

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	1552	25
Casing	Inner	9.625	8.921	36	LTC	0	1543	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	503	Zuniga, Jesus	160
Bulk Trailer	PPC41311	Garcia, Anthony	160
Cement Pump	C992	Valenzuela, Yannick	160
Light Duty Pickups	4	Boyd, Brian	160

1.3 Timing

Event	Date/Time
Call Out	7/21/2017 13:30
Depart Facility	7/21/2017 16:30
On Location	7/21/2017 18:00
Rig Up Iron	7/21/2017 18:30
Job Started	7/21/2017 21:35
Job Completed	7/21/2017 22:55
Rig Down Iron	7/21/2017 23:30
Depart Location	7/22/2017 00:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.33 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	250 bbls
Rig Circulation Time	3 hours
Calculated Displacement	116 bbls
Actual Displacement	116 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	26 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	8.33 lb/gal
Well Fluid Density Out of Well	8.33 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 (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		117.00	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)	Comment
1	Callout	7/21/2017	13:30					Customer requested crew on location at 19:00
2	Depart shop	7/21/2017	16:30					Crew has journey management & departs from shop
3	AOL	7/21/2017	18:00					AOL & MEET WITH CUSTOMER
4	STEACS briefing	7/21/2017	18:10					Have STEACS briefing with BJ crew over rigging up & hazard
5	Rig Up Iron	7/21/2017	18:30					Rig up iron & hoses
6	Waiting	7/21/2017	00:00					Waiting on rig to run iron
7	Rig lands CSG	7/21/2017	20:45					Rig lands CSG & circulates thru cmt head
8	STEACS briefing	7/21/2017	21:00					STEACS briefing with BJ crew, Rig hands and company man
9	Fill Lines	7/21/2017	21:35	8.33	3	3		Fill p & l
10	Pressure Test Lines	7/21/2017	21:36	8.33	0.5	0.5	3000	psi test pumps & lines
11	Pump Spacer	7/21/2017	21:38	8.33		20	160	pumped spacer with dye
12	Pump Lead Cement	7/21/2017	21:43	12	5	117	189	pump 117bbls of lead cmt @ 12ppg (260sks, 2.53yld, 14.5gal/sks)
13	Pump Tail Cement	7/21/2017	22:09	12.5	5.5	58	220	pump 58bbls of tail cmt @12.5ppg (146sks, 2.22yld, 12.58gal/sks)
14	Shutdown	7/21/2017	22:20					shutdown pumping
15	Drop Top Plug	7/21/2017	22:22					drop top plug with company man to verify
16	Pump Displacement	7/21/2017	22:25	8.33	5	116	153	pump fresh water displacement
17	Cement Back to Surface	7/21/2017	22:40	12				at 90bbls away we got cmt surface got 26bbls back
18	Slow Pump Rate	7/21/2017	22:43	8.33	2	10	302	106 bbls out we dropped rate
19	Land Plug	7/21/2017	22:50	8.33			1000	landed plug at 1000psi FCP 341psi
20	Check Floats	7/21/2017	22:55					check float .5bbls back
21	STEACS briefing	7/21/2017	23:15					STEACS briefing with BJ crew over rigging down and hazards
22	Rig Down Iron	7/21/2017	23:30					rig down iron & equipment
23	Depart Location	7/21/2017	00:00					crew has journey management & departs from location



3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	72 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	70 mg/L	0-500 mg/L
Carbonates	100 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