

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1138-04
FROM	Grant Harrigan	SHIFT:	0830 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	29 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0136

**SUBJECT: 28th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 28th of May, 2008. Tyler Rowe and Donald MacIsaac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Rain, cloudy with sunny periods
- Temperature: approximately 13°C
- Wind Direction: West to Northwest

Comments: *ALL-TECH was on-Site at 0830 and sampling began as soon as weather would allow. Air monitoring was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were below the established Site Action Level for this parameter of 0.66 ppm. Each measurement is the average of a 15 minute sample. A minimum of 2 samples were taken downwind and 1 sample upwind every hour. All measurements were found to be below the detection limit of the instrument. Levels above detection limit will be noted in the table below.

Due to operational criteria, during periods of precipitation (snow and rain) and high humidity, TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Tyler Rowe and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, B.Tech
Environmental Technologist
ALL-TECH Environmental Services Cape Breton Ltd.

Copied via e-mail:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Cooling Pond
28th May, 2008

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 30m North of Intercolonial Street fixed station	0900	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
2 30m Southwest of STPA building	0900	155	5	West	Downwind	Excavator operating	No observations seen to effect sampling integrity
3 30m Southwest of STPA building	0930	155	6	West	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
4 30m North of Intercolonial Street fixed station	1000	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
5 30m Southwest of STPA building	1000	155	6	West	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
6 30m Southwest of STPA building	1015	155	7	West	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
7 30m North of Intercolonial Street fixed station	1100	155	5	West	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
8 30m Southwest of STPA building	1100	155	6	West	Downwind	Trucks operating	No observations seen to effect sampling integrity
9 10m South of corner of Inglis Street and Cape Breton Street	1145	155	6	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
10 150m North of Intercolonial Street fixed station	1200	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
11 10m South of corner of Inglis Street and Cape Breton Street	1200	155	5	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
12 10m South of corner of Inglis Street and Cape Breton Street	1230	155	4	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
13 150m North of Intercolonial Street fixed station	1300	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 10m South of corner of Inglis Street and Cape Breton Street	1300	155	4	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
15 10m South of corner of Inglis Street and Cape Breton Street	1315	155	5	Northwest	Downwind	Trucks operating	No observations seen to effect sampling integrity
16 150m North of Intercolonial Street fixed station	1400	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
17 10m South of corner of Inglis Street and Cape Breton Street	1400	155	4	Northwest	Downwind	Bulldozer operating	No observations seen to effect sampling integrity
18 10m South of corner of Inglis Street and Cape Breton Street	1430	155	7	Northwest	Downwind	Bulldozer, trucks operating	No observations seen to effect sampling integrity
19 150m North of Intercolonial Street fixed station	1500	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
20 10m South of corner of Inglis Street and Cape Breton Street	1500	155	5	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
21 10m South of corner of Inglis Street and Cape Breton Street	1520	155	5	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
22 150m North of Intercolonial Street fixed station	1600	155	5	Northwest	Upwind	Background	No observations seen to effect sampling integrity
23 10m South of corner of Inglis Street and Cape Breton Street	1600	155	5	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity
24 10m South of corner of Inglis Street and Cape Breton Street	1615	155	6	Northwest	Downwind	No activity observed On-site	No observations seen to effect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
30m Southwest of STPA building	0900 to 0959	6	990
30m Southwest of STPA building	1000 to 1059	13	990
30m Southwest of STPA building / 10m South of corner of Inglis Street and Cape Breton Street	1100 to 1159	19	990
10m South of corner of Inglis Street and Cape Breton Street	1200 to 1259	24	990
10m South of corner of Inglis Street and Cape Breton Street	1300 to 1359	29	990
10m South of corner of Inglis Street and Cape Breton Street	1400 to 1459	35	990
10m South of corner of Inglis Street and Cape Breton Street	1500 to 1559	40	990
10m South of corner of Inglis Street and Cape Breton Street	1600 to 1659	46	990

VOC Monitoring

Monitoring Method	Yes	No
Sustained Odours Observed		•
P.I.D. Required	•	