



Legacy Reserves

Lea County, NM (NAD-27 2015)

Hamon Fed Com A #8H

Hamon Fed Com A #8H

Lateral #1

Plan: Design #1

HOBBS OCD

MAY 16 2016

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Standard Planning Report

27 September, 2015



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Hamon Fed Com A #8H
Well: Hamon Fed Com A #8H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #8H
TVD Reference: KB @ 3629.00usft (McVay 4)
MD Reference: KB @ 3629.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project Lea County, NM (NAD-27 2015)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Hamon Fed Com A #8H

Site Position: Northing: 581,400.60 usft Latitude: 32° 35' 46.374 N
From: Map Easting: 726,902.70 usft Longitude: 103° 35' 47.681 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.40 °

Well Hamon Fed Com A #8H

Well Position +N/-S 0.00 usft Northing: 581,400.60 usft Latitude: 32° 35' 46.374 N
+E/-W 0.00 usft Easting: 726,902.70 usft Longitude: 103° 35' 47.681 W
Position Uncertainty 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 3,611.00 usft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/18/2015	7.20	60.43	48,353

Design Design #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	164.99

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	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,393.00	11.86	101.40	3,388.77	-12.09	59.95	2.00	2.00	0.00	101.40	
9,700.98	11.86	101.40	9,562.10	-268.34	1,330.79	0.00	0.00	0.00	0.00	
10,577.18	90.00	179.74	10,100.00	-840.30	1,443.99	10.00	8.92	8.94	78.59	
15,197.63	90.00	179.74	10,100.00	-5,460.70	1,464.70	0.00	0.00	0.00	0.00	BHL (HFCA #8H/L1)

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Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #8H
TVD Reference: KB @ 3629.00usft (McVay 4)
MD Reference: KB @ 3629.00usft (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
NUDGE - Start Build 2.00									
2,900.00	2.00	101.40	2,899.98	-0.34	1.71	0.78	2.00	2.00	0.00
3,000.00	4.00	101.40	2,999.84	-1.38	6.84	3.10	2.00	2.00	0.00
3,100.00	6.00	101.40	3,099.45	-3.10	15.38	6.98	2.00	2.00	0.00
3,200.00	8.00	101.40	3,198.70	-5.51	27.33	12.40	2.00	2.00	0.00
3,300.00	10.00	101.40	3,297.47	-8.60	42.66	19.36	2.00	2.00	0.00
3,393.00	11.86	101.40	3,388.77	-12.09	59.95	27.21	2.00	2.00	0.00
HOLD - Start 6307.98 hold at 3393.00 MD									
3,400.00	11.86	101.40	3,395.62	-12.37	61.36	27.85	0.00	0.00	0.00
3,500.00	11.86	101.40	3,493.49	-16.43	81.51	36.99	0.00	0.00	0.00
3,600.00	11.86	101.40	3,591.36	-20.50	101.65	46.13	0.00	0.00	0.00
3,700.00	11.86	101.40	3,689.22	-24.56	121.80	55.27	0.00	0.00	0.00
3,800.00	11.86	101.40	3,787.09	-28.62	141.95	64.42	0.00	0.00	0.00
3,900.00	11.86	101.40	3,884.95	-32.68	162.09	73.56	0.00	0.00	0.00
4,000.00	11.86	101.40	3,982.82	-36.75	182.24	82.70	0.00	0.00	0.00
4,100.00	11.86	101.40	4,080.68	-40.81	202.39	91.85	0.00	0.00	0.00
4,200.00	11.86	101.40	4,178.55	-44.87	222.53	100.99	0.00	0.00	0.00
4,300.00	11.86	101.40	4,276.41	-48.93	242.68	110.13	0.00	0.00	0.00
4,400.00	11.86	101.40	4,374.28	-52.99	262.83	119.28	0.00	0.00	0.00
4,500.00	11.86	101.40	4,472.14	-57.06	282.97	128.42	0.00	0.00	0.00
4,600.00	11.86	101.40	4,570.01	-61.12	303.12	137.56	0.00	0.00	0.00
4,700.00	11.86	101.40	4,667.87	-65.18	323.27	146.70	0.00	0.00	0.00
4,800.00	11.86	101.40	4,765.74	-69.24	343.41	155.85	0.00	0.00	0.00
4,900.00	11.86	101.40	4,863.60	-73.31	363.56	164.99	0.00	0.00	0.00
5,000.00	11.86	101.40	4,961.47	-77.37	383.71	174.13	0.00	0.00	0.00

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Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #8H
TVD Reference: KB @ 3629.00usft (McVay 4)
MD Reference: KB @ 3629.00usft (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)
5,100.00	11.86	101.40	5,059.33	-81.43	403.85	183.28	0.00	0.00	0.00
5,200.00	11.86	101.40	5,157.20	-85.49	424.00	192.42	0.00	0.00	0.00
5,300.00	11.86	101.40	5,255.07	-89.56	444.15	201.56	0.00	0.00	0.00
5,400.00	11.86	101.40	5,352.93	-93.62	464.29	210.70	0.00	0.00	0.00
5,500.00	11.86	101.40	5,450.80	-97.68	484.44	219.85	0.00	0.00	0.00
5,600.00	11.86	101.40	5,548.66	-101.74	504.59	228.99	0.00	0.00	0.00
5,700.00	11.86	101.40	5,646.53	-105.80	524.73	238.13	0.00	0.00	0.00
5,800.00	11.86	101.40	5,744.39	-109.87	544.88	247.28	0.00	0.00	0.00
5,900.00	11.86	101.40	5,842.26	-113.93	565.03	256.42	0.00	0.00	0.00
6,000.00	11.86	101.40	5,940.12	-117.99	585.17	265.56	0.00	0.00	0.00
6,100.00	11.86	101.40	6,037.99	-122.05	605.32	274.71	0.00	0.00	0.00
6,200.00	11.86	101.40	6,135.85	-126.12	625.46	283.85	0.00	0.00	0.00
6,300.00	11.86	101.40	6,233.72	-130.18	645.61	292.99	0.00	0.00	0.00
6,400.00	11.86	101.40	6,331.58	-134.24	665.76	302.13	0.00	0.00	0.00
6,500.00	11.86	101.40	6,429.45	-138.30	685.90	311.28	0.00	0.00	0.00
6,600.00	11.86	101.40	6,527.31	-142.36	706.05	320.42	0.00	0.00	0.00
6,700.00	11.86	101.40	6,625.18	-146.43	726.20	329.56	0.00	0.00	0.00
6,800.00	11.86	101.40	6,723.04	-150.49	746.34	338.71	0.00	0.00	0.00
6,900.00	11.86	101.40	6,820.91	-154.55	766.49	347.85	0.00	0.00	0.00
7,000.00	11.86	101.40	6,918.77	-158.61	786.64	356.99	0.00	0.00	0.00
7,100.00	11.86	101.40	7,016.64	-162.68	806.78	366.13	0.00	0.00	0.00
7,200.00	11.86	101.40	7,114.51	-166.74	826.93	375.28	0.00	0.00	0.00
7,300.00	11.86	101.40	7,212.37	-170.80	847.08	384.42	0.00	0.00	0.00
7,400.00	11.86	101.40	7,310.24	-174.86	867.22	393.56	0.00	0.00	0.00
7,500.00	11.86	101.40	7,408.10	-178.93	887.37	402.71	0.00	0.00	0.00
7,600.00	11.86	101.40	7,505.97	-182.99	907.52	411.85	0.00	0.00	0.00
7,700.00	11.86	101.40	7,603.83	-187.05	927.66	420.99	0.00	0.00	0.00
7,800.00	11.86	101.40	7,701.70	-191.11	947.81	430.14	0.00	0.00	0.00
7,900.00	11.86	101.40	7,799.56	-195.17	967.96	439.28	0.00	0.00	0.00
8,000.00	11.86	101.40	7,897.43	-199.24	988.10	448.42	0.00	0.00	0.00
8,100.00	11.86	101.40	7,995.29	-203.30	1,008.25	457.56	0.00	0.00	0.00
8,200.00	11.86	101.40	8,093.16	-207.36	1,028.40	466.71	0.00	0.00	0.00
8,300.00	11.86	101.40	8,191.02	-211.42	1,048.54	475.85	0.00	0.00	0.00
8,400.00	11.86	101.40	8,288.89	-215.49	1,068.69	484.99	0.00	0.00	0.00
8,500.00	11.86	101.40	8,386.75	-219.55	1,088.84	494.14	0.00	0.00	0.00
8,600.00	11.86	101.40	8,484.62	-223.61	1,108.98	503.28	0.00	0.00	0.00
8,700.00	11.86	101.40	8,582.48	-227.67	1,129.13	512.42	0.00	0.00	0.00
8,800.00	11.86	101.40	8,680.35	-231.73	1,149.28	521.56	0.00	0.00	0.00
8,900.00	11.86	101.40	8,778.21	-235.80	1,169.42	530.71	0.00	0.00	0.00
9,000.00	11.86	101.40	8,876.08	-239.86	1,189.57	539.85	0.00	0.00	0.00
9,100.00	11.86	101.40	8,973.95	-243.92	1,209.72	548.99	0.00	0.00	0.00
9,200.00	11.86	101.40	9,071.81	-247.98	1,229.86	558.14	0.00	0.00	0.00
9,300.00	11.86	101.40	9,169.68	-252.05	1,250.01	567.28	0.00	0.00	0.00
9,400.00	11.86	101.40	9,267.54	-256.11	1,270.16	576.42	0.00	0.00	0.00
9,500.00	11.86	101.40	9,365.41	-260.17	1,290.30	585.57	0.00	0.00	0.00
9,600.00	11.86	101.40	9,463.27	-264.23	1,310.45	594.71	0.00	0.00	0.00
9,700.98	11.86	101.40	9,562.10	-268.34	1,330.79	603.94	0.00	0.00	0.00
KOP - Start DLS 10.00 TFO 78.59									
9,750.00	13.69	122.13	9,609.93	-272.42	1,340.65	610.44	10.00	3.73	42.29
9,800.00	16.85	136.96	9,658.17	-280.87	1,350.61	621.18	10.00	6.32	29.67
9,850.00	20.73	146.82	9,705.51	-293.57	1,360.40	635.99	10.00	7.76	19.71
9,900.00	24.99	153.56	9,751.58	-310.45	1,369.96	654.76	10.00	8.53	13.49
9,950.00	29.48	158.41	9,796.03	-331.36	1,379.19	677.35	10.00	8.97	9.69
10,000.00	34.10	162.06	9,838.53	-356.15	1,388.04	703.59	10.00	9.24	7.30

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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)
10,050.00	38.80	164.92	9,878.74	-384.62	1,396.44	733.27	10.00	9.41	5.73
10,100.00	43.56	167.25	9,916.36	-416.57	1,404.32	766.16	10.00	9.52	4.66
10,150.00	48.36	169.21	9,951.11	-451.75	1,411.63	802.03	10.00	9.60	3.91
10,200.00	53.18	170.89	9,982.73	-489.89	1,418.30	840.60	10.00	9.66	3.36
10,250.00	58.03	172.37	10,010.96	-530.70	1,424.29	881.57	10.00	9.70	2.96
10,300.00	62.90	173.70	10,035.60	-573.86	1,429.55	924.62	10.00	9.73	2.66
10,350.00	67.77	174.92	10,056.46	-619.06	1,434.05	969.44	10.00	9.75	2.44
10,400.00	72.66	176.06	10,073.38	-665.95	1,437.74	1,015.69	10.00	9.77	2.28
10,450.00	77.55	177.14	10,086.23	-714.17	1,440.59	1,063.00	10.00	9.78	2.16
10,500.00	82.44	178.18	10,094.92	-763.35	1,442.60	1,111.03	10.00	9.79	2.08
10,550.00	87.34	179.20	10,099.37	-813.13	1,443.74	1,159.39	10.00	9.79	2.03
10,577.18	90.00	179.74	10,100.00	-840.30	1,443.99	1,185.70	10.00	9.79	2.02
EOC - Start 4620.45 hold at 10577.18 MD									
10,600.00	90.00	179.74	10,100.00	-863.12	1,444.09	1,207.77	0.00	0.00	0.00
10,700.00	90.00	179.74	10,100.00	-963.12	1,444.54	1,304.47	0.00	0.00	0.00
10,800.00	90.00	179.74	10,100.00	-1,063.11	1,444.99	1,401.17	0.00	0.00	0.00
10,900.00	90.00	179.74	10,100.00	-1,163.11	1,445.44	1,497.87	0.00	0.00	0.00
11,000.00	90.00	179.74	10,100.00	-1,263.11	1,445.89	1,594.57	0.00	0.00	0.00
11,100.00	90.00	179.74	10,100.00	-1,363.11	1,446.34	1,691.27	0.00	0.00	0.00
11,200.00	90.00	179.74	10,100.00	-1,463.11	1,446.78	1,787.97	0.00	0.00	0.00
11,300.00	90.00	179.74	10,100.00	-1,563.11	1,447.23	1,884.67	0.00	0.00	0.00
11,400.00	90.00	179.74	10,100.00	-1,663.11	1,447.68	1,981.38	0.00	0.00	0.00
11,500.00	90.00	179.74	10,100.00	-1,763.11	1,448.13	2,078.08	0.00	0.00	0.00
11,600.00	90.00	179.74	10,100.00	-1,863.11	1,448.58	2,174.78	0.00	0.00	0.00
11,700.00	90.00	179.74	10,100.00	-1,963.11	1,449.02	2,271.48	0.00	0.00	0.00
11,800.00	90.00	179.74	10,100.00	-2,063.10	1,449.47	2,368.18	0.00	0.00	0.00
11,900.00	90.00	179.74	10,100.00	-2,163.10	1,449.92	2,464.88	0.00	0.00	0.00
12,000.00	90.00	179.74	10,100.00	-2,263.10	1,450.37	2,561.58	0.00	0.00	0.00
12,100.00	90.00	179.74	10,100.00	-2,363.10	1,450.82	2,658.28	0.00	0.00	0.00
12,200.00	90.00	179.74	10,100.00	-2,463.10	1,451.27	2,754.98	0.00	0.00	0.00
12,300.00	90.00	179.74	10,100.00	-2,563.10	1,451.71	2,851.69	0.00	0.00	0.00
12,400.00	90.00	179.74	10,100.00	-2,663.10	1,452.16	2,948.39	0.00	0.00	0.00
12,500.00	90.00	179.74	10,100.00	-2,763.10	1,452.61	3,045.09	0.00	0.00	0.00
12,600.00	90.00	179.74	10,100.00	-2,863.10	1,453.06	3,141.79	0.00	0.00	0.00
12,700.00	90.00	179.74	10,100.00	-2,963.10	1,453.51	3,238.49	0.00	0.00	0.00
12,800.00	90.00	179.74	10,100.00	-3,063.09	1,453.95	3,335.19	0.00	0.00	0.00
12,900.00	90.00	179.74	10,100.00	-3,163.09	1,454.40	3,431.89	0.00	0.00	0.00
13,000.00	90.00	179.74	10,100.00	-3,263.09	1,454.85	3,528.59	0.00	0.00	0.00
13,100.00	90.00	179.74	10,100.00	-3,363.09	1,455.30	3,625.29	0.00	0.00	0.00
13,200.00	90.00	179.74	10,100.00	-3,463.09	1,455.75	3,721.99	0.00	0.00	0.00
13,300.00	90.00	179.74	10,100.00	-3,563.09	1,456.20	3,818.70	0.00	0.00	0.00
13,400.00	90.00	179.74	10,100.00	-3,663.09	1,456.64	3,915.40	0.00	0.00	0.00
13,500.00	90.00	179.74	10,100.00	-3,763.09	1,457.09	4,012.10	0.00	0.00	0.00
13,600.00	90.00	179.74	10,100.00	-3,863.09	1,457.54	4,108.80	0.00	0.00	0.00
13,700.00	90.00	179.74	10,100.00	-3,963.09	1,457.99	4,205.50	0.00	0.00	0.00
13,800.00	90.00	179.74	10,100.00	-4,063.08	1,458.44	4,302.20	0.00	0.00	0.00
13,900.00	90.00	179.74	10,100.00	-4,163.08	1,458.88	4,398.90	0.00	0.00	0.00
14,000.00	90.00	179.74	10,100.00	-4,263.08	1,459.33	4,495.60	0.00	0.00	0.00
14,100.00	90.00	179.74	10,100.00	-4,363.08	1,459.78	4,592.30	0.00	0.00	0.00
14,200.00	90.00	179.74	10,100.00	-4,463.08	1,460.23	4,689.00	0.00	0.00	0.00
14,300.00	90.00	179.74	10,100.00	-4,563.08	1,460.68	4,785.71	0.00	0.00	0.00
14,400.00	90.00	179.74	10,100.00	-4,663.08	1,461.13	4,882.41	0.00	0.00	0.00
14,500.00	90.00	179.74	10,100.00	-4,763.08	1,461.57	4,979.11	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 #8H
Well: Hamon Fed Com A #8H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Hamon Fed Com A #8H
TVD Reference: KB @ 3629.00usft (McVay 4)
MD Reference: KB @ 3629.00usft (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)
14,600.00	90.00	179.74	10,100.00	-4,863.08	1,462.02	5,075.81	0.00	0.00	0.00
14,700.00	90.00	179.74	10,100.00	-4,963.07	1,462.47	5,172.51	0.00	0.00	0.00
14,800.00	90.00	179.74	10,100.00	-5,063.07	1,462.92	5,269.21	0.00	0.00	0.00
14,900.00	90.00	179.74	10,100.00	-5,163.07	1,463.37	5,365.91	0.00	0.00	0.00
15,000.00	90.00	179.74	10,100.00	-5,263.07	1,463.81	5,462.61	0.00	0.00	0.00
15,100.00	90.00	179.74	10,100.00	-5,363.07	1,464.26	5,559.31	0.00	0.00	0.00
15,197.63	90.00	179.74	10,100.00	-5,460.70	1,464.70	5,653.72	0.00	0.00	0.00
TD at 15197.63									

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
BHL (HFCA #8H/L1) - plan hits target center - Point	0.00	0.00	10,100.00	-5,460.70	1,464.70	575,939.90	728,367.40	32° 34' 52.240 N	103° 35' 31.006 W
EOC (HFCA #8H/L1 Des - plan hits target center - Point	0.00	0.00	10,100.00	-840.30	1,443.99	580,560.31	728,346.69	32° 35' 37.960 N	103° 35' 30.871 W
Target Window (HFCA # - plan hits target center - Rectangle (sides W100.00 H4,620.50 D30.00)	0.00	179.74	10,100.00	-5,460.70	1,464.70	575,939.90	728,367.40	32° 34' 52.240 N	103° 35' 31.006 W

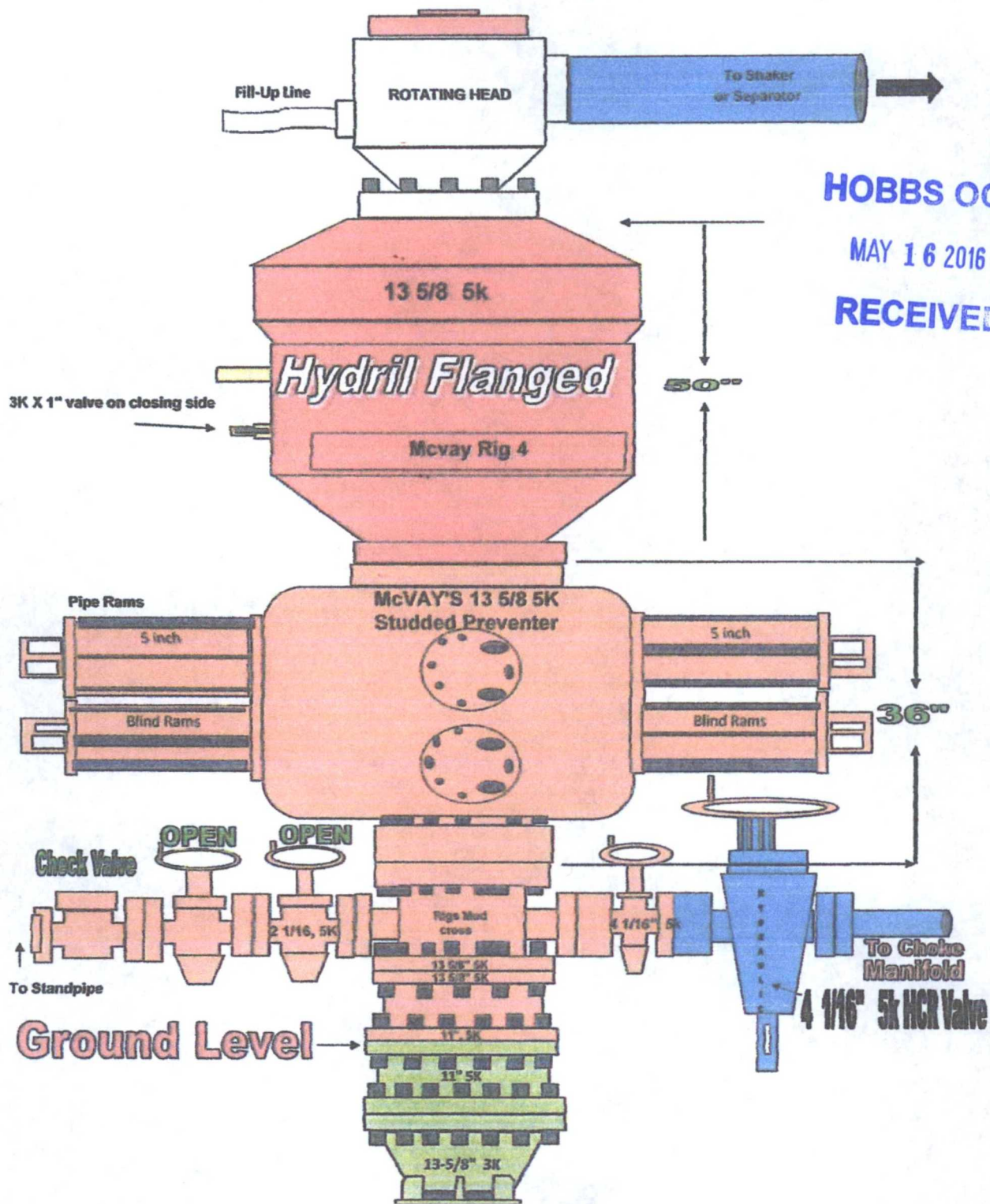
Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,448.10	5,400.00	9 5/8"	9-5/8	12-1/4

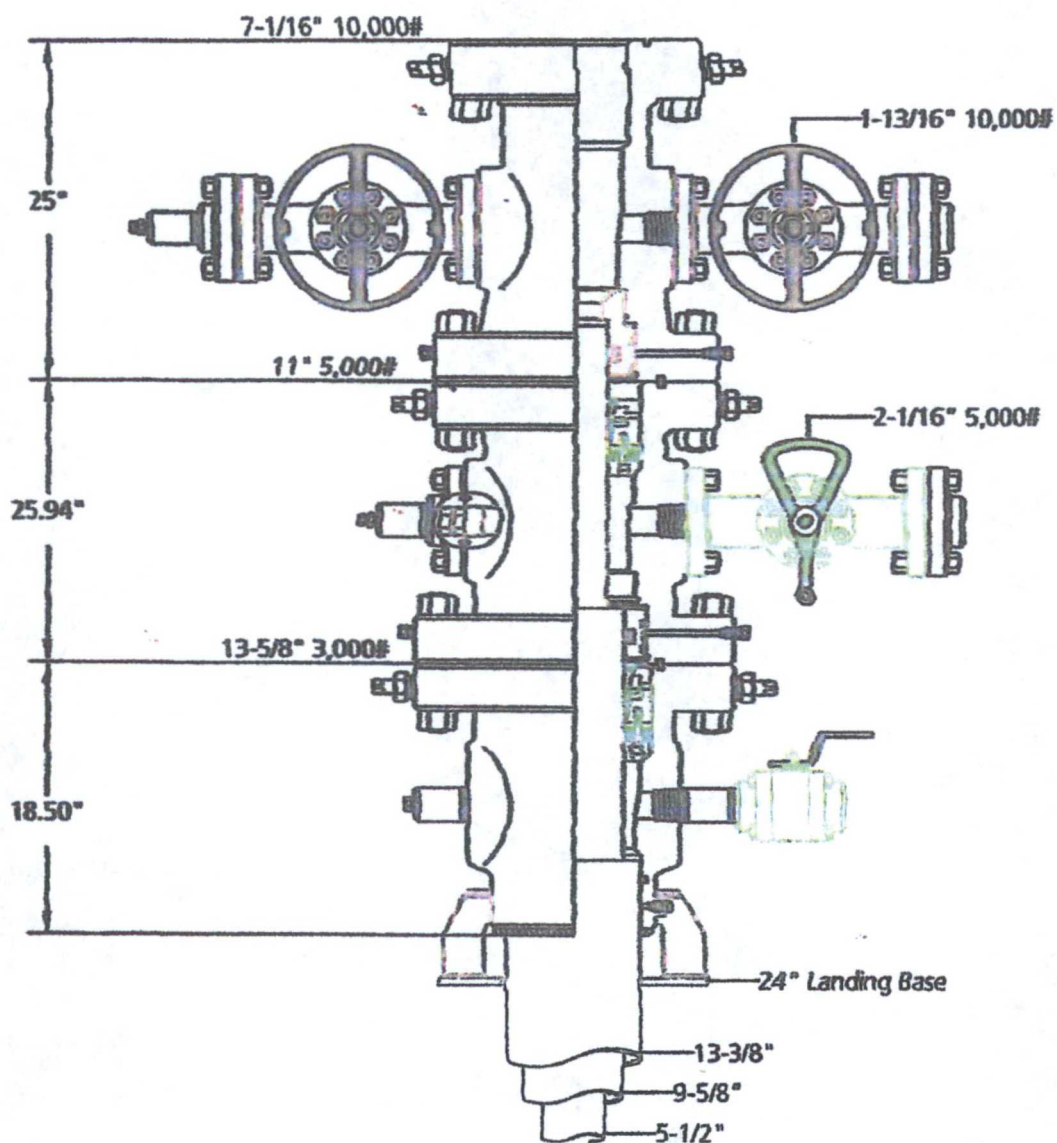
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
2,800.00	2,800.00	0.00	0.00	NUDGE - Start Build 2.00
3,393.00	3,388.77	-12.09	59.95	HOLD - Start 6307.98 hold at 3393.00 MD
9,700.98	9,562.10	-268.34	1,330.79	KOP - Start DLS 10.00 TFO 78.59
10,577.18	10,100.00	-840.30	1,443.99	EOC - Start 4620.45 hold at 10577.18 MD
15,197.63	10,100.00	-5,460.70	1,464.70	TD at 15197.63

McVay Rig 4



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

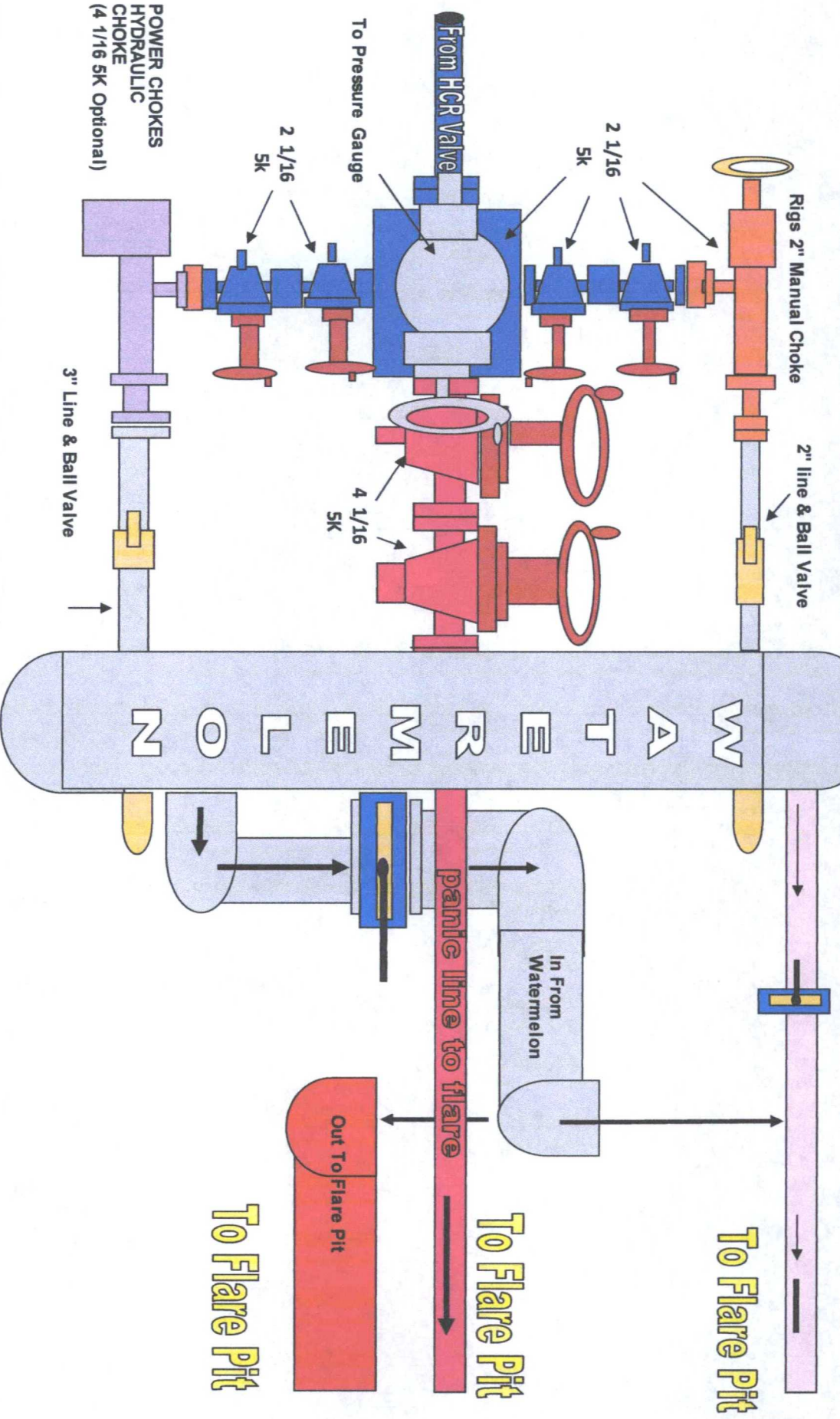


Legacy Reserves
Conventional 3-String

 **CAMERON**

name	Jeanette	date	7-15-15	working hours	#	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 ~~1H~~ 1H - 4H + 9H - 12H

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

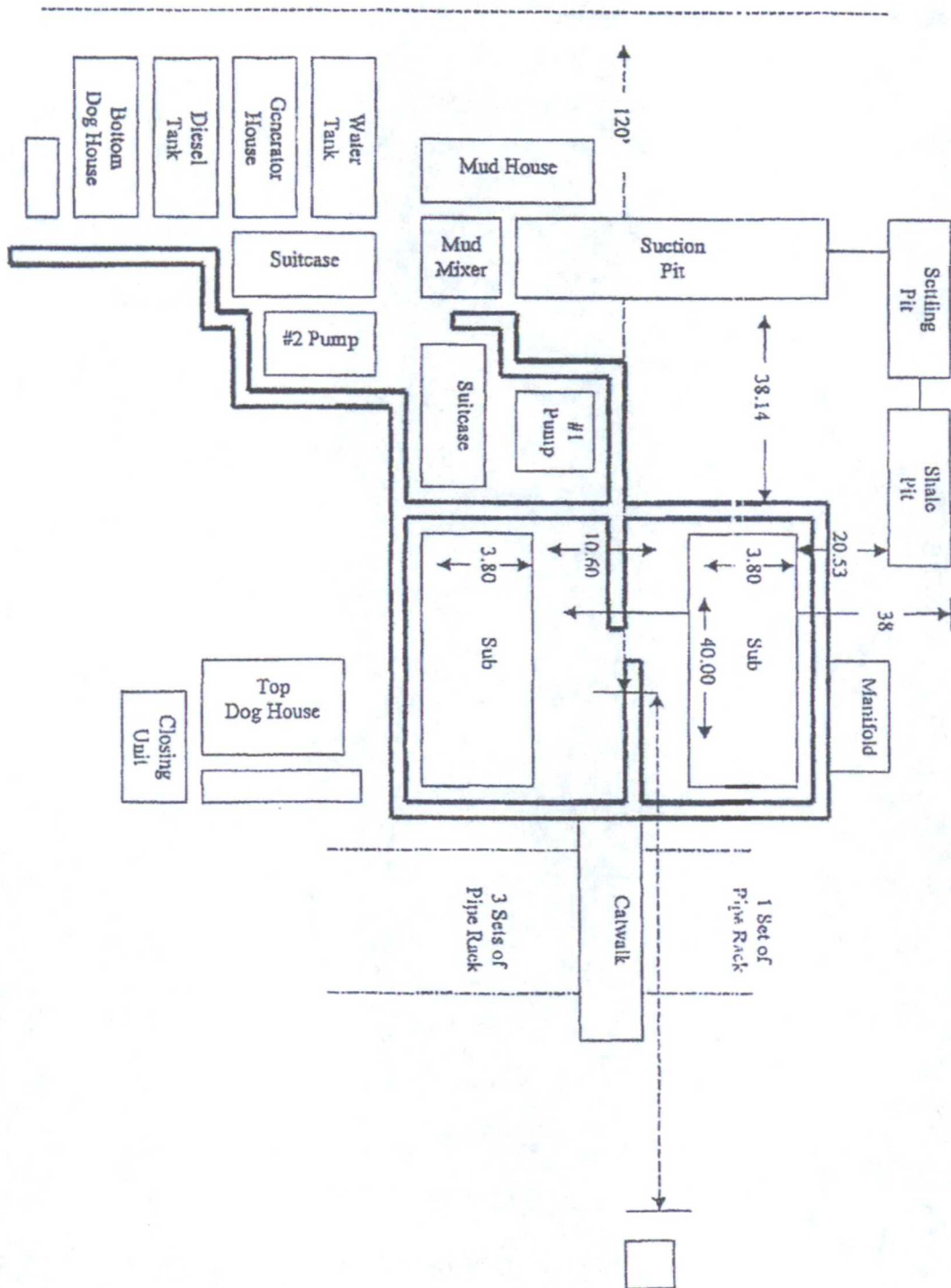


EXHIBIT D

Rig Plat Only
HAMON FED COM A 5H, 6H, 7H, 8H
V-DOOR SOUTHEAST

