



Legacy Reserves

Lea County, NM (NAD-27 2015)

Hamon Fed Com A #9H

Hamon Fed Com A #9H

Lateral #1

Plan: Design #1

Standard Planning Report

27 September, 2015

HOBBS OCD

MAY 16 2016

RECEIVED



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Hamon Fed Com A #9H
Company:	Legacy Reserves	TVD Reference:	KB @ 3628.00usft (McVay 4)
Project:	Lea County, NM (NAD-27 2015)	MD Reference:	KB @ 3628.00usft (McVay 4)
Site:	Hamon Fed Com A #9H	North Reference:	Grid
Well:	Hamon Fed Com A #9H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Project	Lea County, NM (NAD-27 2015)		
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	Hamon Fed Com A #9H		
Site Position:		Northing:	575,256.50 usft
From:	Map	Easting:	724,514.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 34' 45.741 N
		Longitude:	103° 36' 16.085 W
		Grid Convergence:	0.39 °

Well	Hamon Fed Com A #9H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 34' 45.741 N
		Longitude:	103° 36' 16.085 W
		Ground Level:	3,610.00 usft

Wellbore	Lateral #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	7/18/2015	7.20
			Dip Angle
			(°)
			60.41
			Field Strength
			(nT)
			48,343

Design	Design #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			14.52

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,284.00	15.68	85.91	6,274.25	7.60	106.34	2.00	2.00	0.00	85.91	
10,484.31	15.68	85.91	10,318.25	88.57	1,238.64	0.00	0.00	0.00	0.00	
11,373.95	90.00	359.75	10,860.00	662.10	1,387.85	10.00	8.35	-9.69	-86.30	
15,992.49	90.00	359.75	10,860.00	5,280.60	1,367.50	0.00	0.00	0.00	0.00	BHL (HFCA #9H/L1)

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Hamon Fed Com A #9H
Well: Hamon Fed Com A #9H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #9H
TVD Reference: KB @ 3628.00usft (McVay 4)
MD Reference: KB @ 3628.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
NUDGE - Start Build 2.00									
5,600.00	2.00	85.91	5,599.98	0.12	1.74	0.56	2.00	2.00	0.00
5,700.00	4.00	85.91	5,699.84	0.50	6.96	2.23	2.00	2.00	0.00
5,800.00	6.00	85.91	5,799.45	1.12	15.65	5.01	2.00	2.00	0.00
5,900.00	8.00	85.91	5,898.70	1.99	27.81	8.90	2.00	2.00	0.00
6,000.00	10.00	85.91	5,997.47	3.10	43.41	13.89	2.00	2.00	0.00
6,100.00	12.00	85.91	6,095.62	4.47	62.44	19.98	2.00	2.00	0.00
6,200.00	14.00	85.91	6,193.06	6.07	84.88	27.15	2.00	2.00	0.00
6,284.00	15.68	85.91	6,274.25	7.60	106.34	34.02	2.00	2.00	0.00
HOLD - Start 4200.31 hold at 6284.00 MD									
6,300.00	15.68	85.91	6,289.66	7.91	110.65	35.40	0.00	0.00	0.00
6,400.00	15.68	85.91	6,385.93	9.84	137.61	44.02	0.00	0.00	0.00
6,500.00	15.68	85.91	6,482.21	11.77	164.57	52.65	0.00	0.00	0.00
6,600.00	15.68	85.91	6,578.49	13.70	191.52	61.27	0.00	0.00	0.00
6,700.00	15.68	85.91	6,674.77	15.62	218.48	69.90	0.00	0.00	0.00
6,800.00	15.68	85.91	6,771.05	17.55	245.44	78.52	0.00	0.00	0.00
6,900.00	15.68	85.91	6,867.33	19.48	272.40	87.14	0.00	0.00	0.00
7,000.00	15.68	85.91	6,963.61	21.41	299.35	95.77	0.00	0.00	0.00
7,100.00	15.68	85.91	7,059.88	23.33	326.31	104.39	0.00	0.00	0.00
7,200.00	15.68	85.91	7,156.16	25.26	353.27	113.02	0.00	0.00	0.00
7,300.00	15.68	85.91	7,252.44	27.19	380.23	121.64	0.00	0.00	0.00
7,400.00	15.68	85.91	7,348.72	29.12	407.19	130.27	0.00	0.00	0.00
7,500.00	15.68	85.91	7,445.00	31.04	434.14	138.89	0.00	0.00	0.00
7,600.00	15.68	85.91	7,541.28	32.97	461.10	147.51	0.00	0.00	0.00
7,700.00	15.68	85.91	7,637.56	34.90	488.06	156.14	0.00	0.00	0.00
7,800.00	15.68	85.91	7,733.83	36.83	515.02	164.76	0.00	0.00	0.00
7,900.00	15.68	85.91	7,830.11	38.75	541.97	173.39	0.00	0.00	0.00
8,000.00	15.68	85.91	7,926.39	40.68	568.93	182.01	0.00	0.00	0.00
8,100.00	15.68	85.91	8,022.67	42.61	595.89	190.64	0.00	0.00	0.00
8,200.00	15.68	85.91	8,118.95	44.54	622.85	199.26	0.00	0.00	0.00
8,300.00	15.68	85.91	8,215.23	46.46	649.80	207.88	0.00	0.00	0.00
8,400.00	15.68	85.91	8,311.51	48.39	676.76	216.51	0.00	0.00	0.00
8,500.00	15.68	85.91	8,407.78	50.32	703.72	225.13	0.00	0.00	0.00
8,600.00	15.68	85.91	8,504.06	52.25	730.68	233.76	0.00	0.00	0.00
8,700.00	15.68	85.91	8,600.34	54.17	757.63	242.38	0.00	0.00	0.00
8,800.00	15.68	85.91	8,696.62	56.10	784.59	251.01	0.00	0.00	0.00
8,900.00	15.68	85.91	8,792.90	58.03	811.55	259.63	0.00	0.00	0.00
9,000.00	15.68	85.91	8,889.18	59.96	838.51	268.25	0.00	0.00	0.00
9,100.00	15.68	85.91	8,985.46	61.89	865.46	276.88	0.00	0.00	0.00
9,200.00	15.68	85.91	9,081.74	63.81	892.42	285.50	0.00	0.00	0.00
9,300.00	15.68	85.91	9,178.01	65.74	919.38	294.13	0.00	0.00	0.00
9,400.00	15.68	85.91	9,274.29	67.67	946.34	302.75	0.00	0.00	0.00
9,500.00	15.68	85.91	9,370.57	69.60	973.30	311.38	0.00	0.00	0.00
9,600.00	15.68	85.91	9,466.85	71.52	1,000.25	320.00	0.00	0.00	0.00
9,700.00	15.68	85.91	9,563.13	73.45	1,027.21	328.62	0.00	0.00	0.00
9,800.00	15.68	85.91	9,659.41	75.38	1,054.17	337.25	0.00	0.00	0.00
9,900.00	15.68	85.91	9,755.69	77.31	1,081.13	345.87	0.00	0.00	0.00
10,000.00	15.68	85.91	9,851.96	79.23	1,108.08	354.50	0.00	0.00	0.00
10,100.00	15.68	85.91	9,948.24	81.16	1,135.04	363.12	0.00	0.00	0.00
10,200.00	15.68	85.91	10,044.52	83.09	1,162.00	371.75	0.00	0.00	0.00
10,300.00	15.68	85.91	10,140.80	85.02	1,188.96	380.37	0.00	0.00	0.00

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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)
10,400.00	15.68	85.91	10,237.08	86.94	1,215.91	388.99	0.00	0.00	0.00
10,484.31	15.68	85.91	10,318.25	88.57	1,238.64	396.26	0.00	0.00	0.00
KOP - Start DLS 10.00 TFO -86.30									
10,500.00	15.86	80.17	10,333.35	89.09	1,242.87	397.83	10.00	1.13	-36.58
10,550.00	17.36	63.41	10,381.29	93.59	1,256.28	405.55	10.00	3.00	-33.52
10,600.00	19.99	50.08	10,428.68	102.42	1,269.51	417.41	10.00	5.28	-26.65
10,650.00	23.39	40.11	10,475.15	115.51	1,282.47	433.33	10.00	6.79	-19.95
10,700.00	27.26	32.68	10,520.35	132.74	1,295.05	453.17	10.00	7.74	-14.86
10,750.00	31.43	27.03	10,563.93	154.00	1,307.16	476.79	10.00	8.34	-11.30
10,800.00	35.79	22.61	10,605.57	179.13	1,318.72	504.00	10.00	8.73	-8.84
10,850.00	40.28	19.05	10,644.95	207.92	1,329.62	534.61	10.00	8.99	-7.13
10,900.00	44.87	16.09	10,681.76	240.17	1,339.79	568.38	10.00	9.17	-5.91
10,950.00	49.52	13.58	10,715.73	275.62	1,349.15	605.04	10.00	9.30	-5.02
11,000.00	54.21	11.40	10,746.60	314.00	1,357.62	644.33	10.00	9.39	-4.37
11,050.00	58.94	9.46	10,774.14	355.03	1,365.15	685.94	10.00	9.46	-3.88
11,100.00	63.70	7.70	10,798.13	398.40	1,371.68	729.55	10.00	9.52	-3.51
11,150.00	68.48	6.09	10,818.39	443.76	1,377.16	774.84	10.00	9.55	-3.23
11,200.00	73.27	4.58	10,834.77	490.78	1,381.54	821.46	10.00	9.58	-3.02
11,250.00	78.07	3.14	10,847.14	539.10	1,384.79	869.05	10.00	9.60	-2.88
11,300.00	82.88	1.75	10,855.41	588.35	1,386.89	917.25	10.00	9.62	-2.77
11,350.00	87.69	0.39	10,859.52	638.16	1,387.82	965.70	10.00	9.63	-2.72
11,373.95	90.00	359.75	10,860.00	662.10	1,387.85	988.88	10.00	9.63	-2.70
EOC - Start 4618.55 hold at 11373.95 MD									
11,400.00	90.00	359.75	10,860.00	688.15	1,387.73	1,014.08	0.00	0.00	0.00
11,500.00	90.00	359.75	10,860.00	788.15	1,387.29	1,110.77	0.00	0.00	0.00
11,600.00	90.00	359.75	10,860.00	888.15	1,386.85	1,207.47	0.00	0.00	0.00
11,700.00	90.00	359.75	10,860.00	988.15	1,386.41	1,304.16	0.00	0.00	0.00
11,800.00	90.00	359.75	10,860.00	1,088.15	1,385.97	1,400.86	0.00	0.00	0.00
11,900.00	90.00	359.75	10,860.00	1,188.15	1,385.53	1,497.55	0.00	0.00	0.00
12,000.00	90.00	359.75	10,860.00	1,288.14	1,385.09	1,594.25	0.00	0.00	0.00
12,100.00	90.00	359.75	10,860.00	1,388.14	1,384.65	1,690.94	0.00	0.00	0.00
12,200.00	90.00	359.75	10,860.00	1,488.14	1,384.21	1,787.64	0.00	0.00	0.00
12,300.00	90.00	359.75	10,860.00	1,588.14	1,383.77	1,884.33	0.00	0.00	0.00
12,400.00	90.00	359.75	10,860.00	1,688.14	1,383.33	1,981.03	0.00	0.00	0.00
12,500.00	90.00	359.75	10,860.00	1,788.14	1,382.89	2,077.72	0.00	0.00	0.00
12,600.00	90.00	359.75	10,860.00	1,888.14	1,382.45	2,174.42	0.00	0.00	0.00
12,700.00	90.00	359.75	10,860.00	1,988.14	1,382.01	2,271.11	0.00	0.00	0.00
12,800.00	90.00	359.75	10,860.00	2,088.14	1,381.57	2,367.81	0.00	0.00	0.00
12,900.00	90.00	359.75	10,860.00	2,188.14	1,381.13	2,464.50	0.00	0.00	0.00
13,000.00	90.00	359.75	10,860.00	2,288.14	1,380.68	2,561.20	0.00	0.00	0.00
13,100.00	90.00	359.75	10,860.00	2,388.13	1,380.24	2,657.89	0.00	0.00	0.00
13,200.00	90.00	359.75	10,860.00	2,488.13	1,379.80	2,754.59	0.00	0.00	0.00
13,300.00	90.00	359.75	10,860.00	2,588.13	1,379.36	2,851.28	0.00	0.00	0.00
13,400.00	90.00	359.75	10,860.00	2,688.13	1,378.92	2,947.98	0.00	0.00	0.00
13,500.00	90.00	359.75	10,860.00	2,788.13	1,378.48	3,044.67	0.00	0.00	0.00
13,600.00	90.00	359.75	10,860.00	2,888.13	1,378.04	3,141.37	0.00	0.00	0.00
13,700.00	90.00	359.75	10,860.00	2,988.13	1,377.60	3,238.06	0.00	0.00	0.00
13,800.00	90.00	359.75	10,860.00	3,088.13	1,377.16	3,334.76	0.00	0.00	0.00
13,900.00	90.00	359.75	10,860.00	3,188.13	1,376.72	3,431.45	0.00	0.00	0.00
14,000.00	90.00	359.75	10,860.00	3,288.13	1,376.28	3,528.15	0.00	0.00	0.00
14,100.00	90.00	359.75	10,860.00	3,388.12	1,375.84	3,624.85	0.00	0.00	0.00
14,200.00	90.00	359.75	10,860.00	3,488.12	1,375.40	3,721.54	0.00	0.00	0.00
14,300.00	90.00	359.75	10,860.00	3,588.12	1,374.96	3,818.24	0.00	0.00	0.00
14,400.00	90.00	359.75	10,860.00	3,688.12	1,374.52	3,914.93	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Hamon Fed Com A #9H
Well: Hamon Fed Com A #9H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #9H
TVD Reference: KB @ 3628.00usft (McVay 4)
MD Reference: KB @ 3628.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
14,500.00	90.00	359.75	10,860.00	3,788.12	1,374.08	4,011.63	0.00	0.00	0.00
14,600.00	90.00	359.75	10,860.00	3,888.12	1,373.64	4,108.32	0.00	0.00	0.00
14,700.00	90.00	359.75	10,860.00	3,988.12	1,373.19	4,205.02	0.00	0.00	0.00
14,800.00	90.00	359.75	10,860.00	4,088.12	1,372.75	4,301.71	0.00	0.00	0.00
14,900.00	90.00	359.75	10,860.00	4,188.12	1,372.31	4,398.41	0.00	0.00	0.00
15,000.00	90.00	359.75	10,860.00	4,288.12	1,371.87	4,495.10	0.00	0.00	0.00
15,100.00	90.00	359.75	10,860.00	4,388.11	1,371.43	4,591.80	0.00	0.00	0.00
15,200.00	90.00	359.75	10,860.00	4,488.11	1,370.99	4,688.49	0.00	0.00	0.00
15,300.00	90.00	359.75	10,860.00	4,588.11	1,370.55	4,785.19	0.00	0.00	0.00
15,400.00	90.00	359.75	10,860.00	4,688.11	1,370.11	4,881.88	0.00	0.00	0.00
15,500.00	90.00	359.75	10,860.00	4,788.11	1,369.67	4,978.58	0.00	0.00	0.00
15,600.00	90.00	359.75	10,860.00	4,888.11	1,369.23	5,075.27	0.00	0.00	0.00
15,700.00	90.00	359.75	10,860.00	4,988.11	1,368.79	5,171.97	0.00	0.00	0.00
15,800.00	90.00	359.75	10,860.00	5,088.11	1,368.35	5,268.66	0.00	0.00	0.00
15,900.00	90.00	359.75	10,860.00	5,188.11	1,367.91	5,365.36	0.00	0.00	0.00
15,992.49	90.00	359.75	10,860.00	5,280.60	1,367.50	5,454.80	0.00	0.00	0.00

TD at 15992.49

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Target Window (HFCA #	0.00	179.75	10,860.00	5,280.60	1,367.50	580,537.10	725,882.20	32° 35' 37.900 N	103° 35' 59.678 W
- plan hits target center									
- Rectangle (sides W100.00 H4,618.60 D30.00)									
BHL (HFCA #9H/L1)	0.00	0.00	10,860.00	5,280.60	1,367.50	580,537.10	725,882.20	32° 35' 37.900 N	103° 35' 59.678 W
- plan hits target center									
- Point									
EOC (HFCA #9H/L1 Des	0.00	0.00	10,860.00	662.10	1,387.85	575,918.60	725,902.55	32° 34' 52.198 N	103° 35' 59.813 W
- plan hits target center									
- Point									

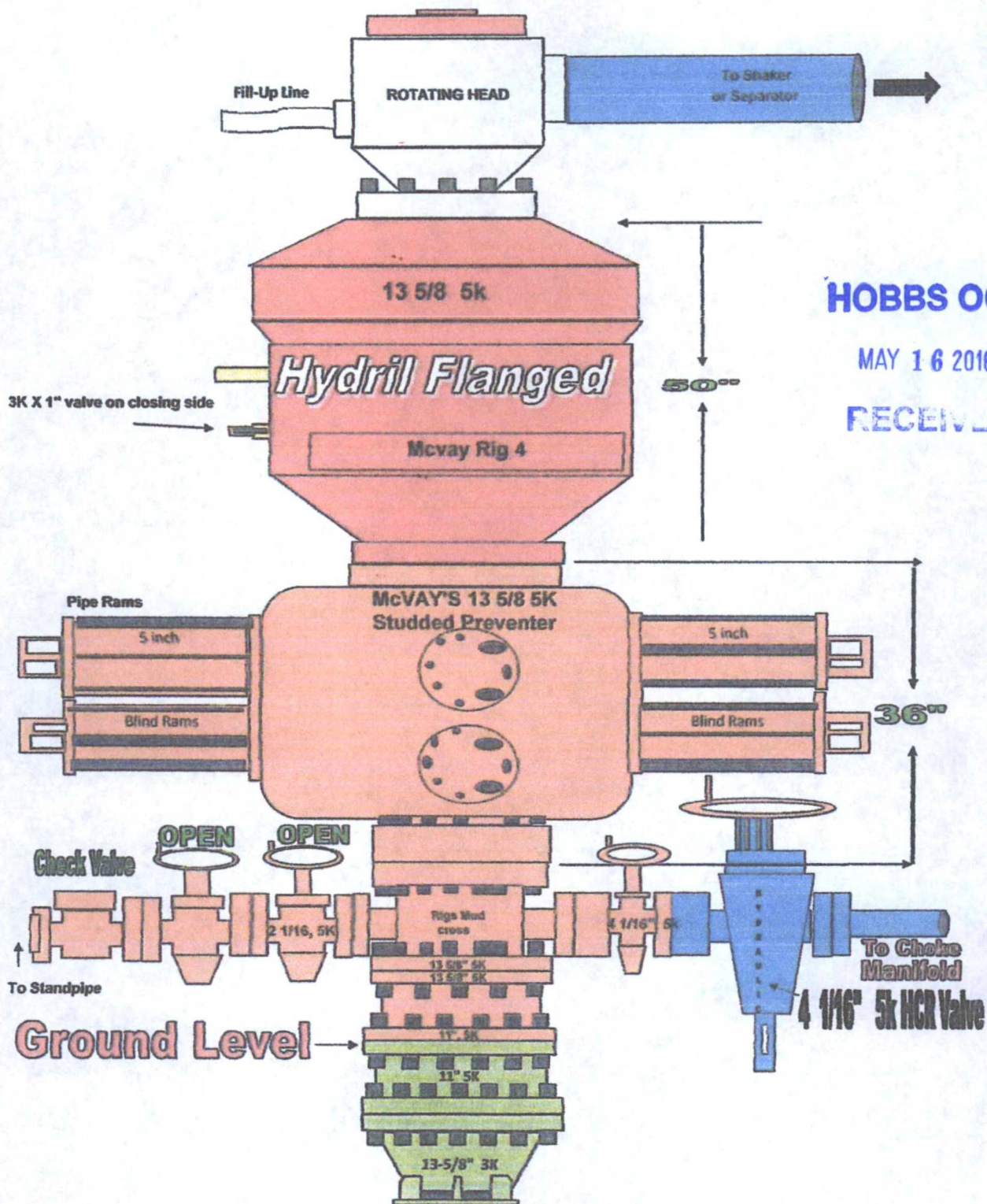
Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,400.00	5,400.00	9 5/8"	9-5/8	12-1/4

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
+N/-S (usft)	+E/-W (usft)		
5,500.00	5,500.00	0.00	NUDGE - Start Build 2.00
6,284.00	6,274.25	7.60	HOLD - Start 4200.31 hold at 6284.00 MD
10,484.31	10,318.25	88.57	KOP - Start DLS 10.00 TFO -86.30
11,373.95	10,860.00	662.10	EOC - Start 4618.55 hold at 11373.95 MD
15,992.49	10,860.00	5,280.60	TD at 15992.49

McVay Rig 4

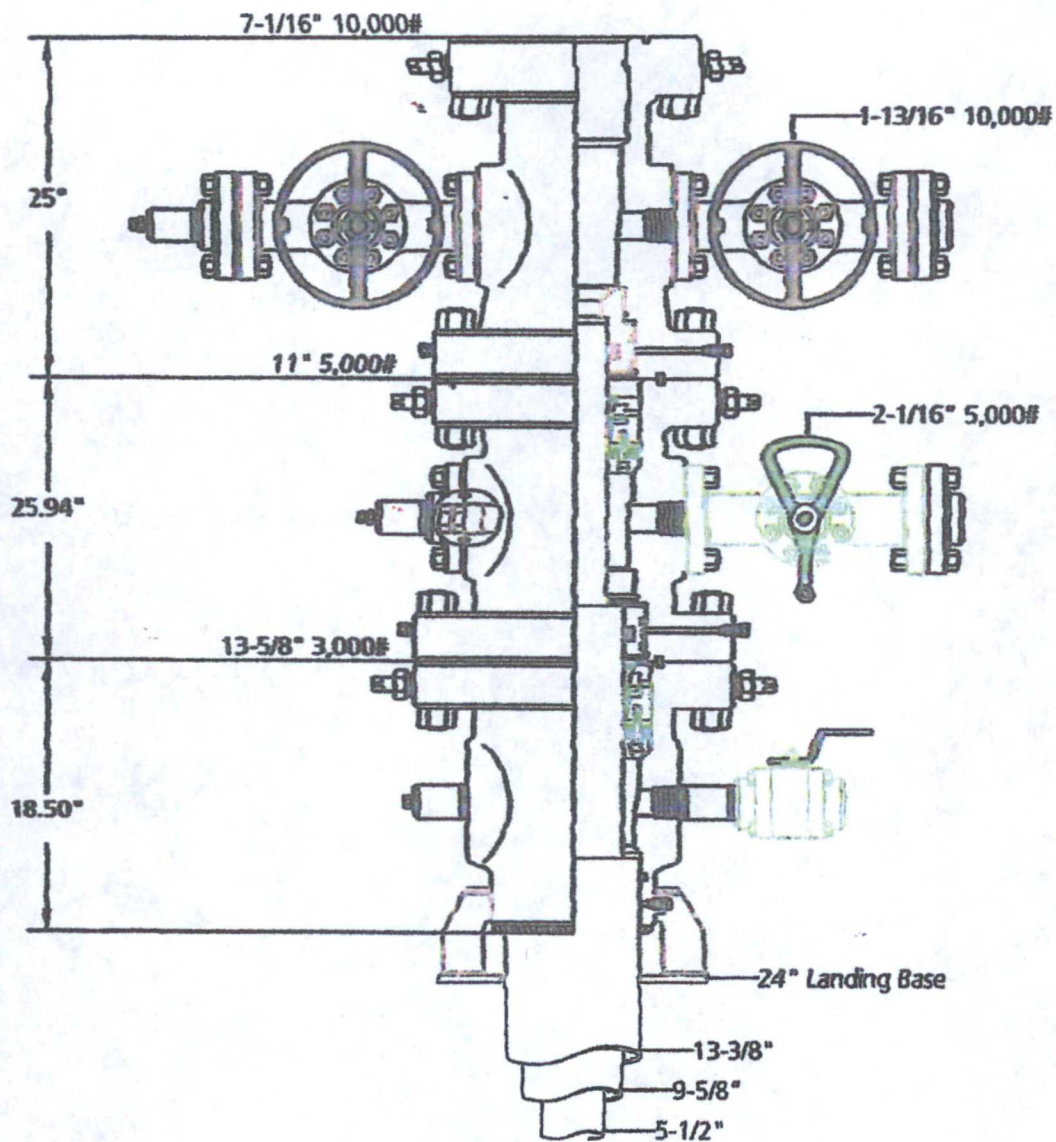


HOBBS OCD

MAY 16 2016

RECEIVED

Note: Dimensional information reflected on this drawing are estimated measurements only.

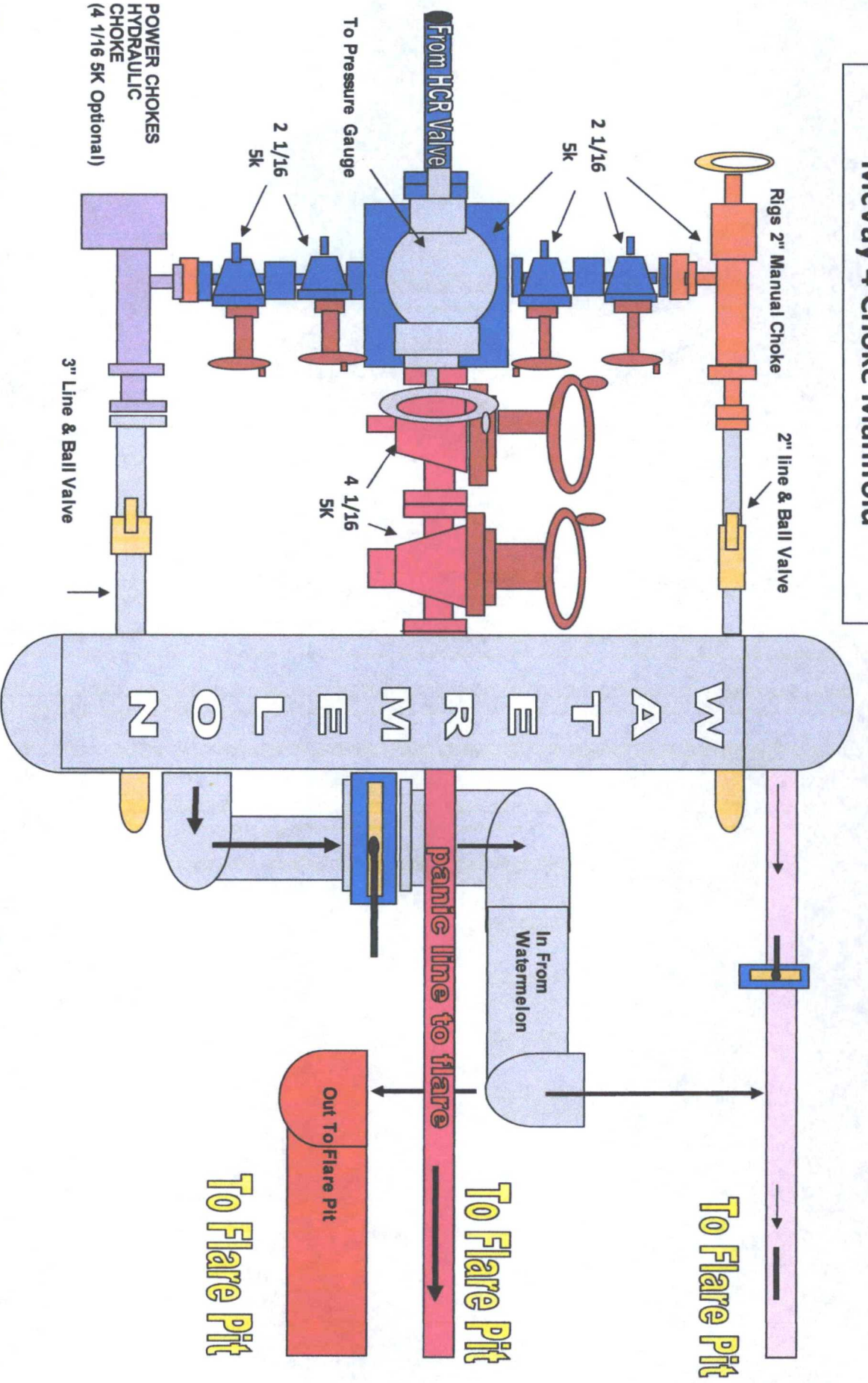


Legacy Reserves
Conventional 3-String

 **CAMERON**

NAME	JEANETTE	DATE	7-15-15	WORKING DRAWING	#	1274616
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McVay 4 Choke Manifold



*We use the same choke manifolds for all aspects of our operations & all are rated to 10K;

* All connections downstream from BOP thru chokes Are Flanged, All connections downstream from chokes are Flanged .

Design Plan, Operating & Maintenance Plan & Closure Plan for the OCD Form C-144

Hamon Fed Com A ~~14~~ 14 - 4 H + 9 H - 12 H

DESIGN PLAN:

Fluid & cuttings coming from drilling operations will pass over the Shale Shaker with the cuttings going to the CRI haul off bin and the cleaned fluid returning to the working steel pits.

Equipment includes:

2-500 bbl steel tanks (fresh water for drilling)

2-700 bbl steel working pits (1400 bbls total)

2-20 cu yards steel haul off bins

2-pumps (CE FB1300)

2-shale shakers

1-mud cleaner (if needed)

1-centrifuge (if needed)

OPERATING AND MAINTENANCE PLAN:

Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

CLOSURE PLAN:

All haul bins containing cuttings will be removed from location and hauled to Controlled Recovery, Inc. (NM-01-0006) disposal site located near mile marker 66 on Highway 62/180.



Blain K. Lewis

Senior Operations Engineer

Plat for Closed Loop System

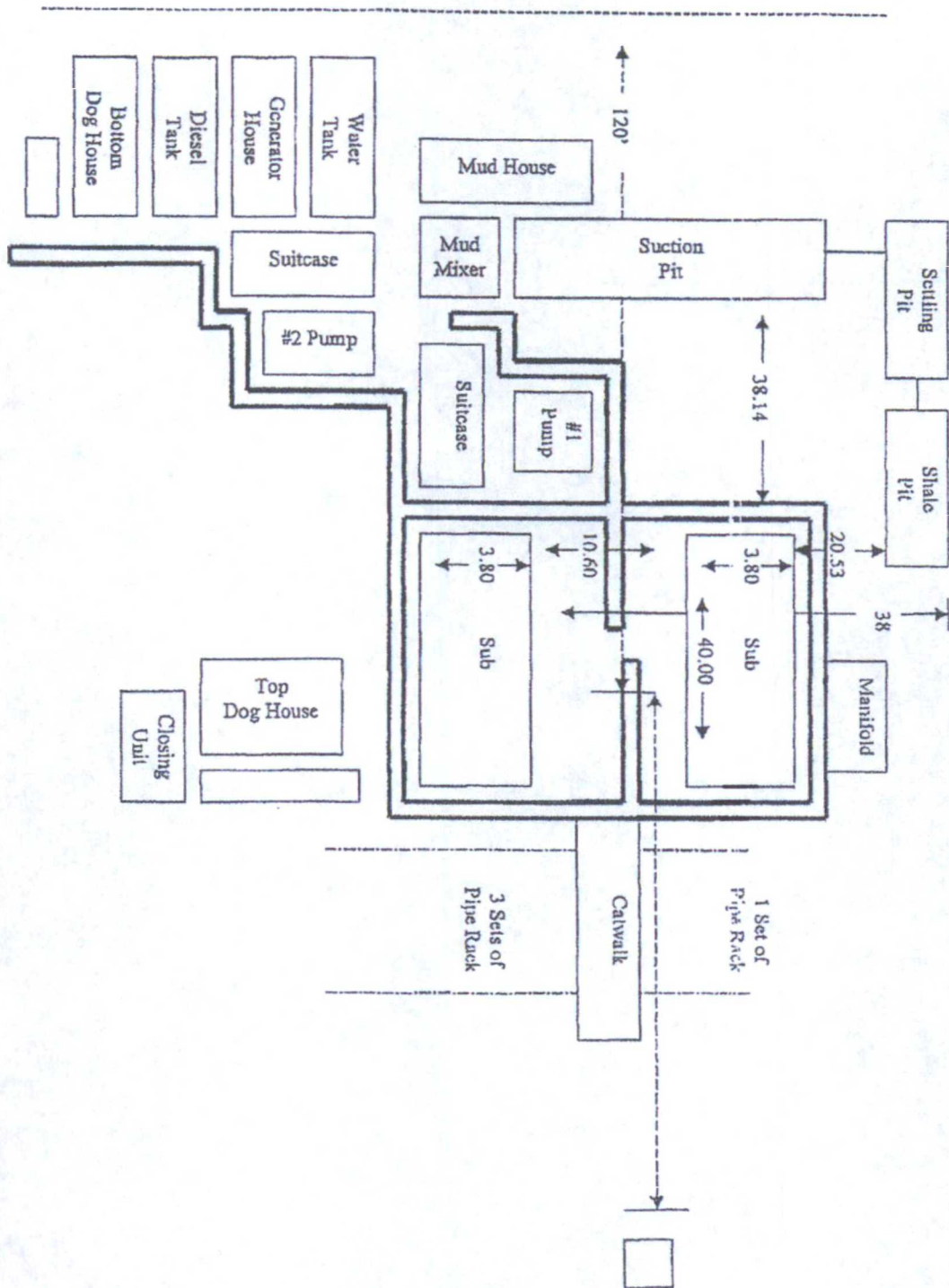


EXHIBIT D

Rig Plat Only
HAMON FED COM A 9H, 10H, 11H, 12H
V-DOOR WEST

