



**Cement**

**FLY ASH TEST REPORT**

Analysis by: Edmonton Mortar Lab  
Sample from : Sundance Power Plant  
Average Analysis: March 2021  
Test Report Number 4-21 Class F CSA

**Chemical Analysis**

Silicon Dioxide (SiO <sub>2</sub> )	<b>56.6 %</b>
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	<b>22.6 %</b>
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	<b>3.7 %</b>
Total (SiO <sub>2</sub> ) + (Al <sub>2</sub> O <sub>3</sub> ) + (Fe <sub>2</sub> O <sub>3</sub> )	<b>82.9 %</b>
Sulphur Trioxide (SO <sub>3</sub> )	<b>0.2 %</b>
Calcium Oxide (CaO)	<b>9.3 %</b>
Magnesium Oxide	<b>1.3 %</b>
Moisture Content	<b>0.02 %</b>
Loss on Ignition	<b>1.40 %</b>
Total Alkalies as Equivalent Na <sub>2</sub> O	<b>3.31 %</b>

**Physical Analysis**

Fineness Retained on 45 um (No. 325 Sieve)	<b>22.3 %</b>
Strength Activity Index with Portland Cement % of Control at 28 Days ( <i>previous month's result</i> )	<b>89 %</b>
Water Requirement, Percent of Control	<b>95 %</b>
Autoclave Expansion	<b>-0.01 %</b>
Density	<b>2.03 g/cm<sup>3</sup></b>

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