

TECHNICAL REPORT

CERTIFIED CONCRETE TESTING LABORATORY
IN ACCORDANCE WITH CSA STD. A283



TO: Lehigh Inland Cement
12640 – 156 Street
Edmonton, AB T5L 4P8

FILE: CA16353
DATE: 16 February 2005

Attn: Mr. Roger Kennedy

cc: Lehigh Inland Cement (Edmonton)
Attn: Robin Cowdrey
Lehigh Inland Cement (Calgary)
Attn: Walter Dobslaw

PROJECT: SULFATE RESISTANCE TEST PROGRAM

SUBJECT: Lehigh Inland (Edm) Type 10 & 50 Cements and Genesee (Classified) Fly Ash

Following is a summary of test data to 52 weeks on laboratory mixes prepared using Lehigh Inland T10 & T50 Cements and Genesee Fly Ash, the week of February 9, 2004.

Sulfate Expansion % (Average of Six Specimens)

TEST AGE <u>WEEKS</u>	LEHIGH INLAND TEST MIX <u>T10 (50% F/A)</u>	LEHIGH INLAND TEST MIX <u>T50 (50% F/A)</u>
1	0.001 (Nil)	0.001 (Nil)
2	0.002 (Nil)	0.004 (Nil)
3	0.008 (0.01)	0.009 (0.01)
4	0.011 (0.01)	0.013 (0.01)
8	0.016 (0.02)	0.017 (0.02)
13	0.026 (0.03)	0.030 (0.03)
15	0.029 (0.03)	0.032 (0.03)
18	0.031 (0.03)	0.034 (0.03)
21	0.034 (0.03)	0.037 (0.04)
26	0.039 (0.04)	0.043 (0.04)
39	0.049 (0.05)	0.049 (0.05)
52	0.055 (0.06)	0.054 (0.05)

NOTES:

- Tests performed in accordance with CSA Standard A456.2-C8 (ASTM C1012).
- W/C = 0.485
- Recommended Specification Limits:
 - High resistance to sulfate expansion = 0.05% (max) at 6 months.
 - Moderate resistance to sulfate expansion = 0.10% (max) at 6 months.

(Final Report)

AMEC Earth & Environmental

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