

HOBBS OCD

OCT 1 02017

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MWD SURVEYS

Customer: Conoco Phillips
Well: East Vacuum GBSA I
Field/Block: Vacuum
Co./Parish: Lea County, NM
State: New Mexico

PGS Job #: LNM51204V5
MWD Operator: Kevin Niemeyer
Directional Driller: Josh Phillips
Date of First Survey: November 14, 2015
Date of Last Survey: November 16, 2015



Total Correction: 6.67 East Grid

Vertical Section Plane: 143.98 Nominal Dip Angle: 60.70 Magnetic Field Strength: .468

Measured Depth					Coordinates		Closure				Vib/Shk				
	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS	Temp (°F)	Color	Date	Time	Flow Rate	
Survey's are tied into: 0											Date Received:				
Company:															
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
1	1701.00	0.30	314.60	1700.99	-4.39	3.13	-3.17	4.45	314.60	0.02		11/14/15	17:45		
2	1881.00	0.80	305.60	1880.98	-6.05	4.19	-4.53	6.17	312.77	0.28		11/14/15	18:30		
3	2060.00	0.80	314.80	2059.97	-8.47	5.80	-6.43	8.66	312.03	0.07		11/14/15	19:15		
4	2239.00	0.80	322.90	2238.95	-10.95	7.67	-8.07	11.14	313.56	0.06		11/14/15	20:00		
5	2418.00	0.60	358.50	2417.94	-12.98	9.61	-8.85	13.06	317.35	0.26		11/14/15	20:45		
6	2597.00	0.70	137.90	2596.93	-12.66	9.73	-8.14	12.69	320.09	0.68		11/14/15	23:00		
7	2777.00	1.80	127.30	2776.89	-8.86	7.20	-5.16	8.86	324.42	0.62		11/15/15	0:45		
8	2956.00	4.10	124.30	2955.64	-0.14	1.89	2.37	3.03	51.35	1.29		11/15/15	3:15		
9	3135.00	4.80	122.60	3134.10	12.86	-5.75	13.96	15.10	112.37	0.40		11/15/15	5:30		
10	3314.00	4.10	121.20	3312.56	25.73	-13.10	25.75	28.89	116.96	0.40		11/15/15	6:45		
11	3493.00	3.70	122.50	3491.14	37.01	-19.51	36.09	41.03	118.40	0.23		11/15/15	8:00		
12	3672.00	2.80	135.30	3669.85	46.71	-25.73	44.04	51.00	120.29	0.64		11/15/15	9:45		
13	3851.00	3.20	141.10	3848.61	56.02	-32.72	50.25	59.97	123.07	0.28		11/15/15	11:30		
14	4030.00	3.80	151.10	4027.27	66.89	-41.80	56.26	70.09	126.62	0.48		11/15/15	14:30		
15	4210.00	4.70	139.60	4206.78	80.16	-52.64	63.92	82.80	129.47	0.69		11/15/15	17:45		
16	4389.00	5.90	140.20	4385.01	96.66	-65.29	74.56	99.11	131.21	0.67		11/15/15	19:45		
17	4568.00	5.70	143.90	4563.10	114.73	-79.55	85.69	116.92	132.87	0.24		11/15/15	22:00		
18	4747.00	5.90	150.30	4741.18	132.76	-94.72	95.48	134.49	134.77	0.38		11/16/15	0:15		
19	4926.00	5.60	150.60	4919.28	150.58	-110.32	104.33	151.84	136.60	0.17		11/16/15	2:00		
20	5047.00	5.30	151.70	5039.73	161.98	-120.38	109.88	162.99	137.61	0.26		11/16/15	3:45		