

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	1545	25
Casing	Inner	9.625	8.921	36	LTC	0	1534	0

1.2 Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Bulk Trailer	501		Mathews, Travis	150
Bulk Trailer	502		Martinez, Michael	150
Light Duty Pickups	7		Boyd, Brian	150
Cement Pump	101	201	Hyde, Zack	150
Plug Container	150521			150
Swage	150540			150

1.3 Timing

Event	Date/Time
Call Out	4/14/2017 08:00
Depart Facility	4/14/2017 10:00
On Location	4/14/2017 12:00
Rig Up Iron	4/14/2017 12:30
Job Started	4/14/2017 17:05
Job Completed	4/14/2017 18:12
Rig Down Iron	4/14/2017 18:25
Depart Location	4/14/2017 19:30

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	200 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	115 bbls
Actual Displacement	113 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	38 bbls
Well Topped Out	No
Top Out Volume	0 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	1
Yield Point	4
10 sec. SGS	1
10 min. SGS	2
30 min. SGS	3
Filtrate	60
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	8.4 lb/gal
Well Fluid Density Out of Well	8.33 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	909
1	4	Water	DisplacementFinal	8.33			42.00		113.00	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	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)	Comment
1	Call Out	4/14/2017	08:00					Customer request crew to be on location at 1430
2	Depart From Shop	4/14/2017	10:00					Pre convoy meeting, crew departs from shop
3	Arrive On Location	4/14/2017	12:00					Crew arrives on location and obtain numbers from company man
4	Safety Meeting	4/14/2017	12:15					Crew discusses the risk of rigging up
5	Rig Up Iron	4/14/2017	12:30					Crew rigs up iron and hoses
6	Waiting	4/14/2017	13:30					Crew waits for casers to run casing
7	Rig Lands Casing	4/14/2017	16:00					Rig lands casing and begins to circulate well
8	Safety Meeting	4/14/2017	16:45					BJ crew has safety meeting with the rig crew and company man. Discuss job procedure
9	Fill Lines	4/14/2017	17:04	8.33	3	3	30	Fill pumps and lines
10	Pressure Test	4/14/2017	17:09	8.33	0.5	0.5	3000	Pressure test iron and cement head to 3000 PSI
11	Pump Spacer	4/14/2017	17:11	8.33	5	20	115	Pump 20 bbls of spacer with dye
12	Pump Lead	4/14/2017	17:14	12	6	117	325	Pump 117 bbls of lead cement at 12 PPG (260 sks, 2.53 Yield, 12 PPG, 14.85 Gals/Sks)
13	Pump Tail	4/14/2017	17:33	12.5	6	58	245	Pump 58 bbls of Tail cement at 12.5 PPG (146 sks, 2.22 Yield, 12.5 PPG, 12.58 Gals/Sks)
14	Shut Down	4/14/2017	17:45					Shut down pumping
15	Drop Plug	4/14/2017	17:47					Drop top plug with company man to verify that plug went down
16	Pump Displacement	4/14/2017	17:48	8.33	7	115	232	Pump 115 bbls of fresh water
17	Cement To Surface	4/14/2017	18:01	8.33	7		275	
18	Slow Rate	4/14/2017	18:05	8.33	2.5	10	300	Slow rate the 10 to 2 bbls a minute
19	Land Plug	4/14/2017	18:09	8.33			1000	
20	Check Floats	4/14/2017	18:12					Check floats 1 bbl back
21	Safety Meeting	4/14/2017	18:18					Crew discusses the hazards of rigging down
22	Rig Down Iron	4/14/2017	18:25					Crew rigs down iron and hoses
23	Depart Location	4/14/2017	19:00					Crew departs from location

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	54 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	1 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	70 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	0.15 mg/L	0-300 mg/L

4 Pump Diagrams

