



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hawk 26 Fed

#703H

71783

OH

Survey: Intrepid MWD

Standard Survey Report

16 January, 2018

HOBBS OCD
APR 18 2018
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Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #703H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB= 25' @ 3543.0usft (HP 462)
Site:	Hawk 26 Fed	MD Reference:	KB= 25' @ 3543.0usft (HP 462)
Well:	#703H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hawk 26 Fed		
Site Position:		Northing:	431,092.00 usft
From:	Map	Easting:	783,852.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 10' 57.794 N
		Longitude:	103° 32' 58.022 W
		Grid Convergence:	0.42 °

Well	#703H		
Well Position	+N/-S	0.0 usft	Northing: 431,098.00 usft
	+E/-W	0.0 usft	Easting: 784,782.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 10' 57.786 N
		Longitude:	103° 32' 47.200 W
		Ground Level:	3,518.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	11/29/2017	6.89
			Dip Angle (°)
			60.02
			Field Strength (nT)
			47,869.08792979

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			180.21

Survey Program	Date	1/16/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
161.0	1,282.0	Invictus MWD (OH)	MWD	MWD - Standard
1,440.0	17,740.0	Intrepid MWD (OH)	MWD	MWD - Standard

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,282.0	0.80	263.49	1,281.9	-4.2	-12.0	4.3	0.00	0.00	0.00	
1,440.0	0.80	269.90	1,439.9	-4.4	-14.2	4.4	0.06	0.00	4.06	
1,626.0	0.60	267.40	1,625.9	-4.4	-16.5	4.5	0.11	-0.11	-1.34	
1,816.0	0.30	298.10	1,815.9	-4.2	-17.9	4.3	0.20	-0.16	16.16	
2,005.0	0.30	283.80	2,004.9	-3.9	-18.8	3.9	0.04	0.00	-7.57	
2,195.0	1.10	114.00	2,194.9	-4.5	-17.6	4.6	0.73	0.42	-89.37	
2,384.0	1.40	103.10	2,383.8	-5.8	-13.7	5.8	0.20	0.16	-5.77	
2,573.0	1.00	98.30	2,572.8	-6.5	-9.9	6.6	0.22	-0.21	-2.54	
2,763.0	0.70	72.20	2,762.8	-6.4	-7.1	6.4	0.25	-0.16	-13.74	
2,953.0	0.60	45.60	2,952.8	-5.4	-5.3	5.4	0.17	-0.05	-14.00	

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,142.0	0.70	42.80	3,141.7	-3.8	-3.8	3.8	0.06	0.05	-1.48
3,332.0	0.80	46.30	3,331.7	-2.1	-2.1	2.1	0.06	0.05	1.84
3,522.0	0.80	53.60	3,521.7	-0.3	0.0	0.4	0.05	0.00	3.84
3,712.0	0.70	57.70	3,711.7	1.1	2.0	-1.1	0.06	-0.05	2.16
3,902.0	0.60	80.60	3,901.7	1.8	4.0	-1.9	0.15	-0.05	12.05
4,092.0	0.40	131.10	4,091.7	1.6	5.5	-1.6	0.24	-0.11	26.58
4,282.0	0.50	143.70	4,281.7	0.5	6.5	-0.5	0.07	0.05	6.63
4,472.0	0.90	94.70	4,471.7	-0.3	8.4	0.3	0.36	0.21	-25.79
4,662.0	2.10	118.50	4,661.6	-2.1	13.0	2.1	0.70	0.63	12.53
4,851.0	2.90	148.70	4,850.4	-7.8	18.5	7.8	0.80	0.42	15.98
5,041.0	3.00	142.30	5,040.2	-15.9	24.0	15.8	0.18	0.05	-3.37
5,217.0	2.20	196.50	5,216.0	-22.8	25.9	22.7	1.41	-0.45	30.80
5,407.0	2.00	198.50	5,405.9	-29.4	23.8	29.3	0.11	-0.11	1.05
5,597.0	1.60	231.20	5,595.8	-34.2	20.7	34.1	0.57	-0.21	17.21
5,787.0	1.70	238.70	5,785.7	-37.3	16.2	37.3	0.13	0.05	3.95
5,977.0	1.90	233.70	5,975.6	-40.7	11.3	40.6	0.13	0.11	-2.63
6,167.0	2.30	276.30	6,165.5	-42.1	4.9	42.1	0.83	0.21	22.42
6,357.0	2.20	269.10	6,355.4	-41.8	-2.5	41.8	0.16	-0.05	-3.79
6,547.0	0.70	311.20	6,545.3	-41.1	-7.0	41.1	0.92	-0.79	22.16
6,736.0	1.10	332.90	6,734.3	-38.7	-8.7	38.7	0.27	0.21	11.48
6,926.0	0.90	347.40	6,924.2	-35.6	-9.9	35.6	0.17	-0.11	7.63
7,116.0	0.70	359.00	7,114.2	-33.0	-10.2	33.0	0.13	-0.11	6.11
7,306.0	0.60	2.50	7,304.2	-30.8	-10.2	30.9	0.06	-0.05	1.84
7,496.0	0.30	20.40	7,494.2	-29.4	-10.0	29.4	0.17	-0.16	9.42
7,686.0	0.30	33.00	7,684.2	-28.5	-9.5	28.5	0.03	0.00	6.63
7,876.0	0.50	130.00	7,874.2	-28.6	-8.6	28.6	0.32	0.11	51.05
8,066.0	0.60	171.20	8,064.2	-30.1	-7.8	30.1	0.21	0.05	21.68
8,256.0	0.80	150.80	8,254.2	-32.3	-7.0	32.3	0.17	0.11	-10.74
8,446.0	1.00	166.10	8,444.2	-35.0	-6.0	35.0	0.16	0.11	8.05
8,636.0	1.00	177.00	8,634.1	-38.3	-5.5	38.3	0.10	0.00	5.74
8,828.0	1.30	177.90	8,826.1	-42.1	-5.3	42.2	0.16	0.16	0.47
9,017.0	1.20	231.70	9,015.0	-45.5	-6.8	45.5	0.60	-0.05	28.47
9,207.0	0.90	237.50	9,205.0	-47.5	-9.6	47.6	0.17	-0.16	3.05
9,396.0	1.00	271.90	9,394.0	-48.3	-12.5	48.3	0.30	0.05	18.20
9,584.0	1.50	232.80	9,581.9	-49.7	-16.1	49.8	0.51	0.27	-20.80
9,774.0	1.90	285.40	9,771.9	-50.4	-21.1	50.5	0.81	0.21	27.68
9,964.0	1.50	286.60	9,961.8	-48.8	-26.6	48.9	0.21	-0.21	0.63
10,154.0	1.50	208.70	10,151.7	-50.3	-30.1	50.4	0.99	0.00	-41.00
10,344.0	0.70	269.00	10,341.7	-52.5	-32.5	52.6	0.69	-0.42	31.74
10,533.0	0.70	32.90	10,530.7	-51.6	-33.0	51.7	0.65	0.00	65.56
10,723.0	0.40	81.10	10,720.7	-50.5	-31.7	50.6	0.28	-0.16	25.37
10,912.0	1.30	225.70	10,909.7	-51.9	-32.6	52.0	0.87	0.48	76.51
11,102.0	1.50	286.50	11,099.6	-52.7	-36.6	52.8	0.75	0.11	32.00

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,291.0	2.10	288.70	11,288.5	-50.9	-42.2	51.0	0.32	0.32	1.16
11,481.0	2.30	261.70	11,478.4	-50.3	-49.3	50.5	0.55	0.11	-14.21
11,671.0	3.30	265.70	11,668.2	-51.3	-58.5	51.5	0.54	0.53	2.11
11,761.0	3.20	262.20	11,758.0	-51.8	-63.6	52.0	0.25	-0.11	-3.89
11,895.0	2.90	245.30	11,891.8	-53.7	-70.4	54.0	0.70	-0.22	-12.61
11,990.0	4.50	177.20	11,986.7	-58.5	-72.4	58.7	4.58	1.68	-71.68
KOP (Hawk 26 Fed #703H)									
12,037.0	12.80	165.50	12,033.1	-65.3	-71.0	65.6	17.96	17.66	-24.89
12,085.0	21.90	165.90	12,078.9	-79.2	-67.4	79.4	18.96	18.96	0.83
12,132.0	25.00	166.30	12,122.0	-97.4	-63.0	97.6	6.60	6.60	0.85
12,180.0	28.00	166.60	12,164.9	-118.2	-57.9	118.4	6.26	6.25	0.63
12,227.0	32.00	169.20	12,205.6	-141.2	-53.0	141.3	8.95	8.51	5.53
12,274.0	37.80	169.20	12,244.2	-167.6	-48.0	167.7	12.34	12.34	0.00
12,321.0	40.50	167.80	12,280.6	-196.6	-42.1	196.8	6.04	5.74	-2.98
12,369.0	43.60	166.10	12,316.3	-227.9	-34.8	228.1	6.88	6.46	-3.54
12,416.0	47.00	167.20	12,349.3	-260.4	-27.1	260.5	7.42	7.23	2.34
12,463.0	50.20	172.60	12,380.4	-295.1	-21.0	295.2	10.98	6.81	11.49
12,510.0	55.90	178.00	12,408.7	-332.5	-18.0	332.6	15.20	12.13	11.49
12,558.0	66.80	179.60	12,431.6	-374.6	-17.1	374.6	22.89	22.71	3.33
12,594.0	76.30	180.10	12,443.0	-408.7	-17.0	408.7	26.42	26.39	1.39
12,656.0	87.70	181.50	12,451.6	-470.0	-17.9	470.0	18.52	18.39	2.26
12,704.0	87.50	181.20	12,453.6	-517.9	-19.0	518.0	0.75	-0.42	-0.63
12,736.1	86.89	181.07	12,455.2	-550.0	-19.7	550.0	1.94	-1.89	-0.42
FTP Crossing, MD:12736.1', TVD:12455.2', N/S:-550.0', E/W:-19.7', INC:86.89									
12,737.8	86.86	181.06	12,455.3	-551.6	-19.7	551.7	1.94	-1.89	-0.42
FTP (Hawk 26 Fed #703H)									
12,799.0	85.70	180.80	12,459.3	-612.7	-20.7	612.8	1.94	-1.89	-0.42
12,894.0	86.50	182.30	12,465.7	-707.5	-23.2	707.6	1.79	0.84	1.58
12,988.0	87.10	183.00	12,471.0	-801.2	-27.6	801.3	0.98	0.64	0.74
13,083.0	90.40	182.70	12,473.1	-896.1	-32.3	896.2	3.49	3.47	-0.32
13,176.0	91.20	182.60	12,471.8	-989.0	-36.6	989.1	0.87	0.86	-0.11
13,187.8	90.99	182.46	12,471.5	-1,000.8	-37.1	1,000.9	2.13	-1.79	-1.16
TGT 1 (Hawk 26 Fed #703H)									
13,271.0	89.50	181.50	12,471.2	-1,083.9	-40.0	1,084.0	2.13	-1.79	-1.16
13,366.0	90.40	181.60	12,471.3	-1,178.9	-42.6	1,179.0	0.95	0.95	0.11
13,461.0	91.50	181.90	12,469.7	-1,273.8	-45.5	1,274.0	1.20	1.16	0.32
13,556.0	90.60	182.20	12,467.9	-1,368.7	-48.9	1,368.9	1.00	-0.95	0.32
13,650.0	89.80	182.30	12,467.6	-1,462.6	-52.6	1,462.8	0.86	-0.85	0.11
13,745.0	89.70	181.50	12,468.0	-1,557.6	-55.7	1,557.8	0.85	-0.11	-0.84
13,839.0	87.80	180.60	12,470.1	-1,651.6	-57.4	1,651.7	2.24	-2.02	-0.96
13,934.0	86.70	181.00	12,474.6	-1,746.4	-58.8	1,746.6	1.23	-1.16	0.42
14,029.0	87.30	177.90	12,479.6	-1,841.3	-57.8	1,841.5	3.32	0.63	-3.26
14,124.0	86.40	177.20	12,484.8	-1,936.1	-53.8	1,936.2	1.20	-0.95	-0.74
14,187.9	89.19	178.15	12,487.3	-1,999.8	-51.2	2,000.0	4.61	4.36	1.49

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Project: Lea County, NM (NAD 83 NME)
Site: Hawk 26 Fed
Well: #703H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #703H
TVD Reference: KB= 25' @ 3543.0usft (HP 462)
MD Reference: KB= 25' @ 3543.0usft (HP 462)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TGT 2 (Hawk 26 Fed #703H)									
14,218.0	90.50	178.60	12,487.4	-2,029.9	-50.4	2,030.1	4.61	4.36	1.49
14,313.0	90.60	178.30	12,486.5	-2,124.9	-47.8	2,125.1	0.33	0.11	-0.32
14,408.0	89.60	177.70	12,486.3	-2,219.8	-44.5	2,220.0	1.23	-1.05	-0.63
14,503.0	87.50	177.30	12,488.7	-2,314.7	-40.3	2,314.8	2.25	-2.21	-0.42
14,597.0	88.10	177.70	12,492.3	-2,408.5	-36.2	2,408.7	0.77	0.64	0.43
14,693.0	88.20	177.30	12,495.4	-2,504.4	-32.0	2,504.5	0.43	0.10	-0.42
14,787.0	87.10	178.10	12,499.3	-2,598.3	-28.3	2,598.3	1.45	-1.17	0.85
14,882.0	88.60	178.90	12,502.8	-2,693.1	-25.8	2,693.2	1.79	1.58	0.84
14,977.0	89.90	179.50	12,504.1	-2,788.1	-24.5	2,788.2	1.51	1.37	0.63
15,071.0	86.90	178.80	12,506.7	-2,882.1	-23.1	2,882.1	3.28	-3.19	-0.74
15,166.0	85.80	177.00	12,512.7	-2,976.8	-19.6	2,976.9	2.22	-1.16	-1.89
15,187.0	86.00	177.24	12,514.2	-2,997.7	-18.5	2,997.8	1.49	0.95	1.16
TGT 3 (Hawk 26 Fed #703H)									
15,261.0	86.70	178.10	12,519.0	-3,071.5	-15.5	3,071.6	1.49	0.95	1.16
15,355.0	90.50	179.20	12,521.3	-3,165.4	-13.3	3,165.5	4.21	4.04	1.17
15,451.0	89.60	180.10	12,521.2	-3,261.4	-12.7	3,261.5	1.33	-0.94	0.94
15,546.0	91.20	182.00	12,520.5	-3,356.4	-14.5	3,356.4	2.61	1.68	2.00
15,641.0	92.80	180.60	12,517.2	-3,451.3	-16.6	3,451.4	2.24	1.68	-1.47
15,736.0	91.00	180.40	12,514.0	-3,546.3	-17.5	3,546.3	1.91	-1.89	-0.21
15,830.0	90.70	181.40	12,512.6	-3,640.2	-18.9	3,640.3	1.11	-0.32	1.06
15,925.0	88.40	180.10	12,513.4	-3,735.2	-20.2	3,735.3	2.78	-2.42	-1.37
16,020.0	90.30	181.20	12,514.5	-3,830.2	-21.3	3,830.3	2.31	2.00	1.16
16,115.0	89.90	178.90	12,514.3	-3,925.2	-21.4	3,925.2	2.46	-0.42	-2.42
16,189.7	87.91	179.22	12,515.7	-3,999.8	-20.1	3,999.9	2.69	-2.66	0.43
TGT 4 (Hawk 26 Fed #703H)									
16,209.0	87.40	179.30	12,516.5	-4,019.2	-19.9	4,019.2	2.69	-2.66	0.43
16,304.0	94.00	179.70	12,515.4	-4,114.1	-19.0	4,114.1	6.96	6.95	0.42
16,356.0	97.10	180.00	12,510.3	-4,165.8	-18.9	4,165.9	5.99	5.96	0.58
16,399.0	93.10	180.70	12,506.5	-4,208.7	-19.2	4,208.7	9.44	-9.30	1.63
16,414.0	91.00	180.80	12,506.0	-4,223.6	-19.4	4,223.7	14.02	-14.00	0.67
16,431.0	88.10	181.10	12,506.1	-4,240.6	-19.6	4,240.7	17.15	-17.06	1.76
16,447.0	86.80	181.50	12,506.8	-4,256.6	-20.0	4,256.7	8.50	-8.13	2.50
16,462.0	86.20	181.50	12,507.7	-4,271.6	-20.4	4,271.6	4.00	-4.00	0.00
16,477.0	86.50	182.10	12,508.7	-4,286.6	-20.9	4,286.6	4.46	2.00	4.00
16,494.0	86.50	182.50	12,509.7	-4,303.5	-21.6	4,303.6	2.35	0.00	2.35
16,525.0	86.50	182.60	12,511.6	-4,334.4	-22.9	4,334.5	0.32	0.00	0.32
16,557.0	85.40	182.50	12,513.9	-4,366.3	-24.4	4,366.4	3.45	-3.44	-0.31
16,588.0	85.50	182.40	12,516.3	-4,397.2	-25.7	4,397.2	0.46	0.32	-0.32
16,620.0	85.80	182.10	12,518.8	-4,429.1	-26.9	4,429.1	1.32	0.94	-0.94
16,683.0	82.60	181.00	12,525.1	-4,491.7	-28.6	4,491.8	5.37	-5.08	-1.75
16,715.0	81.90	180.40	12,529.4	-4,523.4	-29.0	4,523.5	2.87	-2.19	-1.88
16,746.0	81.80	179.60	12,533.8	-4,554.1	-29.0	4,554.2	2.57	-0.32	-2.58
16,778.0	81.90	180.10	12,538.4	-4,585.8	-28.9	4,585.9	1.58	0.31	1.56

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #703H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB= 25' @ 3543.0usft (HP 462)
Site:	Hawk 26 Fed	MD Reference:	KB= 25' @ 3543.0usft (HP 462)
Well:	#703H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,809.0	82.90	181.20	12,542.5	-4,616.5	-29.3	4,616.6	4.77	3.23	3.55
16,841.0	84.80	181.30	12,545.9	-4,648.3	-30.0	4,648.4	5.95	5.94	0.31
16,873.0	88.90	180.80	12,547.7	-4,680.2	-30.6	4,680.3	12.91	12.81	-1.56
16,904.0	89.50	180.90	12,548.1	-4,711.2	-31.0	4,711.3	1.96	1.94	0.32
16,940.0	87.40	180.70	12,549.1	-4,747.2	-31.5	4,747.3	5.86	-5.83	-0.56
16,972.0	88.00	180.70	12,550.4	-4,779.2	-31.9	4,779.3	1.88	1.88	0.00
17,003.0	88.80	180.60	12,551.2	-4,810.2	-32.3	4,810.3	2.60	2.58	-0.32
17,035.0	90.90	180.80	12,551.3	-4,842.2	-32.7	4,842.3	6.59	6.56	0.63
17,066.0	92.60	181.00	12,550.4	-4,873.2	-33.1	4,873.2	5.52	5.48	0.65
17,161.0	93.20	180.60	12,545.6	-4,968.0	-34.5	4,968.1	0.76	0.63	-0.42
17,255.0	92.40	180.80	12,541.0	-5,061.9	-35.6	5,062.0	0.88	-0.85	0.21
17,345.0	87.80	179.40	12,540.8	-5,151.9	-35.8	5,152.0	5.34	-5.11	-1.56
17,439.0	89.30	179.70	12,543.2	-5,245.8	-35.0	5,245.9	1.63	1.60	0.32
17,534.0	88.80	179.70	12,544.8	-5,340.8	-34.5	5,340.9	0.53	-0.53	0.00
17,629.0	86.90	179.10	12,548.3	-5,435.8	-33.5	5,435.8	2.10	-2.00	-0.63
17,642.3	86.78	179.01	12,549.1	-5,449.0	-33.3	5,449.1	1.09	-0.87	-0.65
LTP Crossing, MD:17642.3', TVD:12549.1', N/S:-5449.0', E/W:-33.3', INC:86.78									
17,675.0	86.50	178.80	12,551.0	-5,481.7	-32.7	5,481.7	1.09	-0.87	-0.65
Final MWD Survey (MD= 17675.0')									
17,740.0	86.50	178.80	12,554.9	-5,546.5	-31.3	5,546.6	0.00	0.00	0.00
Final Bit Projection (MD= 17740.0') - PBHL (Hawk 26 Fed #703H)									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,736.1	12,455.2	-550.0	-19.7	FTP Crossing, MD:12736.1', TVD:12455.2', N/S:-550.0', E/W:-19.7', INC:86.89
17,642.3	12,549.1	-5,449.0	-33.3	LTP Crossing, MD:17642.3', TVD:12549.1', N/S:-5449.0', E/W:-33.3', INC:86.78
17,675.0	12,551.0	-5,481.7	-32.7	Final MWD Survey (MD= 17675.0')
17,740.0	12,554.9	-5,546.5	-31.3	Final Bit Projection (MD= 17740.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Hawk 26 Fed #703H

HP 462

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

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

WELL DETAILS: #703H

KB= 25' @ 3543.0usft (HP 462)
Northing 431098.00 Easting 784782.00
3518.0
32° 10' 57.766 N 103° 32' 47.200 W



Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.47°
Magnetic Field
Strength: 47668.1nT
Dip Angle: 60.02°
Date: 11/29/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.47°
To convert a Magnetic Direction to a True Direction, Add 6.89° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	11892.5	0.00	0.00	11892.5	0.0	0.0	0.00	0.00	0.0		
3	12737.9	89.45	185.69	12469.9	-470.6	-46.9	12.00	185.69	470.7		
4	13047.0	89.46	179.51	12472.9	-778.2	-60.9	2.00	-89.98	778.4		
5	13267.9	89.46	179.51	12475.0	-1000.0	-59.0	0.00	0.00	1000.2	TGT 1 (Hawk 26 Fed #703H)	
6	13280.9	89.72	179.51	12475.1	-1013.0	-58.9	2.00	0.22	1013.2	TGT 2 (Hawk 26 Fed #703H)	
7	14267.9	89.72	179.51	12480.0	-3000.0	-50.4	0.00	0.00	3000.2	TGT 3 (Hawk 26 Fed #703H)	
8	14297.1	89.13	179.51	12480.3	-2029.2	-50.2	2.00	-180.00	2029.3	TGT 4 (Hawk 26 Fed #703H)	
9	15268.1	89.13	179.51	12495.0	-3000.0	-41.9	0.00	0.00	3000.1	PBHL (Hawk 26 Fed #703H)	
10	15267.9	88.74	179.51	12495.4	-3019.8	-41.7	2.00	180.00	3019.9		
11	16268.3	88.74	179.51	12517.0	-4000.0	-33.3	0.00	0.00	4000.1		
12	16289.2	89.15	179.51	12517.4	-4020.9	-33.1	2.00	0.00	4021.0		
13	17819.6	89.15	179.51	12540.0	-5551.0	-20.0	0.00	0.00	5551.0		

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
TGT 1 (Hawk 26 Fed #703H)	12475.0	-1000.0	-59.0	430098.00	784723.00
TGT 2 (Hawk 26 Fed #703H)	12480.0	-2000.0	-60.4	429098.00	784731.57
TGT 3 (Hawk 26 Fed #703H)	12495.0	-3000.0	-41.9	428098.00	784740.14
TGT 4 (Hawk 26 Fed #703H)	12517.0	-4000.0	-33.3	427098.00	784748.71
PBHL (Hawk 26 Fed #703H)	12540.0	-5551.0	-20.0	425547.00	784762.00
FTP (Hawk 26 Fed #703H)	12470.0	-550.0	-62.0	430548.00	784720.00
KOP (Hawk 26 Fed #703H)	11892.5	0.0	0.0	431098.00	784782.00

