51 | -9,891.20 | 270.62 | 427.46 | 253.27 | 174.19 | 2.454 | |
| 21,900.00 | 12,042.18 | 22,188.95 | 12,336.16 | 170.91 | 171.09 | -133.51 | -9,991.19 | 271.49 | 427.46 | 251.82 | 175.64 | 2.434 | |
| 22,000.00 | 12,043.26 | 22,288.95 | 12,337.24 | 172.51 | 172.68 | -133.51 | -10,091.18 | 272.36 | 427.45 | 250.36 | 177.09 | 2.414 | |
| 22,100.00 | 12,044.34 | 22,388.95 | 12,338.32 | 174.11 | 174.28 | -133.51 | -10,191.17 | 273.23 | 427.44 | 248.91 | 178.53 | 2.394 | |
| 22,200.00 | 12,045.43 | 22,488.95 | 12,339.40 | 175.72 | 175.89 | -133.51 | -10,291.16 | 274.10 | 427.44 | 247.46 | 179.98 | 2.375 | |
| 22,300.00 | 12,046.51 | 22,588.95 | 12,340.49 | 177.32 | 177.49 | -133.51 | -10,391.15 | 274.97 | 427.43 | 246.01 | 181.42 | 2.356 | |
| 22,400.00 | 12,047.59 | 22,688.95 | 12,341.57 | 178.93 | 179.09 | -133.51 | -10,491.14 | 275.83 | 427.42 | 244.57 | 182.86 | 2.337 | |
| 22,500.00 | 12,048.67 | 22,788.95 | 12,342.65 | 180.53 | 180.69 | -133.52 | -10,591.13 | 276.70 | 427.42 | 243.12 | 184.29 | 2.319 | |
| 22,572.67 | 12,049.46 | 22,861.62 | 12,343.44 | 181.70 | 181.86 | -133.52 | -10,663.79 | 277.33 | 427.41 | 242.08 | 185.34 | 2.306 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.47 | 39.87 | 4,274.67 | 4,275.03 | | | | |
| 100.00 | 100.00 | 61.50 | 61.50 | 0.14 | 0.09 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,274.69 | 0.17 | N/A | |
| 200.00 | 200.00 | 161.50 | 161.50 | 0.50 | 0.36 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,274.24 | 0.62 | 6,924.236 | |
| 300.00 | 300.00 | 261.50 | 261.50 | 0.86 | 0.72 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,273.74 | 1.12 | 3,814.023 | |
| 400.00 | 400.00 | 361.50 | 361.50 | 1.22 | 1.08 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,273.23 | 1.63 | 2,628.327 | |
| 500.00 | 500.00 | 461.50 | 461.50 | 1.58 | 1.44 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,272.72 | 2.13 | 2,004.421 | |
| 600.00 | 600.00 | 561.50 | 561.50 | 1.93 | 1.80 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,272.22 | 2.64 | 1,619.730 | |
| 700.00 | 700.00 | 661.50 | 661.50 | 2.29 | 2.15 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,271.71 | 3.15 | 1,358.864 | |
| 800.00 | 800.00 | 761.50 | 761.50 | 2.65 | 2.51 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,271.20 | 3.65 | 1,170.344 | |
| 900.00 | 900.00 | 861.50 | 861.50 | 3.01 | 2.87 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,270.70 | 4.16 | 1,027.746 | |
| 1,000.00 | 1,000.00 | 961.50 | 961.50 | 3.37 | 3.23 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,270.19 | 4.67 | 916.117 | |
| 1,100.00 | 1,100.00 | 1,061.50 | 1,061.50 | 3.73 | 3.59 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,269.68 | 5.17 | 826.357 | |
| 1,200.00 | 1,200.00 | 1,161.50 | 1,161.50 | 4.08 | 3.95 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,269.18 | 5.68 | 752.615 | |
| 1,300.00 | 1,300.00 | 1,261.50 | 1,261.50 | 4.44 | 4.31 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,268.67 | 6.19 | 690.954 | |
| 1,400.00 | 1,400.00 | 1,361.50 | 1,361.50 | 4.80 | 4.66 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,268.16 | 6.69 | 638.630 | |
| 1,500.00 | 1,500.00 | 1,461.50 | 1,461.50 | 5.16 | 5.02 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,267.66 | 7.20 | 593.673 | |
| 1,600.00 | 1,600.00 | 1,561.50 | 1,561.50 | 5.52 | 5.38 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,267.15 | 7.71 | 554.628 | |
| 1,700.00 | 1,700.00 | 1,661.50 | 1,661.50 | 5.88 | 5.74 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,266.64 | 8.21 | 520.402 | |
| 1,800.00 | 1,800.00 | 1,761.50 | 1,761.50 | 6.24 | 6.10 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,266.13 | 8.72 | 490.155 | |
| 1,900.00 | 1,900.00 | 1,861.50 | 1,861.50 | 6.59 | 6.46 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,265.63 | 9.23 | 463.230 | |
| 2,000.00 | 2,000.00 | 1,961.50 | 1,961.50 | 6.95 | 6.81 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,265.12 | 9.74 | 439.109 | |
| 2,100.00 | 2,100.00 | 2,061.50 | 2,061.50 | 7.31 | 7.17 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,264.61 | 10.24 | 417.376 | |
| 2,200.00 | 2,200.00 | 2,161.50 | 2,161.50 | 7.67 | 7.53 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,264.11 | 10.75 | 397.692 | |
| 2,300.00 | 2,300.00 | 2,261.50 | 2,261.50 | 8.03 | 7.89 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,263.60 | 11.26 | 379.781 | |
| 2,400.00 | 2,400.00 | 2,361.50 | 2,361.50 | 8.39 | 8.25 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,263.09 | 11.76 | 363.414 | |
| 2,500.00 | 2,500.00 | 2,461.50 | 2,461.50 | 8.74 | 8.61 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,262.59 | 12.27 | 348.400 | |
| 2,600.00 | 2,600.00 | 2,561.50 | 2,561.50 | 9.10 | 8.97 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,262.08 | 12.78 | 334.577 | |
| 2,700.00 | 2,700.00 | 2,661.50 | 2,661.50 | 9.46 | 9.32 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,261.57 | 13.28 | 321.808 | |
| 2,800.00 | 2,800.00 | 2,761.50 | 2,761.50 | 9.82 | 9.68 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,261.07 | 13.79 | 309.979 | |
| 2,900.00 | 2,900.00 | 2,861.50 | 2,861.50 | 10.18 | 10.04 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,260.56 | 14.30 | 298.988 | |
| 3,000.00 | 3,000.00 | 2,961.50 | 2,961.50 | 10.54 | 10.40 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,260.05 | 14.80 | 288.750 | |
| 3,100.00 | 3,100.00 | 3,061.50 | 3,061.50 | 10.90 | 10.76 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,259.54 | 15.31 | 279.190 | |
| 3,200.00 | 3,200.00 | 3,161.50 | 3,161.50 | 11.25 | 11.12 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,259.04 | 15.82 | 270.243 | |
| 3,300.00 | 3,300.00 | 3,261.50 | 3,261.50 | 11.61 | 11.47 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,258.53 | 16.33 | 261.851 | |
| 3,400.00 | 3,400.00 | 3,361.50 | 3,361.50 | 11.97 | 11.83 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,258.02 | 16.83 | 253.965 | |
| 3,500.00 | 3,500.00 | 3,461.50 | 3,461.50 | 12.33 | 12.19 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,257.52 | 17.34 | 246.540 | |
| 3,600.00 | 3,600.00 | 3,561.50 | 3,561.50 | 12.69 | 12.55 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,257.01 | 17.85 | 239.537 | |
| 3,700.00 | 3,700.00 | 3,661.50 | 3,661.50 | 13.05 | 12.91 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,256.50 | 18.35 | 232.920 | |
| 3,800.00 | 3,800.00 | 3,761.50 | 3,761.50 | 13.41 | 13.27 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,256.00 | 18.86 | 226.659 | |
| 3,900.00 | 3,900.00 | 3,861.50 | 3,861.50 | 13.76 | 13.63 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,255.49 | 19.37 | 220.727 | |
| 4,000.00 | 4,000.00 | 3,961.50 | 3,961.50 | 14.12 | 13.98 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,254.98 | 19.87 | 215.096 | |
| 4,100.00 | 4,100.00 | 4,061.50 | 4,061.50 | 14.48 | 14.34 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,254.47 | 20.38 | 209.746 | |
| 4,200.00 | 4,200.00 | 4,161.50 | 4,161.50 | 14.84 | 14.70 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,253.97 | 20.89 | 204.656 | |
| 4,300.00 | 4,300.00 | 4,261.50 | 4,261.50 | 15.20 | 15.06 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,253.46 | 21.40 | 199.806 | |
| 4,400.00 | 4,400.00 | 4,361.50 | 4,361.50 | 15.56 | 15.42 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,252.95 | 21.90 | 195.181 | |
| 4,500.00 | 4,500.00 | 4,461.50 | 4,461.50 | 15.91 | 15.78 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,252.45 | 22.41 | 190.766 | |
| 4,600.00 | 4,600.00 | 4,561.50 | 4,561.50 | 16.27 | 16.13 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,251.94 | 22.92 | 186.546 | |
| 4,700.00 | 4,700.00 | 4,661.50 | 4,661.50 | 16.63 | 16.49 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,251.43 | 23.42 | 182.508 | |
| 4,800.00 | 4,800.00 | 4,761.50 | 4,761.50 | 16.99 | 16.85 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,250.93 | 23.93 | 178.642 | |
| 4,900.00 | 4,900.00 | 4,861.50 | 4,861.50 | 17.35 | 17.21 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,250.42 | 24.44 | 174.936 | |
| 5,000.00 | 5,000.00 | 4,961.50 | 4,961.50 | 17.71 | 17.57 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,249.91 | 24.94 | 171.380 | |
| 5,100.00 | 5,100.00 | 5,061.50 | 5,061.50 | 18.07 | 17.93 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,249.41 | 25.45 | 167.967 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 5,200.00 | 5,161.50 | 5,161.50 | 18.42 | 18.29 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,248.90 | 25.96 | 164.686 | |
| 5,300.00 | 5,300.00 | 5,261.50 | 5,261.50 | 18.78 | 18.64 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,248.39 | 26.46 | 161.532 | |
| 5,400.00 | 5,400.00 | 5,361.50 | 5,361.50 | 19.14 | 19.00 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,247.88 | 26.97 | 158.495 | |
| 5,500.00 | 5,500.00 | 5,461.50 | 5,461.50 | 19.50 | 19.36 | 89.47 | 39.87 | 4,274.67 | 4,274.86 | 4,247.38 | 27.48 | 155.571 | |
| 5,600.00 | 5,599.99 | 5,695.58 | 5,695.49 | 19.86 | 20.19 | 122.08 | 43.80 | 4,271.57 | 4,274.59 | 4,246.28 | 28.31 | 151.000 | |
| 5,700.00 | 5,699.91 | 5,935.57 | 5,934.64 | 20.21 | 21.05 | 122.01 | 59.21 | 4,259.39 | 4,271.32 | 4,242.19 | 29.13 | 146.647 | |
| 5,800.00 | 5,799.69 | 6,035.48 | 6,034.01 | 20.57 | 21.40 | 122.01 | 67.40 | 4,252.92 | 4,268.38 | 4,238.75 | 29.63 | 144.072 | |
| 5,833.01 | 5,832.58 | 6,068.48 | 6,066.83 | 20.69 | 21.52 | 122.01 | 70.11 | 4,250.78 | 4,267.72 | 4,237.93 | 29.79 | 143.251 | |
| 5,900.00 | 5,899.32 | 6,135.46 | 6,133.44 | 20.92 | 21.76 | 122.01 | 75.61 | 4,246.44 | 4,266.52 | 4,236.40 | 30.13 | 141.615 | |
| 6,000.00 | 5,998.94 | 6,235.44 | 6,232.87 | 21.28 | 22.12 | 121.99 | 83.81 | 4,239.96 | 4,264.74 | 4,234.11 | 30.63 | 139.235 | |
| 6,100.00 | 6,098.56 | 6,335.42 | 6,332.31 | 21.64 | 22.48 | 121.98 | 92.01 | 4,233.48 | 4,262.96 | 4,231.83 | 31.13 | 136.927 | |
| 6,200.00 | 6,198.18 | 6,435.40 | 6,431.74 | 22.00 | 22.84 | 121.97 | 100.21 | 4,227.00 | 4,261.18 | 4,229.54 | 31.64 | 134.688 | |
| 6,300.00 | 6,297.80 | 6,535.38 | 6,531.17 | 22.35 | 23.20 | 121.96 | 108.41 | 4,220.52 | 4,259.40 | 4,227.25 | 32.14 | 132.515 | |
| 6,400.00 | 6,397.43 | 6,635.36 | 6,630.60 | 22.71 | 23.57 | 121.95 | 116.62 | 4,214.04 | 4,257.61 | 4,224.96 | 32.65 | 130.405 | |
| 6,500.00 | 6,497.05 | 6,735.34 | 6,730.03 | 23.07 | 23.93 | 121.93 | 124.82 | 4,207.56 | 4,255.83 | 4,222.68 | 33.16 | 128.356 | |
| 6,600.00 | 6,596.67 | 6,835.32 | 6,829.47 | 23.44 | 24.30 | 121.92 | 133.02 | 4,201.08 | 4,254.05 | 4,220.39 | 33.66 | 126.365 | |
| 6,700.00 | 6,696.29 | 6,935.30 | 6,928.90 | 23.80 | 24.66 | 121.91 | 141.22 | 4,194.60 | 4,252.27 | 4,218.10 | 34.17 | 124.431 | |
| 6,800.00 | 6,795.91 | 7,035.28 | 7,028.33 | 24.16 | 25.03 | 121.90 | 149.42 | 4,188.12 | 4,250.49 | 4,215.81 | 34.68 | 122.550 | |
| 6,900.00 | 6,895.53 | 7,135.26 | 7,127.76 | 24.52 | 25.40 | 121.89 | 157.63 | 4,181.64 | 4,248.71 | 4,213.51 | 35.19 | 120.721 | |
| 7,000.00 | 6,995.15 | 7,235.24 | 7,227.19 | 24.89 | 25.76 | 121.87 | 165.83 | 4,175.16 | 4,246.93 | 4,211.22 | 35.71 | 118.942 | |
| 7,100.00 | 7,094.77 | 7,335.22 | 7,326.63 | 25.25 | 26.13 | 121.86 | 174.03 | 4,168.68 | 4,245.15 | 4,208.93 | 36.22 | 117.211 | |
| 7,200.00 | 7,194.39 | 7,435.20 | 7,426.06 | 25.61 | 26.50 | 121.85 | 182.23 | 4,162.20 | 4,243.37 | 4,206.64 | 36.73 | 115.526 | |
| 7,300.00 | 7,294.01 | 7,535.18 | 7,525.49 | 25.98 | 26.87 | 121.84 | 190.44 | 4,155.72 | 4,241.59 | 4,204.34 | 37.24 | 113.886 | |
| 7,400.00 | 7,393.63 | 7,635.16 | 7,624.92 | 26.35 | 27.24 | 121.82 | 198.64 | 4,149.24 | 4,239.81 | 4,202.05 | 37.76 | 112.288 | |
| 7,500.00 | 7,493.25 | 7,735.14 | 7,724.36 | 26.71 | 27.61 | 121.81 | 206.84 | 4,142.76 | 4,238.03 | 4,199.76 | 38.27 | 110.731 | |
| 7,600.00 | 7,592.87 | 7,835.12 | 7,823.79 | 27.08 | 27.99 | 121.80 | 215.04 | 4,136.28 | 4,236.25 | 4,197.46 | 38.79 | 109.214 | |
| 7,700.00 | 7,692.49 | 7,935.10 | 7,923.22 | 27.44 | 28.36 | 121.79 | 223.24 | 4,129.80 | 4,234.47 | 4,195.17 | 39.30 | 107.735 | |
| 7,800.00 | 7,792.11 | 8,000.00 | 7,987.81 | 27.81 | 28.60 | 121.79 | 228.17 | 4,125.91 | 4,233.15 | 4,193.41 | 39.74 | 106.521 | |
| 7,889.50 | 7,881.27 | 8,049.28 | 8,036.93 | 28.14 | 28.78 | 121.79 | 231.33 | 4,123.41 | 4,232.76 | 4,192.66 | 40.11 | 105.538 CC | |
| 7,900.00 | 7,891.73 | 8,055.56 | 8,043.18 | 28.18 | 28.80 | 121.79 | 231.70 | 4,123.12 | 4,232.77 | 4,192.62 | 40.15 | 105.422 | |
| 8,000.00 | 7,991.35 | 8,100.00 | 8,087.53 | 28.55 | 28.97 | 121.80 | 234.07 | 4,121.25 | 4,233.39 | 4,192.86 | 40.53 | 104.447 | |
| 8,100.00 | 8,090.97 | 8,174.93 | 8,162.35 | 28.92 | 29.24 | 121.84 | 237.15 | 4,118.82 | 4,234.87 | 4,193.89 | 40.98 | 103.334 | |
| 8,200.00 | 8,190.59 | 8,234.50 | 8,221.89 | 29.28 | 29.45 | 121.88 | 238.78 | 4,117.53 | 4,237.36 | 4,195.96 | 41.39 | 102.369 | |
| 8,226.93 | 8,217.42 | 8,250.53 | 8,237.91 | 29.38 | 29.51 | 121.89 | 239.09 | 4,117.29 | 4,238.19 | 4,196.68 | 41.50 | 102.118 | |
| 8,300.00 | 8,290.27 | 8,300.00 | 8,287.37 | 29.65 | 29.69 | 121.95 | 239.72 | 4,116.78 | 4,240.43 | 4,198.62 | 41.82 | 101.409 | |
| 8,400.00 | 8,390.11 | 8,364.24 | 8,351.61 | 30.02 | 29.92 | 122.02 | 239.87 | 4,116.67 | 4,243.08 | 4,200.85 | 42.23 | 100.477 | |
| 8,500.00 | 8,490.07 | 8,464.20 | 8,451.57 | 30.38 | 30.27 | 122.07 | 239.87 | 4,116.67 | 4,244.61 | 4,201.87 | 42.73 | 99.326 | |
| 8,559.94 | 8,550.00 | 8,524.13 | 8,511.50 | 30.59 | 30.48 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,201.82 | 43.04 | 98.635 | |
| 8,600.00 | 8,590.07 | 8,564.19 | 8,551.57 | 30.73 | 30.63 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,201.62 | 43.24 | 98.175 | |
| 8,700.00 | 8,690.07 | 8,664.19 | 8,651.57 | 31.09 | 30.98 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,201.12 | 43.74 | 97.046 | |
| 8,800.00 | 8,790.07 | 8,764.19 | 8,751.57 | 31.44 | 31.34 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,200.61 | 44.24 | 95.942 | |
| 8,900.00 | 8,890.07 | 8,864.19 | 8,851.57 | 31.80 | 31.69 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,200.11 | 44.75 | 94.862 | |
| 9,000.00 | 8,990.07 | 8,964.19 | 8,951.57 | 32.15 | 32.05 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,199.61 | 45.25 | 93.807 | |
| 9,100.00 | 9,090.07 | 9,064.19 | 9,051.57 | 32.51 | 32.40 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,199.10 | 45.75 | 92.774 | |
| 9,200.00 | 9,190.07 | 9,164.19 | 9,151.57 | 32.87 | 32.76 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,198.60 | 46.26 | 91.764 | |
| 9,300.00 | 9,290.07 | 9,264.19 | 9,251.57 | 33.22 | 33.11 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,198.10 | 46.76 | 90.776 | |
| 9,400.00 | 9,390.07 | 9,364.19 | 9,351.57 | 33.58 | 33.47 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,197.59 | 47.27 | 89.808 | |
| 9,500.00 | 9,490.07 | 9,464.19 | 9,451.57 | 33.93 | 33.82 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,197.09 | 47.77 | 88.861 | |
| 9,600.00 | 9,590.07 | 9,564.19 | 9,551.57 | 34.29 | 34.18 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,196.58 | 48.27 | 87.933 | |
| 9,700.00 | 9,690.07 | 9,664.19 | 9,651.57 | 34.65 | 34.53 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,196.08 | 48.78 | 87.025 | |
| 9,800.00 | 9,790.07 | 9,764.19 | 9,751.57 | 35.00 | 34.89 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,195.58 | 49.28 | 86.135 | |
| 9,900.00 | 9,890.07 | 9,864.19 | 9,851.57 | 35.36 | 35.25 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,195.07 | 49.79 | 85.263 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,000.00 | 9,990.07 | 9,964.19 | 9,951.57 | 35.71 | 35.60 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,194.57 | 50.29 | 84.408 | |
| 10,100.00 | 10,090.07 | 10,064.19 | 10,051.57 | 36.07 | 35.96 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,194.06 | 50.79 | 83.570 | |
| 10,200.00 | 10,190.07 | 10,164.19 | 10,151.57 | 36.43 | 36.31 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,193.56 | 51.30 | 82.748 | |
| 10,300.00 | 10,290.07 | 10,264.19 | 10,251.57 | 36.78 | 36.67 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,193.05 | 51.80 | 81.943 | |
| 10,400.00 | 10,390.07 | 10,364.19 | 10,351.57 | 37.14 | 37.03 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,192.55 | 52.31 | 81.153 | |
| 10,500.00 | 10,490.07 | 10,464.19 | 10,451.57 | 37.50 | 37.38 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,192.05 | 52.81 | 80.378 | |
| 10,600.00 | 10,590.07 | 10,564.19 | 10,551.57 | 37.85 | 37.74 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,191.54 | 53.32 | 79.617 | |
| 10,700.00 | 10,690.07 | 10,664.19 | 10,651.57 | 38.21 | 38.09 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,191.04 | 53.82 | 78.871 | |
| 10,800.00 | 10,790.07 | 10,764.19 | 10,751.57 | 38.57 | 38.45 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,190.53 | 54.33 | 78.138 | |
| 10,900.00 | 10,890.07 | 10,864.19 | 10,851.57 | 38.92 | 38.81 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,190.03 | 54.83 | 77.419 | |
| 11,000.00 | 10,990.07 | 10,964.19 | 10,951.57 | 39.28 | 39.16 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,189.52 | 55.33 | 76.713 | |
| 11,100.00 | 11,090.07 | 11,064.19 | 11,051.57 | 39.64 | 39.52 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,189.02 | 55.84 | 76.020 | |
| 11,200.00 | 11,190.07 | 11,164.19 | 11,151.57 | 39.99 | 39.88 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,188.51 | 56.34 | 75.339 | |
| 11,300.00 | 11,290.07 | 11,264.19 | 11,251.57 | 40.35 | 40.23 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,188.01 | 56.85 | 74.670 | |
| 11,305.72 | 11,295.78 | 11,269.91 | 11,257.28 | 40.37 | 40.25 | 89.46 | 239.87 | 4,116.67 | 4,244.86 | 4,187.98 | 56.88 | 74.632 | |
| 11,374.94 | 11,365.00 | 11,338.88 | 11,326.20 | 40.62 | 40.48 | 89.49 | 237.92 | 4,116.69 | 4,244.86 | 4,187.65 | 57.21 | 74.194 | |
| 11,400.00 | 11,390.06 | 11,363.66 | 11,350.84 | 40.70 | 40.56 | -89.98 | 235.35 | 4,116.71 | 4,244.86 | 4,187.53 | 57.33 | 74.047 | |
| 11,450.00 | 11,439.85 | 11,412.82 | 11,399.29 | 40.86 | 40.71 | -89.93 | 227.10 | 4,116.80 | 4,244.87 | 4,187.33 | 57.54 | 73.773 | |
| 11,500.00 | 11,489.07 | 11,461.66 | 11,446.55 | 41.01 | 40.85 | -89.87 | 214.83 | 4,116.92 | 4,244.89 | 4,187.15 | 57.74 | 73.514 | |
| 11,550.00 | 11,537.35 | 11,510.18 | 11,492.29 | 41.15 | 40.98 | -89.82 | 198.69 | 4,117.07 | 4,244.92 | 4,186.99 | 57.94 | 73.270 | |
| 11,600.00 | 11,584.32 | 11,558.40 | 11,536.24 | 41.28 | 41.10 | -89.77 | 178.88 | 4,117.27 | 4,244.96 | 4,186.84 | 58.12 | 73.040 | |
| 11,650.00 | 11,629.62 | 11,606.34 | 11,578.13 | 41.41 | 41.21 | -89.72 | 155.59 | 4,117.50 | 4,245.00 | 4,186.70 | 58.29 | 72.823 | |
| 11,700.00 | 11,672.90 | 11,654.02 | 11,617.71 | 41.53 | 41.31 | -89.67 | 129.04 | 4,117.76 | 4,245.04 | 4,186.58 | 58.46 | 72.617 | |
| 11,750.00 | 11,713.85 | 11,701.45 | 11,654.76 | 41.63 | 41.41 | -89.62 | 99.45 | 4,118.05 | 4,245.09 | 4,186.48 | 58.62 | 72.421 | |
| 11,800.00 | 11,752.13 | 11,750.00 | 11,690.02 | 41.73 | 41.49 | -89.58 | 66.10 | 4,118.37 | 4,245.15 | 4,186.38 | 58.77 | 72.229 | |
| 11,850.00 | 11,787.47 | 11,795.66 | 11,720.49 | 41.82 | 41.57 | -89.54 | 32.11 | 4,118.71 | 4,245.21 | 4,186.28 | 58.92 | 72.047 | |
| 11,900.00 | 11,819.60 | 11,842.48 | 11,748.83 | 41.92 | 41.65 | -89.50 | -5.14 | 4,119.07 | 4,245.27 | 4,186.20 | 59.07 | 71.866 | |
| 11,950.00 | 11,848.26 | 11,889.15 | 11,773.95 | 42.02 | 41.74 | -89.47 | -44.45 | 4,119.46 | 4,245.33 | 4,186.11 | 59.22 | 71.686 | |
| 12,000.00 | 11,873.25 | 11,935.67 | 11,795.73 | 42.13 | 41.85 | -89.44 | -85.55 | 4,119.86 | 4,245.39 | 4,186.02 | 59.37 | 71.505 | |
| 12,050.00 | 11,894.37 | 11,982.08 | 11,814.07 | 42.24 | 41.95 | -89.42 | -128.16 | 4,120.28 | 4,245.45 | 4,185.93 | 59.53 | 71.322 | |
| 12,100.00 | 11,911.46 | 12,028.40 | 11,828.86 | 42.35 | 42.06 | -89.40 | -172.04 | 4,120.71 | 4,245.51 | 4,185.83 | 59.68 | 71.137 | |
| 12,150.00 | 11,924.39 | 12,074.65 | 11,840.06 | 42.47 | 42.17 | -89.38 | -216.90 | 4,121.14 | 4,245.57 | 4,185.73 | 59.84 | 70.948 | |
| 12,200.00 | 11,933.06 | 12,120.85 | 11,847.59 | 42.59 | 42.29 | -89.37 | -262.46 | 4,121.59 | 4,245.63 | 4,185.62 | 60.00 | 70.756 | |
| 12,250.00 | 11,937.42 | 12,167.02 | 11,851.43 | 42.72 | 42.40 | -89.36 | -308.46 | 4,122.04 | 4,245.68 | 4,185.51 | 60.17 | 70.562 | |
| 12,268.73 | 11,937.92 | 12,184.58 | 11,851.93 | 42.76 | 42.45 | -89.36 | -326.01 | 4,122.21 | 4,245.70 | 4,185.47 | 60.23 | 70.488 | |
| 12,300.00 | 11,938.26 | 12,215.85 | 11,852.50 | 42.84 | 42.53 | -89.36 | -357.27 | 4,122.52 | 4,245.73 | 4,185.38 | 60.35 | 70.352 | |
| 12,400.00 | 11,939.35 | 12,315.85 | 11,854.33 | 43.15 | 42.84 | -89.37 | -457.25 | 4,123.50 | 4,245.82 | 4,185.05 | 60.78 | 69.860 | |
| 12,500.00 | 11,940.43 | 12,415.84 | 11,856.16 | 43.51 | 43.21 | -89.38 | -557.23 | 4,124.48 | 4,245.92 | 4,184.63 | 61.29 | 69.277 | |
| 12,600.00 | 11,941.51 | 12,515.84 | 11,857.99 | 43.93 | 43.64 | -89.39 | -657.20 | 4,125.46 | 4,246.01 | 4,184.12 | 61.88 | 68.611 | |
| 12,700.00 | 11,942.59 | 12,615.84 | 11,859.82 | 44.41 | 44.12 | -89.40 | -757.18 | 4,126.44 | 4,246.10 | 4,183.54 | 62.56 | 67.869 | |
| 12,800.00 | 11,943.68 | 12,715.83 | 11,861.65 | 44.94 | 44.66 | -89.41 | -857.15 | 4,127.42 | 4,246.20 | 4,182.88 | 63.32 | 67.059 | |
| 12,900.00 | 11,944.76 | 12,815.83 | 11,863.48 | 45.53 | 45.25 | -89.42 | -957.13 | 4,128.40 | 4,246.29 | 4,182.14 | 64.15 | 66.190 | |
| 13,000.00 | 11,945.84 | 12,915.83 | 11,865.31 | 46.17 | 45.90 | -89.43 | -1,057.10 | 4,129.38 | 4,246.39 | 4,181.33 | 65.06 | 65.269 | |
| 13,100.00 | 11,946.92 | 13,015.83 | 11,867.14 | 46.86 | 46.59 | -89.44 | -1,157.08 | 4,130.36 | 4,246.48 | 4,180.44 | 66.04 | 64.305 | |
| 13,200.00 | 11,948.01 | 13,115.82 | 11,868.97 | 47.59 | 47.33 | -89.45 | -1,257.05 | 4,131.33 | 4,246.58 | 4,179.49 | 67.08 | 63.305 | |
| 13,300.00 | 11,949.09 | 13,215.82 | 11,870.80 | 48.37 | 48.12 | -89.46 | -1,357.03 | 4,132.31 | 4,246.67 | 4,178.48 | 68.19 | 62.277 | |
| 13,400.00 | 11,950.17 | 13,315.82 | 11,872.63 | 49.20 | 48.95 | -89.47 | -1,457.01 | 4,133.29 | 4,246.76 | 4,177.41 | 69.36 | 61.229 | |
| 13,500.00 | 11,951.25 | 13,415.81 | 11,874.46 | 50.06 | 49.82 | -89.48 | -1,556.98 | 4,134.27 | 4,246.86 | 4,176.27 | 70.59 | 60.165 | |
| 13,600.00 | 11,952.33 | 13,515.81 | 11,876.29 | 50.97 | 50.73 | -89.49 | -1,656.96 | 4,135.25 | 4,246.95 | 4,175.09 | 71.87 | 59.093 | |
| 13,700.00 | 11,953.42 | 13,615.81 | 11,878.12 | 51.91 | 51.68 | -89.50 | -1,756.93 | 4,136.23 | 4,247.05 | 4,173.85 | 73.20 | 58.017 | |
| 13,800.00 | 11,954.50 | 13,715.81 | 11,879.95 | 52.88 | 52.66 | -89.51 | -1,856.91 | 4,137.21 | 4,247.15 | 4,172.56 | 74.59 | 56.942 | |
| 13,900.00 | 11,955.58 | 13,815.80 | 11,881.78 | 53.89 | 53.67 | -89.52 | -1,956.88 | 4,138.19 | 4,247.24 | 4,171.22 | 76.02 | 55.871 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,000.00 | 11,956.66 | 13,915.80 | 11,883.61 | 54.93 | 54.72 | -89.53 | -2,056.86 | 4,139.17 | 4,247.34 | 4,169.84 | 77.49 | 54.809 | |
| 14,100.00 | 11,957.75 | 14,015.80 | 11,885.44 | 56.00 | 55.79 | -89.54 | -2,156.84 | 4,140.15 | 4,247.43 | 4,168.42 | 79.01 | 53.759 | |
| 14,200.00 | 11,958.83 | 14,115.79 | 11,887.27 | 57.10 | 56.90 | -89.55 | -2,256.81 | 4,141.13 | 4,247.53 | 4,166.96 | 80.57 | 52.722 | |
| 14,300.00 | 11,959.91 | 14,215.79 | 11,889.10 | 58.22 | 58.03 | -89.56 | -2,356.79 | 4,142.11 | 4,247.62 | 4,165.47 | 82.16 | 51.701 | |
| 14,400.00 | 11,960.99 | 14,315.79 | 11,890.93 | 59.37 | 59.18 | -89.57 | -2,456.76 | 4,143.09 | 4,247.72 | 4,163.93 | 83.79 | 50.698 | |
| 14,500.00 | 11,962.08 | 14,415.79 | 11,892.76 | 60.54 | 60.36 | -89.58 | -2,556.74 | 4,144.07 | 4,247.82 | 4,162.37 | 85.45 | 49.713 | |
| 14,600.00 | 11,963.16 | 14,515.78 | 11,894.59 | 61.73 | 61.55 | -89.60 | -2,656.71 | 4,145.05 | 4,247.91 | 4,160.78 | 87.14 | 48.749 | |
| 14,700.00 | 11,964.24 | 14,615.78 | 11,896.42 | 62.94 | 62.77 | -89.61 | -2,756.69 | 4,146.03 | 4,248.01 | 4,159.15 | 88.86 | 47.806 | |
| 14,800.00 | 11,965.32 | 14,715.78 | 11,898.25 | 64.18 | 64.01 | -89.62 | -2,856.66 | 4,147.01 | 4,248.11 | 4,157.50 | 90.61 | 46.885 | |
| 14,900.00 | 11,966.41 | 14,815.77 | 11,900.08 | 65.43 | 65.27 | -89.63 | -2,956.64 | 4,147.98 | 4,248.20 | 4,155.82 | 92.38 | 45.985 | |
| 15,000.00 | 11,967.49 | 14,915.77 | 11,901.92 | 66.70 | 66.54 | -89.64 | -3,056.62 | 4,148.96 | 4,248.30 | 4,154.12 | 94.18 | 45.108 | |
| 15,100.00 | 11,968.57 | 15,015.77 | 11,903.75 | 67.99 | 67.83 | -89.65 | -3,156.59 | 4,149.94 | 4,248.40 | 4,152.39 | 96.00 | 44.253 | |
| 15,200.00 | 11,969.65 | 15,115.77 | 11,905.58 | 69.29 | 69.14 | -89.66 | -3,256.57 | 4,150.92 | 4,248.49 | 4,150.65 | 97.85 | 43.420 | |
| 15,300.00 | 11,970.74 | 15,215.76 | 11,907.41 | 70.60 | 70.46 | -89.67 | -3,356.54 | 4,151.90 | 4,248.59 | 4,148.88 | 99.71 | 42.609 | |
| 15,400.00 | 11,971.82 | 15,315.76 | 11,909.24 | 71.93 | 71.79 | -89.68 | -3,456.52 | 4,152.88 | 4,248.69 | 4,147.09 | 101.60 | 41.819 | |
| 15,500.00 | 11,972.90 | 15,415.76 | 11,911.07 | 73.28 | 73.14 | -89.69 | -3,556.49 | 4,153.86 | 4,248.79 | 4,145.29 | 103.50 | 41.051 | |
| 15,600.00 | 11,973.98 | 15,515.75 | 11,912.90 | 74.63 | 74.50 | -89.70 | -3,656.47 | 4,154.84 | 4,248.88 | 4,143.46 | 105.42 | 40.304 | |
| 15,700.00 | 11,975.07 | 15,615.75 | 11,914.73 | 76.00 | 75.87 | -89.71 | -3,756.44 | 4,155.82 | 4,248.98 | 4,141.63 | 107.36 | 39.578 | |
| 15,800.00 | 11,976.15 | 15,715.75 | 11,916.56 | 77.38 | 77.25 | -89.72 | -3,856.42 | 4,156.80 | 4,249.08 | 4,139.77 | 109.31 | 38.872 | |
| 15,900.00 | 11,977.23 | 15,815.75 | 11,918.39 | 78.77 | 78.65 | -89.73 | -3,956.40 | 4,157.78 | 4,249.18 | 4,137.90 | 111.28 | 38.186 | |
| 16,000.00 | 11,978.31 | 15,915.74 | 11,920.22 | 80.17 | 80.05 | -89.74 | -4,056.37 | 4,158.76 | 4,249.28 | 4,136.02 | 113.26 | 37.518 | |
| 16,100.00 | 11,979.40 | 16,015.74 | 11,922.05 | 81.57 | 81.46 | -89.75 | -4,156.35 | 4,159.74 | 4,249.38 | 4,134.12 | 115.25 | 36.870 | |
| 16,200.00 | 11,980.48 | 16,115.74 | 11,923.88 | 82.99 | 82.88 | -89.76 | -4,256.32 | 4,160.72 | 4,249.47 | 4,132.21 | 117.26 | 36.240 | |
| 16,300.00 | 11,981.56 | 16,215.73 | 11,925.71 | 84.42 | 84.31 | -89.77 | -4,356.30 | 4,161.70 | 4,249.57 | 4,130.29 | 119.28 | 35.627 | |
| 16,400.00 | 11,982.64 | 16,315.73 | 11,927.54 | 85.85 | 85.75 | -89.78 | -4,456.27 | 4,162.68 | 4,249.67 | 4,128.36 | 121.31 | 35.031 | |
| 16,500.00 | 11,983.73 | 16,415.73 | 11,929.37 | 87.29 | 87.19 | -89.79 | -4,556.25 | 4,163.66 | 4,249.77 | 4,126.42 | 123.35 | 34.452 | |
| 16,600.00 | 11,984.81 | 16,515.73 | 11,931.20 | 88.74 | 88.64 | -89.80 | -4,656.23 | 4,164.63 | 4,249.87 | 4,124.46 | 125.40 | 33.889 | |
| 16,700.00 | 11,985.89 | 16,615.72 | 11,933.03 | 90.20 | 90.10 | -89.81 | -4,756.20 | 4,165.61 | 4,249.97 | 4,122.50 | 127.47 | 33.342 | |
| 16,800.00 | 11,986.97 | 16,715.72 | 11,934.86 | 91.66 | 91.57 | -89.82 | -4,856.18 | 4,166.59 | 4,250.07 | 4,120.53 | 129.54 | 32.810 | |
| 16,900.00 | 11,988.06 | 16,815.72 | 11,936.69 | 93.13 | 93.04 | -89.83 | -4,956.15 | 4,167.57 | 4,250.17 | 4,118.55 | 131.62 | 32.292 | |
| 17,000.00 | 11,989.14 | 16,915.71 | 11,938.52 | 94.61 | 94.52 | -89.84 | -5,056.13 | 4,168.55 | 4,250.27 | 4,116.56 | 133.71 | 31.788 | |
| 17,100.00 | 11,990.22 | 17,015.71 | 11,940.35 | 96.09 | 96.00 | -89.85 | -5,156.10 | 4,169.53 | 4,250.37 | 4,114.56 | 135.80 | 31.298 | |
| 17,200.00 | 11,991.30 | 17,115.71 | 11,942.18 | 97.57 | 97.49 | -89.86 | -5,256.08 | 4,170.51 | 4,250.47 | 4,112.56 | 137.91 | 30.821 | |
| 17,300.00 | 11,992.39 | 17,215.71 | 11,944.01 | 99.06 | 98.99 | -89.87 | -5,356.05 | 4,171.49 | 4,250.57 | 4,110.55 | 140.02 | 30.357 | |
| 17,400.00 | 11,993.47 | 17,315.70 | 11,945.84 | 100.56 | 100.48 | -89.88 | -5,456.03 | 4,172.47 | 4,250.67 | 4,108.53 | 142.14 | 29.905 | |
| 17,500.00 | 11,994.55 | 17,415.70 | 11,947.67 | 102.06 | 101.99 | -89.89 | -5,556.01 | 4,173.45 | 4,250.77 | 4,106.50 | 144.26 | 29.465 | |
| 17,600.00 | 11,995.63 | 17,515.70 | 11,949.50 | 103.57 | 103.50 | -89.90 | -5,655.98 | 4,174.43 | 4,250.87 | 4,104.47 | 146.40 | 29.037 | |
| 17,700.00 | 11,996.72 | 17,615.69 | 11,951.33 | 105.08 | 105.01 | -89.91 | -5,755.96 | 4,175.41 | 4,250.97 | 4,102.43 | 148.53 | 28.620 | |
| 17,800.00 | 11,997.80 | 17,715.69 | 11,953.16 | 106.59 | 106.53 | -89.92 | -5,855.93 | 4,176.39 | 4,251.07 | 4,100.39 | 150.68 | 28.213 | |
| 17,900.00 | 11,998.88 | 17,815.69 | 11,954.99 | 108.11 | 108.05 | -89.93 | -5,955.91 | 4,177.37 | 4,251.17 | 4,098.34 | 152.83 | 27.817 | |
| 18,000.00 | 11,999.96 | 17,915.69 | 11,956.82 | 109.64 | 109.57 | -89.94 | -6,055.88 | 4,178.35 | 4,251.27 | 4,096.29 | 154.98 | 27.431 | |
| 18,100.00 | 12,001.05 | 18,015.68 | 11,958.65 | 111.16 | 111.10 | -89.95 | -6,155.86 | 4,179.33 | 4,251.37 | 4,094.23 | 157.14 | 27.054 | |
| 18,200.00 | 12,002.13 | 18,115.68 | 11,960.48 | 112.69 | 112.63 | -89.96 | -6,255.83 | 4,180.31 | 4,251.47 | 4,092.16 | 159.31 | 26.687 | |
| 18,300.00 | 12,003.21 | 18,215.68 | 11,962.31 | 114.23 | 114.17 | -89.97 | -6,355.81 | 4,181.28 | 4,251.57 | 4,090.09 | 161.48 | 26.329 | |
| 18,400.00 | 12,004.29 | 18,315.68 | 11,964.14 | 115.76 | 115.71 | -89.98 | -6,455.79 | 4,182.26 | 4,251.67 | 4,088.02 | 163.65 | 25.980 | |
| 18,500.00 | 12,005.38 | 18,415.67 | 11,965.98 | 117.30 | 117.25 | -89.99 | -6,555.76 | 4,183.24 | 4,251.78 | 4,085.94 | 165.83 | 25.639 | |
| 18,600.00 | 12,006.46 | 18,515.67 | 11,967.81 | 118.84 | 118.79 | -90.00 | -6,655.74 | 4,184.22 | 4,251.88 | 4,083.86 | 168.02 | 25.306 | |
| 18,700.00 | 12,007.54 | 18,615.67 | 11,969.64 | 120.39 | 120.34 | -90.01 | -6,755.71 | 4,185.20 | 4,251.98 | 4,081.78 | 170.20 | 24.982 | |
| 18,800.00 | 12,008.62 | 18,715.66 | 11,971.47 | 121.94 | 121.89 | -90.02 | -6,855.69 | 4,186.18 | 4,252.08 | 4,079.69 | 172.39 | 24.665 | |
| 18,900.00 | 12,009.71 | 18,815.66 | 11,973.30 | 123.49 | 123.44 | -90.03 | -6,955.66 | 4,187.16 | 4,252.18 | 4,077.59 | 174.59 | 24.355 | |
| 19,000.00 | 12,010.79 | 18,915.66 | 11,975.13 | 125.04 | 125.00 | -90.04 | -7,055.64 | 4,188.14 | 4,252.29 | 4,075.50 | 176.79 | 24.053 | |
| 19,100.00 | 12,011.87 | 19,015.66 | 11,976.96 | 126.60 | 126.56 | -90.05 | -7,155.62 | 4,189.12 | 4,252.39 | 4,073.40 | 178.99 | 23.758 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 604H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,200.00 | 12,012.95 | 19,115.65 | 11,978.79 | 128.16 | 128.12 | -90.06 | -7,255.59 | 4,190.10 | 4,252.49 | 4,071.29 | 181.20 | 23.469 | |
| 19,300.00 | 12,014.03 | 19,215.65 | 11,980.62 | 129.72 | 129.68 | -90.07 | -7,355.57 | 4,191.08 | 4,252.59 | 4,069.19 | 183.41 | 23.187 | |
| 19,400.00 | 12,015.12 | 19,315.65 | 11,982.45 | 131.28 | 131.24 | -90.08 | -7,455.54 | 4,192.06 | 4,252.70 | 4,067.08 | 185.62 | 22.911 | |
| 19,500.00 | 12,016.20 | 19,415.64 | 11,984.28 | 132.85 | 132.81 | -90.09 | -7,555.52 | 4,193.04 | 4,252.80 | 4,064.97 | 187.83 | 22.641 | |
| 19,600.00 | 12,017.28 | 19,515.64 | 11,986.11 | 134.42 | 134.38 | -90.10 | -7,655.49 | 4,194.02 | 4,252.90 | 4,062.85 | 190.05 | 22.378 | |
| 19,700.00 | 12,018.36 | 19,615.64 | 11,987.94 | 135.98 | 135.95 | -90.11 | -7,755.47 | 4,195.00 | 4,253.01 | 4,060.73 | 192.27 | 22.120 | |
| 19,800.00 | 12,019.45 | 19,715.64 | 11,989.77 | 137.56 | 137.52 | -90.12 | -7,855.44 | 4,195.98 | 4,253.11 | 4,058.61 | 194.50 | 21.867 | |
| 19,900.00 | 12,020.53 | 19,815.63 | 11,991.60 | 139.13 | 139.10 | -90.13 | -7,955.42 | 4,196.96 | 4,253.21 | 4,056.49 | 196.72 | 21.620 | |
| 20,000.00 | 12,021.61 | 19,915.63 | 11,993.43 | 140.70 | 140.67 | -90.14 | -8,055.40 | 4,197.93 | 4,253.32 | 4,054.36 | 198.95 | 21.379 | |
| 20,100.00 | 12,022.69 | 20,015.63 | 11,995.26 | 142.28 | 142.25 | -90.15 | -8,155.37 | 4,198.91 | 4,253.42 | 4,052.24 | 201.18 | 21.142 | |
| 20,200.00 | 12,023.78 | 20,115.62 | 11,997.09 | 143.86 | 143.83 | -90.16 | -8,255.35 | 4,199.89 | 4,253.52 | 4,050.11 | 203.42 | 20.911 | |
| 20,300.00 | 12,024.86 | 20,215.62 | 11,998.92 | 145.44 | 145.41 | -90.17 | -8,355.32 | 4,200.87 | 4,253.63 | 4,047.98 | 205.65 | 20.684 | |
| 20,400.00 | 12,025.94 | 20,315.62 | 12,000.75 | 147.02 | 147.00 | -90.18 | -8,455.30 | 4,201.85 | 4,253.73 | 4,045.84 | 207.89 | 20.462 | |
| 20,500.00 | 12,027.02 | 20,415.62 | 12,002.58 | 148.61 | 148.58 | -90.19 | -8,555.27 | 4,202.83 | 4,253.84 | 4,043.71 | 210.13 | 20.244 | |
| 20,600.00 | 12,028.11 | 20,515.61 | 12,004.41 | 150.19 | 150.17 | -90.20 | -8,655.25 | 4,203.81 | 4,253.94 | 4,041.57 | 212.37 | 20.031 | |
| 20,700.00 | 12,029.19 | 20,615.61 | 12,006.24 | 151.78 | 151.76 | -90.21 | -8,755.23 | 4,204.79 | 4,254.04 | 4,039.43 | 214.62 | 19.822 | |
| 20,800.00 | 12,030.27 | 20,715.61 | 12,008.07 | 153.36 | 153.34 | -90.22 | -8,855.20 | 4,205.77 | 4,254.15 | 4,037.29 | 216.86 | 19.617 | |
| 20,900.00 | 12,031.35 | 20,815.60 | 12,009.90 | 154.95 | 154.93 | -90.23 | -8,955.18 | 4,206.75 | 4,254.25 | 4,035.14 | 219.11 | 19.416 | |
| 21,000.00 | 12,032.44 | 20,915.60 | 12,011.73 | 156.54 | 156.53 | -90.24 | -9,055.15 | 4,207.73 | 4,254.36 | 4,033.00 | 221.36 | 19.219 | |
| 21,100.00 | 12,033.52 | 21,015.60 | 12,013.56 | 158.14 | 158.12 | -90.25 | -9,155.13 | 4,208.71 | 4,254.46 | 4,030.85 | 223.61 | 19.026 | |
| 21,200.00 | 12,034.60 | 21,115.60 | 12,015.39 | 159.73 | 159.71 | -90.26 | -9,255.10 | 4,209.69 | 4,254.57 | 4,028.70 | 225.87 | 18.837 | |
| 21,300.00 | 12,035.68 | 21,215.59 | 12,017.22 | 161.32 | 161.31 | -90.27 | -9,355.08 | 4,210.67 | 4,254.67 | 4,026.55 | 228.12 | 18.651 | |
| 21,400.00 | 12,036.77 | 21,315.59 | 12,019.05 | 162.92 | 162.90 | -90.28 | -9,455.05 | 4,211.65 | 4,254.78 | 4,024.40 | 230.38 | 18.469 | |
| 21,500.00 | 12,037.85 | 21,415.59 | 12,020.88 | 164.51 | 164.50 | -90.29 | -9,555.03 | 4,212.63 | 4,254.88 | 4,022.25 | 232.64 | 18.290 | |
| 21,600.00 | 12,038.93 | 21,515.58 | 12,022.71 | 166.11 | 166.10 | -90.30 | -9,655.01 | 4,213.61 | 4,254.99 | 4,020.09 | 234.90 | 18.114 | |
| 21,700.00 | 12,040.01 | 21,615.58 | 12,024.54 | 167.71 | 167.70 | -90.31 | -9,754.98 | 4,214.58 | 4,255.10 | 4,017.94 | 237.16 | 17.942 | |
| 21,800.00 | 12,041.10 | 21,715.58 | 12,026.37 | 169.31 | 169.30 | -90.32 | -9,854.96 | 4,215.56 | 4,255.20 | 4,015.78 | 239.42 | 17.773 | |
| 21,900.00 | 12,042.18 | 21,815.58 | 12,028.20 | 170.91 | 170.90 | -90.33 | -9,954.93 | 4,216.54 | 4,255.31 | 4,013.62 | 241.68 | 17.607 | |
| 22,000.00 | 12,043.26 | 21,915.57 | 12,030.04 | 172.51 | 172.50 | -90.34 | -10,054.91 | 4,217.52 | 4,255.41 | 4,011.46 | 243.95 | 17.444 | |
| 22,100.00 | 12,044.34 | 22,015.57 | 12,031.87 | 174.11 | 174.11 | -90.35 | -10,154.88 | 4,218.50 | 4,255.52 | 4,009.30 | 246.22 | 17.284 | |
| 22,200.00 | 12,045.43 | 22,115.57 | 12,033.70 | 175.72 | 175.71 | -90.36 | -10,254.86 | 4,219.48 | 4,255.63 | 4,007.14 | 248.48 | 17.126 | |
| 22,300.00 | 12,046.51 | 22,215.56 | 12,035.53 | 177.32 | 177.32 | -90.37 | -10,354.83 | 4,220.46 | 4,255.73 | 4,004.98 | 250.75 | 16.972 | |
| 22,400.00 | 12,047.59 | 22,315.56 | 12,037.36 | 178.93 | 178.92 | -90.38 | -10,454.81 | 4,221.44 | 4,255.84 | 4,002.81 | 253.02 | 16.820 | |
| 22,500.00 | 12,048.67 | 22,415.56 | 12,039.19 | 180.53 | 180.53 | -90.39 | -10,554.79 | 4,222.42 | 4,255.95 | 4,000.65 | 255.30 | 16.671 | |
| 22,572.67 | 12,049.46 | 22,488.23 | 12,040.52 | 181.70 | 181.70 | -90.40 | -10,627.44 | 4,223.13 | 4,256.02 | 3,999.08 | 256.95 | 16.564 | ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 89.47 | 40.18 | 4,309.67 | 4,310.03 | | | | |
| 100.00 | 100.00 | 61.90 | 61.90 | 0.14 | 0.09 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,309.69 | 0.17 | N/A | |
| 200.00 | 200.00 | 161.90 | 161.90 | 0.50 | 0.36 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,309.24 | 0.62 | 6,971.422 | |
| 300.00 | 300.00 | 261.90 | 261.90 | 0.86 | 0.72 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,308.74 | 1.12 | 3,842.090 | |
| 400.00 | 400.00 | 361.90 | 361.90 | 1.22 | 1.08 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,308.23 | 1.63 | 2,648.298 | |
| 500.00 | 500.00 | 461.90 | 461.90 | 1.58 | 1.44 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,307.72 | 2.13 | 2,019.917 | |
| 600.00 | 600.00 | 561.90 | 561.90 | 1.93 | 1.80 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,307.22 | 2.64 | 1,632.388 | |
| 700.00 | 700.00 | 661.90 | 661.90 | 2.29 | 2.16 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,306.71 | 3.15 | 1,369.562 | |
| 800.00 | 800.00 | 761.90 | 761.90 | 2.65 | 2.51 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,306.20 | 3.65 | 1,179.608 | |
| 900.00 | 900.00 | 861.90 | 861.90 | 3.01 | 2.87 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,305.70 | 4.16 | 1,035.915 | |
| 1,000.00 | 1,000.00 | 961.90 | 961.90 | 3.37 | 3.23 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,305.19 | 4.67 | 923.422 | |
| 1,100.00 | 1,100.00 | 1,061.90 | 1,061.90 | 3.73 | 3.59 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,304.68 | 5.17 | 832.963 | |
| 1,200.00 | 1,200.00 | 1,161.90 | 1,161.90 | 4.08 | 3.95 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,304.18 | 5.68 | 758.644 | |
| 1,300.00 | 1,300.00 | 1,261.90 | 1,261.90 | 4.44 | 4.31 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,303.67 | 6.19 | 696.499 | |
| 1,400.00 | 1,400.00 | 1,361.90 | 1,361.90 | 4.80 | 4.67 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,303.16 | 6.69 | 643.763 | |
| 1,500.00 | 1,500.00 | 1,461.90 | 1,461.90 | 5.16 | 5.02 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,302.66 | 7.20 | 598.450 | |
| 1,600.00 | 1,600.00 | 1,561.90 | 1,561.90 | 5.52 | 5.38 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,302.15 | 7.71 | 559.097 | |
| 1,700.00 | 1,700.00 | 1,661.90 | 1,661.90 | 5.88 | 5.74 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,301.64 | 8.22 | 524.599 | |
| 1,800.00 | 1,800.00 | 1,761.90 | 1,761.90 | 6.24 | 6.10 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,301.13 | 8.72 | 494.111 | |
| 1,900.00 | 1,900.00 | 1,861.90 | 1,861.90 | 6.59 | 6.46 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,300.63 | 9.23 | 466.972 | |
| 2,000.00 | 2,000.00 | 1,961.90 | 1,961.90 | 6.95 | 6.82 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,300.12 | 9.74 | 442.659 | |
| 2,100.00 | 2,100.00 | 2,061.90 | 2,061.90 | 7.31 | 7.17 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,299.61 | 10.24 | 420.752 | |
| 2,200.00 | 2,200.00 | 2,161.90 | 2,161.90 | 7.67 | 7.53 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,299.11 | 10.75 | 400.911 | |
| 2,300.00 | 2,300.00 | 2,261.90 | 2,261.90 | 8.03 | 7.89 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,298.60 | 11.26 | 382.857 | |
| 2,400.00 | 2,400.00 | 2,361.90 | 2,361.90 | 8.39 | 8.25 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,298.09 | 11.76 | 366.359 | |
| 2,500.00 | 2,500.00 | 2,461.90 | 2,461.90 | 8.74 | 8.61 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,297.59 | 12.27 | 351.224 | |
| 2,600.00 | 2,600.00 | 2,561.90 | 2,561.90 | 9.10 | 8.97 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,297.08 | 12.78 | 337.289 | |
| 2,700.00 | 2,700.00 | 2,661.90 | 2,661.90 | 9.46 | 9.33 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,296.57 | 13.28 | 324.419 | |
| 2,800.00 | 2,800.00 | 2,761.90 | 2,761.90 | 9.82 | 9.68 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,296.07 | 13.79 | 312.494 | |
| 2,900.00 | 2,900.00 | 2,861.90 | 2,861.90 | 10.18 | 10.04 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,295.56 | 14.30 | 301.415 | |
| 3,000.00 | 3,000.00 | 2,961.90 | 2,961.90 | 10.54 | 10.40 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,295.05 | 14.81 | 291.095 | |
| 3,100.00 | 3,100.00 | 3,061.90 | 3,061.90 | 10.90 | 10.76 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,294.54 | 15.31 | 281.458 | |
| 3,200.00 | 3,200.00 | 3,161.90 | 3,161.90 | 11.25 | 11.12 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,294.04 | 15.82 | 272.438 | |
| 3,300.00 | 3,300.00 | 3,261.90 | 3,261.90 | 11.61 | 11.48 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,293.53 | 16.33 | 263.979 | |
| 3,400.00 | 3,400.00 | 3,361.90 | 3,361.90 | 11.97 | 11.83 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,293.02 | 16.83 | 256.029 | |
| 3,500.00 | 3,500.00 | 3,461.90 | 3,461.90 | 12.33 | 12.19 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,292.52 | 17.34 | 248.544 | |
| 3,600.00 | 3,600.00 | 3,561.90 | 3,561.90 | 12.69 | 12.55 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,292.01 | 17.85 | 241.484 | |
| 3,700.00 | 3,700.00 | 3,661.90 | 3,661.90 | 13.05 | 12.91 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,291.50 | 18.35 | 234.814 | |
| 3,800.00 | 3,800.00 | 3,761.90 | 3,761.90 | 13.41 | 13.27 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,291.00 | 18.86 | 228.503 | |
| 3,900.00 | 3,900.00 | 3,861.90 | 3,861.90 | 13.76 | 13.63 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,290.49 | 19.37 | 222.522 | |
| 4,000.00 | 4,000.00 | 3,961.90 | 3,961.90 | 14.12 | 13.99 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,289.98 | 19.88 | 216.846 | |
| 4,100.00 | 4,100.00 | 4,061.90 | 4,061.90 | 14.48 | 14.34 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,289.48 | 20.38 | 211.453 | |
| 4,200.00 | 4,200.00 | 4,161.90 | 4,161.90 | 14.84 | 14.70 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,288.97 | 20.89 | 206.321 | |
| 4,300.00 | 4,300.00 | 4,261.90 | 4,261.90 | 15.20 | 15.06 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,288.46 | 21.40 | 201.433 | |
| 4,400.00 | 4,400.00 | 4,361.90 | 4,361.90 | 15.56 | 15.42 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,287.95 | 21.90 | 196.771 | |
| 4,500.00 | 4,500.00 | 4,461.90 | 4,461.90 | 15.91 | 15.78 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,287.45 | 22.41 | 192.319 | |
| 4,502.51 | 4,502.51 | 4,464.41 | 4,464.41 | 15.92 | 15.79 | 89.47 | 40.18 | 4,309.67 | 4,309.86 | 4,287.43 | 22.42 | 192.210 | CC |
| 4,600.00 | 4,600.00 | 4,537.60 | 4,537.60 | 16.27 | 16.05 | 89.46 | 40.33 | 4,309.77 | 4,310.03 | 4,287.18 | 22.85 | 188.583 | ES |
| 4,700.00 | 4,700.00 | 4,600.00 | 4,599.99 | 16.63 | 16.27 | 89.45 | 41.26 | 4,310.41 | 4,311.05 | 4,287.79 | 23.26 | 185.304 | |
| 4,800.00 | 4,800.00 | 4,658.99 | 4,658.95 | 16.99 | 16.48 | 89.43 | 42.91 | 4,311.54 | 4,312.98 | 4,289.32 | 23.66 | 182.262 | |
| 4,900.00 | 4,900.00 | 4,700.00 | 4,699.91 | 17.35 | 16.63 | 89.41 | 44.50 | 4,312.63 | 4,315.90 | 4,291.89 | 24.01 | 179.724 | |
| 5,000.00 | 5,000.00 | 4,780.07 | 4,779.82 | 17.71 | 16.91 | 89.35 | 48.65 | 4,315.47 | 4,319.58 | 4,295.12 | 24.47 | 176.562 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,100.00 | 4,840.41 | 4,839.96 | 18.07 | 17.13 | 89.30 | 52.69 | 4,318.24 | 4,324.26 | 4,299.39 | 24.86 | 173.925 | |
| 5,200.00 | 5,200.00 | 4,901.11 | 4,900.38 | 18.42 | 17.34 | 89.24 | 57.54 | 4,321.56 | 4,329.85 | 4,304.59 | 25.26 | 171.412 | |
| 5,300.00 | 5,300.00 | 5,000.57 | 4,999.29 | 18.78 | 17.70 | 89.12 | 66.11 | 4,327.43 | 4,335.90 | 4,310.14 | 25.76 | 168.307 | |
| 5,400.00 | 5,400.00 | 5,100.02 | 5,098.19 | 19.14 | 18.05 | 89.01 | 74.68 | 4,333.30 | 4,341.96 | 4,315.70 | 26.26 | 165.317 | |
| 5,500.00 | 5,500.00 | 5,199.47 | 5,197.10 | 19.50 | 18.41 | 88.90 | 83.25 | 4,339.18 | 4,348.04 | 4,321.28 | 26.77 | 162.434 | |
| 5,600.00 | 5,599.99 | 5,298.97 | 5,296.05 | 19.86 | 18.77 | 121.34 | 91.83 | 4,345.05 | 4,354.82 | 4,327.55 | 27.27 | 159.687 | |
| 5,700.00 | 5,699.91 | 5,398.50 | 5,395.04 | 20.21 | 19.13 | 121.16 | 100.41 | 4,350.93 | 4,362.97 | 4,335.20 | 27.77 | 157.093 | |
| 5,800.00 | 5,799.69 | 5,498.00 | 5,494.00 | 20.57 | 19.49 | 121.00 | 108.98 | 4,356.80 | 4,372.47 | 4,344.19 | 28.28 | 154.638 | |
| 5,833.01 | 5,832.58 | 5,530.83 | 5,526.65 | 20.69 | 19.61 | 120.95 | 111.81 | 4,358.74 | 4,375.90 | 4,347.46 | 28.44 | 153.856 | |
| 5,900.00 | 5,899.32 | 5,597.44 | 5,592.89 | 20.92 | 19.85 | 120.94 | 117.55 | 4,362.67 | 4,383.01 | 4,354.23 | 28.78 | 152.304 | |
| 6,000.00 | 5,998.94 | 5,696.87 | 5,691.78 | 21.28 | 20.21 | 120.93 | 126.12 | 4,368.54 | 4,393.62 | 4,364.34 | 29.28 | 150.049 | |
| 6,100.00 | 6,098.56 | 5,796.30 | 5,790.67 | 21.64 | 20.58 | 120.92 | 134.69 | 4,374.41 | 4,404.24 | 4,374.45 | 29.79 | 147.864 | |
| 6,200.00 | 6,198.18 | 5,895.73 | 5,889.55 | 22.00 | 20.94 | 120.91 | 143.26 | 4,380.28 | 4,414.85 | 4,384.56 | 30.29 | 145.747 | |
| 6,300.00 | 6,297.80 | 5,995.16 | 5,988.44 | 22.35 | 21.31 | 120.89 | 151.83 | 4,386.15 | 4,425.47 | 4,394.67 | 30.80 | 143.695 | |
| 6,400.00 | 6,397.43 | 6,094.59 | 6,087.32 | 22.71 | 21.67 | 120.88 | 160.40 | 4,392.02 | 4,436.08 | 4,404.78 | 31.30 | 141.705 | |
| 6,500.00 | 6,497.05 | 6,194.02 | 6,186.21 | 23.07 | 22.04 | 120.87 | 168.97 | 4,397.89 | 4,446.70 | 4,414.89 | 31.81 | 139.775 | |
| 6,600.00 | 6,596.67 | 6,293.45 | 6,285.10 | 23.44 | 22.41 | 120.85 | 177.54 | 4,403.76 | 4,457.31 | 4,424.99 | 32.32 | 137.902 | |
| 6,700.00 | 6,696.29 | 6,392.88 | 6,383.98 | 23.80 | 22.78 | 120.84 | 186.11 | 4,409.63 | 4,467.93 | 4,435.10 | 32.83 | 136.084 | |
| 6,800.00 | 6,795.91 | 6,492.31 | 6,482.87 | 24.16 | 23.15 | 120.83 | 194.68 | 4,415.50 | 4,478.55 | 4,445.20 | 33.34 | 134.318 | |
| 6,900.00 | 6,895.53 | 6,591.74 | 6,581.75 | 24.52 | 23.52 | 120.82 | 203.25 | 4,421.37 | 4,489.16 | 4,455.31 | 33.85 | 132.603 | |
| 7,000.00 | 6,995.15 | 6,691.17 | 6,680.64 | 24.89 | 23.89 | 120.80 | 211.82 | 4,427.24 | 4,499.78 | 4,465.41 | 34.37 | 130.936 | |
| 7,100.00 | 7,094.77 | 6,790.60 | 6,779.53 | 25.25 | 24.26 | 120.79 | 220.39 | 4,433.11 | 4,510.40 | 4,475.52 | 34.88 | 129.316 | |
| 7,200.00 | 7,194.39 | 7,049.90 | 7,037.99 | 25.61 | 25.22 | 120.83 | 237.06 | 4,444.53 | 4,519.78 | 4,483.94 | 35.84 | 126.124 | |
| 7,300.00 | 7,294.01 | 7,267.87 | 7,255.91 | 25.98 | 26.00 | 121.00 | 240.18 | 4,446.67 | 4,524.95 | 4,488.30 | 36.65 | 123.474 | |
| 7,400.00 | 7,393.63 | 7,367.49 | 7,355.53 | 26.35 | 26.35 | 121.09 | 240.18 | 4,446.67 | 4,529.45 | 4,492.30 | 37.15 | 121.912 | |
| 7,500.00 | 7,493.25 | 7,467.11 | 7,455.15 | 26.71 | 26.70 | 121.19 | 240.18 | 4,446.67 | 4,533.96 | 4,496.30 | 37.66 | 120.392 | |
| 7,600.00 | 7,592.87 | 7,566.73 | 7,554.77 | 27.08 | 27.05 | 121.28 | 240.18 | 4,446.67 | 4,538.49 | 4,500.32 | 38.17 | 118.911 | |
| 7,700.00 | 7,692.49 | 7,666.35 | 7,654.39 | 27.44 | 27.41 | 121.37 | 240.18 | 4,446.67 | 4,543.03 | 4,504.36 | 38.67 | 117.469 | |
| 7,800.00 | 7,792.11 | 7,765.97 | 7,754.01 | 27.81 | 27.76 | 121.47 | 240.18 | 4,446.67 | 4,547.58 | 4,508.40 | 39.18 | 116.064 | |
| 7,900.00 | 7,891.73 | 7,865.60 | 7,853.63 | 28.18 | 28.11 | 121.56 | 240.18 | 4,446.67 | 4,552.15 | 4,512.46 | 39.69 | 114.694 | |
| 8,000.00 | 7,991.35 | 7,965.22 | 7,953.25 | 28.55 | 28.47 | 121.65 | 240.18 | 4,446.67 | 4,556.72 | 4,516.52 | 40.20 | 113.358 | |
| 8,100.00 | 8,090.97 | 8,064.84 | 8,052.87 | 28.92 | 28.82 | 121.75 | 240.18 | 4,446.67 | 4,561.31 | 4,520.60 | 40.71 | 112.055 | |
| 8,200.00 | 8,190.59 | 8,164.46 | 8,152.49 | 29.28 | 29.17 | 121.84 | 240.18 | 4,446.67 | 4,565.91 | 4,524.70 | 41.21 | 110.784 | |
| 8,226.93 | 8,217.42 | 8,191.28 | 8,179.32 | 29.38 | 29.27 | 121.86 | 240.18 | 4,446.67 | 4,567.15 | 4,525.80 | 41.35 | 110.447 | |
| 8,300.00 | 8,290.27 | 8,264.13 | 8,252.17 | 29.65 | 29.53 | 121.96 | 240.18 | 4,446.67 | 4,570.15 | 4,528.43 | 41.72 | 109.536 | |
| 8,400.00 | 8,390.11 | 8,363.98 | 8,352.01 | 30.02 | 29.88 | 122.06 | 240.18 | 4,446.67 | 4,573.07 | 4,530.84 | 42.23 | 108.290 | |
| 8,500.00 | 8,490.07 | 8,463.93 | 8,451.97 | 30.38 | 30.24 | 122.11 | 240.18 | 4,446.67 | 4,574.60 | 4,531.86 | 42.73 | 107.046 | |
| 8,559.94 | 8,550.00 | 8,523.87 | 8,511.90 | 30.59 | 30.45 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,531.81 | 43.04 | 106.301 | |
| 8,600.00 | 8,590.07 | 8,563.93 | 8,551.97 | 30.73 | 30.59 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,531.61 | 43.24 | 105.805 | |
| 8,700.00 | 8,690.07 | 8,663.93 | 8,651.97 | 31.09 | 30.95 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,531.10 | 43.74 | 104.588 | |
| 8,800.00 | 8,790.07 | 8,763.93 | 8,751.97 | 31.44 | 31.30 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,530.60 | 44.25 | 103.398 | |
| 8,900.00 | 8,890.07 | 8,863.93 | 8,851.97 | 31.80 | 31.66 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,530.10 | 44.75 | 102.234 | |
| 9,000.00 | 8,990.07 | 8,963.93 | 8,951.97 | 32.15 | 32.02 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,529.59 | 45.25 | 101.096 | |
| 9,100.00 | 9,090.07 | 9,063.93 | 9,051.97 | 32.51 | 32.37 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,529.09 | 45.76 | 99.983 | |
| 9,200.00 | 9,190.07 | 9,163.93 | 9,151.97 | 32.87 | 32.73 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,528.59 | 46.26 | 98.894 | |
| 9,300.00 | 9,290.07 | 9,263.93 | 9,251.97 | 33.22 | 33.08 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,528.08 | 46.76 | 97.829 | |
| 9,400.00 | 9,390.07 | 9,363.93 | 9,351.97 | 33.58 | 33.44 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,527.58 | 47.27 | 96.786 | |
| 9,500.00 | 9,490.07 | 9,463.93 | 9,451.97 | 33.93 | 33.79 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,527.07 | 47.77 | 95.765 | |
| 9,600.00 | 9,590.07 | 9,563.93 | 9,551.97 | 34.29 | 34.15 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,526.57 | 48.28 | 94.765 | |
| 9,700.00 | 9,690.07 | 9,663.93 | 9,651.97 | 34.65 | 34.51 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,526.07 | 48.78 | 93.786 | |
| 9,800.00 | 9,790.07 | 9,763.93 | 9,751.97 | 35.00 | 34.86 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,525.56 | 49.28 | 92.826 | |
| 9,900.00 | 9,890.07 | 9,863.93 | 9,851.97 | 35.36 | 35.22 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,525.06 | 49.79 | 91.886 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,000.00 | 9,990.07 | 9,963.93 | 9,951.97 | 35.71 | 35.57 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,524.55 | 50.29 | 90.965 | |
| 10,100.00 | 10,090.07 | 10,063.93 | 10,051.97 | 36.07 | 35.93 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,524.05 | 50.80 | 90.062 | |
| 10,200.00 | 10,190.07 | 10,163.93 | 10,151.97 | 36.43 | 36.29 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,523.55 | 51.30 | 89.177 | |
| 10,300.00 | 10,290.07 | 10,263.93 | 10,251.97 | 36.78 | 36.64 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,523.04 | 51.81 | 88.308 | |
| 10,400.00 | 10,390.07 | 10,363.93 | 10,351.97 | 37.14 | 37.00 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,522.54 | 52.31 | 87.457 | |
| 10,500.00 | 10,490.07 | 10,463.93 | 10,451.97 | 37.50 | 37.36 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,522.03 | 52.81 | 86.621 | |
| 10,600.00 | 10,590.07 | 10,563.93 | 10,551.97 | 37.85 | 37.71 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,521.53 | 53.32 | 85.801 | |
| 10,700.00 | 10,690.07 | 10,663.93 | 10,651.97 | 38.21 | 38.07 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,521.02 | 53.82 | 84.997 | |
| 10,800.00 | 10,790.07 | 10,763.93 | 10,751.97 | 38.57 | 38.43 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,520.52 | 54.33 | 84.208 | |
| 10,900.00 | 10,890.07 | 10,863.93 | 10,851.97 | 38.92 | 38.78 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,520.01 | 54.83 | 83.432 | |
| 11,000.00 | 10,990.07 | 10,963.93 | 10,951.97 | 39.28 | 39.14 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,519.51 | 55.34 | 82.671 | |
| 11,100.00 | 11,090.07 | 11,063.93 | 11,051.97 | 39.64 | 39.50 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,519.00 | 55.84 | 81.924 | |
| 11,200.00 | 11,190.07 | 11,163.93 | 11,151.97 | 39.99 | 39.85 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,518.50 | 56.35 | 81.190 | |
| 11,300.00 | 11,290.07 | 11,263.93 | 11,251.97 | 40.35 | 40.21 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,517.99 | 56.85 | 80.469 | |
| 11,374.94 | 11,365.00 | 11,338.87 | 11,326.90 | 40.62 | 40.48 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,517.62 | 57.23 | 79.937 | |
| 11,375.00 | 11,365.07 | 11,338.93 | 11,326.97 | 40.62 | 40.48 | 89.50 | 240.18 | 4,446.67 | 4,574.85 | 4,517.62 | 57.23 | 79.937 | |
| 11,400.00 | 11,390.06 | 11,363.92 | 11,351.96 | 40.70 | 40.57 | -90.01 | 240.18 | 4,446.67 | 4,574.85 | 4,517.49 | 57.35 | 79.766 | |
| 11,450.00 | 11,439.85 | 11,413.72 | 11,401.75 | 40.86 | 40.74 | -90.06 | 240.18 | 4,446.67 | 4,574.85 | 4,517.26 | 57.59 | 79.440 | |
| 11,500.00 | 11,489.07 | 11,462.94 | 11,450.97 | 41.01 | 40.92 | -90.17 | 240.18 | 4,446.67 | 4,574.87 | 4,517.05 | 57.82 | 79.125 | |
| 11,550.00 | 11,537.35 | 11,511.75 | 11,499.78 | 41.15 | 41.09 | -90.32 | 240.01 | 4,446.67 | 4,574.92 | 4,516.89 | 58.04 | 78.827 | |
| 11,600.00 | 11,584.32 | 11,562.32 | 11,550.22 | 41.28 | 41.25 | -90.48 | 236.57 | 4,446.71 | 4,575.03 | 4,516.78 | 58.24 | 78.548 | |
| 11,650.00 | 11,629.62 | 11,614.24 | 11,601.48 | 41.41 | 41.40 | -90.65 | 228.42 | 4,446.79 | 4,575.18 | 4,516.73 | 58.45 | 78.281 | |
| 11,700.00 | 11,672.90 | 11,667.61 | 11,653.17 | 41.53 | 41.56 | -90.81 | 215.25 | 4,446.91 | 4,575.37 | 4,516.73 | 58.64 | 78.026 | |
| 11,750.00 | 11,713.85 | 11,722.50 | 11,704.83 | 41.63 | 41.70 | -90.97 | 196.75 | 4,447.10 | 4,575.60 | 4,516.77 | 58.83 | 77.781 | |
| 11,800.00 | 11,752.13 | 11,779.00 | 11,755.90 | 41.73 | 41.85 | -91.12 | 172.63 | 4,447.33 | 4,575.86 | 4,516.85 | 59.01 | 77.546 | |
| 11,850.00 | 11,787.47 | 11,837.16 | 11,805.72 | 41.82 | 41.98 | -91.27 | 142.68 | 4,447.62 | 4,576.15 | 4,516.96 | 59.19 | 77.318 | |
| 11,900.00 | 11,819.60 | 11,897.00 | 11,853.55 | 41.92 | 42.10 | -91.41 | 106.76 | 4,447.98 | 4,576.45 | 4,517.09 | 59.36 | 77.097 | |
| 11,950.00 | 11,848.26 | 11,958.54 | 11,898.55 | 42.02 | 42.21 | -91.54 | 64.83 | 4,448.39 | 4,576.76 | 4,517.23 | 59.53 | 76.879 | |
| 12,000.00 | 11,873.25 | 12,021.72 | 11,939.80 | 42.13 | 42.33 | -91.66 | 17.02 | 4,448.86 | 4,577.06 | 4,517.36 | 59.71 | 76.661 | |
| 12,050.00 | 11,894.37 | 12,086.44 | 11,976.33 | 42.24 | 42.47 | -91.76 | -36.36 | 4,449.38 | 4,577.35 | 4,517.47 | 59.88 | 76.440 | |
| 12,100.00 | 11,911.46 | 12,152.57 | 12,007.21 | 42.35 | 42.61 | -91.85 | -94.80 | 4,449.95 | 4,577.62 | 4,517.55 | 60.06 | 76.214 | |
| 12,150.00 | 11,924.39 | 12,219.90 | 12,031.51 | 42.47 | 42.77 | -91.91 | -157.55 | 4,450.57 | 4,577.84 | 4,517.59 | 60.25 | 75.980 | |
| 12,200.00 | 11,933.06 | 12,288.17 | 12,048.47 | 42.59 | 42.93 | -91.96 | -223.63 | 4,451.21 | 4,578.02 | 4,517.58 | 60.45 | 75.738 | |
| 12,250.00 | 11,937.42 | 12,357.08 | 12,057.50 | 42.72 | 43.10 | -91.99 | -291.89 | 4,451.88 | 4,578.15 | 4,517.50 | 60.65 | 75.488 | |
| 12,268.73 | 11,937.92 | 12,382.99 | 12,058.76 | 42.76 | 43.16 | -91.99 | -317.77 | 4,452.13 | 4,578.18 | 4,517.46 | 60.72 | 75.393 | |
| 12,300.00 | 11,938.26 | 12,415.30 | 12,059.41 | 42.84 | 43.25 | -91.99 | -350.07 | 4,452.45 | 4,578.22 | 4,517.38 | 60.84 | 75.249 | |
| 12,400.00 | 11,939.35 | 12,515.29 | 12,061.36 | 43.15 | 43.55 | -92.01 | -450.05 | 4,453.43 | 4,578.35 | 4,517.09 | 61.26 | 74.736 | |
| 12,500.00 | 11,940.43 | 12,615.29 | 12,063.32 | 43.51 | 43.91 | -92.02 | -550.02 | 4,454.41 | 4,578.49 | 4,516.72 | 61.77 | 74.127 | |
| 12,600.00 | 11,941.51 | 12,715.28 | 12,065.28 | 43.93 | 44.32 | -92.03 | -649.99 | 4,455.39 | 4,578.62 | 4,516.26 | 62.35 | 73.429 | |
| 12,700.00 | 11,942.59 | 12,815.28 | 12,067.24 | 44.41 | 44.80 | -92.04 | -749.96 | 4,456.37 | 4,578.75 | 4,515.73 | 63.02 | 72.651 | |
| 12,800.00 | 11,943.68 | 12,915.28 | 12,069.19 | 44.94 | 45.32 | -92.05 | -849.93 | 4,457.35 | 4,578.88 | 4,515.11 | 63.77 | 71.800 | |
| 12,900.00 | 11,944.76 | 13,015.27 | 12,071.15 | 45.53 | 45.91 | -92.06 | -949.91 | 4,458.33 | 4,579.02 | 4,514.42 | 64.60 | 70.886 | |
| 13,000.00 | 11,945.84 | 13,115.27 | 12,073.11 | 46.17 | 46.54 | -92.07 | -1,049.88 | 4,459.30 | 4,579.15 | 4,513.66 | 65.49 | 69.917 | |
| 13,100.00 | 11,946.92 | 13,215.27 | 12,075.06 | 46.86 | 47.22 | -92.08 | -1,149.85 | 4,460.28 | 4,579.28 | 4,512.82 | 66.46 | 68.902 | |
| 13,200.00 | 11,948.01 | 13,315.26 | 12,077.02 | 47.59 | 47.95 | -92.09 | -1,249.82 | 4,461.26 | 4,579.42 | 4,511.92 | 67.50 | 67.848 | |
| 13,300.00 | 11,949.09 | 13,415.26 | 12,078.98 | 48.37 | 48.72 | -92.10 | -1,349.80 | 4,462.24 | 4,579.55 | 4,510.96 | 68.59 | 66.764 | |
| 13,400.00 | 11,950.17 | 13,515.25 | 12,080.94 | 49.20 | 49.54 | -92.11 | -1,449.77 | 4,463.22 | 4,579.68 | 4,509.93 | 69.75 | 65.657 | |
| 13,500.00 | 11,951.25 | 13,615.25 | 12,082.89 | 50.06 | 50.40 | -92.12 | -1,549.74 | 4,464.20 | 4,579.82 | 4,508.85 | 70.97 | 64.533 | |
| 13,600.00 | 11,952.33 | 13,715.25 | 12,084.85 | 50.97 | 51.29 | -92.14 | -1,649.71 | 4,465.18 | 4,579.95 | 4,507.71 | 72.24 | 63.398 | |
| 13,700.00 | 11,953.42 | 13,815.24 | 12,086.81 | 51.91 | 52.23 | -92.15 | -1,749.68 | 4,466.16 | 4,580.08 | 4,506.52 | 73.56 | 62.259 | |
| 13,800.00 | 11,954.50 | 13,915.24 | 12,088.76 | 52.88 | 53.20 | -92.16 | -1,849.66 | 4,467.14 | 4,580.22 | 4,505.28 | 74.94 | 61.120 | |
| 13,900.00 | 11,955.58 | 14,015.23 | 12,090.72 | 53.89 | 54.20 | -92.17 | -1,949.63 | 4,468.12 | 4,580.35 | 4,503.99 | 76.36 | 59.985 | |

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

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,000.00 | 11,956.66 | 14,115.23 | 12,092.68 | 54.93 | 55.23 | -92.18 | -2,049.60 | 4,469.09 | 4,580.49 | 4,502.66 | 77.82 | 58.858 | |
| 14,100.00 | 11,957.75 | 14,215.23 | 12,094.64 | 56.00 | 56.29 | -92.19 | -2,149.57 | 4,470.07 | 4,580.62 | 4,501.29 | 79.33 | 57.742 | |
| 14,200.00 | 11,958.83 | 14,315.22 | 12,096.59 | 57.10 | 57.38 | -92.20 | -2,249.55 | 4,471.05 | 4,580.76 | 4,499.88 | 80.87 | 56.640 | |
| 14,300.00 | 11,959.91 | 14,415.22 | 12,098.55 | 58.22 | 58.50 | -92.21 | -2,349.52 | 4,472.03 | 4,580.89 | 4,498.44 | 82.46 | 55.555 | |
| 14,400.00 | 11,960.99 | 14,515.21 | 12,100.51 | 59.37 | 59.64 | -92.22 | -2,449.49 | 4,473.01 | 4,581.03 | 4,496.95 | 84.07 | 54.487 | |
| 14,500.00 | 11,962.08 | 14,615.21 | 12,102.47 | 60.54 | 60.81 | -92.23 | -2,549.46 | 4,473.99 | 4,581.16 | 4,495.44 | 85.73 | 53.440 | |
| 14,600.00 | 11,963.16 | 14,715.21 | 12,104.42 | 61.73 | 61.99 | -92.24 | -2,649.43 | 4,474.97 | 4,581.30 | 4,493.89 | 87.41 | 52.413 | |
| 14,700.00 | 11,964.24 | 14,815.20 | 12,106.38 | 62.94 | 63.20 | -92.26 | -2,749.41 | 4,475.95 | 4,581.43 | 4,492.32 | 89.12 | 51.408 | |
| 14,800.00 | 11,965.32 | 14,915.20 | 12,108.34 | 64.18 | 64.43 | -92.27 | -2,849.38 | 4,476.93 | 4,581.57 | 4,490.71 | 90.86 | 50.426 | |
| 14,900.00 | 11,966.41 | 15,015.20 | 12,110.29 | 65.43 | 65.67 | -92.28 | -2,949.35 | 4,477.91 | 4,581.71 | 4,489.08 | 92.62 | 49.466 | |
| 15,000.00 | 11,967.49 | 15,115.19 | 12,112.25 | 66.70 | 66.94 | -92.29 | -3,049.32 | 4,478.89 | 4,581.84 | 4,487.43 | 94.41 | 48.529 | |
| 15,100.00 | 11,968.57 | 15,215.19 | 12,114.21 | 67.99 | 68.22 | -92.30 | -3,149.29 | 4,479.86 | 4,581.98 | 4,485.75 | 96.23 | 47.616 | |
| 15,200.00 | 11,969.65 | 15,315.18 | 12,116.17 | 69.29 | 69.52 | -92.31 | -3,249.27 | 4,480.84 | 4,582.12 | 4,484.05 | 98.06 | 46.726 | |
| 15,300.00 | 11,970.74 | 15,415.18 | 12,118.12 | 70.60 | 70.83 | -92.32 | -3,349.24 | 4,481.82 | 4,582.25 | 4,482.33 | 99.92 | 45.860 | |
| 15,400.00 | 11,971.82 | 15,515.18 | 12,120.08 | 71.93 | 72.15 | -92.33 | -3,449.21 | 4,482.80 | 4,582.39 | 4,480.59 | 101.79 | 45.016 | |
| 15,500.00 | 11,972.90 | 15,615.17 | 12,122.04 | 73.28 | 73.49 | -92.34 | -3,549.18 | 4,483.78 | 4,582.53 | 4,478.84 | 103.69 | 44.195 | |
| 15,600.00 | 11,973.98 | 15,715.17 | 12,123.99 | 74.63 | 74.84 | -92.35 | -3,649.16 | 4,484.76 | 4,582.66 | 4,477.06 | 105.60 | 43.396 | |
| 15,700.00 | 11,975.07 | 15,815.16 | 12,125.95 | 76.00 | 76.21 | -92.36 | -3,749.13 | 4,485.74 | 4,582.80 | 4,475.27 | 107.53 | 42.619 | |
| 15,800.00 | 11,976.15 | 15,915.16 | 12,127.91 | 77.38 | 77.58 | -92.38 | -3,849.10 | 4,486.72 | 4,582.94 | 4,473.46 | 109.48 | 41.863 | |
| 15,900.00 | 11,977.23 | 16,015.16 | 12,129.87 | 78.77 | 78.96 | -92.39 | -3,949.07 | 4,487.70 | 4,583.08 | 4,471.64 | 111.43 | 41.128 | |
| 16,000.00 | 11,978.31 | 16,115.15 | 12,131.82 | 80.17 | 80.36 | -92.40 | -4,049.04 | 4,488.68 | 4,583.21 | 4,469.80 | 113.41 | 40.413 | |
| 16,100.00 | 11,979.40 | 16,215.15 | 12,133.78 | 81.57 | 81.76 | -92.41 | -4,149.02 | 4,489.65 | 4,583.35 | 4,467.96 | 115.40 | 39.718 | |
| 16,200.00 | 11,980.48 | 16,315.15 | 12,135.74 | 82.99 | 83.18 | -92.42 | -4,248.99 | 4,490.63 | 4,583.49 | 4,466.09 | 117.40 | 39.043 | |
| 16,300.00 | 11,981.56 | 16,415.14 | 12,137.69 | 84.42 | 84.60 | -92.43 | -4,348.96 | 4,491.61 | 4,583.63 | 4,464.22 | 119.41 | 38.386 | |
| 16,400.00 | 11,982.64 | 16,515.14 | 12,139.65 | 85.85 | 86.03 | -92.44 | -4,448.93 | 4,492.59 | 4,583.77 | 4,462.33 | 121.43 | 37.748 | |
| 16,500.00 | 11,983.73 | 16,615.13 | 12,141.61 | 87.29 | 87.47 | -92.45 | -4,548.91 | 4,493.57 | 4,583.91 | 4,460.44 | 123.47 | 37.127 | |
| 16,600.00 | 11,984.81 | 16,715.13 | 12,143.57 | 88.74 | 88.91 | -92.46 | -4,648.88 | 4,494.55 | 4,584.04 | 4,458.53 | 125.51 | 36.523 | |
| 16,700.00 | 11,985.89 | 16,815.13 | 12,145.52 | 90.20 | 90.37 | -92.47 | -4,748.85 | 4,495.53 | 4,584.18 | 4,456.62 | 127.57 | 35.936 | |
| 16,800.00 | 11,986.97 | 16,915.12 | 12,147.48 | 91.66 | 91.83 | -92.48 | -4,848.82 | 4,496.51 | 4,584.32 | 4,454.69 | 129.63 | 35.364 | |
| 16,900.00 | 11,988.06 | 17,015.12 | 12,149.44 | 93.13 | 93.29 | -92.49 | -4,948.79 | 4,497.49 | 4,584.46 | 4,452.76 | 131.70 | 34.809 | |
| 17,000.00 | 11,989.14 | 17,115.11 | 12,151.39 | 94.61 | 94.77 | -92.51 | -5,048.77 | 4,498.47 | 4,584.60 | 4,450.82 | 133.79 | 34.268 | |
| 17,100.00 | 11,990.22 | 17,215.11 | 12,153.35 | 96.09 | 96.24 | -92.52 | -5,148.74 | 4,499.45 | 4,584.74 | 4,448.86 | 135.88 | 33.742 | |
| 17,200.00 | 11,991.30 | 17,315.11 | 12,155.31 | 97.57 | 97.73 | -92.53 | -5,248.71 | 4,500.42 | 4,584.88 | 4,446.91 | 137.97 | 33.230 | |
| 17,300.00 | 11,992.39 | 17,415.10 | 12,157.27 | 99.06 | 99.22 | -92.54 | -5,348.68 | 4,501.40 | 4,585.02 | 4,444.94 | 140.08 | 32.731 | |
| 17,400.00 | 11,993.47 | 17,515.10 | 12,159.22 | 100.56 | 100.71 | -92.55 | -5,448.65 | 4,502.38 | 4,585.16 | 4,442.97 | 142.19 | 32.246 | |
| 17,500.00 | 11,994.55 | 17,615.09 | 12,161.18 | 102.06 | 102.21 | -92.56 | -5,548.63 | 4,503.36 | 4,585.30 | 4,440.99 | 144.31 | 31.774 | |
| 17,600.00 | 11,995.63 | 17,715.09 | 12,163.14 | 103.57 | 103.71 | -92.57 | -5,648.60 | 4,504.34 | 4,585.44 | 4,439.00 | 146.44 | 31.313 | |
| 17,700.00 | 11,996.72 | 17,815.09 | 12,165.10 | 105.08 | 105.22 | -92.58 | -5,748.57 | 4,505.32 | 4,585.58 | 4,437.01 | 148.57 | 30.865 | |
| 17,800.00 | 11,997.80 | 17,915.08 | 12,167.05 | 106.59 | 106.73 | -92.59 | -5,848.54 | 4,506.30 | 4,585.72 | 4,435.02 | 150.71 | 30.428 | |
| 17,900.00 | 11,998.88 | 18,015.08 | 12,169.01 | 108.11 | 108.25 | -92.60 | -5,948.52 | 4,507.28 | 4,585.86 | 4,433.01 | 152.85 | 30.002 | |
| 18,000.00 | 11,999.96 | 18,115.08 | 12,170.97 | 109.64 | 109.77 | -92.61 | -6,048.49 | 4,508.26 | 4,586.01 | 4,431.01 | 155.00 | 29.587 | |
| 18,100.00 | 12,001.05 | 18,215.07 | 12,172.92 | 111.16 | 111.30 | -92.63 | -6,148.46 | 4,509.24 | 4,586.15 | 4,428.99 | 157.16 | 29.182 | |
| 18,200.00 | 12,002.13 | 18,315.07 | 12,174.88 | 112.69 | 112.82 | -92.64 | -6,248.43 | 4,510.22 | 4,586.29 | 4,426.97 | 159.31 | 28.788 | |
| 18,300.00 | 12,003.21 | 18,415.06 | 12,176.84 | 114.23 | 114.36 | -92.65 | -6,348.40 | 4,511.19 | 4,586.43 | 4,424.95 | 161.48 | 28.403 | |
| 18,400.00 | 12,004.29 | 18,515.06 | 12,178.80 | 115.76 | 115.89 | -92.66 | -6,448.38 | 4,512.17 | 4,586.57 | 4,422.92 | 163.65 | 28.027 | |
| 18,500.00 | 12,005.38 | 18,615.06 | 12,180.75 | 117.30 | 117.43 | -92.67 | -6,548.35 | 4,513.15 | 4,586.71 | 4,420.89 | 165.82 | 27.661 | |
| 18,600.00 | 12,006.46 | 18,715.05 | 12,182.71 | 118.84 | 118.97 | -92.68 | -6,648.32 | 4,514.13 | 4,586.86 | 4,418.86 | 168.00 | 27.303 | |
| 18,700.00 | 12,007.54 | 18,815.05 | 12,184.67 | 120.39 | 120.51 | -92.69 | -6,748.29 | 4,515.11 | 4,587.00 | 4,416.82 | 170.18 | 26.954 | |
| 18,800.00 | 12,008.62 | 18,915.04 | 12,186.62 | 121.94 | 122.06 | -92.70 | -6,848.27 | 4,516.09 | 4,587.14 | 4,414.77 | 172.37 | 26.613 | |
| 18,900.00 | 12,009.71 | 19,015.04 | 12,188.58 | 123.49 | 123.61 | -92.71 | -6,948.24 | 4,517.07 | 4,587.28 | 4,412.73 | 174.56 | 26.280 | |
| 19,000.00 | 12,010.79 | 19,115.04 | 12,190.54 | 125.04 | 125.16 | -92.72 | -7,048.21 | 4,518.05 | 4,587.43 | 4,410.68 | 176.75 | 25.954 | |
| 19,100.00 | 12,011.87 | 19,215.03 | 12,192.50 | 126.60 | 126.72 | -92.73 | -7,148.18 | 4,519.03 | 4,587.57 | 4,408.62 | 178.95 | 25.637 | |

| | | | |
|---|---|---|---|
| **Company:** | Franklin Mountain Energy | **Local Co-ordinate Reference:** | Well Judge Baylor Fed Com 601H |
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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** LHS Wildcat Fed Com - LHS Wildcat Fed Com 705H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-OWSG (Rev2) MWD

**Offset Well Error:** 0.00 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,200.00 | 12,012.95 | 19,315.03 | 12,194.45 | 128.16 | 128.27 | -92.74 | -7,248.15 | 4,520.01 | 4,587.71 | 4,406.57 | 181.15 | 25.326 | |
| 19,300.00 | 12,014.03 | 19,415.02 | 12,196.41 | 129.72 | 129.83 | -92.76 | -7,348.13 | 4,520.98 | 4,587.86 | 4,404.51 | 183.35 | 25.023 | |
| 19,400.00 | 12,015.12 | 19,515.02 | 12,198.37 | 131.28 | 131.39 | -92.77 | -7,448.10 | 4,521.96 | 4,588.00 | 4,402.44 | 185.56 | 24.726 | |
| 19,500.00 | 12,016.20 | 19,615.02 | 12,200.32 | 132.85 | 132.96 | -92.78 | -7,548.07 | 4,522.94 | 4,588.14 | 4,400.38 | 187.77 | 24.436 | |
| 19,600.00 | 12,017.28 | 19,715.01 | 12,202.28 | 134.42 | 134.52 | -92.79 | -7,648.04 | 4,523.92 | 4,588.29 | 4,398.31 | 189.98 | 24.152 | |
| 19,700.00 | 12,018.36 | 19,815.01 | 12,204.24 | 135.98 | 136.09 | -92.80 | -7,748.01 | 4,524.90 | 4,588.43 | 4,396.24 | 192.19 | 23.874 | |
| 19,800.00 | 12,019.45 | 19,915.01 | 12,206.20 | 137.56 | 137.66 | -92.81 | -7,847.99 | 4,525.88 | 4,588.58 | 4,394.16 | 194.41 | 23.602 | |
| 19,900.00 | 12,020.53 | 20,015.00 | 12,208.15 | 139.13 | 139.23 | -92.82 | -7,947.96 | 4,526.86 | 4,588.72 | 4,392.09 | 196.63 | 23.337 | |
| 20,000.00 | 12,021.61 | 20,115.00 | 12,210.11 | 140.70 | 140.81 | -92.83 | -8,047.93 | 4,527.84 | 4,588.86 | 4,390.01 | 198.85 | 23.076 | |
| 20,100.00 | 12,022.69 | 20,214.99 | 12,212.07 | 142.28 | 142.38 | -92.84 | -8,147.90 | 4,528.82 | 4,589.01 | 4,387.93 | 201.08 | 22.822 | |
| 20,200.00 | 12,023.78 | 20,314.99 | 12,214.02 | 143.86 | 143.96 | -92.85 | -8,247.88 | 4,529.80 | 4,589.15 | 4,385.84 | 203.31 | 22.572 | |
| 20,300.00 | 12,024.86 | 20,414.99 | 12,215.98 | 145.44 | 145.54 | -92.86 | -8,347.85 | 4,530.78 | 4,589.30 | 4,383.76 | 205.54 | 22.328 | |
| 20,400.00 | 12,025.94 | 20,514.98 | 12,217.94 | 147.02 | 147.12 | -92.87 | -8,447.82 | 4,531.75 | 4,589.44 | 4,381.67 | 207.77 | 22.089 | |
| 20,500.00 | 12,027.02 | 20,614.98 | 12,219.90 | 148.61 | 148.70 | -92.89 | -8,547.79 | 4,532.73 | 4,589.59 | 4,379.58 | 210.01 | 21.855 | |
| 20,600.00 | 12,028.11 | 20,714.97 | 12,221.85 | 150.19 | 150.29 | -92.90 | -8,647.76 | 4,533.71 | 4,589.73 | 4,377.49 | 212.24 | 21.625 | |
| 20,700.00 | 12,029.19 | 20,814.97 | 12,223.81 | 151.78 | 151.87 | -92.91 | -8,747.74 | 4,534.69 | 4,589.88 | 4,375.40 | 214.48 | 21.400 | |
| 20,800.00 | 12,030.27 | 20,914.97 | 12,225.77 | 153.36 | 153.46 | -92.92 | -8,847.71 | 4,535.67 | 4,590.03 | 4,373.30 | 216.72 | 21.179 | |
| 20,900.00 | 12,031.35 | 21,014.96 | 12,227.73 | 154.95 | 155.05 | -92.93 | -8,947.68 | 4,536.65 | 4,590.17 | 4,371.21 | 218.96 | 20.963 | |
| 21,000.00 | 12,032.44 | 21,114.96 | 12,229.68 | 156.54 | 156.64 | -92.94 | -9,047.65 | 4,537.63 | 4,590.32 | 4,369.11 | 221.21 | 20.751 | |
| 21,100.00 | 12,033.52 | 21,214.96 | 12,231.64 | 158.14 | 158.23 | -92.95 | -9,147.63 | 4,538.61 | 4,590.46 | 4,367.01 | 223.46 | 20.543 | |
| 21,200.00 | 12,034.60 | 21,314.95 | 12,233.60 | 159.73 | 159.82 | -92.96 | -9,247.60 | 4,539.59 | 4,590.61 | 4,364.91 | 225.70 | 20.339 | |
| 21,300.00 | 12,035.68 | 21,414.95 | 12,235.55 | 161.32 | 161.41 | -92.97 | -9,347.57 | 4,540.57 | 4,590.76 | 4,362.80 | 227.95 | 20.139 | |
| 21,400.00 | 12,036.77 | 21,514.94 | 12,237.51 | 162.92 | 163.01 | -92.98 | -9,447.54 | 4,541.55 | 4,590.90 | 4,360.70 | 230.20 | 19.943 | |
| 21,500.00 | 12,037.85 | 21,614.94 | 12,239.47 | 164.51 | 164.60 | -92.99 | -9,547.51 | 4,542.52 | 4,591.05 | 4,358.59 | 232.46 | 19.750 | |
| 21,600.00 | 12,038.93 | 21,714.94 | 12,241.43 | 166.11 | 166.20 | -93.00 | -9,647.49 | 4,543.50 | 4,591.20 | 4,356.49 | 234.71 | 19.561 | |
| 21,700.00 | 12,040.01 | 21,814.93 | 12,243.38 | 167.71 | 167.80 | -93.02 | -9,747.46 | 4,544.48 | 4,591.34 | 4,354.38 | 236.97 | 19.375 | |
| 21,800.00 | 12,041.10 | 21,914.93 | 12,245.34 | 169.31 | 169.39 | -93.03 | -9,847.43 | 4,545.46 | 4,591.49 | 4,352.27 | 239.22 | 19.193 | |
| 21,900.00 | 12,042.18 | 22,014.92 | 12,247.30 | 170.91 | 170.99 | -93.04 | -9,947.40 | 4,546.44 | 4,591.64 | 4,350.16 | 241.48 | 19.014 | |
| 22,000.00 | 12,043.26 | 22,114.92 | 12,249.25 | 172.51 | 172.60 | -93.05 | -10,047.37 | 4,547.42 | 4,591.79 | 4,348.05 | 243.74 | 18.839 | |
| 22,100.00 | 12,044.34 | 22,214.92 | 12,251.21 | 174.11 | 174.20 | -93.06 | -10,147.35 | 4,548.40 | 4,591.94 | 4,345.93 | 246.00 | 18.666 | |
| 22,200.00 | 12,045.43 | 22,314.91 | 12,253.17 | 175.72 | 175.80 | -93.07 | -10,247.32 | 4,549.38 | 4,592.08 | 4,343.82 | 248.26 | 18.497 | |
| 22,300.00 | 12,046.51 | 22,414.91 | 12,255.13 | 177.32 | 177.40 | -93.08 | -10,347.29 | 4,550.36 | 4,592.23 | 4,341.70 | 250.53 | 18.330 | |
| 22,400.00 | 12,047.59 | 22,514.90 | 12,257.08 | 178.93 | 179.01 | -93.09 | -10,447.26 | 4,551.34 | 4,592.38 | 4,339.59 | 252.79 | 18.167 | |
| 22,500.00 | 12,048.67 | 22,614.90 | 12,259.04 | 180.53 | 180.61 | -93.10 | -10,547.24 | 4,552.31 | 4,592.53 | 4,337.47 | 255.06 | 18.006 | |
| 22,572.67 | 12,049.46 | 22,687.57 | 12,260.46 | 181.70 | 181.78 | -93.11 | -10,619.89 | 4,553.03 | 4,592.64 | 4,335.93 | 256.70 | 17.891 SF | |

| | | | |
|---|---|---|---|
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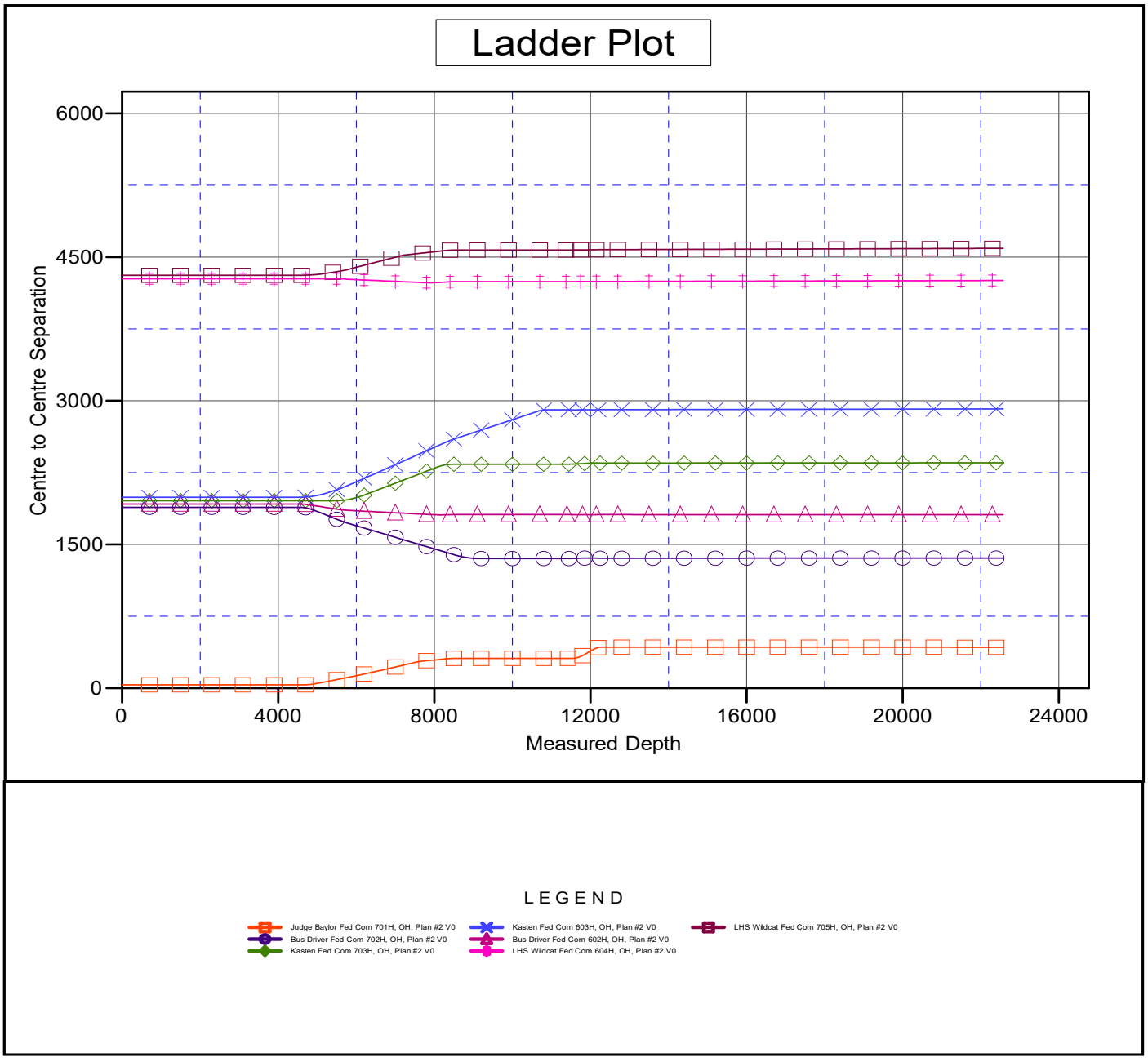
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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 3070' GE + 21' KB @ 3091.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Judge Baylor Fed Com 601H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.53°



| | | | |
|---|---|---|---|
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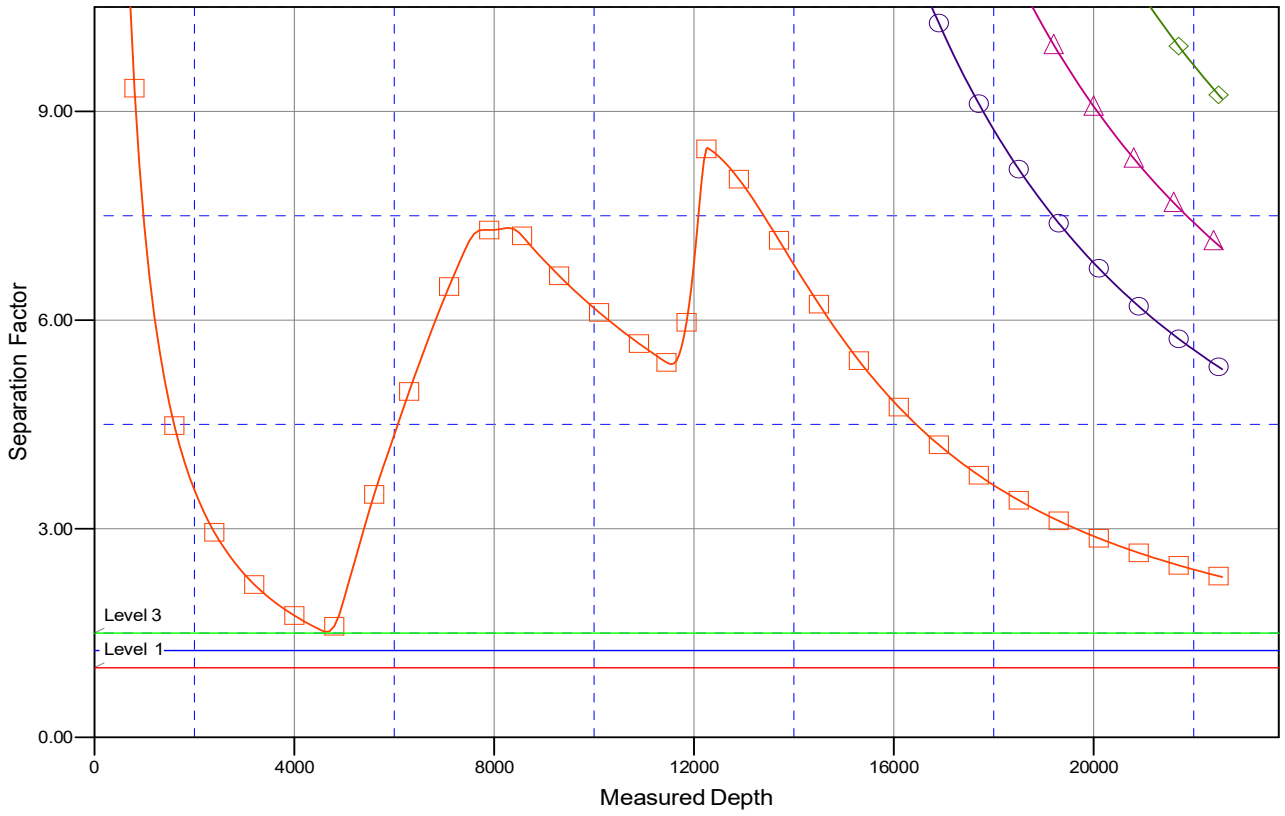
| **Project:** | Lea County, NM (NAD83) | **TVD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Reference Site:** | Judge Baylor Fed Com | **MD Reference:** | 3070' GE + 21' KB @ 3091.00usft |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Judge Baylor Fed Com 601H | **Survey Calculation Method:** | Minimum Curvature |
| **Well 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 3070' GE + 21' KB @ 3091.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Judge Baylor Fed Com 601H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.53°

## Separation Factor Plot




LEGEND

Judge Baylor Fed Com 701H, OH, Plan #2 V0
Bus Driver Fed Com 702H, OH, Plan #2 V0
Kasten Fed Com 703H, OH, Plan #2 V0
Kasten Fed Com 603H, OH, Plan #2 V0
Bus Driver Fed Com 602H, OH, Plan #2 V0
LHS Wildcat Fed Com 604H, OH, Plan #2 V0
LHS Wildcat Fed Com 705H, OH, Plan #2 V0

FRANKLIN MOUNTAIN ENERGY

# Judge Baylor Fed Com 601H

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) | 3,070' | 21' | 21' | 0 | Sand/Gravels/unconsolidated |
| Rustler | 2,397' | 694' | | | Carbonates |
| Salado | 2,012' | 1,079' | | | Salt, Carbonate & Clastics |
| Base Salt | -1,505' | 4,596' | | | Shaley Carbonate & Shale |
| Lamar | -1,940' | 5,031' | | | Carbonate & Clastics |
| Bell Canyon | -1,974' | 5,065' | | | Sandstone - oil/gas/water |
| Cherry Canyon | -2,841' | 5,932' | | | Sandstone - oil/gas/water |
| Brushy Canyon | -4,333' | 7,424' | | | Sand/carb/shales - oil/gas/water |
| Bone Spring Lime | -5,694' | 8,785' | | | Shale/Carbonates - oil/gas |
| Avalon | -5,718' | 8,809' | | | Shale/Carbonates - oil/gas |
| First Bone Spring Sand | -6,820' | 9,911' | | | Sandstone - oil/gas/water |
| Second Bone Spring Carbonates | -6,959' | 10,050' | | | Shale/Carbonates - oil/gas |
| Second Bone Spring Sand | -7,344' | 10,435' | | | Sandstone - oil/gas/water |
| Third Bone Spring Carbonates | -8,044' | 11,135' | | | Shale/Carbonates - oil/gas |
| Third Bone Spring Sand | -8,715' | 11,806' | | | Sandstone - oil/gas/water |
| HZ Target at SHL | -8,844' | 11,935' | | | Overpressure shale/sand- Oil/Gas |
| Wolfcamp | -8,957' | 12,048' | | | Overpressure shale/sand- Oil/Gas |
| Wolfcamp A | -9,018' | 12,109' | | | Overpressure Shale - Oil/Gas |
| Wolfcamp B | -9,238' | 12,329' | | | Overpressure Shale - Oil/Gas |

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

| | | |
|---|---|---|
| Upper Permian Sands | 0- 400’ | Fresh Water |
| Delaware Sands | 5,065’ | Oil |
| Bone Spring | 9,911’ | Oil |
| Wolfcamp | 12,048 | Oil |

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

4. **Casing Program:**

All 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 | 12268 | 1.08 | 1.25 | 1.78 | 1.21 |
| Long string 5 1/2" | 23 | P-110 | 14520 | 14520 | 729 | Anaconda 656 | 22572 | 1.32 | 1.37 | 1.18 | 1.06 |

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

| String | Hole | Casing | | | Lead | | | | | Tail | | | | Excess |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | Size | Size | Setting Depth | Sacks | Type of cmt | Yield ft3/sk | Water gal/sk | TOC ft | Sacks | Type of cmt | Yield ft3/sk | Water gal/sk | TOC | |
| Surf | 17.5 | 13.375 | 1300 | 804 | Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal<br>Bentonite, 2%CaCl2,0.25pps Cello-Flake | 1.728 | 9.19 | 0 | 331 | HalCem TM, 14.8 ppg, Class C, 2% CaCl2, 0.25pps Celo-Flake | 1.364 | 6.51 | 1000 | 100% |
| Int1 | 12.25 | 9.625 | 5400 | 1256 | Neocem TM, 11.5 ppg, Class C 50:50 Poz<br>Gel, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal | 2.271 | 13.24 | 0 | 152 | HalCem TM, 14.8 ppg, Class C, 0.25 pps Cello-Flake, 2% CalCl2 | 1.349 | 6.25 | 5100 | 100% |
| Int2 | 8.75 | 7.625 | 12268 | 357 | NeoCem, 11 ppg, Class C 2lb/sk Bridgemaker Gel, 5%<br>Salt, 5pps LCM, 0.25pps Cello-Flake | 2.777 | 14.21 | 4400 | 112 | NeoCem 13.2 ppg, Class C<br>0.25 pps Cello-Flake, 2% CalCl2 | 1.44 | 4.31 | 11268 | 50% |
| Prod | 6.75 | 5.5 | 22572 | 522 | NeoCem, 14.5 ppg, Gas Migration Control | 2.166 | 9.38 | 11268 | | | | | | 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' – 12,268' | Brine | 8.8-10.2 | 28-34 | N/c |
| 12,268' – 22,572' 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 12.0 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 12,049' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 7,518 psig (based on 12 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

## 10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H2S training.
B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
C. Required Emergency Equipment
    a. Well Control Equipment
        i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.
        ii. Choke manifold with a remotely operated hydraulic choke.
        iii. Mud/gas separator
    b. Protective equipment for essential personnel
        i. Breathing Apparatus

1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation

ii. Auxiliary Rescue Equipment

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

c. H2S Detection and Monitoring Equipment

i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:

1. Rig Floor
2. Below Rig Floor / Near BOPs
3. End of flow line or where well bore fluid is being discharged (near shakers)

ii. If H2S is encountered, measured values and formations will be provided to the BLM.

d. Visual Warning Systems

i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.

ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.

iii. Two windsocks will be placed in strategic locations, visible from all angles.

e. Mud Program

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

f. Metallurgy

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

g. Communication

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

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

**11. Anticipated starting date and duration of operations:**

The drilling operations on the well should be finished in approximately one month. However, in order to minimize disturbance in the area and to improve efficiency Franklin Mountain is planning to drill all the wells on

the pad prior to commence completion operations. To even further reduce the time heavy machinery is used the "batch drilling" method may be used. A batch drilling sequence sundry will be submitted for BLM approval prior to spud. A drilling rig with walking/skidding capabilities will be used.

**12. Disposal/environmental concerns:**

(A) Drilled cuttings will be hauled to and disposed of in a state-certified disposal site.
(B) Non-hazardous waste mud/cement from the drilling process will 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 ½" casing due to the tight clearance with 6 3/4" hole and 5 ½" casing due to tight clearances.