

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	1549	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	509	Vasquez, Mike	140
Bulk Trailer	E696	Borst, David	140
Light Duty Pickups	51	Chambers, Andrew	140

1.3 Timing

Event	Date/Time
Call Out	6/28/2017 14:00
Depart Facility	6/28/2017 14:30
On Location	6/28/2017 13:50
Rig Up Iron	6/28/2017 18:30
Job Started	6/28/2017 20:03
Job Completed	6/28/2017 21:28
Rig Down Iron	6/28/2017 22:10
Depart Location	6/28/2017 23:30

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	176 bbls
Rig Circulation Time	0.25 hours
Calculated Displacement	116.4 bbls
Actual Displacement	116.4 bbls
Total Spacer to Surface	40 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	8.6 lb/gal
Well Fluid Density Out of Well	8.6 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		270.00	121.49	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		155.00	61.38	1000
1	4	Water	DisplacementFinal	8.33			42.00		113.00	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)	Annular Pressure (psi)	Comment
1	CALL OUT	6/28/2017	14:30						BJ CREW CALLED OUT
2	PRE-CONVOY	6/28/2017	14:45						DISCUSSED HAZARDS OF DRIVING
3	DEPART SHOP	6/28/2017	15:00						BJ CREW LEFT SHOP FOR LOCATION
4	ASSESSMENT OF LOCATION	6/28/2017	16:30						MET WITH CUSTOMER REP WENT OVER JOB DETAILS, AND WHERE TO SPOT EQUIPMENT
5	PRE-RIG UP	6/28/2017	18:30						DISCUSSED HAZARDS OF RIG UP
6	RIG UP	6/28/2017	18:45						BJ CREW RIGGED UP IRON
7	RIG UP COMPLETE	6/28/2017	19:15						RIG UP COMPLETED SAFELY
8	PRE-JOB	6/28/2017	20:03						CONDUCTED STEACS BRIEFING WITH BJ CREW AND SAFETY MEETING WITH RIG CREW
9	FILL LINES	6/28/2017	20:26	8.33	2	2		90	FILLED LINES WITH 2 BBL FRESH WATER
10	PRESSURE TEST	6/28/2017	20:28	8.33	1	1		3000	TESTED LINES TO 3000 PSI
11	PUMP SPACER	6/28/2017	20:30	8.33	5	40		140	PUMPED 40BBL FRESH WATER SPACER
12	PUMP LEAD CEMENT	6/28/2017	20:34	12	5	121.5		250	121.5BBL,270SKS,2.53CUFT/FT,14.85 GAL/SK, OF LEAD CEMENT
13	PUMP TAIL CEMENT	6/28/2017	20:55	12.5	5	61.4		270	61.4BBL,155/SKS,12.85GAL/SK OF TAIL CEMENT
14	SHUT DOWN	6/28/2017	21:05						CEMENT PUMPING COMPLETE
15	DROP PLUG	6/28/2017	21:08						TOP PLUG LEFT CEMENTING HEAD
16	DISPLACEMENT	6/28/2017	21:09	8.33	5	116.4		380	STARTED PUMPING 116.4 BBL FRESH WATER DISPLACEMENT
17	CEMENT TO SURFACE	6/28/2017	21:23						26 BBL CEMENT TO SURFACE AT 90 BBL DISPLACED
18	SLOW RATE	6/28/2017	21:26		2				SLOWED TO 2BBL /MIN AT 95BBL DISPLACED TO BUMP PLUG
19	BUMP PLUG	6/28/2017	21:28					1000	FCP 380 TO 1000 BUMPED AT CALCULATED
20	CHECK FLOATS	6/28/2017	21:33						FLOATS HELD .75 BBL BACK
21	PRE-RIG DOWN	6/28/2017	21:50						DISCUSSED HAZARDS OF RIG DOWN
22	RIG DOWN	6/28/2017	22:10						BJ CREW RIGGED DOWN EQUIPMENT



23	RIG DOWN COMPLETE	6/28/2017	22:40						RIG DOWN COMPLETED SAFELY
24	PRE-CONVOY	6/28/2017	23:00						DID AAR AND DISCUSSED HAZARDS OF DRIVING
25	DEPART LOCATION	6/28/2017	23:30						LEFT LOCATION FOR SHOP

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	77 °F	50-80 °F
pH Level	6.5	5.5-8.5
Chlorides	3 mg/L	0-3000 mg/L
Total Alkalinity	250	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<300 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

