eog resources

EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Red Raider 25 State Com
#503H

OH

Plan: Plan #0.2

Standard Planning Report

23 April, 2019

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3529.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3529.0usft
Site:	Red Raider 25 State Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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	Red Raider 25 State Com				
Site Position:		**Northing:**	430,866.00 usft	**Latitude:**	32° 10' 54.895 N
From:	Map	**Easting:**	792,872.00 usft	**Longitude:**	103° 31' 13.091 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.43 °

Well	#503H					
Well Position	**+N/-S**	-8.0 usft	**Northing:**	430,858.00 usft	**Latitude:**	32° 10' 54.821 N
	+E/-W	-66.0 usft	**Easting:**	792,806.00 usft	**Longitude:**	103° 31' 13.859 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,504.0 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	1/30/2019	6.75	60.01	47,751.12873779

Design	Plan #0.2				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	1,293.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	2.92	

Plan Survey Tool Program **Date** 4/23/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	173.0	1,293.0	Olebrook MWD #1 (OH)	MWD	
				OWSG MWD - Standard	
2	1,293.0	21,266.6	Plan #0.2 (OH)	MWD	
				OWSG MWD - Standard	

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Site:	Red Raider 25 State Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
1,293.0	0.53	316.67	1,292.9	-8.1	-2.2	0.00	0.00	0.00	0.00	
1,393.0	0.53	316.67	1,392.9	-7.4	-2.9	0.00	0.00	0.00	0.00	
1,613.0	4.00	180.00	1,612.8	-14.3	-3.6	2.00	1.58	-62.11	-141.40	
1,713.0	4.00	180.00	1,712.5	-21.3	-3.6	0.00	0.00	0.00	0.00	
2,084.3	7.04	100.63	2,082.5	-38.5	18.9	2.00	0.82	-21.38	-111.17	
7,327.1	7.04	100.63	7,285.7	-157.0	650.7	0.00	0.00	0.00	0.00	
7,679.3	0.00	0.00	7,637.0	-161.0	672.0	2.00	-2.00	0.00	180.00	
10,530.3	0.00	0.00	10,488.0	-161.0	672.0	0.00	0.00	0.00	0.00	
11,430.3	90.00	353.65	11,061.0	408.4	608.6	10.00	10.00	0.00	353.65	
11,627.1	90.00	359.55	11,061.0	604.8	597.0	3.00	0.00	3.00	90.00	
21,266.6	90.00	359.55	11,061.0	10,244.0	522.0	0.00	0.00	0.00	0.00	PBHL(RR 25 St Com

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Site:	Red Raider 25 State Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
173.0	1.23	160.14	173.0	-1.7	0.6	-1.7	0.71	0.71	0.00
294.0	0.62	160.05	294.0	-3.6	1.3	-3.5	0.50	-0.50	-0.07
387.0	0.88	168.84	387.0	-4.8	1.6	-4.7	0.30	0.28	9.45
493.0	1.14	207.86	492.9	-6.5	1.3	-6.4	0.68	0.25	36.81
608.0	0.70	180.70	607.9	-8.2	0.7	-8.2	0.53	-0.38	-23.62
797.0	0.53	259.72	796.9	-9.5	-0.1	-9.5	0.42	-0.09	41.81
891.0	0.53	271.85	890.9	-9.6	-1.0	-9.6	0.12	0.00	12.90
986.0	0.18	52.29	985.9	-9.5	-1.3	-9.5	0.71	-0.37	147.83
1,081.0	0.44	311.22	1,080.9	-9.1	-1.5	-9.2	0.53	0.27	-106.39
1,206.0	0.26	348.75	1,205.9	-8.5	-1.9	-8.6	0.23	-0.14	30.02
1,293.0	0.53	316.67	1,292.9	-8.1	-2.2	-8.2	0.39	0.31	-36.87
1,300.0	0.53	316.67	1,299.9	-8.0	-2.3	-8.1	0.00	0.00	0.00
1,393.0	0.53	316.67	1,392.9	-7.4	-2.9	-7.5	0.00	0.00	0.00
1,400.0	0.43	304.94	1,399.9	-7.3	-2.9	-7.5	2.00	-1.43	-167.59
1,500.0	1.76	186.11	1,499.9	-8.7	-3.4	-8.8	2.00	1.33	-118.83
1,600.0	3.74	180.33	1,599.8	-13.4	-3.5	-13.6	2.00	1.98	-5.78
1,613.0	4.00	180.00	1,612.8	-14.3	-3.6	-14.5	2.00	1.99	-2.54
1,700.0	4.00	180.00	1,699.5	-20.4	-3.6	-20.5	0.00	0.00	0.00
1,713.0	4.00	180.00	1,712.5	-21.3	-3.6	-21.5	0.00	0.00	0.00
1,800.0	3.74	154.29	1,799.3	-26.9	-2.3	-27.0	2.00	-0.30	-29.56
1,900.0	4.38	127.17	1,899.1	-32.1	2.1	-32.0	2.00	0.64	-27.12
2,000.0	5.68	109.69	1,998.7	-36.1	9.8	-35.6	2.00	1.31	-17.48
2,084.3	7.04	100.63	2,082.5	-38.5	18.9	-37.5	2.00	1.61	-10.75
2,100.0	7.04	100.63	2,098.0	-38.8	20.7	-37.7	0.00	0.00	0.00
2,200.0	7.04	100.63	2,197.3	-41.1	32.8	-39.4	0.00	0.00	0.00
2,300.0	7.04	100.63	2,296.5	-43.3	44.8	-41.0	0.00	0.00	0.00
2,400.0	7.04	100.63	2,395.8	-45.6	56.9	-42.7	0.00	0.00	0.00
2,500.0	7.04	100.63	2,495.0	-47.9	69.0	-44.3	0.00	0.00	0.00
2,600.0	7.04	100.63	2,594.3	-50.1	81.0	-45.9	0.00	0.00	0.00
2,700.0	7.04	100.63	2,693.5	-52.4	93.1	-47.6	0.00	0.00	0.00
2,800.0	7.04	100.63	2,792.8	-54.7	105.1	-49.2	0.00	0.00	0.00
2,900.0	7.04	100.63	2,892.0	-56.9	117.2	-50.9	0.00	0.00	0.00
3,000.0	7.04	100.63	2,991.3	-59.2	129.2	-52.5	0.00	0.00	0.00
3,100.0	7.04	100.63	3,090.5	-61.4	141.3	-54.2	0.00	0.00	0.00
3,200.0	7.04	100.63	3,189.7	-63.7	153.3	-55.8	0.00	0.00	0.00
3,300.0	7.04	100.63	3,289.0	-66.0	165.4	-57.5	0.00	0.00	0.00
3,400.0	7.04	100.63	3,388.2	-68.2	177.4	-59.1	0.00	0.00	0.00
3,500.0	7.04	100.63	3,487.5	-70.5	189.5	-60.7	0.00	0.00	0.00
3,600.0	7.04	100.63	3,586.7	-72.7	201.5	-62.4	0.00	0.00	0.00
3,700.0	7.04	100.63	3,686.0	-75.0	213.6	-64.0	0.00	0.00	0.00
3,800.0	7.04	100.63	3,785.2	-77.3	225.6	-65.7	0.00	0.00	0.00
3,900.0	7.04	100.63	3,884.5	-79.5	237.7	-67.3	0.00	0.00	0.00
4,000.0	7.04	100.63	3,983.7	-81.8	249.7	-69.0	0.00	0.00	0.00
4,100.0	7.04	100.63	4,083.0	-84.0	261.8	-70.6	0.00	0.00	0.00
4,200.0	7.04	100.63	4,182.2	-86.3	273.9	-72.3	0.00	0.00	0.00
4,300.0	7.04	100.63	4,281.4	-88.6	285.9	-73.9	0.00	0.00	0.00
4,400.0	7.04	100.63	4,380.7	-90.8	298.0	-75.5	0.00	0.00	0.00
4,500.0	7.04	100.63	4,479.9	-93.1	310.0	-77.2	0.00	0.00	0.00
4,600.0	7.04	100.63	4,579.2	-95.4	322.1	-78.8	0.00	0.00	0.00
4,700.0	7.04	100.63	4,678.4	-97.6	334.1	-80.5	0.00	0.00	0.00
4,800.0	7.04	100.63	4,777.7	-99.9	346.2	-82.1	0.00	0.00	0.00
4,900.0	7.04	100.63	4,876.9	-102.1	358.2	-83.8	0.00	0.00	0.00
5,000.0	7.04	100.63	4,976.2	-104.4	370.3	-85.4	0.00	0.00	0.00

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Wellbore:	OH		
Design:	Plan #0.2		

Planned 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)
5,100.0	7.04	100.63	5,075.4	-106.7	382.3	-87.1	0.00	0.00	0.00
5,200.0	7.04	100.63	5,174.7	-108.9	394.4	-88.7	0.00	0.00	0.00
5,300.0	7.04	100.63	5,273.9	-111.2	406.4	-90.4	0.00	0.00	0.00
5,400.0	7.04	100.63	5,373.1	-113.4	418.5	-92.0	0.00	0.00	0.00
5,500.0	7.04	100.63	5,472.4	-115.7	430.5	-93.6	0.00	0.00	0.00
5,600.0	7.04	100.63	5,571.6	-118.0	442.6	-95.3	0.00	0.00	0.00
5,700.0	7.04	100.63	5,670.9	-120.2	454.6	-96.9	0.00	0.00	0.00
5,800.0	7.04	100.63	5,770.1	-122.5	466.7	-98.6	0.00	0.00	0.00
5,900.0	7.04	100.63	5,869.4	-124.7	478.7	-100.2	0.00	0.00	0.00
6,000.0	7.04	100.63	5,968.6	-127.0	490.8	-101.9	0.00	0.00	0.00
6,100.0	7.04	100.63	6,067.9	-129.3	502.9	-103.5	0.00	0.00	0.00
6,200.0	7.04	100.63	6,167.1	-131.5	514.9	-105.2	0.00	0.00	0.00
6,300.0	7.04	100.63	6,266.3	-133.8	527.0	-106.8	0.00	0.00	0.00
6,400.0	7.04	100.63	6,365.6	-136.1	539.0	-108.4	0.00	0.00	0.00
6,500.0	7.04	100.63	6,464.8	-138.3	551.1	-110.1	0.00	0.00	0.00
6,600.0	7.04	100.63	6,564.1	-140.6	563.1	-111.7	0.00	0.00	0.00
6,700.0	7.04	100.63	6,663.3	-142.8	575.2	-113.4	0.00	0.00	0.00
6,800.0	7.04	100.63	6,762.6	-145.1	587.2	-115.0	0.00	0.00	0.00
6,900.0	7.04	100.63	6,861.8	-147.4	599.3	-116.7	0.00	0.00	0.00
7,000.0	7.04	100.63	6,961.1	-149.6	611.3	-118.3	0.00	0.00	0.00
7,100.0	7.04	100.63	7,060.3	-151.9	623.4	-120.0	0.00	0.00	0.00
7,200.0	7.04	100.63	7,159.6	-154.1	635.4	-121.6	0.00	0.00	0.00
7,300.0	7.04	100.63	7,258.8	-156.4	647.5	-123.2	0.00	0.00	0.00
7,327.1	7.04	100.63	7,285.7	-157.0	650.7	-123.7	0.00	0.00	0.00
7,400.0	5.59	100.63	7,358.2	-158.5	658.6	-124.8	2.00	-2.00	0.00
7,500.0	3.59	100.63	7,457.8	-160.0	666.5	-125.8	2.00	-2.00	0.00
7,600.0	1.59	100.63	7,557.7	-160.8	670.9	-126.4	2.00	-2.00	0.00
7,679.3	0.00	0.00	7,637.0	-161.0	672.0	-126.6	2.00	-2.00	0.00
7,700.0	0.00	0.00	7,657.7	-161.0	672.0	-126.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,757.7	-161.0	672.0	-126.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,857.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,957.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,057.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,157.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,257.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,357.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,457.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,557.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,657.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,757.7	-161.0	672.0	-126.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,857.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,957.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,057.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,157.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,300.0	0.00	0.00	9,257.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,357.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,457.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,557.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,700.0	0.00	0.00	9,657.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,757.7	-161.0	672.0	-126.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,857.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,000.0	0.00	0.00	9,957.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,100.0	0.00	0.00	10,057.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,200.0	0.00	0.00	10,157.7	-161.0	672.0	-126.6	0.00	0.00	0.00

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Wellbore:	OH		
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Planned 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)
10,300.0	0.00	0.00	10,257.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,357.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,500.0	0.00	0.00	10,457.7	-161.0	672.0	-126.6	0.00	0.00	0.00
10,530.3	0.00	0.00	10,488.0	-161.0	672.0	-126.6	0.00	0.00	0.00
10,530.4	0.00	353.65	10,488.1	-161.0	672.0	-126.6	0.00	0.00	0.00
KOP(RR 25 St Com #503H)									
10,550.0	1.97	353.65	10,507.7	-160.7	672.0	-126.3	10.07	10.07	0.00
10,600.0	6.97	353.65	10,557.5	-156.8	671.5	-122.4	10.00	10.00	0.00
10,650.0	11.97	353.65	10,606.8	-148.6	670.6	-114.3	10.00	10.00	0.00
10,700.0	16.97	353.65	10,655.2	-136.2	669.2	-102.0	10.00	10.00	0.00
10,750.0	21.97	353.65	10,702.4	-119.6	667.4	-85.5	10.00	10.00	0.00
10,800.0	26.97	353.65	10,747.9	-99.1	665.1	-65.1	10.00	10.00	0.00
10,850.0	31.97	353.65	10,791.4	-74.6	662.4	-40.8	10.00	10.00	0.00
10,900.0	36.97	353.65	10,832.6	-46.5	659.3	-12.9	10.00	10.00	0.00
10,950.0	41.97	353.65	10,871.2	-14.9	655.7	18.5	10.00	10.00	0.00
11,000.0	46.97	353.65	10,906.8	19.9	651.9	53.0	10.00	10.00	0.00
11,005.5	47.52	353.65	10,910.6	23.9	651.4	57.0	10.00	10.00	0.00
FTP(RR 25 St Com #503H)									
11,050.0	51.97	353.65	10,939.3	57.6	647.7	90.5	10.00	10.00	0.00
11,100.0	56.97	353.65	10,968.4	98.1	643.2	130.7	10.00	10.00	0.00
11,150.0	61.97	353.65	10,993.8	140.9	638.4	173.2	10.00	10.00	0.00
11,200.0	66.97	353.65	11,015.3	185.7	633.4	217.7	10.00	10.00	0.00
11,250.0	71.97	353.65	11,032.8	232.2	628.2	263.9	10.00	10.00	0.00
11,300.0	76.97	353.65	11,046.2	280.1	622.9	311.4	10.00	10.00	0.00
11,350.0	81.97	353.65	11,055.3	328.9	617.5	359.9	10.00	10.00	0.00
11,400.0	86.97	353.65	11,060.2	378.4	612.0	409.0	10.00	10.00	0.00
11,430.3	90.00	353.65	11,061.0	408.4	608.6	438.9	10.00	10.00	0.00
11,500.0	90.00	355.74	11,061.0	477.9	602.2	507.9	3.00	0.00	3.00
11,600.0	90.00	358.74	11,061.0	577.7	597.4	607.4	3.00	0.00	3.00
11,627.1	90.00	359.55	11,061.0	604.8	597.0	634.4	3.00	0.00	3.00
11,700.0	90.00	359.55	11,061.0	677.7	596.4	707.2	0.00	0.00	0.00
11,800.0	90.00	359.55	11,061.0	777.7	595.6	807.0	0.00	0.00	0.00
11,900.0	90.00	359.55	11,061.0	877.7	594.8	906.8	0.00	0.00	0.00
12,000.0	90.00	359.55	11,061.0	977.7	594.1	1,006.7	0.00	0.00	0.00
12,100.0	90.00	359.55	11,061.0	1,077.7	593.3	1,106.5	0.00	0.00	0.00
12,200.0	90.00	359.55	11,061.0	1,177.7	592.5	1,206.3	0.00	0.00	0.00
12,300.0	90.00	359.55	11,061.0	1,277.7	591.7	1,306.2	0.00	0.00	0.00
12,400.0	90.00	359.55	11,061.0	1,377.7	591.0	1,406.0	0.00	0.00	0.00
12,500.0	90.00	359.55	11,061.0	1,477.7	590.2	1,505.8	0.00	0.00	0.00
12,600.0	90.00	359.55	11,061.0	1,577.7	589.4	1,605.6	0.00	0.00	0.00
12,700.0	90.00	359.55	11,061.0	1,677.7	588.6	1,705.5	0.00	0.00	0.00
12,800.0	90.00	359.55	11,061.0	1,777.7	587.8	1,805.3	0.00	0.00	0.00
12,900.0	90.00	359.55	11,061.0	1,877.7	587.1	1,905.1	0.00	0.00	0.00
13,000.0	90.00	359.55	11,061.0	1,977.7	586.3	2,005.0	0.00	0.00	0.00
13,100.0	90.00	359.55	11,061.0	2,077.7	585.5	2,104.8	0.00	0.00	0.00
13,200.0	90.00	359.55	11,061.0	2,177.7	584.7	2,204.6	0.00	0.00	0.00
13,300.0	90.00	359.55	11,061.0	2,277.7	584.0	2,304.4	0.00	0.00	0.00
13,400.0	90.00	359.55	11,061.0	2,377.7	583.2	2,404.3	0.00	0.00	0.00
13,500.0	90.00	359.55	11,061.0	2,477.7	582.4	2,504.1	0.00	0.00	0.00
13,600.0	90.00	359.55	11,061.0	2,577.7	581.6	2,603.9	0.00	0.00	0.00
13,700.0	90.00	359.55	11,061.0	2,677.7	580.8	2,703.7	0.00	0.00	0.00
13,800.0	90.00	359.55	11,061.0	2,777.7	580.1	2,803.6	0.00	0.00	0.00
13,900.0	90.00	359.55	11,061.0	2,877.7	579.3	2,903.4	0.00	0.00	0.00
14,000.0	90.00	359.55	11,061.0	2,977.6	578.5	3,003.2	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3529.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3529.0usft
Site:	Red Raider 25 State Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned 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)
14,100.0	90.00	359.55	11,061.0	3,077.6	577.7	3,103.1	0.00	0.00	0.00
14,200.0	90.00	359.55	11,061.0	3,177.6	577.0	3,202.9	0.00	0.00	0.00
14,300.0	90.00	359.55	11,061.0	3,277.6	576.2	3,302.7	0.00	0.00	0.00
14,400.0	90.00	359.55	11,061.0	3,377.6	575.4	3,402.5	0.00	0.00	0.00
14,500.0	90.00	359.55	11,061.0	3,477.6	574.6	3,502.4	0.00	0.00	0.00
14,600.0	90.00	359.55	11,061.0	3,577.6	573.8	3,602.2	0.00	0.00	0.00
14,700.0	90.00	359.55	11,061.0	3,677.6	573.1	3,702.0	0.00	0.00	0.00
14,800.0	90.00	359.55	11,061.0	3,777.6	572.3	3,801.9	0.00	0.00	0.00
14,900.0	90.00	359.55	11,061.0	3,877.6	571.5	3,901.7	0.00	0.00	0.00
15,000.0	90.00	359.55	11,061.0	3,977.6	570.7	4,001.5	0.00	0.00	0.00
15,100.0	90.00	359.55	11,061.0	4,077.6	570.0	4,101.3	0.00	0.00	0.00
15,200.0	90.00	359.55	11,061.0	4,177.6	569.2	4,201.2	0.00	0.00	0.00
15,300.0	90.00	359.55	11,061.0	4,277.6	568.4	4,301.0	0.00	0.00	0.00
15,400.0	90.00	359.55	11,061.0	4,377.6	567.6	4,400.8	0.00	0.00	0.00
15,500.0	90.00	359.55	11,061.0	4,477.6	566.8	4,500.6	0.00	0.00	0.00
15,600.0	90.00	359.55	11,061.0	4,577.6	566.1	4,600.5	0.00	0.00	0.00
15,700.0	90.00	359.55	11,061.0	4,677.6	565.3	4,700.3	0.00	0.00	0.00
15,800.0	90.00	359.55	11,061.0	4,777.6	564.5	4,800.1	0.00	0.00	0.00
15,900.0	90.00	359.55	11,061.0	4,877.6	563.7	4,900.0	0.00	0.00	0.00
15,989.4	90.00	359.55	11,061.0	4,967.0	563.0	4,989.2	0.00	0.00	0.00
PBHL(RR 25 St Com #503H) (copy)									
16,000.0	90.00	359.55	11,061.0	4,977.6	563.0	4,999.8	0.00	0.00	0.00
16,100.0	90.00	359.55	11,061.0	5,077.6	562.2	5,099.6	0.00	0.00	0.00
16,200.0	90.00	359.55	11,061.0	5,177.6	561.4	5,199.4	0.00	0.00	0.00
16,300.0	90.00	359.55	11,061.0	5,277.6	560.6	5,299.3	0.00	0.00	0.00
16,400.0	90.00	359.55	11,061.0	5,377.6	559.8	5,399.1	0.00	0.00	0.00
16,500.0	90.00	359.55	11,061.0	5,477.6	559.1	5,498.9	0.00	0.00	0.00
16,600.0	90.00	359.55	11,061.0	5,577.6	558.3	5,598.8	0.00	0.00	0.00
16,700.0	90.00	359.55	11,061.0	5,677.6	557.5	5,698.6	0.00	0.00	0.00
16,800.0	90.00	359.55	11,061.0	5,777.6	556.7	5,798.4	0.00	0.00	0.00
16,900.0	90.00	359.55	11,061.0	5,877.6	556.0	5,898.2	0.00	0.00	0.00
17,000.0	90.00	359.55	11,061.0	5,977.6	555.2	5,998.1	0.00	0.00	0.00
17,100.0	90.00	359.55	11,061.0	6,077.6	554.4	6,097.9	0.00	0.00	0.00
17,200.0	90.00	359.55	11,061.0	6,177.6	553.6	6,197.7	0.00	0.00	0.00
17,300.0	90.00	359.55	11,061.0	6,277.5	552.8	6,297.5	0.00	0.00	0.00
17,400.0	90.00	359.55	11,061.0	6,377.5	552.1	6,397.4	0.00	0.00	0.00
17,500.0	90.00	359.55	11,061.0	6,477.5	551.3	6,497.2	0.00	0.00	0.00
17,600.0	90.00	359.55	11,061.0	6,577.5	550.5	6,597.0	0.00	0.00	0.00
17,700.0	90.00	359.55	11,061.0	6,677.5	549.7	6,696.9	0.00	0.00	0.00
17,800.0	90.00	359.55	11,061.0	6,777.5	549.0	6,796.7	0.00	0.00	0.00
17,900.0	90.00	359.55	11,061.0	6,877.5	548.2	6,896.5	0.00	0.00	0.00
18,000.0	90.00	359.55	11,061.0	6,977.5	547.4	6,996.3	0.00	0.00	0.00
18,100.0	90.00	359.55	11,061.0	7,077.5	546.6	7,096.2	0.00	0.00	0.00
18,200.0	90.00	359.55	11,061.0	7,177.5	545.9	7,196.0	0.00	0.00	0.00
18,300.0	90.00	359.55	11,061.0	7,277.5	545.1	7,295.8	0.00	0.00	0.00
18,400.0	90.00	359.55	11,061.0	7,377.5	544.3	7,395.7	0.00	0.00	0.00
18,500.0	90.00	359.55	11,061.0	7,477.5	543.5	7,495.5	0.00	0.00	0.00
18,600.0	90.00	359.55	11,061.0	7,577.5	542.7	7,595.3	0.00	0.00	0.00
18,700.0	90.00	359.55	11,061.0	7,677.5	542.0	7,695.1	0.00	0.00	0.00
18,800.0	90.00	359.55	11,061.0	7,777.5	541.2	7,795.0	0.00	0.00	0.00
18,900.0	90.00	359.55	11,061.0	7,877.5	540.4	7,894.8	0.00	0.00	0.00
19,000.0	90.00	359.55	11,061.0	7,977.5	539.6	7,994.6	0.00	0.00	0.00
19,100.0	90.00	359.55	11,061.0	8,077.5	538.9	8,094.4	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3529.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3529.0usft
Site:	Red Raider 25 State Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned 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)
19,200.0	90.00	359.55	11,061.0	8,177.5	538.1	8,194.3	0.00	0.00	0.00
19,300.0	90.00	359.55	11,061.0	8,277.5	537.3	8,294.1	0.00	0.00	0.00
19,400.0	90.00	359.55	11,061.0	8,377.5	536.5	8,393.9	0.00	0.00	0.00
19,500.0	90.00	359.55	11,061.0	8,477.5	535.7	8,493.8	0.00	0.00	0.00
19,600.0	90.00	359.55	11,061.0	8,577.5	535.0	8,593.6	0.00	0.00	0.00
19,700.0	90.00	359.55	11,061.0	8,677.5	534.2	8,693.4	0.00	0.00	0.00
19,800.0	90.00	359.55	11,061.0	8,777.5	533.4	8,793.2	0.00	0.00	0.00
19,900.0	90.00	359.55	11,061.0	8,877.5	532.6	8,893.1	0.00	0.00	0.00
20,000.0	90.00	359.55	11,061.0	8,977.5	531.9	8,992.9	0.00	0.00	0.00
20,100.0	90.00	359.55	11,061.0	9,077.5	531.1	9,092.7	0.00	0.00	0.00
20,200.0	90.00	359.55	11,061.0	9,177.5	530.3	9,192.6	0.00	0.00	0.00
20,300.0	90.00	359.55	11,061.0	9,277.5	529.5	9,292.4	0.00	0.00	0.00
20,400.0	90.00	359.55	11,061.0	9,377.5	528.7	9,392.2	0.00	0.00	0.00
20,500.0	90.00	359.55	11,061.0	9,477.5	528.0	9,492.0	0.00	0.00	0.00
20,600.0	90.00	359.55	11,061.0	9,577.4	527.2	9,591.9	0.00	0.00	0.00
20,700.0	90.00	359.55	11,061.0	9,677.4	526.4	9,691.7	0.00	0.00	0.00
20,800.0	90.00	359.55	11,061.0	9,777.4	525.6	9,791.5	0.00	0.00	0.00
20,900.0	90.00	359.55	11,061.0	9,877.4	524.9	9,891.4	0.00	0.00	0.00
21,000.0	90.00	359.55	11,061.0	9,977.4	524.1	9,991.2	0.00	0.00	0.00
21,100.0	90.00	359.55	11,061.0	10,077.4	523.3	10,091.0	0.00	0.00	0.00
21,200.0	90.00	359.55	11,061.0	10,177.4	522.5	10,190.8	0.00	0.00	0.00
21,266.6	90.00	359.55	11,061.0	10,244.0	522.0	10,257.3	0.00	0.00	0.00
PBHL(RR 25 St Com #503H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(RR 25 St Com #50	0.00	0.00	10,488.0	-161.0	602.0	430,697.00	793,408.00	32° 10' 53.183 N	103° 31' 6.869 W
- plan misses target center by 70.0usft at 10530.3usft MD (10488.0 TVD, -161.0 N, 672.0 E)									
- Point									
FTP(RR 25 St Com #50:	0.00	0.00	11,061.0	-111.0	602.0	430,747.00	793,408.00	32° 10' 53.677 N	103° 31' 6.865 W
- plan misses target center by 208.0usft at 11005.5usft MD (10910.6 TVD, 23.9 N, 651.4 E)									
- Point									
PBHL(RR 25 St Com #5	90.00	359.57	11,061.0	10,244.0	522.0	441,102.00	793,328.00	32° 12' 36.147 N	103° 31' 6.883 W
- plan hits target center									
- Rectangle (sides W60.0 H0.0 D10,354.9)									

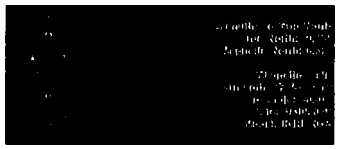
eog resources

Lea County, NM (NAD 83 NME)

Red Raider 25 State Com #503H

Plan #0.2

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



To convert a Magnetic Direction to a Grid Direction, Add 6.32°
To convert a Magnetic Direction to a True Direction, Add 6.75° East
To convert a True Direction to a Grid Direction, Subtract 0.43°

WELL DETAILS: #503H

3504.0
KB = 25 @ 3529.0usft

Northing	Easting	Latitude	Longitude
430858.00	792806.00	32° 10' 54.821 N	103° 31' 13.859 W

SECTION DETAILS

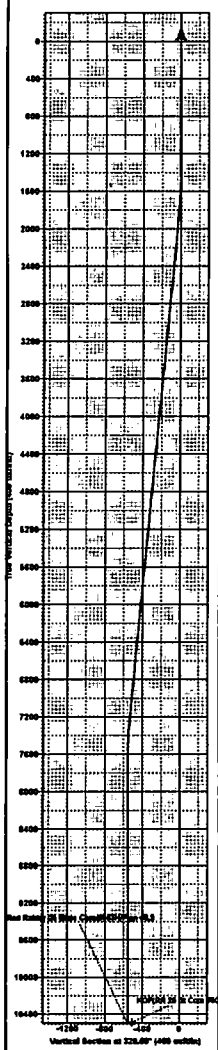
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	1293.0	0.53	316.67	1292.9	-8.1	-2.2	0.00	0.00	-8.2	
2	1393.0	0.53	316.67	1392.9	-7.4	-2.9	0.00	0.00	-7.5	
3	1613.0	4.00	180.00	1612.8	-14.3	-3.6	2.00	-141.40	-14.5	
4	1713.0	4.00	180.00	1712.5	-21.3	-3.6	0.00	0.00	-21.5	
5	2084.3	7.04	100.63	2082.5	-38.5	18.9	2.00	-111.17	-37.5	
6	7327.1	7.04	100.63	7285.7	-157.0	650.7	0.00	0.00	-123.7	
7	7679.3	0.00	0.00	7637.0	-161.0	672.0	2.00	180.00	-126.6	
8	10530.3	0.00	0.00	10488.0	-161.0	672.0	0.00	0.00	-126.6	
9	11430.3	90.00	353.65	11061.0	408.4	608.6	10.00	353.65	438.9	
10	11627.1	90.00	359.55	11061.0	604.8	597.0	3.00	90.00	634.4	
11	21266.8	90.00	359.55	11061.0	10244.0	522.0	0.00	0.00	10257.3	PBHL(RR 25 St Com #503H)

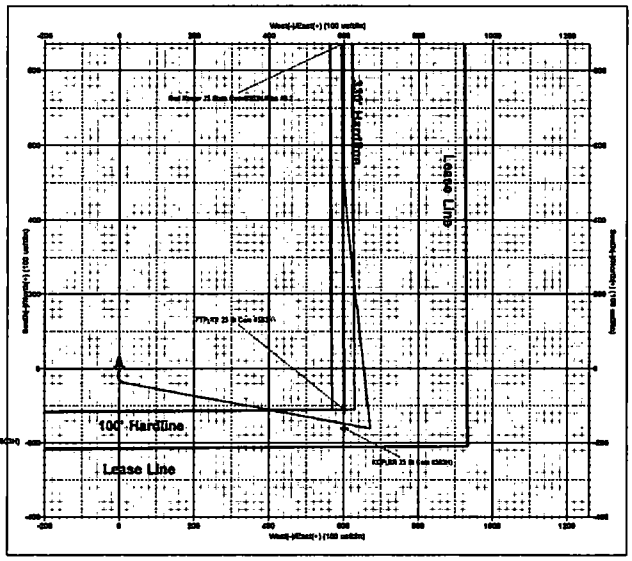
CASING DETAILS

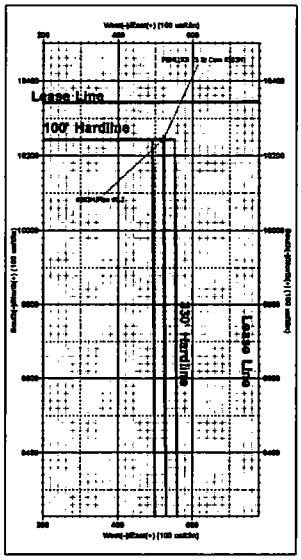
No casing data is available

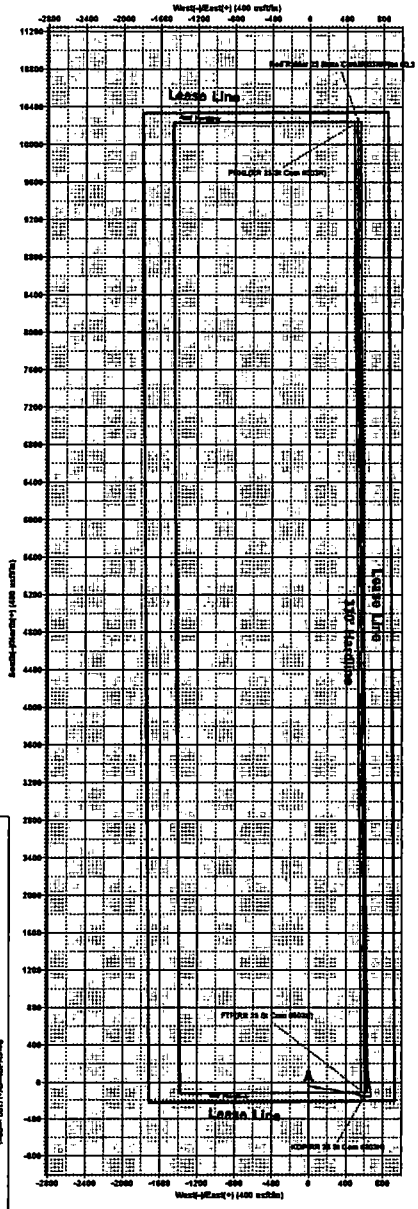
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

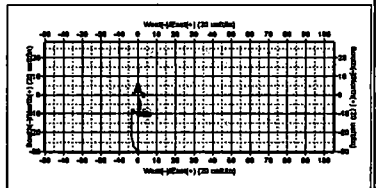
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(RR 25 St Com #503H)	10488.0	-161.0	672.0	430697.00	793408.00
FTP(RR 25 St Com #503H)	11061.0	-111.0	602.0	430747.00	793408.00
PBHL(RR 25 St Com #503H)	11061.0	10244.0	522.0	441102.00	793328.00
PBHL(RR 25 St Com #503H) (copy)	11061.0	4967.0	584.0	435828.00	793370.00

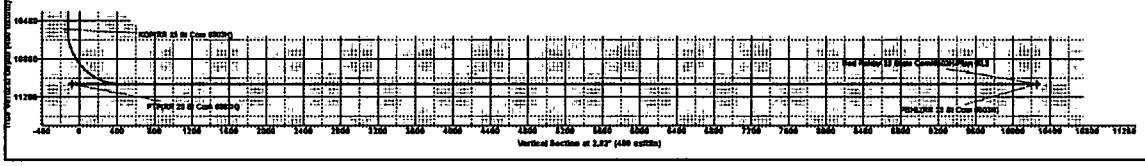


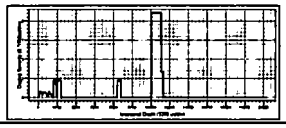










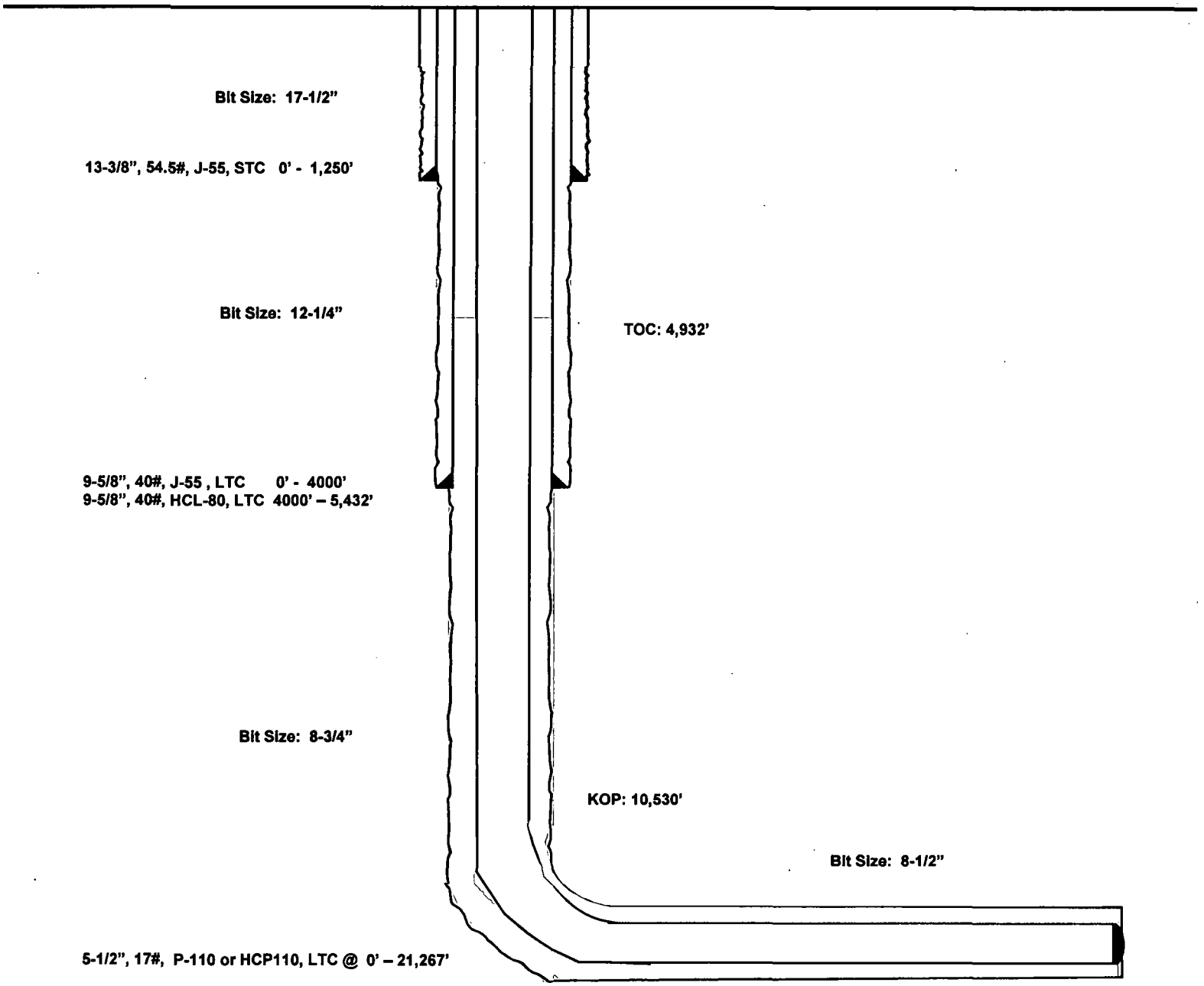


Red Raider 25 State Com #503H
Lea County, New Mexico

214' FSL
931' FEL
Section 25
T-24-S, R-33-E

Proposed Wellbore
Revised 4/23/19
API: 30-025-45776

KB: 3,529'
GL: 3,504'



Lateral: 21,267' MD, 11,061' TVD
BH Location: 100' FNL & 330' FEL
Section 24
T-24-S, R-33-E

EOG RESOURCES, INC.
Red Raider 25 State Com #503H

Permit Information:

Well Name: Red Raider 25 State Com No. 503H

Location:
SHL: 214' FSL & 931' FEL, Section 25, T-24-S, R-33-E, Lea Co., N.M.
BHL: 100' FNL & 330' FEL, Section 24, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0' – 1,250'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' – 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4000' – 5432'	9.625"	40#	HCL-80	LTC	1.125	1.25	1.60
8.75"	0'– 21,267'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Slurry Description
1,250'	600	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	300	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,432'	900	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ Surface)
	225	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
21,267'	375	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4,932')
	400	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1300	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' – 1,250'	Fresh - Gel	8.6-8.8	28-34	N/c
1,250' – 5,432'	Brine	10.0-10.2	28-34	N/c
5,432' – 10,530'	Cut Brine	8.4-9.0	28-34	N/c
10,530' – 21,267' Lateral	Cut Brine	9.0-9.5	40-42	8-10

EOG RESOURCES, INC.
Red Raider 25 State Com #503H

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

- Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

EOG RESOURCES, INC.
Red Raider 25 State Com #503H

Lea County Sheriff's Department		(575) 396-3611
Rod Coffman		
Fire Department:		
Carlsbad		(575) 885-3125
Artesia		(575) 746-5050
Hospitals:		
Carlsbad		(575) 887-4121
Artesia		(575) 748-3333
Hobbs		(575) 392-1979
Dept. of Public Safety/Carlsbad		(575) 748-9718
Highway Department		(575) 885-3281
New Mexico Oil Conservation		(575) 476-3440
U.S. Dept. of Labor		(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office	(432) 686-3600

Company Drilling Consultants:

David Dominque	Cell	(985) 518-5839
Mike Vann	Cell	(817) 980-5507

Drilling Engineer

Steve Munsell	Office	(432) 686-3609
	Cell	(432) 894-1256

Drilling Manager

Aj Dach	Office	(432) 686-3751
	Cell	(817) 480-1167

Drilling Superintendent

Domingo Lopez	Office	(432) 686-3702
	Cell	(432) 215-9452

H&P Drilling

H&P Drilling	Office	(432) 563-5757
H&P 651 Drilling Rig	Rig	(903) 509-7131

Tool Pusher:

Johnathan Craig	Cell	(817) 760-6374
Brad Garrett		

Safety

Brian Chandler (HSE Manager)	Office	(432) 686-3695
	Cell	(817) 239-0251