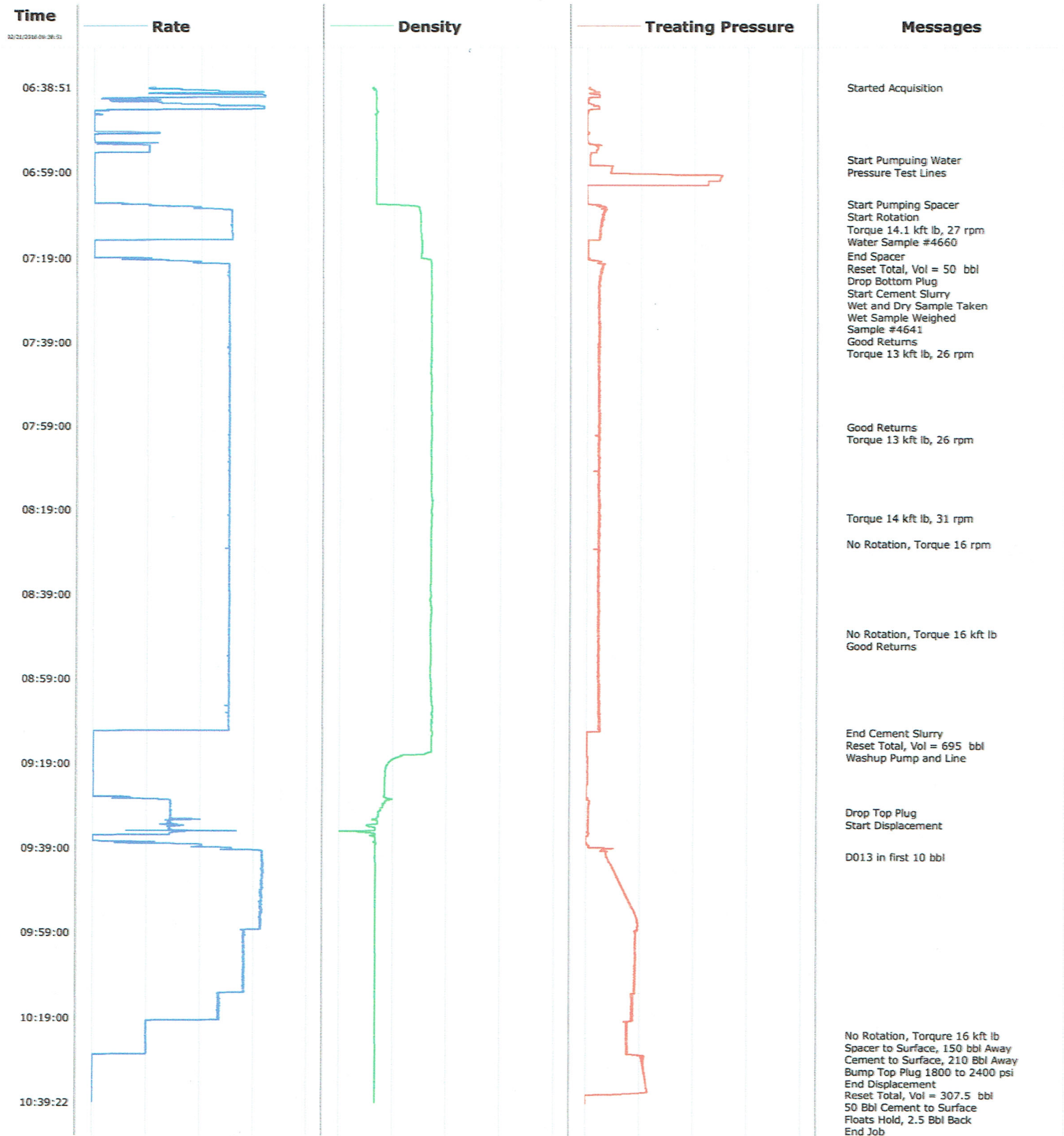


Well Horsetail 07E-1804
Field DJ
Engineer Ryan Drilling/Matt Leiker
Country United States

Client Whiting
SIR No. CWJN-01688
Job Type 5.5" Production
Job Date 02-21-2016





Cementing Service Report

				Customer Whiting		Job Number CWJN-01688											
Well Horsetail 07E-1804 07E-1804		Location (legal) Cheyenne		Schlumberger Location Cheyenne		Job Start Feb/21/2016											
Field DJ		Formation Name/Type Shale		Deviation 90 deg		Bit Size 8.5 in		Well MD 13928.0 ft		Well TVD 5828.0 ft							
County Weld		State/Province Colorado		BHP psi		BHST 214 degF		BHCT 214 degF		Pore Press. Gradient lb/gal							
Well Master 0631641686		API/UWI															
Rig Name Unit 409		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		2000.0		9.6		36.0		j55		LTC			
						13928.0		5.5		20.0		p110		LTC			
Drilling Fluid Type Bentonite		Max. Density 10.20 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe											
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line Cementing		Job Type 5.5" Production															
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Blackhawk Head		Perforations/Open Hole											
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft			
						ft		ft						Diameter in			
						ft		ft									
						Treat Down Casing		Displacement bbl		Packer Type		Packer Depth ft					
						Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. 96.0 bbl		Openhole Vol. 487.0 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 1800 psi						Shoe Type Float				Squeeze Type							
Pipe Rotated		<input checked="" type="checkbox"/> Pipe Reciprocated		<input type="checkbox"/>		Shoe Depth 13928.0 ft				Tool Type							
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type				Tool Depth ft							
Cement Head Type Double						Stage Tool Depth ft				Tail Pipe Size in							
Job Scheduled For Feb/21/2016 04:00		Arrived on Location Feb/21/2016 04:00		Leave Location Feb/21/2016 12:00		Collar Type Float				Tail Pipe Depth ft							
						Collar Depth 13880.9 ft				Sqz. Total Vol. bbl							
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message											
02/21/2016	06:38:51	118	2.7	8.05	4.9	Stopped Acquisition											
02/21/2016	06:39:21	182	4.0	8.19	6.3												
02/21/2016	06:39:51	296	5.8	8.36	8.8												
02/21/2016	06:40:21	128	2.9	8.39	11.8												
02/21/2016	06:40:51	519	7.9	8.39	14.9												
02/21/2016	06:41:21	138	6.3	8.39	18.9												
02/21/2016	06:41:51	82	2.9	8.39	19.9												
02/21/2016	06:42:21	31	1.5	8.39	20.7												
02/21/2016	06:42:51	163	4.1	8.39	22.3												
02/21/2016	06:43:21	447	7.2	8.39	24.9												
02/21/2016	06:43:51	501	7.9	8.39	28.8												
02/21/2016	06:44:21	78	0.7	8.44	31.8												
02/21/2016	06:44:51	48	0.0	8.49	31.9												
02/21/2016	06:45:21	18	0.3	8.25	31.9												
02/21/2016	06:45:51	8	0.0	8.39	31.9												
02/21/2016	06:46:21	7	0.0	8.39	31.9												
02/21/2016	06:46:51	7	0.0	8.39	31.9												
02/21/2016	06:47:21	5	0.0	8.39	31.9												
02/21/2016	06:47:51	5	0.0	8.39	31.9												
02/21/2016	06:48:21	5	0.0	8.39	31.9												
02/21/2016	06:48:51	5	0.0	8.39	31.9												

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	06:49:51	87	3.1	8.39	32.8		
02/21/2016	06:50:21	10	0.0	8.39	33.1		
02/21/2016	06:50:51	5	0.0	8.39	0.0		
02/21/2016	06:51:21	1	0.0	8.39	0.0		
02/21/2016	06:51:51	0	0.0	8.39	0.0		
02/21/2016	06:52:21	87	0.3	8.39	0.3		
02/21/2016	06:52:51	365	2.6	8.39	1.0		
02/21/2016	06:53:21	442	2.6	8.39	2.3		
02/21/2016	06:53:51	386	2.6	8.39	3.6		
02/21/2016	06:54:21	367	2.5	8.39	4.9		
02/21/2016	06:54:51	130	0.0	8.39	5.0		
02/21/2016	06:55:21	128	0.0	8.39	5.0		
02/21/2016	06:55:51	129	0.0	8.39	5.0		
02/21/2016	06:55:54	129	0.0	8.39	5.0	Start Pumping Water	
02/21/2016	06:56:21	128	0.0	8.39	5.0		
02/21/2016	06:56:51	126	0.0	8.39	5.0		
02/21/2016	06:56:54	126	0.0	8.39	5.0	Pressure Test Lines	
02/21/2016	06:57:21	125	0.0	8.39	5.0		
02/21/2016	06:57:51	1027	0.0	8.39	5.0		
02/21/2016	06:58:21	1005	0.0	8.39	5.0		
02/21/2016	06:58:51	989	0.0	8.39	5.0		
02/21/2016	06:59:21	2929	0.0	8.39	5.0		
02/21/2016	06:59:51	5625	0.0	8.39	5.0		
02/21/2016	07:00:21	5582	0.0	8.39	5.0		
02/21/2016	07:00:51	5552	0.0	8.39	5.0		
02/21/2016	07:01:21	5070	0.0	8.39	5.0		
02/21/2016	07:01:51	5047	0.0	8.39	5.0		
02/21/2016	07:02:21	-9	0.0	8.39	5.0		
02/21/2016	07:02:51	-8	0.0	8.39	5.0		
02/21/2016	07:03:21	-4	0.0	8.39	5.0		
02/21/2016	07:03:51	-1	0.0	8.39	5.0		
02/21/2016	07:04:21	0	0.0	8.39	5.0		
02/21/2016	07:04:51	1	0.0	8.39	5.0		
02/21/2016	07:05:21	3	0.0	8.39	5.0		
02/21/2016	07:05:51	3	0.0	8.39	5.0		
02/21/2016	07:06:15	3	0.0	8.39	5.0	Start Pumping Spacer	
02/21/2016	07:06:21	60	1.5	8.39	5.1		
02/21/2016	07:06:51	584	3.5	11.60	6.2		
02/21/2016	07:07:21	713	5.0	12.33	8.4		
02/21/2016	07:07:26	600	4.8	12.33	8.8	Start Rotation	
02/21/2016	07:07:51	736	6.4	12.37	11.2		
02/21/2016	07:08:21	734	6.4	12.45	14.4		
02/21/2016	07:08:51	696	6.4	12.48	17.6		
02/21/2016	07:09:21	662	6.4	12.48	20.8		
02/21/2016	07:09:51	651	6.4	12.48	24.0		
02/21/2016	07:10:21	590	6.4	12.50	27.2		
02/21/2016	07:10:45	600	6.4	12.51	29.8	Torque 14.1 kft lb, 27 rpm	
02/21/2016	07:10:51	577	6.4	12.50	30.4		
02/21/2016	07:11:21	575	6.4	12.49	33.6		
02/21/2016	07:11:51	562	6.4	12.51	36.8		
02/21/2016	07:12:01	548	6.4	12.51	37.9	Water Sample #4660	
02/21/2016	07:12:21	538	6.4	12.50	40.0		
02/21/2016	07:12:51	529	6.4	12.51	43.2		
02/21/2016	07:13:21	510	6.4	12.55	46.4		

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	07:14:21	499	6.4	12.52	52.9		
02/21/2016	07:14:51	37	0.1	12.60	55.4		
02/21/2016	07:15:21	25	0.0	12.60	55.4		
02/21/2016	07:15:51	22	0.0	12.60	55.4		
02/21/2016	07:16:21	21	0.0	12.60	55.4		
02/21/2016	07:16:51	21	0.0	12.59	55.4		
02/21/2016	07:17:21	22	0.0	12.59	55.4		
02/21/2016	07:17:51	22	0.0	12.58	55.4		
02/21/2016	07:18:17	23	0.0	12.51	55.4	End Spacer	
02/21/2016	07:18:18	23	0.0	12.51	55.4	Reset Total, Vol = 50 bbl	
02/21/2016	07:18:21	23	0.0	12.51	55.4		
02/21/2016	07:18:51	23	0.0	12.52	55.4	Drop Bottom Plug	
02/21/2016	07:19:21	150	2.5	13.39	56.4		
02/21/2016	07:19:51	542	5.0	13.44	58.3		
02/21/2016	07:19:55	532	5.0	13.45	58.6	Start Cement Slurry	
02/21/2016	07:20:03	559	5.0	13.46	59.3	Wet and Dry Sample Taken	
02/21/2016	07:20:04	540	5.0	13.47	59.4	Wet Sample Weighed	
02/21/2016	07:20:21	681	6.3	13.49	60.9		
02/21/2016	07:20:31	686	6.3	13.50	62.0	Good Returns	
02/21/2016	07:20:51	648	6.3	13.51	64.1		
02/21/2016	07:21:21	633	6.3	13.49	67.2		
02/21/2016	07:21:51	600	6.3	13.49	70.4		
02/21/2016	07:22:21	599	6.3	13.50	73.5		
02/21/2016	07:22:51	566	6.3	13.49	76.6		
02/21/2016	07:23:21	553	6.3	13.50	79.8		
02/21/2016	07:23:51	533	6.3	13.50	82.9		
02/21/2016	07:24:21	543	6.3	13.51	86.1		
02/21/2016	07:24:51	515	6.3	13.51	89.2		
02/21/2016	07:25:21	499	6.3	13.52	92.4		
02/21/2016	07:25:51	514	6.3	13.51	95.5		
02/21/2016	07:26:21	537	6.3	13.51	98.7		
02/21/2016	07:26:51	515	6.3	13.51	101.8		
02/21/2016	07:27:21	485	6.3	13.51	105.0		
02/21/2016	07:27:51	522	6.3	13.52	108.1		
02/21/2016	07:28:21	542	6.3	13.52	111.3		
02/21/2016	07:28:51	510	6.3	13.51	114.4		
02/21/2016	07:29:21	493	6.3	13.50	117.6		
02/21/2016	07:29:51	494	6.3	13.50	120.7		
02/21/2016	07:30:21	483	6.3	13.51	123.9		
02/21/2016	07:30:51	484	6.3	13.51	127.0		
02/21/2016	07:31:21	492	6.3	13.51	130.2		
02/21/2016	07:31:51	524	6.3	13.51	133.3		
02/21/2016	07:32:21	504	6.3	13.52	136.5		
02/21/2016	07:32:51	521	6.3	13.52	139.6		
02/21/2016	07:33:20	509	6.3	13.50	142.7	Torque 13 kft lb, 26 rpm	
02/21/2016	07:33:21	534	6.3	13.50	142.8		
02/21/2016	07:33:51	513	6.3	13.50	145.9		
02/21/2016	07:34:21	513	6.3	13.50	149.1		
02/21/2016	07:34:51	521	6.3	13.50	152.2		
02/21/2016	07:35:21	514	6.3	13.51	155.4		
02/21/2016	07:35:51	494	6.3	13.51	158.6		
02/21/2016	07:36:21	488	6.3	13.51	161.7		
02/21/2016	07:36:51	492	6.3	13.50	164.9		
02/21/2016	07:37:21	490	6.3	13.50	168.0		

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	07:38:21	478	6.3	13.50	174.3		
02/21/2016	07:38:51	490	6.3	13.49	177.5		
02/21/2016	07:39:21	489	6.3	13.50	180.6		
02/21/2016	07:39:51	482	6.3	13.51	183.8		
02/21/2016	07:40:21	482	6.3	13.52	186.9		
02/21/2016	07:40:51	480	6.3	13.52	190.1		
02/21/2016	07:41:21	532	6.3	13.51	193.2		
02/21/2016	07:41:51	521	6.3	13.48	196.4		
02/21/2016	07:42:21	481	6.3	13.48	199.5		
02/21/2016	07:42:51	488	6.3	13.47	202.7		
02/21/2016	07:43:21	490	6.3	13.52	205.8		
02/21/2016	07:43:51	526	6.3	13.48	209.0		
02/21/2016	07:44:21	510	6.3	13.46	212.1		
02/21/2016	07:44:51	491	6.3	13.48	215.3		
02/21/2016	07:45:21	476	6.3	13.44	218.5		
02/21/2016	07:45:51	476	6.3	13.47	221.6		
02/21/2016	07:46:21	465	6.3	13.42	224.8		
02/21/2016	07:46:51	500	6.3	13.52	227.9		
02/21/2016	07:47:21	490	6.3	13.50	231.1		
02/21/2016	07:47:51	488	6.3	13.51	234.3		
02/21/2016	07:48:21	504	6.3	13.52	237.4		
02/21/2016	07:48:51	483	6.3	13.51	240.6		
02/21/2016	07:49:21	497	6.3	13.53	243.7		
02/21/2016	07:49:51	506	6.3	13.54	246.9		
02/21/2016	07:50:21	503	6.3	13.53	250.0		
02/21/2016	07:50:51	518	6.3	13.51	253.2		
02/21/2016	07:51:21	522	6.3	13.50	256.3		
02/21/2016	07:51:51	489	6.3	13.50	259.5		
02/21/2016	07:52:21	513	6.3	13.51	262.7		
02/21/2016	07:52:51	489	6.3	13.51	265.8		
02/21/2016	07:53:21	493	6.3	13.50	269.0		
02/21/2016	07:53:51	518	6.3	13.48	272.1		
02/21/2016	07:54:21	530	6.3	13.48	275.3		
02/21/2016	07:54:51	498	6.3	13.49	278.4		
02/21/2016	07:55:21	478	6.3	13.52	281.6		
02/21/2016	07:55:51	482	6.3	13.53	284.8		
02/21/2016	07:56:21	502	6.3	13.52	287.9		
02/21/2016	07:56:51	497	6.3	13.49	291.1		
02/21/2016	07:57:21	509	6.3	13.49	294.2		
02/21/2016	07:57:51	527	6.3	13.50	297.4		
02/21/2016	07:58:21	506	6.3	13.50	300.5		
02/21/2016	07:58:51	496	6.3	13.51	303.7		
02/21/2016	07:59:01	474	6.3	13.52	304.7	Good Returns	
02/21/2016	07:59:21	493	6.3	13.54	306.8		
02/21/2016	07:59:51	487	6.3	13.55	310.0		
02/21/2016	08:00:12	487	6.3	13.54	312.2	Torque 13 kft lb, 26 rpm	
02/21/2016	08:00:21	485	6.3	13.54	313.2		
02/21/2016	08:00:51	502	6.3	13.53	316.3		
02/21/2016	08:01:21	515	6.3	13.54	319.5		
02/21/2016	08:01:51	523	6.3	13.54	322.6		
02/21/2016	08:02:21	503	6.3	13.52	325.8		
02/21/2016	08:02:51	476	6.3	13.50	328.9		
02/21/2016	08:03:21	473	6.3	13.49	332.1		
02/21/2016	08:03:51	477	6.3	13.48	335.2		

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	08:04:51	482	6.3	13.49	341.6		
02/21/2016	08:05:21	506	6.3	13.49	344.7		
02/21/2016	08:05:51	495	6.3	13.50	347.9		
02/21/2016	08:06:21	498	6.3	13.50	351.0		
02/21/2016	08:06:51	522	6.3	13.51	354.2		
02/21/2016	08:07:21	520	6.3	13.51	357.3		
02/21/2016	08:07:51	524	6.3	13.49	360.5		
02/21/2016	08:08:21	532	6.3	13.49	363.7		
02/21/2016	08:08:51	492	6.3	13.51	366.8		
02/21/2016	08:09:21	494	6.3	13.49	370.0		
02/21/2016	08:09:51	472	6.3	13.48	373.1		
02/21/2016	08:10:21	489	6.3	13.51	376.3		
02/21/2016	08:10:51	496	6.3	13.53	379.4		
02/21/2016	08:11:21	498	6.3	13.53	382.6		
02/21/2016	08:11:51	498	6.3	13.52	385.7		
02/21/2016	08:12:21	513	6.3	13.50	388.9		
02/21/2016	08:12:51	504	6.3	13.49	392.1		
02/21/2016	08:13:21	483	6.3	13.49	395.2		
02/21/2016	08:13:51	490	6.3	13.50	398.4		
02/21/2016	08:14:21	485	6.3	13.49	401.5		
02/21/2016	08:14:51	476	6.3	13.50	404.7		
02/21/2016	08:15:21	519	6.3	13.52	407.8		
02/21/2016	08:15:51	504	6.3	13.54	411.0		
02/21/2016	08:16:21	499	6.3	13.59	414.2		
02/21/2016	08:16:51	528	6.3	13.61	417.3		
02/21/2016	08:17:21	499	6.3	13.59	420.5		
02/21/2016	08:17:51	500	6.3	13.58	423.6		
02/21/2016	08:18:21	484	6.3	13.56	426.8		
02/21/2016	08:18:51	503	6.3	13.53	429.9		
02/21/2016	08:19:21	501	6.3	13.50	433.1		
02/21/2016	08:19:51	481	6.3	13.51	436.2		
02/21/2016	08:20:21	507	6.3	13.57	439.4		
02/21/2016	08:20:34	495	6.3	13.56	440.7	Torque 14 kft lb, 31 rpm	
02/21/2016	08:20:51	518	6.3	13.55	442.5		
02/21/2016	08:21:21	493	6.3	13.52	445.7		
02/21/2016	08:21:51	505	6.3	13.51	448.8		
02/21/2016	08:22:21	494	6.3	13.54	452.0		
02/21/2016	08:22:51	496	6.3	13.53	455.2		
02/21/2016	08:23:21	520	6.3	13.50	458.3		
02/21/2016	08:23:51	486	6.3	13.48	461.5		
02/21/2016	08:24:21	497	6.3	13.49	464.6		
02/21/2016	08:24:51	527	6.3	13.51	467.8		
02/21/2016	08:25:21	480	6.3	13.51	470.9		
02/21/2016	08:25:51	505	6.3	13.49	474.1		
02/21/2016	08:26:21	485	6.3	13.48	477.2		
02/21/2016	08:26:33	493	6.3	13.47	478.5	No Rotation, Torque 16 rpm	
02/21/2016	08:26:51	488	6.3	13.47	480.4		
02/21/2016	08:27:21	527	6.3	13.48	483.6		
02/21/2016	08:27:51	493	6.3	13.50	486.7		
02/21/2016	08:28:21	487	6.3	13.49	489.9		
02/21/2016	08:28:51	513	6.3	13.50	493.0		
02/21/2016	08:29:21	487	6.3	13.51	496.2		
02/21/2016	08:29:51	510	6.3	13.51	499.3		
02/21/2016	08:30:21	483	6.3	13.49	502.5		

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	08:31:21	498	6.3	13.49	508.8		
02/21/2016	08:31:51	490	6.3	13.49	511.9		
02/21/2016	08:32:21	474	6.3	13.48	515.1		
02/21/2016	08:32:51	483	6.3	13.48	518.3		
02/21/2016	08:33:21	476	6.3	13.49	521.4		
02/21/2016	08:33:51	513	6.3	13.50	524.6		
02/21/2016	08:34:21	494	6.3	13.50	527.7		
02/21/2016	08:34:51	486	6.3	13.51	530.9		
02/21/2016	08:35:21	503	6.3	13.51	534.0		
02/21/2016	08:35:51	490	6.3	13.50	537.2		
02/21/2016	08:36:21	487	6.3	13.48	540.3		
02/21/2016	08:36:51	482	6.3	13.47	543.5		
02/21/2016	08:37:21	462	6.3	13.45	546.7		
02/21/2016	08:37:51	500	6.3	13.45	549.8		
02/21/2016	08:38:21	483	6.3	13.43	553.0		
02/21/2016	08:38:51	475	6.3	13.43	556.1		
02/21/2016	08:39:21	480	6.3	13.47	559.3		
02/21/2016	08:39:51	479	6.3	13.43	562.5		
02/21/2016	08:40:21	463	6.3	13.36	565.6		
02/21/2016	08:40:51	481	6.3	13.47	568.8		
02/21/2016	08:41:21	486	6.3	13.44	571.9		
02/21/2016	08:41:51	480	6.3	13.48	575.1		
02/21/2016	08:42:21	511	6.3	13.53	578.2		
02/21/2016	08:42:51	495	6.3	13.52	581.4		
02/21/2016	08:43:21	523	6.3	13.54	584.5		
02/21/2016	08:43:51	491	6.3	13.50	587.7		
02/21/2016	08:44:21	466	6.3	13.49	590.9		
02/21/2016	08:44:51	473	6.3	13.48	594.0		
02/21/2016	08:45:21	495	6.3	13.48	597.2		
02/21/2016	08:45:51	498	6.3	13.46	600.3		
02/21/2016	08:46:21	501	6.3	13.44	603.5		
02/21/2016	08:46:51	518	6.3	13.45	606.6		
02/21/2016	08:47:21	488	6.3	13.46	609.8		
02/21/2016	08:47:51	488	6.3	13.45	613.0		
02/21/2016	08:47:58	504	6.3	13.45	613.7	No Rotation, Torque 16 kft lb	
02/21/2016	08:48:21	510	6.3	13.44	616.1		
02/21/2016	08:48:25	489	6.3	13.44	616.5	Good Returns	
02/21/2016	08:48:51	520	6.3	13.44	619.3		
02/21/2016	08:49:21	518	6.3	13.46	622.4		
02/21/2016	08:49:51	504	6.3	13.45	625.6		
02/21/2016	08:50:21	486	6.3	13.44	628.7		
02/21/2016	08:50:51	496	6.3	13.48	631.9		
02/21/2016	08:51:21	512	6.3	13.51	635.1		
02/21/2016	08:51:51	507	6.3	13.50	638.2		
02/21/2016	08:52:21	502	6.3	13.49	641.4		
02/21/2016	08:52:51	491	6.3	13.48	644.5		
02/21/2016	08:53:21	501	6.3	13.48	647.7		
02/21/2016	08:53:51	518	6.3	13.48	650.8		
02/21/2016	08:54:21	519	6.3	13.48	654.0		
02/21/2016	08:54:51	494	6.3	13.47	657.1		
02/21/2016	08:55:21	485	6.3	13.47	660.3		
02/21/2016	08:55:51	490	6.3	13.47	663.5		
02/21/2016	08:56:21	527	6.3	13.46	666.6		
02/21/2016	08:56:51	522	6.3	13.45	669.8		

Well			Field		Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ		Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/21/2016	08:57:51	513	6.3	13.46	676.1			
02/21/2016	08:58:21	494	6.3	13.45	679.2			
02/21/2016	08:58:51	482	6.3	13.47	682.4			
02/21/2016	08:59:21	511	6.3	13.49	685.6			
02/21/2016	08:59:51	527	6.3	13.50	688.7			
02/21/2016	09:00:21	524	6.3	13.49	691.9			
02/21/2016	09:00:51	495	6.3	13.50	695.0			
02/21/2016	09:01:21	493	6.3	13.52	698.2			
02/21/2016	09:01:51	494	6.3	13.50	701.3			
02/21/2016	09:02:21	497	6.3	13.50	704.5			
02/21/2016	09:02:51	542	6.3	13.50	707.7			
02/21/2016	09:03:21	513	6.3	13.53	710.8			
02/21/2016	09:03:51	501	6.3	13.54	714.0			
02/21/2016	09:04:21	510	6.3	13.57	717.1			
02/21/2016	09:04:51	528	6.3	13.61	720.3			
02/21/2016	09:05:21	550	6.2	13.61	723.4			
02/21/2016	09:05:51	529	6.3	13.62	726.6			
02/21/2016	09:06:21	520	6.3	13.62	729.7			
02/21/2016	09:06:51	506	6.3	13.61	732.9			
02/21/2016	09:07:21	532	6.3	13.61	736.0			
02/21/2016	09:07:51	570	6.3	13.62	739.2			
02/21/2016	09:08:21	582	6.3	13.61	742.3			
02/21/2016	09:08:51	548	6.3	13.61	745.5			
02/21/2016	09:09:21	552	6.3	13.61	748.6			
02/21/2016	09:09:51	550	6.3	13.58	751.8			
02/21/2016	09:10:21	558	6.3	13.57	755.0			
02/21/2016	09:10:51	573	6.3	13.56	758.1			
02/21/2016	09:11:18	563	6.1	13.56	760.9	End Cement Slurry		
02/21/2016	09:11:20	99	3.4	13.57	761.1	Reset Total, Vol = 695 bbl		
02/21/2016	09:11:21	51	3.4	13.57	761.2			
02/21/2016	09:11:51	28	0.0	13.62	761.4			
02/21/2016	09:12:21	26	0.0	13.61	761.4			
02/21/2016	09:12:51	25	0.0	13.61	761.4			
02/21/2016	09:13:21	25	0.0	13.60	761.4			
02/21/2016	09:13:51	25	0.0	13.60	761.4			
02/21/2016	09:14:21	24	0.0	13.60	761.4			
02/21/2016	09:14:51	24	0.0	13.60	761.4			
02/21/2016	09:15:21	23	0.0	13.60	761.4			
02/21/2016	09:15:51	22	0.0	13.57	761.4			
02/21/2016	09:16:21	22	0.0	13.38	761.4			
02/21/2016	09:16:51	23	0.0	12.73	761.4			
02/21/2016	09:17:21	72	0.0	10.70	761.4			
02/21/2016	09:17:51	66	0.0	10.11	761.4			
02/21/2016	09:18:21	64	0.0	9.79	761.4			
02/21/2016	09:18:51	71	0.0	9.60	761.4			
02/21/2016	09:19:21	71	0.0	9.48	761.4			
02/21/2016	09:19:51	67	0.0	9.38	761.4			
02/21/2016	09:20:21	65	0.0	9.34	761.4			
02/21/2016	09:20:51	63	0.0	9.30	761.4			
02/21/2016	09:21:21	60	0.0	9.29	761.4			
02/21/2016	09:21:51	59	0.0	9.28	761.4			
02/21/2016	09:22:21	57	0.0	9.24	761.4			
02/21/2016	09:22:51	56	0.0	9.23	761.4			
02/21/2016	09:23:21	54	0.0	9.22	761.4			

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	09:24:21	16	0.0	9.23	761.4		
02/21/2016	09:24:51	17	0.0	9.23	761.4		
02/21/2016	09:25:21	18	0.0	9.23	761.4		
02/21/2016	09:25:51	18	0.0	9.23	761.4		
02/21/2016	09:26:21	18	0.0	9.22	761.4		
02/21/2016	09:26:51	18	0.0	9.20	761.4		
02/21/2016	09:27:21	33	1.1	9.71	762.0		
02/21/2016	09:27:51	154	3.6	9.37	763.4		
02/21/2016	09:28:21	132	3.6	9.26	765.2		
02/21/2016	09:28:51	116	3.6	9.14	767.0		
02/21/2016	09:29:21	118	3.6	9.08	768.8		
02/21/2016	09:29:51	110	3.6	8.87	770.7		
02/21/2016	09:30:00	106	3.6	8.87	771.2	Drop Top Plug	
02/21/2016	09:30:21	112	3.6	8.75	772.5		
02/21/2016	09:30:51	117	3.6	8.69	774.3		
02/21/2016	09:31:21	109	3.6	8.68	776.1		
02/21/2016	09:31:51	114	3.6	8.52	777.9		
02/21/2016	09:32:21	110	3.8	8.48	780.0		
02/21/2016	09:32:51	116	3.6	8.61	781.8		
02/21/2016	09:33:21	72	3.5	8.07	783.6		
02/21/2016	09:33:51	113	3.8	7.85	785.5		
02/21/2016	09:34:21	96	3.6	8.42	787.3		
02/21/2016	09:34:51	91	3.8	8.14	789.1		
02/21/2016	09:35:21	123	3.7	7.85	791.3		
02/21/2016	09:35:51	104	3.6	8.40	793.1		
02/21/2016	09:36:21	7	0.0	8.38	793.6		
02/21/2016	09:36:51	3	0.0	8.41	793.6		
02/21/2016	09:37:21	2	0.0	8.40	793.6		
02/21/2016	09:37:51	17	1.3	8.46	794.3		
02/21/2016	09:38:21	133	5.1	8.42	796.1		
02/21/2016	09:38:51	1174	5.7	8.42	798.7		
02/21/2016	09:39:21	700	6.4	8.42	801.8		
02/21/2016	09:39:51	859	7.9	8.41	805.6		
02/21/2016	09:40:21	859	7.8	8.40	809.5		
02/21/2016	09:40:32	879	7.9	8.40	811.0	D013 in first 10 bbl	
02/21/2016	09:40:51	910	7.9	8.40	813.4		
02/21/2016	09:41:21	947	7.9	8.40	817.4		
02/21/2016	09:41:51	978	7.9	8.41	821.3		
02/21/2016	09:42:21	1023	7.9	8.40	825.3		
02/21/2016	09:42:51	1070	7.9	8.42	829.2		
02/21/2016	09:43:21	1109	7.9	8.42	833.2		
02/21/2016	09:43:51	1161	7.8	8.41	837.1		
02/21/2016	09:44:21	1207	7.9	8.41	841.1		
02/21/2016	09:44:51	1226	7.9	8.41	845.0		
02/21/2016	09:45:21	1284	7.9	8.42	849.0		
02/21/2016	09:45:51	1317	7.9	8.42	852.9		
02/21/2016	09:46:21	1376	7.9	8.42	856.8		
02/21/2016	09:46:51	1394	7.9	8.41	860.8		
02/21/2016	09:47:21	1447	7.9	8.41	864.7		
02/21/2016	09:47:51	1495	7.8	8.42	868.6		
02/21/2016	09:48:21	1534	7.9	8.42	872.5		
02/21/2016	09:48:51	1572	7.8	8.42	876.5		
02/21/2016	09:49:21	1627	7.8	8.41	880.4		
02/21/2016	09:49:51	1658	7.8	8.41	884.3		

Well			Field	Job Start		Customer	Job Number
Horsetail 07E-1804 07E-1804			DJ	Feb/21/2016		Whiting	CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
02/21/2016	09:50:51	1751	7.8	8.42	892.2		
02/21/2016	09:51:21	1800	7.8	8.42	896.1		
02/21/2016	09:51:51	1857	7.8	8.42	900.0		
02/21/2016	09:52:21	1908	7.9	8.41	903.9		
02/21/2016	09:52:51	1945	7.8	8.41	907.8		
02/21/2016	09:53:21	1989	7.8	8.41	911.7		
02/21/2016	09:53:51	2040	7.8	8.40	915.6		
02/21/2016	09:54:21	2073	7.8	8.41	919.5		
02/21/2016	09:54:51	2103	7.8	8.40	923.4		
02/21/2016	09:55:21	2142	7.8	8.40	927.3		
02/21/2016	09:55:51	2166	7.8	8.40	931.2		
02/21/2016	09:56:21	2170	7.8	8.40	935.1		
02/21/2016	09:56:51	2164	7.8	8.40	939.1		
02/21/2016	09:57:21	2176	7.8	8.40	943.0		
02/21/2016	09:57:51	2158	7.8	8.40	946.9		
02/21/2016	09:58:21	2060	6.9	8.40	950.7		
02/21/2016	09:58:51	2100	7.1	8.40	954.2		
02/21/2016	09:59:21	2085	7.0	8.40	957.7		
02/21/2016	09:59:51	2099	7.0	8.40	961.3		
02/21/2016	10:00:21	2079	7.0	8.40	964.8		
02/21/2016	10:00:51	2071	7.0	8.40	968.3		
02/21/2016	10:01:21	2065	7.0	8.40	971.8		
02/21/2016	10:01:51	2089	7.0	8.40	975.3		
02/21/2016	10:02:21	2075	7.0	8.40	978.8		
02/21/2016	10:02:51	2075	7.1	8.40	982.4		
02/21/2016	10:03:21	2063	7.0	8.40	985.9		
02/21/2016	10:03:51	2052	7.0	8.40	989.4		
02/21/2016	10:04:21	2082	7.0	8.40	992.9		
02/21/2016	10:04:51	2066	7.1	8.40	996.4		
02/21/2016	10:05:21	2065	7.0	8.40	999.9		
02/21/2016	10:05:51	2061	7.0	8.40	1003.5		
02/21/2016	10:06:21	2077	7.1	8.40	1007.0		
02/21/2016	10:06:51	2074	7.1	8.40	1010.5		
02/21/2016	10:07:21	2047	7.0	8.40	1014.0		
02/21/2016	10:07:51	2051	7.0	8.40	1017.5		
02/21/2016	10:08:21	2061	7.0	8.40	1021.0		
02/21/2016	10:08:51	2067	7.0	8.40	1024.6		
02/21/2016	10:09:21	2063	7.0	8.40	1028.1		
02/21/2016	10:09:51	2055	7.0	8.40	1031.6		
02/21/2016	10:10:21	2052	7.0	8.40	1035.1		
02/21/2016	10:10:51	2064	7.1	8.40	1038.6		
02/21/2016	10:11:21	2054	7.0	8.40	1042.1		
02/21/2016	10:11:51	2058	7.0	8.40	1045.6		
02/21/2016	10:12:21	2033	7.0	8.40	1049.2		
02/21/2016	10:12:51	2043	7.0	8.40	1052.7		
02/21/2016	10:13:21	1930	5.9	8.40	1055.9		
02/21/2016	10:13:51	1986	5.9	8.40	1058.8		
02/21/2016	10:14:21	1943	5.9	8.40	1061.8		
02/21/2016	10:14:51	1948	5.9	8.40	1064.7		
02/21/2016	10:15:21	1932	5.9	8.40	1067.6		
02/21/2016	10:15:51	1981	5.8	8.40	1070.6		
02/21/2016	10:16:21	1917	5.8	8.40	1073.5		
02/21/2016	10:16:51	1933	5.9	8.40	1076.4		
02/21/2016	10:17:21	1950	5.9	8.40	1079.4		

Well		Field		Job Start		Customer		Job Number
Horsestail 07E-1804 07E-1804		DJ		Feb/21/2016		Whiting		CWJN-01688
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
02/21/2016	10:18:21	1984	5.9	8.40	1085.3			
02/21/2016	10:18:51	1923	5.9	8.40	1088.2			
02/21/2016	10:19:21	1989	5.9	8.40	1091.1			
02/21/2016	10:19:51	1738	2.5	8.40	1093.4			
02/21/2016	10:20:21	1755	2.5	8.40	1094.6			
02/21/2016	10:20:51	1713	2.5	8.40	1095.9			
02/21/2016	10:21:21	1712	2.5	8.40	1097.1			
02/21/2016	10:21:51	1721	2.5	8.40	1098.4			
02/21/2016	10:22:21	1745	2.5	8.40	1099.6			
02/21/2016	10:22:36	1709	2.5	8.40	1100.3	No Rotation, Torque 16 kft lb		
02/21/2016	10:22:45	1716	2.5	8.40	1100.6	Spacer to Surface, 150 bbl Away		
02/21/2016	10:22:46	1750	2.5	8.40	1100.7	Cement to Surface, 210 Bbl Away		
02/21/2016	10:22:51	1750	2.5	8.40	1100.9			
02/21/2016	10:23:21	1756	2.5	8.40	1102.1			
02/21/2016	10:23:51	1749	2.5	8.40	1103.4			
02/21/2016	10:24:21	1713	2.5	8.41	1104.6			
02/21/2016	10:24:51	1709	2.5	8.41	1105.9			
02/21/2016	10:25:21	1719	2.5	8.40	1107.1			
02/21/2016	10:25:51	1746	2.5	8.40	1108.4			
02/21/2016	10:26:21	1750	2.5	8.41	1109.6			
02/21/2016	10:26:51	1723	2.5	8.41	1110.9			
02/21/2016	10:27:21	1748	2.5	8.41	1112.1			
02/21/2016	10:27:41	2352	2.2	8.41	1113.0	Bump Top Plug 1800 to 2400 psi		
02/21/2016	10:27:42	2350	1.5	8.41	1113.0	End Displacement		
02/21/2016	10:27:44	2349	0.5	8.41	1113.1	Reset Total, Vol = 307.5 bbl		
02/21/2016	10:27:51	2454	0.0	8.41	1113.1			
02/21/2016	10:28:21	2434	0.0	8.41	1113.1			
02/21/2016	10:28:26	2433	0.0	8.41	1113.1	50 Bbl Cement to Surface		
02/21/2016	10:28:51	2425	0.0	8.41	1113.1			
02/21/2016	10:29:21	2388	0.0	8.41	1113.1			
02/21/2016	10:29:51	2378	0.0	8.41	1113.1			
02/21/2016	10:30:21	2407	0.0	8.41	1113.1			
02/21/2016	10:30:51	2432	0.0	8.41	1113.1			
02/21/2016	10:31:21	2452	0.0	8.41	1113.1			
02/21/2016	10:31:51	2463	0.0	8.41	1113.1			
02/21/2016	10:32:21	2474	0.0	8.41	1113.1			
02/21/2016	10:32:51	2483	0.0	8.41	1113.1			
02/21/2016	10:33:21	2496	0.0	8.41	1113.1			
02/21/2016	10:33:51	2512	0.0	8.41	1113.1			
02/21/2016	10:34:21	2529	0.0	8.41	1113.1			
02/21/2016	10:34:51	2542	0.0	8.41	1113.1			
02/21/2016	10:35:21	2556	0.0	8.41	1113.1			
02/21/2016	10:35:51	2569	0.0	8.41	1113.1			
02/21/2016	10:36:21	2582	0.0	8.41	1113.1			
02/21/2016	10:36:51	2203	0.0	8.41	1113.1			
02/21/2016	10:37:21	169	0.0	8.41	1113.1			
02/21/2016	10:37:32	-7	0.0	8.41	1113.1	Floats Hold, 2.5 Bbl Back		
02/21/2016	10:37:51	-5	0.0	8.41	1113.1			
02/21/2016	10:38:05	-2	0.0	8.41	1113.1	End Job		
02/21/2016	10:38:21	-1	0.0	8.41	1113.1			
02/21/2016	10:38:51	3	0.0	8.41	1113.1			

Well Horsetail 07E-1804 07E-1804	Field DJ	Job Start Feb/21/2016	Customer Whiting	Job Number CWJN-01688
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 6.0	N2	Mud	Maximum Rate 8.0		Total Slurry 695.0	Mud 0.0	Spacer 50.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5660	Final 3	Average 811	Bump Plug to 2400	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %	Designed Slurry Volume 685.0 bbl	Displacement 307.5 bbl	Mix Water Temp 66 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Washed Thru Perfs <input type="checkbox"/>	Volume 50.0 bbl	To ft	
Customer or Authorized Representative Tyson Renton			Schlumberger Supervisor Ryan Drilling/Matt Leiker			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	