Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM0001228A

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.: GOLDEN FED COM 327860 704H

2. Name of Operator: FRANKLIN MOUNTAIN ENERGY LLC 373910

9. API Well No.: **30-025-47055**

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: 98098 WILDCAT UPPER WOLFCAMP/WC-025

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

At surface: SWSE / 325 FSL / 1373 FEL / LAT 32.225682 / LONG -103.368388

At proposed prod. zone: LOT 2 / 150 FNL / 2078 FEL / LAT 32.25342 / LONG -103.370744

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 9/T24S/R35E/NMP

14. Distance in miles and direction from nearest town or post office*: 18 miles

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): 325 feet

16. No of acres in lease: 680

17. Spacing Unit dedicated to this well: 640.0

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

19. Proposed Depth: 11705 feet / 21941 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3374 feet

22. Approximate date work will start*: 12/01/2019

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: (Electronic Submission) — Name *(Printed/Typed)*: Rachael Overbey / Ph: (720) 414-7868 — Date: 10/15/2019

Title: þÿ D i r e c t o r O p e r a t i o n s P l a n n i n g a n d R e g u l a t o r y

Approved by *(Signature)*: (Electronic Submission) — Name *(Printed/Typed)*: Cody Layton / Ph: (575) 234-5959 — Date: 03/30/2020

Title: Assistant Field Manager Lands & Minerals — Office: 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 03/31/2020

KZ 04/06/2020

SL

APPROVED WITH CONDITIONS

Approval Date: 03/30/2020

(Continued on page 2)

*(Instructions on page 2)

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**

Golden Fed Com 704H

1. **Geologic name of surface location:** Permian

2. **Estimated tops of important geological markers:**

Formations	PROG SS	PROG TVD
Cenozoic Alluvium (surface)	3,375'	21'
Rustler	2,415'	981'
Salado	2,318'	1,078'
Base Salt	393'	3,003'
Lamar	-1,903'	5,299'
Bell Canyon	-2,007'	5,403'
Cherry Canyon	-2,913'	6,309'
Brushy Canyon	-4,255'	7,651'
Bone Spring Lime	-5,564'	8,960'
Avalon	-5,590'	8,986'
First Bone Spring Sand	-6,681'	10,077'
Second Bone Spring Carbonates	-6,849'	10,245'
Second Bone Spring Sand	-7,256'	10,652'
Third Bone Spring Carbonates	-7,780'	11,176'
Third Bone Spring Sand	-8,222'	11,618'
Wolfcamp	-8,582'	11,978'
HZ Target	-8,596'	11,992'
Wolfcamp A	-8,610'	12,006'
Wolfcamp B	-8,809'	12,205'

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,403’	Oil
Bone Spring	10,077’	Oil
Wolfcamp	11,978’	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. Preliminary plan is to set 7 5/8”string before entering Wolfcamp formation at 11,877’TVD/12,200’MD at 75° Inc due too potential overpressure.

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
						Stinger					

Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	564	12200	1.09	1.25	1.79	1.22
Long string 5 1/2"	20	P-110	12640	11080	641	Anaconda 577	21941	1.15	1.09	1.20	1.08

Cementing Program:

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	803	Extenda Cem, 13.5 ppg Class C, 4% Bentonite, 2%CaCl2,0.25pps Cello-Flake	1.728	9.21	0	330	HalCem TM, 14.8 ppg, Class C, 2% CaCl2, 0.25pps Celo-Flake	1.364	6.61	1000	100%
Int1	12.25	9.625	5400	1523	Econocem TM, 12.9 ppg, Class C 50:50 Poz Gel, 0.25 pps Cello-Flake, 5% Salt, 2% Sodium	1.872	10.11	0	154	HalCem TM, 14.8 ppg, Class C, 0.25 pps Cello-Flake, 2% CalCl2	1.332	6.42	5100	100%
Int2	8.5	7.625	12200	222	NeoCem, 9 ppg, Class C 60:40 Poz Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	3.501	14.21	4400	120	NeoCem 15 ppg, Class C 0.25 pps Cello-Flake, 2% CalCl2	1.049	4.31	11200	50%
Prod	6.75	5.5	21941	410	SoluCem, 15 ppg, 0.25 D-Air, 0.85% HR 601	2.619	11.3	11200						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' – 12,200'	Brine	8.8-10.2	28-34	N/c
12,200' – 21,941' Lateral	Oil Base	10.0-11.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11 ppg. In order to maintain hole stability, mud weights up to 13.0 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 11,978' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,097 psig (based on 13 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

10. Hydrogen Sulfide Plan:

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

iii. Mud/gas separator

b. Protective equipment for essential personnel
   i. Breathing Apparatus
      1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
      2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
      3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
   ii. Auxiliary Rescue Equipment
      1. Stretcher
      2. Two OSHA full body harnesses
      3. 100 feet of 5/8 inches OSHA approved rope
      4. 1-20# class ABC fire extinguisher
c. H2S Detection and Monitoring Equipment
   i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
      1. Rig Floor
      2. Below Rig Floor / Near BOPs
      3. End of flow line or where well bore fluid is being discharged (near shakers)
   ii. If H2S is encountered, measured values and formations will be provided to the BLM.
d. Visual Warning Systems
   i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
   ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
   iii. Two windsocks will be placed in strategic locations, visible from all angles.
e. Mud Program
   i. The Mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
f. Metallurgy
   i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.
g. Communication
   i. Communication will be via cell phones and walkie talkies on location.

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

FRANKLIN MOUNTAIN ENERGY

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. The 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 30 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.

B. Pressure control

1. Variance is requested to use a co-flex line between the BOP and the choke manifold instead of using a 4” OD steel line
2. Variance is requested to use a 5,000 psi WP Annular Preventor.

Franklin Mountain Energy

DrilTech, LLC

Golden - Breckenridge Site
Golden Fed Com 704H
Wellbore #1
Plan #1

FRANKLIN MOUNTAIN ENERGY

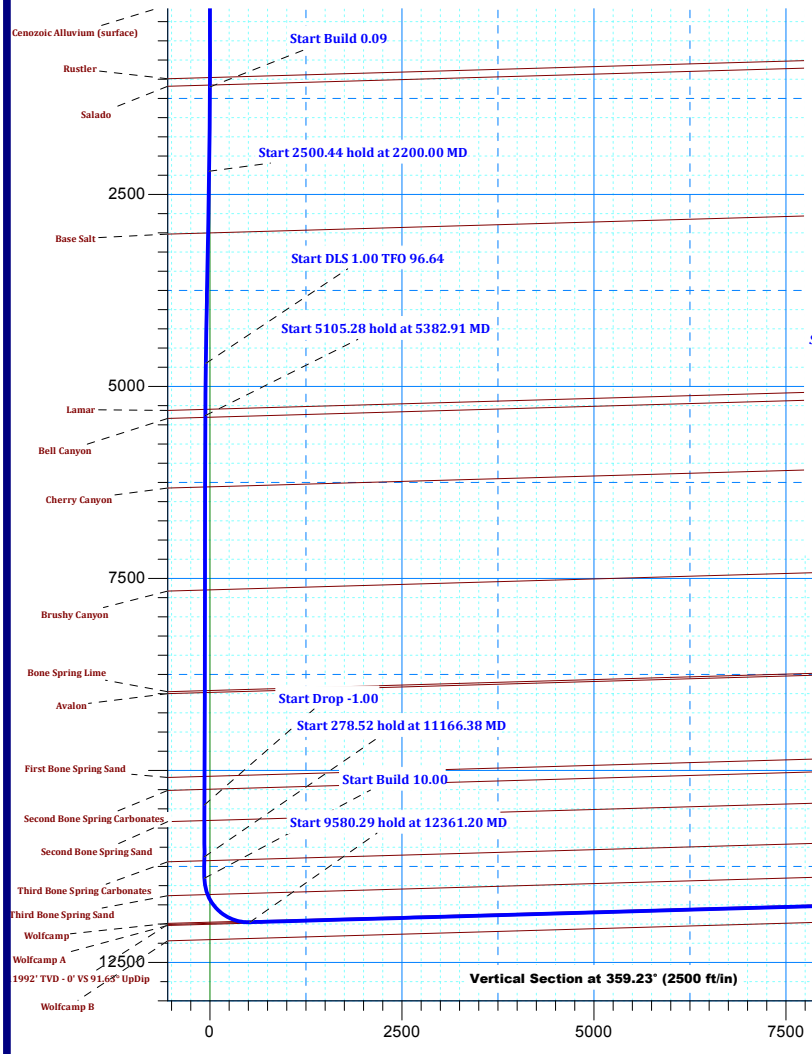
SURFACE LOCATION				
US State Plane 1983 New Mexico Eastern Zone Elevation: GL 3375' + RKB 21' @ 3396.00ft				
Northing	Easting	Latittude	Longitude	Slot
447176.77	839730.31	32° 13' 32.454 N	103° 22' 6.195 W	

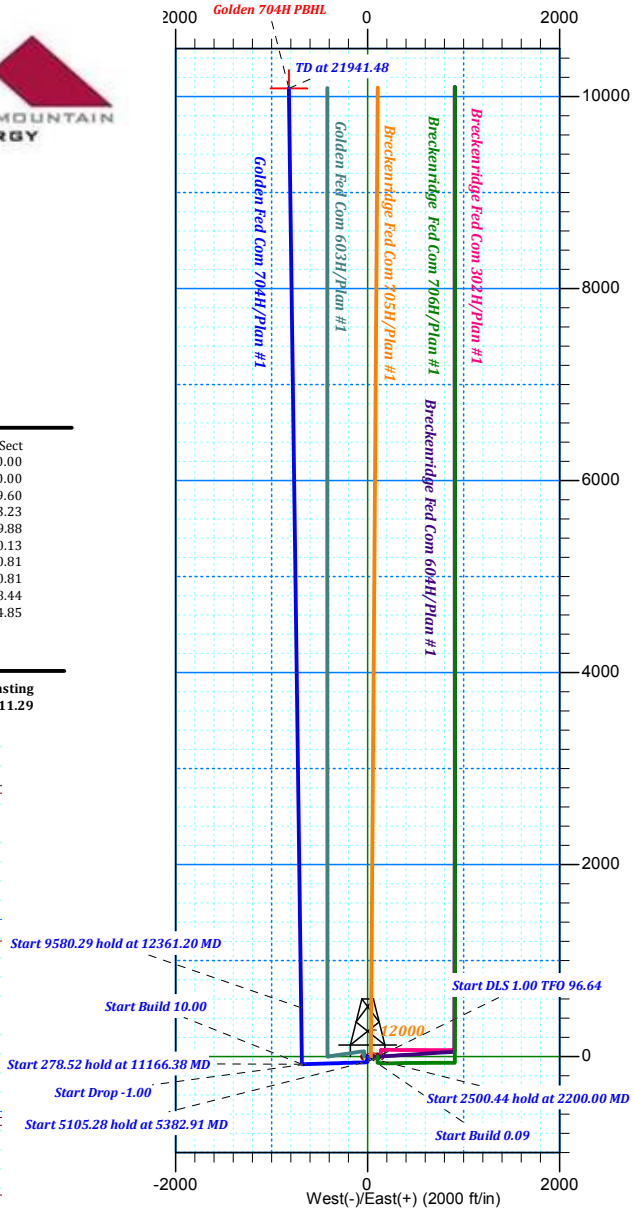
SECTION DETAILS

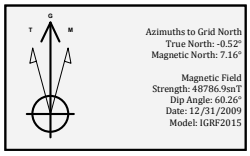
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
2200.00	1.00	180.00	2199.94	-9.60	0.00	0.09	180.00	-9.60
4700.44	1.00	180.00	4700.00	-53.24	0.00	0.00	0.00	-53.23
5382.91	6.78	268.26	5380.83	-60.43	-40.33	1.00	96.64	-59.88
10488.19	6.78	268.26	10450.39	-78.78	-642.93	0.00	0.00	-70.13
11166.38	0.00	0.00	11127.00	-80.00	-683.00	1.00	180.00	-70.81
11444.90	0.00	0.00	11405.52	-80.00	-683.00	0.00	0.00	-70.81
12361.20	91.63	359.23	11978.25	509.20	-690.88	10.00	359.23	518.44
21941.48	91.63	359.23	11705.74	10084.76	-819.02	0.00	0.00	10094.85

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Golden 704H PBHL	11705.74	10084.76	-819.02	457261.51	838911.29







Franklin Mountain Energy

Golden - Breckenridge Site
Lea County, NM (NAD 83)
Golden Fed Com 704H

Wellbore #1

Plan: Plan #1

Standard Planning Report

08 July, 2019

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project Golden - Breckenridge Site

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Lea County, NM (NAD 83)

Site Position:		**Northing:**	447,177.09 usft	**Latitude:**	32° 13' 32.454 N
From:	Map	**Easting:**	839,765.30 usft	**Longitude:**	103° 22' 5.788 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.51 °

Well Golden Fed Com 704H

Well Position	**+N/-S**	-0.32 ft	**Northing:**	447,176.77 usft	**Latitude:**	32° 13' 32.454 N
	+E/-W	-34.99 ft	**Easting:**	839,730.31 usft	**Longitude:**	103° 22' 6.195 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,375.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2009	7.67	60.26	48,786.89411323

Design Plan #1

Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	359.23	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
2,200.00	1.00	180.00	2,199.94	-9.60	0.00	0.09	0.09	0.00	180.00	
4,700.44	1.00	180.00	4,700.00	-53.24	0.00	0.00	0.00	0.00	0.00	
5,382.91	6.78	268.26	5,380.83	-60.43	-40.33	1.00	0.85	12.93	96.64	
10,488.19	6.78	268.26	10,450.40	-78.78	-642.93	0.00	0.00	0.00	0.00	
11,166.38	0.00	0.00	11,127.00	-80.00	-683.00	1.00	-1.00	0.00	180.00	
11,444.90	0.00	0.00	11,405.52	-80.00	-683.00	0.00	0.00	0.00	0.00	
12,361.20	91.63	359.23	11,978.25	509.20	-690.88	10.00	10.00	0.00	359.23	
21,941.48	91.63	359.23	11,705.74	10,084.76	-819.02	0.00	0.00	0.00	0.00	Golden 704H PBHL

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00
Cenozoic Alluvium (surface)									
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
981.00	0.00	0.00	981.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,078.00	0.00	0.00	1,078.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 0.09									
1,200.00	0.09	180.00	1,200.00	-0.08	0.00	-0.08	0.09	0.09	0.00
1,300.00	0.18	180.00	1,300.00	-0.32	0.00	-0.32	0.09	0.09	0.00
1,400.00	0.27	180.00	1,400.00	-0.71	0.00	-0.71	0.09	0.09	0.00
1,500.00	0.36	180.00	1,500.00	-1.27	0.00	-1.27	0.09	0.09	0.00
1,600.00	0.45	180.00	1,599.99	-1.98	0.00	-1.98	0.09	0.09	0.00
1,700.00	0.55	180.00	1,699.99	-2.86	0.00	-2.86	0.09	0.09	0.00
1,800.00	0.64	180.00	1,799.99	-3.89	0.00	-3.89	0.09	0.09	0.00
1,900.00	0.73	180.00	1,899.98	-5.08	0.00	-5.08	0.09	0.09	0.00
2,000.00	0.82	180.00	1,999.97	-6.43	0.00	-6.43	0.09	0.09	0.00
2,100.00	0.91	180.00	2,099.96	-7.93	0.00	-7.93	0.09	0.09	0.00
2,200.00	1.00	180.00	2,199.94	-9.60	0.00	-9.60	0.09	0.09	0.00
Start 2500.44 hold at 2200.00 MD									
2,300.00	1.00	180.00	2,299.93	-11.34	0.00	-11.34	0.00	0.00	0.00
2,400.00	1.00	180.00	2,399.91	-13.09	0.00	-13.09	0.00	0.00	0.00
2,500.00	1.00	180.00	2,499.90	-14.83	0.00	-14.83	0.00	0.00	0.00
2,600.00	1.00	180.00	2,599.88	-16.58	0.00	-16.58	0.00	0.00	0.00
2,700.00	1.00	180.00	2,699.87	-18.33	0.00	-18.32	0.00	0.00	0.00
2,800.00	1.00	180.00	2,799.85	-20.07	0.00	-20.07	0.00	0.00	0.00
2,900.00	1.00	180.00	2,899.84	-21.82	0.00	-21.81	0.00	0.00	0.00
3,000.00	1.00	180.00	2,999.82	-23.56	0.00	-23.56	0.00	0.00	0.00
3,003.85	1.00	180.00	3,003.67	-23.63	0.00	-23.63	0.00	0.00	0.00
Base Salt									
3,100.00	1.00	180.00	3,099.81	-25.31	0.00	-25.30	0.00	0.00	0.00
3,200.00	1.00	180.00	3,199.79	-27.05	0.00	-27.05	0.00	0.00	0.00
3,300.00	1.00	180.00	3,299.78	-28.80	0.00	-28.79	0.00	0.00	0.00
3,400.00	1.00	180.00	3,399.76	-30.54	0.00	-30.54	0.00	0.00	0.00
3,500.00	1.00	180.00	3,499.75	-32.29	0.00	-32.28	0.00	0.00	0.00
3,600.00	1.00	180.00	3,599.73	-34.03	0.00	-34.03	0.00	0.00	0.00
3,700.00	1.00	180.00	3,699.72	-35.78	0.00	-35.77	0.00	0.00	0.00
3,800.00	1.00	180.00	3,799.70	-37.52	0.00	-37.52	0.00	0.00	0.00
3,900.00	1.00	180.00	3,899.69	-39.27	0.00	-39.26	0.00	0.00	0.00
4,000.00	1.00	180.00	3,999.67	-41.01	0.00	-41.01	0.00	0.00	0.00
4,100.00	1.00	180.00	4,099.65	-42.76	0.00	-42.75	0.00	0.00	0.00
4,200.00	1.00	180.00	4,199.64	-44.50	0.00	-44.50	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,300.00	1.00	180.00	4,299.62	-46.25	0.00	-46.24	0.00	0.00	0.00
4,400.00	1.00	180.00	4,399.61	-47.99	0.00	-47.99	0.00	0.00	0.00
4,500.00	1.00	180.00	4,499.59	-49.74	0.00	-49.74	0.00	0.00	0.00
4,600.00	1.00	180.00	4,599.58	-51.48	0.00	-51.48	0.00	0.00	0.00
4,700.00	1.00	180.00	4,699.56	-53.23	0.00	-53.23	0.00	0.00	0.00
4,700.44	1.00	180.00	4,700.00	-53.24	0.00	-53.23	0.00	0.00	0.00
Start DLS 1.00 TFO 96.64									
4,800.00	1.33	228.18	4,799.55	-54.88	-0.86	-54.86	1.00	0.33	48.39
4,900.00	2.13	248.80	4,899.50	-56.32	-3.45	-56.27	1.00	0.80	20.62
5,000.00	3.05	257.63	4,999.40	-57.56	-7.78	-57.45	1.00	0.92	8.83
5,100.00	4.00	262.30	5,099.21	-58.60	-13.83	-58.40	1.00	0.96	4.68
5,200.00	4.98	265.16	5,198.90	-59.43	-21.62	-59.13	1.00	0.97	2.86
5,300.00	5.96	267.08	5,298.44	-60.06	-31.13	-59.64	1.00	0.98	1.92
5,302.27	5.99	267.12	5,300.70	-60.07	-31.37	-59.65	1.00	0.99	1.60
Lamar									
5,382.91	6.78	268.26	5,380.83	-60.43	-40.33	-59.88	1.00	0.99	1.41
Start 5105.28 hold at 5382.91 MD									
5,400.00	6.78	268.26	5,397.81	-60.49	-42.34	-59.92	0.00	0.00	0.00
5,406.94	6.78	268.26	5,404.71	-60.51	-43.16	-59.93	0.00	0.00	0.00
Bell Canyon									
5,500.00	6.78	268.26	5,497.11	-60.85	-54.15	-60.12	0.00	0.00	0.00
5,600.00	6.78	268.26	5,596.41	-61.21	-65.95	-60.32	0.00	0.00	0.00
5,700.00	6.78	268.26	5,695.71	-61.57	-77.75	-60.52	0.00	0.00	0.00
5,800.00	6.78	268.26	5,795.01	-61.93	-89.56	-60.72	0.00	0.00	0.00
5,900.00	6.78	268.26	5,894.31	-62.29	-101.36	-60.92	0.00	0.00	0.00
6,000.00	6.78	268.26	5,993.61	-62.65	-113.16	-61.12	0.00	0.00	0.00
6,100.00	6.78	268.26	6,092.91	-63.01	-124.97	-61.32	0.00	0.00	0.00
6,200.00	6.78	268.26	6,192.21	-63.37	-136.77	-61.52	0.00	0.00	0.00
6,300.00	6.78	268.26	6,291.51	-63.72	-148.57	-61.72	0.00	0.00	0.00
6,319.38	6.78	268.26	6,310.76	-63.79	-150.86	-61.76	0.00	0.00	0.00
Cherry Canyon									
6,400.00	6.78	268.26	6,390.81	-64.08	-160.38	-61.92	0.00	0.00	0.00
6,500.00	6.78	268.26	6,490.11	-64.44	-172.18	-62.12	0.00	0.00	0.00
6,600.00	6.78	268.26	6,589.41	-64.80	-183.99	-62.32	0.00	0.00	0.00
6,700.00	6.78	268.26	6,688.71	-65.16	-195.79	-62.53	0.00	0.00	0.00
6,800.00	6.78	268.26	6,788.01	-65.52	-207.59	-62.73	0.00	0.00	0.00
6,900.00	6.78	268.26	6,887.31	-65.88	-219.40	-62.93	0.00	0.00	0.00
7,000.00	6.78	268.26	6,986.61	-66.24	-231.20	-63.13	0.00	0.00	0.00
7,100.00	6.78	268.26	7,085.91	-66.60	-243.00	-63.33	0.00	0.00	0.00
7,200.00	6.78	268.26	7,185.21	-66.96	-254.81	-63.53	0.00	0.00	0.00
7,300.00	6.78	268.26	7,284.51	-67.32	-266.61	-63.73	0.00	0.00	0.00
7,400.00	6.78	268.26	7,383.82	-67.68	-278.41	-63.93	0.00	0.00	0.00
7,500.00	6.78	268.26	7,483.12	-68.04	-290.22	-64.13	0.00	0.00	0.00
7,600.00	6.78	268.26	7,582.42	-68.40	-302.02	-64.33	0.00	0.00	0.00
7,670.92	6.78	268.26	7,652.83	-68.65	-310.39	-64.47	0.00	0.00	0.00
Brushy Canyon									
7,700.00	6.78	268.26	7,681.72	-68.76	-313.82	-64.53	0.00	0.00	0.00
7,800.00	6.78	268.26	7,781.02	-69.12	-325.63	-64.73	0.00	0.00	0.00
7,900.00	6.78	268.26	7,880.32	-69.48	-337.43	-64.93	0.00	0.00	0.00
8,000.00	6.78	268.26	7,979.62	-69.83	-349.23	-65.14	0.00	0.00	0.00
8,100.00	6.78	268.26	8,078.92	-70.19	-361.04	-65.34	0.00	0.00	0.00
8,200.00	6.78	268.26	8,178.22	-70.55	-372.84	-65.54	0.00	0.00	0.00
8,300.00	6.78	268.26	8,277.52	-70.91	-384.65	-65.74	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,400.00	6.78	268.26	8,376.82	-71.27	-396.45	-65.94	0.00	0.00	0.00
8,500.00	6.78	268.26	8,476.12	-71.63	-408.25	-66.14	0.00	0.00	0.00
8,600.00	6.78	268.26	8,575.42	-71.99	-420.06	-66.34	0.00	0.00	0.00
8,700.00	6.78	268.26	8,674.72	-72.35	-431.86	-66.54	0.00	0.00	0.00
8,800.00	6.78	268.26	8,774.02	-72.71	-443.66	-66.74	0.00	0.00	0.00
8,900.00	6.78	268.26	8,873.32	-73.07	-455.47	-66.94	0.00	0.00	0.00
8,989.22	6.78	268.26	8,961.91	-73.39	-466.00	-67.12	0.00	0.00	0.00
Bone Spring Lime									
9,000.00	6.78	268.26	8,972.62	-73.43	-467.27	-67.14	0.00	0.00	0.00
9,015.40	6.78	268.26	8,987.91	-73.48	-469.09	-67.17	0.00	0.00	0.00
Avalon									
9,100.00	6.78	268.26	9,071.92	-73.79	-479.07	-67.34	0.00	0.00	0.00
9,200.00	6.78	268.26	9,171.22	-74.15	-490.88	-67.54	0.00	0.00	0.00
9,300.00	6.78	268.26	9,270.52	-74.51	-502.68	-67.75	0.00	0.00	0.00
9,400.00	6.78	268.26	9,369.82	-74.87	-514.48	-67.95	0.00	0.00	0.00
9,500.00	6.78	268.26	9,469.12	-75.23	-526.29	-68.15	0.00	0.00	0.00
9,600.00	6.78	268.26	9,568.42	-75.59	-538.09	-68.35	0.00	0.00	0.00
9,700.00	6.78	268.26	9,667.72	-75.95	-549.89	-68.55	0.00	0.00	0.00
9,800.00	6.78	268.26	9,767.02	-76.30	-561.70	-68.75	0.00	0.00	0.00
9,900.00	6.78	268.26	9,866.32	-76.66	-573.50	-68.95	0.00	0.00	0.00
10,000.00	6.78	268.26	9,965.62	-77.02	-585.31	-69.15	0.00	0.00	0.00
10,100.00	6.78	268.26	10,064.92	-77.38	-597.11	-69.35	0.00	0.00	0.00
10,114.15	6.78	268.26	10,078.97	-77.43	-598.78	-69.38	0.00	0.00	0.00
First Bone Spring Sand									
10,200.00	6.78	268.26	10,164.22	-77.74	-608.91	-69.55	0.00	0.00	0.00
10,283.34	6.78	268.26	10,246.98	-78.04	-618.75	-69.72	0.00	0.00	0.00
Second Bone Spring Carbonates									
10,300.00	6.78	268.26	10,263.52	-78.10	-620.72	-69.75	0.00	0.00	0.00
10,400.00	6.78	268.26	10,362.82	-78.46	-632.52	-69.95	0.00	0.00	0.00
10,488.19	6.78	268.26	10,450.40	-78.78	-642.93	-70.13	0.00	0.00	0.00
Start Drop -1.00									
10,500.00	6.66	268.26	10,462.13	-78.82	-644.31	-70.15	1.00	-1.00	0.00
10,600.00	5.66	268.26	10,561.55	-79.15	-655.04	-70.34	1.00	-1.00	0.00
10,692.84	4.74	268.26	10,654.01	-79.40	-663.45	-70.48	1.00	-1.00	0.00
Second Bone Spring Sand									
10,700.00	4.66	268.26	10,661.14	-79.42	-664.04	-70.49	1.00	-1.00	0.00
10,800.00	3.66	268.26	10,760.87	-79.64	-671.30	-70.61	1.00	-1.00	0.00
10,900.00	2.66	268.26	10,860.72	-79.81	-676.81	-70.71	1.00	-1.00	0.00
11,000.00	1.66	268.26	10,960.65	-79.93	-680.59	-70.77	1.00	-1.00	0.00
11,100.00	0.66	268.26	11,060.63	-79.99	-682.62	-70.81	1.00	-1.00	0.00
11,166.38	0.00	0.00	11,127.00	-80.00	-683.00	-70.81	1.00	-1.00	0.00
Start 278.52 hold at 11166.38 MD									
11,200.00	0.00	0.00	11,160.62	-80.00	-683.00	-70.81	0.00	0.00	0.00
11,217.39	0.00	0.00	11,178.02	-80.00	-683.00	-70.81	0.00	0.00	0.00
Third Bone Spring Carbonates									
11,300.00	0.00	0.00	11,260.62	-80.00	-683.00	-70.81	0.00	0.00	0.00
11,400.00	0.00	0.00	11,360.62	-80.00	-683.00	-70.81	0.00	0.00	0.00
11,444.90	0.00	0.00	11,405.52	-80.00	-683.00	-70.81	0.00	0.00	0.00
Start Build 10.00									
11,500.00	5.51	359.23	11,460.54	-77.35	-683.04	-68.17	10.00	10.00	0.00
11,600.00	15.51	359.23	11,558.74	-59.13	-683.28	-49.95	10.00	10.00	0.00
11,663.48	21.86	359.23	11,618.84	-38.81	-683.55	-29.62	10.00	10.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Third Bone Spring Sand									
11,700.00	25.51	359.23	11,652.28	-24.14	-683.75	-14.95	10.00	10.00	0.00
11,800.00	35.51	359.23	11,738.32	26.56	-684.43	35.75	10.00	10.00	0.00
11,900.00	45.51	359.23	11,814.26	91.43	-685.29	100.63	10.00	10.00	0.00
12,000.00	55.51	359.23	11,877.77	168.50	-686.33	177.70	10.00	10.00	0.00
12,100.00	65.51	359.23	11,926.93	255.42	-687.49	264.64	10.00	10.00	0.00
12,200.00	75.51	359.23	11,960.25	349.56	-688.75	358.79	10.00	10.00	0.00
12,229.83	78.49	359.23	11,966.96	378.62	-689.14	387.85	10.00	10.00	0.00
Wolfcamp									
12,300.00	85.51	359.23	11,976.72	448.06	-690.07	457.29	10.00	10.00	0.00
12,327.35	88.25	359.23	11,978.21	475.37	-690.43	484.60	10.00	10.00	0.00
11992' TVD - 0' VS 91.63° UpDip									
12,361.20	91.63	359.23	11,978.25	509.20	-690.88	518.44	10.00	10.00	0.00
Start 9580.29 hold at 12361.20 MD									
12,400.00	91.63	359.23	11,977.14	547.99	-691.40	557.23	0.00	0.00	0.00
12,500.00	91.63	359.23	11,974.30	647.94	-692.74	657.19	0.00	0.00	0.00
12,600.00	91.63	359.23	11,971.45	747.89	-694.08	757.15	0.00	0.00	0.00
12,700.00	91.63	359.23	11,968.61	847.84	-695.42	857.11	0.00	0.00	0.00
12,800.00	91.63	359.23	11,965.77	947.79	-696.75	957.07	0.00	0.00	0.00
12,900.00	91.63	359.23	11,962.92	1,047.74	-698.09	1,057.03	0.00	0.00	0.00
13,000.00	91.63	359.23	11,960.08	1,147.69	-699.43	1,156.99	0.00	0.00	0.00
13,100.00	91.63	359.23	11,957.23	1,247.64	-700.77	1,256.95	0.00	0.00	0.00
13,200.00	91.63	359.23	11,954.39	1,347.59	-702.10	1,356.91	0.00	0.00	0.00
13,300.00	91.63	359.23	11,951.54	1,447.54	-703.44	1,456.87	0.00	0.00	0.00
13,400.00	91.63	359.23	11,948.70	1,547.49	-704.78	1,556.83	0.00	0.00	0.00
13,500.00	91.63	359.23	11,945.85	1,647.45	-706.12	1,656.79	0.00	0.00	0.00
13,600.00	91.63	359.23	11,943.01	1,747.40	-707.45	1,756.75	0.00	0.00	0.00
13,700.00	91.63	359.23	11,940.16	1,847.35	-708.79	1,856.70	0.00	0.00	0.00
13,800.00	91.63	359.23	11,937.32	1,947.30	-710.13	1,956.66	0.00	0.00	0.00
13,900.00	91.63	359.23	11,934.48	2,047.25	-711.47	2,056.62	0.00	0.00	0.00
14,000.00	91.63	359.23	11,931.63	2,147.20	-712.80	2,156.58	0.00	0.00	0.00
14,100.00	91.63	359.23	11,928.79	2,247.15	-714.14	2,256.54	0.00	0.00	0.00
14,200.00	91.63	359.23	11,925.94	2,347.10	-715.48	2,356.50	0.00	0.00	0.00
14,300.00	91.63	359.23	11,923.10	2,447.05	-716.82	2,456.46	0.00	0.00	0.00
14,400.00	91.63	359.23	11,920.25	2,547.00	-718.15	2,556.42	0.00	0.00	0.00
14,500.00	91.63	359.23	11,917.41	2,646.95	-719.49	2,656.38	0.00	0.00	0.00
14,600.00	91.63	359.23	11,914.56	2,746.90	-720.83	2,756.34	0.00	0.00	0.00
14,700.00	91.63	359.23	11,911.72	2,846.85	-722.17	2,856.30	0.00	0.00	0.00
14,800.00	91.63	359.23	11,908.87	2,946.80	-723.50	2,956.26	0.00	0.00	0.00
14,900.00	91.63	359.23	11,906.03	3,046.75	-724.84	3,056.22	0.00	0.00	0.00
15,000.00	91.63	359.23	11,903.19	3,146.70	-726.18	3,156.18	0.00	0.00	0.00
15,100.00	91.63	359.23	11,900.34	3,246.65	-727.52	3,256.14	0.00	0.00	0.00
15,200.00	91.63	359.23	11,897.50	3,346.61	-728.85	3,356.10	0.00	0.00	0.00
15,300.00	91.63	359.23	11,894.65	3,446.56	-730.19	3,456.06	0.00	0.00	0.00
15,400.00	91.63	359.23	11,891.81	3,546.51	-731.53	3,556.02	0.00	0.00	0.00
15,500.00	91.63	359.23	11,888.96	3,646.46	-732.87	3,655.98	0.00	0.00	0.00
15,600.00	91.63	359.23	11,886.12	3,746.41	-734.20	3,755.94	0.00	0.00	0.00
15,700.00	91.63	359.23	11,883.27	3,846.36	-735.54	3,855.90	0.00	0.00	0.00
15,800.00	91.63	359.23	11,880.43	3,946.31	-736.88	3,955.86	0.00	0.00	0.00
15,900.00	91.63	359.23	11,877.59	4,046.26	-738.22	4,055.81	0.00	0.00	0.00
16,000.00	91.63	359.23	11,874.74	4,146.21	-739.55	4,155.77	0.00	0.00	0.00
16,100.00	91.63	359.23	11,871.90	4,246.16	-740.89	4,255.73	0.00	0.00	0.00
16,200.00	91.63	359.23	11,869.05	4,346.11	-742.23	4,355.69	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,300.00	91.63	359.23	11,866.21	4,446.06	-743.57	4,455.65	0.00	0.00	0.00
16,400.00	91.63	359.23	11,863.36	4,546.01	-744.90	4,555.61	0.00	0.00	0.00
16,500.00	91.63	359.23	11,860.52	4,645.96	-746.24	4,655.57	0.00	0.00	0.00
16,600.00	91.63	359.23	11,857.67	4,745.91	-747.58	4,755.53	0.00	0.00	0.00
16,700.00	91.63	359.23	11,854.83	4,845.86	-748.92	4,855.49	0.00	0.00	0.00
16,800.00	91.63	359.23	11,851.98	4,945.81	-750.25	4,955.45	0.00	0.00	0.00
16,900.00	91.63	359.23	11,849.14	5,045.77	-751.59	5,055.41	0.00	0.00	0.00
17,000.00	91.63	359.23	11,846.30	5,145.72	-752.93	5,155.37	0.00	0.00	0.00
17,100.00	91.63	359.23	11,843.45	5,245.67	-754.27	5,255.33	0.00	0.00	0.00
17,200.00	91.63	359.23	11,840.61	5,345.62	-755.60	5,355.29	0.00	0.00	0.00
17,300.00	91.63	359.23	11,837.76	5,445.57	-756.94	5,455.25	0.00	0.00	0.00
17,400.00	91.63	359.23	11,834.92	5,545.52	-758.28	5,555.21	0.00	0.00	0.00
17,500.00	91.63	359.23	11,832.07	5,645.47	-759.62	5,655.17	0.00	0.00	0.00
17,600.00	91.63	359.23	11,829.23	5,745.42	-760.95	5,755.13	0.00	0.00	0.00
17,700.00	91.63	359.23	11,826.38	5,845.37	-762.29	5,855.09	0.00	0.00	0.00
17,800.00	91.63	359.23	11,823.54	5,945.32	-763.63	5,955.05	0.00	0.00	0.00
17,900.00	91.63	359.23	11,820.70	6,045.27	-764.97	6,055.01	0.00	0.00	0.00
18,000.00	91.63	359.23	11,817.85	6,145.22	-766.30	6,154.96	0.00	0.00	0.00
18,100.00	91.63	359.23	11,815.01	6,245.17	-767.64	6,254.92	0.00	0.00	0.00
18,200.00	91.63	359.23	11,812.16	6,345.12	-768.98	6,354.88	0.00	0.00	0.00
18,300.00	91.63	359.23	11,809.32	6,445.07	-770.32	6,454.84	0.00	0.00	0.00
18,400.00	91.63	359.23	11,806.47	6,545.02	-771.65	6,554.80	0.00	0.00	0.00
18,500.00	91.63	359.23	11,803.63	6,644.97	-772.99	6,654.76	0.00	0.00	0.00
18,600.00	91.63	359.23	11,800.78	6,744.93	-774.33	6,754.72	0.00	0.00	0.00
18,700.00	91.63	359.23	11,797.94	6,844.88	-775.67	6,854.68	0.00	0.00	0.00
18,800.00	91.63	359.23	11,795.09	6,944.83	-777.00	6,954.64	0.00	0.00	0.00
18,900.00	91.63	359.23	11,792.25	7,044.78	-778.34	7,054.60	0.00	0.00	0.00
19,000.00	91.63	359.23	11,789.41	7,144.73	-779.68	7,154.56	0.00	0.00	0.00
19,100.00	91.63	359.23	11,786.56	7,244.68	-781.02	7,254.52	0.00	0.00	0.00
19,200.00	91.63	359.23	11,783.72	7,344.63	-782.35	7,354.48	0.00	0.00	0.00
19,300.00	91.63	359.23	11,780.87	7,444.58	-783.69	7,454.44	0.00	0.00	0.00
19,400.00	91.63	359.23	11,778.03	7,544.53	-785.03	7,554.40	0.00	0.00	0.00
19,500.00	91.63	359.23	11,775.18	7,644.48	-786.37	7,654.36	0.00	0.00	0.00
19,600.00	91.63	359.23	11,772.34	7,744.43	-787.70	7,754.32	0.00	0.00	0.00
19,700.00	91.63	359.23	11,769.49	7,844.38	-789.04	7,854.28	0.00	0.00	0.00
19,800.00	91.63	359.23	11,766.65	7,944.33	-790.38	7,954.24	0.00	0.00	0.00
19,900.00	91.63	359.23	11,763.81	8,044.28	-791.72	8,054.20	0.00	0.00	0.00
20,000.00	91.63	359.23	11,760.96	8,144.23	-793.05	8,154.16	0.00	0.00	0.00
20,100.00	91.63	359.23	11,758.12	8,244.18	-794.39	8,254.12	0.00	0.00	0.00
20,200.00	91.63	359.23	11,755.27	8,344.13	-795.73	8,354.07	0.00	0.00	0.00
20,300.00	91.63	359.23	11,752.43	8,444.09	-797.07	8,454.03	0.00	0.00	0.00
20,400.00	91.63	359.23	11,749.58	8,544.04	-798.40	8,553.99	0.00	0.00	0.00
20,500.00	91.63	359.23	11,746.74	8,643.99	-799.74	8,653.95	0.00	0.00	0.00
20,600.00	91.63	359.23	11,743.89	8,743.94	-801.08	8,753.91	0.00	0.00	0.00
20,700.00	91.63	359.23	11,741.05	8,843.89	-802.42	8,853.87	0.00	0.00	0.00
20,800.00	91.63	359.23	11,738.20	8,943.84	-803.75	8,953.83	0.00	0.00	0.00
20,900.00	91.63	359.23	11,735.36	9,043.79	-805.09	9,053.79	0.00	0.00	0.00
21,000.00	91.63	359.23	11,732.52	9,143.74	-806.43	9,153.75	0.00	0.00	0.00
21,100.00	91.63	359.23	11,729.67	9,243.69	-807.77	9,253.71	0.00	0.00	0.00
21,200.00	91.63	359.23	11,726.83	9,343.64	-809.10	9,353.67	0.00	0.00	0.00
21,300.00	91.63	359.23	11,723.98	9,443.59	-810.44	9,453.63	0.00	0.00	0.00
21,400.00	91.63	359.23	11,721.14	9,543.54	-811.78	9,553.59	0.00	0.00	0.00
21,500.00	91.63	359.23	11,718.29	9,643.49	-813.12	9,653.55	0.00	0.00	0.00
21,600.00	91.63	359.23	11,715.45	9,743.44	-814.45	9,753.51	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,700.00	91.63	359.23	11,712.60	9,843.39	-815.79	9,853.47	0.00	0.00	0.00
21,800.00	91.63	359.23	11,709.76	9,943.34	-817.13	9,953.43	0.00	0.00	0.00
21,900.00	91.63	359.23	11,706.92	10,043.29	-818.47	10,053.39	0.00	0.00	0.00
21,941.48	91.63	359.23	11,705.74	10,084.76	-819.02	10,094.85	0.00	0.00	0.00
TD at 21941.48 - Golden 704H PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Golden 704H PBHL - plan hits target center - Point	0.00	0.00	11,705.74	10,084.76	-819.02	457,261.51	838,911.29	32° 15' 12.312 N	103° 22' 14.677 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
21.00	21.00	Cenozoic Alluvium (surface)		-1.63	359.23
981.00	981.00	Rustler		-1.63	359.23
1,078.00	1,078.00	Salado		-1.63	359.23
3,003.85	3,003.67	Base Salt		-1.63	359.23
5,302.27	5,300.70	Lamar		-1.63	359.23
5,406.94	5,404.71	Bell Canyon		-1.63	359.23
6,319.38	6,310.76	Cherry Canyon		-1.63	359.23
7,670.92	7,652.83	Brushy Canyon		-1.63	359.23
8,989.22	8,961.91	Bone Spring Lime		-1.63	359.23
9,015.40	8,987.91	Avalon		-1.63	359.23
10,114.15	10,078.97	First Bone Spring Sand		-1.63	359.23
10,283.34	10,246.98	Second Bone Spring Carbonates		-1.63	359.23
10,692.84	10,654.01	Second Bone Spring Sand		-1.63	359.23
11,217.39	11,178.02	Third Bone Spring Carbonates		-1.63	359.23
11,663.48	11,618.84	Third Bone Spring Sand		-1.63	359.23
12,229.83	11,966.96	Wolfcamp		-1.63	359.23
12,327.35	11,978.21	11992' TVD - 0' VS 91.63° UpDip		-1.63	359.23

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,100.00	1,100.00	0.00	0.00	Start Build 0.09
2,200.00	2,199.94	-9.60	0.00	Start 2500.44 hold at 2200.00 MD
4,700.44	4,700.00	-53.24	0.00	Start DLS 1.00 TFO 96.64
5,382.91	5,380.83	-60.43	-40.33	Start 5105.28 hold at 5382.91 MD
10,488.19	10,450.40	-78.78	-642.93	Start Drop -1.00
11,166.38	11,127.00	-80.00	-683.00	Start 278.52 hold at 11166.38 MD
11,444.90	11,405.52	-80.00	-683.00	Start Build 10.00
12,361.20	11,978.25	509.20	-690.88	Start 9580.29 hold at 12361.20 MD
21,941.48	11,705.74	10,084.76	-819.02	TD at 21941.48

Franklin Mountain Energy

Golden - Breckenridge Site
Lea County, NM (NAD 83)
Golden Fed Com 704H

Wellbore #1

Plan: Plan #1

Standard Planning Report - Geographic

08 July, 2019

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project Golden - Breckenridge Site

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Lea County, NM (NAD 83)

Site Position:		**Northing:**	447,177.09 usft	**Latitude:**	32° 13' 32.454 N
From:	Map	**Easting:**	839,765.30 usft	**Longitude:**	103° 22' 5.788 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.51 °

Well Golden Fed Com 704H

Well Position	**+N/-S**	0.00 ft	**Northing:**	447,176.77 usft	**Latitude:**	32° 13' 32.454 N
	+E/-W	0.00 ft	**Easting:**	839,730.31 usft	**Longitude:**	103° 22' 6.195 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,375.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2009	7.67	60.26	48,786.89411323

Design Plan #1

Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.23

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
2,200.00	1.00	180.00	2,199.94	-9.60	0.00	0.09	0.09	0.00	180.00	
4,700.44	1.00	180.00	4,700.00	-53.24	0.00	0.00	0.00	0.00	0.00	
5,382.91	6.78	268.26	5,380.83	-60.43	-40.33	1.00	0.85	12.93	96.64	
10,488.19	6.78	268.26	10,450.40	-78.78	-642.93	0.00	0.00	0.00	0.00	
11,166.38	0.00	0.00	11,127.00	-80.00	-683.00	1.00	-1.00	0.00	180.00	
11,444.90	0.00	0.00	11,405.52	-80.00	-683.00	0.00	0.00	0.00	0.00	
12,361.20	91.63	359.23	11,978.25	509.20	-690.88	10.00	10.00	0.00	359.23	
21,941.48	91.63	359.23	11,705.74	10,084.76	-819.02	0.00	0.00	0.00	0.00	Golden 704H PBHL

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
21.00	0.00	0.00	21.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
Cenozoic Alluvium (surface)									
100.00	0.00	0.00	100.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
200.00	0.00	0.00	200.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
300.00	0.00	0.00	300.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
400.00	0.00	0.00	400.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
500.00	0.00	0.00	500.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
600.00	0.00	0.00	600.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
700.00	0.00	0.00	700.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
800.00	0.00	0.00	800.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
900.00	0.00	0.00	900.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
981.00	0.00	0.00	981.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
Rustler									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
1,078.00	0.00	0.00	1,078.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
Salado									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	447,176.77	839,730.31	32° 13' 32.454 N	103° 22' 6.195 W
Start Build 0.09									
1,200.00	0.09	180.00	1,200.00	-0.08	0.00	447,176.69	839,730.31	32° 13' 32.453 N	103° 22' 6.195 W
1,300.00	0.18	180.00	1,300.00	-0.32	0.00	447,176.46	839,730.31	32° 13' 32.451 N	103° 22' 6.195 W
1,400.00	0.27	180.00	1,400.00	-0.71	0.00	447,176.06	839,730.31	32° 13' 32.447 N	103° 22' 6.195 W
1,500.00	0.36	180.00	1,500.00	-1.27	0.00	447,175.50	839,730.31	32° 13' 32.442 N	103° 22' 6.195 W
1,600.00	0.45	180.00	1,599.99	-1.98	0.00	447,174.79	839,730.31	32° 13' 32.434 N	103° 22' 6.195 W
1,700.00	0.55	180.00	1,699.99	-2.86	0.00	447,173.92	839,730.31	32° 13' 32.426 N	103° 22' 6.196 W
1,800.00	0.64	180.00	1,799.99	-3.89	0.00	447,172.89	839,730.31	32° 13' 32.416 N	103° 22' 6.196 W
1,900.00	0.73	180.00	1,899.98	-5.08	0.00	447,171.70	839,730.31	32° 13' 32.404 N	103° 22' 6.196 W
2,000.00	0.82	180.00	1,999.97	-6.43	0.00	447,170.35	839,730.31	32° 13' 32.391 N	103° 22' 6.196 W
2,100.00	0.91	180.00	2,099.96	-7.93	0.00	447,168.84	839,730.31	32° 13' 32.376 N	103° 22' 6.196 W
2,200.00	1.00	180.00	2,199.94	-9.60	0.00	447,167.17	839,730.31	32° 13' 32.359 N	103° 22' 6.196 W
Start 2500.44 hold at 2200.00 MD									
2,300.00	1.00	180.00	2,299.93	-11.34	0.00	447,165.43	839,730.31	32° 13' 32.342 N	103° 22' 6.196 W
2,400.00	1.00	180.00	2,399.91	-13.09	0.00	447,163.68	839,730.31	32° 13' 32.325 N	103° 22' 6.197 W
2,500.00	1.00	180.00	2,499.90	-14.83	0.00	447,161.94	839,730.31	32° 13' 32.307 N	103° 22' 6.197 W
2,600.00	1.00	180.00	2,599.88	-16.58	0.00	447,160.19	839,730.31	32° 13' 32.290 N	103° 22' 6.197 W
2,700.00	1.00	180.00	2,699.87	-18.33	0.00	447,158.45	839,730.31	32° 13' 32.273 N	103° 22' 6.197 W
2,800.00	1.00	180.00	2,799.85	-20.07	0.00	447,156.70	839,730.31	32° 13' 32.256 N	103° 22' 6.197 W
2,900.00	1.00	180.00	2,899.84	-21.82	0.00	447,154.96	839,730.31	32° 13' 32.238 N	103° 22' 6.198 W
3,000.00	1.00	180.00	2,999.82	-23.56	0.00	447,153.21	839,730.31	32° 13' 32.221 N	103° 22' 6.198 W
3,003.85	1.00	180.00	3,003.67	-23.63	0.00	447,153.14	839,730.31	32° 13' 32.220 N	103° 22' 6.198 W
Base Salt									
3,100.00	1.00	180.00	3,099.81	-25.31	0.00	447,151.47	839,730.31	32° 13' 32.204 N	103° 22' 6.198 W
3,200.00	1.00	180.00	3,199.79	-27.05	0.00	447,149.72	839,730.31	32° 13' 32.186 N	103° 22' 6.198 W
3,300.00	1.00	180.00	3,299.78	-28.80	0.00	447,147.98	839,730.31	32° 13' 32.169 N	103° 22' 6.198 W
3,400.00	1.00	180.00	3,399.76	-30.54	0.00	447,146.23	839,730.31	32° 13' 32.152 N	103° 22' 6.198 W
3,500.00	1.00	180.00	3,499.75	-32.29	0.00	447,144.49	839,730.31	32° 13' 32.135 N	103° 22' 6.199 W
3,600.00	1.00	180.00	3,599.73	-34.03	0.00	447,142.74	839,730.31	32° 13' 32.117 N	103° 22' 6.199 W
3,700.00	1.00	180.00	3,699.72	-35.78	0.00	447,141.00	839,730.31	32° 13' 32.100 N	103° 22' 6.199 W
3,800.00	1.00	180.00	3,799.70	-37.52	0.00	447,139.25	839,730.31	32° 13' 32.083 N	103° 22' 6.199 W
3,900.00	1.00	180.00	3,899.69	-39.27	0.00	447,137.50	839,730.31	32° 13' 32.066 N	103° 22' 6.199 W
4,000.00	1.00	180.00	3,999.67	-41.01	0.00	447,135.76	839,730.31	32° 13' 32.048 N	103° 22' 6.200 W
4,100.00	1.00	180.00	4,099.65	-42.76	0.00	447,134.01	839,730.31	32° 13' 32.031 N	103° 22' 6.200 W
4,200.00	1.00	180.00	4,199.64	-44.50	0.00	447,132.27	839,730.31	32° 13' 32.014 N	103° 22' 6.200 W
4,300.00	1.00	180.00	4,299.62	-46.25	0.00	447,130.52	839,730.31	32° 13' 31.996 N	103° 22' 6.200 W

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,400.00	1.00	180.00	4,399.61	-47.99	0.00	447,128.78	839,730.31	32° 13' 31.979 N	103° 22' 6.200 W
4,500.00	1.00	180.00	4,499.59	-49.74	0.00	447,127.03	839,730.31	32° 13' 31.962 N	103° 22' 6.200 W
4,600.00	1.00	180.00	4,599.58	-51.48	0.00	447,125.29	839,730.31	32° 13' 31.945 N	103° 22' 6.201 W
4,700.00	1.00	180.00	4,699.56	-53.23	0.00	447,123.54	839,730.31	32° 13' 31.927 N	103° 22' 6.201 W
4,700.44	1.00	180.00	4,700.00	-53.24	0.00	447,123.54	839,730.31	32° 13' 31.927 N	103° 22' 6.201 W
Start DLS 1.00 TFO 96.64									
4,800.00	1.33	228.18	4,799.55	-54.88	-0.86	447,121.90	839,729.45	32° 13' 31.911 N	103° 22' 6.211 W
4,900.00	2.13	248.80	4,899.50	-56.32	-3.45	447,120.45	839,726.86	32° 13' 31.897 N	103° 22' 6.241 W
5,000.00	3.05	257.63	4,999.40	-57.56	-7.78	447,119.21	839,722.53	32° 13' 31.885 N	103° 22' 6.292 W
5,100.00	4.00	262.30	5,099.21	-58.60	-13.83	447,118.18	839,716.48	32° 13' 31.876 N	103° 22' 6.362 W
5,200.00	4.98	265.16	5,198.90	-59.43	-21.62	447,117.34	839,708.69	32° 13' 31.868 N	103° 22' 6.453 W
5,300.00	5.96	267.08	5,298.44	-60.06	-31.13	447,116.71	839,699.18	32° 13' 31.863 N	103° 22' 6.564 W
5,302.27	5.99	267.12	5,300.70	-60.07	-31.37	447,116.70	839,698.94	32° 13' 31.863 N	103° 22' 6.567 W
Lamar									
5,382.91	6.78	268.26	5,380.83	-60.43	-40.33	447,116.34	839,689.98	32° 13' 31.860 N	103° 22' 6.671 W
Start 5105.28 hold at 5382.91 MD									
5,400.00	6.78	268.26	5,397.81	-60.49	-42.34	447,116.28	839,687.97	32° 13' 31.859 N	103° 22' 6.694 W
5,406.94	6.78	268.26	5,404.71	-60.51	-43.16	447,116.26	839,687.15	32° 13' 31.859 N	103° 22' 6.704 W
Bell Canyon									
5,500.00	6.78	268.26	5,497.11	-60.85	-54.15	447,115.92	839,676.16	32° 13' 31.857 N	103° 22' 6.832 W
5,600.00	6.78	268.26	5,596.41	-61.21	-65.95	447,115.56	839,664.36	32° 13' 31.854 N	103° 22' 6.969 W
5,700.00	6.78	268.26	5,695.71	-61.57	-77.75	447,115.20	839,652.56	32° 13' 31.852 N	103° 22' 7.107 W
5,800.00	6.78	268.26	5,795.01	-61.93	-89.56	447,114.85	839,640.75	32° 13' 31.849 N	103° 22' 7.244 W
5,900.00	6.78	268.26	5,894.31	-62.29	-101.36	447,114.49	839,628.95	32° 13' 31.847 N	103° 22' 7.382 W
6,000.00	6.78	268.26	5,993.61	-62.65	-113.16	447,114.13	839,617.14	32° 13' 31.844 N	103° 22' 7.519 W
6,100.00	6.78	268.26	6,092.91	-63.01	-124.97	447,113.77	839,605.34	32° 13' 31.842 N	103° 22' 7.656 W
6,200.00	6.78	268.26	6,192.21	-63.37	-136.77	447,113.41	839,593.54	32° 13' 31.839 N	103° 22' 7.794 W
6,300.00	6.78	268.26	6,291.51	-63.72	-148.57	447,113.05	839,581.73	32° 13' 31.837 N	103° 22' 7.931 W
6,319.38	6.78	268.26	6,310.76	-63.79	-150.86	447,112.98	839,579.45	32° 13' 31.836 N	103° 22' 7.958 W
Cherry Canyon									
6,400.00	6.78	268.26	6,390.81	-64.08	-160.38	447,112.69	839,569.93	32° 13' 31.834 N	103° 22' 8.069 W
6,500.00	6.78	268.26	6,490.11	-64.44	-172.18	447,112.33	839,558.13	32° 13' 31.832 N	103° 22' 8.206 W
6,600.00	6.78	268.26	6,589.41	-64.80	-183.99	447,111.97	839,546.32	32° 13' 31.829 N	103° 22' 8.344 W
6,700.00	6.78	268.26	6,688.71	-65.16	-195.79	447,111.61	839,534.52	32° 13' 31.827 N	103° 22' 8.481 W
6,800.00	6.78	268.26	6,788.01	-65.52	-207.59	447,111.25	839,522.72	32° 13' 31.824 N	103° 22' 8.619 W
6,900.00	6.78	268.26	6,887.31	-65.88	-219.40	447,110.89	839,510.91	32° 13' 31.822 N	103° 22' 8.756 W
7,000.00	6.78	268.26	6,986.61	-66.24	-231.20	447,110.53	839,499.11	32° 13' 31.819 N	103° 22' 8.893 W
7,100.00	6.78	268.26	7,085.91	-66.60	-243.00	447,110.17	839,487.31	32° 13' 31.817 N	103° 22' 9.031 W
7,200.00	6.78	268.26	7,185.21	-66.96	-254.81	447,109.81	839,475.50	32° 13' 31.814 N	103° 22' 9.168 W
7,300.00	6.78	268.26	7,284.51	-67.32	-266.61	447,109.45	839,463.70	32° 13' 31.812 N	103° 22' 9.306 W
7,400.00	6.78	268.26	7,383.82	-67.68	-278.41	447,109.09	839,451.90	32° 13' 31.809 N	103° 22' 9.443 W
7,500.00	6.78	268.26	7,483.12	-68.04	-290.22	447,108.74	839,440.09	32° 13' 31.807 N	103° 22' 9.581 W
7,600.00	6.78	268.26	7,582.42	-68.40	-302.02	447,108.38	839,428.29	32° 13' 31.804 N	103° 22' 9.718 W
7,670.92	6.78	268.26	7,652.83	-68.65	-310.39	447,108.12	839,419.92	32° 13' 31.802 N	103° 22' 9.815 W
Brushy Canyon									
7,700.00	6.78	268.26	7,681.72	-68.76	-313.82	447,108.02	839,416.49	32° 13' 31.802 N	103° 22' 9.855 W
7,800.00	6.78	268.26	7,781.02	-69.12	-325.63	447,107.66	839,404.68	32° 13' 31.799 N	103° 22' 9.993 W
7,900.00	6.78	268.26	7,880.32	-69.48	-337.43	447,107.30	839,392.88	32° 13' 31.797 N	103° 22' 10.130 W
8,000.00	6.78	268.26	7,979.62	-69.83	-349.23	447,106.94	839,381.07	32° 13' 31.794 N	103° 22' 10.268 W
8,100.00	6.78	268.26	8,078.92	-70.19	-361.04	447,106.58	839,369.27	32° 13' 31.792 N	103° 22' 10.405 W
8,200.00	6.78	268.26	8,178.22	-70.55	-372.84	447,106.22	839,357.47	32° 13' 31.789 N	103° 22' 10.543 W
8,300.00	6.78	268.26	8,277.52	-70.91	-384.65	447,105.86	839,345.66	32° 13' 31.787 N	103° 22' 10.680 W
8,400.00	6.78	268.26	8,376.82	-71.27	-396.45	447,105.50	839,333.86	32° 13' 31.784 N	103° 22' 10.817 W
8,500.00	6.78	268.26	8,476.12	-71.63	-408.25	447,105.14	839,322.06	32° 13' 31.782 N	103° 22' 10.955 W

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,600.00	6.78	268.26	8,575.42	-71.99	-420.06	447,104.78	839,310.25	32° 13' 31.779 N	103° 22' 11.092 W
8,700.00	6.78	268.26	8,674.72	-72.35	-431.86	447,104.42	839,298.45	32° 13' 31.777 N	103° 22' 11.230 W
8,800.00	6.78	268.26	8,774.02	-72.71	-443.66	447,104.06	839,286.65	32° 13' 31.774 N	103° 22' 11.367 W
8,900.00	6.78	268.26	8,873.32	-73.07	-455.47	447,103.70	839,274.84	32° 13' 31.772 N	103° 22' 11.505 W
8,989.22	6.78	268.26	8,961.91	-73.39	-466.00	447,103.38	839,264.31	32° 13' 31.769 N	103° 22' 11.627 W
Bone Spring Lime									
9,000.00	6.78	268.26	8,972.62	-73.43	-467.27	447,103.34	839,263.04	32° 13' 31.769 N	103° 22' 11.642 W
9,015.40	6.78	268.26	8,987.91	-73.48	-469.09	447,103.29	839,261.22	32° 13' 31.769 N	103° 22' 11.663 W
Avalon									
9,100.00	6.78	268.26	9,071.92	-73.79	-479.07	447,102.98	839,251.24	32° 13' 31.767 N	103° 22' 11.779 W
9,200.00	6.78	268.26	9,171.22	-74.15	-490.88	447,102.62	839,239.43	32° 13' 31.764 N	103° 22' 11.917 W
9,300.00	6.78	268.26	9,270.52	-74.51	-502.68	447,102.27	839,227.63	32° 13' 31.762 N	103° 22' 12.054 W
9,400.00	6.78	268.26	9,369.82	-74.87	-514.48	447,101.91	839,215.83	32° 13' 31.759 N	103° 22' 12.192 W
9,500.00	6.78	268.26	9,469.12	-75.23	-526.29	447,101.55	839,204.02	32° 13' 31.756 N	103° 22' 12.329 W
9,600.00	6.78	268.26	9,568.42	-75.59	-538.09	447,101.19	839,192.22	32° 13' 31.754 N	103° 22' 12.467 W
9,700.00	6.78	268.26	9,667.72	-75.95	-549.89	447,100.83	839,180.42	32° 13' 31.751 N	103° 22' 12.604 W
9,800.00	6.78	268.26	9,767.02	-76.30	-561.70	447,100.47	839,168.61	32° 13' 31.749 N	103° 22' 12.742 W
9,900.00	6.78	268.26	9,866.32	-76.66	-573.50	447,100.11	839,156.81	32° 13' 31.746 N	103° 22' 12.879 W
10,000.00	6.78	268.26	9,965.62	-77.02	-585.31	447,099.75	839,145.00	32° 13' 31.744 N	103° 22' 13.016 W
10,100.00	6.78	268.26	10,064.92	-77.38	-597.11	447,099.39	839,133.20	32° 13' 31.741 N	103° 22' 13.154 W
10,114.15	6.78	268.26	10,078.97	-77.43	-598.78	447,099.34	839,131.53	32° 13' 31.741 N	103° 22' 13.173 W
First Bone Spring Sand									
10,200.00	6.78	268.26	10,164.22	-77.74	-608.91	447,099.03	839,121.40	32° 13' 31.739 N	103° 22' 13.291 W
10,283.34	6.78	268.26	10,246.98	-78.04	-618.75	447,098.73	839,111.56	32° 13' 31.737 N	103° 22' 13.406 W
Second Bone Spring Carbonates									
10,300.00	6.78	268.26	10,263.52	-78.10	-620.72	447,098.67	839,109.59	32° 13' 31.736 N	103° 22' 13.429 W
10,400.00	6.78	268.26	10,362.82	-78.46	-632.52	447,098.31	839,097.79	32° 13' 31.734 N	103° 22' 13.566 W
10,488.19	6.78	268.26	10,450.40	-78.78	-642.93	447,097.99	839,087.38	32° 13' 31.732 N	103° 22' 13.687 W
Start Drop -1.00									
10,500.00	6.66	268.26	10,462.13	-78.82	-644.31	447,097.95	839,086.00	32° 13' 31.731 N	103° 22' 13.703 W
10,600.00	5.66	268.26	10,561.55	-79.15	-655.04	447,097.63	839,075.27	32° 13' 31.729 N	103° 22' 13.828 W
10,692.84	4.74	268.26	10,654.01	-79.40	-663.45	447,097.37	839,066.86	32° 13' 31.727 N	103° 22' 13.926 W
Second Bone Spring Sand									
10,700.00	4.66	268.26	10,661.14	-79.42	-664.04	447,097.35	839,066.27	32° 13' 31.727 N	103° 22' 13.933 W
10,800.00	3.66	268.26	10,760.87	-79.64	-671.30	447,097.13	839,059.01	32° 13' 31.726 N	103° 22' 14.018 W
10,900.00	2.66	268.26	10,860.72	-79.81	-676.81	447,096.96	839,053.50	32° 13' 31.724 N	103° 22' 14.082 W
11,000.00	1.66	268.26	10,960.65	-79.93	-680.59	447,096.85	839,049.72	32° 13' 31.724 N	103° 22' 14.126 W
11,100.00	0.66	268.26	11,060.63	-79.99	-682.62	447,096.79	839,047.69	32° 13' 31.723 N	103° 22' 14.149 W
11,166.38	0.00	0.00	11,127.00	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
Start 278.52 hold at 11166.38 MD									
11,200.00	0.00	0.00	11,160.62	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
11,217.39	0.00	0.00	11,178.02	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
Third Bone Spring Carbonates									
11,300.00	0.00	0.00	11,260.62	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
11,400.00	0.00	0.00	11,360.62	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
11,444.90	0.00	0.00	11,405.52	-80.00	-683.00	447,096.77	839,047.31	32° 13' 31.723 N	103° 22' 14.154 W
Start Build 10.00									
11,500.00	5.51	359.23	11,460.54	-77.35	-683.04	447,099.42	839,047.27	32° 13' 31.749 N	103° 22' 14.154 W
11,600.00	15.51	359.23	11,558.74	-59.13	-683.28	447,117.64	839,047.03	32° 13' 31.930 N	103° 22' 14.155 W
11,663.48	21.86	359.23	11,618.84	-38.81	-683.55	447,137.96	839,046.76	32° 13' 32.131 N	103° 22' 14.156 W
Third Bone Spring Sand									
11,700.00	25.51	359.23	11,652.28	-24.14	-683.75	447,152.63	839,046.56	32° 13' 32.276 N	103° 22' 14.157 W
11,800.00	35.51	359.23	11,738.32	26.56	-684.43	447,203.33	839,045.88	32° 13' 32.778 N	103° 22' 14.159 W

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,900.00	45.51	359.23	11,814.26	91.43	-685.29	447,268.20	839,045.02	32° 13' 33.420 N	103° 22' 14.163 W
12,000.00	55.51	359.23	11,877.77	168.50	-686.33	447,345.27	839,043.98	32° 13' 34.182 N	103° 22' 14.167 W
12,100.00	65.51	359.23	11,926.93	255.42	-687.49	447,432.19	839,042.82	32° 13' 35.042 N	103° 22' 14.171 W
12,200.00	75.51	359.23	11,960.25	349.56	-688.75	447,526.34	839,041.56	32° 13' 35.974 N	103° 22' 14.176 W
12,229.83	78.49	359.23	11,966.96	378.62	-689.14	447,555.40	839,041.17	32° 13' 36.262 N	103° 22' 14.177 W
Wolfcamp									
12,300.00	85.51	359.23	11,976.72	448.06	-690.07	447,624.83	839,040.24	32° 13' 36.949 N	103° 22' 14.181 W
12,327.35	88.25	359.23	11,978.21	475.37	-690.43	447,652.14	839,039.88	32° 13' 37.219 N	103° 22' 14.182 W
11992' TVD - 0' VS 91.63° UpDip									
12,361.20	91.63	359.23	11,978.25	509.20	-690.88	447,685.98	839,039.43	32° 13' 37.554 N	103° 22' 14.184 W
Start 9580.29 hold at 12361.20 MD									
12,400.00	91.63	359.23	11,977.14	547.99	-691.40	447,724.76	839,038.91	32° 13' 37.938 N	103° 22' 14.186 W
12,500.00	91.63	359.23	11,974.30	647.94	-692.74	447,824.71	839,037.57	32° 13' 38.927 N	103° 22' 14.191 W
12,600.00	91.63	359.23	11,971.45	747.89	-694.08	447,924.66	839,036.23	32° 13' 39.916 N	103° 22' 14.196 W
12,700.00	91.63	359.23	11,968.61	847.84	-695.42	448,024.61	839,034.89	32° 13' 40.905 N	103° 22' 14.202 W
12,800.00	91.63	359.23	11,965.77	947.79	-696.75	448,124.56	839,033.56	32° 13' 41.894 N	103° 22' 14.207 W
12,900.00	91.63	359.23	11,962.92	1,047.74	-698.09	448,224.51	839,032.22	32° 13' 42.883 N	103° 22' 14.212 W
13,000.00	91.63	359.23	11,960.08	1,147.69	-699.43	448,324.46	839,030.88	32° 13' 43.872 N	103° 22' 14.217 W
13,100.00	91.63	359.23	11,957.23	1,247.64	-700.77	448,424.41	839,029.54	32° 13' 44.861 N	103° 22' 14.222 W
13,200.00	91.63	359.23	11,954.39	1,347.59	-702.10	448,524.36	839,028.21	32° 13' 45.850 N	103° 22' 14.227 W
13,300.00	91.63	359.23	11,951.54	1,447.54	-703.44	448,624.31	839,026.87	32° 13' 46.839 N	103° 22' 14.232 W
13,400.00	91.63	359.23	11,948.70	1,547.49	-704.78	448,724.26	839,025.53	32° 13' 47.829 N	103° 22' 14.238 W
13,500.00	91.63	359.23	11,945.85	1,647.45	-706.12	448,824.21	839,024.19	32° 13' 48.818 N	103° 22' 14.243 W
13,600.00	91.63	359.23	11,943.01	1,747.40	-707.45	448,924.17	839,022.86	32° 13' 49.807 N	103° 22' 14.248 W
13,700.00	91.63	359.23	11,940.16	1,847.35	-708.79	449,024.12	839,021.52	32° 13' 50.796 N	103° 22' 14.253 W
13,800.00	91.63	359.23	11,937.32	1,947.30	-710.13	449,124.07	839,020.18	32° 13' 51.785 N	103° 22' 14.258 W
13,900.00	91.63	359.23	11,934.48	2,047.25	-711.47	449,224.02	839,018.84	32° 13' 52.774 N	103° 22' 14.263 W
14,000.00	91.63	359.23	11,931.63	2,147.20	-712.80	449,323.97	839,017.51	32° 13' 53.763 N	103° 22' 14.268 W
14,100.00	91.63	359.23	11,928.79	2,247.15	-714.14	449,423.92	839,016.17	32° 13' 54.752 N	103° 22' 14.274 W
14,200.00	91.63	359.23	11,925.94	2,347.10	-715.48	449,523.87	839,014.83	32° 13' 55.741 N	103° 22' 14.279 W
14,300.00	91.63	359.23	11,923.10	2,447.05	-716.82	449,623.82	839,013.49	32° 13' 56.730 N	103° 22' 14.284 W
14,400.00	91.63	359.23	11,920.25	2,547.00	-718.15	449,723.77	839,012.16	32° 13' 57.719 N	103° 22' 14.289 W
14,500.00	91.63	359.23	11,917.41	2,646.95	-719.49	449,823.72	839,010.82	32° 13' 58.709 N	103° 22' 14.294 W
14,600.00	91.63	359.23	11,914.56	2,746.90	-720.83	449,923.67	839,009.48	32° 13' 59.698 N	103° 22' 14.299 W
14,700.00	91.63	359.23	11,911.72	2,846.85	-722.17	450,023.62	839,008.14	32° 14' 0.687 N	103° 22' 14.304 W
14,800.00	91.63	359.23	11,908.87	2,946.80	-723.50	450,123.57	839,006.81	32° 14' 1.676 N	103° 22' 14.310 W
14,900.00	91.63	359.23	11,906.03	3,046.75	-724.84	450,223.52	839,005.47	32° 14' 2.665 N	103° 22' 14.315 W
15,000.00	91.63	359.23	11,903.19	3,146.70	-726.18	450,323.47	839,004.13	32° 14' 3.654 N	103° 22' 14.320 W
15,100.00	91.63	359.23	11,900.34	3,246.65	-727.52	450,423.42	839,002.79	32° 14' 4.643 N	103° 22' 14.325 W
15,200.00	91.63	359.23	11,897.50	3,346.61	-728.85	450,523.37	839,001.46	32° 14' 5.632 N	103° 22' 14.330 W
15,300.00	91.63	359.23	11,894.65	3,446.56	-730.19	450,623.32	839,000.12	32° 14' 6.621 N	103° 22' 14.335 W
15,400.00	91.63	359.23	11,891.81	3,546.51	-731.53	450,723.27	838,998.78	32° 14' 7.610 N	103° 22' 14.340 W
15,500.00	91.63	359.23	11,888.96	3,646.46	-732.87	450,823.22	838,997.44	32° 14' 8.600 N	103° 22' 14.346 W
15,600.00	91.63	359.23	11,886.12	3,746.41	-734.20	450,923.17	838,996.11	32° 14' 9.589 N	103° 22' 14.351 W
15,700.00	91.63	359.23	11,883.27	3,846.36	-735.54	451,023.12	838,994.77	32° 14' 10.578 N	103° 22' 14.356 W
15,800.00	91.63	359.23	11,880.43	3,946.31	-736.88	451,123.07	838,993.43	32° 14' 11.567 N	103° 22' 14.361 W
15,900.00	91.63	359.23	11,877.59	4,046.26	-738.22	451,223.02	838,992.09	32° 14' 12.556 N	103° 22' 14.366 W
16,000.00	91.63	359.23	11,874.74	4,146.21	-739.55	451,322.97	838,990.76	32° 14' 13.545 N	103° 22' 14.371 W
16,100.00	91.63	359.23	11,871.90	4,246.16	-740.89	451,422.92	838,989.42	32° 14' 14.534 N	103° 22' 14.376 W
16,200.00	91.63	359.23	11,869.05	4,346.11	-742.23	451,522.88	838,988.08	32° 14' 15.523 N	103° 22' 14.382 W
16,300.00	91.63	359.23	11,866.21	4,446.06	-743.57	451,622.83	838,986.74	32° 14' 16.512 N	103° 22' 14.387 W
16,400.00	91.63	359.23	11,863.36	4,546.01	-744.90	451,722.78	838,985.41	32° 14' 17.501 N	103° 22' 14.392 W
16,500.00	91.63	359.23	11,860.52	4,645.96	-746.24	451,822.73	838,984.07	32° 14' 18.490 N	103° 22' 14.397 W
16,600.00	91.63	359.23	11,857.67	4,745.91	-747.58	451,922.68	838,982.73	32° 14' 19.480 N	103° 22' 14.402 W

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,700.00	91.63	359.23	11,854.83	4,845.86	-748.92	452,022.63	838,981.39	32° 14' 20.469 N	103° 22' 14.407 W
16,800.00	91.63	359.23	11,851.98	4,945.81	-750.25	452,122.58	838,980.06	32° 14' 21.458 N	103° 22' 14.412 W
16,900.00	91.63	359.23	11,849.14	5,045.77	-751.59	452,222.53	838,978.72	32° 14' 22.447 N	103° 22' 14.418 W
17,000.00	91.63	359.23	11,846.30	5,145.72	-752.93	452,322.48	838,977.38	32° 14' 23.436 N	103° 22' 14.423 W
17,100.00	91.63	359.23	11,843.45	5,245.67	-754.27	452,422.43	838,976.04	32° 14' 24.425 N	103° 22' 14.428 W
17,200.00	91.63	359.23	11,840.61	5,345.62	-755.60	452,522.38	838,974.71	32° 14' 25.414 N	103° 22' 14.433 W
17,300.00	91.63	359.23	11,837.76	5,445.57	-756.94	452,622.33	838,973.37	32° 14' 26.403 N	103° 22' 14.438 W
17,400.00	91.63	359.23	11,834.92	5,545.52	-758.28	452,722.28	838,972.03	32° 14' 27.392 N	103° 22' 14.443 W
17,500.00	91.63	359.23	11,832.07	5,645.47	-759.62	452,822.23	838,970.69	32° 14' 28.381 N	103° 22' 14.448 W
17,600.00	91.63	359.23	11,829.23	5,745.42	-760.95	452,922.18	838,969.36	32° 14' 29.370 N	103° 22' 14.454 W
17,700.00	91.63	359.23	11,826.38	5,845.37	-762.29	453,022.13	838,968.02	32° 14' 30.360 N	103° 22' 14.459 W
17,800.00	91.63	359.23	11,823.54	5,945.32	-763.63	453,122.08	838,966.68	32° 14' 31.349 N	103° 22' 14.464 W
17,900.00	91.63	359.23	11,820.70	6,045.27	-764.97	453,222.03	838,965.34	32° 14' 32.338 N	103° 22' 14.469 W
18,000.00	91.63	359.23	11,817.85	6,145.22	-766.30	453,321.98	838,964.01	32° 14' 33.327 N	103° 22' 14.474 W
18,100.00	91.63	359.23	11,815.01	6,245.17	-767.64	453,421.93	838,962.67	32° 14' 34.316 N	103° 22' 14.479 W
18,200.00	91.63	359.23	11,812.16	6,345.12	-768.98	453,521.88	838,961.33	32° 14' 35.305 N	103° 22' 14.484 W
18,300.00	91.63	359.23	11,809.32	6,445.07	-770.32	453,621.83	838,959.99	32° 14' 36.294 N	103° 22' 14.490 W
18,400.00	91.63	359.23	11,806.47	6,545.02	-771.65	453,721.78	838,958.66	32° 14' 37.283 N	103° 22' 14.495 W
18,500.00	91.63	359.23	11,803.63	6,644.97	-772.99	453,821.73	838,957.32	32° 14' 38.272 N	103° 22' 14.500 W
18,600.00	91.63	359.23	11,800.78	6,744.93	-774.33	453,921.68	838,955.98	32° 14' 39.261 N	103° 22' 14.505 W
18,700.00	91.63	359.23	11,797.94	6,844.88	-775.67	454,021.63	838,954.64	32° 14' 40.250 N	103° 22' 14.510 W
18,800.00	91.63	359.23	11,795.09	6,944.83	-777.00	454,121.59	838,953.31	32° 14' 41.240 N	103° 22' 14.515 W
18,900.00	91.63	359.23	11,792.25	7,044.78	-778.34	454,221.54	838,951.97	32° 14' 42.229 N	103° 22' 14.520 W
19,000.00	91.63	359.23	11,789.41	7,144.73	-779.68	454,321.49	838,950.63	32° 14' 43.218 N	103° 22' 14.526 W
19,100.00	91.63	359.23	11,786.56	7,244.68	-781.02	454,421.44	838,949.29	32° 14' 44.207 N	103° 22' 14.531 W
19,200.00	91.63	359.23	11,783.72	7,344.63	-782.35	454,521.39	838,947.96	32° 14' 45.196 N	103° 22' 14.536 W
19,300.00	91.63	359.23	11,780.87	7,444.58	-783.69	454,621.34	838,946.62	32° 14' 46.185 N	103° 22' 14.541 W
19,400.00	91.63	359.23	11,778.03	7,544.53	-785.03	454,721.29	838,945.28	32° 14' 47.174 N	103° 22' 14.546 W
19,500.00	91.63	359.23	11,775.18	7,644.48	-786.37	454,821.24	838,943.94	32° 14' 48.163 N	103° 22' 14.551 W
19,600.00	91.63	359.23	11,772.34	7,744.43	-787.70	454,921.19	838,942.61	32° 14' 49.152 N	103° 22' 14.556 W
19,700.00	91.63	359.23	11,769.49	7,844.38	-789.04	455,021.14	838,941.27	32° 14' 50.141 N	103° 22' 14.562 W
19,800.00	91.63	359.23	11,766.65	7,944.33	-790.38	455,121.09	838,939.93	32° 14' 51.130 N	103° 22' 14.567 W
19,900.00	91.63	359.23	11,763.81	8,044.28	-791.72	455,221.04	838,938.59	32° 14' 52.120 N	103° 22' 14.572 W
20,000.00	91.63	359.23	11,760.96	8,144.23	-793.05	455,320.99	838,937.26	32° 14' 53.109 N	103° 22' 14.577 W
20,100.00	91.63	359.23	11,758.12	8,244.18	-794.39	455,420.94	838,935.92	32° 14' 54.098 N	103° 22' 14.582 W
20,200.00	91.63	359.23	11,755.27	8,344.13	-795.73	455,520.89	838,934.58	32° 14' 55.087 N	103° 22' 14.587 W
20,300.00	91.63	359.23	11,752.43	8,444.09	-797.07	455,620.84	838,933.24	32° 14' 56.076 N	103° 22' 14.592 W
20,400.00	91.63	359.23	11,749.58	8,544.04	-798.40	455,720.79	838,931.91	32° 14' 57.065 N	103° 22' 14.597 W
20,500.00	91.63	359.23	11,746.74	8,643.99	-799.74	455,820.74	838,930.57	32° 14' 58.054 N	103° 22' 14.603 W
20,600.00	91.63	359.23	11,743.89	8,743.94	-801.08	455,920.69	838,929.23	32° 14' 59.043 N	103° 22' 14.608 W
20,700.00	91.63	359.23	11,741.05	8,843.89	-802.42	456,020.64	838,927.89	32° 15' 0.032 N	103° 22' 14.613 W
20,800.00	91.63	359.23	11,738.20	8,943.84	-803.75	456,120.59	838,926.56	32° 15' 1.021 N	103° 22' 14.618 W
20,900.00	91.63	359.23	11,735.36	9,043.79	-805.09	456,220.54	838,925.22	32° 15' 2.010 N	103° 22' 14.623 W
21,000.00	91.63	359.23	11,732.52	9,143.74	-806.43	456,320.49	838,923.88	32° 15' 3.000 N	103° 22' 14.628 W
21,100.00	91.63	359.23	11,729.67	9,243.69	-807.77	456,420.44	838,922.54	32° 15' 3.989 N	103° 22' 14.633 W
21,200.00	91.63	359.23	11,726.83	9,343.64	-809.10	456,520.39	838,921.21	32° 15' 4.978 N	103° 22' 14.639 W
21,300.00	91.63	359.23	11,723.98	9,443.59	-810.44	456,620.35	838,919.87	32° 15' 5.967 N	103° 22' 14.644 W
21,400.00	91.63	359.23	11,721.14	9,543.54	-811.78	456,720.30	838,918.53	32° 15' 6.956 N	103° 22' 14.649 W
21,500.00	91.63	359.23	11,718.29	9,643.49	-813.12	456,820.25	838,917.19	32° 15' 7.945 N	103° 22' 14.654 W
21,600.00	91.63	359.23	11,715.45	9,743.44	-814.45	456,920.20	838,915.86	32° 15' 8.934 N	103° 22' 14.659 W
21,700.00	91.63	359.23	11,712.60	9,843.39	-815.79	457,020.15	838,914.52	32° 15' 9.923 N	103° 22' 14.664 W
21,800.00	91.63	359.23	11,709.76	9,943.34	-817.13	457,120.10	838,913.18	32° 15' 10.912 N	103° 22' 14.669 W
21,900.00	91.63	359.23	11,706.92	10,043.29	-818.47	457,220.05	838,911.84	32° 15' 11.901 N	103° 22' 14.675 W

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Golden Fed Com 704H
Company:	Franklin Mountain Energy	**TVD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Project:	Golden - Breckenridge Site	**MD Reference:**	GL 3375' + RKB 21' @ 3396.00ft
Site:	Lea County, NM (NAD 83)	**North Reference:**	Grid
Well:	Golden Fed Com 704H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
21,941.48	91.63	359.23	11,705.74	10,084.76	-819.02	457,261.51	838,911.29	32° 15' 12.312 N	103° 22' 14.677 W
TD at 21941.48 - Golden 704H PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Golden 704H PBHL - plan hits target center - Point	0.00	0.00	11,705.74	10,084.76	-819.02	457,261.51	838,911.29	32° 15' 12.312 N	103° 22' 14.677 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
21.00	21.00	Cenozoic Alluvium (surface)		-1.63	359.23
981.00	981.00	Rustler		-1.63	359.23
1,078.00	1,078.00	Salado		-1.63	359.23
3,003.85	3,003.67	Base Salt		-1.63	359.23
5,302.27	5,300.70	Lamar		-1.63	359.23
5,406.94	5,404.71	Bell Canyon		-1.63	359.23
6,319.38	6,310.76	Cherry Canyon		-1.63	359.23
7,670.92	7,652.83	Brushy Canyon		-1.63	359.23
8,989.22	8,961.91	Bone Spring Lime		-1.63	359.23
9,015.40	8,987.91	Avalon		-1.63	359.23
10,114.15	10,078.97	First Bone Spring Sand		-1.63	359.23
10,283.34	10,246.98	Second Bone Spring Carbonates		-1.63	359.23
10,692.84	10,654.01	Second Bone Spring Sand		-1.63	359.23
11,217.39	11,178.02	Third Bone Spring Carbonates		-1.63	359.23
11,663.48	11,618.84	Third Bone Spring Sand		-1.63	359.23
12,229.83	11,966.96	Wolfcamp		-1.63	359.23
12,327.35	11,978.21	11992' TVD - 0' VS 91.63° UpDip		-1.63	359.23

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,100.00	1,100.00	0.00	0.00	Start Build 0.09
2,200.00	2,199.94	-9.60	0.00	Start 2500.44 hold at 2200.00 MD
4,700.44	4,700.00	-53.24	0.00	Start DLS 1.00 TFO 96.64
5,382.91	5,380.83	-60.43	-40.33	Start 5105.28 hold at 5382.91 MD
10,488.19	10,450.40	-78.78	-642.93	Start Drop -1.00
11,166.38	11,127.00	-80.00	-683.00	Start 278.52 hold at 11166.38 MD
11,444.90	11,405.52	-80.00	-683.00	Start Build 10.00
12,361.20	11,978.25	509.20	-690.88	Start 9580.29 hold at 12361.20 MD
21,941.48	11,705.74	10,084.76	-819.02	TD at 21941.48

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM0001228A**
LOCATION:	Section 9, T.24 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Golden Fed Com 603H
SURFACE HOLE FOOTAGE:	325'/S & 1408'/E
BOTTOM HOLE FOOTAGE	150'/N & 1677'/E

WELL NAME & NO.:	Golden Fed Com 704H
SURFACE HOLE FOOTAGE:	325'/S & 1373'/E
BOTTOM HOLE FOOTAGE	150'/N & 2078'/E

COA

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

Operator is NOT approved for the use of Flex hose.

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.

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

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.

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

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.