

HOBBS OCD
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Fearless 26 Fed Com

#503H

OH

Design: OH

Midland PVA

30 June, 2019



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Fearless 28 Fed Com
Well: #503H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #503H
TVD Reference: KB = 25' @ 3426.0usft
MD Reference: KB = 25' @ 3426.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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	Fearless 28 Fed Com		
Site Position:		Northing:	403,601.00 usft
From:	Map	Easting:	755,228.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 27.700 N
		Longitude:	103° 38' 33.130 W
		Grid Convergence:	0.37 "

Well	#503H					
Well Position	+N-S	0.0 usft	Northing:	403,601.00 usft	Latitude:	32° 6' 27.700 N
	+E-W	0.0 usft	Eastng:	755,228.00 usft	Longitude:	103° 38' 33.130 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,401.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/27/2017	6.95	59.94	47,832.93868312

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	177.74	

Survey Program		Date 6/30/2019		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
197.0	20,832.0	Intrepid MWD #1 (OH)	EOG MWD+IFR1	MWD + IFR1

I certify this survey to be true and correct to the best of my belief and knowledge.

Kay Maddox 12/05/2019
Signed Date



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0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
197.0	0.68	318.77	197.0	0.8	-0.8	0.34	0.34	0.00	-1.1	0.0
317.0	0.75	319.76	317.0	1.9	-1.8	0.08	0.07	2.49	-2.6	0.1
403.0	0.57	318.33	403.0	2.7	-2.4	0.21	-0.21	-3.99	-3.6	-0.1
491.0	0.35	346.83	491.0	3.2	-2.8	0.37	-0.25	34.66	-3.8	2.0
578.0	0.88	353.33	578.0	4.2	-2.9	0.61	0.61	7.47	-4.5	2.4
675.0	0.70	326.88	675.0	5.4	-3.3	0.41	-0.19	-27.27	-6.3	-0.2
769.0	0.84	340.41	769.0	6.5	-3.9	0.24	0.15	14.39	-7.5	1.5
864.0	0.88	331.36	863.9	7.8	-4.5	0.15	0.04	-8.53	-8.0	0.2
967.0	0.35	252.61	966.9	8.4	-5.1	0.86	-0.51	-76.46	-2.4	-9.6
1,061.0	1.01	58.37	1,060.9	8.8	-4.7	1.44	0.70	176.34	0.0	9.9
1,156.0	3.12	56.09	1,155.9	10.7	-1.8	2.22	2.22	-2.40	-0.2	9.5
1,250.0	5.01	51.08	1,249.6	14.7	3.5	2.04	2.01	-5.33	-1.0	9.3
1,345.0	5.45	49.58	1,344.2	20.2	10.1	0.48	0.46	-1.58	-1.6	9.5
1,439.0	4.84	51.78	1,437.9	25.5	16.6	0.68	-0.65	2.34	-1.4	9.7
1,533.0	4.44	48.44	1,531.5	30.4	22.5	0.51	-0.43	-3.55	-1.3	9.8
1,628.0	4.09	49.85	1,626.3	35.0	27.8	0.38	-0.37	1.48	0.2	10.1
1,722.0	4.31	51.08	1,720.0	39.4	33.1	0.25	0.23	1.31	1.7	10.3
1,816.0	5.23	54.86	1,813.7	44.1	39.4	1.03	0.98	4.02	2.8	9.9
1,911.0	4.97	51.96	1,908.3	49.1	46.2	0.39	-0.27	-3.05	2.2	9.7
2,005.0	4.62	51.52	2,002.0	54.0	52.3	0.37	-0.37	-0.47	2.5	9.7
2,099.0	4.04	48.44	2,095.7	58.5	57.8	0.66	-0.62	-3.28	3.1	10.1
2,193.0	3.38	50.37	2,189.5	62.5	62.4	0.71	-0.70	2.05	5.6	10.3
2,287.0	4.18	48.70	2,283.3	66.5	67.1	0.88	0.85	-1.78	7.4	10.8
2,381.0	5.23	52.04	2,377.0	71.4	73.1	1.15	1.12	3.55	8.5	10.4
2,476.0	4.53	54.42	2,471.7	76.3	78.5	0.77	-0.74	2.51	9.2	9.8
2,570.0	4.00	50.37	2,565.4	80.5	85.1	0.65	-0.56	-4.31	9.7	10.4



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 North Reference: Grid
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 Database: EDM 5000.14

Survey

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2,684.0	3.08	50.02	2,659.2	84.2	89.5	0.98	-0.98	-0.37	12.1	10.6
2,758.0	3.25	53.27	2,753.1	87.5	93.6	0.26	0.18	3.46	15.7	9.8
2,853.0	5.38	51.08	2,847.8	91.9	99.2	2.23	2.22	-2.31	16.6	10.4
2,947.0	4.75	54.59	2,941.4	96.9	105.8	0.73	-0.65	3.73	17.1	9.2
3,041.0	4.53	54.50	3,035.1	101.3	112.0	0.23	-0.23	-0.10	17.7	8.8
3,136.0	4.44	54.15	3,129.8	105.6	118.0	0.10	-0.09	-0.37	18.6	8.5
3,230.0	4.70	56.61	3,223.5	109.9	124.2	0.35	0.28	2.62	19.6	7.1
3,324.0	4.70	56.44	3,317.2	114.1	130.6	0.01	0.00	-0.18	20.1	6.4
3,419.0	4.84	59.07	3,411.9	118.3	137.3	0.27	0.15	2.77	20.8	4.6
3,513.0	4.48	60.04	3,505.6	122.2	143.9	0.39	-0.38	1.03	21.3	3.1
3,607.0	4.57	62.33	3,599.3	125.8	150.4	0.21	0.10	2.44	22.1	0.9
3,702.0	4.79	47.65	3,694.0	130.2	156.7	1.28	0.23	-15.45	21.9	6.0
3,796.0	5.78	31.83	3,787.6	138.9	162.0	1.85	1.03	-16.83	18.7	13.4
3,890.0	5.01	47.30	3,881.2	143.6	167.5	1.73	-0.80	16.46	21.2	9.9
3,985.0	5.71	63.03	3,975.8	148.6	174.8	1.71	0.74	16.56	22.5	3.2
4,079.0	5.38	76.04	4,069.3	151.6	183.2	1.38	-0.37	13.84	21.2	-4.2
4,173.0	4.75	80.08	4,163.0	153.5	191.3	0.75	-0.65	4.30	19.8	-9.3
4,268.0	4.97	66.46	4,257.6	155.8	199.0	1.23	0.23	-14.34	21.6	-7.5
4,362.0	6.11	63.64	4,351.2	159.7	207.2	1.25	1.21	-3.00	20.9	-8.4
4,457.0	5.49	78.32	4,445.7	162.8	216.2	1.69	-0.65	15.45	16.1	-15.8
4,551.0	5.63	65.84	4,539.3	165.6	224.8	1.29	0.15	-13.28	18.1	-15.0
4,581.0	6.07	56.17	4,569.1	167.1	227.4	3.59	1.47	-32.23	19.9	-12.2
4,714.0	5.71	48.09	4,701.4	175.5	238.2	0.68	-0.27	-6.08	19.5	-9.6
4,808.0	5.05	46.51	4,795.0	181.4	244.7	0.72	-0.70	-1.68	19.2	-8.5
4,902.0	5.14	47.47	4,888.6	187.1	250.8	0.13	0.10	1.02	18.9	-8.1
5,091.0	4.68	47.47	5,076.9	198.0	262.7	0.25	-0.25	0.00	19.3	-7.0
5,185.0	4.82	49.41	5,170.6	203.1	268.4	0.17	-0.04	2.06	19.7	-7.2



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

Survey											
MD (usft)	Inc (")	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,280.0	4.44	50.02	5,285.3	207.9	274.1	0.20	-0.19	0.84	20.4	-7.1	
5,374.0	4.48	49.41	5,359.0	212.7	279.7	0.07	0.04	-0.65	21.4	-8.6	
5,468.0	4.62	50.46	5,452.7	217.5	285.4	0.17	0.15	1.12	22.1	-8.8	
5,563.0	4.22	49.67	5,547.5	222.2	291.0	0.43	-0.42	-0.83	23.2	-6.3	
5,657.0	6.20	49.32	5,641.1	227.7	297.5	2.11	2.11	-0.37	22.9	-5.8	
5,751.0	6.37	47.30	5,734.5	234.6	305.2	0.30	0.18	-2.15	21.0	-4.6	
5,846.0	6.15	47.47	5,828.9	241.6	312.8	0.23	-0.23	0.18	18.9	-4.1	
5,940.0	5.76	47.30	5,922.4	248.2	320.0	0.42	-0.41	-0.18	17.4	-3.4	
6,035.0	5.63	48.33	6,017.0	254.6	326.8	0.17	-0.14	-1.02	16.3	-2.4	
6,129.0	5.85	46.51	6,110.5	261.1	333.7	0.23	0.23	0.19	15.1	-1.7	
6,223.0	6.07	47.74	6,204.0	267.7	340.8	0.27	0.23	1.31	13.5	-1.4	
6,317.0	5.98	48.88	6,297.5	274.3	348.2	0.16	-0.10	1.21	11.8	-1.2	
6,412.0	5.76	50.90	6,392.0	280.6	355.6	0.32	-0.23	2.13	10.4	-1.4	
6,506.0	5.41	51.78	6,485.5	286.3	362.8	0.38	-0.37	0.94	9.5	-1.5	
6,601.0	5.10	50.81	6,580.1	291.7	369.5	0.34	-0.33	-1.02	9.1	-1.3	
6,696.0	4.62	54.15	6,674.8	296.6	375.9	0.59	-0.51	3.52	9.3	-1.9	
6,790.0	4.57	53.80	6,768.5	301.1	382.0	0.06	-0.05	-0.37	10.0	-2.2	
6,885.0	4.18	54.08	6,863.2	305.3	387.9	0.41	-0.41	0.27	11.1	-2.6	
6,979.0	4.09	54.50	6,957.0	309.3	393.4	0.10	-0.10	0.47	12.5	-3.1	
7,074.0	3.78	58.72	7,051.7	312.9	398.8	0.45	-0.33	4.44	14.0	-4.8	
7,168.0	3.43	63.38	7,145.5	315.7	404.0	0.49	-0.37	4.96	14.7	-7.2	
7,263.0	2.02	72.79	7,240.4	317.5	408.1	1.55	-1.48	9.91	12.8	-10.5	
7,357.0	1.23	85.00	7,334.4	318.1	410.7	0.91	-0.84	12.99	8.5	-13.2	
7,452.0	1.63	90.89	7,429.4	318.2	413.1	0.45	0.42	6.20	4.7	-13.9	
7,546.0	0.31	351.31	7,523.4	318.4	414.4	1.82	-1.40	-105.94	12.9	5.7	
7,640.0	1.23	295.50	7,617.3	319.1	413.4	1.16	0.98	-59.37	1.4	13.6	
7,734.0	0.97	292.42	7,711.3	319.8	411.8	0.28	-0.28	-3.28	-1.1	13.6	



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10,276.0	31.34	175.97	10,231.0	195.6	387.1	10.33	9.45	-8.60	-23.8	-32.2
10,323.0	38.04	176.50	10,270.1	169.6	388.8	10.02	10.00	1.13	-19.4	-29.9
10,370.0	40.92	177.55	10,308.8	140.4	390.3	10.48	10.38	2.23	-15.1	-27.9
10,418.0	46.07	177.90	10,341.7	107.4	391.6	10.74	10.73	0.73	-10.5	-26.3
10,512.0	56.31	180.28	10,400.5	34.3	392.6	11.07	10.89	2.53	-2.7	-24.7
10,607.0	69.58	179.13	10,443.6	-50.2	393.1	14.01	13.97	-1.21	2.4	-24.1
10,656.0	77.45	178.78	10,457.5	-97.1	394.0	16.08	16.06	-0.71	1.9	-23.1
10,681.0	81.27	178.61	10,462.1	-121.7	394.5	15.29	15.28	-0.68	0.8	-22.5
10,698.0	82.86	178.69	10,464.5	-138.5	394.9	9.36	9.35	0.47	-0.2	-22.1
10,793.0	65.76	178.78	10,473.9	-233.0	397.0	3.05	3.05	0.09	0.0	-19.8
10,887.0	88.44	179.13	10,478.6	-326.8	398.7	2.88	2.85	0.37	2.9	-17.9
10,982.0	89.19	179.13	10,480.6	-421.8	400.2	0.79	0.79	0.00	2.9	-16.3
11,077.0	90.95	178.61	10,480.5	-516.8	402.1	1.93	1.85	-0.55	0.9	-14.2
11,171.0	92.18	178.78	10,477.9	-610.7	404.2	1.32	1.31	0.18	-3.6	-11.9
11,265.0	90.15	178.87	10,476.0	-704.7	406.1	2.16	-2.16	0.10	-7.3	-9.8
11,360.0	88.44	179.13	10,477.2	-799.7	407.8	1.82	-1.80	0.27	-8.1	-7.9
11,454.0	88.79	179.13	10,479.5	-893.6	409.2	0.37	0.37	0.00	-7.7	-6.3
11,549.0	88.75	178.96	10,481.5	-988.6	410.8	0.18	-0.04	-0.18	-7.5	-4.5
11,643.0	89.01	179.05	10,483.3	-1,082.5	412.4	0.29	0.28	0.10	-7.6	-2.7
11,738.0	91.47	180.28	10,482.9	-1,177.5	413.0	2.90	2.59	1.29	-9.9	-2.0
11,832.0	89.80	179.31	10,481.9	-1,271.5	413.3	2.05	-1.78	-1.03	-12.8	-1.4
11,926.0	89.80	179.57	10,482.2	-1,365.5	414.2	0.28	0.00	0.28	-14.4	-0.3
12,020.0	90.42	179.40	10,482.0	-1,459.5	415.1	0.68	0.66	-0.18	-16.4	0.7
12,115.0	87.86	181.07	10,483.4	-1,554.5	414.7	3.13	-2.59	1.76	-17.0	0.5
12,209.0	87.96	180.80	10,486.7	-1,648.4	413.2	0.29	0.00	-0.29	-15.5	-0.8
12,304.0	88.84	180.10	10,489.4	-1,743.4	412.4	1.18	0.93	-0.74	-14.8	-1.4
12,398.0	88.79	179.22	10,491.3	-1,837.4	413.0	0.94	-0.05	-0.94	-14.7	-0.7



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12,493.0	89.01	178.78	10,493.1	-1,932.3	414.8	0.52	0.23	-0.46	-14.8	1.2	
12,587.0	87.12	177.90	10,496.3	-2,026.2	417.4	2.22	-2.01	-0.94	-13.5	4.1	
12,682.0	87.69	178.69	10,500.6	-2,121.1	420.2	1.02	0.60	0.83	-11.1	7.1	
12,771.0	90.37	179.57	10,502.1	-2,210.1	421.5	3.17	3.01	0.99	-11.3	8.7	
12,871.0	90.07	179.92	10,501.7	-2,310.1	422.0	0.46	-0.30	0.35	-13.7	9.3	
12,965.0	87.16	180.01	10,504.0	-2,404.0	422.0	3.10	-3.10	0.10	-13.3	9.6	
13,060.0	88.07	179.66	10,509.6	-2,498.9	422.3	1.20	-1.15	-0.37	-8.6	10.0	
13,154.0	87.08	180.36	10,515.2	-2,592.7	422.3	1.31	1.07	0.74	-5.9	10.2	
13,248.0	88.57	181.07	10,518.8	-2,686.6	421.1	1.76	1.59	0.76	-4.2	9.2	
13,343.0	88.57	180.54	10,521.2	-2,781.6	419.8	0.56	0.00	-0.56	-3.7	8.1	
13,437.0	88.26	179.84	10,523.8	-2,875.5	419.5	0.81	-0.33	-0.74	-3.0	7.9	
13,531.0	89.19	180.01	10,525.9	-2,969.5	419.6	1.01	0.99	0.18	-2.8	8.3	
13,626.0	90.15	180.36	10,528.4	-3,064.5	419.3	1.08	1.01	0.37	-4.4	8.1	
13,720.0	90.55	181.33	10,525.6	-3,158.5	417.9	1.12	0.43	1.03	-7.1	6.9	
13,815.0	89.85	181.68	10,525.5	-3,253.5	415.4	0.82	-0.74	0.37	-9.6	4.6	
13,909.0	89.80	181.59	10,525.8	-3,347.4	412.7	0.11	-0.05	-0.10	-11.5	2.2	
14,003.0	89.85	181.24	10,526.1	-3,441.4	410.4	0.38	0.05	-0.37	-13.4	0.0	
14,097.0	90.46	180.10	10,525.8	-3,535.4	409.3	1.38	0.65	-1.21	-15.8	-0.9	
14,192.0	88.97	180.28	10,526.3	-3,630.4	409.0	1.58	-1.57	0.19	-17.5	-1.0	
14,286.0	88.53	179.57	10,528.4	-3,724.3	409.1	0.89	-0.47	-0.76	-17.6	-0.7	
14,381.0	87.21	179.48	10,531.9	-3,819.3	409.9	1.39	-1.39	-0.09	-16.2	0.3	
14,475.0	87.43	179.57	10,536.3	-3,913.2	410.7	0.25	0.23	0.10	-14.0	1.2	
14,570.0	87.47	179.31	10,540.5	-4,008.1	411.6	0.28	0.04	-0.27	-12.0	2.4	
14,664.0	87.43	179.57	10,544.7	-4,102.0	412.5	0.28	-0.04	0.28	-9.9	3.5	
14,759.0	89.32	180.10	10,547.4	-4,196.9	412.8	2.07	1.99	0.56	-9.4	3.9	
14,853.0	89.71	180.19	10,548.2	-4,290.9	412.6	0.43	0.41	0.10	-10.8	3.9	
14,948.0	89.45	179.92	10,548.9	-4,385.9	412.5	0.39	-0.27	-0.26	-12.3	4.0	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Fearless 28 Fed Com
 Well: #503H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #503H
 TVD Reference: KB = 25' @ 3428.0usft
 MD Reference: KB = 25' @ 3428.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,042.0	88.62	179.31	10,550.5	-4,479.9	413.1	1.10	-0.88	-0.65	-12.9	-4.8	
15,137.0	90.20	179.13	10,551.4	-4,574.9	414.4	1.67	1.66	-0.19	-14.1	6.3	
15,231.0	85.41	176.94	10,555.0	-4,668.7	417.6	5.60	-5.10	-2.33	-12.6	9.7	
15,328.0	88.68	176.94	10,561.6	-4,763.4	422.7	1.34	1.34	0.00	-8.3	14.9	
15,421.0	88.97	177.90	10,565.2	-4,858.2	426.9	2.61	2.41	1.01	-6.8	19.4	
15,515.0	88.31	177.55	10,567.4	-4,952.1	430.7	0.79	-0.70	-0.37	-6.8	23.3	
15,610.0	89.85	180.45	10,569.0	-5,047.1	432.3	3.46	1.62	3.05	-7.4	25.2	
15,704.0	89.63	181.95	10,569.4	-5,141.0	430.4	1.81	-0.23	1.60	-9.1	23.4	
15,799.0	91.87	181.95	10,568.1	-5,236.0	427.1	2.36	2.36	0.00	-12.4	20.4	
15,893.0	92.35	181.59	10,564.7	-5,329.9	424.2	0.64	0.51	-0.38	-18.0	17.7	
15,987.0	91.21	181.33	10,561.8	-5,423.8	421.8	1.24	-1.21	-0.28	-23.0	15.5	
16,081.0	89.01	181.15	10,561.6	-5,517.7	419.8	2.35	-2.34	-0.19	-25.3	13.6	
16,176.0	85.27	181.15	10,568.3	-5,612.6	417.9	3.94	-3.94	0.00	-22.7	11.9	
16,270.0	85.45	180.36	10,573.9	-5,706.3	416.7	0.86	0.19	-0.84	-17.2	10.8	
16,365.0	87.34	181.68	10,579.9	-5,801.1	415.0	2.43	1.99	1.39	-13.4	9.4	
16,459.0	86.64	181.88	10,584.8	-5,894.9	412.1	0.77	-0.74	0.19	-10.6	6.7	
16,553.0	88.26	181.68	10,589.0	-5,988.8	409.2	1.73	1.72	-0.19	-8.5	3.9	
16,648.0	89.67	181.42	10,590.7	-6,083.7	406.6	1.51	1.48	-0.27	-8.9	1.6	
16,742.0	88.79	180.89	10,592.0	-6,177.7	404.7	1.09	-0.94	-0.56	-9.8	-0.2	
16,836.0	88.44	181.15	10,594.3	-6,271.6	403.0	0.46	-0.37	0.28	-8.6	-1.8	
16,931.0	88.13	180.72	10,597.1	-6,366.6	401.5	0.56	-0.33	-0.45	-8.9	-3.0	
17,025.0	87.82	180.72	10,600.4	-6,460.5	400.3	0.33	-0.33	0.00	-7.7	-4.0	
17,120.0	89.36	179.92	10,602.8	-6,555.5	399.8	1.83	1.62	-0.84	-7.5	-4.3	
17,214.0	89.41	180.01	10,603.8	-6,649.5	399.8	0.11	0.05	0.10	-8.6	-4.1	
17,309.0	88.97	180.01	10,605.1	-6,744.5	399.8	0.46	-0.46	0.00	-9.4	-3.9	
17,403.0	90.59	179.48	10,605.5	-6,838.5	400.2	1.81	1.72	-0.56	-11.1	-3.3	
17,498.0	90.90	178.87	10,604.2	-6,933.4	401.6	0.72	0.33	-0.64	-14.5	-1.7	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3428.0usft
Site:	Fearless 28 Fed Com	MD Reference:	KB = 25' @ 3428.0usft
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,592.0	90.64	178.78	10,603.0	-7,027.4	403.5	0.29	-0.28	-0.10	-17.6	0.4	
17,686.0	90.51	178.98	10,602.0	-7,121.4	405.4	0.24	-0.14	0.19	-19.8	2.4	
17,781.0	90.07	179.40	10,601.6	-7,218.4	406.7	0.85	-0.46	0.46	-21.6	4.0	
17,875.0	89.83	179.57	10,601.8	-7,310.4	407.8	0.50	-0.47	0.18	-22.6	5.0	
17,969.0	88.92	179.31	10,603.0	-7,404.4	408.5	0.80	-0.78	-0.28	-22.6	6.1	
18,063.0	88.18	179.48	10,605.4	-7,498.3	409.5	0.81	-0.78	0.18	-21.5	7.3	
18,158.0	88.79	179.13	10,607.9	-7,593.3	410.6	0.74	0.64	-0.37	-20.2	8.6	
18,252.0	90.15	180.10	10,608.7	-7,687.3	411.3	1.78	1.45	1.03	-20.6	9.5	
18,347.0	89.45	179.68	10,609.1	-7,782.3	411.5	0.87	-0.74	-0.46	-21.5	9.8	
18,442.0	90.02	180.28	10,609.5	-7,877.3	411.5	0.89	0.60	0.65	-22.4	10.1	
18,536.0	91.21	180.54	10,608.5	-7,971.3	410.9	1.30	1.27	0.28	-24.6	9.6	
18,630.0	91.60	179.66	10,606.2	-8,065.2	410.7	1.02	0.41	-0.94	-28.2	9.6	
18,725.0	91.38	179.66	10,603.7	-8,160.2	411.2	0.23	-0.23	0.00	-31.9	10.4	
18,819.0	91.47	178.87	10,601.4	-8,254.2	412.5	0.85	0.10	-0.84	-35.5	11.8	
18,913.0	90.29	179.40	10,600.0	-8,348.1	413.9	1.38	-1.26	0.56	-38.2	13.4	
19,008.0	90.11	179.05	10,599.6	-8,443.1	415.2	0.41	-0.19	-0.37	-39.7	14.9	
19,102.0	89.80	179.13	10,599.7	-8,537.1	416.7	0.34	-0.33	0.09	-40.7	16.6	
19,196.0	89.32	179.31	10,600.4	-8,631.1	417.9	0.55	-0.51	0.19	-40.5	18.0	
19,291.0	88.57	179.13	10,602.2	-8,726.1	419.2	0.81	-0.79	-0.19	-39.4	19.5	
19,385.0	88.53	179.40	10,604.5	-8,820.0	420.4	0.29	-0.04	0.29	-37.6	20.9	
19,479.0	88.18	179.40	10,607.2	-8,914.0	421.4	0.37	-0.37	0.00	-35.5	22.1	
19,574.0	87.82	179.13	10,610.6	-9,008.9	422.6	0.47	-0.38	-0.28	-32.8	23.5	
19,669.0	87.16	178.87	10,614.7	-9,103.8	424.3	0.75	-0.69	-0.27	-29.2	25.3	
19,763.0	88.44	179.84	10,618.3	-9,197.7	425.3	1.71	1.36	1.03	-28.2	26.6	
19,857.0	92.92	181.95	10,617.2	-9,291.7	423.9	5.27	4.77	2.24	-27.9	25.3	
19,952.0	92.22	181.33	10,613.0	-9,386.6	421.2	0.98	-0.74	-0.65	-32.8	22.8	
20,046.0	92.00	180.89	10,609.5	-9,480.5	419.3	0.52	-0.23	-0.47	-36.8	21.2	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Fearless 26 Fed Com
 Well: #503H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #503H
 TVD Reference: KB = 25' @ 3426.0usft
 MD Reference: KB = 25' @ 3426.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

MD (usft)	Inc (")	Asl (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
20,141.0	90.68	182.12	10,607.3	-9,575.4	416.8	1.90	-1.39	1.29	-39.8	18.9
20,235.0	90.86	182.03	10,608.0	-9,669.3	413.4	0.21	0.19	-0.10	-41.5	15.6
20,329.0	91.52	181.59	10,604.1	-9,763.3	410.5	0.84	0.70	-0.47	-44.0	12.9
20,424.0	91.65	182.12	10,601.4	-9,858.2	407.4	0.57	0.14	0.56	-47.3	10.0
20,440.0	91.74	182.12	10,601.0	-9,874.2	406.8	0.56	0.56	0.00	-47.8	9.4
20,632.0	91.74	182.12	10,595.1	-10,065.9	399.7	0.00	0.00	0.00	-54.9	2.7

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
9,910.0	9,886.3	305.5	371.0	KOP, MD:9910.0', TVD:9886.3', N/S:305.5', E/W:371.0', INC:4.91
10,058.1	10,032.1	282.0	374.1	FTP Crossing, MD:10058.1', TVD:10032.1', N/S:282.0', E/W:374.1', INC:15.81
20,440.0	10,601.0	-9,874.2	406.8	Last MWD Survey (MD=20440.0')
20,632.0	10,595.1	-10,065.9	399.7	Projection to Bit (MD=20632.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Fearless 26 Fed Com #503H

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: #503H

KB = 25' @ 3428.0usft 3401.0
Northing 403601.00 Easting 755228.00 Latitude 32° 6' 27.700 N Longitude 103° 38' 33.130 W



Adjustments to Grid North
True North: -4.27°
Magnetic North: 4.69°
Magnetic Declination: 8.96°
Grid North: 403601.00
Grid Easting: 755228.00
Grid Latitude: 32° 6' 27.700 N
Grid Longitude: 103° 38' 33.130 W

To convert a Magnetic Direction to a Grid Direction, Add 8.96°
To convert a Magnetic Direction to a True Direction, Add 6.87° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet	Target
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	1000.0	0.0	0.0	1000.0	0.0	0.0	0.0	0.0	
3	1251.4	5.03	51.54	1251.1	8.9	8.6	2.00	51.54	-8.5
4	7089.7	5.03	51.54	7088.9	325.1	409.4	0.00	-308.8	
5	7341.1	0.00	0.00	7318.0	332.0	418.0	2.00	-315.3	
6	9924.1	0.00	0.00	9901.0	332.0	418.0	0.00	-315.3	
7	10812.7	88.85	180.12	10473.8	-229.5	418.9	10.00	245.7	Brushy Top(Fearless 26 Fed Com #503H)
8	13569.8	88.85	180.12	10528.0	-238.8	411.3	0.00	3000.0	TGT#1(Fearless 26 Fed Com #503H)
9	13578.3	88.68	180.12	10529.2	-239.4	411.3	2.00	3008.5	TGT#2(Fearless 26 Fed Com #503H)
10	16572.0	88.68	180.12	10575.0	-498.7	407.3	0.00	5000.0	TGT#3(Fearless 26 Fed Com #503H)
11	16573.5	88.71	180.12	10575.0	-498.9	407.3	2.00	5001.4	TGT#4(Fearless 26 Fed Com #503H)
12	17674.3	88.71	180.12	10620.0	-598.5	403.2	0.00	7000.0	
13	17600.7	89.24	180.12	10620.0	-7016.0	403.2	2.00	7026.4	
14	19075.7	89.24	180.12	10640.0	-8490.8	400.2	0.00	8500.0	
15	19085.6	89.64	180.12	10640.0	-8510.7	400.1	2.00	8519.8	
16	20651.9	89.64	180.12	10650.0	-10067.0	397.0	0.00	10074.8	PBHL (Fearless 26 Fed Com #503H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(Fearless 26 Fed Com #503H)	7318.0	332.0	418.0	403601.00	755228.00
TGT#1(Fearless 26 Fed Com #503H)	10528.0	-238.8	411.3	403614.80	755639.30
TGT#2(Fearless 26 Fed Com #503H)	10529.2	-239.4	411.3	398919.20	755638.26
TGT#3(Fearless 26 Fed Com #503H)	10575.0	-498.9	407.3	398611.50	755631.21
TGT#4(Fearless 26 Fed Com #503H)	10620.0	-598.5	403.2	395110.20	755628.18
PBHL (Fearless 26 Fed Com #503H)	10640.0	-8490.8	400.2	393534.00	755625.00
FTP (Fearless 26 Fed Com #503H)	10650.0	-10067.0	397.0	403589.00	755648.00

