



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		Local Co-ordinate Reference:	Well #5503H
Project:	Lea County, NM (NAD 83 NME)		TVD Reference:	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com		MD Reference:	KB = 25' @ 3426.0usft
Well:	6503H		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	Fearless 26 Fed Com				
Site Position:	Northings:	403,601.00 usft	Latitude:	32° 6' 27.700 N	
From:	Map	Easting:	755,228.00 usft	Longitude:	103° 38' 33.130 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 "

Well	6503H					
Well Position	+N-S	0.0 usft	Northings:	403,601.00 usft	Latitude:	32° 6' 27.700 N
	+E-W	0.0 usft	Easting:	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	8/27/2017	8.95	59.94	47,632.93666312

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	Data 8/30/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
197.0	20,632.0	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



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3426.0ush
Site:	Fearless 25 Fed Com	MD Reference:	KB = 25' @ 3426.0ush
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	E/W (ush)	DLeg (°/100ush)	Bu1d (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0
187.0	0.66	316.77	187.0	0.8	-0.8	0.34	0.34	0.00	-1.1	0.0	
317.0	0.75	319.76	317.0	1.9	-1.6	0.08	0.07	2.49	-2.6	0.1	
403.0	0.57	316.33	403.0	2.7	-2.4	0.21	-0.21	-3.99	-3.6	-0.1	
481.0	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	331.26	863.9	7.8	-4.5	0.15	0.04	-8.53	-9.0	0.2	
967.0	0.35	252.61	968.9	8.4	-5.1	-0.86	-0.51	-76.46	-2.4	-9.6	
1,061.0	1.01	56.37	1,060.9	8.6	-4.7	1.44	0.70	176.34	0.0	9.9	
1,156.0	3.12	56.09	1,155.9	10.7	-1.6	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	0.48	-1.58	-1.6	8.5	
1,439.0	4.84	51.78	1,437.9	26.5	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	1.49	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	38.4	1.03	0.98	4.02	2.8	8.9	
1,911.0	4.97	51.96	1,908.3	49.1	48.2	0.39	-0.27	-3.05	2.2	9.7	
2,005.0	4.82	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	0.68	-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	66.6	67.1	0.66	0.65	-1.78	7.4	10.8	
2,381.0	5.23	52.04	2,377.0	71.4	73.1	1.15	1.12	3.35	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	



Midland PVA

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Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3426.0ush
Site:	Fearless 26 Fed Com	MD Reference:	KB = 25' @ 3426.0ush
Well:	6503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	DLog (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)
2,684.0	3.08	50.02	2,659.2	84.2	89.5	0.88	-0.88	-0.37	12.1	10.6
2,758.0	3.25	53.27	2,753.1	87.5	93.6	0.26	0.16	3.46	15.7	9.8
2,853.0	3.36	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	90.9	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	3,129.9	105.6	118.0	0.10	-0.09	-0.37	18.6	8.5
3,230.0	4.70	56.81	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	130.8	0.01	0.00	-0.16	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	4.8
3,513.0	4.48	60.04	3,505.6	122.2	143.9	0.39	-0.38	1.53	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	47.85	3,694.0	130.2	156.7	1.28	0.23	-15.45	21.9	6.0
3,796.0	5.76	31.83	3,787.8	138.9	162.0	1.85	1.03	-18.83	18.7	13.4
3,890.0	5.01	47.30	3,881.2	143.8	167.5	1.73	-0.60	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	5.36	76.04	4,069.3	151.8	183.2	1.38	-0.37	13.84	21.2	-4.2
4,173.0	4.76	80.08	4,163.0	153.5	181.3	0.75	-0.65	4.20	19.8	-9.3
4,268.0	4.87	66.46	4,257.6	155.8	189.0	1.23	0.23	-14.34	21.6	-7.5
4,362.0	6.11	63.64	4,351.2	169.7	207.2	1.25	1.21	-3.00	20.9	-8.4
4,457.0	5.49	78.32	4,443.7	162.9	216.2	1.69	-0.65	15.45	16.1	-15.8
4,551.0	5.63	65.84	4,539.3	165.8	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	48.51	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	4.88	47.47	5,078.9	198.0	282.7	0.28	-0.25	0.00	19.3	-7.0
5,185.0	4.62	49.41	5,170.6	203.1	288.4	0.17	-0.04	2.06	19.7	-7.2



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Site:	Fearless 26 Fed Com	MD Reference:	KB = 25' @ 3428.0ush
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	DLog (°/100ush)	Bolid (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
5,280.0	4.44	50.02	5,265.3	207.8	274.1	0.20	-0.19	0.64	20.4	-7.1	
5,374.0	4.48	48.41	5,359.0	212.7	279.7	0.07	0.04	-0.65	21.4	-6.8	
5,468.0	4.82	50.48	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	-8.3	
5,657.0	6.30	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	5,734.3	234.8	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	46.33	6,017.0	254.6	326.8	0.17	-0.14	-1.02	16.3	-2.4	
6,128.0	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	13.6	-1.4	
6,317.0	6.88	48.88	6,297.5	274.3	348.2	0.16	-0.10	1.21	11.8	-1.2	
6,412.0	5.76	50.80	6,392.0	280.6	355.8	0.32	-0.23	2.13	10.4	-1.4	
6,506.0	5.41	51.78	6,485.3	288.3	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	8.1	-1.3	
6,696.0	4.82	54.15	6,674.8	298.6	375.9	0.59	-0.51	3.52	9.3	-1.8	
6,790.0	4.57	53.80	6,768.5	301.1	382.0	0.08	-0.05	-0.37	10.0	-2.2	
6,885.0	4.18	54.06	6,863.2	305.3	387.9	0.41	-0.41	0.27	11.1	-2.8	
6,979.0	4.08	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	4.98	14.7	-7.2	
7,263.0	2.02	72.79	7,240.4	317.8	408.1	1.55	-1.48	8.91	12.8	-10.3	
7,357.0	1.23	83.00	7,334.4	318.1	410.7	0.91	-0.84	12.99	8.5	-13.2	
7,452.0	1.63	80.69	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	-103.94	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	282.42	7,711.3	319.8	411.8	0.28	-0.28	-3.28	-1.1	13.6	



Midland PVA

Company:	Eog Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3428.0ust
Site:	Fearless 28 Fed Com	MD Reference:	KB = 25' @ 3428.0ust
Well:	#503H	North Reference:	G14
WellBore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (ust)	Inc (°)	Asl (azimuth) (°)	TVD (ust)	N/S (ust)	EW (ust)	DLeg (°/100ust)	Build (°/100ust)	Turn (°/100ust)	High to Plan (ust)	Right to Plan (ust)
7,828.0	0.97	271.42	7,803.3	320.1	410.2	0.38	0.00	-22.34	-7.5	12.1
7,922.0	1.05	251.99	7,899.3	319.9	408.8	0.37	0.09	-20.87	-12.7	8.8
8,018.0	0.97	239.31	7,993.3	319.2	407.1	0.25	-0.09	-13.28	-15.9	8.8
8,110.0	0.92	225.54	8,087.3	318.3	405.9	0.25	-0.05	-14.88	-18.3	1.3
8,205.0	1.19	215.78	8,182.3	317.0	404.8	0.34	0.28	-10.27	-19.9	-1.9
8,299.0	1.27	208.99	8,278.2	318.2	403.7	0.22	0.09	-9.35	-21.4	-5.1
8,394.0	0.44	24.38	8,371.2	314.8	403.4	1.89	-0.87	189.71	21.8	8.1
8,488.0	0.57	18.73	8,465.2	315.4	403.7	0.15	0.14	-5.99	20.3	8.2
8,582.0	0.44	350.17	8,559.2	318.2	403.8	0.30	-0.14	-30.38	13.1	18.7
8,678.0	0.44	316.33	8,655.2	318.8	403.5	0.27	0.00	-35.25	0.9	21.0
8,770.0	0.48	291.81	8,747.2	317.2	402.9	0.22	0.04	-28.65	-8.6	19.3
8,864.0	1.05	273.88	8,841.2	317.4	401.8	0.65	0.81	-19.07	-18.3	15.8
8,958.0	1.49	268.25	8,938.2	317.5	399.5	0.48	0.46	-5.93	-18.9	14.0
9,053.0	1.27	318.09	9,030.2	318.2	397.8	1.26	-0.23	53.02	-3.3	24.4
9,147.0	1.85	319.78	9,124.1	320.1	385.9	0.82	0.82	1.78	-5.2	24.5
9,242.0	2.15	305.08	9,218.1	322.3	383.5	0.62	0.32	-18.43	-14.5	22.0
9,335.0	0.97	254.02	9,312.0	323.1	381.3	1.84	-1.27	-54.90	-28.1	1.2
9,430.0	1.41	246.72	9,407.0	322.4	389.5	0.48	0.48	-7.68	-30.0	-2.5
9,524.0	3.47	242.68	9,500.9	320.7	385.9	2.20	2.18	-4.30	-33.8	-4.7
9,618.0	3.56	228.78	9,594.8	317.5	381.1	0.85	0.10	-13.74	-37.8	-12.8
9,712.0	2.81	238.11	9,688.8	314.4	376.9	0.94	-0.80	8.88	-44.2	-8.7
9,757.0	2.85	244.79	9,733.8	313.4	375.1	0.60	-0.58	14.84	-48.8	-1.4
9,852.0	3.80	199.98	9,828.4	309.7	372.2	2.87	1.11	-47.19	-36.8	-35.5
9,948.0	5.78	188.71	9,922.1	302.2	370.4	2.49	2.30	-11.97	-38.2	-42.8
10,040.0	14.11	184.28	10,014.7	288.5	372.8	8.78	8.88	-25.99	-20.4	-32.3
10,135.0	23.03	183.93	10,104.8	257.4	381.1	9.39	9.39	-0.37	-24.1	-44.3
10,228.0	28.90	180.01	10,189.9	218.4	386.2	8.28	4.12	17.11	-30.2	-31.7



Midland PVA

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Site:	Fearless 28 Fed Com	MD Reference:	KB = 25' @ 3426.0usft
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)	NS (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
10,276.0	31.34	175.97	10,231.0	195.8	387.1	10.33	9.45	-8.60	-23.8	-32.2	
10,323.0	38.04	178.50	10,270.1	169.6	388.8	10.02	10.00	1.13	-19.4	-28.9	
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	48.07	177.90	10,341.7	107.4	391.6	10.74	10.73	0.73	-10.5	-26.3	
10,512.0	58.31	180.28	10,400.5	34.3	392.6	11.07	10.89	2.63	-2.7	-24.7	
10,607.0	68.58	179.13	10,443.6	-60.2	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	
10,699.0	82.86	178.89	10,464.5	-138.5	394.9	9.38	9.35	0.47	-0.2	-22.1	
10,793.0	85.76	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	-328.8	398.7	2.88	2.85	0.37	2.9	-17.8	
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	90.85	178.81	10,480.5	-518.8	402.1	1.83	1.85	-0.55	0.9	-14.2	
11,171.0	92.18	178.78	10,477.0	-610.7	404.2	1.32	1.31	0.18	-3.8	-11.9	
11,265.0	90.15	178.87	10,478.0	-704.7	408.1	2.16	-2.18	0.10	-7.3	-8.8	
11,360.0	89.44	178.13	10,477.2	-799.7	407.8	1.82	-1.80	0.27	-6.1	-7.9	
11,454.0	88.76	179.13	10,479.5	-893.6	409.2	0.37	0.37	0.00	-7.7	-8.3	
11,549.0	88.75	178.86	10,481.5	-888.6	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	-7.8	-2.7	
11,738.0	91.47	180.28	10,482.9	-1,177.5	413.0	2.50	2.59	1.29	-9.9	-2.0	
11,832.0	89.80	179.31	10,481.8	-1,271.5	413.3	2.05	-1.78	-1.03	-12.8	-1.4	
11,926.0	89.80	178.57	10,482.2	-1,365.8	414.2	0.28	0.00	0.28	-14.4	-0.3	
12,020.0	90.42	179.40	10,482.0	-1,459.8	415.1	0.68	0.66	-0.18	-18.4	0.7	
12,115.0	87.96	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	10,488.7	-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	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:					Well #500H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:					KB = 25' @ 3426.0ust
Site:	Fearless 28 Fed Com	MD Reference:					KB = 25' @ 3426.0ust
Well:	#500H	North Reference:					Grid
Wellbore:	OH	Survey Calculation Method:					Minimum Curvature
Design:	OH	Database:					EDM 5000.14

Survey:										
MD (ust)	Inc (°)	Azi (azimuth) (°)	TVD (ust)	N/S (ust)	EW (ust)	DLeg (°/100ust)	Build (°/100ust)	Turn (°/100ust)	High to Plan (ust)	Right to Plan (ust)
12,493.0	88.01	178.78	10,493.1	-1,832.3	414.8	0.52	0.23	-0.48	-14.8	1.2
12,587.0	87.12	177.90	10,498.3	-2,028.2	417.4	2.22	-2.01	-0.94	-13.5	4.1
12,682.0	87.69	178.69	10,500.8	-2,121.1	420.2	1.02	0.80	0.83	-11.1	7.1
12,771.0	88.37	178.57	10,502.1	-2,210.1	421.5	3.17	3.01	0.89	-11.3	8.7
12,871.0	90.07	178.92	10,501.7	-2,310.1	422.0	0.48	-0.30	0.35	-13.7	8.3
12,965.0	87.18	180.01	10,504.0	-2,404.0	422.0	3.10	-3.10	0.10	-13.3	8.8
13,060.0	88.07	179.88	10,509.8	-2,499.9	422.3	1.20	-1.15	-0.37	-9.8	10.0
13,154.0	87.08	180.38	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	-2,688.6	421.1	1.78	1.59	-0.78	-4.2	9.2
13,343.0	88.57	180.54	10,521.2	-2,781.6	419.8	0.58	0.00	-0.56	-3.7	8.1
13,437.0	88.28	178.84	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
13,628.0	90.15	180.38	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	10,525.8	-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	90.48	180.10	10,525.8	-3,535.4	409.3	1.38	0.85	-1.21	-15.8	-0.8
14,192.0	89.97	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	178.57	10,528.4	-3,724.3	409.1	0.89	-0.47	-0.78	-17.6	-0.7
14,381.0	87.21	178.48	10,531.9	-3,819.3	409.9	1.39	-1.39	-0.09	-16.2	0.3
14,475.0	87.43	178.57	10,538.3	-3,915.2	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	0.26	0.04	-0.27	-12.0	2.4
14,664.0	87.43	178.57	10,544.7	-4,102.0	412.5	0.28	-0.04	0.28	-9.9	3.5
14,759.0	88.32	180.10	10,547.4	-4,198.9	412.8	2.07	1.99	0.58	-9.4	3.9
14,853.0	88.71	180.19	10,548.2	-4,289.8	412.6	0.43	0.41	0.10	-10.8	3.8
14,948.0	89.45	178.92	10,548.9	-4,385.8	412.5	0.39	-0.27	-0.28	-12.3	4.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 6503H:
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3428.0ush
Site:	Fearless 28 Fed Com	MD Reference:	KB = 25' @ 3428.0ush
Well:	6503H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	E/W (ush)	Dleg (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
15,042.0	88.62	178.31	10,550.5	-4,479.9	413.1	1.10	-0.88	-0.65	-12.9		4.8
16,137.0	90.20	178.13	10,551.4	-4,574.9	414.4	1.67	1.68	-0.19	-14.1		6.3
15,231.0	85.41	178.94	10,555.0	-4,668.7	417.6	5.60	-5.10	-2.33	-12.6		8.7
15,326.0	86.68	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	177.80	10,565.2	-4,858.2	426.9	2.81	2.41	1.01	-8.8		18.4
15,515.0	88.31	177.55	10,567.4	-4,952.1	430.7	0.79	-0.70	-0.37	-8.8		23.3
15,610.0	89.85	180.45	10,569.0	-5,047.1	432.3	3.48	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
15,789.0	91.87	181.95	10,568.1	-5,236.0	427.1	2.38	2.38	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	-0.39	-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	10,566.3	-5,612.6	417.9	3.94	-3.94	0.00	-22.7		11.9
16,270.0	85.45	180.38	10,573.9	-5,708.3	416.7	0.88	0.19	-0.84	-17.2		10.9
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	88.84	181.88	10,584.8	-5,894.9	412.1	0.77	-0.74	0.19	-10.6		8.7
16,553.0	88.26	181.68	10,589.0	-5,988.8	408.2	1.73	1.72	-0.19	-8.5		3.9
16,648.0	88.87	181.42	10,590.7	-6,083.7	408.6	1.51	1.48	-0.27	-8.9		1.8
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	181.16	10,594.3	-6,271.6	403.0	0.48	-0.37	0.28	-9.6		-1.8
16,931.0	88.13	180.72	10,597.1	-6,366.8	401.5	0.58	-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	178.92	10,602.8	-6,553.5	399.8	1.83	1.62	-0.84	-7.5		-4.3
17,214.0	89.41	180.01	10,603.8	-6,648.5	399.8	0.11	0.05	0.10	-8.8		-4.1
17,309.0	88.97	180.01	10,605.1	-6,744.5	399.8	0.46	-0.48	0.00	-9.4		-3.8
17,403.0	90.59	179.48	10,605.6	-6,839.5	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	-0.84	-14.5		-1.7



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (UAD 83 NME)	TVD Reference:	KB = 25' @ 3426.0usft
Site:	Pearless 28 Fed Com	MD Reference:	KB = 25' @ 3426.0usft
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NIS (usft)	ENW (usft)	DLeg. (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
17,592.0	90.84	178.78	10,603.0	-7,027.4	403.5	0.29	-0.26	-0.10	-17.8	0.4
17,688.0	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	408.7	0.65	-0.46	0.46	-21.0	4.0
17,875.0	89.83	179.57	10,601.8	-7,310.4	407.8	0.50	-0.47	0.18	-22.8	5.0
17,969.0	88.82	179.31	10,603.0	-7,404.4	408.5	0.80	-0.76	-0.28	-22.6	6.1
18,063.0	88.18	178.48	10,603.4	-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	0.84	-0.37	-20.2	8.8
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	178.66	10,609.1	-7,782.3	411.5	0.87	-0.74	-0.46	-21.5	9.9
18,442.0	90.02	180.28	10,609.5	-7,877.3	411.5	0.89	0.80	0.85	-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	-24.8	9.8
18,630.0	91.60	178.66	10,606.2	-8,065.2	410.7	1.02	0.41	-0.94	-28.2	9.6
18,725.0	91.38	178.66	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	-35.8	11.8
18,913.0	90.29	178.40	10,600.0	-8,348.1	413.9	1.38	-1.26	0.56	-38.2	13.4
19,008.0	90.11	178.05	10,599.6	-8,443.1	415.2	0.41	-0.19	-0.37	-39.7	14.9
19,102.0	89.80	178.13	10,599.7	-8,537.1	416.7	0.34	-0.33	0.09	-40.7	16.8
19,196.0	89.32	178.31	10,600.4	-8,631.1	417.8	0.55	-0.51	0.19	-40.5	18.0
19,291.0	88.57	178.13	10,602.2	-8,726.1	419.2	0.81	-0.79	-0.19	-39.4	19.5
19,385.0	88.53	178.40	10,604.5	-8,820.0	420.4	0.28	-0.04	0.29	-37.8	20.9
19,479.0	88.18	178.40	10,607.2	-8,914.0	421.4	0.37	-0.37	0.00	-35.5	22.1
19,574.0	87.82	178.13	10,610.8	-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	0.78	-0.69	-0.27	-29.2	25.3
19,763.0	88.44	178.94	10,618.3	-9,197.7	425.3	1.71	1.36	1.03	-26.2	26.8
19,857.0	92.92	181.95	10,617.2	-9,291.7	423.9	5.27	4.77	2.24	-27.8	25.3
19,952.0	92.22	181.33	10,613.0	-9,386.6	421.2	0.98	-0.74	-0.85	-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	Local Co-ordinate Reference:	Well #503H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3426.0ush
Site:	Fearless 26 Fed Com	MD Reference:	KB = 25' @ 3426.0ush
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	E/W (ush)	DLeg (°/100ush)	Solid (°/100ush)	Turn (°/100ush)	Hght to Plan (ush)	Right to Plan (ush)
20,141.0	80.88	182.12	10,607.3	-9,675.4	416.8	1.90	-1.39	1.29	-39.8	18.8
20,235.0	80.88	182.03	10,606.0	-9,669.3	413.4	0.21	0.19	-0.10	-41.5	15.8
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	0.58	-47.3	10.0
20,440.0	91.74	182.12	10,601.0	-9,874.2	408.8	0.58	0.58	0.00	-47.8	8.4
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

Measured Depth (ush)	Vertical Depth (ush)	Local Coordinates +N/S (ush)	+E/W (ush)	Comment
8,910.0	8,888.3	305.8	371.0	KOP: MD:9910.0', TVD:9888.3', N/S:305.8', 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	408.8	Last MWD Survey (MD=20440.0')
20,632.0	10,595.1	-10,065.9	399.7	Projection to B1 (MD=20632.0')

Checked By: _____	Approved By: _____	Date: _____
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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
Elevation: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



Adjustments to Grid North
True North: -0.37°
Magnetic North: 0.34°
Magnetic Field
Strength: 47000 Gauss
Dip Angle: 68.84°
Date: 02/22/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.37°
To convert a Magnetic Direction to a True Direction, Add 0.35° East
To convert a True Direction to a Grid Direction, Subtract 0.22°

WELL DETAILS: 5503H

Northing: 423601.00 Easting: 763228.00
NAD 83 @ 3428.0m
Elevation: 763228.00
Longitude: 107° 0' 27.200 W
Latitude: 34° 58' 33.130 N

SECTION DETAILS

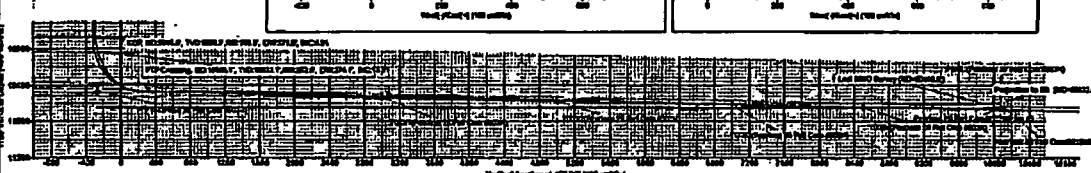
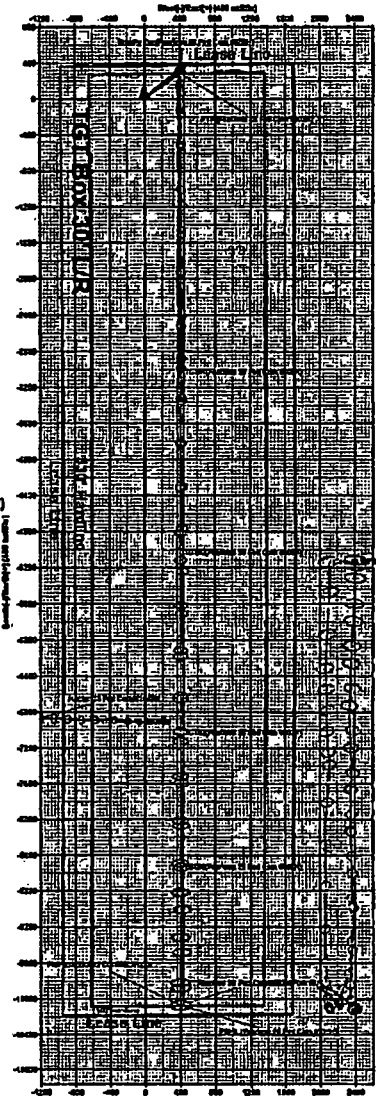
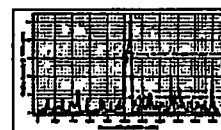
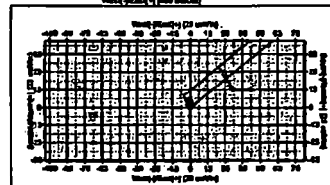
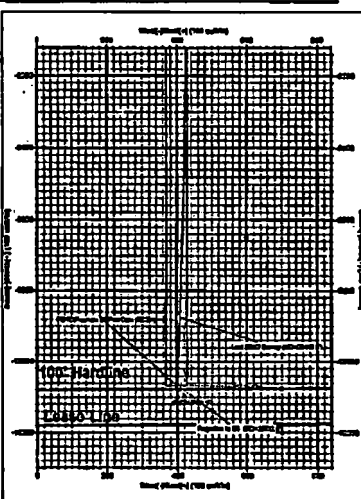
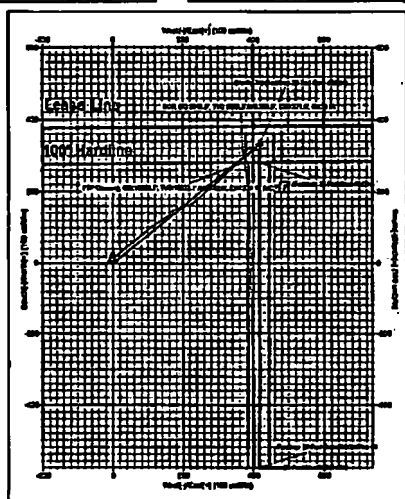
MD	Inc	Asl	TVD	+N-S	+E-W	Dlog	TFace	VSeal	Target
1	0.0	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1251.4	5.03	51.54	1251.1	6.9	8.8	2.00	61.54	-6.5
4	7089.7	5.03	51.54	7088.9	325.1	409.4	0.00	0.00	-308.8
5	7341.1	0.00	0.00	7318.0	332.0	418.0	2.00	180.00	-315.3
6	9924.1	0.00	0.00	9901.0	332.0	418.0	0.00	0.00	-315.3
7	10812.7	88.85	180.12	10473.8	-229.5	418.9	10.00	180.12	245.7
8	13592.6	88.85	180.12	10525.0	-2506.1	411.3	0.00	0.00	3000.0
9	13578.3	88.85	180.12	10525.2	-2594.8	411.3	2.00	180.00	3000.5
10	16572.0	88.85	180.12	10575.0	-4087.8	407.3	0.00	0.00	5000.0
11	15373.5	88.71	180.12	10575.0	-4989.2	407.3	2.00	0.00	5001.4
12	17574.3	88.71	180.12	10620.0	-6985.5	403.2	0.00	0.00	7000.0
13	17800.7	88.24	180.12	10620.5	-7016.0	403.2	2.00	0.00	7025.4
14	19078.7	88.24	180.12	10640.0	-8490.8	400.2	0.00	0.00	8500.0
15	19095.8	89.54	180.12	10640.2	-8510.7	400.1	2.00	0.00	8519.8
16	20651.9	89.54	180.12	10650.0	-10067.0	397.0	0.00	0.00	10074.8

CALLING DETAILS

No calling data is available

WELLS TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(Fearless 26 Fed Com #503H)	7518.0	322.0	418.0	423601.00	763448.00
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425614.00	763823.20
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30
TOTR(Fearless 26 Fed Com #503H)	10070.0	-2588.1	411.3	425611.30	763821.30





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292



Notice of Change to Procedure – Please Read

To All Operators,

This is to notify you that the Bureau of Land Management (BLM) Carlsbad Field Office will no longer be supplying copies of sundries (3160-5), applications for permit to drill (APDs), or completion reports (3160-4) to the New Mexico Oil Conservation Division (NMOCD).

Effective immediately, to be in compliance with C-104 requirements, the NMOCD is requiring operators to submit a copy of any sundries, APDs, or completion reports processed by the BLM to the appropriate NMOCD office. This change will affect all BLM sundries, APDs, and completion reports in Eddy and Lea counties.

If a copy of a previously processed sundry, APD, or completion report is needed for submission to NMOCD, the Carlsbad Field Office will send a copy to the operator.

If you have any questions, please contact Jonathon Shepard (BLM) 575-234-2237.

Thank you

Note: This notice is being included in multiple communications from the BLM Carlsbad Field Office and you may receive multiple copies.