

Cement Post Job Report

GRMR Oil & Gas, LLC
370 Interlocken Blvd, Suite 550
Broomfield, CO 80021

Hamill #19-16HA
05-081-07822
S:19 T:5N R:90W
Moffat, CO

Prepared For:

Mr. Mike Griffis
mike.griffis@grmroilandgas.com
(303) 515-5921

Job Completion Data:

11/4/2015
CallSheet #: 54
Proposal #: 11125

Submitted by:

Zen Keith
(307) 757-7178
zenkeith@altcem.com





Dear Mr. Mike Griffis,

Thank you for the opportunity to provide cementing services on this well. ALTCem strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact ALTCem at any time.

Sincerely,

Zen Keith

Field Office

**1808 East Allison Rd., Cheyenne Wy., 82007
Phone: (307) 638-5585**

Sales Office

**475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158**



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Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)	New	Burst	Collapse
Casing	Outer	13.375	12.615	54.5	n/a	0	840	0			
Open Hole	Outer	n/a	12.25	n/a	n/a	840	3990	100			
Casing	Inner	9.625	8.835	40	LTC	0	3990	0		2816	1616

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Pump	102	302	Hyde, Andrew	
Light Duty Pickups	5		Acuna, Roger	
Field Bin	602	303	Henderson, Ethan	
Bulk Trailer	501	201	Montoya, Hector	Casciato, Luke

Timing

Event	Date/Time
Call Out	11/3/2015 10:00
Depart Facility	11/3/2015 17:00
On Location	11/4/2015 10:00
Rig Up Iron	11/6/2015 15:15
Job Started	11/6/2015 17:25
Job Completed	11/6/2015 20:18
Rig Down Iron	11/6/2015 20:45
Depart Location	11/6/2015 22:45

Casing Equipment

Type	Description	Qty
Top Plug	Davis Lynch 9 5/8" Top Plug	0

General Job Information

Metrics	Value
Well Fluid Density	9.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1680 bbls
Rig Circulation Time	3.5 hours
Calculated Displacement	304.38 bbls
Actual Displacement	304.38 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	120 bbls
Well Topped Out	No
Top Out Volume	NA bbls



Well Fluid Details

Metrics	Value
Plastic Viscosity	9
Yield Point	12

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	units
Flare During Job	No
Flare During Job	units
Flare at End of Job	No
Flare at End of Job	units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.5 lb/gal
Well Fluid Density Out of Well	9.5 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	100 °F
BHST	130 °F

Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
no	na	na	na

Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom	Start (gal)	End (gal)	Used (gal)
1	1	Flush	Mud Flush	ASF-20	Surfactant	0.50	gal/bbl	20	0	20
1	1	Flush	Mud Flush	ASF-30	Dispersant	10.00	lb/bbl			
1	2	Lead	ALTCem I70-12	AC3-10	Cement	70.00	%			
1	2	Lead	ALTCem I70-12	AFA-10	Extender	20.00	%			
1	2	Lead	ALTCem I70-12	AXE-20	Extender	10.00	%			
1	2	Lead	ALTCem I70-12	ABX-30	BondEnhancer	0.20	%BWOB			
1	2	Lead	ALTCem I70-12	AFL-10	FluidLoss	0.40	%BWOB			
1	2	Lead	ALTCem I70-12	AR-10	Retarder	0.30	%BWOB			
1	2	Lead	ALTCem I70-12	AVS-60	Viscosifer	0.10	%BWOB			
1	2	Lead	ALTCem I70-12	AXE-30	Extender	0.50	%BWOB			
1	3	Tail	ALTCem I50-X1	ACG-10	Cement	100.00	%			
1	3	Tail	ALTCem I50-X1	AFL-10	FluidLoss	0.20	%BWOB			



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		Called Out	11/3/2015	10:00					Called out
2		Depart For Location	11/3/2015	17:00					Depart For Location
3		Waiting	11/3/2015	22:00					Waiting in Craig for Rig to Call
4		Called Out	11/4/2015	07:00					Called out to Location
5		Arrived to Location	11/4/2015	10:00					Arrived to Location Rig Still had 1000 ft of Casing to Run
6		Checked In	11/4/2015	10:15					Checked in With Company Man 12.25"OH @ 3990'. 9.625"csg 36ppf J-55 @ 3981.86'. PCSG 13.375"csg 54.5ppf @ 840'. 8.4ppg Drilling Mud. Water Test Good.
7		Released From Rig	11/4/2015	12:30					Rig Got Casing Stuck in Hole and Had to Trip Out Casing to Ream Out the Well.
8		Called Out	11/6/2015	10:30					Called out to be on Location @ 14:00
9		Arrived to Location	11/6/2015	13:00					Arrived to Location Rig Still had 1000 ft of Casing to Run
10		Rig on Bottom	11/6/2015	14:00					Rig got Casing to Bottom and Circulating 8bpm 300 psi
11		Safety Meeting	11/6/2015	15:00					Pre Rig up Safety Meeting
12		Rig up	11/6/2015	15:15					Rig up Iron and Water Hoses
13		Safety Meeting	11/6/2015	16:30					Pre Job Safety Meeting w/ Everyone on Location
14	1	Start Job	11/6/2015	17:25	8.33	2	3	100	Start Job / Fill Lines
15	2	Test Lines	11/6/2015	17:31				3700	Test Lines / Test Good
16	3	Pump Spacer	11/6/2015	17:33	8.4	4	40	120	Pump 40 bbls Mud Flush w/ 20bbls Surfactant
17	4	Pump Lead Cement	11/6/2015	17:49	12.7	5	360	60	Pump 1156sks Lead Cement 12.7 ppg 1.75 Yield 9.62 gals/sk Total Pumped 360 bbls
18	5	Pump Tail Cement	11/6/2015	19:08	15.8	5	30.7	60	Pump 150sks Tail Cement 15.8 ppg 1.15 Yield 4.97 gals/sk Total Pumped 30.7 bbls
19	6	Pump Displacement	11/6/2015	19:19	8.33	7.5	250	840	Pump Fresh Water Displacement Dropping Top Plug on the Fly While Still Pumping Cement Plug Left Head
20		Caught Cement	11/6/2015	00:00					Caught Cement 50 bbls into Displacement
21		Spacer To Surface	11/6/2015	00:00					Spacer to Surface 130 bbls into Displacement
22		Cement to Surface	11/6/2015	00:00					Cement to Surface 180 bbls into Displacement. 125 bbls cement to Surface
23	7	Slow Rate	11/6/2015	19:58	8.33	5	30	925	Slowed Rate to 5 bpm @ 250 bbls into Displacement
24	8	Slow Rate	11/6/2015	20:04	8.33	2.5	25	900	Slowed Rate 2.5bpm to Land Plug 280 bbls into Displacement
25		Land Plug	11/6/2015	20:15				1400	Landed Plug 900psi Brought to 1400 psi Held for 3 Minutes Total Displacement 305 bbls
26		Checked Float	11/6/2015	20:18					Checked Floats / Held Getting 1.5 bbls back to Pump
27		Safety Meeting	11/6/2015	20:30					Pre Rig Down Safety Meeting
28		Rig Down	11/6/2015	20:45					Rig Down Iron
29		Safety Meeting	11/6/2015	22:30					Pre Journey Safety Meeting
30		Depart Location	11/6/2015	22:45					Depart Location

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Tanks	
Temperature	50 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0.6 mg/L	0-300 mg/L

Pump Diagrams

