

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1224-01
FROM	Dianne Theriault	SHIFT:	0730 to 1400
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	4 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0156

**SUBJECT: 3rd November, 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 3rd of November, 2008. Jennifer Andrews and Alison Giovannetti of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy skies
- Temperature: approximately 2°C
- Wind Direction: Southwest to West

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. 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 Alison Giovannetti and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, 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
3rd November, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 5m N of Intercolonial St. fixed station	0800	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m NW of STPA building	0800	155	10	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
3 30m NW of STPA building	0835	155	9	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
4 5m N of Intercolonial St. fixed station	0900	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m NW of STPA building	0900	155	5	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
6 30m NW of STPA building	0945	155	5	West	Downwind	Excavators in operation	No observations seen to effect sampling integrity
7 80m S of Ferry and Intercolonial Intersection	1000	155	4	West	Upwind	Background	No observations seen to affect 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 NW of STPA building	1000	155	3	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 30m NW of STPA building	1030	155	3	West	Downwind	Excavators in operation	No observations seen to effect sampling integrity
10 80m S of Ferry and Intercolonial Intersection	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
11 30m NW of STPA building	1100	155	3	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 30m NW of STPA building	1115	155	3	West	Downwind	Excavators in operation	No observations seen to effect sampling integrity
13 80m S of Ferry and Intercolonial Intersection	1200	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
14 30m NW of STPA building	1200	155	5	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 30m NW of STPA building	1215	155	4	West	Downwind	Excavators in operation	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
16 80m S of Ferry and Intercolonial Intersection	1300	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
17 30m NW of STPA building	1300	155	3	West	Downwind	Excavators in operation	No observations seen to effect sampling integrity
18 30m NW of STPA building	1315	155	2	West	Downwind	Excavators in operation	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 NW of STPA building	0800 to 0859	10	990
30m NW of STPA building	0900 to 0959	15	990
30m NW of STPA building	1000 to 1059	18	990
30m NW of STPA building	1100 to 1159	21	990
30m NW of STPA building	1200 to 1259	26	990
30m NW of STPA building	1300 to 1359	29	990

VOC Monitoring

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