

# Bayswater Exploration & Production, LLC

Well Name: **Mojack L-28HN**

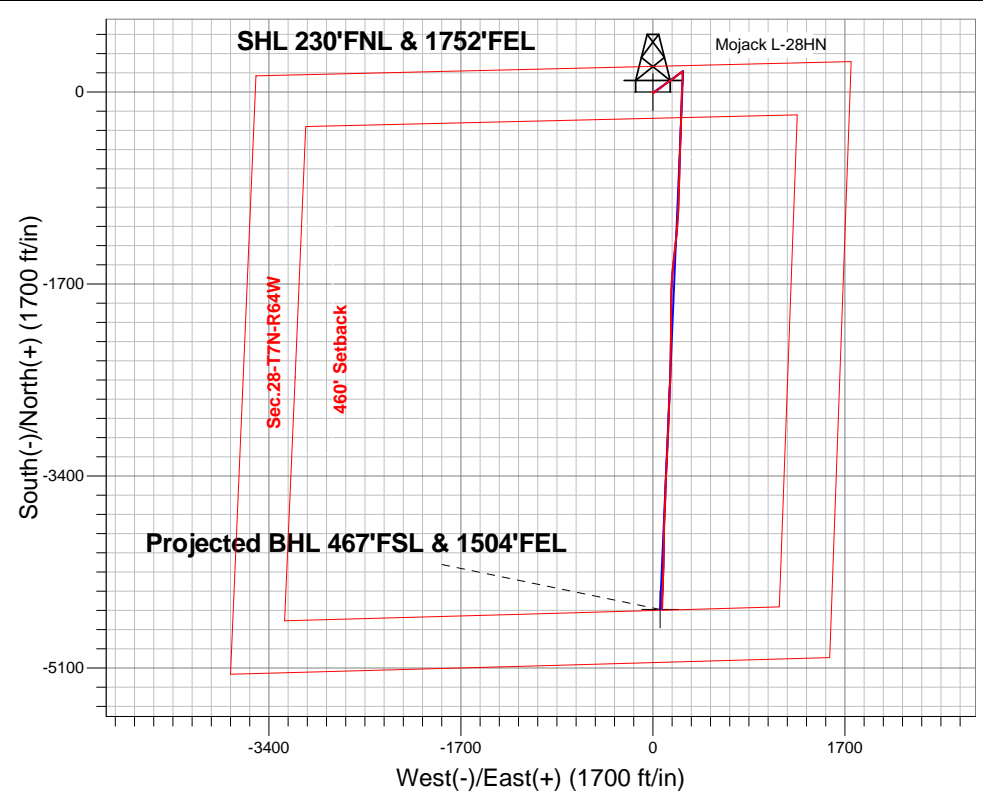
Surface Location: Mojack 28-C Pad (East) Sec.28-T7N-R64W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4900.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1444864.00	3263575.44	40.550682	-104.551498	
RKB - 22.5' WELL @ 4922.5ft (RKB - 22.5')						

## FINAL SURVEY

Projected Bottom Hole Location  
11601'MD 7015'TVD 4580'S & 82'E of SHL  
93.0 degree Incl @ 181.3 degree AZM



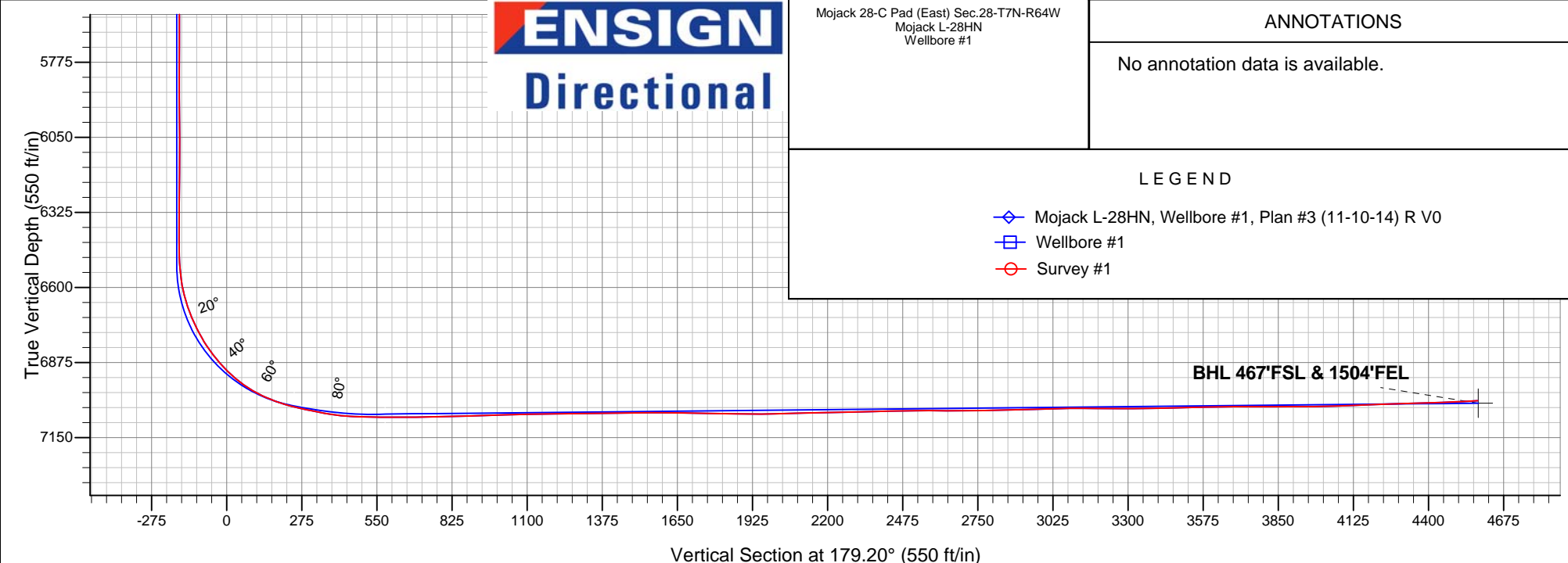
Mojack 28-C Pad (East) Sec.28-T7N-R64W  
Mojack L-28HN  
Wellbore #1

### ANNOTATIONS

No annotation data is available.

### LEGEND

- Mojack L-28HN, Wellbore #1, Plan #3 (11-10-14) R V0
- Wellbore #1
- Survey #1





# **Bayswater Exploration & Production, LLC**

**SEC.28-T7N-R64W**

**Mojack 28-C Pad (East) Sec.28-T7N-R64W**

**Mojack L-28HN**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**24 November, 2014**



**BAYSWATER**  
**EXPLORATION & PRODUCTION, LLC**

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Mojack L-28HN
<b>Project:</b>	SEC.28-T7N-R64W	<b>TVD Reference:</b>	WELL @ 4922.5ft (RKB - 22.5')
<b>Site:</b>	Mojack 28-C Pad (East) Sec.28-T7N-R64W	<b>MD Reference:</b>	WELL @ 4922.5ft (RKB - 22.5')
<b>Well:</b>	Mojack L-28HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.28-T7N-R64W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Mojack 28-C Pad (East) Sec.28-T7N-R64W				
Site Position:		Northing:	1,444,862.34ft	Latitude:	40.550679
From:	Lat/Long	Easting:	3,263,521.54ft	Longitude:	-104.551692
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.61 °

Well	Mojack L-28HN					
Well Position	+N-S	0.0 ft	Northing:	1,444,864.00 ft	Latitude:	40.550682
	+E-W	0.0 ft	Easting:	3,263,575.44 ft	Longitude:	-104.551498
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,900.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/21/2014	8.30	67.09	52,869

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	179.20	

<b>Survey Program</b>	<b>Date</b>	11/24/2014			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
220.0	11,601.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	125.00	1.0	0.0	0.0	0.0	0.27	0.27	0.00	
<b>SHL 230'FNL &amp; 1752'FEL</b>										
220.0	0.60	125.00	220.0	-0.7	0.9	0.7	0.27	0.27	0.00	
312.0	0.60	127.10	312.0	-1.2	1.7	1.3	0.02	0.00	2.28	
404.0	0.60	124.50	404.0	-1.8	2.5	1.8	0.03	0.00	-2.83	
496.0	0.90	112.20	496.0	-2.3	3.6	2.4	0.37	0.33	-13.37	
589.0	0.20	143.00	589.0	-2.7	4.3	2.8	0.79	-0.75	33.12	
681.0	0.40	190.80	681.0	-3.2	4.4	3.2	0.33	0.22	51.96	
743.0	0.40	195.30	743.0	-3.6	4.3	3.7	0.05	0.00	7.26	
827.0	0.60	176.00	827.0	-4.3	4.2	4.4	0.31	0.24	-22.98	
922.0	0.50	169.80	922.0	-5.2	4.3	5.3	0.12	-0.11	-6.53	
1,014.0	0.90	187.90	1,014.0	-6.3	4.3	6.4	0.49	0.43	19.67	

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Mojack L-28HN
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<b>Well:</b>	Mojack L-28HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

## Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,107.0	1.00	196.90	1,106.9	-7.8	4.0	7.9	0.19	0.11	9.68
1,199.0	1.10	205.40	1,198.9	-9.4	3.4	9.5	0.20	0.11	9.24
1,291.0	1.20	210.30	1,290.9	-11.0	2.5	11.1	0.15	0.11	5.33
1,383.0	0.30	357.40	1,382.9	-11.6	2.0	11.7	1.59	-0.98	159.89
1,475.0	1.70	35.70	1,474.9	-10.3	2.8	10.3	1.60	1.52	41.63
1,567.0	2.90	49.40	1,566.8	-7.7	5.4	7.7	1.43	1.30	14.89
1,659.0	4.30	53.80	1,658.6	-4.1	9.9	4.2	1.55	1.52	4.78
1,751.0	5.50	57.00	1,750.3	0.3	16.4	-0.1	1.34	1.30	3.48
1,844.0	6.90	54.50	1,842.7	6.0	24.7	-5.7	1.53	1.51	-2.69
1,936.0	7.90	57.70	1,934.0	12.6	34.5	-12.1	1.18	1.09	3.48
2,028.0	8.30	53.80	2,025.1	19.9	45.2	-19.3	0.74	0.43	-4.24
2,120.0	7.90	50.30	2,116.1	27.9	55.4	-27.1	0.69	-0.43	-3.80
2,212.0	8.60	55.10	2,207.2	35.8	65.9	-34.9	1.07	0.76	5.22
2,305.0	8.60	51.90	2,299.1	44.1	77.1	-43.0	0.51	0.00	-3.44
2,400.0	7.90	49.10	2,393.2	52.8	87.6	-51.5	0.85	-0.74	-2.95
2,495.0	8.30	55.10	2,487.2	61.0	98.2	-59.6	0.98	0.42	6.32
2,590.0	7.00	56.10	2,581.4	68.1	108.6	-66.6	1.38	-1.37	1.05
2,686.0	8.10	49.60	2,676.5	75.7	118.6	-74.1	1.45	1.15	-6.77
2,781.0	8.70	57.90	2,770.5	83.9	129.8	-82.1	1.42	0.63	8.74
2,876.0	8.00	56.10	2,864.5	91.4	141.4	-89.4	0.79	-0.74	-1.89
2,971.0	7.60	57.20	2,958.6	98.5	152.2	-96.4	0.45	-0.42	1.16
3,066.0	7.30	56.50	3,052.8	105.2	162.5	-102.9	0.33	-0.32	-0.74
3,162.0	9.00	52.90	3,147.9	113.1	173.6	-110.7	1.85	1.77	-3.75
3,257.0	8.80	51.90	3,241.7	122.1	185.2	-119.5	0.27	-0.21	-1.05
3,352.0	8.80	50.50	3,335.6	131.2	196.5	-128.4	0.23	0.00	-1.47
3,447.0	8.80	49.60	3,429.5	140.5	207.7	-137.6	0.14	0.00	-0.95
3,543.0	6.90	51.20	3,524.6	148.9	217.8	-145.8	1.99	-1.98	1.67
3,638.0	5.90	52.40	3,619.0	155.5	226.1	-152.3	1.06	-1.05	1.26
3,733.0	5.50	56.50	3,713.5	161.0	233.7	-157.7	0.60	-0.42	4.32
3,828.0	5.50	60.30	3,808.1	165.7	241.5	-162.3	0.38	0.00	4.00
3,924.0	4.60	52.80	3,903.7	170.3	248.5	-166.8	1.16	-0.94	-7.81
4,019.0	3.50	56.50	3,998.5	174.2	254.0	-170.7	1.19	-1.16	3.89
4,114.0	2.70	51.00	4,093.3	177.2	258.2	-173.6	0.90	-0.84	-5.79
4,209.0	2.10	50.10	4,188.2	179.8	261.2	-176.1	0.63	-0.63	-0.95
4,305.0	1.00	53.10	4,284.2	181.4	263.3	-177.7	1.15	-1.15	3.13
4,400.0	0.40	54.90	4,379.2	182.1	264.2	-178.4	0.63	-0.63	1.89
4,495.0	0.40	218.70	4,474.2	182.0	264.3	-178.3	0.83	0.00	172.42
4,590.0	0.70	188.70	4,569.2	181.2	264.0	-177.5	0.43	0.32	-31.58
4,686.0	0.40	201.50	4,665.2	180.3	263.7	-176.6	0.34	-0.31	13.33
4,781.0	0.60	202.00	4,760.2	179.5	263.4	-175.8	0.21	0.21	0.53
4,876.0	0.80	199.60	4,855.2	178.4	263.0	-174.7	0.21	0.21	-2.53
4,971.0	1.20	228.40	4,950.2	177.2	262.1	-173.5	0.66	0.42	30.32
5,066.0	1.50	255.40	5,045.1	176.2	260.1	-172.5	0.73	0.32	28.42
5,161.0	0.60	253.50	5,140.1	175.7	258.4	-172.1	0.95	-0.95	-2.00
5,257.0	0.50	49.80	5,236.1	175.9	258.3	-172.2	1.12	-0.10	162.81
5,352.0	0.30	152.80	5,331.1	175.9	258.7	-172.3	0.67	-0.21	108.42
5,447.0	0.60	359.00	5,426.1	176.2	258.8	-172.5	0.93	0.32	-161.90
5,542.0	0.40	285.90	5,521.1	176.8	258.5	-173.1	0.65	-0.21	-76.95
5,637.0	0.40	201.30	5,616.1	176.5	258.0	-172.9	0.57	0.00	-89.05
5,733.0	0.90	57.00	5,712.1	176.6	258.6	-173.0	1.30	0.52	-150.31
5,828.0	0.40	41.00	5,807.1	177.3	259.4	-173.7	0.55	-0.53	-16.84
5,923.0	0.60	236.30	5,902.1	177.3	259.2	-173.6	1.04	0.21	-173.37
6,018.0	1.10	215.50	5,997.1	176.3	258.3	-172.6	0.61	0.53	-21.89
6,114.0	0.30	267.60	6,093.1	175.5	257.5	-171.9	0.99	-0.83	54.27

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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,209.0	0.90	15.70	6,188.1	176.2	257.4	-172.6	1.09	0.63	113.79
6,304.0	0.60	36.60	6,283.1	177.3	257.9	-173.7	0.42	-0.32	22.00
6,399.0	0.50	49.80	6,378.1	178.0	258.5	-174.3	0.17	-0.11	13.89
6,495.0	1.10	154.60	6,474.1	177.4	259.2	-173.8	1.37	0.63	109.17
6,542.0	4.70	162.30	6,521.0	175.2	260.0	-171.5	7.69	7.66	16.38
6,590.0	7.70	168.80	6,568.7	170.2	261.3	-166.5	6.41	6.25	13.54
6,637.0	12.80	172.30	6,614.9	161.9	262.6	-158.2	10.93	10.85	7.45
6,685.0	17.50	177.00	6,661.3	149.4	263.7	-145.7	10.11	9.79	9.79
6,732.0	22.40	179.30	6,705.4	133.4	264.1	-129.7	10.56	10.43	4.89
6,780.0	26.70	183.00	6,749.1	113.5	263.7	-109.8	9.51	8.96	7.71
6,827.0	30.40	185.00	6,790.4	91.1	262.1	-87.4	8.13	7.87	4.26
6,876.0	35.80	184.10	6,831.4	64.4	260.0	-60.8	11.07	11.02	-1.84
6,923.0	39.80	182.10	6,868.5	35.7	258.4	-32.0	8.90	8.51	-4.26
6,971.0	45.00	180.60	6,904.0	3.3	257.7	0.3	11.04	10.83	-3.13
7,018.0	50.40	181.10	6,935.6	-31.4	257.2	35.0	11.52	11.49	1.06
7,066.0	56.20	181.60	6,964.3	-69.9	256.3	73.5	12.11	12.08	1.04
7,113.0	62.20	181.80	6,988.3	-110.2	255.1	113.8	12.77	12.77	0.43
7,161.0	68.00	182.00	7,008.5	-153.7	253.6	157.3	12.09	12.08	0.42
7,208.0	71.50	182.00	7,024.8	-197.8	252.1	201.3	7.45	7.45	0.00
7,241.0	75.40	182.10	7,034.2	-229.4	251.0	232.9	11.82	11.82	0.30
7,322.0	79.20	182.90	7,052.0	-308.3	247.5	311.8	4.79	4.69	0.99
7,370.0	79.50	182.50	7,060.8	-355.4	245.3	358.8	1.03	0.63	-0.83
7,417.0	83.10	182.00	7,068.0	-401.9	243.5	405.2	7.73	7.66	-1.06
7,464.0	86.40	182.00	7,072.3	-448.6	241.8	452.0	7.02	7.02	0.00
7,511.0	88.70	181.80	7,074.3	-495.6	240.3	498.9	4.91	4.89	-0.43
7,558.0	89.60	181.40	7,075.0	-542.5	239.0	545.8	2.10	1.91	-0.85
7,592.3	89.74	181.29	7,075.2	-576.8	238.2	580.1	0.53	0.42	-0.32
<b>Landing Pt. (L-28HN)</b>									
7,653.0	90.00	181.10	7,075.3	-637.5	236.9	640.8	0.53	0.42	-0.32
7,747.0	90.70	180.40	7,074.7	-731.5	235.7	734.7	1.05	0.74	-0.74
7,842.0	91.70	181.30	7,072.7	-826.5	234.2	829.7	1.42	1.05	0.95
7,936.0	92.20	182.90	7,069.5	-920.3	230.8	923.5	1.78	0.53	1.70
8,030.0	91.50	182.50	7,066.5	-1,014.2	226.4	1,017.3	0.86	-0.74	-0.43
8,124.0	91.10	183.70	7,064.4	-1,108.0	221.3	1,111.0	1.35	-0.43	1.28
8,219.0	90.50	185.00	7,063.0	-1,202.7	214.1	1,205.6	1.51	-0.63	1.37
8,313.0	91.10	186.00	7,061.7	-1,296.3	205.1	1,299.0	1.24	0.64	1.06
8,408.0	89.80	185.70	7,061.0	-1,390.8	195.4	1,393.4	1.40	-1.37	-0.32
8,502.0	91.50	186.50	7,059.9	-1,484.3	185.4	1,486.7	2.00	1.81	0.85
8,596.0	89.60	185.10	7,059.0	-1,577.8	175.9	1,580.1	2.51	-2.02	-1.49
8,691.0	89.30	183.60	7,059.9	-1,672.5	168.7	1,674.7	1.61	-0.32	-1.58
8,786.0	88.90	182.00	7,061.4	-1,767.4	164.1	1,769.5	1.74	-0.42	-1.68
8,880.0	89.10	180.40	7,063.1	-1,861.3	162.1	1,863.4	1.72	0.21	-1.70
8,975.0	90.10	180.40	7,063.7	-1,956.3	161.4	1,958.4	1.05	1.05	0.00
9,069.0	91.90	180.40	7,062.1	-2,050.3	160.8	2,052.3	1.91	1.91	0.00
9,163.0	91.60	180.20	7,059.2	-2,144.2	160.3	2,146.3	0.38	-0.32	-0.21
9,258.0	90.60	181.10	7,057.4	-2,239.2	159.2	2,241.2	1.42	-1.05	0.95
9,352.0	91.80	180.60	7,055.4	-2,333.2	157.8	2,335.2	1.38	1.28	-0.53
9,446.0	91.10	181.10	7,053.0	-2,427.1	156.4	2,429.1	0.92	-0.74	0.53
9,541.0	90.80	181.80	7,051.5	-2,522.1	154.0	2,524.0	0.80	-0.32	0.74
9,635.0	89.40	183.00	7,051.3	-2,616.0	150.1	2,617.9	1.96	-1.49	1.28
9,729.0	90.20	182.50	7,051.6	-2,709.9	145.6	2,711.7	1.00	0.85	-0.53
9,823.0	91.30	181.40	7,050.4	-2,803.8	142.4	2,805.6	1.65	1.17	-1.17
9,918.0	91.90	182.10	7,047.7	-2,898.8	139.5	2,900.4	0.97	0.63	0.74
10,012.0	91.50	182.50	7,045.0	-2,992.6	135.7	2,994.2	0.60	-0.43	0.43

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<b>Site:</b>	Mojack 28-C Pad (East) Sec.28-T7N-R64W	<b>MD Reference:</b>	WELL @ 4922.5ft (RKB - 22.5')
<b>Well:</b>	Mojack L-28HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,105.0	90.70	182.50	7,043.2	-3,085.5	131.7	3,087.1	0.86	-0.86	0.00
10,199.0	89.20	183.40	7,043.3	-3,179.4	126.8	3,180.9	1.86	-1.60	0.96
10,292.0	89.70	182.70	7,044.1	-3,272.3	121.9	3,273.7	0.92	0.54	-0.75
10,386.0	90.80	182.10	7,043.7	-3,366.2	117.9	3,367.5	1.33	1.17	-0.64
10,481.0	92.10	181.60	7,041.3	-3,461.1	114.9	3,462.4	1.47	1.37	-0.53
10,574.0	90.90	181.80	7,038.9	-3,554.0	112.1	3,555.2	1.31	-1.29	0.22
10,668.0	90.70	182.50	7,037.6	-3,647.9	108.6	3,649.1	0.77	-0.21	0.74
10,763.0	90.10	182.50	7,036.9	-3,742.9	104.4	3,743.9	0.63	-0.63	0.00
10,857.0	90.20	181.80	7,036.7	-3,836.8	100.9	3,837.8	0.75	0.11	-0.74
10,952.0	90.00	180.70	7,036.5	-3,931.8	98.8	3,932.8	1.18	-0.21	-1.16
11,046.0	91.20	180.60	7,035.5	-4,025.7	97.8	4,026.7	1.28	1.28	-0.11
11,141.0	92.70	182.10	7,032.3	-4,120.7	95.5	4,121.6	2.23	1.58	1.58
11,235.0	91.90	181.10	7,028.5	-4,214.5	92.9	4,215.4	1.36	-0.85	-1.06
11,329.0	91.70	181.80	7,025.6	-4,308.5	90.5	4,309.3	0.77	-0.21	0.74
11,424.0	91.60	182.30	7,022.8	-4,403.4	87.1	4,404.2	0.54	-0.11	0.53
11,518.0	92.70	181.60	7,019.3	-4,497.2	83.9	4,498.0	1.39	1.17	-0.74
11,546.0	93.00	181.30	7,017.9	-4,525.2	83.2	4,525.9	1.51	1.07	-1.07
11,601.0	93.00	181.30	7,015.0	-4,580.1	82.0	4,580.8	0.00	0.00	0.00
BHL 465'FSL & 1522'FEL									

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_