



HOBBS OCD

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Audacious 19 Federal

#709H

ST01

Design: ST01

Midland PVA

15 November, 2018



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25' @ 3486.0usft
Site:	Audacious 19 Federal			MD Reference:	KB = 25' @ 3486.0usft
Well:	#709H			North Reference:	.Grid
Wellbore:	ST01			Survey Calculation Method:	Minimum Curvature
Design:	ST01			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
From:	Map	Easting:	763,097.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 53.415 N
		Longitude:	103° 37' 1.440 W
		Grid Convergence:	0.38 °

Well	#709H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ST01		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	10/30/2018	(°)
			6.82
			Dip Angle
			(°)
			59.94
			Field Strength
			(nT)
			47,727.85836600

Design	ST01		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	13,430.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			177.12



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Survey Program		Date	11/15/2018	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
182.0	13,430.0	Leam MWD (OH)	MWD	OWSG MWD - Standard
13,453.0	19,837.0	Leam MWD (ST01)	MWD	OWSG MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
182.0	0.20	358.60	182.0	0.3	0.0	0.11	0.11	0.00	0.0	0.0
242.0	0.40	344.40	242.0	0.6	-0.1	0.35	0.33	-23.67	0.0	0.0
300.0	0.40	351.40	300.0	1.0	-0.2	0.08	0.00	12.07	0.0	0.0
360.0	1.00	345.80	360.0	1.7	-0.3	1.01	1.00	-9.33	0.0	0.0
417.0	0.90	18.90	417.0	2.6	-0.3	0.96	-0.18	58.07	0.0	0.0
477.0	1.10	5.50	477.0	3.7	-0.1	0.51	0.33	-22.33	0.0	0.0
535.0	1.30	2.00	535.0	4.9	0.0	0.37	0.34	-6.03	0.0	0.0
593.0	1.10	356.70	593.0	6.1	0.0	0.39	-0.34	-9.14	0.0	0.0
687.0	1.10	335.30	686.9	7.8	-0.4	0.43	0.00	-22.77	0.0	0.0
780.0	0.90	311.40	779.9	9.1	-1.4	0.49	-0.22	-25.70	0.0	0.0
874.0	0.90	303.10	873.9	10.0	-2.5	0.14	0.00	-8.83	0.0	0.0
965.0	1.00	292.20	964.9	10.7	-3.9	0.23	0.11	-11.98	0.0	0.0
998.0	1.10	301.70	997.9	11.0	-4.4	0.61	0.30	28.79	0.0	0.0
1,144.0	0.50	314.70	1,143.9	12.1	-6.1	0.43	-0.41	8.90	0.0	0.0
1,238.0	0.30	348.80	1,237.9	12.7	-6.4	0.31	-0.21	34.15	0.0	0.0
1,332.0	0.10	330.10	1,331.9	13.0	-6.5	0.22	-0.21	-17.77	0.0	0.0
1,515.0	0.30	331.00	1,514.9	13.5	-6.8	0.11	0.11	0.49	0.0	0.0
1,608.0	0.00	277.20	1,607.9	13.7	-6.9	0.32	-0.32	0.00	0.0	0.0
1,702.0	0.40	284.20	1,701.9	13.8	-7.2	0.43	0.43	0.00	0.0	0.0
1,795.0	0.40	330.70	1,794.9	14.2	-7.7	0.34	0.00	50.00	0.0	0.0



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Well:	#709H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	Database:	EDM 5000.14

Survey											
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)	
1,889.0	0.20	303.40	1,888.9	14.6	-8.0	0.26	-0.21	-29.04	0.0	0.0	
1,983.0	0.40	358.60	1,982.9	15.0	-8.2	0.35	0.21	58.72	0.0	0.0	
2,077.0	0.30	323.30	2,076.9	15.5	-8.3	0.25	-0.11	-37.55	0.0	0.0	
2,170.0	1.90	39.80	2,169.8	16.9	-7.5	1.99	1.72	82.04	0.0	0.0	
2,264.0	3.20	41.00	2,263.8	20.1	-4.8	1.38	1.38	1.49	0.0	0.0	
2,358.0	3.10	41.50	2,357.6	24.0	-1.4	0.11	-0.11	0.53	0.0	0.0	
2,451.0	2.90	37.40	2,450.5	27.7	1.7	0.32	-0.22	-4.41	0.0	0.0	
2,545.0	2.80	35.50	2,544.4	31.5	4.5	0.15	-0.11	-2.02	0.0	0.0	
2,639.0	2.50	39.20	2,638.3	34.9	7.1	0.37	-0.32	3.94	0.0	0.0	
2,733.0	3.60	47.10	2,732.1	38.5	10.6	1.25	1.17	8.40	0.0	0.0	
2,827.0	4.20	51.00	2,825.9	42.7	15.4	0.70	0.64	4.15	0.0	0.0	
2,921.0	4.00	55.20	2,919.7	46.7	20.8	0.38	-0.21	4.47	0.0	0.0	
3,015.0	3.90	55.70	3,013.4	50.4	26.1	0.11	-0.11	0.53	0.0	0.0	
3,108.0	3.80	57.80	3,106.2	53.8	31.4	0.19	-0.11	2.26	0.0	0.0	
3,201.0	3.70	58.00	3,199.0	57.1	36.5	0.11	-0.11	0.22	0.0	0.0	
3,295.0	3.10	56.10	3,292.9	60.1	41.2	0.65	-0.64	-2.02	0.0	0.0	
3,389.0	3.10	60.50	3,386.7	62.8	45.5	0.25	0.00	4.68	0.0	0.0	
3,482.0	2.40	71.50	3,479.6	64.6	49.6	0.94	-0.75	11.83	0.0	0.0	
3,576.0	3.30	42.90	3,573.5	67.2	53.3	1.76	0.98	-30.43	0.0	0.0	
3,669.0	4.50	22.30	3,666.3	72.6	56.5	1.96	1.29	-22.15	0.0	0.0	
3,762.0	4.00	30.40	3,759.0	78.7	59.5	0.84	-0.54	8.71	0.0	0.0	
3,857.0	3.90	32.50	3,853.8	84.3	62.9	0.19	-0.11	2.21	0.0	0.0	
3,950.0	2.70	33.40	3,946.7	88.8	65.8	1.29	-1.29	0.97	0.0	0.0	
4,044.0	3.70	25.50	4,040.5	93.4	68.3	1.16	1.06	-8.40	0.0	0.0	
4,139.0	5.40	26.90	4,135.2	100.2	71.7	1.79	1.79	1.47	0.0	0.0	
4,233.0	4.50	37.30	4,228.9	107.0	75.9	1.35	-0.98	11.06	0.0	0.0	
4,326.0	3.70	46.60	4,321.6	112.0	80.3	1.12	-0.88	10.00	0.0	0.0	



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Well:	#708H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	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)	
4,419.0	3.30	51.30	4,414.5	115.7	84.6	0.53	-0.43	5.05	0.0	0.0	0.0
4,513.0	2.80	69.30	4,508.3	118.3	88.9	1.11	-0.43	19.15	0.0	0.0	0.0
4,606.0	3.30	80.70	4,601.2	119.5	93.8	0.79	0.43	12.26	0.0	0.0	0.0
4,700.0	4.30	64.30	4,695.0	121.5	99.6	1.56	1.08	-17.45	0.0	0.0	0.0
4,784.0	5.30	51.90	4,778.7	125.3	105.5	1.71	1.19	-14.76	0.0	0.0	0.0
4,869.0	4.70	46.90	4,863.4	130.1	111.1	0.87	-0.71	-5.88	0.0	0.0	0.0
4,964.0	4.10	46.60	4,958.1	135.0	116.4	0.63	-0.63	-0.32	0.0	0.0	0.0
5,057.0	6.20	31.50	5,050.7	141.6	121.5	2.67	2.28	-16.24	0.0	0.0	0.0
5,151.0	8.40	30.90	5,143.9	151.8	127.6	2.34	2.34	-0.64	0.0	0.0	0.0
5,245.0	11.50	31.60	5,236.5	165.7	136.1	3.30	3.30	0.74	0.0	0.0	0.0
5,338.0	11.80	29.70	5,327.6	181.9	145.7	0.52	0.32	-2.04	0.0	0.0	0.0
5,432.0	11.70	28.50	5,419.6	198.6	155.0	0.28	-0.11	-1.28	0.0	0.0	0.0
5,526.0	11.10	25.10	5,511.8	215.2	163.4	0.86	-0.64	-3.62	0.0	0.0	0.0
5,618.0	10.90	23.00	5,602.1	231.2	170.5	0.49	-0.22	-2.28	0.0	0.0	0.0
5,712.0	11.20	22.30	5,694.3	247.8	177.4	0.35	0.32	-0.74	0.0	0.0	0.0
5,805.0	11.00	19.50	5,785.6	264.5	183.8	0.62	-0.22	-3.01	0.0	0.0	0.0
5,899.0	10.50	18.80	5,878.0	281.1	189.6	0.55	-0.53	-0.74	0.0	0.0	0.0
5,992.0	9.80	16.70	5,969.5	296.7	194.6	0.85	-0.75	-2.26	0.0	0.0	0.0
6,086.0	9.60	14.10	6,062.2	312.0	198.8	0.51	-0.21	-2.77	0.0	0.0	0.0
6,180.0	9.20	14.10	6,154.9	326.9	202.5	0.43	-0.43	0.00	0.0	0.0	0.0
6,273.0	9.00	13.00	6,246.7	341.2	206.0	0.29	-0.22	-1.18	0.0	0.0	0.0
6,367.0	9.40	25.00	6,339.5	355.3	210.9	2.08	0.43	12.77	0.0	0.0	0.0
6,461.0	9.70	26.40	6,432.2	369.3	217.7	0.40	0.32	1.49	0.0	0.0	0.0
6,554.0	9.30	25.00	6,523.9	383.2	224.3	0.50	-0.43	-1.51	0.0	0.0	0.0
6,648.0	7.80	33.40	6,616.9	395.4	231.0	2.07	-1.60	8.94	0.0	0.0	0.0
6,742.0	7.00	33.40	6,710.1	405.5	237.7	0.85	-0.85	0.00	0.0	0.0	0.0
6,836.0	7.00	45.00	6,803.4	414.3	244.9	1.50	0.00	12.34	0.0	0.0	0.0



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6,929.0	6.50	47.50	6,895.8	421.9	252.8	0.62	-0.54	2.69	0.0	0.0	
7,022.0	6.10	46.90	6,988.2	428.8	260.3	0.44	-0.43	-0.65	0.0	0.0	
7,116.0	5.50	44.50	7,081.7	435.4	267.1	0.69	-0.64	-2.55	0.0	0.0	
7,210.0	5.10	46.80	7,175.3	441.5	273.3	0.48	-0.43	2.45	0.0	0.0	
7,304.0	2.70	78.20	7,269.1	444.8	278.5	3.33	-2.55	33.40	0.0	0.0	
7,398.0	2.60	105.30	7,363.0	444.7	282.7	1.32	-0.11	28.83	0.0	0.0	
7,491.0	1.10	134.80	7,456.0	443.5	285.4	1.86	-1.61	31.72	0.0	0.0	
7,585.0	1.40	145.70	7,549.9	441.9	286.7	0.41	0.32	11.60	0.0	0.0	
7,678.0	1.40	148.70	7,642.9	440.0	287.9	0.08	0.00	3.23	0.0	0.0	
7,772.0	1.40	151.40	7,736.9	438.0	289.1	0.07	0.00	2.87	0.0	0.0	
7,867.0	1.60	157.30	7,831.9	435.8	290.1	0.27	0.21	6.21	0.0	0.0	
7,960.0	1.60	170.50	7,924.8	433.3	290.8	0.40	0.00	14.19	0.0	0.0	
8,054.0	1.70	164.00	8,018.8	430.7	291.4	0.23	0.11	-6.91	0.0	0.0	
8,157.0	1.60	167.90	8,121.7	427.8	292.2	0.15	-0.10	3.79	0.0	0.0	
8,241.0	1.50	169.30	8,205.7	425.6	292.6	0.13	-0.12	1.67	0.0	0.0	
8,335.0	1.80	169.80	8,299.7	422.9	293.1	0.32	0.32	0.53	0.0	0.0	
8,428.0	1.80	174.70	8,392.6	420.0	293.5	0.17	0.00	5.27	0.0	0.0	
8,521.0	2.20	182.10	8,485.6	416.8	293.6	0.51	0.43	7.96	0.0	0.0	
8,615.0	2.10	179.20	8,579.5	413.3	293.5	0.16	-0.11	-3.09	0.0	0.0	
8,708.0	2.10	177.40	8,672.4	409.9	293.6	0.07	0.00	-1.94	0.0	0.0	
8,801.0	1.90	179.10	8,765.4	406.6	293.7	0.22	-0.22	1.83	0.0	0.0	
8,894.0	2.10	180.20	8,858.3	403.4	293.7	0.22	0.22	1.18	0.0	0.0	
8,988.0	1.80	180.20	8,952.3	400.2	293.7	0.32	-0.32	0.00	0.0	0.0	
9,082.0	1.80	182.50	9,046.2	397.2	293.7	0.08	0.00	2.45	0.0	0.0	
9,176.0	1.20	263.70	9,140.2	395.6	292.6	2.13	-0.64	86.38	0.0	0.0	
9,270.0	0.80	236.40	9,234.2	395.2	291.1	0.65	-0.43	-29.04	0.0	0.0	
9,364.0	0.80	357.00	9,328.2	395.5	290.5	1.48	0.00	128.30	0.0	0.0	



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9,458.0	1.80	321.20	9,422.2	397.1	289.7	1.13	0.85	-38.09	0.0	0.0	
9,552.0	1.80	313.20	9,516.1	399.1	287.9	0.24	0.00	-8.51	0.0	0.0	
9,645.0	1.80	321.90	9,609.1	401.1	286.0	0.35	0.22	9.35	0.0	0.0	
9,739.0	0.90	325.60	9,703.1	402.9	284.7	0.98	-0.96	3.94	0.0	0.0	
9,832.0	0.40	247.20	9,786.1	403.3	284.0	0.98	-0.54	-84.30	0.0	0.0	
9,928.0	1.20	228.50	9,890.0	402.6	283.0	0.88	0.85	-19.89	0.0	0.0	
10,019.0	1.60	244.50	9,983.0	401.4	281.1	0.60	0.43	17.20	0.0	0.0	
10,113.0	1.80	244.90	10,077.0	400.2	278.5	0.21	0.21	0.43	0.0	0.0	
10,206.0	0.70	315.90	10,170.0	400.0	276.8	1.83	-1.18	76.34	0.0	0.0	
10,300.0	0.90	337.50	10,263.9	401.0	276.1	0.38	0.21	22.98	0.0	0.0	
10,393.0	0.70	320.50	10,356.9	402.2	275.5	0.33	-0.22	-18.28	0.0	0.0	
10,487.0	0.50	313.20	10,450.9	402.9	274.8	0.23	-0.21	-7.77	0.0	0.0	
10,582.0	0.40	46.90	10,545.9	403.4	274.8	0.69	-0.11	98.63	0.0	0.0	
10,676.0	0.20	44.60	10,639.9	403.7	275.1	0.21	-0.21	-2.45	0.0	0.0	
10,770.0	0.30	216.40	10,733.9	403.7	275.1	0.53	0.11	182.77	0.0	0.0	
10,864.0	1.10	275.80	10,827.9	403.5	274.0	1.04	0.85	63.19	0.0	0.0	
10,957.0	1.00	309.70	10,920.9	404.2	272.5	0.67	-0.11	36.45	0.0	0.0	
11,051.0	0.80	301.60	11,014.9	405.0	271.3	0.25	-0.21	-8.62	0.0	0.0	
11,144.0	0.40	308.00	11,107.9	405.6	270.5	0.43	-0.43	4.73	0.0	0.0	
11,238.0	0.60	300.20	11,201.9	406.0	269.8	0.22	0.21	-6.17	0.0	0.0	
11,332.0	2.10	296.50	11,295.9	405.8	267.7	1.83	1.60	-48.49	0.0	0.0	
11,426.0	2.10	247.00	11,389.8	404.8	264.5	0.37	0.00	-10.11	0.0	0.0	
11,520.0	1.50	240.10	11,483.7	403.5	261.8	0.68	-0.64	-7.34	0.0	0.0	
11,613.0	1.80	239.10	11,576.7	402.1	259.5	0.32	0.32	-1.08	0.0	0.0	
11,634.0	1.70	239.10	11,597.7	401.8	259.0	0.48	-0.48	0.00	0.0	0.0	
11,748.0	1.40	287.20	11,711.7	401.3	256.2	1.13	-0.26	42.19	0.0	0.0	
11,842.0	1.30	187.70	11,805.6	400.6	254.9	2.19	-0.11	-105.85	0.0	0.0	



Midland PVA

Company: EOG Resources - Midland		Local Co-ordinate Reference:		Well #709H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference:		KB = 25' @ 3486.0usft	
Site: Audacious 19 Federal		MD Reference:		KB = 25' @ 3486.0usft	
Well: #709H		North Reference:		Grid	
Wellbore: ST01		Survey Calculation Method:		Minimum Curvature	
Design: ST01		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)	
11,935.0	18.90	156.60	11,896.9	385.6	280.8	19.14	18.92	-33.44	0.0	0.0	
12,029.0	28.00	153.30	11,983.0	351.9	276.8	9.78	9.88	-3.51	0.0	0.0	
12,122.0	35.90	168.40	12,062.0	305.5	292.2	12.03	8.49	16.24	0.0	0.0	
12,216.0	47.20	179.30	12,132.3	243.8	298.2	14.24	12.02	11.60	0.0	0.0	
12,263.0	56.00	182.30	12,161.5	207.0	297.6	19.38	18.72	6.38	0.0	0.0	
12,310.0	60.30	181.60	12,186.3	167.1	296.2	9.24	9.15	-1.49	0.0	0.0	
12,357.0	61.30	181.10	12,209.2	126.1	295.3	2.32	2.13	-1.06	0.0	0.0	
12,403.0	62.80	180.70	12,230.8	85.4	294.6	3.35	3.26	-0.87	0.0	0.0	
12,450.0	63.10	180.00	12,252.1	43.6	294.4	1.47	0.64	-1.49	0.0	0.0	
12,487.0	69.20	177.70	12,271.1	0.6	295.3	13.73	12.98	-4.89	0.0	0.0	
12,591.0	77.40	178.40	12,298.1	-89.3	298.3	8.75	8.72	0.74	0.0	0.0	
12,638.0	86.40	179.50	12,304.7	-135.8	299.2	19.29	19.15	2.34	0.0	0.0	
12,684.0	88.30	179.50	12,306.9	-181.7	299.6	4.13	4.13	0.00	0.0	0.0	
12,778.0	87.10	178.40	12,310.6	-275.6	301.3	1.73	-1.28	-1.17	0.0	0.0	
12,871.0	86.70	179.00	12,315.7	-368.4	303.4	0.77	-0.43	0.65	0.0	0.0	
12,964.0	91.20	180.70	12,317.4	-461.4	303.6	5.17	4.84	1.83	0.0	0.0	
13,058.0	87.40	180.50	12,318.5	-555.4	302.6	4.05	-4.04	-0.21	0.0	0.0	
13,152.0	92.00	180.70	12,319.0	-649.3	301.7	4.90	4.89	0.21	0.0	0.0	
13,246.0	90.80	178.80	12,316.7	-743.3	302.1	2.39	-1.28	-2.02	0.0	0.0	
13,339.0	90.10	179.00	12,316.0	-836.3	303.9	0.78	-0.75	0.22	0.0	0.0	
13,430.0	90.00	177.95	12,315.9	-927.3	306.3	1.16	-0.11	-1.16	0.0	0.0	
13,453.0	89.70	173.20	12,316.0	-950.2	308.0	20.68	-1.32	-20.64	0.1	0.7	
13,527.0	91.90	175.10	12,314.9	-1,023.8	315.6	3.93	2.97	2.57	-1.0	0.9	
13,621.0	89.90	171.70	12,313.5	-1,117.1	326.4	4.20	-2.13	-3.62	-2.4	-1.5	
13,714.0	90.60	170.50	12,313.0	-1,209.0	340.8	1.49	0.75	-1.29	-2.8	-0.1	
13,809.0	90.00	174.60	12,312.6	-1,303.2	353.1	4.36	-0.63	4.32	-3.3	-1.1	
13,902.0	90.30	172.60	12,312.3	-1,395.6	363.5	2.17	0.32	-2.15	-3.6	-3.8	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3486.0usft
Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3486.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	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)	
13,996.0	90.20	171.40	12,311.9	-1,488.7	376.5	1.28	-0.11	-1.28	-4.0	-3.8	
14,090.0	91.00	173.90	12,310.9	-1,581.9	386.6	2.79	0.85	2.66	-4.9	-5.0	
14,184.0	89.90	172.60	12,310.2	-1,675.2	399.8	1.81	-1.17	-1.38	-5.7	-6.9	
14,277.0	90.70	178.40	12,309.7	-1,767.9	406.9	6.30	0.88	6.24	-8.2	-10.1	
14,371.0	91.80	177.70	12,307.6	-1,861.8	410.1	1.39	1.17	-0.74	-8.3	-14.4	
14,465.0	90.70	176.30	12,305.6	-1,955.7	415.0	1.89	-1.17	-1.49	-10.4	-13.9	
14,559.0	87.90	176.30	12,306.7	-2,049.5	421.1	2.98	-2.98	0.00	-9.3	-9.1	
14,652.0	90.60	184.00	12,308.0	-2,142.4	420.8	8.77	2.90	8.28	-8.2	-7.6	
14,746.0	91.40	186.30	12,306.3	-2,236.0	412.4	2.59	0.85	2.45	-10.0	-11.3	
14,840.0	89.70	184.20	12,305.4	-2,329.6	403.8	2.87	-1.81	-2.23	-11.0	-14.5	
14,934.0	89.50	184.60	12,306.1	-2,423.3	396.6	0.48	-0.21	0.43	-10.5	-16.2	
15,027.0	90.80	185.60	12,305.8	-2,515.9	388.3	1.76	1.40	1.08	-10.9	-19.1	
15,121.0	85.30	183.20	12,309.0	-2,609.5	381.1	6.38	-5.85	-2.55	-7.8	-20.8	
15,214.0	89.00	182.30	12,313.6	-2,702.3	376.7	4.09	3.98	-0.97	-3.4	-19.8	
15,308.0	93.00	186.50	12,312.0	-2,796.0	369.5	6.17	4.26	4.47	-5.1	-21.6	
15,400.0	90.90	184.40	12,308.9	-2,887.5	360.7	3.23	-2.28	-2.28	-8.4	-24.9	
15,494.0	90.30	183.90	12,307.9	-2,981.2	353.9	0.83	-0.64	-0.53	-9.6	-26.3	
15,587.0	91.20	184.90	12,306.7	-3,074.0	346.8	1.45	0.97	1.08	-10.9	-28.0	
15,680.0	89.90	183.90	12,305.8	-3,166.7	339.7	1.76	-1.40	-1.08	-12.0	-29.7	
15,773.0	90.80	185.10	12,305.2	-3,259.4	332.4	1.61	0.97	1.29	-12.7	-31.6	
15,866.0	89.30	183.70	12,305.1	-3,352.1	325.2	2.21	-1.61	-1.51	-12.9	-33.3	
15,960.0	90.30	182.80	12,305.5	-3,445.9	319.9	1.43	1.06	-0.96	-12.7	-33.2	
16,053.0	90.00	180.70	12,305.2	-3,538.9	317.1	2.28	-0.32	-2.26	-13.1	-30.6	
16,147.0	88.50	179.30	12,306.4	-3,632.9	317.1	2.18	-1.60	-1.49	-12.0	-25.1	
16,240.0	93.80	183.90	12,304.6	-3,725.8	314.5	7.54	5.70	4.95	-14.0	-22.3	
16,334.0	89.00	180.50	12,302.3	-3,819.6	310.9	6.26	-5.11	-3.62	-16.5	-20.4	
16,428.0	90.40	182.10	12,302.8	-3,913.6	308.7	2.26	1.49	1.70	-16.1	-17.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3486.0usft
Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3486.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	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)	
16,521.0	86.70	180.40	12,305.1	-4,006.5	306.7	4.38	-3.98	-1.83	-13.9	-13.7	
16,615.0	90.60	172.40	12,307.3	-4,100.2	312.6	9.46	4.15	-8.51	-11.9	-4.4	
16,709.0	89.30	167.70	12,307.4	-4,192.8	328.8	5.19	-1.38	-5.00	-12.2	12.0	
16,802.0	88.70	178.60	12,309.1	-4,285.0	339.9	11.74	-0.65	11.72	-10.6	22.4	
16,895.0	88.50	180.50	12,311.3	-4,377.9	340.6	2.05	-0.22	2.04	-8.6	22.4	
16,988.0	89.60	181.40	12,312.9	-4,470.9	339.1	1.53	1.18	0.97	-7.3	20.1	
17,082.0	92.30	186.50	12,311.3	-4,564.6	332.6	6.14	2.87	5.43	-9.2	12.8	
17,176.0	89.40	182.50	12,309.9	-4,658.3	325.3	5.26	-3.09	-4.26	-10.8	4.8	
17,269.0	88.80	181.80	12,311.4	-4,751.2	321.8	0.99	-0.65	-0.75	-9.6	0.5	
17,363.0	90.30	183.90	12,312.1	-4,845.1	317.1	2.75	1.60	2.23	-9.1	-4.9	
17,456.0	89.60	183.70	12,312.2	-4,937.9	310.9	0.78	-0.75	-0.22	-9.3	-11.8	
17,549.0	90.10	183.90	12,312.4	-5,030.7	304.8	0.58	0.54	0.22	-9.3	-18.7	
17,642.0	86.40	184.00	12,315.3	-5,123.4	298.4	3.98	-3.98	0.11	-6.8	-25.8	
17,736.0	89.00	181.80	12,319.1	-5,217.2	293.6	3.62	2.77	-2.34	-3.2	-31.4	
17,830.0	86.00	179.50	12,323.2	-5,311.1	292.6	4.02	-3.19	-2.45	0.6	-33.2	
17,924.0	87.80	178.60	12,328.2	-5,404.9	294.1	2.14	1.91	-0.96	5.5	-32.4	
18,017.0	90.40	174.70	12,329.7	-5,497.7	299.5	5.04	2.80	-4.19	6.7	-27.7	
18,110.0	90.60	177.20	12,328.9	-5,590.5	306.1	2.70	0.22	2.69	5.6	-21.9	
18,204.0	87.40	176.80	12,330.5	-5,684.3	311.0	3.43	-3.40	-0.43	7.0	-17.7	
18,298.0	87.90	175.10	12,334.4	-5,778.0	317.7	1.88	0.53	-1.81	10.6	-11.8	
18,392.0	89.20	174.20	12,336.8	-5,871.6	326.4	1.68	1.38	-0.96	12.7	-3.8	
18,486.0	91.60	175.40	12,336.1	-5,965.2	334.9	2.85	2.55	1.28	11.8	3.9	
18,579.0	91.00	178.20	12,334.0	-6,058.0	340.1	3.08	-0.65	3.01	9.4	8.3	
18,672.0	92.10	178.40	12,331.5	-6,150.9	342.9	1.20	1.18	0.22	6.7	10.3	
18,765.0	90.30	180.00	12,329.5	-6,243.9	344.2	2.59	-1.94	1.72	4.5	10.9	
18,861.0	85.80	180.70	12,332.8	-6,339.8	343.6	4.74	-4.69	0.73	7.5	9.5	
18,953.0	89.80	180.80	12,336.3	-6,431.7	342.4	4.35	4.35	0.11	10.8	7.6	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3486.0usft
Site:	Audacious 19 Federal	MD Reference:	KB = 25' @ 3486.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	Database:	EDM 5000.14

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)
19,046.0	90.30	181.60	12,336.2	-6,524.7	340.5	1.01	0.54	0.86	10.4	4.9
19,140.0	86.40	175.60	12,339.0	-6,618.6	342.7	7.61	-4.15	-6.38	12.9	6.4
19,233.0	90.70	176.70	12,341.3	-6,711.3	349.0	4.77	4.62	1.18	15.0	11.9
19,327.0	89.60	175.30	12,341.1	-6,805.1	355.5	1.89	-1.17	-1.49	14.5	17.7
19,421.0	93.70	173.30	12,338.4	-6,898.5	364.9	4.85	4.36	-2.13	11.7	26.2
19,516.0	95.50	173.50	12,330.7	-6,992.6	375.8	1.91	1.89	0.21	4.0	36.4
19,609.0	96.60	177.50	12,320.9	-7,084.8	383.0	4.44	1.18	4.30	-6.2	42.9
19,704.0	92.70	183.00	12,313.2	-7,179.4	382.6	7.08	-4.11	5.79	-14.5	41.7
19,781.0	90.10	187.40	12,311.3	-7,256.0	375.6	6.64	-3.38	5.71	-16.6	34.1
Last MWD Survey (MD = 19781.0)										
19,837.0	90.10	187.40	12,311.2	-7,311.6	368.4	0.00	0.00	0.00	-16.9	26.4
Projection to Bit (MD = 19837.0)										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
19,781.0	12,311.3	-7,256.0	375.6	Last MWD Survey (MD = 19781.0)
19,837.0	12,311.2	-7,311.6	368.4	Projection to Bit (MD = 19837.0)

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)

Audacious 19 Federal #709H

Plan #3

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: #709H

KB = 25' @ 3486.0usft 3451.0
Northing 408221.00 Easting 763611.00 Latitude 32° 6' 53.084 N Longitude 103° 36' 55.468 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	13430.0	90.00	177.55	12316.3	-927.3	306.3	0.00	0.00	940.5		
2	13530.0	90.00	171.95	12315.9	-1026.9	315.1	8.00	270.00	1040.4		
3	14150.0	90.00	171.95	12315.9	-1642.7	401.9	0.00	0.00	1687.7		
4	14719.8	89.91	183.34	12316.3	-2209.0	425.3	2.00	90.46	2226.5		
5	16503.0	89.91	183.34	12319.0	-3995.3	321.4	0.00	0.00	4005.0		TGT#2 (Audacious 19 Federal #709H)
6	16633.3	89.94	179.54	12319.4	-4173.4	319.6	2.00	41.04	4189.7		
7	19834.0	89.84	179.54	12328.0	-7320.0	342.0	0.00	0.00	7328.0		PBHL (Audacious 19 Federal #709H)

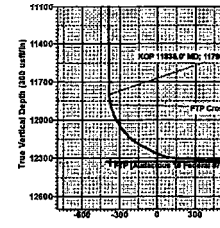
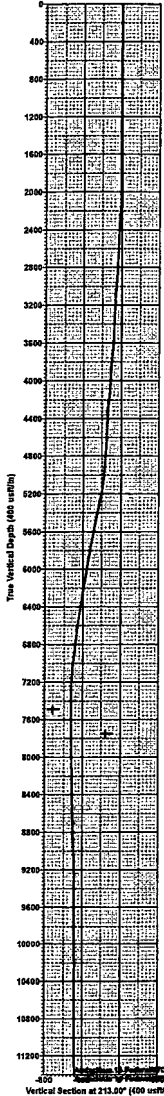
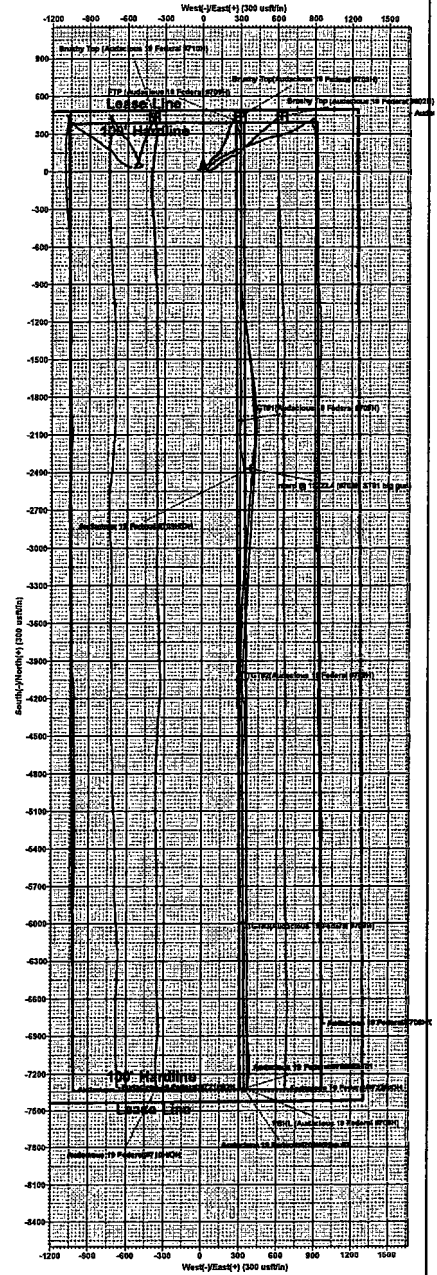
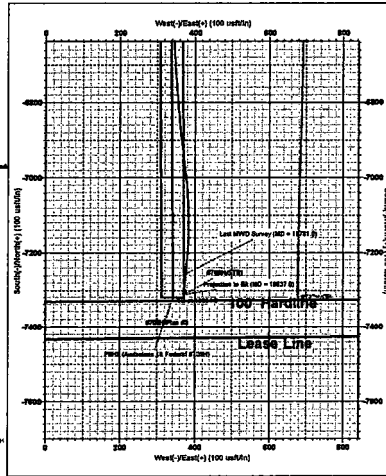
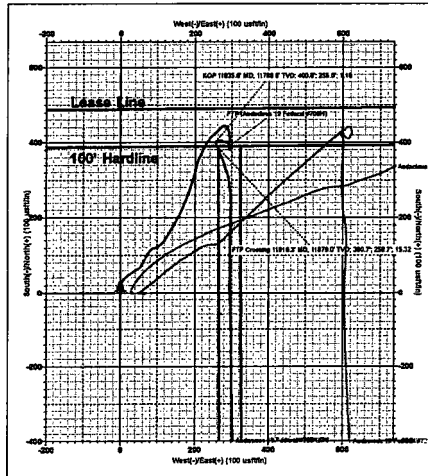
To convert a Magnetic Direction to a Grid Direction, Add 6.44°
To convert a Magnetic Direction to a True Direction, Add 6.82° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Interp @ 12322.4 (#709H ST01 big gun)	12312.4	-2367.5	353.0	403950.48	763934.00
TGT#2 (Audacious 19 Federal #709H)	12318.0	-3889.3	321.4	402231.70	763932.40
TGT#1 (Audacious 19 Federal #709H)	12322.0	-1967.7	309.0	404233.30	763920.02
FTP (Audacious 19 Federal #709H)	12327.0	391.0	294.0	405812.00	763905.00
PBHL (Audacious 19 Federal #709H)	12328.0	-7320.0	342.0	398901.00	763953.00



Vertical Section at 213.00' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

Vertical Section at 177.33' (100 usft/in)

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**



EOG Resources, Inc.
Audacious BTL Federal Com #2H
Sec. 19-T25S-R33E Unit J
 1/9/2019

LEGEND

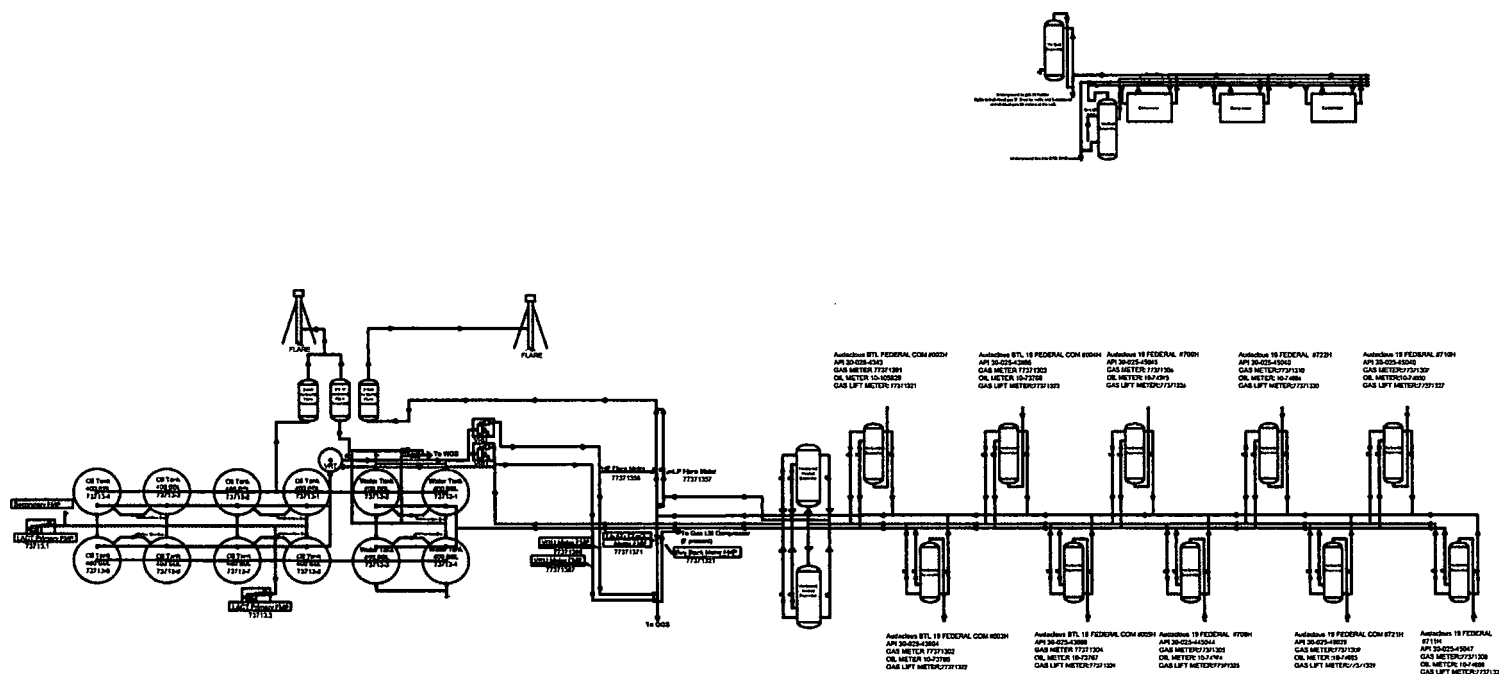
 Valve Open  Valve Closed  Valve Sealed  Orifice Meter	 Turbine/ Coriolis Meter  Oil  Gas  Water
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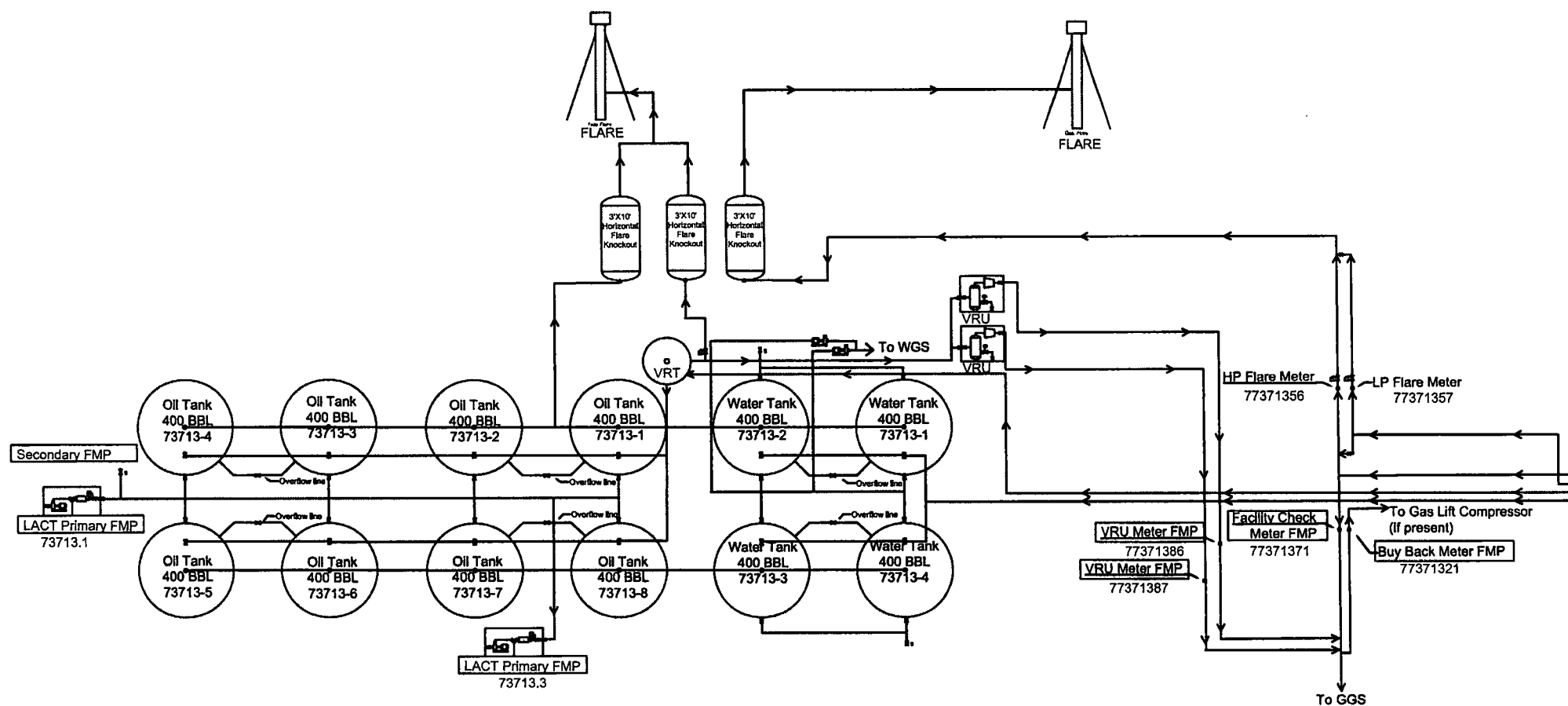
FACILITY DIAGRAM
 Shown: Major equipment, vessels, process piping, and valves
 Not shown: Auxiliary process systems such as fuel/ pilot gas system, gas lift system, roll lines, recirculating lines, vent lines, and small drain lines

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.





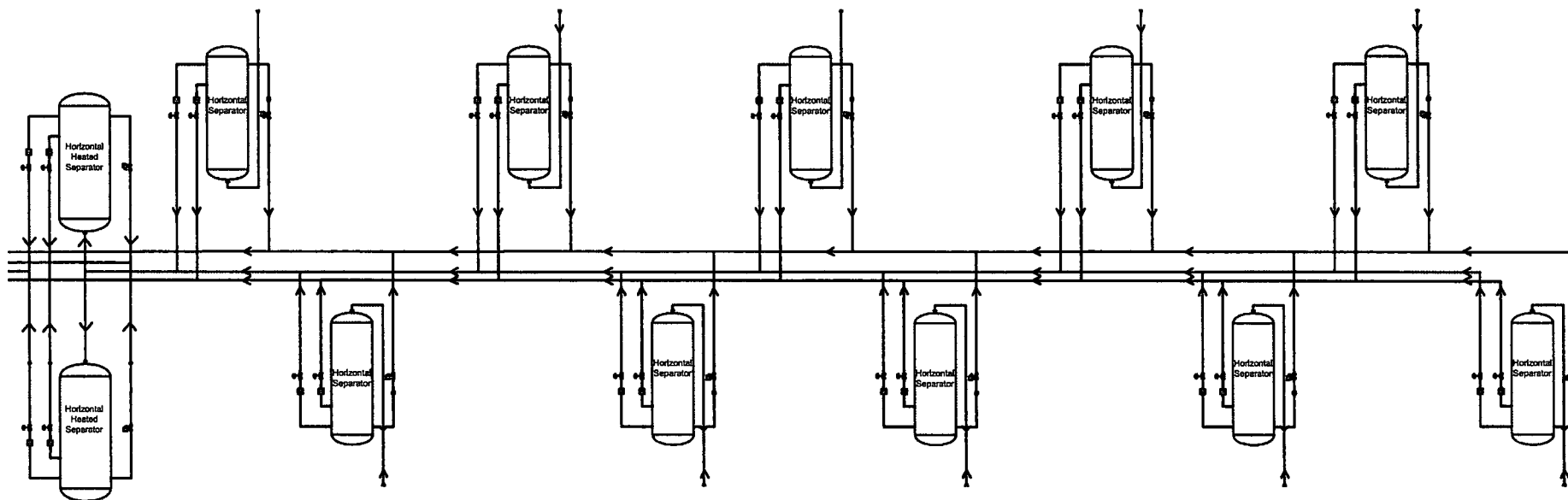
Audacious BTL FEDERAL COM #002H
API 30-025-4343
GAS METER 77371301
OIL METER 10-105829
GAS LIFT METER: 77371321

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

