



**Company:** Jay-Bee Oil & Gas  
**Rig:** Production  
**Latitude:** 39.430  
**Longitude:** -80.670  
**API #** 47-095-  
**Date:** 5/20/14

**Well:** Sneazy 10  
**Location:** Tyler Co. W.V  
**North Reference:** GC: 0.75  
**Depth Reference:** RKB= Ground Level  
**Surveyor:** Jesse Moats  
**VS:** 0.000

Field copy only not definitive.

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD	Cbrg
0.00	0.00	0.00	0.00	0.00	0.00	****	0.00	0.00	0.00
100	0.87	132.15	-0.51	0.56	100.00	0.87	-0.51	0.76	132.15
200	1.26	165.64	-2.09	1.40	199.98	0.72	-2.09	2.51	146.17
300	0.73	212.94	-3.69	1.32	299.97	0.94	-3.69	3.92	160.28
400	0.26	204.23	-4.44	0.88	399.96	0.48	-4.44	4.52	168.77
500	0.83	217.91	-5.21	0.34	499.96	0.58	-5.21	5.23	176.22
600	1.36	211.69	-6.80	-0.72	599.94	0.55	-6.80	6.83	186.07
700	1.26	236.64	-8.41	-2.26	699.91	0.58	-8.41	8.71	195.06
800	1.43	229.17	-9.83	-4.12	799.89	0.25	-9.83	10.66	202.76
900	1.85	217.27	-11.93	-6.05	899.84	0.54	-11.93	13.38	206.87
1000	2.93	207.89	-15.48	-8.22	999.76	1.14	-15.48	17.53	207.98
1100	2.67	208.00	-19.79	-10.51	1099.64	0.26	-19.79	22.41	207.97
1200	2.49	202.14	-23.86	-12.42	1199.54	0.32	-23.86	26.90	207.50
1300	2.08	195.32	-27.62	-13.72	1299.46	0.49	-27.62	30.84	206.41
1400	1.46	192.01	-30.62	-14.47	1399.41	0.63	-30.62	33.87	205.28
1500	1.23	192.96	-32.92	-14.97	1499.38	0.23	-32.92	36.17	204.46
1600	1.20	191.65	-34.99	-15.43	1599.36	0.05	-34.99	38.24	203.79
1700	0.98	201.41	-36.81	-15.95	1699.34	0.29	-36.81	40.12	203.42
1800	0.68	203.64	-38.15	-16.50	1799.33	0.30	-38.15	41.56	203.39
1900	0.20	228.06	-38.81	-16.87	1899.33	0.50	-38.81	42.32	203.49
2000	0.30	280.05	-38.88	-17.25	1999.32	0.23	-38.88	42.54	203.93
2100	0.50	275.19	-38.80	-17.94	2099.32	0.21	-38.80	42.75	204.82
2200	1.12	318.14	-38.03	-19.03	2199.31	0.83	-38.03	42.53	206.59
2300	1.19	323.14	-36.48	-20.31	2299.29	0.12	-36.48	41.75	209.10
2400	1.15	322.23	-34.86	-21.54	2399.27	0.04	-34.86	40.97	211.71
2500	0.90	322.52	-33.44	-22.63	2499.26	0.24	-33.44	40.38	214.09
2600	0.87	328.70	-32.16	-23.51	2599.24	0.10	-32.16	39.84	216.17
2700	0.47	346.50	-31.11	-24.00	2699.24	0.45	-31.11	39.29	217.65
2800	0.36	333.42	-30.43	-24.24	2799.23	0.15	-30.43	38.90	218.54
2900	0.22	317.56	-30.01	-24.51	2899.23	0.16	-30.01	38.74	219.24
3000	0.20	324.82	-29.72	-24.74	2999.23	0.03	-29.72	38.67	219.77
3100	0.21	293.27	-29.50	-25.01	3099.23	0.11	-29.50	38.68	220.29
3200	0.15	307.87	-29.35	-25.28	3199.23	0.08	-29.35	38.74	220.74
3300	0.35	315.89	-29.05	-25.60	3299.23	0.21	-29.05	38.60	221.39
3400	0.51	324.91	-28.47	-26.07	3399.23	0.17	-28.47	38.60	222.48
3500	0.58	322.21	-27.71	-26.63	3499.22	0.08	-27.71	38.43	223.87
3600	0.46	312.42	-27.04	-27.24	3599.22	0.15	-27.04	38.38	225.22
3700	0.43	315.77	-26.49	-27.80	3699.22	0.04	-26.49	38.40	226.38

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3800	0.33	319.13	-26.00	-28.25	3799.21	0.10	-26.00	38.40	227.37
3900	0.26	310.53	-25.64	-28.62	3899.21	0.08	-25.64	38.42	228.14
4000	0.33	323.45	-25.25	-28.96	3999.21	0.10	-25.25	38.43	228.92
4100	0.40	326.45	-24.73	-29.33	4099.21	0.07	-24.73	38.36	229.87
4200	0.31	315.01	-24.24	-29.72	4199.21	0.12	-24.24	38.35	230.79
4300	0.34	312.27	-23.86	-30.13	4299.20	0.03	-23.86	38.43	231.63
4400	0.41	317.01	-23.39	-30.59	4399.20	0.08	-23.39	38.51	232.59
4500	0.53	300.58	-22.90	-31.23	4499.20	0.18	-22.90	38.72	233.75
4600	0.38	295.42	-22.52	-31.93	4599.20	0.15	-22.52	39.07	234.80
4700	0.65	286.57	-22.22	-32.77	4699.19	0.28	-22.22	39.59	235.87
4800	0.85	297.50	-21.71	-33.97	4799.18	0.24	-21.71	40.32	237.41
4900	0.96	307.17	-20.87	-35.29	4899.17	0.19	-20.87	41.00	239.40
5000	0.92	308.84	-19.86	-36.58	4999.16	0.04	-19.86	41.63	241.51
5100	0.55	329.27	-18.94	-37.46	5099.15	0.45	-18.94	41.97	243.18
5200	0.82	329.65	-17.91	-38.06	5199.14	0.27	-17.91	42.07	244.80
5300	1.75	319.31	-16.14	-39.42	5299.12	0.95	-16.14	42.59	247.74
5400	1.83	309.27	-13.97	-41.65	5399.07	0.33	-13.97	43.93	251.46
5500	1.63	307.02	-12.10	-44.03	5499.02	0.21	-12.10	45.66	254.64
5600	1.40	302.31	-10.59	-46.20	5598.99	0.27	-10.59	47.40	257.09
5700	1.73	309.16	-8.98	-48.40	5698.95	0.37	-8.98	49.23	259.49
5800	1.53	308.46	-7.20	-50.61	5798.91	0.19	-7.20	51.12	261.90
5900	1.83	309.63	-5.35	-52.89	5898.87	0.30	-5.35	53.16	264.22

<b>Horizontal Displacement is</b>			
53.16	feet at	264.22	degrees

**Thank you**  
**Jesse Moats**  
**Vaughn Energy Services**

# PANTHER DRILLING SYSTEMS MWD SURVEY REPORT



Company: Jay Bee  
 Well: Sneezy #10  
 Location: Broad Run rd.  
 Rig: HWD #12

Job Number: NE140009      Calculator  
 Magnetic Decl.: -8.58      Proposed  
 Grid Corr.: \_\_\_\_\_      WELL API  
 Total Grid Corr.: \_\_\_\_\_      Tie Into:

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure Distance (ft)		
								N/S (ft)	E/W (ft)			
Tie In		5916	1.83	309.63		5914.87	-0.54	5.35	s	52.87	w	0
1	MP	5983.00	2.00	302.90	67	5981.83	-2.20	4.03	S	54.68	W	54.82
2	MP	6028.00	1.80	303.80	45	6026.81	-3.16	3.21	S	55.92	W	56.01
3	MP	6072.00	1.70	307.80	44	6070.79	-4.06	2.43	S	57.01	W	57.06
4	MP	6117.00	1.60	317.10	45	6115.77	-5.03	1.56	S	57.97	W	57.99
5	MP	6162.00	1.50	309.30	45	6160.75	-5.96	0.73	S	58.85	W	58.86
6	MP	6206.00	1.20	308.50	44	6204.74	-6.70	0.07	S	59.66	W	59.66
7	MP	6250.00	1.30	303.20	44	6248.73	-7.35	0.49	N	60.44	W	60.44
8	MP	6295.00	1.10	303.00	45	6293.72	-7.95	1.00	N	61.22	W	61.23
9	MP	6340.00	0.80	295.10	45	6338.71	-8.39	1.37	N	61.87	W	61.89
10	MP	6384.00	0.70	307.80	44	6382.71	-8.73	1.66	N	62.36	W	62.38
11	MP	6426.00	0.70	306.80	42	6424.71	-9.09	1.98	N	62.77	W	62.80
12	MP	6471.00	0.60	303.00	45	6469.70	-9.43	2.27	N	63.19	W	63.23
13	MP	6515.00	0.70	316.30	44	6513.70	-9.79	2.59	N	63.57	W	63.62
14	MP	6559.00	1.10	193.80	44	6557.70	-9.61	2.37	N	63.85	W	63.90
15	MP	6604.00	4.60	202.90	45	6602.64	-7.63	0.29	N	64.66	W	64.66
16	MP	6648.00	7.70	206.80	44	6646.38	-3.63	3.97	S	66.67	W	66.79
17	MP	6693.00	10.10	212.70	45	6690.83	1.95	9.98	S	70.17	W	70.87
18	MP	6737.00	12.60	198.20	44	6733.98	9.30	17.79	S	73.75	W	75.87
19	MP	6781.00	15.50	185.80	44	6776.67	19.41	28.20	S	75.84	W	80.92
20	MP	6826.00	17.60	185.90	45	6819.80	31.93	40.95	S	77.15	W	87.35
21	MP	6870.00	19.20	182.20	44	6861.55	45.58	54.80	S	78.11	W	95.42
22	MP	6914.00	20.10	182.60	44	6902.99	60.19	69.58	S	78.73	W	105.08
23	MP	6959.00	22.70	180.30	45	6944.88	76.45	85.99	S	79.13	W	116.86
24	MP	7003.00	24.30	172.60	44	6985.24	93.94	103.47	S	78.01	W	129.58
25	MP	7048.00	26.10	170.80	45	7025.96	113.09	122.42	S	75.23	W	143.69
26	MP	7092.00	29.50	172.20	44	7064.87	133.59	142.71	S	72.21	W	159.95
27	MP	7136.00	31.60	170.30	44	7102.76	155.94	164.81	S	68.80	W	178.60
28	MP	7180.00	34.50	168.20	44	7139.64	179.86	188.38	S	64.31	W	199.05
29	MP	7225.00	38.90	166.60	45	7175.71	206.59	214.61	S	58.43	W	222.42
30	MP	7269.00	42.30	164.90	44	7209.12	234.96	242.36	S	51.37	W	247.74
31	MP	7314.00	46.00	162.40	45	7241.40	265.83	272.42	S	42.52	W	275.72
32	MP	7358.00	49.80	160.30	44	7270.90	297.73	303.33	S	32.07	W	305.02
33	MP	7403.00	54.00	157.80	45	7298.66	332.01	336.39	S	19.39	W	336.94
34	MP	7447.00	58.90	156.40	44	7322.97	367.17	370.15	S	5.12	W	370.18
35	MP	7492.00	61.50	155.70	45	7345.33	404.43	405.83	S	10.74	E	405.97
36	MP	7536.00	65.20	156.20	44	7365.07	441.92	441.92	S	26.60	E	442.55
37	MP	7580.00	69.60	157.20	44	7381.97	480.80	479.04	S	59.24	E	480.95
38	MP	7625.00	74.90	157.70	45	7395.69	521.98	518.61	S	59.24	E	521.98
39	MP	7669.00	79.10	158.60	44	7405.58	563.32	558.39	S	55.19	E	563.43
40	MP	7713.00	84.10	160.40	44	7412.01	605.54	599.15	S	90.43	E	605.93
41	MP	7758.00	91.40	161.40	45	7413.77	649.40	641.61	S	105.13	E	650.17
42	MP	7802.00	93.70	160.60	44	7411.82	692.31	689.75	S	115.44	E	693.53
43	MP	7847.00	91.10	160.70	45	7409.93	736.15	725.59	S	135.34	E	737.92
44	MP	7892.00	91.10	161.60	45	7409.07	780.10	768.16	S	148.87	E	782.46
45	MP	7933.00	91.30	161.30	41	7408.21	820.19	807.03	S	161.21	E	823.11

10/25/2016



## PANTHER DRILLING SYSTEMS MWD SURVEY REPORT

110	MP	10769.00	90.60	160.60	45	7408.30	3590.97	3491.86	S	1071.71	E	3652.62
111	MP	10813.00	91.10	160.30	44	7407.65	3633.83	3533.32	S	1086.43	E	3696.58
112	MP	10857.00	92.30	161.60	44	7406.34	3676.76	3574.89	S	1100.78	E	3740.53
113	MP	10902.00	92.20	162.10	45	7404.58	3720.81	3617.62	S	1114.79	E	3785.49
114	MP	10946.00	91.60	162.30	44	7403.12	3763.93	3659.49	S	1128.23	E	3829.46
115	MP	10991.00	91.20	161.90	45	7402.02	3808.03	3702.30	S	1142.06	E	3874.44
116	MP	11035.00	89.80	161.60	44	7401.63	3851.11	3744.08	S	1155.84	E	3918.43
117	MP	11080.00	89.60	162.00	45	7401.87	3895.18	3786.83	S	1169.89	E	3963.42
118	MP	11124.00	89.40	162.10	44	7402.25	3938.30	3828.69	S	1183.45	E	4007.42
119	MP	11168.00	89.30	162.10	44	7402.75	3981.44	3870.55	S	1196.98	E	4051.41
120	MP	11213.00	89.50	162.60	45	7403.22	4025.59	3913.43	S	1210.62	E	4096.41
121	MP	11257.00	90.00	163.00	44	7403.42	4068.83	3955.46	S	1223.63	E	4140.41
122	MP	11301.00	89.90	163.60	44	7403.45	4112.13	3997.61	S	1236.27	E	4184.41
123	MP	11346.00	89.50	164.00	45	7403.69	4156.49	4040.82	S	1248.83	E	4229.40
124	MP	11390.00	89.80	163.20	44	7403.96	4199.84	4083.03	S	1261.25	E	4273.39
125	MP	11434.00	89.90	163.40	44	7404.07	4243.14	4125.17	S	1273.89	E	4317.39
126	MP	11478.00	89.30	163.10	44	7404.38	4286.44	4167.31	S	1286.57	E	4361.39
127	MP	11523.00	89.00	163.50	45	7405.05	4330.73	4210.40	S	1299.50	E	4406.38
128	MP	11567.00	89.70	163.50	44	7405.55	4374.06	4252.59	S	1312.00	E	4450.38
129	MP	11612.00	89.90	164.00	45	7405.71	4418.41	4295.79	S	1324.59	E	4495.37
130	MP	11657.00	91.00	164.10	45	7405.35	4462.80	4339.06	S	1336.96	E	4540.36
131	MP	11701.00	90.50	163.10	44	7404.78	4506.15	4381.26	S	1349.38	E	4584.35
132	MP	11745.00	91.30	163.20	44	7404.08	4549.43	4423.37	S	1362.13	E	4628.34
133	MP	11790.00	92.20	165.80	45	7402.71	4593.85	4466.71	S	1374.15	E	4673.30
134	MP	11834.00	91.90	165.20	44	7401.14	4637.40	4509.28	S	1385.16	E	4717.23
135	MP	11879.00	91.30	165.10	45	7399.88	4681.90	4552.76	S	1396.69	E	4762.18
136	MP	11923.00	91.10	165.00	44	7398.96	4725.42	4595.26	S	1408.04	E	4806.14
137	Project	11968.00	90.90	164.50	45	7398.17	4769.89	4638.67	S	1419.87	E	4851.11

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