

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-10
FROM	Dianne Theriault	SHIFT:	0930 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	11 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0054

**SUBJECT: 10th September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 10th of September, 2008. Allison Giovannetti and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately 20°C
- Wind Direction: Northwest

Comments: *ALL-TECH was on-Site at 0930 and sampling began as soon as weather conditions were within instrument specifications. 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 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 – South Pond Pilot Study
10th September, 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 Walker Street, 100m North of Ferry Street	1110	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street, 150m North of STPA building	1110	155	48	Northwest	Downwind	Crane operating	Dust from upwind work site
3 Inglis Street, 150m North of STPA building	1125	155	9	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
4 Walker Street, 100m North of Ferry Street	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 150m North of STPA building	1200	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 Inglis Street, 150m North of STPA building	1215	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
7 Walker Street, 100m North of Ferry Street	1300	155	6	Northwest	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 Inglis Street, 150m North of STPA building	1300	155	7	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
9 Inglis Street, 150m North of STPA building	1335	155	6	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
10 Walker Street, 100m North of Ferry Street	1400	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis Street, 150m North of STPA building	1400	155	8	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
12 Inglis Street, 150m North of STPA building	1440	155	8	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
13 Walker Street, 100m North of Ferry Street	1500	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 Inglis Street, 150m North of STPA building	1500	155	8	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 Inglis Street, 150m North of STPA building	1530	155	7	Northwest	Downwind	Personnel working with hand tools	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
16 Walker Street, 100m North of Ferry Street	1600	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis Street, 150m North of STPA building	1600	155	8	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
18 Inglis Street, 150m North of STPA building	1645	155	9	Northwest	Downwind	No activity observed on site	No observations seen to affect 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 ($\mu\text{g}/\text{m}^3$)
Inglis Street, 150m North of STPA building	1100 to 1159	29	990
Inglis Street, 150m North of STPA building	1200 to 1259	35	990
Inglis Street, 150m North of STPA building	1300 to 1359	42	990
Inglis Street, 150m North of STPA building	1400 to 1459	50	990
Inglis Street, 150m North of STPA building	1500 to 1559	58	990
Inglis Street, 150m North of STPA building	1600 to 1659	67	990

VOC Monitoring

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