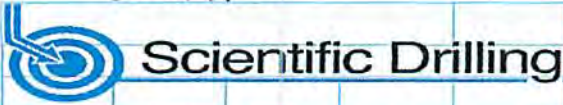


51-01712



**Northeast District**

<b>Company:</b> Chevron	<b>Date :</b> 9/22/2014
<b>Field:</b> Marcellus	<b>North Ref:</b> TRUE
<b>Well:</b> Francis 4H	<b>Grid Correction:</b> 0.76
<b>County:</b> Marshall County	<b>Declination :</b> -7.97
<b>State:</b> WV	<b>VS Azimuth:</b> 338.49°
<b>Rig:</b> Nabors X07	<b>RKB-GL:</b> 32' ft. + 1260' = 1292'
<b>MWD:</b> R. Mayercheck, A. Langford	

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Course Length
0	0	0	0	0	0	0	Invalid	Invalid
100	0.21	246.48	100	-0.01	-0.07	-0.17	0.21	100
200	0.23	200.24	200	-0.16	-0.33	-0.41	0.17	100
300	0.24	204.3	300	-0.46	-0.71	-0.56	0.02	100
400	0.15	192.51	400	-0.71	-1.03	-0.68	0.1	100
500	0.16	231.62	500	-0.86	-1.25	-0.81	0.1	100
600	0.11	122.11	600	-0.98	-1.38	-0.84	0.22	100
646	0.15	149.32	646	-1.07	-1.46	-0.77	0.16	46
700	0.19	259.05	700	-1.13	-1.54	-0.83	0.52	54
800	0.39	259.87	800	-1.03	-1.63	-1.32	0.2	100
837	0.38	254.22	836.99	-0.99	-1.68	-1.57	0.11	37
900	0.83	280.1	899.99	-0.73	-1.66	-2.22	0.82	63
1000	1.4	302.16	999.97	0.63	-0.88	-3.96	0.7	100
1100	3.49	317.39	1099.88	4.45	2.01	-7.06	2.17	100
1200	3.7	316.18	1199.68	10.28	6.57	-11.35	0.22	100
1300	4.44	315.87	1299.43	16.84	11.68	-16.28	0.74	100
1400	4.94	316.58	1399.09	24.41	17.59	-21.94	0.5	100
1498	5.69	315.65	1496.67	32.8	24.13	-28.23	0.77	98
1597	4.34	314.46	1595.29	40.74	30.26	-34.34	1.37	99
1702	3.2	337.11	1700.06	47.31	35.75	-38.32	1.77	105
1786	3.7	341.24	1783.91	52.36	40.48	-40.1	0.66	84
1881	4.02	336.5	1878.7	58.76	46.44	-42.42	0.48	95
1976	4.19	333.89	1973.45	65.55	52.61	-45.27	0.26	95
2070	4.97	328.93	2067.15	72.98	59.18	-48.88	0.93	94
2165	5.4	330.98	2161.76	81.47	66.61	-53.18	0.5	95
2258	5.13	330.19	2254.37	89.92	74.05	-57.37	0.3	93
2353	4.9	329.4	2349.01	98.13	81.23	-61.54	0.25	95
2448	4.65	324.77	2443.68	105.88	87.86	-65.83	0.49	95
2542	4.17	320.05	2537.4	112.82	93.59	-70.22	0.64	94
2637	3.69	322.2	2632.18	119.03	98.65	-74.31	0.53	95
2778	2.8	309.53	2772.95	126.39	104.43	-79.74	0.81	141
2872	2.12	298.34	2866.86	129.73	106.71	-83.04	0.88	94
2967	2.03	290.49	2961.8	132.19	108.13	-86.16	0.31	95
3061	1.75	292.92	3055.75	134.31	109.27	-89.04	0.31	94
3156	1.39	290.77	3150.72	136.1	110.25	-91.46	0.39	95
3250	1.12	299.76	3244.69	137.58	111.11	-93.31	0.35	94
3345	0.59	296.15	3339.68	138.66	111.78	-94.55	0.56	95
3439	0.51	326.16	3433.68	139.43	112.34	-95.22	0.31	94
3533	0.57	294.96	3527.67	140.18	112.89	-95.88	0.32	94
3628	0.67	285.89	3622.67	140.86	113.24	-96.84	0.15	95
3723	0.74	283.99	3717.66	141.56	113.54	-97.98	0.08	95
3817	0.79	295.22	3811.65	142.38	113.96	-99.15	0.17	94
3912	0.62	329.78	3906.65	143.37	114.69	-100	0.47	95

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4007	0.29	301.41	4001.64	144.06	115.25	-100.47	0.41	95
4101	0.13	350.15	4095.64	144.36	115.48	-100.68	0.24	94
4222	0.09	334.63	4216.64	144.59	115.71	-100.75	0.05	121
4317	0.14	325.66	4311.64	144.78	115.87	-100.85	0.06	95
4411	1.58	24.99	4405.63	145.79	117.14	-100.36	1.61	94
4505	9.76	47.97	4499.1	149.48	123.67	-93.88	8.86	94
4601	17.36	54.49	4592.35	155.81	137.46	-76.15	8.06	96
4695	24.78	64.03	4680.03	160.74	154.26	-46.97	8.67	94
4742	30.34	65.99	4721.69	162.03	163.41	-27.26	11.98	47
4789	34.69	69.94	4761.31	162.21	172.84	-3.84	10.31	47
4836	38.1	76.63	4799.15	159.81	180.78	22.85	11.11	47
4884	37.6	77.75	4837.06	155.36	187.32	51.57	1.77	48
4978	36.43	79.85	4912.12	145.25	198.32	107.07	1.83	94
5073	32.22	77.17	4990.56	135.87	208.93	159.56	4.7	95
5168	31.3	79.12	5071.33	127.5	219.21	208.49	1.45	95
5262	33.71	78.6	5150.6	118.41	228.97	258.05	2.58	94
5357	33.35	77.71	5229.79	109.59	239.74	309.41	0.65	95
5452	33.72	79.32	5308.98	100.45	250.18	360.84	1.01	95
5546	33.86	78.95	5387.1	90.8	260.04	412.17	0.26	94
5641	35.74	77.23	5465.11	81.78	271.25	465.21	2.23	95
5735	33.57	77.46	5542.43	73.56	282.96	517.35	2.31	94
5830	33.01	79.26	5621.85	64.63	293.48	568.42	1.19	95
5925	33.63	82.22	5701.23	53.54	301.87	619.92	1.83	95
6020	32.79	80.63	5780.71	41.89	309.62	671.37	1.27	95
6067	30.22	80.92	5820.78	36.67	313.56	695.61	5.48	47
6114	28.21	72.82	5861.82	33.28	318.71	717.91	9.43	47
6161	30.7	61.45	5902.77	33.91	327.73	739.08	13	47
6208	31.77	58.52	5942.96	37.52	339.93	760.17	3.95	47
6255	30.66	54.09	5983.16	42.64	353.42	780.44	5.42	47
6303	30.85	46.42	6024.43	50.32	369.08	799.27	8.18	48
6350	34.09	34.79	6064.11	62.17	388.23	815.54	14.93	47
6397	36.1	27.02	6102.59	78.65	411.4	829.36	10.42	47
6444	37.48	19.8	6140.24	98.57	437.2	840.5	9.66	47
6492	36.88	16.17	6178.49	120.94	464.78	849.45	4.73	48
6539	39.18	10.26	6215.52	144.74	492.94	856.03	9.16	47
6586	40.51	5.49	6251.62	170.97	522.76	860.14	7.08	47
6633	42.56	359.52	6286.81	199.42	553.86	861.47	9.49	47
6681	45.59	354.3	6321.3	231.08	587.17	859.63	9.84	48
6728	47.72	351.86	6353.57	264.16	621.09	855.5	5.91	47
6776	51.13	349.54	6384.78	299.78	657.06	849.59	8	48
6823	55.5	346.35	6412.86	336.95	693.9	841.7	10.76	47
6871	61.23	342.84	6438.03	377.56	733.26	830.81	13.46	48
6918	67.11	339.39	6458.51	419.8	773.25	817.1	14.16	47
6965	69.55	336.39	6475.87	463.46	813.7	800.65	7.87	47
7012	69.95	335.43	6492.14	507.51	853.95	782.65	2.09	47
7061	72.47	333.45	6507.92	553.77	895.79	762.63	6.41	49
7108	76.12	332.18	6520.65	598.79	936.03	741.96	8.19	47
7155	78.19	331.05	6531.1	644.28	976.34	720.18	4.99	47
7202	81.14	329.18	6539.53	690.02	1016.43	697.15	7.39	47
7250	83.71	325.98	6545.86	736.73	1056.58	671.64	8.51	48
7297	88.37	324.17	6549.1	782.32	1095.01	644.8	10.64	47
7344	91.36	322.59	6549.21	827.69	1132.73	616.77	7.2	47
								LANDING POINT
7391	91.98	322.5	6547.84	872.86	1170.02	588.2	1.32	47
7438	93.03	322.24	6545.79	917.97	1207.21	559.53	2.31	47
7533	91.54	322.94	6542	1009.26	1282.6	501.87	1.74	95
7628	92.24	322.68	6538.86	1100.67	1358.24	444.48	0.79	95
7723	90.66	321.97	6536.46	1191.88	1433.41	386.44	1.82	95
7818	91.1	321.1	6535	1282.74	1507.78	327.35	1.03	95
7912	89.78	321.27	6534.28	1372.48	1581.02	268.43	1.42	94
8007	90.13	320.92	6534.35	1463.14	1654.95	208.77	0.52	95
8102	90.22	320.83	6534.06	1553.68	1728.65	148.82	0.13	95

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8196	90.13	321.1	6533.77	1643.32	1801.66	89.62	0.3	94
8291	90.13	320.3	6533.55	1733.78	1875.17	29.45	0.83	95
8386	90.4	319.16	6533.11	1823.73	1947.66	-31.95	1.23	95
8480	91.98	321.53	6531.17	1913.03	2020.01	-91.91	3.03	94
8575	92.15	321.36	6527.74	2003.8	2094.26	-151.08	0.26	95
8670	92.42	321.89	6523.95	2094.64	2168.67	-210.02	0.62	95
8765	90.92	323.91	6521.18	2186.09	2244.4	-267.29	2.65	95
8859	89.69	324.7	6520.68	2277.22	2320.74	-322.14	1.56	94
8954	90.04	325.14	6520.9	2369.57	2398.48	-376.74	0.59	95
9049	89.52	328.21	6521.26	2462.55	2477.85	-428.92	3.29	95
9144	88.2	327.34	6523.16	2555.87	2558.2	-479.57	1.67	95
9239	88.55	324.35	6525.85	2648.51	2636.77	-532.88	3.17	95
9333	90.4	320.57	6526.72	2738.83	2711.28	-590.15	4.47	94
9427	90.04	319.43	6526.36	2827.98	2783.28	-650.57	1.27	94
9522	91.45	319.25	6525.12	2917.71	2855.34	-712.47	1.49	95
9616	90.57	319.25	6523.46	3006.45	2926.54	-773.82	0.94	94
9711	91.63	319.25	6521.64	3096.12	2998.49	-835.82	1.11	95
9805	90.22	319.95	6520.12	3185.04	3070.07	-896.73	1.67	94
9900	90.31	320.48	6519.69	3275.25	3143.07	-957.52	0.56	95
9995	90.31	319.51	6519.17	3365.34	3215.84	-1018.58	1.02	95
10089	90.31	318.9	6518.67	3454.07	3287	-1080	0.65	94
10184	90.84	318.55	6517.72	3543.47	3358.39	-1142.66	0.67	95
10279	90.57	318.37	6516.56	3632.71	3429.49	-1205.66	0.33	95
10373	90.92	317.14	6515.33	3720.61	3499.07	-1268.85	1.36	94
10468	90.84	318.63	6513.87	3809.53	3569.54	-1332.55	1.58	95
10563	90.4	316.79	6512.85	3898.34	3639.81	-1396.46	2	95
10658	91.45	317.58	6511.32	3986.83	3709.48	-1461.02	1.39	95
10697	91.36	317.14	6510.36	4023.2	3738.16	-1487.43	1.15	39
10769	91.36	317.14	6508.65	4090.24	3790.93	-1536.39	0	72

\*Survey at 10769' is a PTB