

# BONANZA CREEK ENERGY OPERATING

Well Name: **Seventy Holes T-P-5HNB**

Surface Location: Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

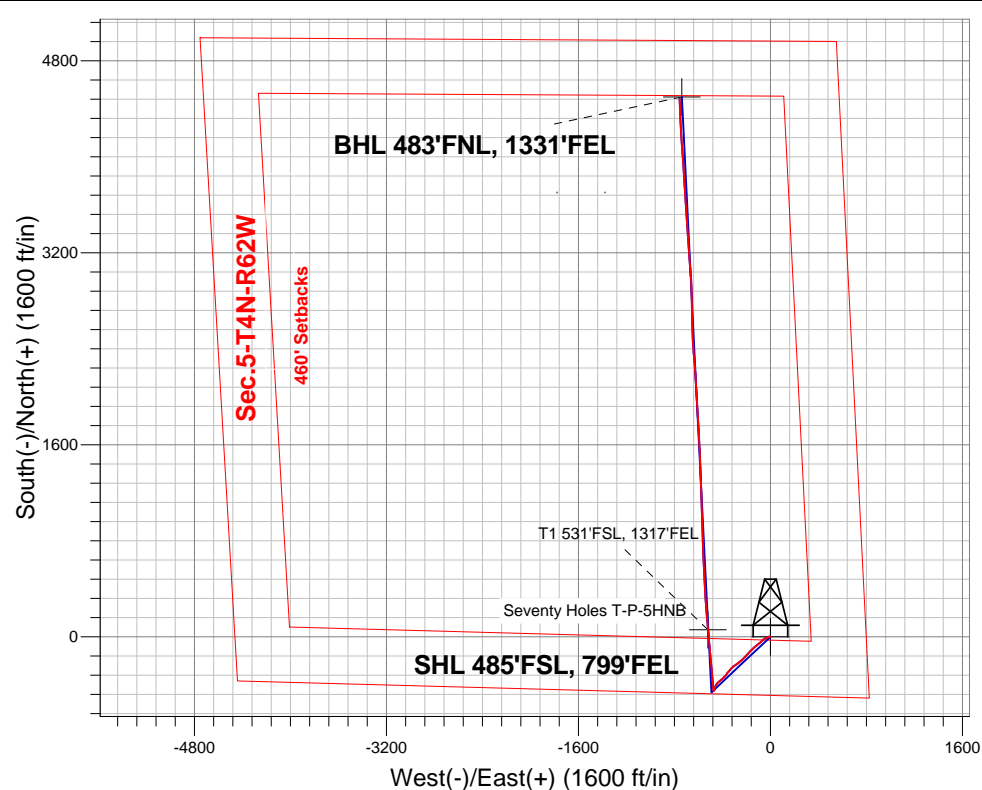
Ground Elevation: 4531.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1367109.62	3322559.76	40.335340	-104.342910	

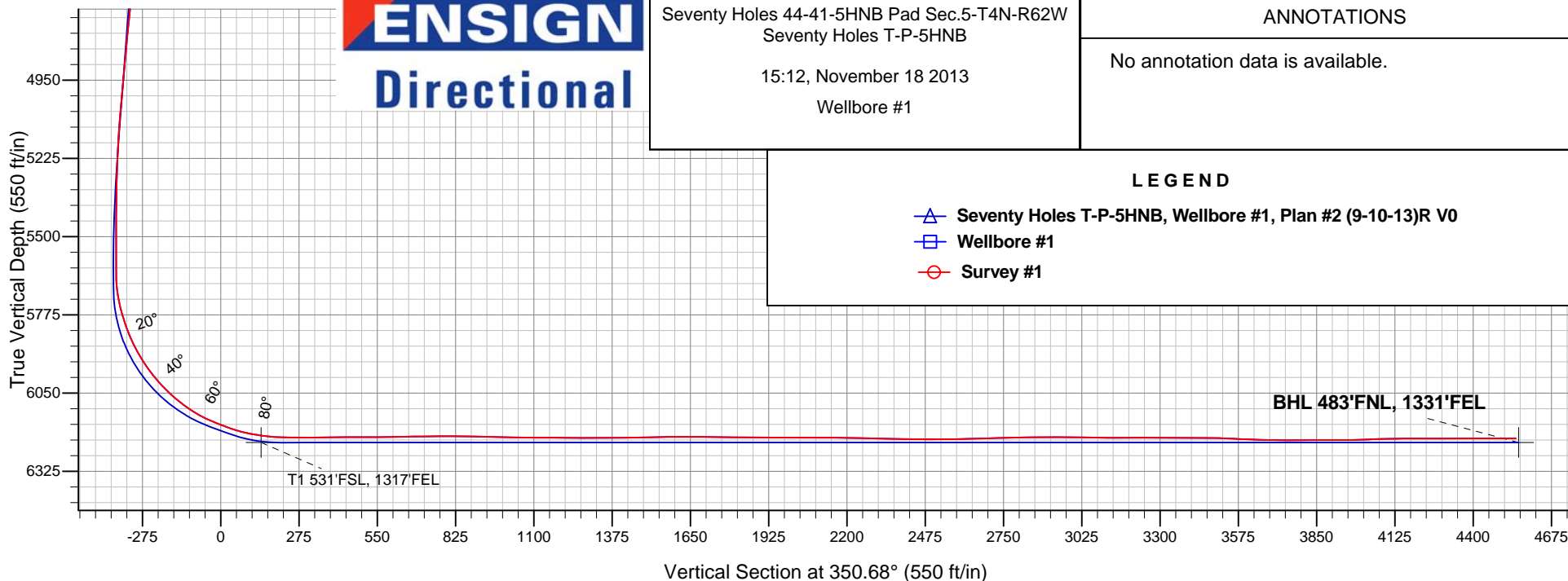
Ensign Rig #128 - RKB - 15' WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')

## FINAL SURVEY

Projected Bottom Hole Location  
10952'MD 6209'TVD 4486'N & 758'W of SHL  
90.0 degree Incl @ 356.9 degree AZM



**ENSIGN**  
**Directional**



Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W  
Seventy Holes T-P-5HNB

15:12, November 18 2013

Wellbore #1

### ANNOTATIONS

No annotation data is available.

### LEGEND

- △ Seventy Holes T-P-5HNB, Wellbore #1, Plan #2 (9-10-13)R V0
- Wellbore #1
- Survey #1



# **BONANZA CREEK ENERGY OPERATING**

**SEC.5-T4N-R62W**

**Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W**

**Seventy Holes T-P-5HNB**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**18 November, 2013**



<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Seventy Holes T-P-5HNB
<b>Project:</b>	SEC.5-T4N-R62W	<b>TVD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Site:</b>	Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W	<b>MD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Well:</b>	Seventy Holes T-P-5HNB	<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)
1,438.0	8.80	223.70	1,433.2	-31.6	-68.0	-20.2	1.99	-1.05	-10.32
1,560.0	7.00	224.00	1,554.0	-43.7	-79.6	-30.3	1.48	-1.48	0.25
1,682.0	7.40	236.00	1,675.0	-53.5	-91.3	-38.0	1.27	0.33	9.84
1,805.0	8.50	232.10	1,796.9	-63.5	-105.0	-45.6	1.00	0.89	-3.17
1,927.0	10.60	229.60	1,917.2	-76.3	-120.7	-55.7	1.75	1.72	-2.05
2,051.0	10.30	228.20	2,039.1	-91.1	-137.7	-67.6	0.32	-0.24	-1.13
2,174.0	8.80	227.20	2,160.4	-104.8	-152.8	-78.7	1.23	-1.22	-0.81
2,297.0	9.90	224.90	2,281.8	-118.7	-167.1	-90.1	0.94	0.89	-1.87
2,419.0	10.50	220.80	2,401.8	-134.5	-181.8	-103.3	0.77	0.49	-3.36
2,543.0	9.30	218.90	2,524.0	-150.9	-195.5	-117.2	1.00	-0.97	-1.53
2,666.0	10.00	222.80	2,645.2	-166.5	-209.0	-130.4	0.78	0.57	3.17
2,791.0	8.80	228.60	2,768.6	-180.8	-223.5	-142.2	1.22	-0.96	4.64
2,915.0	8.10	233.50	2,891.2	-192.2	-237.7	-151.2	0.81	-0.56	3.95
3,039.0	8.30	227.50	3,014.0	-203.5	-251.3	-160.1	0.71	0.16	-4.84
3,164.0	7.50	228.50	3,137.8	-215.0	-264.0	-169.4	0.65	-0.64	0.80
3,289.0	10.20	236.00	3,261.3	-226.6	-279.3	-178.3	2.34	2.16	6.00
3,412.0	12.10	234.60	3,382.0	-240.1	-298.9	-188.5	1.56	1.54	-1.14
3,538.0	14.90	226.70	3,504.5	-258.9	-321.4	-203.4	2.66	2.22	-6.27
3,663.0	13.40	218.60	3,625.7	-281.2	-342.2	-222.1	1.98	-1.20	-6.48
3,787.0	12.50	217.30	3,746.5	-303.1	-359.3	-240.9	0.76	-0.73	-1.05
3,911.0	10.00	216.10	3,868.1	-322.5	-373.7	-257.7	2.02	-2.02	-0.97
4,036.0	6.90	224.50	3,991.8	-336.6	-385.4	-269.8	2.66	-2.48	6.72
4,161.0	8.70	229.80	4,115.6	-348.1	-397.9	-279.0	1.55	1.44	4.24
4,286.0	8.10	233.70	4,239.3	-359.4	-412.2	-287.9	0.66	-0.48	3.12
4,411.0	6.30	229.60	4,363.3	-369.1	-424.5	-295.4	1.50	-1.44	-3.28
4,535.0	6.10	226.30	4,486.6	-378.0	-434.5	-302.7	0.33	-0.16	-2.66
4,660.0	6.20	216.50	4,610.8	-388.1	-443.3	-311.1	0.84	0.08	-7.84
4,785.0	7.50	212.10	4,734.9	-400.4	-451.6	-321.9	1.12	1.04	-3.52
4,910.0	6.40	204.20	4,859.0	-413.7	-458.8	-333.9	1.16	-0.88	-6.32
5,036.0	6.00	201.70	4,984.3	-426.2	-464.1	-345.4	0.38	-0.32	-1.98
5,160.0	4.70	189.20	5,107.8	-437.2	-467.3	-355.7	1.40	-1.05	-10.08
5,284.0	2.40	196.40	5,231.5	-444.7	-468.9	-362.9	1.89	-1.85	5.81
5,409.0	1.10	212.80	5,356.4	-448.2	-470.3	-366.1	1.10	-1.04	13.12
5,469.0	1.00	240.00	5,416.4	-449.0	-471.0	-366.7	0.84	-0.17	45.33
5,532.0	0.70	234.20	5,479.4	-449.5	-471.8	-367.1	0.49	-0.48	-9.21
5,607.0	0.50	237.20	5,554.4	-449.9	-472.5	-367.4	0.27	-0.27	4.00
5,660.0	0.80	233.30	5,607.4	-450.3	-473.0	-367.7	0.57	0.57	-7.36
5,691.0	1.70	334.40	5,638.4	-450.0	-473.3	-367.4	6.49	2.90	326.13
5,723.0	4.80	345.30	5,670.4	-448.3	-473.9	-365.6	9.83	9.69	34.06
5,754.0	8.40	352.30	5,701.2	-444.8	-474.5	-362.0	11.88	11.61	22.58
5,786.0	12.20	354.30	5,732.6	-439.1	-475.2	-356.3	11.93	11.88	6.25
5,817.0	15.60	353.90	5,762.7	-431.7	-475.9	-348.9	10.97	10.97	-1.29
5,848.0	18.00	354.40	5,792.4	-422.8	-476.8	-339.9	7.76	7.74	1.61
5,879.0	20.20	354.40	5,821.7	-412.7	-477.8	-329.8	7.10	7.10	0.00
5,911.0	22.60	354.60	5,851.5	-401.1	-479.0	-318.2	7.50	7.50	0.63
5,942.0	25.90	356.00	5,879.7	-388.4	-480.0	-305.5	10.80	10.65	4.52
5,973.0	28.90	355.30	5,907.3	-374.1	-481.1	-291.3	9.73	9.68	-2.26
6,002.0	32.40	355.30	5,932.2	-359.4	-482.3	-276.5	12.07	12.07	0.00
6,034.0	35.10	354.60	5,958.8	-341.7	-483.9	-258.8	8.52	8.44	-2.19
6,064.0	38.40	354.10	5,982.8	-323.8	-485.6	-240.9	11.05	11.00	-1.67
6,096.0	41.00	354.10	6,007.5	-303.5	-487.7	-220.5	8.13	8.13	0.00
6,127.0	44.10	354.40	6,030.3	-282.7	-489.8	-199.6	10.02	10.00	0.97
6,158.0	47.10	355.70	6,052.0	-260.6	-491.7	-177.5	10.13	9.68	4.19

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Seventy Holes T-P-5HNB
<b>Project:</b>	SEC.5-T4N-R62W	<b>TVD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Site:</b>	Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W	<b>MD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Well:</b>	Seventy Holes T-P-5HNB	<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)
6,190.0	50.20	356.60	6,073.1	-236.6	-493.3	-153.6	9.91	9.69	2.81
6,221.0	53.40	356.70	6,092.3	-212.3	-494.8	-129.4	10.33	10.32	0.32
6,252.0	56.50	354.80	6,110.1	-187.0	-496.6	-104.1	11.19	10.00	-6.13
6,283.0	60.80	353.20	6,126.2	-160.7	-499.4	-77.7	14.55	13.87	-5.16
6,314.0	64.60	353.20	6,140.4	-133.3	-502.7	-50.1	12.26	12.26	0.00
6,346.0	68.00	355.00	6,153.3	-104.2	-505.7	-20.9	11.81	10.63	5.63
6,377.0	69.30	355.50	6,164.6	-75.4	-508.1	7.9	4.45	4.19	1.61
6,408.0	70.90	355.50	6,175.1	-46.4	-510.4	36.9	5.16	5.16	0.00
6,439.0	74.70	355.30	6,184.3	-16.9	-512.7	66.4	12.27	12.26	-0.65
6,471.0	78.20	354.80	6,191.8	14.1	-515.4	97.4	11.04	10.94	-1.56
6,502.0	81.40	354.60	6,197.3	44.5	-518.2	127.9	10.34	10.32	-0.65
6,519.5	82.42	354.60	6,199.7	61.7	-519.9	145.2	5.81	5.81	0.00
T1 531°FSL, 1317°FEL									
6,533.0	83.20	354.60	6,201.4	75.1	-521.1	158.5	5.81	5.81	0.00
6,564.0	85.60	354.80	6,204.5	105.8	-524.0	189.3	7.77	7.74	0.65
6,573.0	86.60	355.00	6,205.1	114.8	-524.8	198.3	11.33	11.11	2.22
6,622.0	90.00	356.00	6,206.5	163.6	-528.6	247.0	7.23	6.94	2.04
6,652.0	90.60	355.80	6,206.4	193.5	-530.8	276.9	2.11	2.00	-0.67
6,683.0	90.90	355.80	6,206.0	224.4	-533.0	307.8	0.97	0.97	0.00
6,714.0	90.50	355.80	6,205.6	255.3	-535.3	338.7	1.29	-1.29	0.00
6,745.0	89.90	356.00	6,205.5	286.2	-537.5	369.5	2.04	-1.94	0.65
6,776.0	89.50	356.60	6,205.6	317.2	-539.5	400.4	2.33	-1.29	1.94
6,806.0	89.70	356.60	6,205.8	347.1	-541.3	430.2	0.67	0.67	0.00
6,837.0	90.20	356.20	6,205.9	378.1	-543.3	461.1	2.07	1.61	-1.29
6,868.0	90.70	356.20	6,205.6	409.0	-545.3	491.9	1.61	1.61	0.00
6,899.0	90.70	356.60	6,205.2	439.9	-547.3	522.8	1.29	0.00	1.29
6,930.0	90.90	356.20	6,204.8	470.9	-549.2	553.6	1.44	0.65	-1.29
6,962.0	90.90	356.70	6,204.3	502.8	-551.2	585.5	1.56	0.00	1.56
6,993.0	91.30	356.90	6,203.7	533.7	-552.9	616.3	1.44	1.29	0.65
7,024.0	90.70	357.30	6,203.2	564.7	-554.5	647.1	2.33	-1.94	1.29
7,055.0	90.20	357.60	6,202.9	595.7	-555.9	677.9	1.88	-1.61	0.97
7,086.0	91.00	358.10	6,202.6	626.6	-557.0	708.6	3.04	2.58	1.61
7,115.0	91.10	358.00	6,202.1	655.6	-558.0	737.4	0.49	0.34	-0.34
7,147.0	90.40	357.80	6,201.7	687.6	-559.2	769.1	2.28	-2.19	-0.63
7,178.0	89.30	357.40	6,201.7	718.6	-560.5	799.9	3.78	-3.55	-1.29
7,209.0	89.90	357.30	6,202.0	749.5	-561.9	830.7	1.96	1.94	-0.32
7,240.0	88.80	357.60	6,202.3	780.5	-563.3	861.4	3.68	-3.55	0.97
7,271.0	89.20	357.40	6,202.8	811.5	-564.6	892.2	1.44	1.29	-0.65
7,302.0	89.10	358.10	6,203.3	842.4	-565.9	923.0	2.28	-0.32	2.26
7,333.0	88.80	358.00	6,203.9	873.4	-566.9	953.7	1.02	-0.97	-0.32
7,364.0	88.30	358.50	6,204.7	904.4	-567.9	984.4	2.28	-1.61	1.61
7,394.0	88.70	358.70	6,205.4	934.4	-568.6	1,014.1	1.49	1.33	0.67
7,424.0	88.80	358.10	6,206.1	964.4	-569.4	1,043.9	2.03	0.33	-2.00
7,455.0	89.30	358.00	6,206.6	995.3	-570.5	1,074.6	1.64	1.61	-0.32
7,486.0	89.80	357.80	6,206.9	1,026.3	-571.6	1,105.4	1.74	1.61	-0.65
7,517.0	90.20	357.80	6,206.9	1,057.3	-572.8	1,136.1	1.29	1.29	0.00
7,549.0	89.80	358.30	6,206.9	1,089.3	-573.9	1,167.9	2.00	-1.25	1.56
7,580.0	89.90	358.30	6,206.9	1,120.3	-574.8	1,198.6	0.32	0.32	0.00
7,611.0	89.30	358.80	6,207.2	1,151.2	-575.6	1,229.3	2.52	-1.94	1.61
7,642.0	89.30	359.00	6,207.5	1,182.2	-576.2	1,260.0	0.65	0.00	0.65
7,673.0	89.50	358.80	6,207.9	1,213.2	-576.8	1,290.6	0.91	0.65	-0.65
7,705.0	90.10	359.00	6,208.0	1,245.2	-577.4	1,322.3	1.98	1.88	0.63
7,736.0	90.70	358.80	6,207.8	1,276.2	-578.0	1,353.0	2.04	1.94	-0.65

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<b>Well:</b>	Seventy Holes T-P-5HNB	<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)
7,767.0	90.40	358.50	6,207.5	1,307.2	-578.7	1,383.7	1.37	-0.97	-0.97
7,799.0	90.60	358.00	6,207.2	1,339.2	-579.7	1,415.4	1.68	0.63	-1.56
7,830.0	91.10	357.80	6,206.7	1,370.2	-580.8	1,446.2	1.74	1.61	-0.65
7,861.0	91.90	357.60	6,205.9	1,401.1	-582.1	1,476.9	2.66	2.58	-0.65
7,893.0	91.50	356.90	6,205.0	1,433.1	-583.6	1,508.7	2.52	-1.25	-2.19
7,924.0	90.80	357.10	6,204.3	1,464.0	-585.2	1,539.5	2.35	-2.26	0.65
7,955.0	90.00	357.40	6,204.1	1,495.0	-586.7	1,570.3	2.76	-2.58	0.97
7,986.0	90.30	357.40	6,204.0	1,526.0	-588.1	1,601.1	0.97	0.97	0.00
8,017.0	90.40	357.40	6,203.8	1,556.9	-589.5	1,631.9	0.32	0.32	0.00
8,048.0	90.00	357.10	6,203.7	1,587.9	-591.0	1,662.7	1.61	-1.29	-0.97
8,079.0	89.40	357.10	6,203.9	1,618.9	-592.6	1,693.5	1.94	-1.94	0.00
8,110.0	89.30	357.40	6,204.3	1,649.8	-594.1	1,724.3	1.02	-0.32	0.97
8,141.0	89.60	357.40	6,204.6	1,680.8	-595.5	1,755.1	0.97	0.97	0.00
8,172.0	89.30	356.90	6,204.8	1,711.7	-597.0	1,785.9	1.88	-0.97	-1.61
8,203.0	88.80	356.90	6,205.4	1,742.7	-598.7	1,816.7	1.61	-1.61	0.00
8,235.0	89.00	356.60	6,206.0	1,774.6	-600.5	1,848.5	1.13	0.63	-0.94
8,266.0	89.30	356.20	6,206.4	1,805.6	-602.5	1,879.3	1.61	0.97	-1.29
8,297.0	89.80	356.20	6,206.7	1,836.5	-604.5	1,910.2	1.61	1.61	0.00
8,328.0	90.50	356.20	6,206.6	1,867.4	-606.6	1,941.0	2.26	2.26	0.00
8,359.0	90.70	356.40	6,206.3	1,898.4	-608.6	1,971.9	0.91	0.65	0.65
8,390.0	90.20	356.60	6,206.0	1,929.3	-610.5	2,002.7	1.74	-1.61	0.65
8,420.0	89.60	356.60	6,206.1	1,959.3	-612.3	2,032.6	2.00	-2.00	0.00
8,452.0	89.70	356.60	6,206.3	1,991.2	-614.2	2,064.4	0.31	0.31	0.00
8,483.0	89.40	356.70	6,206.5	2,022.1	-616.0	2,095.2	1.02	-0.97	0.32
8,514.0	89.70	356.70	6,206.8	2,053.1	-617.7	2,126.0	0.97	0.97	0.00
8,546.0	90.00	357.10	6,206.9	2,085.0	-619.5	2,157.9	1.56	0.94	1.25
8,577.0	89.30	356.90	6,207.0	2,116.0	-621.1	2,188.7	2.35	-2.26	-0.65
8,608.0	88.30	356.70	6,207.7	2,146.9	-622.8	2,219.5	3.29	-3.23	-0.65
8,639.0	88.30	356.60	6,208.6	2,177.9	-624.6	2,250.3	0.32	0.00	-0.32
8,671.0	88.50	356.00	6,209.5	2,209.8	-626.7	2,282.1	1.98	0.63	-1.88
8,702.0	88.70	355.70	6,210.3	2,240.7	-628.9	2,313.0	1.16	0.65	-0.97
8,733.0	89.00	355.70	6,210.9	2,271.6	-631.3	2,343.9	0.97	0.97	0.00
8,764.0	89.30	355.30	6,211.3	2,302.5	-633.7	2,374.8	1.61	0.97	-1.29
8,795.0	89.50	355.00	6,211.7	2,333.4	-636.3	2,405.7	1.16	0.65	-0.97
8,826.0	89.40	355.00	6,212.0	2,364.3	-639.0	2,436.6	0.32	-0.32	0.00
8,858.0	89.40	355.50	6,212.3	2,396.2	-641.7	2,468.5	1.56	0.00	1.56
8,889.0	90.00	356.70	6,212.5	2,427.1	-643.8	2,499.3	4.33	1.94	3.87
8,920.0	90.00	356.90	6,212.5	2,458.1	-645.5	2,530.2	0.65	0.00	0.65
8,951.0	90.30	356.90	6,212.4	2,489.0	-647.2	2,561.0	0.97	0.97	0.00
8,982.0	91.30	357.40	6,211.9	2,520.0	-648.7	2,591.8	3.61	3.23	1.61
9,013.0	91.80	358.00	6,211.1	2,550.9	-650.0	2,622.5	2.52	1.61	1.94
9,045.0	91.50	358.70	6,210.2	2,582.9	-650.9	2,654.2	2.38	-0.94	2.19
9,076.0	91.00	358.70	6,209.5	2,613.9	-651.6	2,684.9	1.61	-1.61	0.00
9,107.0	91.50	358.50	6,208.8	2,644.9	-652.4	2,715.6	1.74	1.61	-0.65
9,138.0	91.90	358.30	6,207.9	2,675.8	-653.2	2,746.3	1.44	1.29	-0.65
9,169.0	91.90	358.50	6,206.9	2,706.8	-654.1	2,777.0	0.64	0.00	0.65
9,201.0	91.20	358.80	6,206.0	2,738.8	-654.8	2,808.7	2.38	-2.19	0.94
9,231.0	90.70	359.50	6,205.5	2,768.8	-655.3	2,838.4	2.87	-1.67	2.33
9,262.0	90.60	359.90	6,205.2	2,799.8	-655.4	2,869.0	1.33	-0.32	1.29
9,294.0	90.40	359.40	6,204.9	2,831.8	-655.6	2,900.6	1.68	-0.63	-1.56
9,325.0	89.90	358.80	6,204.8	2,862.8	-656.1	2,931.3	2.52	-1.61	-1.94
9,357.0	89.50	358.30	6,205.0	2,894.8	-656.9	2,963.0	2.00	-1.25	-1.56
9,388.0	88.80	357.10	6,205.4	2,925.7	-658.2	2,993.7	4.48	-2.26	-3.87

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Seventy Holes T-P-5HNB
<b>Project:</b>	SEC.5-T4N-R62W	<b>TVD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Site:</b>	Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W	<b>MD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Well:</b>	Seventy Holes T-P-5HNB	<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)
9,419.0	88.90	356.70	6,206.1	2,956.7	-659.9	3,024.5	1.33	0.32	-1.29
9,450.0	89.10	355.80	6,206.6	2,987.6	-661.9	3,055.4	2.97	0.65	-2.90
9,481.0	89.50	355.70	6,207.0	3,018.5	-664.2	3,086.3	1.33	1.29	-0.32
9,513.0	89.90	355.50	6,207.1	3,050.4	-666.6	3,118.1	1.40	1.25	-0.63
9,544.0	90.00	355.00	6,207.2	3,081.3	-669.2	3,149.0	1.64	0.32	-1.61
9,575.0	90.70	354.60	6,207.0	3,112.2	-672.0	3,180.0	2.60	2.26	-1.29
9,607.0	90.20	354.80	6,206.7	3,144.1	-675.0	3,211.9	1.68	-1.56	0.63
9,636.0	89.30	355.70	6,206.9	3,173.0	-677.4	3,240.8	4.39	-3.10	3.10
9,669.0	89.80	356.40	6,207.1	3,205.9	-679.6	3,273.6	2.61	1.52	2.12
9,700.0	90.20	356.40	6,207.1	3,236.8	-681.6	3,304.5	1.29	1.29	0.00
9,731.0	89.80	357.10	6,207.1	3,267.8	-683.4	3,335.3	2.60	-1.29	2.26
9,763.0	89.00	356.70	6,207.5	3,299.7	-685.1	3,367.1	2.80	-2.50	-1.25
9,794.0	89.40	356.60	6,207.9	3,330.7	-686.9	3,397.9	1.33	1.29	-0.32
9,825.0	90.00	356.70	6,208.1	3,361.6	-688.7	3,428.8	1.96	1.94	0.32
9,855.0	90.70	356.90	6,207.9	3,391.6	-690.4	3,458.6	2.43	2.33	0.67
9,887.0	89.10	355.80	6,207.9	3,423.5	-692.4	3,490.4	6.07	-5.00	-3.44
9,918.0	87.80	356.20	6,208.8	3,454.4	-694.6	3,521.3	4.39	-4.19	1.29
9,949.0	87.40	355.80	6,210.1	3,485.3	-696.7	3,552.1	1.82	-1.29	-1.29
9,980.0	87.40	355.80	6,211.5	3,516.2	-699.0	3,583.0	0.00	0.00	0.00
10,012.0	87.70	355.70	6,212.8	3,548.1	-701.4	3,614.8	0.99	0.94	-0.31
10,043.0	87.90	355.70	6,214.0	3,579.0	-703.7	3,645.7	0.65	0.65	0.00
10,074.0	88.50	356.20	6,215.0	3,609.9	-705.9	3,676.5	2.52	1.94	1.61
10,105.0	89.40	356.90	6,215.6	3,640.8	-707.8	3,707.4	3.68	2.90	2.26
10,137.0	89.40	356.20	6,215.9	3,672.7	-709.7	3,739.2	2.19	0.00	-2.19
10,168.0	89.60	356.20	6,216.2	3,703.7	-711.7	3,770.1	0.65	0.65	0.00
10,199.0	90.40	356.70	6,216.2	3,734.6	-713.7	3,800.9	3.04	2.58	1.61
10,230.0	91.00	356.90	6,215.8	3,765.6	-715.4	3,831.7	2.04	1.94	0.65
10,261.0	91.10	356.60	6,215.2	3,796.5	-717.1	3,862.5	1.02	0.32	-0.97
10,293.0	90.00	356.40	6,214.9	3,828.4	-719.1	3,894.4	3.49	-3.44	-0.63
10,324.0	89.90	356.40	6,214.9	3,859.4	-721.0	3,925.2	0.32	-0.32	0.00
10,355.0	90.30	356.20	6,214.9	3,890.3	-723.0	3,956.1	1.44	1.29	-0.65
10,386.0	91.40	356.40	6,214.4	3,921.3	-725.0	3,986.9	3.61	3.55	0.65
10,417.0	91.60	355.80	6,213.6	3,952.2	-727.1	4,017.8	2.04	0.65	-1.94
10,448.0	92.00	355.30	6,212.6	3,983.1	-729.6	4,048.6	2.06	1.29	-1.61
10,479.0	91.70	355.80	6,211.6	4,014.0	-732.0	4,079.5	1.88	-0.97	1.61
10,511.0	91.50	355.30	6,210.8	4,045.8	-734.4	4,111.4	1.68	-0.63	-1.56
10,542.0	91.30	356.00	6,210.0	4,076.7	-736.8	4,142.3	2.35	-0.65	2.26
10,572.0	91.10	356.90	6,209.4	4,106.7	-738.6	4,172.1	3.07	-0.67	3.00
10,602.0	89.50	356.20	6,209.2	4,136.6	-740.4	4,201.9	5.82	-5.33	-2.33
10,635.0	89.20	355.80	6,209.6	4,169.5	-742.8	4,234.8	1.52	-0.91	-1.21
10,666.0	89.20	356.40	6,210.0	4,200.5	-744.9	4,265.7	1.94	0.00	1.94
10,697.0	90.00	357.10	6,210.2	4,231.4	-746.6	4,296.5	3.43	2.58	2.26
10,728.0	90.60	358.30	6,210.1	4,262.4	-747.9	4,327.2	4.33	1.94	3.87
10,759.0	90.20	357.80	6,209.9	4,293.4	-748.9	4,358.0	2.07	-1.29	-1.61
10,790.0	90.50	358.50	6,209.7	4,324.4	-749.9	4,388.7	2.46	0.97	2.26
10,821.0	90.50	358.30	6,209.4	4,355.3	-750.8	4,419.4	0.65	0.00	-0.65
10,852.0	89.60	356.70	6,209.4	4,386.3	-752.1	4,450.2	5.92	-2.90	-5.16
10,883.0	90.00	356.90	6,209.5	4,417.3	-753.9	4,481.0	1.44	1.29	0.65
10,900.0	90.00	356.90	6,209.5	4,434.2	-754.8	4,497.9	0.00	0.00	0.00
10,952.0	90.00	356.90	6,209.5	4,486.2	-757.6	4,549.6	0.00	0.00	0.00
BHL 470'FNL, 1312'FEL									

<b>Company:</b>	BONANZA CREEK ENERGY OPERATING	<b>Local Co-ordinate Reference:</b>	Well Seventy Holes T-P-5HNB
<b>Project:</b>	SEC.5-T4N-R62W	<b>TVD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Site:</b>	Seventy Holes 44-41-5HNB Pad Sec.5-T4N-R62W	<b>MD Reference:</b>	WELL @ 4546.0ft (Ensign Rig #128 - RKB - 15')
<b>Well:</b>	Seventy Holes T-P-5HNB	<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

Checked By: _____	Approved By: _____	Date: _____
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