



Certified to
NSF/ANSI/CAN 61

Cement Mill Test Report

Month of Issue: FEBRUARY 2022

Plant: **Richmond, British Columbia**
 Product: **Portland Cement Type GU**
 Mill Test Report #: **R-GU-22-02**
 Manufactured: **JANUARY 2022**

ASTM C1157 Standard Requirements

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS		
Item	Spec limit	Test Result	Item	Spec limit	Test Result
Rapid Method, X-Ray (C 114)			Air content of mortar (%) (C 185)	12 max	5.9
SiO ₂ (%)	---	15.3	Blaine Fineness (m ² /kg) (C 204)	---	634
Al ₂ O ₃ (%)	---	3.7	Passing 45 um (%) (C 430)	72 min	97.4
Fe ₂ O ₃ (%)	---	2.3	Autoclave expansion (%) (C 151)	0.80 max	0.01
CaO (%)	---	61.4	Compressive strength (Mpa [PSI]) (C 109)		
MgO (%)	---	0.7			
SO ₃ (%)	---	2.8			
Loss on ignition @ 950 (%)	---	12.5	3 days	13.0 [1890] min	23.9 3470
NaEq (Alkali) (%)	---	0.38	7 days	20.0 [2900] min	29.0 4210
Insoluble residue (%)	---	-	28 days (Reflects previous month's data)	28.0 [4060] min	34.8 5050
Free Lime (%)	---	0.8	Time of setting (minutes)		
Adjusted Potential Phase Composition***			Vicat Initial	45-420	110
	C3S (%)	---	39	Mortar Bar Expansion (C 1038)*	
	C2S (%)	---	14		
	C3A (%)	---	6		
	C4AF (%)	---	7	14 days, % max	0.020 max

* Current Production run not available - most recent provided

0.0

*** Corrected by using ASTM Calculation for Limestone Cement

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of applicable specifications for ASTM Type GU;
 ASTM C1157 Standard Specification for Type GU Cement
 Cement complies with NSF 61

Certified By:

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 2/11/2022

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