



**Cement**

**FLY ASH TEST REPORT**

Analysis by: Edmonton Mortar Lab  
Sample from : Sundance Power Plant  
Average Analysis: February 2021  
Test Report Number 3-21 Class F CSA

**Chemical Analysis**

Silicon Dioxide (SiO <sub>2</sub> )	60.8 %
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	22.5 %
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	3.3 %
Total (SiO <sub>2</sub> ) + (Al <sub>2</sub> O <sub>3</sub> ) + (Fe <sub>2</sub> O <sub>3</sub> )	86.6 %
Sulphur Trioxide (SO <sub>3</sub> )	0.1 %
Calcium Oxide (CaO)	8.0 %
Magnesium Oxide	1.2 %
Moisture Content	0.07 %
Loss on Ignition	0.60 %
Total Alkalies as Equivalent Na <sub>2</sub> O	2.94 %

**Physical Analysis**

Fineness Retained on 45 um (No. 325 Sieve)	22.5 %
Strength Activity Index with Portland Cement	
% of Control at 28 Days ( <i>previous month's result</i> )	90 %
Water Requirement, Percent of Control	94 %
Autoclave Expansion	-0.02 %
Density	2.06 g/cm <sup>3</sup>

We hereby certify that the composite fly ash sample above meets the chemical and physical requirements of CAN/CSA A3001 for Type F Fly Ash.

Certified : 

**WESTERN REGION**

5400 West Marginal Way SW, Seattle, Washington 98106-1517  
Office: 206.923.0098 or 800.477.0100 Fax: 206.923.0388