



Cement

FLY ASH TEST REPORT

Analysis by: Edmonton Mortar Lab
Sample from : Sundance Power Plant
Average Analysis: October 2021
Test Report Number 11-21 Class F CSA

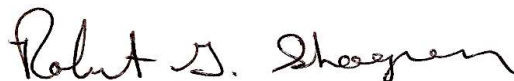
Chemical Analysis

Silicon Dioxide (SiO_2)	61.9 %
Aluminum Oxide (Al_2O_3)	22.4 %
Iron Oxide (Fe_2O_3)	3.7 %
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	88.0 %
Sulphur Trioxide (SO_3)	0.0 %
Calcium Oxide (CaO)	8.6 %
Magnesium Oxide	1.1 %
Moisture Content	0.24 %
Loss on Ignition	0.45 %
Total Alkalies as Equivalent Na_2O	2.96 %

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	33.4 %
Strength Activity Index with Portland Cement	
% of Control at 28 Days (<i>previous month's result</i>)	91 %
Water Requirement, Percent of Control	96 %
Autoclave Expansion	0.00 %
Density	2.03 g/cm ³

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