

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBSOCD

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

JAN 20 2015

5. Lease Serial No.
LC-065194

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
ENDURANCE RESOURCES, LLC

3a. Address
203 WEST WALL STREET, SUITE 1000 MIDLAND, TX 79701

3b. Phone No. (include area code)
432-242-4680

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 18- T23S- R 34E SHL: 330' FNL & 660' FEL BHL: 330' FSL & 660' FEL

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
STARCASTER 18 FED- 4H

9. API Well No.
30-025-42025

10. Field and Pool or Exploratory Area
Bell Lake; Bone Spring North (5150)

11. County or Parish, State
LEA COUNTY, NEW MEXICO

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Endurance Resources, LLC respectfully request approval to move the Bottom Hole Location of the Starcaster 18 Federal 4H. The Surface Hole Location will be 330' FNL & 660' FEL. The Bottom Hole Location will be moved to 330' FSL & 330' FEL from the previous location of 330' FSL & 660' FEL. Please see attached C-102 and maps for additional details.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

M.A. SIRGO III

Title ENGINEER

Signature

Date 12/05/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE APPROVED

Approved by

Title

Office

JAN 8 2015

/s/ Chris Walls

Conditions of approval, if any, are attached. Approval of this notice 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.

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.

(Instructions on page 2)

JAN 30 2015

Endurance Resources LLC

HALLIBURTON

Sperry Drilling Services

Project: Lea County, NM (NAD 83)
 Site: Starcaster 18 Fed
 Well: Starcaster 18 Fed #4H
 Wellbore: Wellbore #1
 Plan: Plan #2
 Rig: Patriot 4

Surface Location:

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3478.6' + KB 21' @ 3499.60usft (Patriot 4)
 Northing Easting Latitude Longitude
 477857.56 797919.57 32° 18' 39.495 N 103° 30' 10.133 W



To convert a Magnetic Direction to a Grid Direction, Add 6.92°

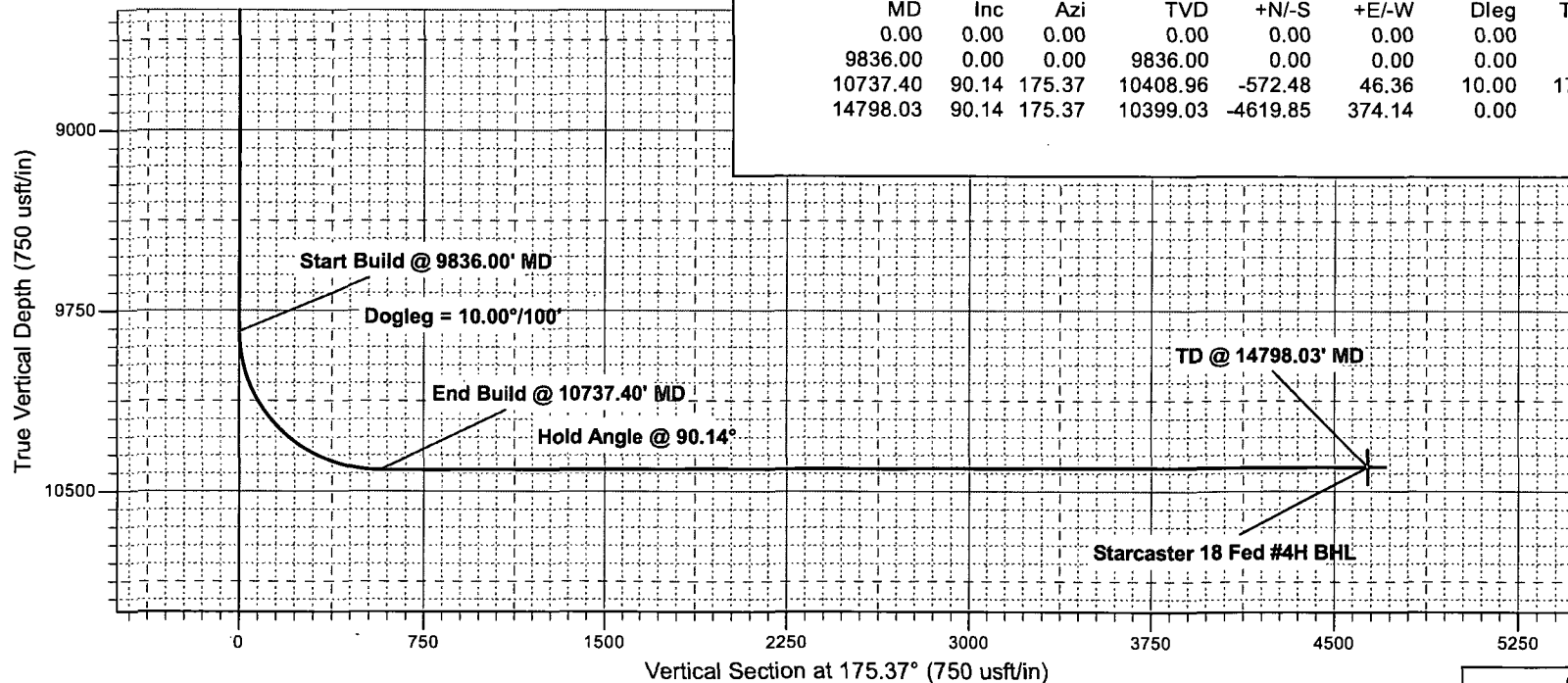
Magnetic Model: BGGM2013 Date: 04-Dec-13
 Azimuths to Grid North

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Starcaster 18 Fed #4H BHL	10399.00	-4619.86	374.07	473237.70	798293.64	32° 17' 53.753 N	103° 30' 6.192 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9836.00	0.00	0.00	9836.00	0.00	0.00	0.00	0.00	0.00	Start Build
10737.40	90.14	175.37	10408.96	-572.48	46.36	10.00	175.37	574.36	End Build
14798.03	90.14	175.37	10399.03	-4619.85	374.14	0.00	0.00	4634.98	TD



Created By: Scott Sinclair

Project: Lea County, NM (NAD 83)
 Site: Starcaster 18 Fed
 Well: Starcaster 18 Fed #4H
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 Plan: Plan #2
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To convert a Magnetic Direction to a Grid Direction, Add 6.92°

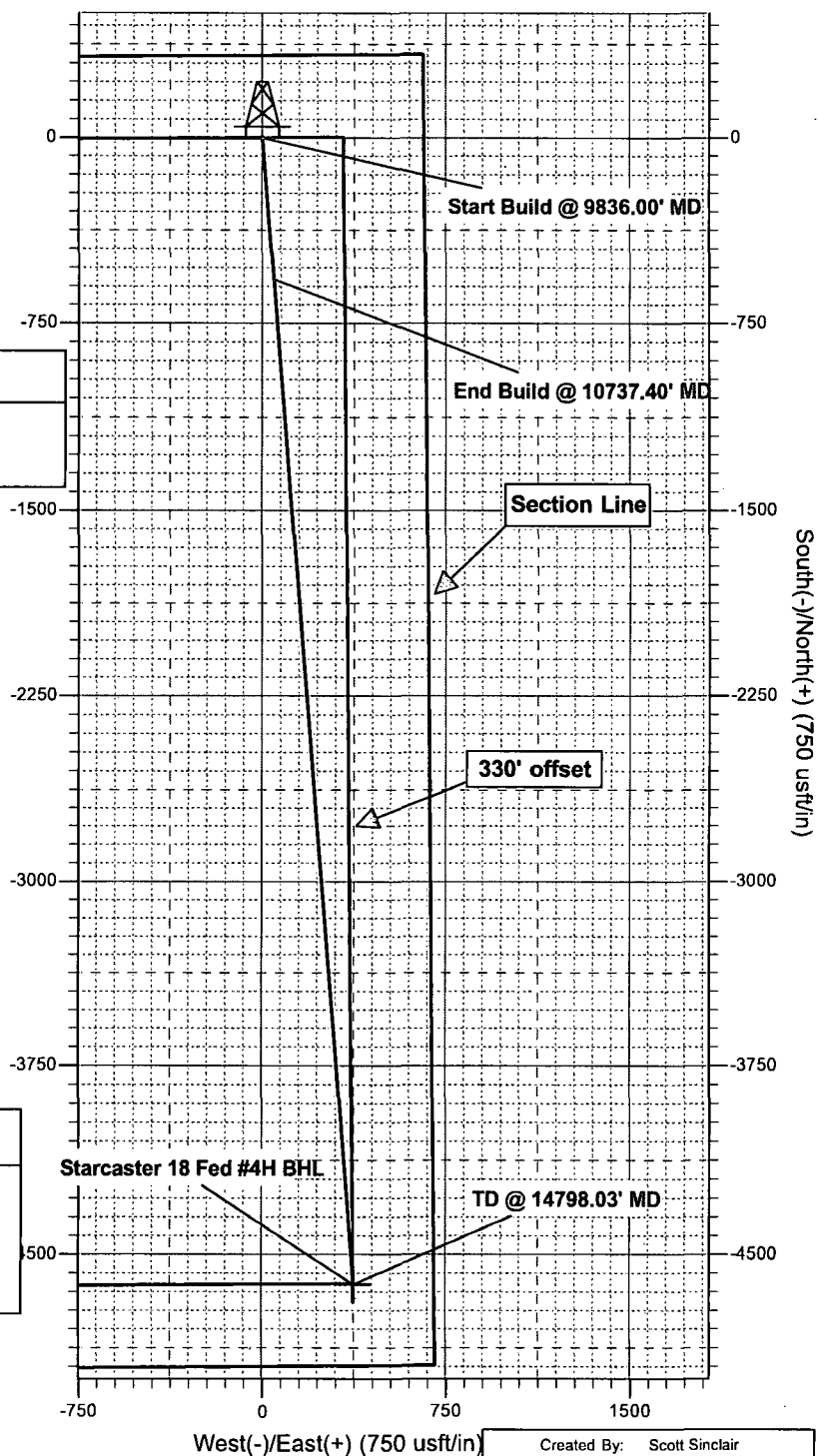
Magnetic Model: BGGM2013 Date: 04-Dec-13
 Azimuths to Grid North



Surface Location:

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3478.6' + KB 21' @ 3499.60usft (Patriot 4)

Northing	Easting	Latitude	Longitude
477857.56	797919.57	32° 18' 39.495 N	103° 30' 10.133 W



West(-)/East(+) (750 usft/in)

Created By: Scott Sinclair

Endurance Resources LLC

Lea County, NM (NAD 83)

Starcaster 18 Fed

Starcaster 18 Fed #4H

Wellbore #1

Plan: Plan #2

Sperry Drilling Services

Proposal Report

03 December, 2014

Well Coordinates: 477,857.56 N, 797,919.57 E (32° 18' 39.49" N, 103° 30' 10.13" W)

Ground Level: 3,478.60 usft

Local Coordinate Origin:

Centered on Well Starcaster 18 Fed #4H

Viewing Datum:

GL 3478.6' + KB 21' @ 3499.60usft (Patriot 4)

TVDs to System:

N

North Reference:

Grid

Unit System:

API - US Survey Feet

Version: 5000.1 Build: 72

HALLIBURTON

Plan Report for Starcaster 18 Fed #4H - Plan #2

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Plan Report for Starcaster 18 Fed #4H - Plan #2

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,836.00	0.00	0.00	9,836.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 9836.00' MD - Dogleg = 10.00°/100'										
9,900.00	6.40	175.37	9,899.87	-3.56	0.29	3.57	10.00	10.00	0.00	175.37
10,000.00	16.40	175.37	9,997.77	-23.24	1.88	23.31	10.00	10.00	0.00	0.00
10,100.00	26.40	175.37	10,090.76	-59.56	4.82	59.75	10.00	10.00	0.00	0.00
10,200.00	36.40	175.37	10,176.00	-111.42	9.02	111.79	10.00	10.00	0.00	0.00
10,300.00	46.40	175.37	10,250.92	-177.25	14.35	177.83	10.00	10.00	0.00	0.00
10,400.00	56.40	175.37	10,313.23	-255.05	20.66	255.89	10.00	10.00	0.00	0.00
10,500.00	66.40	175.37	10,361.04	-342.45	27.73	343.57	10.00	10.00	0.00	0.00
10,600.00	76.40	175.37	10,392.89	-436.80	35.37	438.23	10.00	10.00	0.00	0.00
10,700.00	86.40	175.37	10,407.83	-535.23	43.35	536.98	10.00	10.00	0.00	0.00
10,737.40	90.14	175.37	10,408.96	-572.48	46.36	574.36	10.00	10.00	0.00	0.00
End Build @ 10737.40' MD - Hold Angle @ 90.14°										
10,800.00	90.14	175.37	10,408.80	-634.88	51.42	636.96	0.00	0.00	0.00	0.00
10,900.00	90.14	175.37	10,408.56	-734.55	59.49	736.96	0.00	0.00	0.00	0.00
11,000.00	90.14	175.37	10,408.31	-834.23	67.56	836.96	0.00	0.00	0.00	0.00
11,100.00	90.14	175.37	10,408.07	-933.90	75.63	936.96	0.00	0.00	0.00	0.00
11,200.00	90.14	175.37	10,407.83	-1,033.57	83.70	1,036.96	0.00	0.00	0.00	0.00
11,300.00	90.14	175.37	10,407.58	-1,133.25	91.78	1,136.96	0.00	0.00	0.00	0.00

Plan Report for Starcaster 18 Fed #4H - Plan #2

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
11,400.00	90.14	175.37	10,407.34	-1,232.92	99.85	1,236.96	0.00	0.00	0.00	0.00
11,500.00	90.14	175.37	10,407.09	-1,332.59	107.92	1,336.96	0.00	0.00	0.00	0.00
11,600.00	90.14	175.37	10,406.85	-1,432.27	115.99	1,436.96	0.00	0.00	0.00	0.00
11,700.00	90.14	175.37	10,406.60	-1,531.94	124.06	1,536.95	0.00	0.00	0.00	0.00
11,800.00	90.14	175.37	10,406.36	-1,631.61	132.14	1,636.95	0.00	0.00	0.00	0.00
11,900.00	90.14	175.37	10,406.12	-1,731.29	140.21	1,736.95	0.00	0.00	0.00	0.00
12,000.00	90.14	175.37	10,405.87	-1,830.96	148.28	1,836.95	0.00	0.00	0.00	0.00
12,100.00	90.14	175.37	10,405.63	-1,930.63	156.35	1,936.95	0.00	0.00	0.00	0.00
12,200.00	90.14	175.37	10,405.38	-2,030.31	164.42	2,036.95	0.00	0.00	0.00	0.00
12,300.00	90.14	175.37	10,405.14	-2,129.98	172.50	2,136.95	0.00	0.00	0.00	0.00
12,400.00	90.14	175.37	10,404.89	-2,229.65	180.57	2,236.95	0.00	0.00	0.00	0.00
12,500.00	90.14	175.37	10,404.65	-2,329.33	188.64	2,336.95	0.00	0.00	0.00	0.00
12,600.00	90.14	175.37	10,404.40	-2,429.00	196.71	2,436.95	0.00	0.00	0.00	0.00
12,700.00	90.14	175.37	10,404.16	-2,528.67	204.78	2,536.95	0.00	0.00	0.00	0.00
12,800.00	90.14	175.37	10,403.92	-2,628.35	212.86	2,636.95	0.00	0.00	0.00	0.00
12,900.00	90.14	175.37	10,403.67	-2,728.02	220.93	2,736.95	0.00	0.00	0.00	0.00
13,000.00	90.14	175.37	10,403.43	-2,827.69	229.00	2,836.95	0.00	0.00	0.00	0.00
13,100.00	90.14	175.37	10,403.18	-2,927.37	237.07	2,936.95	0.00	0.00	0.00	0.00
13,200.00	90.14	175.37	10,402.94	-3,027.04	245.15	3,036.95	0.00	0.00	0.00	0.00
13,300.00	90.14	175.37	10,402.69	-3,126.71	253.22	3,136.95	0.00	0.00	0.00	0.00
13,400.00	90.14	175.37	10,402.45	-3,226.39	261.29	3,236.95	0.00	0.00	0.00	0.00
13,500.00	90.14	175.37	10,402.21	-3,326.06	269.36	3,336.95	0.00	0.00	0.00	0.00
13,600.00	90.14	175.37	10,401.96	-3,425.73	277.43	3,436.95	0.00	0.00	0.00	0.00
13,700.00	90.14	175.37	10,401.72	-3,525.41	285.51	3,536.95	0.00	0.00	0.00	0.00
13,800.00	90.14	175.37	10,401.47	-3,625.08	293.58	3,636.95	0.00	0.00	0.00	0.00
13,900.00	90.14	175.37	10,401.23	-3,724.75	301.65	3,736.95	0.00	0.00	0.00	0.00
14,000.00	90.14	175.37	10,400.98	-3,824.43	309.72	3,836.95	0.00	0.00	0.00	0.00
14,100.00	90.14	175.37	10,400.74	-3,924.10	317.79	3,936.95	0.00	0.00	0.00	0.00
14,200.00	90.14	175.37	10,400.50	-4,023.77	325.87	4,036.95	0.00	0.00	0.00	0.00
14,300.00	90.14	175.37	10,400.25	-4,123.45	333.94	4,136.95	0.00	0.00	0.00	0.00
14,400.00	90.14	175.37	10,400.01	-4,223.12	342.01	4,236.95	0.00	0.00	0.00	0.00
14,500.00	90.14	175.37	10,399.76	-4,322.79	350.08	4,336.95	0.00	0.00	0.00	0.00
14,600.00	90.14	175.37	10,399.52	-4,422.47	358.15	4,436.95	0.00	0.00	0.00	0.00
14,700.00	90.14	175.37	10,399.27	-4,522.14	366.23	4,536.95	0.00	0.00	0.00	0.00
14,798.03	90.14	175.37	10,399.03	-4,619.85	374.14	4,634.98	0.00	0.00	0.00	0.00

TD @ 14798.03' MD - Starcaster 18 Fed #4H BHL

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
9,836.00	9,836.00	0.00	0.00	Start Build @ 9836.00' MD
9,836.00	9,836.00	0.00	0.00	Dogleg = 10.00°/100'
10,737.40	10,408.96	-572.48	46.36	End Build @ 10737.40' MD
10,737.40	10,408.96	-572.48	46.36	Hold Angle @ 90.14°
14,798.03	10,399.03	-4,619.85	374.14	TD @ 14798.03' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	+E/-W (usft)	Start TVD (usft)
TD	No Target (Freehand)	175.37	Slot	0.00	0.00	0.00

Plan Report for Starcaster 18 Fed #4H - Plan #2

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	14,798.03	Plan #2	MWD

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Starcaster 18 Fed #4H BHL	10,399.00	-4,619.86	374.07	Point

North Reference Sheet for Starcaster 18 Fed - Starcaster 18 Fed #4H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3478.6' + KB 21' @ 3499.60usft (Patriot 4). Northing and Easting are relative to Starcaster 18 Fed #4H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33°, Longitude Origin: 0° 0' 0.000 E°, Latitude Origin: 0° 0' 0.000 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99998449

Grid Coordinates of Well: 477,857.56 usft N, 797,919.57 usft E

Geographical Coordinates of Well: 32° 18' 39.49" N, 103° 30' 10.13" W

Grid Convergence at Surface is: 0.44°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,798.03usft
the Bottom Hole Displacement is 4,634.98usft in the Direction of 175.37° (Grid).

Magnetic Convergence at surface is: -6.92° (4 December 2013, , BGGM2013)

