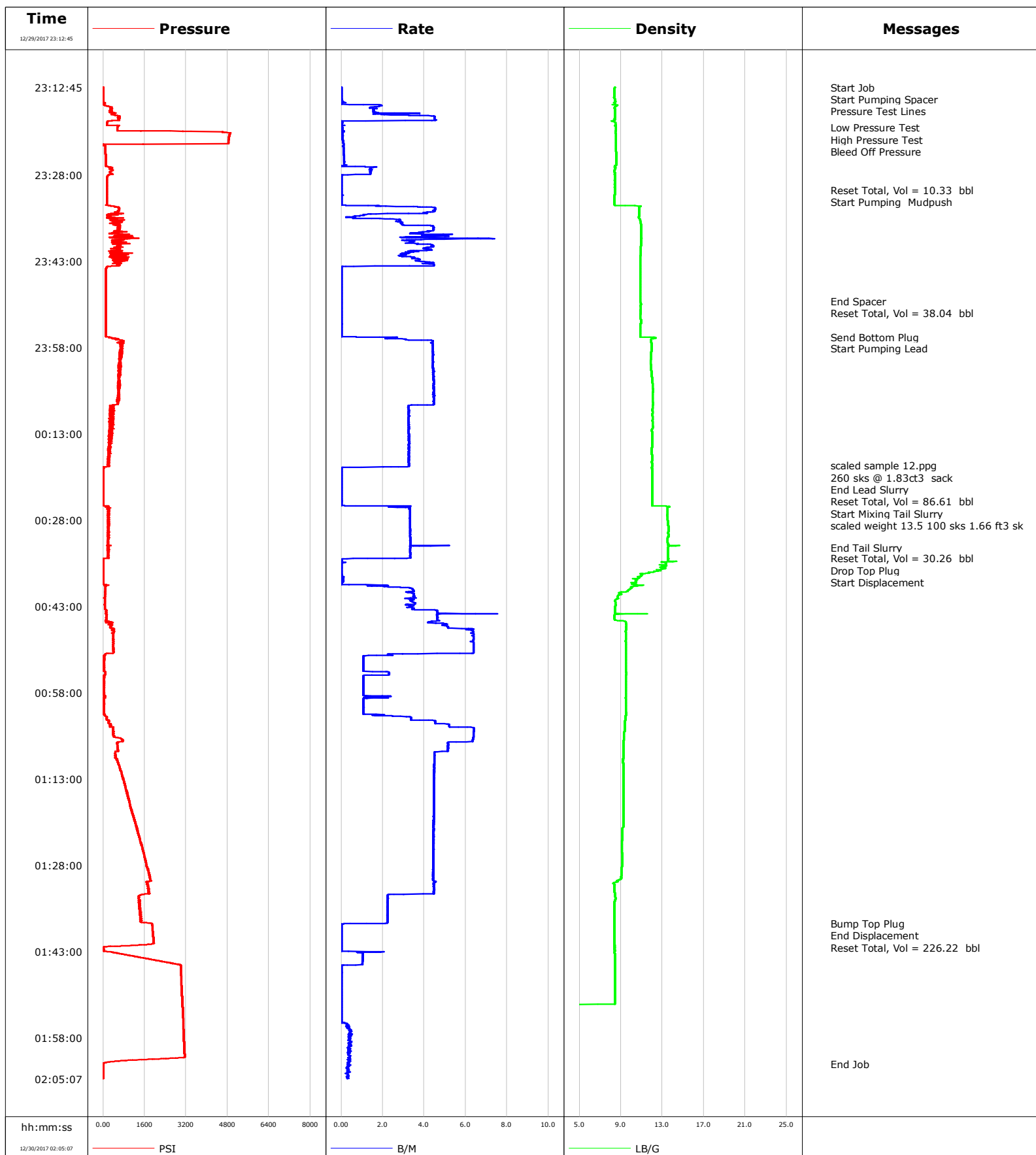


**Well** YELLOWHAMMER 34N-17HZ  
**Field** WATTENBERG  
**Engineer** NORM HASLAUER  
**Country** United States

**Client** ANADARKO  
**SIR No.** 2646072  
**Job Type** INTERMEDIATE  
**Job Date** 12-29-2017



# Cementing Service Report

				Customer ANADARKO			Job Number 2646072				
Well YELLOWHAMMER 34N-17HZ			Location (legal)			Schlumberger Location			Job Start Dec/29/2017		
Field WATTENBERG		Formation Name/Type Clean-Sandstone		Deviation deg		Bit Size in		Well MD 5868.0 ft		Well TVD 5740.0 ft	
County WELD		State/Province Colorado		BHP psi		BHST 191 degF		BHCT 141 degF		Pore Press. Gradient lb/gal	
Well Master 0631737895		API/UWI									
Rig Name X24		Drilled For Oil		Service Via Land		Casing/ Liner					
						Depth, ft		Size, in		Weight, lb/ft	
										Grade	
										Thread	
Offshore Zone		Well Class New		Well Type Development		1870.0		9.6		36.0	
						5740.0		7.0		26.0	
Drilling Fluid Type		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
										Weight, lb/ft	
										Grade	
										Thread	
Service Line Cementing		Job Type INTERMEDIATE									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Double Cement head		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
										No. of Shots	
										Total Interval ft	
										Diameter in	
						Treat Down Casing		Displacement bbl		Packer Type	
										Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 222.0 bbl		Annular Vol. bbl	
										Openhole Vol. bbl	
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>				Casing Tools			Squeeze Job		
Lift Pressure 1200 psi						Shoe Type Float			Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 5868.0 ft			Tool Type		
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type			Tool Depth ft		
Cement Head Type						Stage Tool Depth ft			Tail Pipe Size in		
Job Scheduled For Dec/29/2017		Arrived on Location Dec/29/2017		Leave Location Dec/29/2017		Collar Type Float			Tail Pipe Depth ft		
						Collar Depth 5740.0 ft			Sqz. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
12/29/2017	23:12:45	3	0.0	8.40	0.1	Started Acquisition					
12/29/2017	23:12:47	3	0.0	8.40	0.1	Start Job					
12/29/2017	23:12:50	4	0.0	8.40	0.1	Start Pumping Spacer					
12/29/2017	23:12:52	3	0.0	8.40	0.1	Pressure Test Lines					
12/29/2017	23:13:15	3	0.0	8.39	0.1						
12/29/2017	23:13:45	3	0.0	8.39	0.1						
12/29/2017	23:14:15	4	0.0	8.39	0.1						
12/29/2017	23:14:45	4	0.0	8.40	0.1						
12/29/2017	23:15:15	3	0.1	8.46	0.1						
12/29/2017	23:15:45	16	0.0	8.41	0.1						
12/29/2017	23:16:15	329	1.5	8.40	0.9						
12/29/2017	23:16:45	279	1.6	8.40	1.7						
12/29/2017	23:17:15	425	2.6	8.40	2.5						
12/29/2017	23:17:45	591	4.4	8.40	3.8						
12/29/2017	23:18:15	581	4.5	8.40	6.1						
12/29/2017	23:18:45	170	0.0	8.31	7.7						
12/29/2017	23:19:15	150	0.0	8.49	7.7						
12/29/2017	23:19:45	553	0.1	8.50	7.7	Low Pressure Test					
12/29/2017	23:20:15	541	0.1	8.50	7.8						
12/29/2017	23:20:45	4898	0.0	8.49	7.8						
12/29/2017	23:20:53	4884	0.1	8.50	7.8	High Pressure Test					

Well			Field		Job Start		Customer		Job Number	
YELLOWHAMMER 34N-17HZ			WATTENBERG		Dec/29/2017		ANADARKO		2646072	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/29/2017	23:21:45	4848	0.1	8.51	7.9					
12/29/2017	23:22:15	4835	0.1	8.53	7.9					
12/29/2017	23:22:31	4831	0.1	8.53	7.9	Bleed Off Pressure				
12/29/2017	23:22:45	4	0.1	8.53	7.9					
12/29/2017	23:23:15	90	0.1	8.53	8.0					
12/29/2017	23:23:45	91	0.1	8.54	8.0					
12/29/2017	23:24:15	94	0.1	8.54	8.1					
12/29/2017	23:24:45	98	0.1	8.55	8.2					
12/29/2017	23:25:15	102	0.1	8.56	8.2					
12/29/2017	23:25:45	104	0.1	8.57	8.3					
12/29/2017	23:26:15	107	0.1	8.57	8.4					
12/29/2017	23:26:45	367	1.5	8.45	8.6					
12/29/2017	23:27:15	362	1.4	8.37	9.3					
12/29/2017	23:27:45	306	1.4	8.40	10.1					
12/29/2017	23:28:15	165	0.0	8.40	10.4					
12/29/2017	23:28:45	145	0.0	8.40	10.4					
12/29/2017	23:29:15	140	0.0	8.40	10.4					
12/29/2017	23:29:45	137	0.0	8.40	10.4					
12/29/2017	23:30:15	136	0.0	8.40	10.4					
12/29/2017	23:30:34	137	0.0	8.40	10.4	Reset Total, Vol = 10.33 bbl				
12/29/2017	23:30:45	136	0.0	8.40	10.4					
12/29/2017	23:31:14	136	0.0	8.40	10.4	Start Pumping Mudpush				
12/29/2017	23:31:15	136	0.0	8.40	10.4					
12/29/2017	23:31:45	136	0.0	8.40	10.4					
12/29/2017	23:32:15	136	0.0	8.40	10.4					
12/29/2017	23:32:45	136	0.0	8.40	10.4					
12/29/2017	23:33:15	136	0.0	8.40	10.4					
12/29/2017	23:33:45	624	4.5	10.76	11.7					
12/29/2017	23:34:15	572	4.4	10.76	13.9					
12/29/2017	23:34:45	434	3.2	10.75	16.1					
12/29/2017	23:35:15	193	0.7	10.74	16.7					
12/29/2017	23:35:45	319	2.8	10.81	17.2					
12/29/2017	23:36:15	487	2.9	10.91	18.6					
12/29/2017	23:36:45	474	3.1	10.95	20.1					
12/29/2017	23:37:15	554	4.5	10.95	22.2					
12/29/2017	23:37:45	639	4.2	10.94	24.4					
12/29/2017	23:38:15	315	3.8	10.95	26.4					
12/29/2017	23:38:45	959	3.6	10.95	28.7					
12/29/2017	23:39:15	458	3.8	10.96	31.0					
12/29/2017	23:39:45	599	3.4	10.95	32.7					
12/29/2017	23:40:15	685	4.4	10.94	34.6					
12/29/2017	23:40:45	658	4.2	10.93	36.7					
12/29/2017	23:41:15	318	3.3	10.91	38.8					
12/29/2017	23:41:45	937	2.9	10.90	40.4					
12/29/2017	23:42:15	356	3.4	10.86	41.9					
12/29/2017	23:42:45	425	3.8	10.87	43.7					
12/29/2017	23:43:45	670	4.5	10.85	47.8					
12/29/2017	23:44:15	116	0.0	10.85	48.4					
12/29/2017	23:44:45	102	0.0	10.85	48.4					
12/29/2017	23:45:15	100	0.0	10.85	48.4					
12/29/2017	23:45:45	99	0.0	10.85	48.4					
12/29/2017	23:46:15	99	0.0	10.85	48.4					
12/29/2017	23:46:45	99	0.0	10.85	48.4					
12/29/2017	23:47:15	99	0.0	10.85	48.4					

Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017	Customer ANADARKO		Job Number 2646072
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
12/29/2017	23:48:15	98	0.0	10.85	48.4			
12/29/2017	23:48:45	98	0.0	10.86	48.4			
12/29/2017	23:49:15	98	0.0	10.85	48.4			
12/29/2017	23:49:45	98	0.0	10.86	48.4			
12/29/2017	23:49:57	98	0.0	10.85	48.4	End Spacer		
12/29/2017	23:50:15	98	0.0	10.90	48.4			
12/29/2017	23:50:18	98	0.0	10.91	48.4	Reset Total, Vol = 38.04 bbl		
12/29/2017	23:50:45	98	0.0	10.87	48.4			
12/29/2017	23:51:15	98	0.0	10.91	48.4			
12/29/2017	23:51:45	98	0.0	10.89	48.4			
12/29/2017	23:52:15	98	0.0	10.88	48.4			
12/29/2017	23:52:45	97	0.0	10.86	48.4			
12/29/2017	23:53:15	99	0.0	10.95	48.4			
12/29/2017	23:53:45	98	0.0	10.95	48.4			
12/29/2017	23:54:15	98	0.0	10.86	48.4			
12/29/2017	23:54:45	98	0.0	10.86	48.4			
12/29/2017	23:55:15	98	0.0	10.86	48.4			
12/29/2017	23:55:45	98	0.0	10.86	48.4			
12/29/2017	23:56:06	98	0.0	10.86	48.4	Send Bottom Plug		
12/29/2017	23:56:15	238	2.7	12.18	48.5			
12/29/2017	23:56:32	543	3.1	11.94	49.2	Start Pumping Lead		
12/29/2017	23:56:45	633	4.2	11.92	49.9			
12/29/2017	23:57:15	742	4.3	11.94	52.1			
12/29/2017	23:57:45	729	4.4	11.95	54.3			
12/29/2017	23:58:15	672	4.4	11.96	56.5			
12/29/2017	23:58:45	740	4.4	11.94	58.7			
12/29/2017	23:59:15	639	4.4	11.92	60.9			
12/29/2017	23:59:45	625	4.4	11.90	63.1			
12/30/2017	00:00:15	673	4.4	11.89	65.3			
12/30/2017	00:00:45	665	4.4	11.88	67.5			
12/30/2017	00:01:15	615	4.4	11.90	69.7			
12/30/2017	00:01:45	652	4.4	11.92	71.9			
12/30/2017	00:02:15	597	4.5	11.97	74.2			
12/30/2017	00:02:45	673	4.4	11.96	76.4			
12/30/2017	00:03:15	582	4.4	12.00	78.6			
12/30/2017	00:03:45	617	4.4	12.02	80.8			
12/30/2017	00:04:15	645	4.5	12.04	83.1			
12/30/2017	00:04:45	577	4.4	12.05	85.3			
12/30/2017	00:05:15	580	4.5	12.09	87.5			
12/30/2017	00:05:45	600	4.4	12.08	89.7			
12/30/2017	00:06:15	627	4.4	12.06	92.0			
12/30/2017	00:06:45	557	4.5	12.07	94.2			
12/30/2017	00:07:15	542	4.5	12.06	96.4			
12/30/2017	00:07:45	572	4.5	12.09	98.7			
12/30/2017	00:08:15	427	3.2	12.06	100.6			
12/30/2017	00:08:45	280	3.2	12.03	102.2			
12/30/2017	00:09:15	381	3.2	12.04	103.9			
12/30/2017	00:09:45	309	3.2	12.03	105.5			
12/30/2017	00:10:15	319	3.2	12.05	107.1			
12/30/2017	00:10:45	273	3.2	12.03	108.8			
12/30/2017	00:11:15	339	3.3	12.05	110.4			
12/30/2017	00:11:45	248	3.3	12.08	112.0			
12/30/2017	00:12:15	307	3.2	11.99	113.6			
12/30/2017	00:12:45	295	3.2	12.01	115.3			

Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017		Customer ANADARKO		Job Number 2646072	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
12/30/2017	00:13:45	302		3.3	12.02		118.5			
12/30/2017	00:14:15	259		3.3	12.01		120.1			
12/30/2017	00:14:45	220		3.3	12.02		121.8			
12/30/2017	00:15:15	291		3.3	12.02		123.4			
12/30/2017	00:15:45	220		3.3	11.96		125.0			
12/30/2017	00:16:15	259		3.3	11.97		126.7			
12/30/2017	00:16:45	261		3.2	12.01		128.3			
12/30/2017	00:17:15	194		3.3	11.99		129.9			
12/30/2017	00:17:45	198		3.3	11.99		131.6			
12/30/2017	00:18:15	179		3.3	11.99		133.2			
12/30/2017	00:18:30	236		3.3	11.99		134.0		scaled sample 12.ppg	
12/30/2017	00:18:45	115		2.8	11.99		134.8			
12/30/2017	00:18:52	23		0.1	11.99		135.0		End Lead Slurry	
12/30/2017	00:19:15	16		0.0	11.99		135.0			
12/30/2017	00:19:45	15		0.0	11.99		135.0			
12/30/2017	00:20:15	15		0.0	11.99		135.0			
12/30/2017	00:20:45	16		0.0	11.99		135.0			
12/30/2017	00:21:15	15		0.0	12.00		135.0			
12/30/2017	00:21:45	16		0.0	12.00		135.0			
12/30/2017	00:22:03	16		0.0	12.00		135.0		Reset Total, Vol = 86.61 bbl	
12/30/2017	00:22:15	15		0.0	12.00		135.0			
12/30/2017	00:22:45	15		0.0	12.01		135.0			
12/30/2017	00:23:15	15		0.0	12.01		135.0			
12/30/2017	00:23:45	15		0.0	12.01		135.1			
12/30/2017	00:24:15	15		0.0	12.01		135.1			
12/30/2017	00:24:45	15		0.0	12.01		135.1			
12/30/2017	00:25:15	15		0.0	12.02		135.1			
12/30/2017	00:25:45	149		2.3	13.68		135.6			
12/30/2017	00:26:15	227		3.3	13.49		137.2			
12/30/2017	00:26:45	221		3.3	13.48		138.9			
12/30/2017	00:26:52	185		3.3	13.48		139.3		Start Mixing Tail Slurry	
12/30/2017	00:27:15	237		3.3	13.47		140.5			
12/30/2017	00:27:45	179		3.3	13.50		142.2			
12/30/2017	00:28:00	213		3.3	13.51		143.0		scaled weight 13.5 100 sks 1.66 ft3 sk	
12/30/2017	00:28:15	240		3.3	13.53		143.8			
12/30/2017	00:28:45	212		3.3	13.55		145.5			
12/30/2017	00:29:15	188		3.3	13.58		147.2			
12/30/2017	00:29:45	178		3.3	13.59		148.8			
12/30/2017	00:30:15	226		3.3	13.56		150.5			
12/30/2017	00:30:45	185		3.3	13.57		152.1			
12/30/2017	00:31:15	200		3.3	13.51		153.8			
12/30/2017	00:31:45	179		3.3	13.51		155.5			
12/30/2017	00:32:15	179		3.3	13.58		157.1			
12/30/2017	00:32:45	217		3.3	13.56		158.9			
12/30/2017	00:32:47	183		3.3	13.56		159.0		End Tail Slurry	
12/30/2017	00:33:15	221		3.3	13.56		160.6			
12/30/2017	00:33:45	195		3.3	13.56		162.3			
12/30/2017	00:34:15	228		3.3	13.56		163.9			
12/30/2017	00:34:39	77		2.6	13.56		165.2		Reset Total, Vol = 30.26 bbl	
12/30/2017	00:34:44	12		0.3	13.57		165.4		Drop Top Plug	
12/30/2017	00:34:45	12		0.3	13.57		165.4		Start Displacement	
12/30/2017	00:35:15	11		0.0	14.02		165.4			
12/30/2017	00:35:45	11		0.0	13.39		165.5			
12/30/2017	00:36:15	12		0.0	13.25		165.5			

Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017		Customer ANADARKO		Job Number 2646072	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
12/30/2017	00:37:15	13		0.0	11.56		165.5			
12/30/2017	00:37:45	13		0.0	10.96		165.5			
12/30/2017	00:38:15	13		0.0	10.42		165.5			
12/30/2017	00:38:45	14		0.1	10.45		165.5			
12/30/2017	00:39:15	131		0.4	10.51		165.5			
12/30/2017	00:39:45	88		3.1	10.02		166.5			
12/30/2017	00:40:15	84		3.5	9.67		168.2			
12/30/2017	00:40:45	79		3.5	8.84		169.9			
12/30/2017	00:41:15	73		3.5	8.76		171.6			
12/30/2017	00:41:45	67		3.3	8.61		173.4			
12/30/2017	00:42:15	73		3.4	8.45		175.1			
12/30/2017	00:42:45	60		3.1	8.50		176.8			
12/30/2017	00:43:15	74		3.4	8.42		178.4			
12/30/2017	00:43:45	124		4.6	8.42		180.3			
12/30/2017	00:44:15	114		5.0	8.47		182.6			
12/30/2017	00:44:45	128		4.6	8.40		185.1			
12/30/2017	00:45:15	126		4.6	8.40		187.4			
12/30/2017	00:45:45	131		4.2	9.48		189.7			
12/30/2017	00:46:15	295		4.9	9.50		192.0			
12/30/2017	00:46:45	280		5.1	9.50		194.6			
12/30/2017	00:47:15	404		6.3	9.49		197.6			
12/30/2017	00:47:45	399		6.4	9.46		200.8			
12/30/2017	00:48:15	393		6.4	9.46		203.9			
12/30/2017	00:48:45	392		6.4	9.46		207.1			
12/30/2017	00:49:15	393		6.4	9.45		210.3			
12/30/2017	00:49:45	395		6.4	9.45		213.5			
12/30/2017	00:50:15	394		6.4	9.45		216.7			
12/30/2017	00:50:45	379		6.4	9.47		219.9			
12/30/2017	00:51:15	88		3.0	9.46		223.0			
12/30/2017	00:51:45	47		1.1	9.47		224.0			
12/30/2017	00:52:15	37		1.1	9.49		224.5			
12/30/2017	00:52:45	36		1.1	9.49		225.0			
12/30/2017	00:53:15	37		1.1	9.49		225.6			
12/30/2017	00:53:45	32		1.1	9.49		226.1			
12/30/2017	00:54:15	36		1.1	9.49		226.6			
12/30/2017	00:54:45	86		2.3	9.50		227.6			
12/30/2017	00:55:15	40		1.1	9.49		228.5			
12/30/2017	00:55:45	33		1.1	9.47		229.0			
12/30/2017	00:56:15	40		1.1	9.47		229.5			
12/30/2017	00:56:45	34		1.1	9.48		230.1			
12/30/2017	00:57:15	36		1.1	9.48		230.6			
12/30/2017	00:57:45	38		1.1	9.48		231.1			
12/30/2017	00:58:15	34		1.1	9.48		231.7			
12/30/2017	00:58:45	35		1.9	9.45		232.4			
12/30/2017	00:59:15	35		1.1	9.48		233.1			
12/30/2017	00:59:45	38		1.1	9.49		233.6			
12/30/2017	01:00:15	33		1.1	9.49		234.1			
12/30/2017	01:00:45	37		1.1	9.49		234.7			
12/30/2017	01:01:15	32		1.1	9.49		235.2			
12/30/2017	01:01:45	34		1.1	9.50		235.8			
12/30/2017	01:02:15	164		3.3	9.44		236.8			
12/30/2017	01:02:45	131		3.4	9.44		238.5			
12/30/2017	01:03:15	204		4.5	9.36		240.7			
12/30/2017	01:03:45	259		5.2	9.36		243.1			

Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017		Customer ANADARKO		Job Number 2646072	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
12/30/2017	01:04:45	389		6.4	9.36		249.2			
12/30/2017	01:05:15	375		6.4	9.29		252.4			
12/30/2017	01:05:45	449		6.4	9.28		255.6			
12/30/2017	01:06:15	762		6.3	9.28		258.7			
12/30/2017	01:06:45	528		5.1	9.24		261.7			
12/30/2017	01:07:15	552		5.1	9.23		264.3			
12/30/2017	01:07:45	554		5.1	9.23		266.9			
12/30/2017	01:08:15	474		4.9	9.22		269.4			
12/30/2017	01:08:45	475		4.5	9.21		271.7			
12/30/2017	01:09:15	484		4.5	9.21		273.9			
12/30/2017	01:09:45	534		4.5	9.21		276.2			
12/30/2017	01:10:15	582		4.5	9.21		278.4			
12/30/2017	01:10:45	615		4.5	9.22		280.7			
12/30/2017	01:11:15	652		4.5	9.22		282.9			
12/30/2017	01:11:45	695		4.5	9.22		285.1			
12/30/2017	01:12:15	717		4.5	9.22		287.4			
12/30/2017	01:12:45	762		4.5	9.23		289.6			
12/30/2017	01:13:15	791		4.5	9.23		291.9			
12/30/2017	01:13:45	810		4.5	9.23		294.1			
12/30/2017	01:14:15	851		4.5	9.23		296.3			
12/30/2017	01:14:45	877		4.5	9.23		298.6			
12/30/2017	01:15:15	915		4.5	9.23		300.8			
12/30/2017	01:15:45	948		4.5	9.23		303.0			
12/30/2017	01:16:15	965		4.5	9.23		305.3			
12/30/2017	01:16:45	1002		4.5	9.23		307.5			
12/30/2017	01:17:15	1035		4.5	9.23		309.7			
12/30/2017	01:17:45	1040		4.5	9.23		312.0			
12/30/2017	01:18:15	1090		4.5	9.23		314.2			
12/30/2017	01:18:45	1114		4.5	9.23		316.4			
12/30/2017	01:19:15	1133		4.5	9.23		318.6			
12/30/2017	01:19:45	1194		4.5	9.23		320.9			
12/30/2017	01:20:15	1206		4.4	9.23		323.1			
12/30/2017	01:20:45	1243		4.4	9.23		325.3			
12/30/2017	01:21:15	1282		4.4	9.23		327.6			
12/30/2017	01:21:45	1294		4.5	9.15		329.8			
12/30/2017	01:22:15	1340		4.4	9.14		332.0			
12/30/2017	01:22:45	1364		4.5	9.14		334.2			
12/30/2017	01:23:15	1404		4.4	9.13		336.4			
12/30/2017	01:23:45	1432		4.4	9.11		338.7			
12/30/2017	01:24:15	1455		4.4	9.11		340.9			
12/30/2017	01:24:45	1497		4.4	9.11		343.1			
12/30/2017	01:25:15	1521		4.5	9.11		345.3			
12/30/2017	01:25:45	1555		4.4	9.11		347.6			
12/30/2017	01:26:15	1579		4.4	9.15		349.8			
12/30/2017	01:26:45	1607		4.4	9.15		352.0			
12/30/2017	01:27:15	1639		4.4	9.16		354.2			
12/30/2017	01:27:45	1648		4.4	9.16		356.4			
12/30/2017	01:28:15	1690		4.4	9.10		358.7			
12/30/2017	01:28:45	1724		4.4	9.05		360.9			
12/30/2017	01:29:15	1759		4.4	9.04		363.1			
12/30/2017	01:29:45	1784		4.4	9.03		365.3			
12/30/2017	01:30:15	1803		4.4	9.03		367.5			
12/30/2017	01:30:45	1850		4.5	8.60		369.7			
12/30/2017	01:31:15	1701		4.4	8.34		372.0			

Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017		Customer ANADARKO		Job Number 2646072	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
12/30/2017	01:32:15	1755	4.5	8.39	376.5					
12/30/2017	01:32:45	1746	4.5	8.40	378.7					
12/30/2017	01:33:15	1423	2.2	8.42	380.5					
12/30/2017	01:33:45	1363	2.2	8.50	381.6					
12/30/2017	01:34:15	1382	2.2	8.40	382.8					
12/30/2017	01:34:45	1432	2.2	8.39	383.9					
12/30/2017	01:35:15	1389	2.2	8.39	385.0					
12/30/2017	01:35:45	1425	2.2	8.39	386.1					
12/30/2017	01:36:15	1407	2.2	8.39	387.2					
12/30/2017	01:36:45	1423	2.2	8.39	388.3					
12/30/2017	01:37:15	1470	2.2	8.39	389.5					
12/30/2017	01:37:45	1431	2.2	8.39	390.6					
12/30/2017	01:38:10	1913	0.5	8.39	391.5	Bump Top Plug				
12/30/2017	01:38:11	1881	0.1	8.39	391.5	End Displacement				
12/30/2017	01:38:15	1890	0.0	8.39	391.5					
12/30/2017	01:38:22	1893	0.0	8.39	391.5	Reset Total, Vol = 226.22 bbl				
12/30/2017	01:38:45	1899	0.0	8.39	391.5					
12/30/2017	01:39:15	1909	0.0	8.39	391.5					
12/30/2017	01:39:45	1919	0.0	8.39	391.5					
12/30/2017	01:40:15	1929	0.0	8.39	391.5					
12/30/2017	01:40:45	1938	0.0	8.40	391.5					
12/30/2017	01:41:15	1947	0.0	8.40	391.5					
12/30/2017	01:41:45	1790	0.0	8.40	391.5					
12/30/2017	01:42:15	20	0.0	8.40	391.5					
12/30/2017	01:42:45	20	0.0	8.40	391.5					
12/30/2017	01:43:15	471	1.0	8.39	391.9					
12/30/2017	01:43:45	1076	1.0	8.41	392.4					
12/30/2017	01:44:15	1707	1.0	8.41	392.9					
12/30/2017	01:44:45	2263	1.0	8.40	393.4					
12/30/2017	01:45:15	2881	1.0	8.41	393.9					
12/30/2017	01:45:45	2993	0.0	8.42	394.0					
12/30/2017	01:46:15	2996	0.0	8.42	394.0					
12/30/2017	01:46:45	3000	0.0	8.41	394.1					
12/30/2017	01:47:15	3005	0.0	8.41	394.1					
12/30/2017	01:47:45	3011	0.0	8.41	394.1					
12/30/2017	01:48:15	3016	0.0	8.41	394.1					
12/30/2017	01:48:45	3022	0.0	8.41	394.1					
12/30/2017	01:49:15	3027	0.0	8.41	394.1					
12/30/2017	01:49:45	3032	0.0	8.41	394.1					
12/30/2017	01:50:15	3037	0.0	8.41	394.1					
12/30/2017	01:50:45	3043	0.0	8.41	394.1					
12/30/2017	01:51:15	3049	0.0	8.41	394.1					
12/30/2017	01:51:45	3053	0.0	8.41	394.1					
12/30/2017	01:52:15	3059	0.0	1.98	394.1					
12/30/2017	01:52:45	3063	0.0	0.26	394.1					
12/30/2017	01:53:15	3068	0.0	0.13	394.1					
12/30/2017	01:53:45	3073	0.0	0.08	394.1					
12/30/2017	01:54:15	3079	0.0	0.06	394.1					
12/30/2017	01:54:45	3083	0.0	0.06	394.1					
12/30/2017	01:55:15	3089	0.0	0.06	394.1					
12/30/2017	01:55:45	3093	0.3	0.06	394.1					
12/30/2017	01:56:15	3098	0.3	0.06	394.1					
12/30/2017	01:56:45	3102	0.4	0.06	394.1					
12/30/2017	01:57:15	3106	0.4	0.06	394.1					



Well YELLOWHAMMER 34N-17HZ			Field WATTENBERG		Job Start Dec/29/2017	Customer ANADARKO		Job Number 2646072
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
12/30/2017	01:58:15	3115	0.5	0.06	394.1			
12/30/2017	01:58:45	3121	0.5	0.06	394.1			
12/30/2017	01:59:15	3125	0.4	0.06	394.1			
12/30/2017	01:59:45	3129	0.3	0.06	394.1			
12/30/2017	02:00:15	3134	0.4	0.06	394.1			
12/30/2017	02:00:45	3138	0.4	0.06	394.1			
12/30/2017	02:01:15	3143	0.4	0.06	394.1			
12/30/2017	02:01:45	1766	0.3	0.06	394.1			
12/30/2017	02:02:15	194	0.4	0.06	394.1			
12/30/2017	02:02:35	14	0.4	0.06	394.1	End Job		
12/30/2017	02:02:45	14	0.5	0.06	394.1			
12/30/2017	02:03:15	15	0.3	0.06	394.1			
12/30/2017	02:03:45	14	0.3	0.06	394.1			
12/30/2017	02:04:15	15	0.3	0.06	394.1			

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 3.0	N2	Mud	Maximum Rate 7.5	Total Slurry 109.0	Mud 0.0	Spacer 40.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 4909	Final 15	Average 802	Bump Plug to 1900	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 108.0 bbl		Displacement 222.0 bbl	Mix Water Temp 44 degF	Cement Circulated to Surface? <input type="checkbox"/>	Volume bbl	
						Washed Thru Perfs <input type="checkbox"/>	To ft	
Customer or Authorized Representative			Schlumberger Supervisor NORM HASLAUER			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	