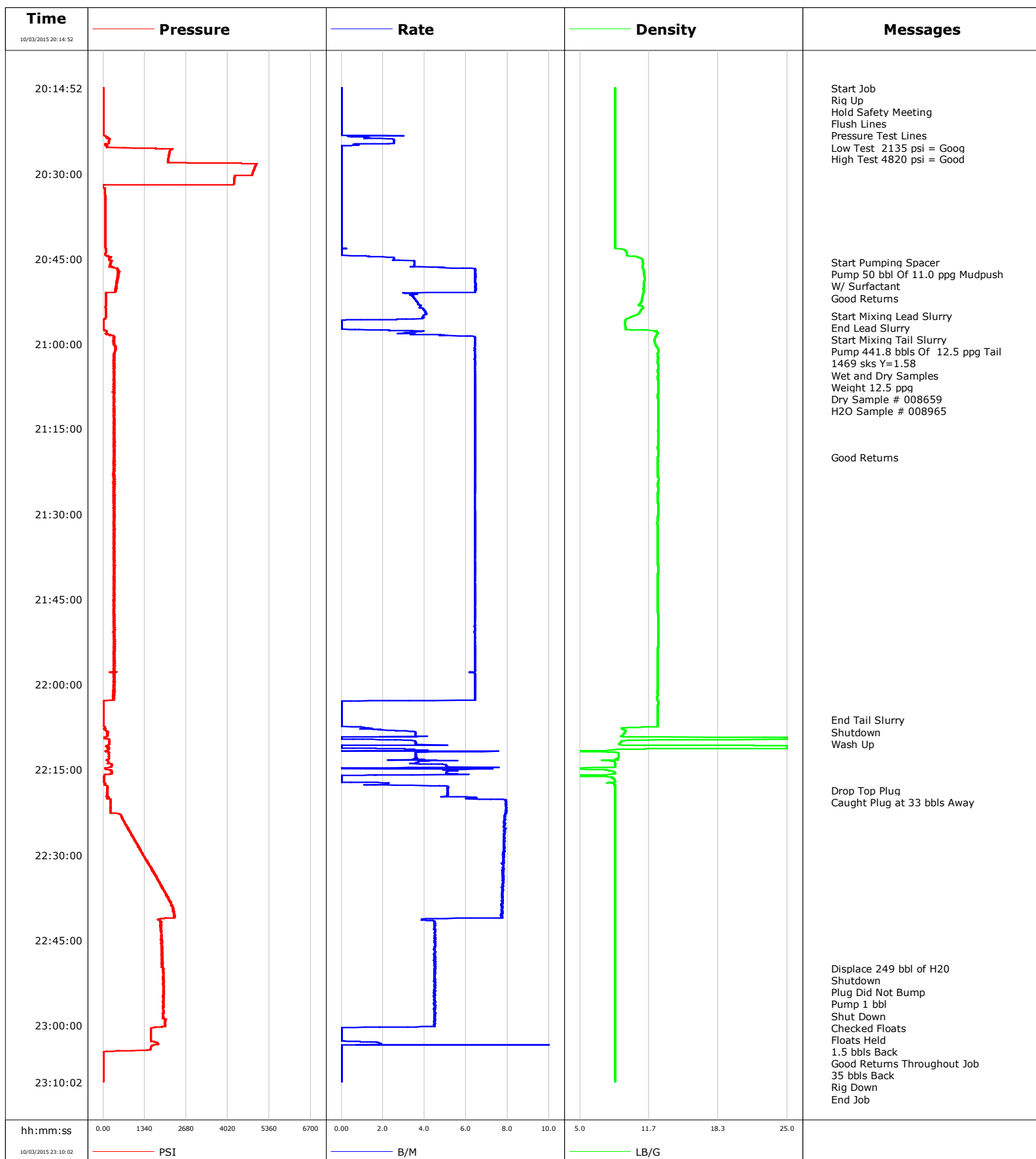


Well Waag 20
Field Wattenberg
Engineer Justin Zika/Leiker
Country United States

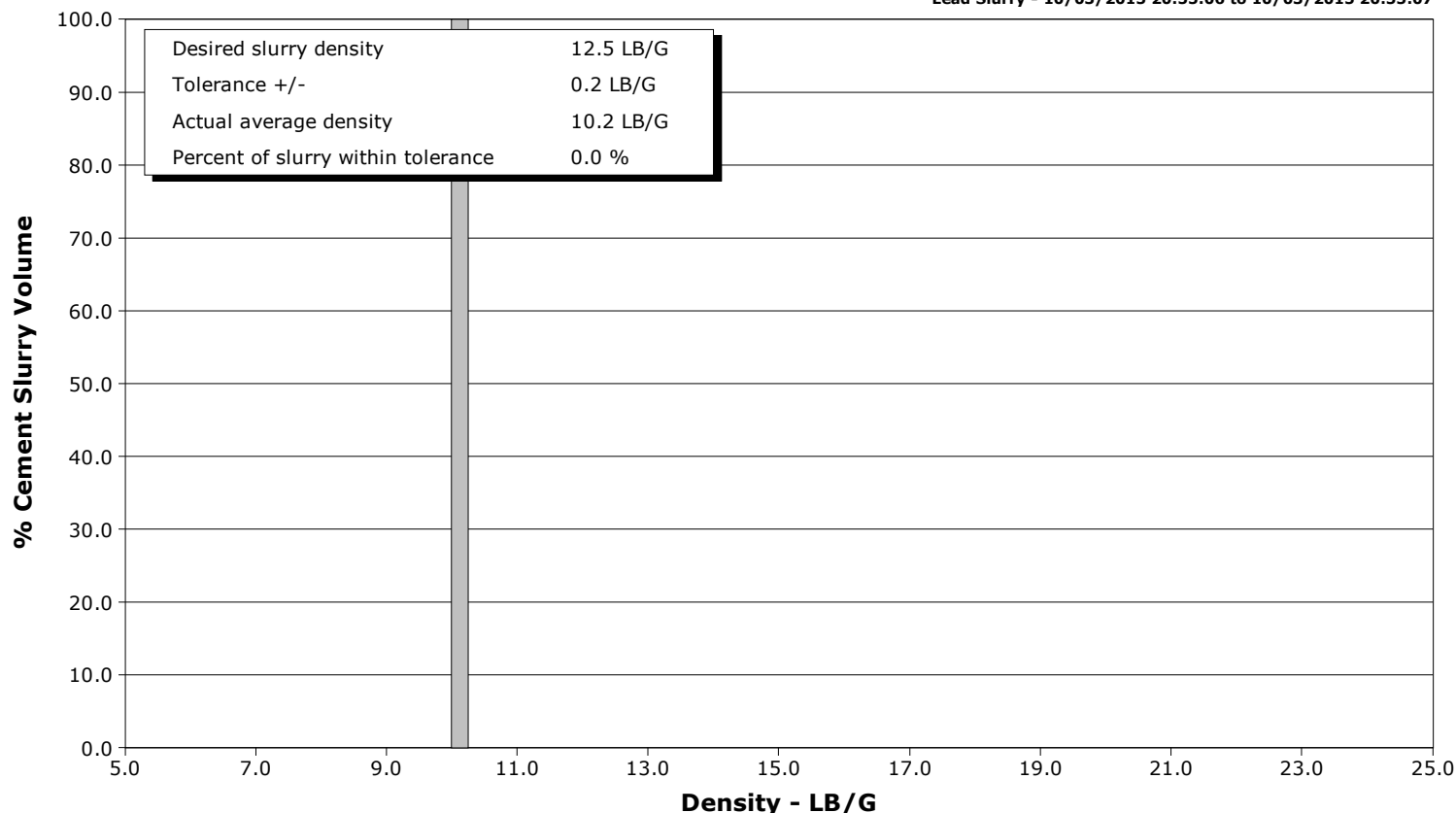
Client Extraction Oil Gas
SIR No. 2197473
Job Type Monobore Production
Job Date 10-03-2015



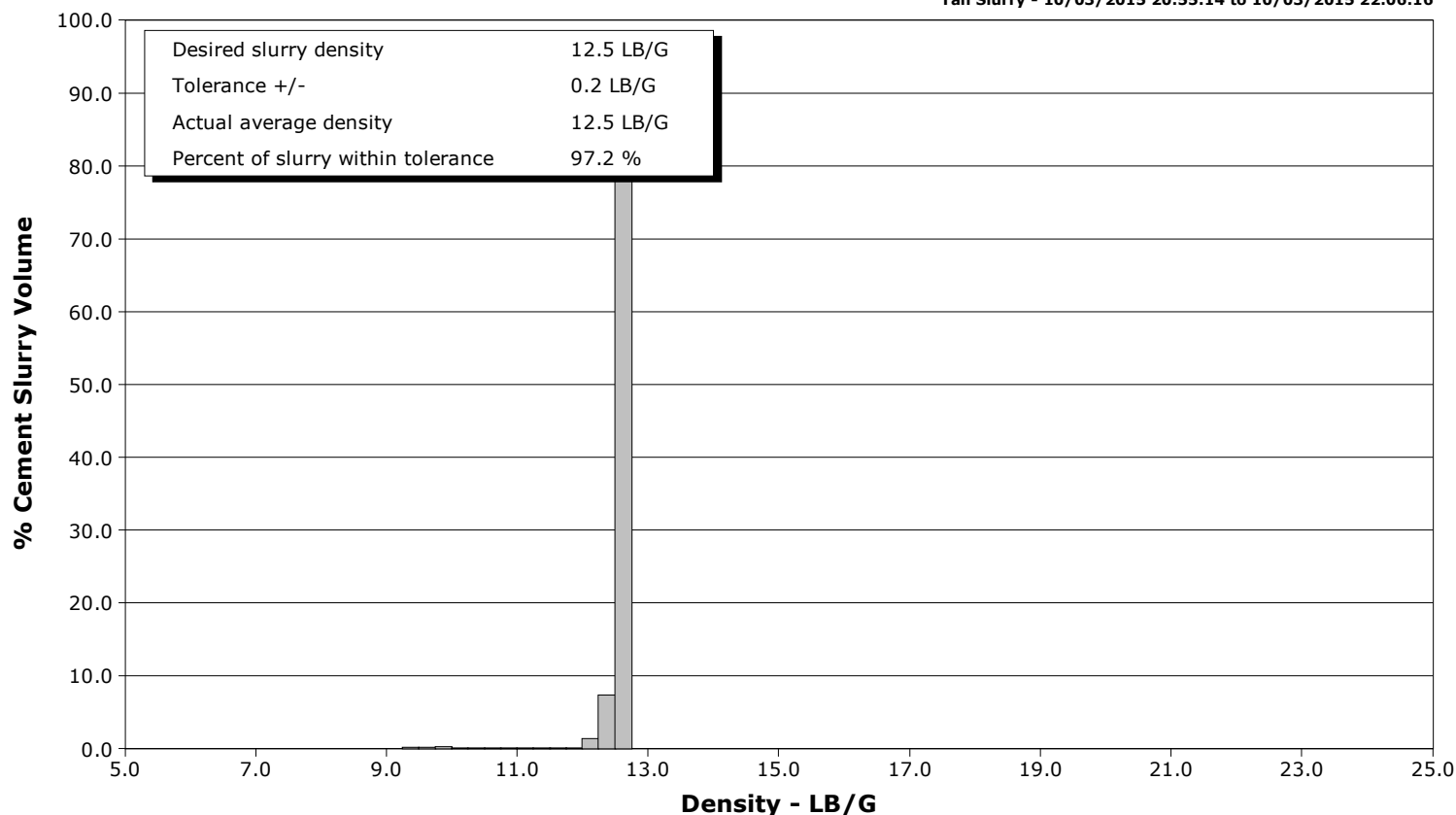
Well Waag 20
Field Wattenberg
Engineer Justin Zika/Leiker
Country United States

Client Extraction Oil Gas
SIR No. 2197473
Job Type Monobore Production
Job Date 10-03-2015

Lead Slurry - 10/03/2015 20:55:06 to 10/03/2015 20:55:07



Tail Slurry - 10/03/2015 20:55:14 to 10/03/2015 22:06:16



Cementing Service Report

				Customer Extraction Oil & Gas			Job Number 2197473	
Well Waag 20 20			Location (legal) Cheyenne, WY			Schlumberger Location CWY		Job Start Oct/03/2015
Field Wattenberg		Formation Name/Type Shale		Deviation deg	Bit Size 7.9 in	Well MD 11240.0 ft		Well TVD 7019.7 ft
County Weld		State/Province Colorado		BHP psi	BHST 206 degF	BHCT 206 degF	Pore Press. Gradient lb/gal	
Well Master 0631593029		API/UWI 05123403460000						
Rig Name Savanna 802	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	11240.0	5.5	20.0	P110	BUTT
	0.0	0.0	0.0					
Drilling Fluid Type Oil Mud		Max. Density 9.60 lb/gal	Plastic Viscosity cP	Tubing/Drill Pipe				
T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread			
Service Line Cementing	Job Type Monobore Production							
Max. Allowed Tub. Press 4500 psi	Max. Allowed Ann. Press psi		WH Connection Single Cement head	Perforations/Open Hole				
	Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval ft			
	ft	ft						
	ft	ft					Diameter in	
	Treat Down Casing	Displacement 249.0 bbl	Packer Type	Packer Depth ft				
	Tubing Vol. bbl	Casing Vol. 249.0 bbl	Annular Vol. 373.0 bbl	Openhole Vol. 649.0 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 9462 psi	Shoe Type Float	Squeeze Type						
Pipe Rotated <input type="checkbox"/>	Pipe Reciprocated <input type="checkbox"/>	Shoe Depth 11240.0 ft	Tool Type					
No. Centralizers	Top Plugs 1	Bottom Plugs	Stage Tool Type	Tool Depth ft				
Cement Head Type Single	Stage Tool Depth ft	Tail Pipe Size in						
Job Scheduled For Oct/03/2015 16:00	Arrived on Location Oct/03/2015 16:00	Leave Location Oct/04/2015 01:00	Collar Type Float	Tail Pipe Depth ft				
	Collar Depth 11231.0 ft	Sqz. Total Vol. bbl						
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
10/03/2015	20:14:52	9	0.0	8.41	0.0	Started Acquisition		
10/03/2015	20:14:56	9	0.0	8.41	0.0	Start Job		
10/03/2015	20:14:57	9	0.0	8.41	0.0	Rig Up		
10/03/2015	20:15:01	9	0.0	8.41	0.0	Pressure Test Lines		
10/03/2015	20:15:03	9	0.0	8.41	0.0	Low Test 2135 psi = Goog		
10/03/2015	20:16:32	9	0.0	8.41	0.0			
10/03/2015	20:18:12	9	0.0	8.41	0.0			
10/03/2015	20:19:52	9	0.0	8.41	0.0			
10/03/2015	20:21:32	9	0.0	8.41	0.0			
10/03/2015	20:23:12	7	0.0	8.41	0.0			
10/03/2015	20:24:52	70	0.8	8.40	3.1			
10/03/2015	20:26:32	2125	0.0	8.40	3.3			
10/03/2015	20:28:12	3969	0.0	8.40	3.3			
10/03/2015	20:29:52	4825	0.0	8.40	3.3			
10/03/2015	20:31:32	4220	0.0	8.40	3.3			
10/03/2015	20:33:12	58	0.0	8.40	3.3			
10/03/2015	20:34:52	69	0.0	8.40	3.3			
10/03/2015	20:36:32	73	0.0	8.40	3.3			
10/03/2015	20:38:12	73	0.0	8.40	3.3			
10/03/2015	20:39:52	73	0.0	8.40	3.3			
10/03/2015	20:41:32	73	0.0	8.40	3.3			

Well			Field		Job Start	Customer		Job Number
Waag 20 20			Wattenberg		Oct/03/2015	Extraction Oil & Gas		2197473
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
10/03/2015	20:44:52	223	2.5	10.76	4.0			
10/03/2015	20:45:36	260	3.5	11.04	6.1	Start Pumping Spacer		
10/03/2015	20:46:05	228	3.5	11.07	7.8	Pump 50 bbl Of 11.0 ppg Mudpush		
10/03/2015	20:46:06	243	3.5	11.07	7.8	Good Returns		
10/03/2015	20:46:32	320	4.9	11.02	9.4			
10/03/2015	20:48:12	473	6.4	11.24	19.9			
10/03/2015	20:49:52	442	6.5	11.17	30.7			
10/03/2015	20:51:32	86	3.5	11.04	39.7			
10/03/2015	20:53:12	88	3.8	10.64	45.7			
10/03/2015	20:54:52	89	4.0	10.55	52.3			
10/03/2015	20:55:06	86	3.9	10.18	53.2	Start Mixing Lead Slurry		
10/03/2015	20:55:07	85	3.9	10.15	53.3	End Lead Slurry		
10/03/2015	20:55:14	82	3.9	10.02	53.7	Start Mixing Tail Slurry		
10/03/2015	20:55:53	11	0.0	9.36	55.7	Pump 441.8 bbls Of 12.5 ppg Tail		
10/03/2015	20:56:32	7	0.0	9.35	55.7			
10/03/2015	20:56:59	7	0.0	9.39	55.7	1469 sks Y=1.58		
10/03/2015	20:58:12	79	2.9	12.48	57.7			
10/03/2015	20:58:19	151	3.5	12.44	58.1	Wet and Dry Samples		
10/03/2015	20:58:33	208	4.9	12.37	59.1	Weight 12.5 ppg		
10/03/2015	20:59:52	367	6.4	12.25	67.5			
10/03/2015	21:01:32	388	6.4	12.53	78.2			
10/03/2015	21:03:12	349	6.4	12.48	88.9			
10/03/2015	21:04:52	343	6.4	12.52	99.6			
10/03/2015	21:06:32	352	6.4	12.53	110.3			
10/03/2015	21:08:12	339	6.4	12.53	121.0			
10/03/2015	21:09:05	347	6.4	12.52	126.7	Dry Sample # 008659		
10/03/2015	21:09:52	360	6.4	12.53	131.8			
10/03/2015	21:11:32	356	6.4	12.54	142.5			
10/03/2015	21:13:12	345	6.4	12.55	153.2			
10/03/2015	21:14:52	353	6.4	12.53	163.9			
10/03/2015	21:16:32	380	6.4	12.53	174.7			
10/03/2015	21:18:12	328	6.4	12.52	185.4			
10/03/2015	21:19:52	339	6.4	12.53	196.1			
10/03/2015	21:19:54	355	6.4	12.52	196.4	Good Returns		
10/03/2015	21:21:32	348	6.4	12.52	206.9			
10/03/2015	21:23:12	371	6.4	12.48	217.6			
10/03/2015	21:24:52	324	6.4	12.51	228.3			
10/03/2015	21:26:32	327	6.4	12.50	239.0			
10/03/2015	21:28:12	380	6.4	12.53	249.7			
10/03/2015	21:29:52	346	6.4	12.54	260.4			
10/03/2015	21:31:32	347	6.4	12.47	271.2			
10/03/2015	21:33:12	339	6.4	12.50	281.9			
10/03/2015	21:34:52	340	6.4	12.50	292.6			
10/03/2015	21:36:32	385	6.4	12.51	303.3			
10/03/2015	21:38:12	365	6.4	12.52	314.0			
10/03/2015	21:39:52	344	6.4	12.52	324.8			
10/03/2015	21:41:32	363	6.4	12.52	335.5			
10/03/2015	21:43:12	341	6.4	12.52	346.2			
10/03/2015	21:44:52	364	6.4	12.51	356.9			
10/03/2015	21:46:32	350	6.4	12.50	367.6			
10/03/2015	21:48:12	344	6.4	12.56	378.4			
10/03/2015	21:49:52	344	6.4	12.56	389.1			
10/03/2015	21:51:32	343	6.4	12.55	399.8			
10/03/2015	21:53:12	354	6.4	12.53	410.5			

Well			Field	Job Start		Customer		Job Number
Waag 20 20			Wattenberg	Oct/03/2015		Extraction Oil & Gas		2197473
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
10/03/2015	21:56:32	352	6.4	12.49	431.9			
10/03/2015	21:58:12	360	6.4	12.50	442.6			
10/03/2015	21:59:52	336	6.4	12.50	453.3			
10/03/2015	22:01:32	332	6.4	12.48	464.0			
10/03/2015	22:03:12	8	0.0	12.53	472.7			
10/03/2015	22:04:52	13	0.0	12.51	472.7			
10/03/2015	22:06:16	15	0.0	12.50	472.7	End Tail Slurry		
10/03/2015	22:06:32	15	0.0	12.50	472.7			
10/03/2015	22:07:37	63	1.1	9.62	472.8	Shutdown		
10/03/2015	22:07:56	69	1.7	9.13	473.2	Wash Up		
10/03/2015	22:08:12	84	2.6	9.41	473.8			
10/03/2015	22:09:52	206	3.3	9.57	477.9			
10/03/2015	22:11:32	174	3.5	8.30	481.8			
10/03/2015	22:13:12	177	3.6	8.44	487.6			
10/03/2015	22:14:52	69	0.0	3.21	494.4			
10/03/2015	22:16:32	25	0.0	8.18	500.2			
10/03/2015	22:18:12	140	5.1	8.40	503.1			
10/03/2015	22:18:39	136	5.1	8.40	505.4	Drop Top Plug		
10/03/2015	22:18:49	140	5.1	8.40	506.2	Caught Plug at 33 bbls Away		
10/03/2015	22:19:52	180	6.4	8.40	511.6			
10/03/2015	22:21:32	240	7.9	8.40	524.3			
10/03/2015	22:23:12	578	7.9	8.39	537.5			
10/03/2015	22:24:52	747	7.8	8.40	550.5			
10/03/2015	22:26:32	936	7.8	8.40	563.6			
10/03/2015	22:28:12	1104	7.8	8.40	576.7			
10/03/2015	22:29:52	1283	7.8	8.40	589.7			
10/03/2015	22:31:32	1478	7.7	8.40	602.7			
10/03/2015	22:33:12	1625	7.8	8.40	615.7			
10/03/2015	22:34:52	1804	7.8	8.40	628.7			
10/03/2015	22:36:32	1999	7.8	8.40	641.6			
10/03/2015	22:38:12	2142	7.8	8.40	654.5			
10/03/2015	22:39:52	2266	7.8	8.40	667.4			
10/03/2015	22:41:32	1773	3.9	8.40	679.2			
10/03/2015	22:43:12	1885	4.5	8.40	686.6			
10/03/2015	22:44:52	1883	4.5	8.40	694.1			
10/03/2015	22:46:32	1899	4.5	8.40	701.6			
10/03/2015	22:48:12	1907	4.5	8.40	709.1			
10/03/2015	22:49:52	1907	4.5	8.40	716.6			
10/03/2015	22:50:00	1950	4.5	8.40	717.2	Displace 249 bbl of H2O		
10/03/2015	22:51:32	1960	4.5	8.40	724.1			
10/03/2015	22:53:12	1969	4.5	8.40	731.6			
10/03/2015	22:54:52	1949	4.4	8.40	739.1			
10/03/2015	22:56:32	1947	4.5	8.40	746.5			
10/03/2015	22:58:12	1934	4.5	8.40	754.0			
10/03/2015	22:59:52	1981	4.5	8.40	761.5			
10/03/2015	23:01:32	1539	0.0	8.40	763.9			
10/03/2015	23:03:12	1743	1.8	8.40	764.3			
10/03/2015	23:04:52	7	0.0	8.40	765.0			
10/03/2015	23:06:32	9	0.0	8.40	765.0			
10/03/2015	23:08:12	7	0.0	8.40	765.0			

Well Waag 20 20	Field Wattenberg	Job Start Oct/03/2015	Customer Extraction Oil & Gas	Job Number 2197473
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 6.0	N2		Mud	Maximum Rate 764.9	Total Slurry 4134.0	Mud 0.0		Spacer 50.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 4950	Final 7	Average 708	Bump Plug to	Breakdown	Type		Volume bbl		Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 413.0 bbl		Displacement 249.0 bbl		Mix Water Temp 68 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 35.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Sean McIntyre				Schlumberger Supervisor Justin Zika/Leiker				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-