

Endurance Resources, LLC

HALLIBURTON

Sperry Drilling Services



**ENDURANCE
RESOURCES, LLC**

Project: Lea County, NM (NAD 83)
Site: Duo Sonic 29 Fed
Well: Duo Sonic 29 Fed 702H
Wellbore: Wellbore #1
Design: Plan #2
Rig: TBD

SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3259.6' + KB 25' @ 3278.60usft (TBD)
 Northing Easting Latitude Longitude
 399549.53 833120.25 32° 5' 41.772 N 103° 23' 27.992 W

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

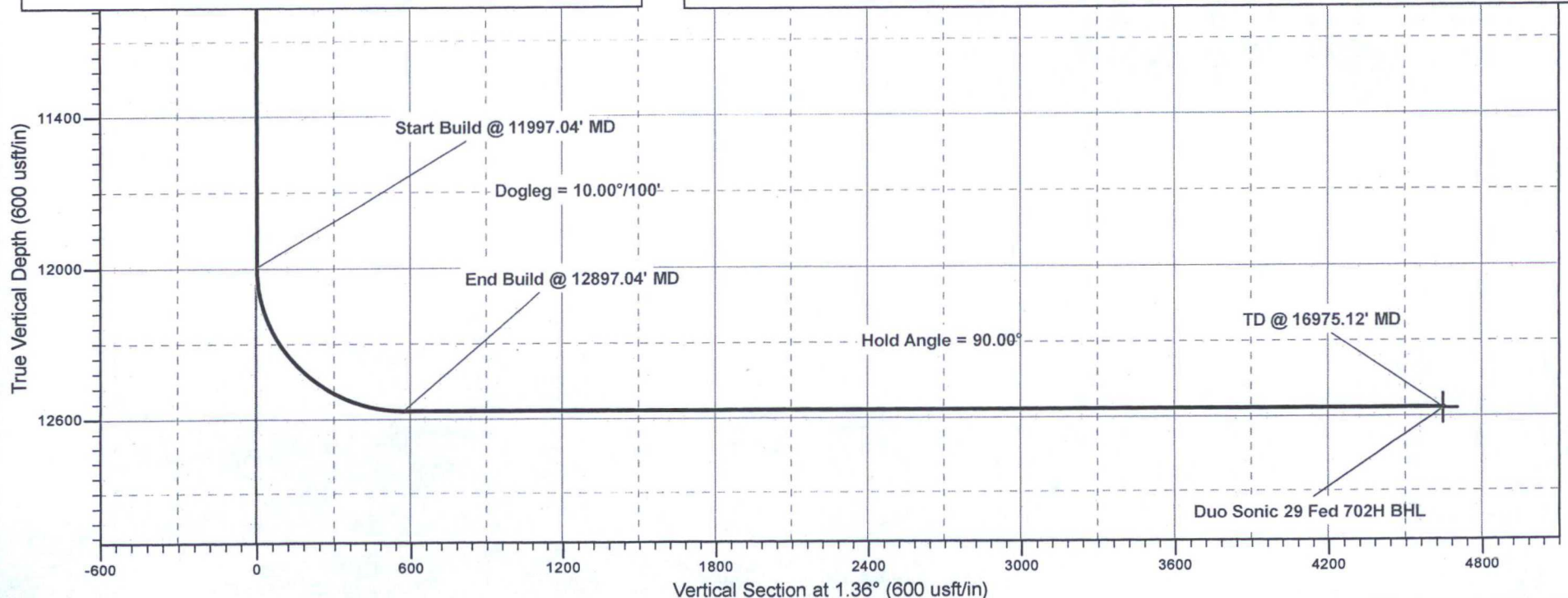
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Duo Sonic 29 Fed 702H BHL	12570.00	4649.72	110.75	404199.25	833231.00	32° 6' 27.771 N	103° 23' 26.232 W

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	
11997.04	0.00	0.00	11997.04	0.00	0.00	0.00	0.00	0.00	Start Build
12897.04	90.00	1.36	12570.00	572.80	13.64	10.00	1.36	572.96	End Build
16975.12	90.00	1.36	12570.00	4649.72	110.75	0.00	0.00	4651.04	TD

To convert a Magnetic Direction to a Grid Direction, Add 6.58°

Magnetic Model: BGGM2015 Date: 15-Mar-16
 Azimuths to Grid North



Created By: Lotfi Hamoudi

Endurance Resources, LLC

Lea County, NM (NAD 83)

Duo Sonic 29 Fed

Duo Sonic 29 Fed 702H

Wellbore #1

Plan: Plan #2

Sperry Drilling Services Proposal Report

15 March, 2016

Well Coordinates: 399,549.53 N, 833,120.25 E (32° 05' 41.77" N, 103° 23' 27.99" W)

Ground Level: 3,253.60 usft

Local Coordinate Origin:	Centered on Well Duo Sonic 29 Fed 702H
Viewing Datum:	GL 3259.6' + KB 25' @ 3278.60usft (TBD)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 5000.1 Build: 81B

HALLIBURTON

Plan Report for Duo Sonic 29 Fed 702H - 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 Duo Sonic 29 Fed 702H - 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
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,600.00	0.00	0.00	11,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,700.00	0.00	0.00	11,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,800.00	0.00	0.00	11,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

HALLIBURTON**Plan Report for Duo Sonic 29 Fed 702H - 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 (°)
11,900.00	0.00	0.00	11,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11,997.04	0.00	0.00	11,997.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 11997.04' MD - Dogleg = 10.00°/100'										
12,000.00	0.30	1.36	12,000.00	0.01	0.00	0.01	10.00	10.00	0.00	1.36
12,050.00	5.30	1.36	12,049.92	2.44	0.06	2.45	10.00	10.00	0.00	0.00
12,100.00	10.30	1.36	12,099.45	9.22	0.22	9.23	10.00	10.00	0.00	0.00
12,150.00	15.30	1.36	12,148.19	20.29	0.48	20.30	10.00	10.00	0.00	0.00
12,200.00	20.30	1.36	12,195.78	35.56	0.85	35.57	10.00	10.00	0.00	0.00
12,250.00	25.30	1.36	12,241.86	54.92	1.31	54.94	10.00	10.00	0.00	0.00
12,300.00	30.30	1.36	12,286.08	78.23	1.86	78.25	10.00	10.00	0.00	0.00
12,350.00	35.30	1.36	12,328.10	105.29	2.51	105.32	10.00	10.00	0.00	0.00
12,400.00	40.30	1.36	12,367.59	135.92	3.24	135.95	10.00	10.00	0.00	0.00
12,450.00	45.30	1.36	12,404.27	169.86	4.05	169.91	10.00	10.00	0.00	0.00
12,500.00	50.30	1.36	12,437.85	206.88	4.93	206.94	10.00	10.00	0.00	0.00
12,550.00	55.30	1.36	12,468.07	246.68	5.88	246.75	10.00	10.00	0.00	0.00
12,600.00	60.30	1.36	12,494.71	288.96	6.88	289.04	10.00	10.00	0.00	0.00
12,650.00	65.30	1.36	12,517.56	333.40	7.94	333.50	10.00	10.00	0.00	0.00
12,700.00	70.30	1.36	12,536.45	379.67	9.04	379.78	10.00	10.00	0.00	0.00
12,750.00	75.30	1.36	12,551.24	427.40	10.18	427.52	10.00	10.00	0.00	0.00
12,800.00	80.30	1.36	12,561.80	476.24	11.34	476.38	10.00	10.00	0.00	0.00
12,850.00	85.30	1.36	12,568.07	525.82	12.52	525.97	10.00	10.00	0.00	0.00
12,897.04	90.00	1.36	12,570.00	572.80	13.64	572.96	10.00	10.00	0.00	0.00
End Build @ 12897.04' MD - Hold Angle = 90.00°										
12,900.00	90.00	1.36	12,570.00	575.75	13.71	575.92	0.00	0.00	0.00	0.00
13,000.00	90.00	1.36	12,570.00	675.72	16.10	675.92	0.00	0.00	0.00	0.00
13,100.00	90.00	1.36	12,570.00	775.70	18.48	775.92	0.00	0.00	0.00	0.00
13,200.00	90.00	1.36	12,570.00	875.67	20.86	875.92	0.00	0.00	0.00	0.00
13,300.00	90.00	1.36	12,570.00	975.64	23.24	975.92	0.00	0.00	0.00	0.00
13,400.00	90.00	1.36	12,570.00	1,075.61	25.62	1,075.92	0.00	0.00	0.00	0.00
13,500.00	90.00	1.36	12,570.00	1,175.58	28.00	1,175.92	0.00	0.00	0.00	0.00
13,600.00	90.00	1.36	12,570.00	1,275.55	30.38	1,275.92	0.00	0.00	0.00	0.00
13,700.00	90.00	1.36	12,570.00	1,375.53	32.76	1,375.92	0.00	0.00	0.00	0.00
13,800.00	90.00	1.36	12,570.00	1,475.50	35.15	1,475.92	0.00	0.00	0.00	0.00
13,900.00	90.00	1.36	12,570.00	1,575.47	37.53	1,575.92	0.00	0.00	0.00	0.00
14,000.00	90.00	1.36	12,570.00	1,675.44	39.91	1,675.92	0.00	0.00	0.00	0.00
14,100.00	90.00	1.36	12,570.00	1,775.41	42.29	1,775.92	0.00	0.00	0.00	0.00
14,200.00	90.00	1.36	12,570.00	1,875.38	44.67	1,875.92	0.00	0.00	0.00	0.00
14,300.00	90.00	1.36	12,570.00	1,975.36	47.05	1,975.92	0.00	0.00	0.00	0.00
14,400.00	90.00	1.36	12,570.00	2,075.33	49.43	2,075.92	0.00	0.00	0.00	0.00
14,500.00	90.00	1.36	12,570.00	2,175.30	51.81	2,175.92	0.00	0.00	0.00	0.00
14,600.00	90.00	1.36	12,570.00	2,275.27	54.20	2,275.92	0.00	0.00	0.00	0.00
14,700.00	90.00	1.36	12,570.00	2,375.24	56.58	2,375.92	0.00	0.00	0.00	0.00
14,800.00	90.00	1.36	12,570.00	2,475.21	58.96	2,475.92	0.00	0.00	0.00	0.00
14,900.00	90.00	1.36	12,570.00	2,575.19	61.34	2,575.92	0.00	0.00	0.00	0.00
15,000.00	90.00	1.36	12,570.00	2,675.16	63.72	2,675.92	0.00	0.00	0.00	0.00
15,100.00	90.00	1.36	12,570.00	2,775.13	66.10	2,775.92	0.00	0.00	0.00	0.00
15,200.00	90.00	1.36	12,570.00	2,875.10	68.48	2,875.92	0.00	0.00	0.00	0.00
15,300.00	90.00	1.36	12,570.00	2,975.07	70.87	2,975.92	0.00	0.00	0.00	0.00
15,400.00	90.00	1.36	12,570.00	3,075.04	73.25	3,075.92	0.00	0.00	0.00	0.00
15,500.00	90.00	1.36	12,570.00	3,175.02	75.63	3,175.92	0.00	0.00	0.00	0.00
15,600.00	90.00	1.36	12,570.00	3,274.99	78.01	3,275.92	0.00	0.00	0.00	0.00
15,700.00	90.00	1.36	12,570.00	3,374.96	80.39	3,375.92	0.00	0.00	0.00	0.00
15,800.00	90.00	1.36	12,570.00	3,474.93	82.77	3,475.92	0.00	0.00	0.00	0.00
15,900.00	90.00	1.36	12,570.00	3,574.90	85.15	3,575.92	0.00	0.00	0.00	0.00
16,000.00	90.00	1.36	12,570.00	3,674.87	87.53	3,675.92	0.00	0.00	0.00	0.00
16,100.00	90.00	1.36	12,570.00	3,774.84	89.92	3,775.92	0.00	0.00	0.00	0.00
16,200.00	90.00	1.36	12,570.00	3,874.82	92.30	3,875.92	0.00	0.00	0.00	0.00
16,300.00	90.00	1.36	12,570.00	3,974.79	94.68	3,975.92	0.00	0.00	0.00	0.00
16,400.00	90.00	1.36	12,570.00	4,074.76	97.06	4,075.92	0.00	0.00	0.00	0.00

HALLIBURTON**Plan Report for Duo Sonic 29 Fed 702H - 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 (°)
16,500.00	90.00	1.36	12,570.00	4,174.73	99.44	4,175.92	0.00	0.00	0.00	0.00
16,600.00	90.00	1.36	12,570.00	4,274.70	101.82	4,275.92	0.00	0.00	0.00	0.00
16,700.00	90.00	1.36	12,570.00	4,374.67	104.20	4,375.92	0.00	0.00	0.00	0.00
16,800.00	90.00	1.36	12,570.00	4,474.65	106.58	4,475.92	0.00	0.00	0.00	0.00
16,900.00	90.00	1.36	12,570.00	4,574.62	108.97	4,575.92	0.00	0.00	0.00	0.00
16,975.12	90.00	1.36	12,570.00	4,649.72	110.75	4,651.04	0.00	0.00	0.00	0.00

TD @ 16975.12' MD - Duo Sonic 29 Fed 702H BHL

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,997.04	11,997.04	0.00	0.00	Start Build @ 11997.04' MD
11,997.04	11,997.04	0.00	0.00	Dogleg = 10.00°/100'
12,897.04	12,570.00	572.79	13.64	End Build @ 12897.04' MD
12,897.04	12,570.00	572.80	13.64	Hold Angle = 90.00°
16,975.12	12,570.00	4,649.72	110.75	TD @ 16975.12' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
TD	No Target (Freehand)	1.36	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	16,975.12	Plan #2	MWD

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Duo Sonic 29 Fed 702H BHL	12,570.00	4,649.72	110.75	Point

HALLIBURTON**North Reference Sheet for Duo Sonic 29 Fed - Duo Sonic 29 Fed 702H - 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 3259.6' + KB 25' @ 3278.60usft (TBD). Northing and Easting are relative to Duo Sonic 29 Fed 702H

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: 1.00000660

Grid Coordinates of Well: 399,549.53 usft N, 833,120.25 usft E

Geographical Coordinates of Well: 32° 05' 41.77" N, 103° 23' 27.99" W

Grid Convergence at Surface is: 0.50°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,975.12usft the Bottom Hole Displacement is 4,651.04usft in the Direction of 1.36° (Grid).

Magnetic Convergence at surface is: -6.58° (15 March 2016, , BGGM2015)

