

1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	1555	30
Casing	Inner	9.625	8.921	36	LTC	0	1552	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	509	Borst, David		140
Bulk Trailer	E696	Borst, David		140
Cement Pump	PPC11250	Staples, Anthony		140
Light Duty Pickups	51	Chambers, Andrew	Boyd, Brian	140

1.3 Timing

Event	Date/Time
Call Out	7/1/2017 12:30
Depart Facility	7/1/2017 13:30
On Location	7/1/2017 14:30
Rig Up Iron	7/1/2017 15:00
Job Started	7/1/2017 21:27
Job Completed	7/1/2017 22:53
Rig Down Iron	7/1/2017 22:58
Depart Location	7/2/2017 00:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	220 bbls
Rig Circulation Time	1 hours
Calculated Displacement	116 bbls
Actual Displacement	116 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	32 bbls
Well Topped Out	No

1.5 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	8.4 lb/gal
Well Fluid Density Out of Well	8.3 lb/gal

1.6 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	110 °F



1.7 Circulation

Lost Circulation Experienced
No

1.8 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem S100-12	Lead	12.00	2.53	14.85		270.00	121.49	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		155.00	61.38	870
1	4	Water	DisplacementFinal	8.33			42.00		113.00	0
1	5	ALTCem S100-12	Topout	12.50	2.22	12.58		150.00	59.40	0

1.9 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	2	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	2	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	2	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	2	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	3	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	3	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	3	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	3	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	3	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk



2 Job Logs

Line	#	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Annular Pressure (psi)	Comment
1		Call Out	7/1/2017	12:30						Customer requested crew on location at 16:30
2		Depart Shop	7/1/2017	13:30						Crew departs shop after journey management
3		Arrive On Location	7/1/2017	14:30						Crew arrives on location and meet with customer
4		STEACS briefing	7/1/2017	14:45						Steacs briefing with crew over rigging up iron and hazards
5		Rig Up Iron	7/1/2017	15:00						Crew rigs up iron and hoses
6		Waiting	7/1/2017	15:30						Waiting on rig to pull drill pipe and run casing
7		Rig Lands	7/1/2017	21:00						Rig lands casing and recirculates bottoms up
8		STEACS briefing	7/1/2017	21:10						STEACS briefing with BJ crew, rig crew and company man over job and hazards
9		Fill Lines	7/1/2017	21:27	8.33	3	3	30		Fill pumps and lines
10		Pressure Test	7/1/2017	21:30	8.33	0.5	0.5	3200		Pressure test iron and head
11		Pump Spacer	7/1/2017	21:32	8.33	5	20	130		Pump 20 bbls fresh water spacer with poly flake
12		Pump Lead Cement	7/1/2017	21:40	12	5	121	168		Pump 121 bbls of lead cement (270 Sk, 2.53 Yield, 12 PPG, 14.85 Gals/ Sk)
13		Pump Tail Cement	7/1/2017	22:01	12.5	5	61	159		Pump 61 bbls of tail cement (155 Sk, 2.22 Yield, 12.5 PPG, 12. 58 Gals/Sk)
14		Shut Down	7/1/2017	22:15						Shut down pumping
15		Drop Plug	7/1/2017	22:20						Drop top plug with company man to verify plug went down hole



16		Pump Displacement	7/1/2017	22:21	8.33	6	116	209		Pump 116 bbls of fresh water displacement
17		Cement To Surface	7/1/2017	22:37	8.33	6	84	500		At 84 bbls away got 32 bbls of cement to surface
18		Slow Rate	7/1/2017	22:43	8.33	2	10	348		Slow rate to 2 bpm
19		Land Plug	7/1/2017	22:50				917		Landed plug at 917 PSI and FCP of 348 PSI
20		Check Floats	7/1/2017	22:53						Check floats and got .5 bbl back
21		Rig Down Iron	7/1/2017	22:58						Crew rigs down iron and hoses
22		Depart Location	7/2/2017	00:00						Crew departs from location

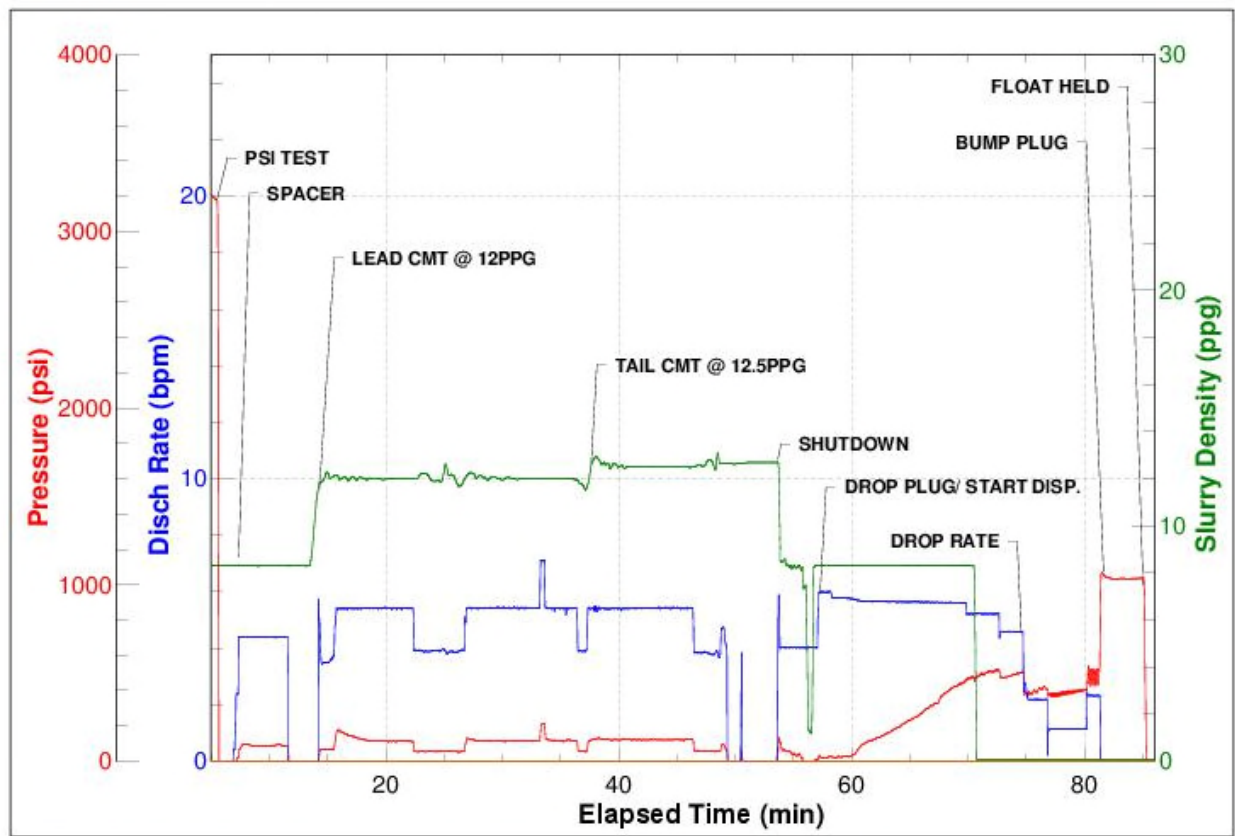
3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	69 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	4 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	450 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams



JobMaster Program Version 4.02
Job Number: 972
Customer: Bayswater
Well Name: Ward P-20-19HN



Job Start: Saturday, July 01, 2017