

Endurance Resources LLC

HALLIBURTON
Sperry Drilling Services

SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3506.5' + KB 29.0' @ 3535.50usft (Noram 23)
Northing 477833.97 794748.19 32° 18' 39.503 N 103° 30' 47.086 W
Longitude



Project: Lea County, NM (NAD 83)
Site: Starcaster 18 Fed
Well: Starcaster 18 Fed 2H
Wellbore: Wellbore #1
Design: Plan #2
Rig: Noram 23

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

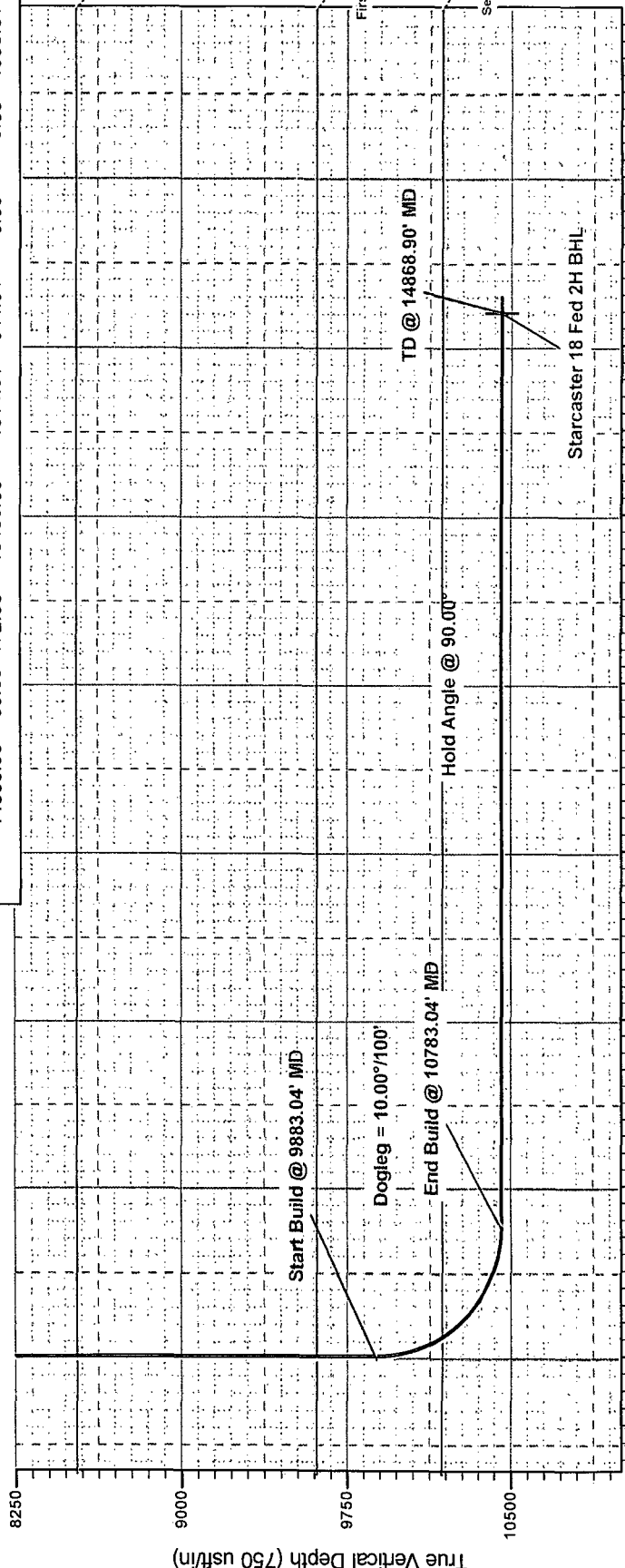
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Starcaster 18 Fed 2H BHL	10456.00	-4614.01	644.54	473219.96	795392.73	32° 17' 53.799 N	103° 30' 39.989 W

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	
9883.04	0.00	0.00	9883.04	0.00	0.00	0.00	0.00	0.00	Start Build
10783.04	90.00	172.05	10456.00	-567.45	79.27	10.00	172.05	-572.96	End Build
14868.90	90.00	172.05	10456.00	-4614.01	644.54	0.00	0.00	4658.81	TD

To convert a Magnetic Direction to a Grid Direction, Add 6.73°

Magnetic Model: BGGM2015 Date: 14-Jan-16
Azimuths to Grid North



HOPPER
MAY 05 2016
RECEIVED
First Bone Spring
Second Bone Spring

Vertical Section at 172.05° (750 usft/in)

Created By: Clyde J. Geoffroy

MAY 10 2016

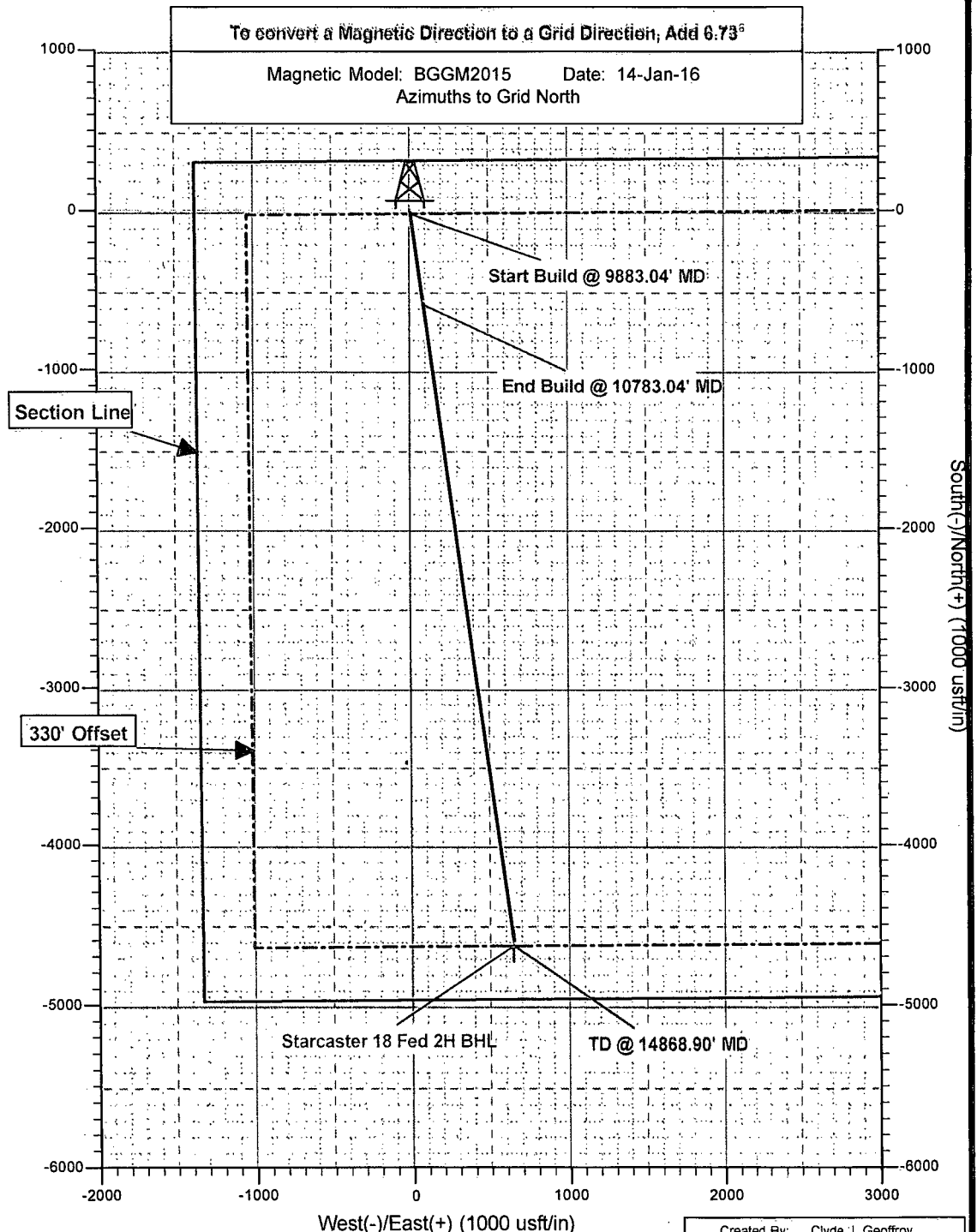
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WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Starcaster 18 Fed 2H BHL	10456.00	-4614.01	644.54	473219.96	795392.73	32° 17' 53.799 N	103° 30' 39.989 W



Endurance Resources LLC

Lea County, NM (NAD 83)

Starcaster 18 Fed

Starcaster 18 Fed 2H

Wellbore #1

Plan: Plan #2

Sperry Drilling Services Proposal Report

17 January, 2016

Well Coordinates: 477,833.97 N, 794,748.19 E (32° 18' 39.50" N, 103° 30' 47.09" W)

Ground Level: 3,506.50 usft

Local Coordinate Origin:	Centered on Well Starcaster 18 Fed 2H
Viewing Datum:	GL 3506.5' + KB 29.0' @ 3535.50usft (Noram 23)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 5000.1 Build: 76

HALLIBURTON

Plan Report for Starcaster 18 Fed 2H - 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
979.00	0.00	0.00	979.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
1,416.00	0.00	0.00	1,416.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt										
4,943.00	0.00	0.00	4,943.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar										
5,025.00	0.00	0.00	5,025.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon										
6,049.00	0.00	0.00	6,049.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon										
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon										
8,528.00	0.00	0.00	8,528.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring										
9,612.00	0.00	0.00	9,612.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
First Bone Spring Sand										
9,883.04	0.00	0.00	9,883.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 9883.04' MD - Dogleg = 10.00°/100'										
9,900.00	1.70	172.05	9,900.00	-0.25	0.03	0.25	10.00	10.00	0.00	172.05
10,000.00	11.70	172.05	9,999.19	-11.78	1.65	11.90	10.00	10.00	0.00	0.00
10,100.00	21.70	172.05	10,094.85	-40.20	5.62	40.59	10.00	10.00	0.00	0.00
10,197.56	31.45	172.05	10,182.00	-83.37	11.65	84.18	10.00	10.00	0.00	0.00
Second Bone Spring Sand										
10,200.00	31.70	172.05	10,184.08	-84.63	11.82	85.46	10.00	10.00	0.00	0.00
10,300.00	41.70	172.05	10,264.16	-143.74	20.08	145.14	10.00	10.00	0.00	0.00
10,400.00	51.70	172.05	10,332.66	-215.72	30.13	217.82	10.00	10.00	0.00	0.00
10,500.00	61.70	172.05	10,387.50	-298.39	41.68	301.29	10.00	10.00	0.00	0.00
10,600.00	71.70	172.05	10,427.01	-389.23	54.37	393.01	10.00	10.00	0.00	0.00
10,700.00	81.70	172.05	10,449.99	-485.49	67.82	490.21	10.00	10.00	0.00	0.00
10,783.04	90.00	172.05	10,456.00	-567.45	79.27	572.96	10.00	10.00	0.00	0.00
End Build @ 10783.04' MD - Hold Angle @ 90.00°										
10,800.00	90.00	172.05	10,456.00	-584.24	81.61	589.92	0.00	0.00	0.00	0.00
10,900.00	90.00	172.05	10,456.00	-683.28	95.45	689.92	0.00	0.00	0.00	0.00
11,000.00	90.00	172.05	10,456.00	-782.32	109.28	789.92	0.00	0.00	0.00	0.00
11,100.00	90.00	172.05	10,456.00	-881.36	123.12	889.92	0.00	0.00	0.00	0.00
11,200.00	90.00	172.05	10,456.00	-980.40	136.95	989.92	0.00	0.00	0.00	0.00
11,300.00	90.00	172.05	10,456.00	-1,079.43	150.79	1,089.92	0.00	0.00	0.00	0.00
11,400.00	90.00	172.05	10,456.00	-1,178.47	164.62	1,189.92	0.00	0.00	0.00	0.00
11,500.00	90.00	172.05	10,456.00	-1,277.51	178.46	1,289.92	0.00	0.00	0.00	0.00
11,600.00	90.00	172.05	10,456.00	-1,376.55	192.29	1,389.92	0.00	0.00	0.00	0.00
11,700.00	90.00	172.05	10,456.00	-1,475.59	206.13	1,489.92	0.00	0.00	0.00	0.00
11,800.00	90.00	172.05	10,456.00	-1,574.63	219.96	1,589.92	0.00	0.00	0.00	0.00
11,900.00	90.00	172.05	10,456.00	-1,673.66	233.80	1,689.92	0.00	0.00	0.00	0.00
12,000.00	90.00	172.05	10,456.00	-1,772.70	247.63	1,789.92	0.00	0.00	0.00	0.00
12,100.00	90.00	172.05	10,456.00	-1,871.74	261.47	1,889.92	0.00	0.00	0.00	0.00
12,200.00	90.00	172.05	10,456.00	-1,970.78	275.30	1,989.92	0.00	0.00	0.00	0.00
12,300.00	90.00	172.05	10,456.00	-2,069.82	289.14	2,089.92	0.00	0.00	0.00	0.00
12,400.00	90.00	172.05	10,456.00	-2,168.86	302.97	2,189.92	0.00	0.00	0.00	0.00
12,500.00	90.00	172.05	10,456.00	-2,267.89	316.81	2,289.92	0.00	0.00	0.00	0.00
12,600.00	90.00	172.05	10,456.00	-2,366.93	330.64	2,389.92	0.00	0.00	0.00	0.00
12,700.00	90.00	172.05	10,456.00	-2,465.97	344.48	2,489.92	0.00	0.00	0.00	0.00
12,800.00	90.00	172.05	10,456.00	-2,565.01	358.31	2,589.92	0.00	0.00	0.00	0.00
12,900.00	90.00	172.05	10,456.00	-2,664.05	372.15	2,689.92	0.00	0.00	0.00	0.00
13,000.00	90.00	172.05	10,456.00	-2,763.09	385.98	2,789.92	0.00	0.00	0.00	0.00
13,100.00	90.00	172.05	10,456.00	-2,862.12	399.82	2,889.92	0.00	0.00	0.00	0.00
13,200.00	90.00	172.05	10,456.00	-2,961.16	413.65	2,989.92	0.00	0.00	0.00	0.00

Plan Report for Starcaster 18 Fed 2H - 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 (°)
13,300.00	90.00	172.05	10,456.00	-3,060.20	427.49	3,089.92	0.00	0.00	0.00	0.00
13,400.00	90.00	172.05	10,456.00	-3,159.24	441.32	3,189.92	0.00	0.00	0.00	0.00
13,500.00	90.00	172.05	10,456.00	-3,258.28	455.16	3,289.92	0.00	0.00	0.00	0.00
13,600.00	90.00	172.05	10,456.00	-3,357.32	468.99	3,389.92	0.00	0.00	0.00	0.00
13,700.00	90.00	172.05	10,456.00	-3,456.36	482.82	3,489.92	0.00	0.00	0.00	0.00
13,800.00	90.00	172.05	10,456.00	-3,555.39	496.66	3,589.92	0.00	0.00	0.00	0.00
13,900.00	90.00	172.05	10,456.00	-3,654.43	510.49	3,689.92	0.00	0.00	0.00	0.00
14,000.00	90.00	172.05	10,456.00	-3,753.47	524.33	3,789.92	0.00	0.00	0.00	0.00
14,100.00	90.00	172.05	10,456.00	-3,852.51	538.16	3,889.92	0.00	0.00	0.00	0.00
14,200.00	90.00	172.05	10,456.00	-3,951.55	552.00	3,989.92	0.00	0.00	0.00	0.00
14,300.00	90.00	172.05	10,456.00	-4,050.59	565.83	4,089.92	0.00	0.00	0.00	0.00
14,400.00	90.00	172.05	10,456.00	-4,149.62	579.67	4,189.92	0.00	0.00	0.00	0.00
14,500.00	90.00	172.05	10,456.00	-4,248.66	593.50	4,289.92	0.00	0.00	0.00	0.00
14,600.00	90.00	172.05	10,456.00	-4,347.70	607.34	4,389.92	0.00	0.00	0.00	0.00
14,700.00	90.00	172.05	10,456.00	-4,446.74	621.17	4,489.92	0.00	0.00	0.00	0.00
14,800.00	90.00	172.05	10,456.00	-4,545.78	635.01	4,589.92	0.00	0.00	0.00	0.00
14,868.90	90.00	172.05	10,456.00	-4,614.01	644.54	4,658.81	0.00	0.00	0.00	0.00

TD @ 14868.90' MD - Starcaster 18 Fed 2H BHL

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
9,883.04	9,883.04	0.00	0.00	Start Build @ 9883.04' MD
9,883.04	9,883.04	0.00	0.00	Dogleg = 10.00°/100'
10,783.04	10,456.00	-567.45	79.27	End Build @ 10783.04' MD
10,783.04	10,456.00	-567.45	79.27	Hold Angle @ 90.00°
14,868.90	10,456.00	-4,614.01	644.54	TD @ 14868.90' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	+E/-W (usft)	Start TVD (usft)
TD	No Target (Freehand)	172.05	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	14,868.90	Plan #2	MWD+SC

HALLIBURTON**Plan Report for Starcaster 18 Fed 2H - Plan #2****Formation Details**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
979.00	979.00	Rustler		0.00	172.05
1,416.00	1,416.00	Top of Salt		0.00	172.05
4,943.00	4,943.00	Lamar		0.00	172.05
5,025.00	5,025.00	Bell Canyon		0.00	172.05
6,049.00	6,049.00	Cherry Canyon		0.00	172.05
7,300.00	7,300.00	Brushy Canyon		0.00	172.05
8,528.00	8,528.00	Bone Spring		0.00	172.05
9,612.00	9,612.00	First Bone Spring Sand		0.00	172.05
10,197.56	10,182.00	Second Bone Spring Sand		0.00	172.05

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Starcaster 18 Fed 2H BHL	10,456.00	-4,614.01	644.54	Point