



Scientific Drilling
Northeast District

Company: **Chux**
Field: **Marcellus**
Well: **OXF-13B-HS**
County: **Doddridge County**
State: **WV**
Rig: **Patterson-LTI 805**
MWD: **A. Stone / N. Bare**

Date: **March 10, 2016**
North Ref: **Grid**
Declination: **-7.73**
VS Azi: **250.65**
RKB-GL: **28.5**

Measured Depth ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	CisD ft	CisA deg	Course Length												
											MD ft	True Vertical Depth ft	Vertical Section ft	+N/S ft	+E/W ft	Dogleg Severity -7/100ft	Closure Distance ft	Closure Direction deg	Course Length ft			
0	0	226.32	0	0	0	0	0	0	0	0	Invalid	0	0	0	0	0	0	0	0	0	0	
28.5	0	226.32	28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.5
100	0.95	226.32	100	0.54	-0.41	-0.43	1.33	0.59	226.32	71.5	0	0	0	0	0	0	0	0	0	0	0	71.5
200	0.64	231.76	199.99	1.83	-1.33	-1.47	1.58	1.88	227.85	100	0	0	0	0	0	0	0	0	0	0	0	100
300	0.39	236.21	399.98	2.69	-1.86	-2.19	2.87	2.69	229.6	100	0	0	0	0	0	0	0	0	0	0	0	100
400	0.44	240.81	399.98	3.39	-2.24	-2.81	0.66	3.59	231.42	100	0	0	0	0	0	0	0	0	0	0	0	100
500	0.56	254.81	499.98	4.26	-2.55	-3.61	4.42	4.42	234.74	100	0	0	0	0	0	0	0	0	0	0	0	100
600	0.59	265.58	599.97	5.24	-2.72	-4.6	0.11	5.34	239.37	100	0	0	0	0	0	0	0	0	0	0	0	100
700	0.64	283.3	699.97	6.21	-2.63	-5.66	6.24	6.24	245.03	100	0	0	0	0	0	0	0	0	0	0	0	100
800	0.54	303.26	799.96	6.96	-2.25	-6.59	0.23	6.96	251.18	100	0	0	0	0	0	0	0	0	0	0	0	100
900	0.41	319.14	899.96	7.38	-1.72	-7.22	0.18	7.42	256.62	100	0	0	0	0	0	0	0	0	0	0	0	100
1000	0.3	326.56	999.96	7.57	-1.23	-7.5	0.12	7.7	260.82	100	0	0	0	0	0	0	0	0	0	0	0	100
1100	0.21	335.11	1099.95	7.65	-0.84	-7.82	0.1	7.87	263.84	100	0	0	0	0	0	0	0	0	0	0	0	100
1200	0.27	337.85	1199.95	7.68	-0.46	-7.99	0.06	8	266.71	100	0	0	0	0	0	0	0	0	0	0	0	100
1300	0.68	348.75	1299.95	7.6	0.34	-8.19	0.42	8.2	271.38	100	0	0	0	0	0	0	0	0	0	0	0	100
1400	0.54	0.43	1399.94	7.36	1.39	-8.3	0.19	8.42	279.53	100	0	0	0	0	0	0	0	0	0	0	0	100
1500	0.56	8.17	1499.94	6.97	2.35	-8.23	0.08	8.56	285.93	100	0	0	0	0	0	0	0	0	0	0	0	100
1600	0.31	32.65	1599.94	6.53	3.06	-8.01	0.11	8.58	290.9	100	0	0	0	0	0	0	0	0	0	0	0	100
1700	0.4	166.92	1699.94	6.35	2.95	-7.79	0.06	8.33	290.73	100	0	0	0	0	0	0	0	0	0	0	0	100
1800	0.15	165.54	1799.93	6.41	2.48	-7.68	0.15	8.07	287.91	100	0	0	0	0	0	0	0	0	0	0	0	100
1900	0.36	237.34	1899.93	6.72	2.19	-7.91	0.34	8.21	285.45	100	0	0	0	0	0	0	0	0	0	0	0	100
2000	0.14	262.4	1999.93	7.15	2	-8.3	0.24	8.53	283.55	100	0	0	0	0	0	0	0	0	0	0	0	100
2100	0.26	271.25	2099.93	7.48	1.69	-8.64	0.12	8.87	282.96	100	0	0	0	0	0	0	0	0	0	0	0	100
2200	0.25	262.94	2199.93	7.3	1.97	-9.09	0.04	9.3	282.21	100	0	0	0	0	0	0	0	0	0	0	0	100
2300	0.29	259.69	2299.93	8.37	1.89	-9.55	0.04	9.74	281.22	100	0	0	0	0	0	0	0	0	0	0	0	100
2400	0.41	258.34	2399.93	8.97	1.78	-10.15	0.12	10.31	279.93	100	0	0	0	0	0	0	0	0	0	0	0	100
2500	0.31	263.48	2499.93	9.59	1.67	-10.77	0.1	10.9	278.83	100	0	0	0	0	0	0	0	0	0	0	0	100
2600	0.38	267.55	2599.92	10.17	1.63	-11.37	0.07	11.49	278.15	100	0	0	0	0	0	0	0	0	0	0	0	100
2700	0.44	265.71	2699.92	10.86	1.59	-12.09	0.06	12.29	277.48	100	0	0	0	0	0	0	0	0	0	0	0	100
2800	0.49	268.76	2799.92	11.63	1.55	-12.9	0.06	12.99	276.85	100	0	0	0	0	0	0	0	0	0	0	0	100
2907	1.16	276.57	2906.91	13.04	1.66	-14.43	0.64	14.53	276.57	107	0	0	0	0	0	0	0	0	0	0	0	107

VES GYRO SURVEYS: 100 FT. - 2800 FT.

SDI SURVEYS: 2907 FT. - 6138 FT.

BHI SURVEYS: LAST SURVEY IS A PROJECTION TO BOTTOM HOLE LOCATION, 6214 FT.

3000	1.29	207.04	2999.89	14.66	0.84	-15.45	1.51	15.87	273.02	93
3094	1.90	181.8	3109.85	16.02	-1.74	-16.38	1.05	16.48	263.95	94
3188	2.4	156.24	3187.79	16.47	-5.16	-15.64	1.12	16.47	251.73	94
3281	1.73	133.04	3280.65	15.68	-6.61	-13.44	1.45	16.33	234.43	93
3375	5.67	140.78	3374.33	14.57	-16.33	-9.66	2.08	18.97	210.63	94
3468	5.1	135.5	3466.92	12.04	-23.3	-4.5	1.47	23.73	190.93	93
3562	4.25	134.9	3560.61	8.84	-28.79	0.04	0.92	28.8	178.33	94
3656	3.32	151.99	3654.39	6.89	-31.78	4.68	1.42	34.11	172.11	94
3750	2.69	152.6	3748.26	6.15	-38.28	7.07	0.89	38.93	169.94	94
3844	2.08	151.26	3842.17	3.97	-41.74	8.91	0.66	42.68	167.96	94
3937	1.49	141.42	3935.13	4.91	-44.16	10.47	0.71	45.38	166.66	93
4031	1.54	108.94	4029.1	3.33	-45.52	12.42	0.9	47.19	164.74	94
4124	2.42	82.37	4122.04	0.64	-45.67	15.54	1.34	48.25	161.2	93
4218	3.4	73.09	4215.92	-4.08	-44.61	20.17	1.16	48.96	153.67	94
4311	3.33	63.51	4308.76	-9.52	-42.6	25.23	0.61	49.51	149.37	93
4405	3.79	64.2	4402.58	-15.31	-40.03	30.47	0.49	50.31	147.73	94
4499	2.83	74.73	4496.42	-20.77	-38.07	35.5	1.2	52.06	137	94
4592	2.9	74.36	4589.31	-25.36	-36.83	39.99	0.08	54.37	132.64	93
4686	2.32	66.1	4683.21	-29.64	-35.42	44.02	0.73	56.5	128.82	94
4779	1.88	43.86	4776.15	-32.88	-33.55	48.8	0.99	57.99	125.64	93
4873	1.27	27.23	4870.14	-33.3	-33.15	47.31	3.35	57.6	125.14	94
4967	5.73	289.67	4963.94	-37.73	-36.23	43.29	4.78	55.69	130.98	94
5061	9.59	255.44	5057.09	-45.32	-40.57	30.66	4.64	50.85	142.92	94
5154	8.92	251.56	5148.88	-40.39	-44.79	16.31	0.98	47.67	159.88	93
5148	8.43	250.23	5141.75	14.13	-49.55	2.6	0.23	49.61	177	94
5141	7.64	244.29	5131.79	27.44	-54.65	-9.71	1.6	53.5	190.07	93
5145	10.04	243.83	5126.67	41.78	-60.97	-22.89	2.55	65.06	200.41	94
5229	13.87	244.51	5118.61	61.16	-69.44	-40.22	4.83	80.24	210.08	94
5222	12.36	235.16	5209.19	81.83	-79.91	-50.46	2.8	99.02	216.18	93
5716	11.06	230.7	5701.24	100.03	-91.38	-73.7	1.69	117.99	218.89	94
5810	11.94	233.56	5793.41	117.51	-102.68	-88.24	0.78	135.38	210.67	94
5904	16.22	249.73	5884.68	138.65	-112.82	-108.13	6.42	154.27	213.78	94
5997	19.76	252.06	5973.12	168.35	-122.16	-135.27	1.88	182.27	227.92	93
6091	20.86	255.06	6061.28	200.92	-131.57	-166.56	1.62	212.14	231.74	94
6188	21.09	256.23	6105.01	218.06	-135.63	-183.23	2.76	227.97	233.49	47
6214	24.89	256.01	6174.71	248.13	-142.36	-212.76	3.81	255.99	235.21	76