



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Trigg 5 Fed

#1

OH

Design: OH

PVA

16 May, 2017

HOBBS OCD

MAY 31 2019

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EOG Resources, Inc.
PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM (NAD 27 NME)			TVD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Site:	Trigg 5 Fed			MD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Well:	#1			North Reference:	Grid
Wellbore:	OH			Survey Calculation Method:	Minimum Curvature
Design:	OH			Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Trigg 5 Fed		
Site Position:		Northing:	488,806.00 usft
From:	Map	Easting:	790,721.00 usft
Position Uncertainty:	0.0 usft	Spot Radius:	13-3/16 "
		Latitude:	32° 20' 25.193 N
		Longitude:	103° 23' 31.317 W
		Grid Convergence:	0.50 °

Well	#1		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 20' 25.193 N
		Longitude:	103° 23' 31.317 W
		Ground Level:	3,466.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	4/27/2017	6.69
			Dip Angle
			(°)
			60.20
			Field Strength
			(nT)
			48,040

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
		Direction	(°)
			179.41

Survey Program	Date	5/16/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	13,126.0	Intrepid MWD #1 (OH)	MWD	MWD - Standard



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Project: Lea County, NM (NAD 27 NME)
Site: Trigg 5 Fed
Well: #1
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1
TVD Reference: KB = 25 @ 3491.0usft (H&P 621)
MD Reference: KB = 25 @ 3491.0usft (H&P 621)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
200.0	0.70	59.70	200.0	0.8	1.1	0.35	0.35	0.00	-1.2	0.0
379.0	0.50	90.00	379.0	1.2	2.8	0.21	-0.11	16.93	-2.8	1.2
564.0	0.30	191.90	564.0	0.7	3.5	0.34	-0.11	55.08	1.4	3.3
750.0	0.50	169.90	750.0	-0.6	3.5	0.13	0.11	-11.83	-1.2	3.4
936.0	0.60	214.80	936.0	-2.2	3.1	0.23	0.05	24.14	0.0	3.8
1,122.0	0.70	191.50	1,122.0	-4.1	2.3	0.15	0.05	-12.53	-3.5	3.1
1,309.0	0.90	201.30	1,309.0	-8.6	1.8	0.13	0.11	5.24	-5.8	3.9
1,496.0	0.80	234.30	1,496.0	-8.7	0.0	0.26	-0.05	17.85	-5.1	7.1
1,683.0	0.80	205.30	1,683.0	-10.7	-1.6	0.21	0.00	-15.51	-10.3	3.1
1,809.0	0.70	199.40	1,809.0	-12.2	-2.3	0.10	-0.08	-4.68	-12.2	1.9
1,942.0	0.10	117.00	1,941.9	-13.0	-2.4	0.52	-0.45	-61.95	-3.7	-12.7
2,130.0	0.30	49.60	2,129.9	-12.7	-1.9	0.15	0.11	-35.85	9.7	-8.5
2,318.0	0.60	64.20	2,317.9	-12.0	-0.7	0.17	0.16	7.77	5.8	-10.5
2,506.0	0.40	57.20	2,505.9	-11.2	0.8	0.11	-0.11	-3.72	5.4	-9.9
2,692.0	0.40	48.10	2,691.9	-10.4	1.8	0.03	0.00	-4.89	5.8	-9.0
2,879.0	0.30	346.60	2,878.9	-8.5	2.2	0.20	-0.05	-32.89	9.8	0.1
3,067.0	0.40	32.20	3,066.9	-8.5	2.4	0.15	0.05	24.26	5.9	-6.6
3,254.0	0.40	15.00	3,253.9	-7.3	2.9	0.06	0.00	-9.20	6.3	-4.7
3,442.0	0.60	45.70	3,441.9	-6.0	3.8	0.17	0.11	16.33	1.5	-6.9
3,630.0	0.90	56.60	3,629.8	-4.5	5.7	0.18	0.16	5.80	-2.3	-6.9
3,817.0	1.10	58.90	3,816.8	-2.7	8.5	0.11	0.11	1.23	-5.9	-6.7
4,003.0	1.70	50.80	4,002.8	-0.1	12.2	0.34	0.32	-4.35	-9.4	-7.8
4,191.0	0.70	111.00	4,190.7	1.3	15.4	0.79	-0.53	32.02	-13.9	6.7
4,377.0	0.80	105.40	4,376.7	0.5	17.7	0.07	0.05	-3.01	-16.9	5.2
4,565.0	0.80	153.30	4,564.7	-0.7	19.4	0.32	-0.11	25.48	-9.4	17.0
4,752.0	0.60	128.30	4,751.7	-2.2	20.6	0.14	0.00	-13.37	-17.6	11.1



EOG Resources, Inc.
PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Trigg 5 Fed
Well: #1
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #1
KB = 25 @ 3491.0usft (H&P 621)
KB = 25 @ 3491.0usft (H&P 621)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	EW (usft)	D/Lag ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
4,939.0	0.80	241.80	4,938.7	-3.4	20.3	0.63	0.11	60.70	16.2	12.6
5,127.0	0.90	247.80	5,126.6	-4.6	17.7	0.07	0.05	3.19	14.7	11.0
5,314.0	0.40	238.30	5,313.6	-5.5	15.8	0.27	-0.27	-5.08	10.6	13.0
5,502.0	0.30	227.20	5,501.6	-6.2	14.9	0.06	-0.05	-5.90	6.7	14.6
5,689.0	0.20	259.30	5,688.6	-6.6	14.2	0.09	-0.05	17.17	12.8	9.1
5,834.0	0.10	69.40	5,833.6	-6.6	14.1	0.21	-0.07	117.31	-10.9	-11.1
6,021.0	1.80	188.50	6,020.6	-9.4	13.8	0.99	0.91	63.69	-4.8	14.6
6,208.0	3.30	192.80	6,207.4	-17.6	12.2	0.81	0.80	2.30	-3.6	13.2
6,396.0	3.30	189.50	6,395.1	-28.2	10.1	0.10	0.00	-1.76	-0.5	10.0
6,583.0	5.00	187.70	6,581.6	-41.6	8.1	0.91	0.91	-0.96	5.8	6.9
6,770.0	5.40	187.30	6,767.8	-58.4	5.9	0.21	0.21	-0.21	10.1	4.0
6,957.0	6.30	180.10	6,953.9	-77.4	4.8	0.62	0.48	-3.85	12.1	3.8
7,144.0	7.50	179.40	7,139.5	-99.8	4.9	0.64	0.64	-0.37	11.1	3.8
7,332.0	6.60	179.20	7,326.1	-122.9	5.2	0.48	-0.48	-0.11	9.6	3.9
7,520.0	5.30	178.00	7,513.1	-142.4	5.8	0.69	-0.69	-0.64	11.7	4.4
7,708.0	5.60	177.20	7,700.2	-160.2	6.4	0.16	0.16	-0.43	15.4	5.3
7,895.0	7.30	182.30	7,886.0	-181.2	6.3	0.96	0.91	2.73	16.3	3.6
8,083.0	7.20	184.30	8,072.5	-204.9	5.0	0.14	-0.05	1.06	14.2	1.7
8,270.0	6.10	176.90	8,258.3	-226.5	4.8	0.74	-0.59	-3.96	13.8	2.9
8,458.0	4.30	175.00	8,445.5	-243.5	5.8	0.96	-0.96	-1.01	18.3	4.7
8,646.0	5.40	187.50	8,632.8	-259.3	6.2	0.81	0.59	6.65	24.6	-0.9
8,833.0	6.20	178.40	8,818.9	-278.1	4.4	0.65	0.43	-4.87	27.1	2.0
9,021.0	7.10	176.30	9,005.6	-299.8	5.4	0.50	0.48	-1.12	26.9	3.8
9,208.0	6.90	175.40	9,191.2	-322.6	7.0	0.12	-0.11	-0.48	25.5	5.5
9,396.0	7.50	175.20	9,377.7	-346.1	9.0	0.32	0.32	-0.11	23.5	7.1
9,583.0	7.60	182.20	9,563.1	-370.8	9.5	0.49	0.05	3.74	21.1	4.7
9,771.0	7.50	180.10	9,749.5	-395.3	9.0	0.16	-0.05	-1.12	17.8	4.7



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Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Site:	Trigg 5 Fed	MD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Well:	#1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
9,958.0	6.10	177.80	9,935.1	-417.4	9.4	0.76	-0.75	-1.23	17.0	5.6	
10,145.0	4.80	174.40	10,121.3	-435.1	10.5	0.72	-0.70	-1.82	19.8	7.8	
10,333.0	4.40	171.40	10,308.7	-450.1	12.4	0.25	-0.21	-1.60	20.1	10.6	
10,520.0	2.30	167.30	10,495.4	-460.8	14.3	1.13	-1.12	-2.19	18.0	13.6	
10,606.0	1.70	165.10	10,581.3	-463.7	15.0	0.70	-0.70	-2.56	16.8	14.8	
10,714.0	1.10	150.90	10,689.3	-466.2	15.9	0.64	-0.56	-13.15	11.1	18.7	
10,820.0	0.70	122.30	10,795.3	-467.4	16.9	0.56	-0.38	-26.98	-0.7	21.2	
11,008.0	1.50	356.50	10,883.2	-465.6	17.6	1.06	0.43	-68.91	-18.6	-13.9	
11,195.0	1.20	332.30	11,170.2	-461.4	16.7	0.34	-0.16	-12.94	-15.4	-21.3	
11,383.0	1.20	284.70	11,358.2	-459.2	13.9	0.52	0.00	-25.32	2.0	-27.2	
11,570.0	1.70	253.80	11,545.1	-459.4	9.3	0.49	0.27	-16.52	11.3	-23.3	
11,757.0	2.60	188.10	11,732.0	-464.4	6.2	1.34	0.48	-36.20	20.6	-1.0	
11,944.0	3.10	184.60	11,918.8	-473.7	5.4	0.27	0.27	-0.80	11.3	-0.6	
12,132.0	1.80	212.00	12,106.8	-481.3	3.4	0.91	-0.69	14.57	2.3	-3.3	
12,320.0	2.00	251.90	12,294.5	-484.8	-1.3	0.70	0.11	21.22	-5.9	-2.2	
12,506.0	2.40	255.60	12,480.4	-486.8	-8.2	0.23	0.22	1.99	-13.2	-1.6	
12,696.0	2.30	262.00	12,670.2	-488.3	-15.8	0.15	-0.05	3.37	-21.0	0.4	
12,741.0	2.00	265.20	12,715.2	-488.5	-17.5	0.72	-0.67	7.11	-22.7	1.6	
12,790.0	1.40	311.40	12,764.1	-488.2	-18.8	2.95	-1.22	94.29	-15.7	18.1	
12,838.0	1.60	324.70	12,810.1	-487.3	-19.5	0.76	0.22	28.91	-12.3	21.3	
12,884.0	1.30	308.10	12,858.1	-486.4	-20.3	0.94	-0.42	-34.58	-19.0	16.8	
12,930.0	1.50	304.90	12,904.1	-485.8	-21.2	0.47	0.43	-6.96	-21.1	15.6	
12,978.0	1.40	290.40	12,952.1	-485.2	-22.3	0.79	-0.21	-30.21	-25.5	9.7	
13,023.0	1.60	279.00	12,997.1	-484.9	-23.4	0.68	0.22	-25.33	-28.1	4.4	
13,073.0	1.30	284.30	13,047.1	-484.7	-24.6	0.48	-0.40	10.60	-28.7	7.0	
Last MWD Survey											



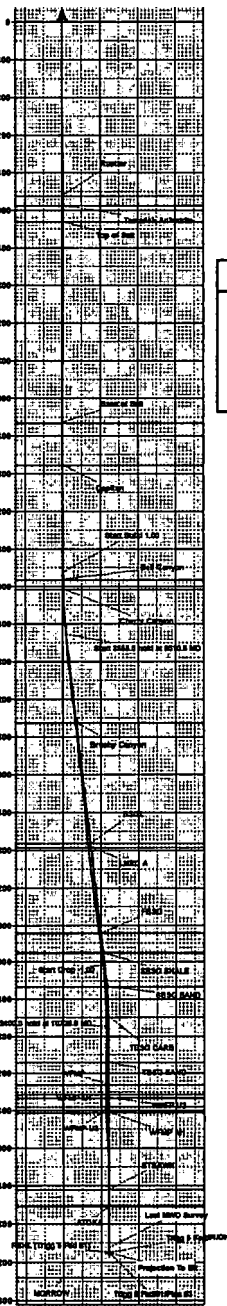
EOG Resources, Inc.
PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #1
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Site:	Trigg 5 Fed	MD Reference:	KB = 25 @ 3491.0usft (H&P 621)
Well:	#1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
13,126.0	1.30	284.30	13,100.0	-484.4	-25.8	0.00	0.00	0.00	-29.9	7.0
Projection To Bit										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
13,073.0	13,047.1	-484.7	-24.8	Last MWD Survey
13,126.0	13,100.0	-484.4	-25.8	Projection To Bit

Checked By: _____	Approved By: _____	Date: _____
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Plan #3

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1886
Zone: New Mexico East 3001
System Datum: Mean Sea Level

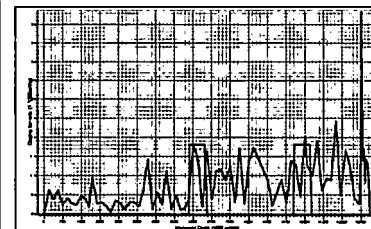
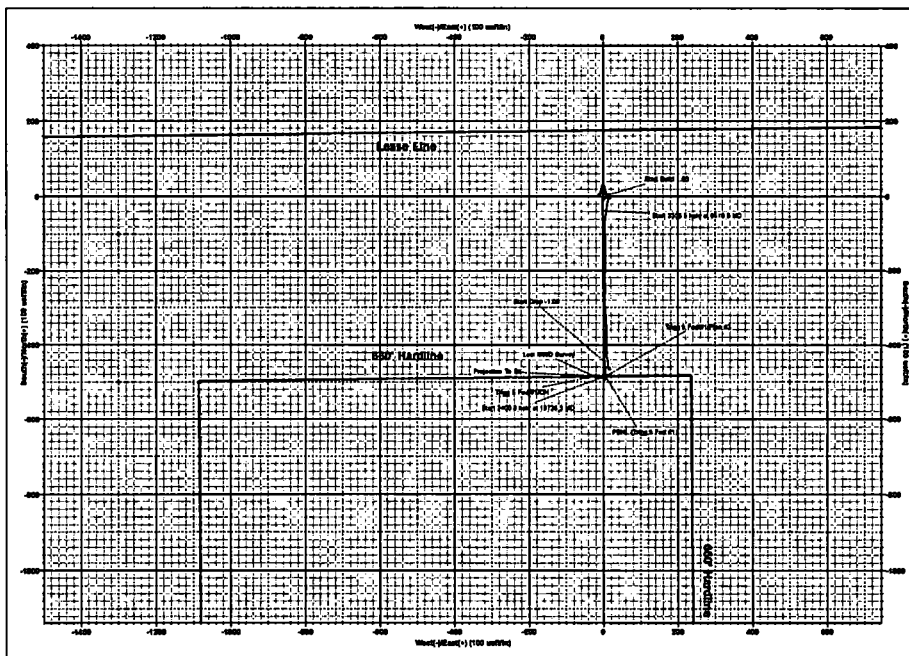
	Ground Level:	3468.0
	KB = 25 @ 3491.0usft (H&P 621)	
Northing	Easting	Latitude
488806.00	790721.00	32° 20' 28.193 N
		103° 23' 31.317 W

To convert a Magnetic Direction to a Grid Direction, Add 6.33°
To convert a Magnetic Direction to a True Direction, Add 6.89° E
To convert a True Direction to a Grid Direction, Subtract 0.56°

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5850.0	0.00	0.00	5850.0	0.0	0.0	0.00	0.00	0.0	
3	6510.5	6.60	179.41	6509.0	-38.0	4.0	1.00	179.41	38.0	
4	10066.0	6.60	179.41	10041.0	-447.0	4.6	0.00	0.00	447.0	
5	10726.5	0.00	0.00	10700.0	-485.0	5.0	1.00	180.00	485.0	
6	13126.5	0.00	0.00	13100.0	-485.0	5.0	0.00	0.00	485.0	PBHL (Trigg 5 Fed #1)

No casing data is available

Name	TVD	+N/-S	+E/-W	Northing	Easting
PCHL (Trigg & Fed #1)	13100.0	-485.0	5.0	488321.00	790728.00



Los Angeles 100 100 100 100 100
100 100 100 100 100
100 100 100 100 100
100 100 100 100 100
100 100 100 100 100