

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	1548	25
Casing	Inner	9.625	8.921	36	LTC	0	1539	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Cement Pump	101	Casciato, Luke	126
Cement Chemical	402	Bell, Wesley	126
Bulk Trailer	E435	Groneman, Josh	126
Bulk Trailer	502	Vasquez, Mike	126

1.3 Timing

Event	Date/Time
Call Out	5/22/2017 23:00
Depart Facility	5/23/2017 00:30
On Location	5/23/2017 02:20
Rig Up Iron	5/23/2017 05:30
Job Started	5/23/2017 06:34
Job Completed	5/23/2017 07:44
Rig Down Iron	5/23/2017 07:50
Depart Location	5/23/2017 09:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.7 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	na bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	115 bbls
Actual Displacement	114 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	34 bbls
Well Topped Out	no

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	1
Yield Point	3
10 sec. SGS	0
10 min. SGS	0
30 min. SGS	0
Filtrate	65
Flow Line Temp.	80

1.6 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	8.7 lb/gal
Well Fluid Density Out of Well	8.7 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	110 °F

1.8 Circulation

Lost Circulation Experienced
No



1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	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		260.00	116.99	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		146.00	57.82	1045
1	4	Water	DisplacementFinal	8.33			42.00		115.00	0

1.10 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	2	Lead	ALTCem S100-12	ADF-20	Defoamer	0.00	
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
1	3	Tail	ALTCem S100-12	ADF-20	Defoamer	0.00	

2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Arrive on location	5/23/2017	02:20					arrive on location, requested time was 05:00
2	Rig in	5/23/2017	05:30					Spot and rig in all bulk, pump trucks, run water/bulk/iron
3	Safety meeting	5/23/2017	06:00					hold pre job meeting with rig crew and pump crew, review job procedure and identify job hazards and controls
4	Fill Lines	5/23/2017	06:34	8.34	2	2	70	Fill lines with fresh water
5	Pressure Test Lines	5/23/2017	06:36	8.34			3300	Test surface lines, no leaks
6	Pump	5/23/2017	06:37	8.34	6	18	200	Pump 18bbls fresh water, last ten bbls with red dye
7	Pump Lead Cement	5/23/2017	06:44	12	6	117	250	Mix and pump 117bbls of lead cement at 12ppg. Y: 2.53, WR: 14.85, 260sks
8	Pump Tail Cement	5/23/2017	07:04	12.5	5	57.7	350	Mix and pump 57.7bbls of tail cement at 12.5ppg, Y: 2.22, WR: 12.58, 146sks. Top of tail 909'.
9	Shut Down/drop plug	5/23/2017	07:18					Drop 9 5/8" top rubber plug
10	Displacement	5/23/2017	07:19	8.34				Begin displacement, 115.4bbls total displacement, first bbl is remainder of tail cement, the rest fresh water
11	Pump	5/23/2017	07:30	8.34	8	50	400	50bbls of displacement away
12	Pump	5/23/2017	07:33	8.34	8	15	450	65bbls of displacement away Red dye to surface
13	Pump	5/23/2017	07:35	8.34	8	15	500	80bbls of displacement away Cement to surface, 34bbls total to surface
14	Slow Rate	5/23/2017	07:37	8.34	2	25	250	Slow at 105bbls away of displacement to 2bpm
15	Land Plug	5/23/2017	07:41	8.34	2	9	300	Land plug at 114bbls of displacement away, Final circulating pressure of 300psi bumped up to 850psi
16	Check Floats	5/23/2017	07:44	8.34				Check floats, floats hold, .5bbls back to truck
17	Job compete	5/23/2017	07:44					
18	Rig Down	5/23/2017	07:50					
19	Leave location	5/23/2017	09:00					

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	55 °F	50-80 °F
pH Level	6.5	5.5-8.5
Chlorides	650 mg/L	0-3000 mg/L
Total Alkalinity	40	0-1000
Total Hardness	300 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	300 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

