

Cementing Job Summary

Created: Sunday, August 24, 2014

HALLIBURTON

Cementing Job Summary

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Expandacem B2	EXPANDACEM (TM) SYSTEM	100	sack	13.8	1.67		5	7.68
7.68 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Expandacem B2	EXPANDACEM (TM) SYSTEM	502	sack	13.8	1.68		4	7.69
7.69 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Water	Water	179	bbl	8.33			1	
Cement Left In Pipe Amount 42 ft Reason Shoe Joint									
Comment									

1.4 Water Field Test

Item	Recorded Test Value	Units	Max. Acceptable Limit	Potential Problems in Exceeding Limit
pH	7	----	6.0 - 8.0	Chemicals in the water can cause severe retardation
Chlorides	0	ppm	3000 ppm	Can shorten thickening time of cement
Sulfates	>200	ppm	1500 ppm	Will greatly decrease the strength of cement
Total Hardness		ppm	500 mg/L	High concentrations will accelerate the set of the cement
Calcium		ppm	500 ppm	High concentrations will accelerate the set of the cement
Total Alkalinity		ppm	1000 ppm	Cement is greatly retarded to the point where it may not set up at all (typically occurs @ pH ≥ 8.3).
Bicarbonates		ppm	1000 ppm	Cement is greatly retarded to the point where it may not set up at all
Potassium		ppm	5000 ppm	High concentrations will shorten the pump time of cement (indicates the presence of chlorides, therefore if Potassium levels are measured as high, so should the chlorides)
Iron	0	ppm	300 ppm	High concentrations will accelerate the set of the cement
Temperature	60	°F	50-80 °F	High temps will accelerate; Low temps may risk freezing in cold weather

Submitted Respectfully by: _____JOSEPH FANTASIA_____

1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Comment
Event	1	Depart Shop for Location	Depart Shop for Location	8/23/2014	19:30:00				PRE-CONVOY SAFETY MEETING
Event	2	Arrive at Location from Service Center	Arrive at Location from Service Center	8/23/2014	20:00:00				ARRIVE AT LOCATION AND PERFORM A SITE ASSESSMENT. RIG RUNNING DRILL PIPE STANDS.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/23/2014	20:15:00				PERFORM PRE RIG UP SAFETY MEETING AND BEGIN SPOTTING TRUCKS AND RIGGING UP IRON.
Event	4	Safety Meeting	Safety Meeting	8/24/2014	02:00:00	0.00	2.64	37.00	PERFORM PRE-JOB SAFETY MEETING WILL ALL PERSONEL ON LOCATION.
Event	5	Start Job	Start Job	8/24/2014	02:18:41	0.00	11.93	31.00	
Event	6	Test Lines	Test Lines	8/24/2014	02:22:44	0.00	8.29	1591.00	PRESSURE TEST LINES TO 4700 PSI
Event	7	Pump Spacer 1	Pump Spacer 1	8/24/2014	02:30:59	1.00	8.29	43.00	PUMP 60 BBLS TUNED SPACER MIXED AT 11.5 PPG USING WATER SUPPLIED BY RIG. DENSITY VERIFIED BY SCALES.
Event	8	Pump Lead Cement	Pump Lead Cement	8/24/2014	02:52:37	1.00	10.45	40.00	PUMP 29 BBLS 13.8 PPG EXPANDACEM USING WATER SUPPLIED BY RIG. 24.6 LBS FE-2 ADDED TO MIX WATER. DENSITY VERIFIED BY SCALES.
Event	9	Pump Tail Cement	Pump Tail Cement	8/24/2014	03:02:42	4.80	13.82	327.00	PUMP 150 BBLS 13.8 PPG EXPANDACEM USING WATER SUPPLIED BY RIG. FIRST 20 BBLS OF CEMENT MIXED WITH 16.4 LBS OF FE-2. DENSITY VERIFIED BY SCALES. 50 BBLS IN MAX RATE OF 3 BBL/ MINUTE AT 2000 PSI CIRCULATING PRESSURE.
Event	10	Shutdown	Shutdown	8/24/2014	03:43:12	0.00	13.27	79.00	
Event	11	Clean Lines	Clean Lines	8/24/2014	03:45:55	1.00	13.23	53.00	
Event	12	Drop Top Plug	Drop Top Plug	8/24/2014	03:52:53	0.00	8.15	29.00	THIRD PARTY PLUG PRELOADED IN THIRD PARTY CEMENT HEAD.
Event	13	Pump Displacement	Pump Displacement	8/24/2014	03:53:24	1.00	8.11	31.00	PUMP 179 BBLS WATER WITH 18 GAL MMCR ADDED USING WATER SUPPLIED BY RIG. LOSS CIRCULATION AT TIMES THROUGHOUT DISPLACING. HOLE PACKED OFF AT 65 BBLS AWAY. HIGH PRESSURE THROUGHOUT AT 1.5 BBL/ MINUTE MAX RATE @ 4700 PSI CIRCULATING PRESSURE.
Event	14	Check Floats	Check Floats	8/24/2014	06:47:37	0.00	7.88	192.00	TOE SLEEVE WAS SHIFTED OPEN. UNABLE TO CHECK FLOAT VALVE.
Event	15	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	8/24/2014	06:55:00	0.00	7.90	42.00	RIG DOWN SAFETY MEETING WITH HES PERSONEL
Event	16	End Job	End Job	8/24/2014	07:02:23	0.00	7.88	20.00	RIG COCPLETED SETTING PACKER, BACKSIDE PRESSURE TEST AND CLEANING 7" CASING. NO CEMENT OR SPACER TO SURFACE.