



GCC of America

Cherry Creek Plaza 1, 600 S. Cherry Street, 10th Floor, Glendale, CO 80246

Sales (303) 739-5900 Customer Service (800) CALL GCC

Plant: Odessa
16501 W. Murphy
Odessa, TX 79760
Contact: Gustavo Calderon

Cement Type: Class H HSR Oilwell
Date Issued: 5-Jan-18
Production period ending: 1-Dec-17
31-Dec-17

STANDARD REQUIREMENTS API (SPEC 10A)

	Spec.	Test
Item	Limit	Result
MgO (%)	6.0 max.	0.7
SO ₃ (%)	3.0 max.	2.7
Loss of Ignition (%)	3.0 max.	1.2
Insoluble residue (%)	0.75 max.	0.40
Equivalent alkalies (%)	0.75 max.	0.15

Potential Compounds	%	
C ₃ S	48-65	57
C ₃ A	3 max	1.2

	Spec.	Test
Item	Limit	Result
Blaine fineness (m ² /kg)	N.R. (B)	237
Mix Water (mass fraction of cement)	38%	38
Free Fluid, %	5.9 max.	5.9
Compressive strength		MPa (psi)
8 hr.,100deg. F., Min	2.1 (300)	4.2 (610)
8 hr.,140deg. F., Min	10.3 (1500)	13.4 (1940)
Schedule 5		
Maximum Consistency Bc (15 - 30 min)	30	8 - 9
Thickening time. (minutes) @ 70 Bc	(B)	106
Thickening time. (minutes) @ 100 Bc	90-120	116

A Not applicable.

B Limit not specified by purchaser. Test result provided for information only.

N.R. No Requirement

At the time of shipment, the cement referenced on this mill test certificate complies with the current standard API 10A specifications using applicable standard testing procedures.