

HOBBS OCD
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Audacious 19 Federal

#721H

OH

Design: OH

Midland PVA

08 November, 2018



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #721H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25' @ 3489.0usft
Site:	Audacious 19 Federal			MD Reference:	KB = 25' @ 3489.0usft
Well:	#721H			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	Audacious 19 Federal				
Site Position:		Northing:	406,251.00 usft	Latitude:	32° 6' 53.415 N
From:	Map	Easting:	763,097.00 usft	Longitude:	103° 37' 1.440 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	#721H					
Well Position	+N-S	0.0 usft	Northing:	406,251.00 usft	Latitude:	32° 6' 53.415 N
	+E-W	0.0 usft	Easting:	763,097.00 usft	Longitude:	103° 37' 1.440 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,464.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/4/2018	6.83	59.94	47,734.82444475

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	181.28	

Survey Program	Date	11/8/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
214.0	20,140.0	Newaco MWD (OH)	MWD	OWSG MWD - Standard	



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Well:	#721H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/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
214.0	0.40	38.40	214.0	0.6	0.5	0.19	0.19	0.00	0.0	0.0
394.0	2.10	45.30	393.9	3.4	3.2	0.95	0.94	3.83	0.0	0.0
574.0	0.90	70.70	573.9	6.2	6.9	0.75	-0.67	14.11	0.0	0.0
792.0	1.20	64.60	791.8	7.7	10.6	0.15	0.14	-2.80	0.0	0.0
966.0	0.50	66.50	965.8	8.8	12.9	0.40	-0.40	1.09	0.0	0.0
1,095.0	0.40	79.00	1,094.8	9.1	13.9	0.11	-0.08	9.69	0.1	-0.1
1,283.0	0.80	99.30	1,282.8	9.0	15.8	0.24	0.21	10.80	-0.5	-0.8
1,471.0	0.70	87.60	1,470.8	8.9	18.2	0.10	-0.05	-6.22	-1.2	-1.8
1,659.0	1.10	96.30	1,658.8	8.7	21.2	0.22	0.21	4.63	-3.0	-2.2
1,848.0	1.80	53.90	1,845.7	10.3	25.3	0.66	0.37	-22.67	-3.4	-4.5
2,034.0	2.00	36.20	2,033.6	14.6	29.7	0.33	0.11	-9.41	-6.6	-5.4
2,223.0	1.20	34.60	2,222.5	18.9	32.7	0.42	-0.42	-0.85	-10.3	-4.8
2,410.0	0.40	27.30	2,409.5	21.1	34.1	0.43	-0.43	-3.90	-10.9	-5.3
2,598.0	0.90	40.20	2,597.5	22.8	35.4	0.28	0.27	6.86	-12.5	-1.8
2,785.0	2.70	273.40	2,784.4	24.2	31.9	1.77	0.96	-67.81	4.2	-9.1
2,973.0	2.00	282.90	2,972.3	25.2	24.3	0.42	-0.37	5.05	0.5	-2.0
3,161.0	7.10	322.60	3,159.7	35.2	14.1	3.03	2.71	21.12	3.6	2.1
3,348.0	7.50	330.40	3,345.2	55.0	1.0	0.57	0.21	4.17	-0.3	2.5
3,536.0	7.00	335.80	3,531.7	76.1	-9.7	0.45	-0.27	2.87	-4.2	1.1
3,724.0	6.20	341.20	3,718.4	96.2	-17.7	0.54	-0.43	2.87	-6.5	-1.9
3,911.0	5.50	349.00	3,904.4	114.5	-22.7	0.57	-0.37	4.17	-7.4	-6.5
4,099.0	5.10	320.00	4,091.7	129.8	-29.8	1.42	-0.21	-15.43	-0.1	-10.8
4,287.0	4.00	321.20	4,279.1	141.3	-39.2	0.59	-0.59	0.64	4.2	-8.2
4,475.0	6.00	333.90	4,466.3	155.2	-47.7	1.21	1.06	6.76	5.7	-9.5
4,662.0	4.70	326.40	4,652.5	170.4	-56.2	0.79	-0.70	-4.01	9.0	-9.3
4,840.0	4.30	329.10	4,830.0	182.2	-63.7	0.25	-0.22	1.52	13.3	-9.6



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Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3489.0usft
Well:	#721H	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)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,029.0	6.60	328.20	5,018.1	197.5	-73.0	1.22	1.22	-0.48	15.2	-9.5	
5,218.0	6.40	329.40	5,203.9	215.6	-84.0	0.13	-0.11	0.64	13.4	-10.0	
5,404.0	7.60	312.00	5,390.5	232.9	-98.6	1.29	0.64	-9.26	12.1	-3.2	
5,592.0	6.90	315.10	5,577.0	249.2	-115.8	0.43	-0.37	1.65	7.4	1.3	
5,780.0	6.80	314.30	5,763.7	265.0	-131.7	0.07	-0.05	-0.43	4.0	6.0	
5,968.0	6.70	329.10	5,950.4	282.2	-145.3	0.92	-0.05	7.87	3.3	7.3	
6,156.0	6.50	324.50	6,137.2	300.3	-157.1	0.30	-0.11	-2.45	0.7	8.0	
6,344.0	7.20	333.20	6,323.8	319.5	-168.6	0.66	0.37	4.63	-0.9	7.7	
6,531.0	7.30	330.80	6,509.3	340.3	-179.7	0.17	0.05	-1.28	-5.3	6.3	
6,719.0	7.20	330.00	6,695.8	360.9	-191.4	0.08	-0.05	-0.43	-9.5	5.5	
6,907.0	6.50	330.00	6,882.5	380.3	-202.6	0.37	-0.37	0.00	-12.3	4.8	
7,094.0	4.40	319.70	7,068.6	395.0	-212.6	1.23	-1.12	-5.51	-11.2	3.6	
7,282.0	2.30	321.20	7,256.3	403.4	-219.6	1.12	-1.12	0.80	-7.4	5.9	
7,470.0	1.90	304.80	7,444.2	408.1	-224.5	0.38	-0.21	-8.72	-12.6	3.8	
7,658.0	1.10	42.90	7,632.1	411.2	-225.9	1.24	-0.43	52.18	4.1	15.1	
7,845.0	0.80	46.10	7,819.1	413.5	-223.7	0.16	-0.16	1.71	1.9	14.9	
8,033.0	0.80	99.70	8,007.1	414.1	-221.5	0.38	0.00	28.51	11.0	8.4	
8,221.0	0.50	166.00	8,195.1	413.1	-220.0	0.40	-0.16	35.27	10.8	-5.5	
8,408.0	1.00	80.00	8,382.1	412.6	-218.2	0.58	0.27	-45.99	4.6	9.6	
8,596.0	0.80	141.40	8,570.0	411.9	-215.7	0.50	-0.11	32.66	8.5	2.0	
8,784.0	0.70	155.20	8,758.0	409.8	-214.4	0.11	-0.05	7.34	6.3	0.2	
8,972.0	1.00	225.40	8,946.0	407.6	-215.1	0.54	0.16	37.34	0.3	-4.8	
9,159.0	1.00	349.90	9,133.0	408.1	-216.6	0.95	0.00	66.58	-4.8	3.8	
9,347.0	0.50	238.90	9,321.0	409.3	-217.6	0.67	-0.27	-59.04	-2.0	-7.4	
9,535.0	0.80	240.50	9,509.0	408.2	-219.4	0.16	0.16	0.85	-4.4	-7.3	
9,722.0	1.50	319.20	9,695.9	409.4	-222.1	0.83	0.37	42.09	-10.7	4.1	
9,910.0	0.30	50.00	9,883.9	411.6	-223.4	0.82	-0.64	48.30	3.8	13.1	



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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)	
10,098.0	0.20	186.20	10,071.9	411.6	-223.0	0.25	-0.05	72.45	6.3	-11.8	
10,285.0	0.90	62.90	10,258.9	411.9	-221.7	0.55	0.37	-65.94	5.1	11.5	
10,473.0	0.90	73.20	10,446.9	413.0	-219.0	0.09	0.00	5.48	4.1	10.7	
10,660.0	0.90	126.20	10,633.9	412.6	-216.4	0.43	0.00	28.34	8.6	4.3	
10,848.0	0.50	48.40	10,821.9	412.2	-214.6	0.50	-0.21	-41.38	-3.5	7.9	
11,034.0	1.20	325.30	11,007.8	414.4	-215.1	0.67	0.38	-44.68	-10.3	-3.3	
11,221.0	2.00	260.40	11,194.8	415.5	-219.5	0.99	0.43	-34.71	-5.4	-12.5	
11,408.0	2.00	264.20	11,381.7	414.6	-225.9	0.07	0.00	2.03	-12.8	-11.9	
11,596.0	0.50	65.70	11,569.6	414.6	-228.4	1.32	-0.80	85.90	10.6	16.4	
11,611.0	0.50	81.60	11,584.6	414.6	-228.3	0.92	0.00	106.00	14.6	12.9	
11,681.0	0.70	112.40	11,654.6	414.5	-227.6	0.53	0.29	44.00	18.4	3.8	
11,776.0	0.80	116.80	11,749.6	414.0	-226.5	0.12	0.11	4.63	17.4	2.4	
11,870.0	1.10	158.40	11,843.6	412.8	-225.6	0.78	0.32	44.26	13.2	-8.4	
11,963.0	1.00	155.70	11,936.6	411.3	-224.9	0.12	-0.11	-2.90	11.9	-8.8	
12,057.0	0.80	163.40	12,030.6	409.9	-224.4	0.25	-0.21	8.19	9.2	-10.2	
12,151.0	5.20	152.90	12,124.4	405.5	-222.3	4.70	4.68	-11.17	6.0	-8.5	
12,244.0	25.30	172.60	12,213.7	381.8	-217.7	22.02	21.61	21.18	-16.8	-8.3	
12,337.0	35.10	179.10	12,294.0	335.2	-214.7	11.09	10.54	6.99	-44.3	-3.7	
12,431.0	39.50	183.60	12,368.8	278.3	-216.2	5.50	4.68	4.79	-63.6	-1.3	
12,524.0	42.30	187.10	12,439.1	217.7	-221.9	3.89	3.01	3.76	-68.2	-4.8	
12,618.0	54.70	181.10	12,501.3	147.7	-226.6	14.02	13.19	-8.38	-63.0	-15.3	
12,712.0	62.30	178.40	12,550.4	67.6	-226.2	8.45	8.09	-2.87	-53.2	-16.8	
12,805.0	71.90	180.70	12,586.5	-18.0	-225.5	10.57	10.32	2.47	-37.8	-16.3	
12,899.0	75.90	182.00	12,612.6	-108.2	-227.7	4.46	4.26	1.38	-15.2	-19.0	
12,993.0	84.00	179.20	12,629.0	-200.7	-228.6	9.10	8.62	-2.98	1.2	-20.4	
13,087.0	85.70	178.80	12,637.4	-294.3	-227.0	1.86	1.81	-0.43	9.8	-19.3	
13,181.0	89.00	177.50	12,641.8	-388.1	-224.0	3.77	3.51	-1.38	14.2	-16.8	



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Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3489.0usft
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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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13,275.0	91.20	178.00	12,641.6	-482.1	-220.3	2.40	2.34	0.53	14.2	-13.8	
13,368.0	90.90	177.30	12,639.9	-575.0	-216.5	0.82	-0.32	-0.75	12.6	-10.5	
13,462.0	91.20	178.00	12,638.2	-668.9	-212.6	0.81	0.32	0.74	11.0	-7.2	
13,556.0	88.70	176.70	12,638.3	-762.8	-208.3	3.00	-2.66	-1.38	11.2	-3.5	
13,650.0	86.90	176.60	12,641.9	-856.5	-202.8	1.92	-1.91	-0.11	15.0	1.4	
13,743.0	87.20	176.60	12,646.7	-949.2	-197.3	0.32	0.32	0.00	19.9	6.4	
13,837.0	91.40	176.60	12,647.8	-1,043.1	-191.7	4.47	4.47	0.00	21.2	11.3	
13,931.0	87.60	175.50	12,648.6	-1,136.8	-185.2	4.21	-4.04	-1.17	22.1	17.3	
14,025.0	89.60	177.30	12,650.9	-1,230.6	-179.3	2.86	2.13	1.91	24.5	22.6	
14,119.0	91.90	180.60	12,649.7	-1,324.5	-177.6	4.28	2.45	3.51	23.4	23.7	
14,213.0	92.20	180.60	12,646.3	-1,418.5	-178.6	0.32	0.32	0.00	20.2	22.2	
14,307.0	93.60	179.80	12,641.6	-1,512.4	-178.9	1.71	1.49	-0.85	15.6	21.3	
14,401.0	91.50	180.20	12,637.4	-1,606.3	-178.9	2.27	-2.23	0.43	11.5	20.7	
14,495.0	90.70	179.60	12,635.6	-1,700.2	-178.7	1.06	-0.85	-0.64	9.8	20.2	
14,589.0	92.10	180.80	12,633.3	-1,794.2	-179.1	1.96	1.49	1.28	7.7	19.3	
14,705.0	86.90	178.90	12,634.3	-1,910.2	-178.8	4.77	-4.48	-1.64	8.8	18.9	
14,799.0	88.80	181.20	12,637.8	-2,004.1	-178.8	3.17	2.02	2.45	12.5	18.3	
14,893.0	93.30	183.40	12,636.1	-2,098.0	-182.6	5.33	4.79	2.34	10.9	13.9	
14,986.0	90.30	183.30	12,633.2	-2,190.7	-188.0	3.23	-3.23	-0.11	8.1	7.9	
15,080.0	89.00	182.80	12,633.8	-2,284.6	-193.0	1.48	-1.38	-0.53	8.8	2.3	
15,174.0	91.20	184.70	12,633.6	-2,378.4	-199.2	3.09	2.34	2.02	8.8	-4.4	
15,268.0	94.20	187.70	12,629.2	-2,471.7	-209.3	4.51	3.19	3.19	4.7	-15.1	
15,362.0	93.00	186.10	12,623.3	-2,564.8	-220.6	2.12	-1.28	-1.70	-1.1	-27.0	
15,455.0	94.20	182.20	12,617.4	-2,657.4	-227.3	4.38	1.29	-4.19	-6.9	-34.3	
15,549.0	85.90	178.40	12,617.3	-2,751.3	-227.8	9.71	-8.83	-4.04	-6.9	-35.3	
15,644.0	86.60	177.20	12,623.6	-2,846.0	-224.2	1.46	0.74	-1.26	-0.5	-32.3	
15,738.0	87.00	175.90	12,628.8	-2,939.7	-218.5	1.44	0.43	-1.38	4.8	-27.2	



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15,840.0	92.00	176.90	12,629.7	-3,041.5	-212.1	5.00	4.90	0.98	5.8	-21.4
15,933.0	92.60	178.60	12,626.0	-3,134.3	-208.5	1.94	0.65	1.83	2.2	-18.4
16,028.0	89.70	179.90	12,624.1	-3,229.3	-207.2	3.35	-3.05	1.37	0.4	-17.7
16,121.0	89.40	181.60	12,624.8	-3,322.3	-208.4	1.86	-0.32	1.83	1.3	-19.5
16,215.0	87.10	182.10	12,627.7	-3,416.2	-211.5	2.50	-2.45	0.53	4.2	-23.1
16,308.0	89.70	180.20	12,630.2	-3,509.1	-213.3	3.46	2.80	-2.04	7.0	-25.5
16,402.0	88.30	179.40	12,631.9	-3,603.1	-213.0	1.72	-1.49	-0.85	8.8	-25.8
16,496.0	89.60	179.00	12,633.6	-3,697.1	-211.7	1.45	1.38	-0.43	10.6	-25.1
16,589.0	90.40	178.60	12,633.6	-3,790.0	-209.8	0.96	0.88	-0.43	10.7	-23.7
16,684.0	90.20	178.70	12,633.1	-3,885.0	-207.5	0.24	-0.21	0.11	10.4	-22.0
16,777.0	91.80	179.40	12,631.5	-3,978.0	-206.0	1.88	1.72	0.75	8.9	-21.1
16,871.0	92.10	179.70	12,628.3	-4,071.9	-205.2	0.45	0.32	0.32	5.8	-20.9
16,965.0	92.60	181.00	12,624.4	-4,165.8	-205.8	1.48	0.53	1.38	2.1	-22.1
17,059.0	91.40	180.80	12,621.2	-4,259.8	-207.3	1.29	-1.28	-0.21	-1.1	-24.1
17,153.0	88.30	180.40	12,621.4	-4,353.7	-208.3	3.33	-3.30	-0.43	-0.7	-25.7
17,247.0	89.40	181.20	12,623.3	-4,447.7	-209.6	1.45	1.17	0.85	1.3	-27.8
17,341.0	88.10	177.40	12,627.0	-4,541.6	-208.4	5.35	-3.51	-4.04	5.2	-27.0
17,434.0	85.20	175.80	12,634.0	-4,634.2	-202.9	1.97	-0.97	-1.72	12.4	-22.1
17,528.0	85.20	178.70	12,641.9	-4,727.7	-198.4	3.07	0.00	3.09	20.3	-18.2
17,623.0	93.40	180.70	12,643.1	-4,822.6	-198.0	8.88	8.63	2.11	21.6	-18.3
17,716.0	93.70	178.60	12,637.3	-4,915.4	-197.4	2.28	0.32	-2.26	15.9	-18.3
17,810.0	93.10	177.20	12,631.7	-5,009.2	-193.9	1.62	-0.64	-1.49	10.5	-15.4
17,904.0	90.60	177.20	12,628.7	-5,103.0	-189.4	2.68	-2.66	0.00	7.6	-11.4
17,998.0	93.10	177.80	12,625.7	-5,196.9	-185.3	2.74	2.68	0.64	4.7	-7.9
18,091.0	90.90	178.40	12,622.4	-5,289.8	-182.2	2.45	-2.37	0.65	1.6	-5.4
18,185.0	89.50	178.70	12,622.1	-5,383.7	-179.8	1.52	-1.49	0.32	1.4	-3.6
18,279.0	90.00	181.20	12,622.5	-5,477.7	-179.7	2.71	0.53	2.66	1.9	-4.1



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #721H
Project:	Lea County, NM (MAD 83 NME)	TVD Reference:	KB = 25' @ 3489.0usft
Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3489.0usft
Well:	#721H	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)	DLeg (°/100usft)	BuId (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,373.0	88.40	180.60	12,623.8	-5,571.7	-181.2	1.82	-1.70	-0.64	3.4	-8.2	
18,467.0	84.30	178.70	12,629.8	-5,665.5	-180.6	4.81	-4.36	-2.02	9.5	-8.2	
18,561.0	85.00	179.10	12,638.6	-5,759.1	-178.8	0.86	0.74	0.43	18.4	-5.0	
18,655.0	87.70	178.40	12,644.5	-5,852.8	-176.8	2.97	2.87	-0.74	24.5	-3.5	
18,751.0	91.70	176.30	12,645.0	-5,948.7	-172.3	4.71	4.17	-2.19	25.1	0.4	
18,844.0	94.60	175.20	12,639.9	-6,041.3	-165.5	3.33	3.12	-1.18	20.1	6.7	
18,938.0	94.30	176.50	12,632.6	-6,134.8	-158.7	1.42	-0.32	1.38	13.0	12.9	
19,032.0	91.60	177.30	12,627.8	-6,228.5	-153.6	3.00	-2.87	0.85	8.3	17.4	
19,126.0	92.40	182.00	12,624.5	-6,322.4	-153.0	5.07	0.85	5.00	5.1	17.4	
19,218.0	87.60	182.50	12,624.5	-6,415.3	-156.7	5.19	-5.16	0.54	5.3	13.1	
19,313.0	86.70	182.10	12,629.2	-6,509.1	-160.5	1.05	-0.96	-0.43	10.0	8.8	
19,407.0	86.50	182.00	12,634.8	-6,602.9	-163.8	0.24	-0.21	-0.11	15.7	4.9	
19,501.0	84.60	182.00	12,642.1	-6,696.6	-167.1	2.02	-2.02	0.00	23.2	1.0	
19,594.0	89.50	180.10	12,646.8	-6,789.4	-168.8	5.65	5.27	-2.04	28.1	-1.3	
19,689.0	90.20	179.40	12,647.1	-6,884.4	-168.4	1.04	0.74	-0.74	28.4	-1.4	
19,781.0	90.60	179.20	12,646.5	-6,976.4	-167.2	0.49	0.43	-0.22	27.9	-0.9	
19,875.0	90.40	178.50	12,645.6	-7,070.4	-165.4	0.77	-0.21	-0.74	27.2	0.4	
19,969.0	88.20	177.60	12,646.8	-7,164.3	-162.2	2.53	-2.34	-0.96	28.5	3.0	
20,063.0	87.20	178.30	12,650.6	-7,258.2	-158.8	1.30	-1.06	0.74	32.4	5.8	
20,078.0	87.10	178.20	12,651.2	-7,271.1	-158.4	1.09	-0.77	-0.77	33.1	6.1	
20,140.0	87.10	178.20	12,654.4	-7,335.0	-156.4	0.00	0.00	0.00	36.4	7.8	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #721H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3489.0usft
Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3489.0usft
Well:	#721H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
12,110.0	12,083.5	408.2	-223.6	KOP, MD:12110.0', TVD:12083.5', N/S:408.2', E/W:-223.6', INC:3.28
12,302.7	12,265.4	354.0	-215.3	FTP Crossing, MD:12302.7', TVD:12265.4', N/S:354.0', E/W:-215.3', INC:31.45
20,076.0	12,651.2	-7,271.1	-158.4	Last MWD Survey (MD=20076.0')
20,140.0	12,654.4	-7,335.0	-158.4	Projection to Bit (MD=20140.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)
Audacious 19 Federal #721H
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: #721H

KB = 25' @ 3489.0ust
Northing 406251.00 Easting 763097.00
Latitude 32° 6' 53.415 N Longitude 103° 37' 1.440 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSeal	Target	Annotation
1	965.0	0.50	66.50	965.8	8.8	12.9	0.00	0.00	-9.1		
2	2740.2	0.50	68.50	2740.0	15.0	27.1	0.00	0.00	-16.6		
3	3044.7	6.00	320.26	3043.9	29.1	19.9	2.00	-102.88	-29.6		
4	7113.7	6.00	322.26	7090.6	330.7	-203.7	0.00	0.00	-386.0		
5	7413.6	0.00	0.00	7390.0	404.0	-212.0	2.00	180.00	-399.2		Brushy Top (Audacious 19 Federal #721H)
6	12174.1	0.00	0.00	12160.6	404.0	-212.0	0.00	0.00	-399.2		
7	12924.0	90.08	179.65	12828.0	-74.1	-209.0	12.00	179.55	78.7		
8	20207.8	90.08	179.65	12618.0	-7357.0	-164.0	0.00	0.00	7358.8		PBHL (Audacious 19 Federal #721H)

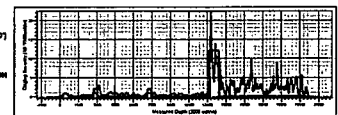
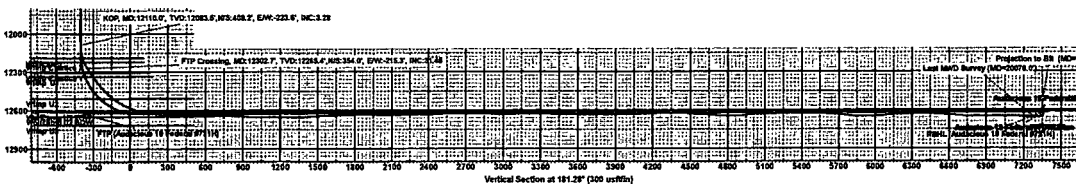
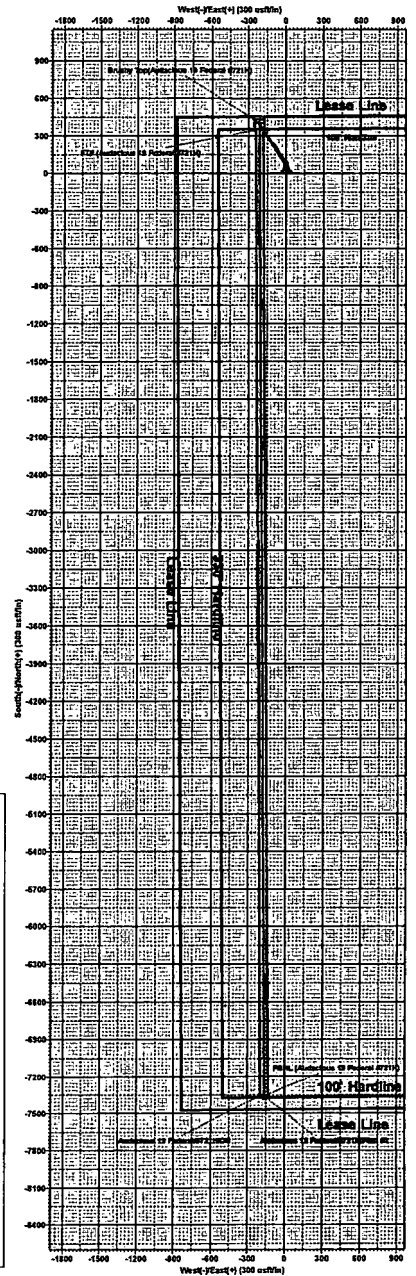
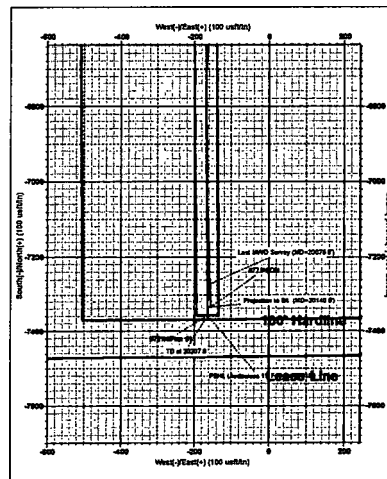
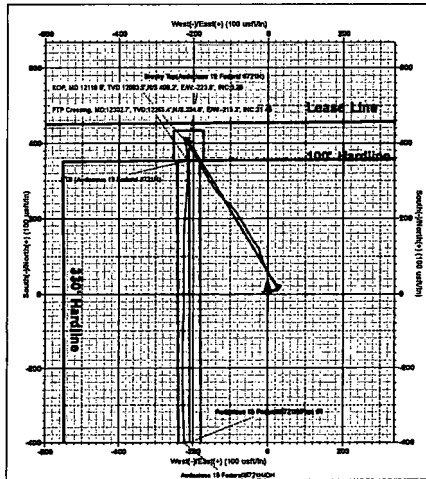
To convert a Magnetic Direction to a Grid Direction, Add 6.53° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top (Audacious 19 Federal #721H)	7390.0	404.0	-212.0	406854.00	762885.00
PBHL (Audacious 19 Federal #721H)	12618.0	-7357.0	-164.0	398954.00	762933.00
FTP (Audacious 19 Federal #721H)	12628.0	354.0	-212.0	406805.00	762885.00



Lea County, NM (NAD 83 NME)
Audacious 19 Federal #721H
Plan #1

Bureau of Land Management
WATER PRODUCTION & DISPOSAL INFORMATION

LEASE: AUDACIOUS 19 FEDERAL

Lease no NMNM 110838

SECTION 19, T25S, R33E

Wells: Audacious 19 Federal #708H 30-025-45044 Audacious 19 Federal #711H 30-025-45047
 Audacious 19 Federal #709H 30-025-45045 Audacious 19 Federal #721H 30-025-45039
 Audacious 19 Federal #710H 30-025-45046 Audacious 19 Federal #722H 30-025-45040

1. Name of formation producing water on lease: **WOLFCAMP**
2. Amount of water produced from all formations in barrels per day **3000-8000 BWPD**
3. How water is stored on lease **4 - 400 BBL Tanks**
4. How water is moved to disposal facility **Pipeline/Trucked**
5. Disposal Facility:

EOG Red Hills Gathering System - 97% of water, 3% water

- a. Name of Operator/facility well name & number

MESQUITE SWD, INC

OWL SWD OPERATING, LLC

Cotton Draw SWD #66

Maralo Sholes B #2

30-025-22024

30-025-09806

E-10-25S-32E

P-25-25S-36E

Permit No SWD 1306-0

Permit No SWD 1127-0

DACO OPERATING, LLC

Challenger Fortress

42-301-32997

Loving County, Texas

UIC NO 114148

Type of facility or wells **SWD**

1/9/2019

LEGEND



 Valve Open

 Valve Closed

S Valve Sealed



Orifice Meter

 Turbine/ Coriolis Meter

Oil



— Gas



— Water

FACILITY DIAGRAM

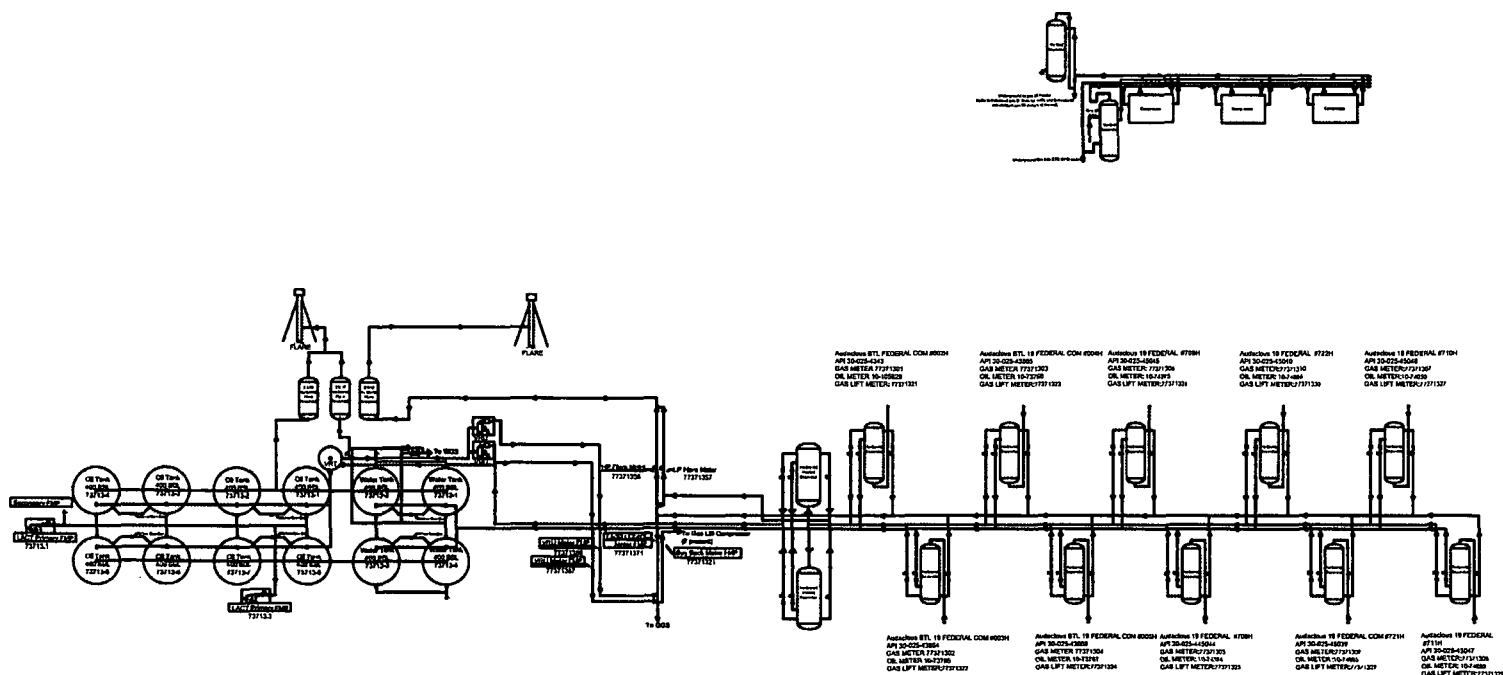
Shown: Major equipment, vessels, process piping, and valves

Not shown: Auxiliary process systems such as fuel/ pilot gas system, gas lift system, roll lines, recirculating lines, vent lines, and small drain lines

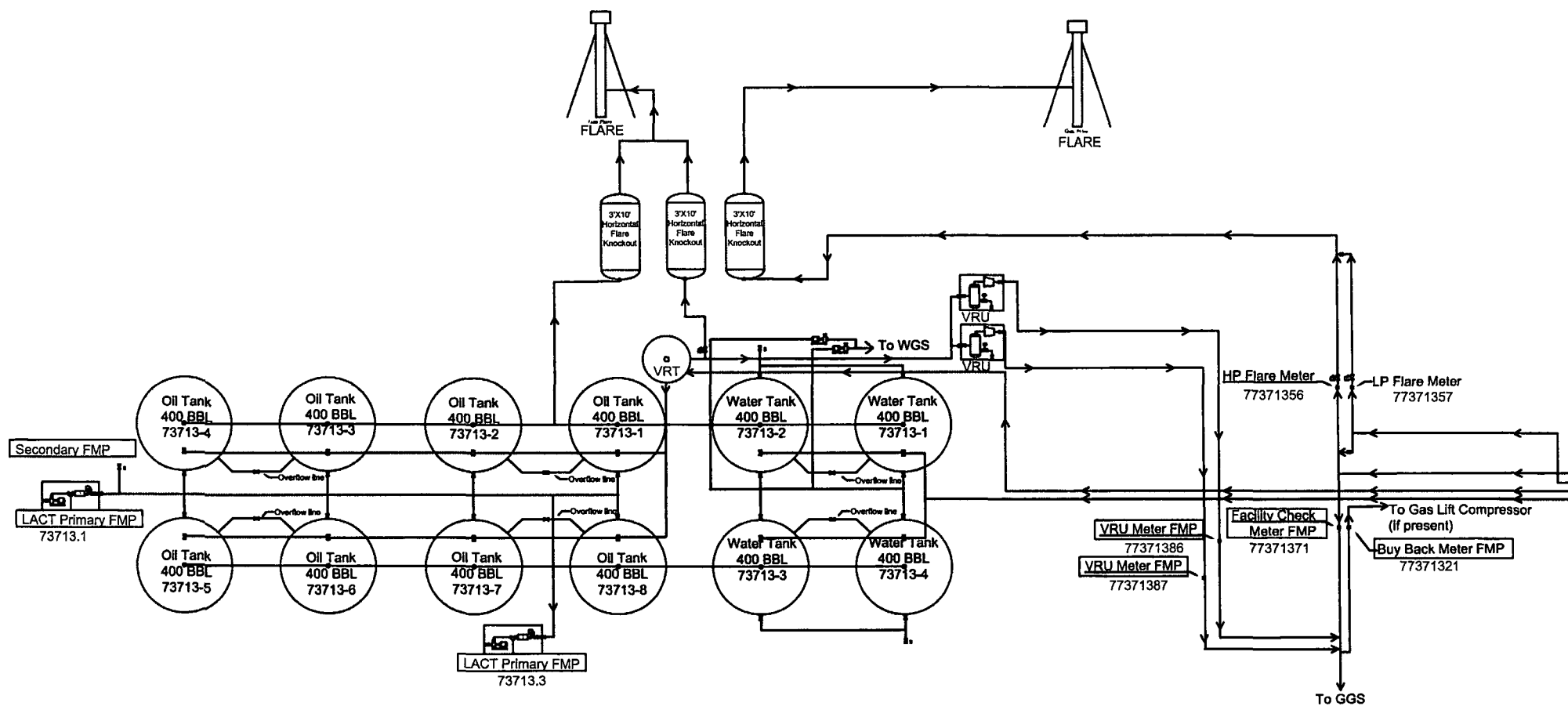
PRODUCTION PHASE: All valves that provide access to production are effectively sealed in the closed position.

SALES THROUGH LACT UNITS: Sale is measured through LACT units. All other valves that provide access to production (load-out valves) are effectively sealed in the closed position.

WATER TANKS: If the possibility for oil to enter water tanks exists through common recirculating or equalizing lines, oil tanks are isolated from water tanks by valves effectively sealed in the closed position.



Facility Overview: Please see pages 2 and 3 for details.



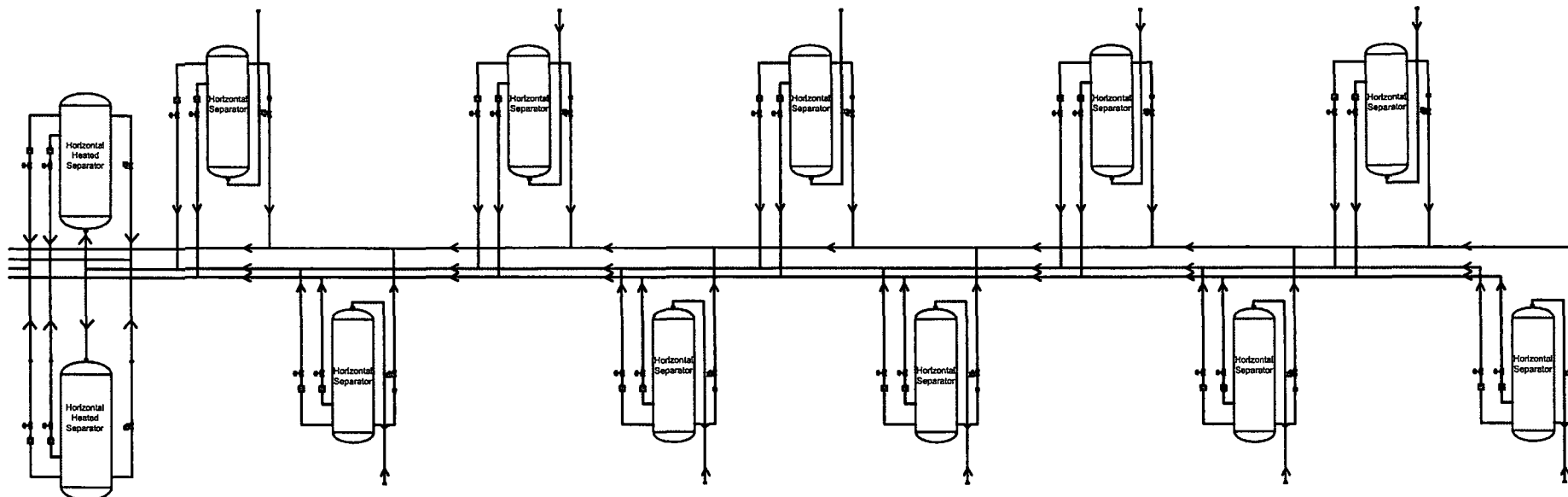
Audacious BTL FEDERAL COM #002H
API 30-025-4343
GAS METER 77371301
OIL METER 10-105829
GAS LIFT METER: 77371321

Audacious BTL 19 FEDERAL COM #004H
API 30-025-43865
GAS METER 77371303
OIL METER 10-73766
GAS LIFT METER:77371323

Audacious 19 FEDERAL #709H
API 30-025-45045
GAS METER: 77371306
OIL METER: 10-74395
GAS LIFT METER:77371326

Audacious 19 FEDERAL #722H
API 30-025-45040
GAS METER:77371310
OIL METER: 10-74886
GAS LIFT METER:77371330

Audacious 19 FEDERAL #710H
API 30-025-45046
GAS METER:77371307
OIL METER:10-74050
GAS LIFT METER:77371327



Audacious BTL 19 FEDERAL COM #003H
API 30-025-43864
GAS METER 77371302
OIL METER 10-73765
GAS LIFT METER:77371322

Audacious BTL 19 FEDERAL COM #005H
API 30-025-43866
GAS METER 77371304
OIL METER 10-73767
GAS LIFT METER:77371324

Audacious 19 FEDERAL #708H
API 30-025-445044
GAS METER:77371305
OIL METER: 10-74394
GAS LIFT METER:77371325

Audacious 19 FEDERAL COM #721H
API 30-025-45039
GAS METER:77371309
OIL METER :10-74885
GAS LIFT METER:77371329

Audacious 19 FEDERAL #711H
API 30-025-45047
GAS METER:77371308
OIL METER: 10-74888
GAS LIFT METER:77371328

