



Rocky Mountain Area Laboratory
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***Rocky Mountain Area Laboratory
CEMENTING REPORT***

Prepared for:
***Bayswater Exploration & Production
Thornton #12-22
Weld County, Colorado
Lab Report #C04-077-13
Longstring
05-123-37055-0000***

***Rocky Mountain Area Laboratory
899 Baseline Place
Brighton, CO 80601
Phone (303) 659-7347***

ANALYST: Patti Groseth/Tom Smith

***BAKER HUGHES TECHNICAL REPRESENTATIVE
Crystal Mapes***

Submitted by: Blake David

April 19, 2013



CEMENTING LABORATORY REPORT

Lab Report #C04-077-13

COMPANY :	Bayswater Exploration & Production	DATE:	April 19, 2013
WELL NAME:	Thornton #12-22	LOCATION:	Weld County, Colorado
DISTRICT:	Brighton	TYPE JOB:	Longstring
API #	05-123-37055-0000	TOC(md):	
DEPTH MD(ft):	7,944 ft	BHST(°F):	240 °F
CASING SIZE("):	4 1/2 in	BHCT(°F):	166 °F
TUBING SIZE("):		BHSqT(°F):	202 °F
HOLE SIZE("):	7 7/8 in	TOL (°F):	Static Circ

SLURRY DESIGN DATA

#1	1st Lead Slurry: Premium Lite Cement + 8 pps CSE-2 + 4% Bentonite + 0.6% SMS
#2	2nd Lead Slurry: Premium Lite Cement + 2% Bentonite + 0.4% FL-52 + 0.2% R-3
#3	Tail Slurry: Class G:FA(50:50) + 0.4% FL-52 + 0.1% CD-32 + 0.1% SMS

SLURRY PROPERTIES	#1	#2	#3
Density : ppg	11.00	12.50	14.60
Yield :cu.ft./sk.	3.22	1.87	1.16
Mixing Water: gal/sk.	19.86	10.28	5.01
Water Type:	Fresh	Fresh	Fresh
Testing Temperature :	167 °F	167 °F	166 °F
Thickening Time: hrs:mins.	4:30	3:43	3:03
Free Water: mls.			
Fluid Loss:ml/30min			
Compressive Strength:			
	hrs.		
	hrs.		
Rheologies	RPM		
	300		
	200		
	100		
	6		
	3		
	600		
	PV		
	YP		
Gel Strength : #/100sq.ft.	10 sec.		
	10 min.		

1st Lead Slurry turned off 3 times to help facilitate thickening.

REMARKS :

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Baker Hughes Rocky Mountain Area Laboratory Report

Report #: C04-077-13

Customer/Well Information

Company: Bayswater Exploration & Prod Depth MD: 7,944 ft Date: April 19, 2013
Well Name: Thornton #12-22 Depth TVD: 7,944 ft Prepared for: Crystal Mapes
API #: 05-123-37055-0000 TOC(md): Submitted by: Blake David
Location: Weld County, Colorado Casing Size: 4 1/2 in Prepared by: Patti Groseth/Tom Smith
District: Brighton Tubing Size: Water Type: Fresh
Type Job: Longstring Hole size: 7 7/8 in

BHST: 240 °F BHCT: 166 °F BHSqT: 202 °F

Slurry Design Data

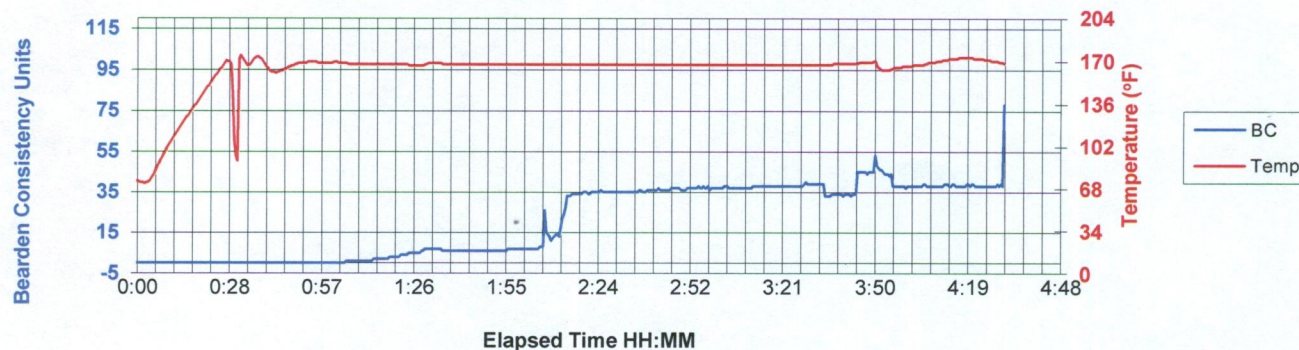
1st Lead Slurry: Premium Lite Cement + 8 pps CSE-2 + 4% Bentonite + 0.6% SMS

Slurry Properties

Density: 11.0 ppg Fluid Loss: Test Temp: 167 °F
Yield: 3.22 cf/sack Free Water: Time to 70bc: 4:30 hrs:min
Mix Water: 19.86 gps Total Fluid: Time to 100 bc:

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

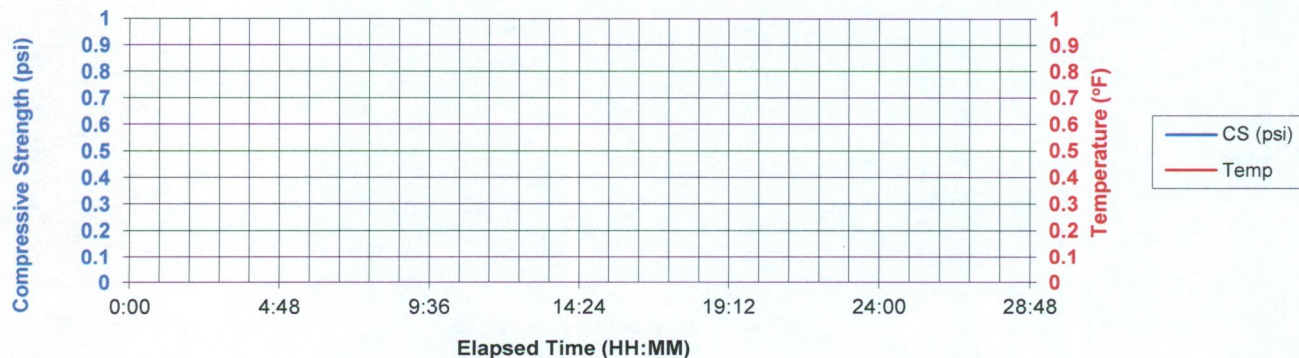
Consistometer Recording of Bearden Consistency:



Compressive Strength Data:

Temperature	12 hours	24 hours	36 hours	48 hours
25 psi				

Ultrasonic Cement Analyzer Data Chart:



Notice: This report is presented in good faith based upon present day technology and information provided; but because of variable conditions and other information which must be relied upon, Baker Hughes, Inc. makes no warranty, express or implied, as to the accuracy of the data or of any calculations or opinions expressed herein. You agree that Baker Hughes, Inc. shall not be liable for any loss or damage, whether due to negligence or otherwise, arising out of or in connection with such data, calculations, or opinions.

Customer/Well Information

Company:	Bayswater Exploration & Prod	Depth MD:	7,944 ft	Date:	April 19, 2013
Well Name:	Thornton #12-22	Depth TVD:	7,944 ft	Prepared for:	Crystal Mapes
API #:	05-123-37055-0000	TOC(md):		Submitted by:	Blake David
Location:	Weld County, Colorado	Casing Size:	4 1/2 in	Prepared by:	Patti Groseth/Tom Smith
District:	Brighton	Tubing Size:		Water Type:	Fresh
Type Job:	Longstring	Hole size:	7 7/8 in		

BHST: 240 °F BHCT: 166 °F BHSqT: 202 °F

Slurry Design Data

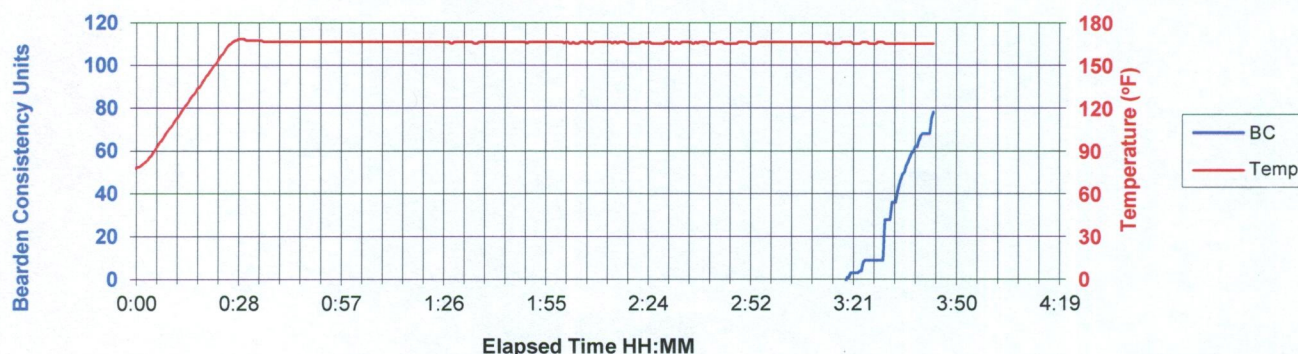
2nd Lead Slurry: Premium Lite Cement + 2% Bentonite + 0.4% FL-52 + 0.2% R-3

Slurry Properties

Density:	12.5 ppg	Fluid Loss:		Test Temp:	167 °F
Yield:	1.87 cf/sack	Free Water:		Time to 70bc:	3:43 hrs:min
Mix Water:	10.28 gps	Total Fluid:		Time to 100 bc:	

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

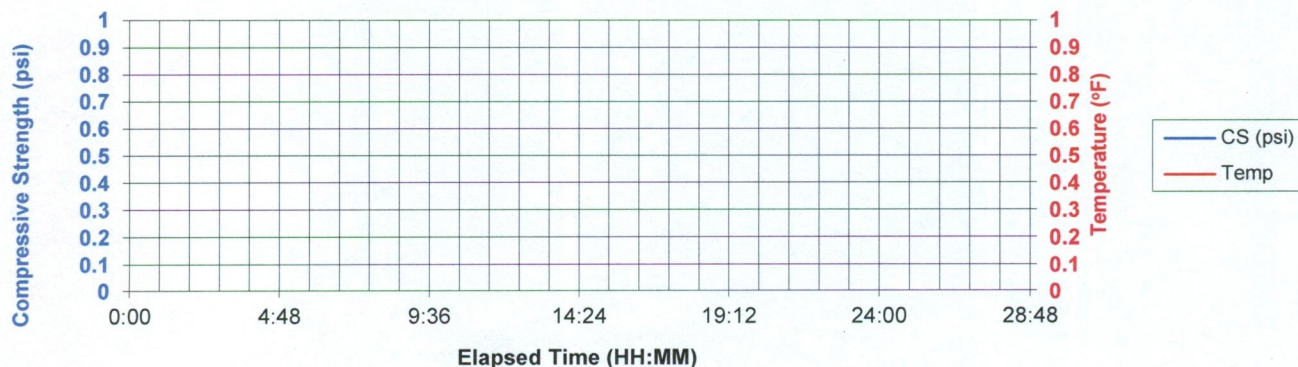
Consistometer Recording of Bearden Consistency:



Compressive Strength Data:

Temperature	12 hours	24 hours	36 hours	48 hours
25 psi				

Ultrasonic Cement Analyzer Data Chart:



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Slurry Design Data

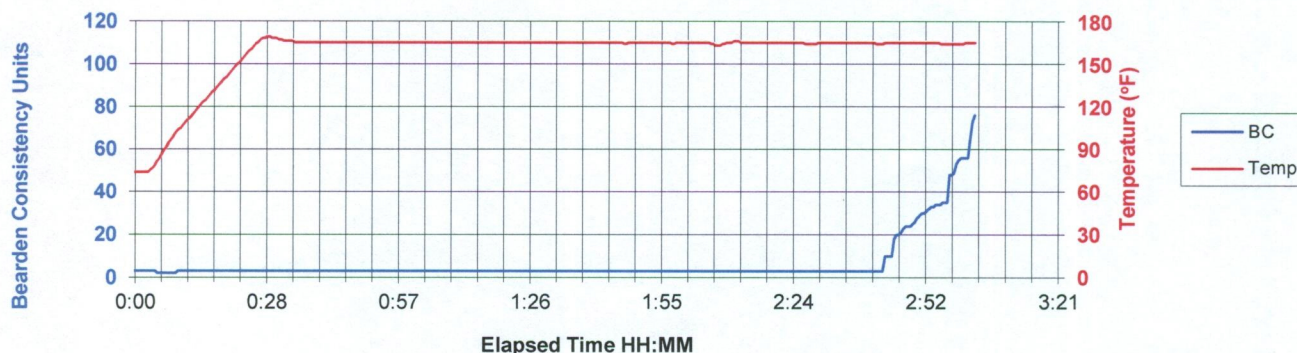
Tail Slurry: Class G:FA(50:50) + 0.4% FL-52 + 0.1% CD-32 + 0.1% SMS

Slurry Properties

Density:	14.6 ppg	Fluid Loss:		Test Temp:	166 °F
Yield:	1.16 cf/sack	Free Water:		Time to 70bc:	3:03 hrs:min
Mix Water:	5.01 gps	Total Fluid:		Time to 100 bc:	

Rheology:	600 rpm	300 rpm	200 rpm	100 rpm	6 rpm	3 rpm	PV	YP	Gel Strength	
									10 sec	10 min

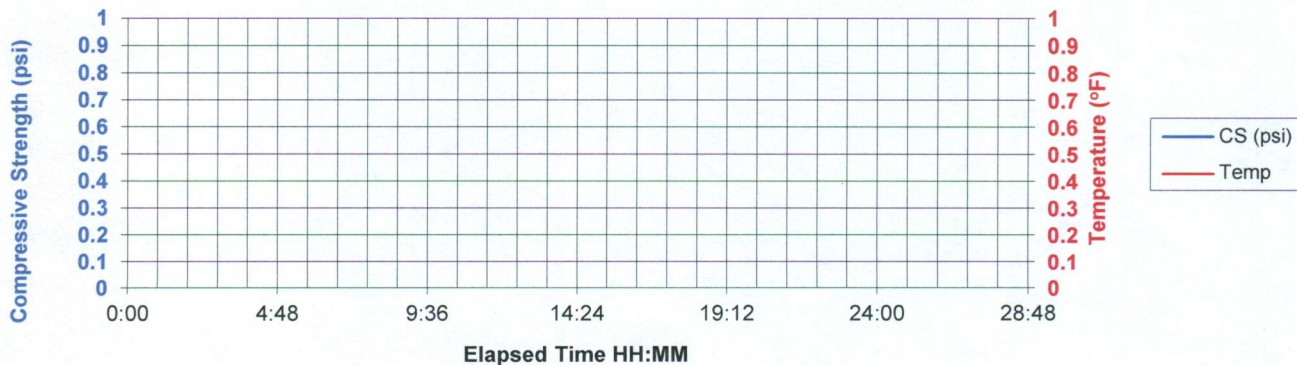
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Ultrasonic Cement Analyzer Data Chart:



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