

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-05
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0030

**SUBJECT: 7th October, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 7th of October, 2008. Grant Harrigan and Colin MacIassac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with showers
- Temperature: approximately 8°C
- Wind Direction: Northwest

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. Monitoring was put on standby between 0930 and 1200 due to precipitation.*

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 Grant Harrigan 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 – Material Processing Facility
7th October, 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 200m North of Ferry Street and Railroad Tracks	0810	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 40m North of Ferry Street and Inglis Street Intersection	0815	155	7	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
3 40m North of Ferry Street and Inglis Street Intersection	0845	155	7	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 200m North of Ferry Street and Railroad Tracks	0900	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 40m North of Ferry Street and Inglis Street Intersection	0900	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 200m North of Ferry Street and Railroad Tracks	1200	155	3	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
7 70m North of Ferry Street and Inglis Street Intersection	1200	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
8 70m North of Ferry Street and Inglis Street Intersection	1245	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 200m North of Ferry Street and Railroad Tracks	1300	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
10 70m North of Ferry Street and Inglis Street Intersection	1310	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
11 70m North of Ferry Street and Inglis Street Intersection	1340	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 200m North of Ferry Street and Railroad Tracks	1400	155	4	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
13 200m North of Ferry Street and Railroad Tracks	1400	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 70m North of Ferry Street and Inglis Street Intersection	1400	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 70m North of Ferry Street and Inglis Street Intersection	1450	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 200m North of Ferry Street and Railroad Tracks	1500	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 70m North of Ferry Street and Inglis Street Intersection	1505	155	2	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 70m North of Ferry Street and Inglis Street Intersection	1545	155	2	Northwest	Downwind	Excavators moving material	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
19 200m North of Ferry Street and Railroad Tracks	1600	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 70m North of Ferry Street and Inglis Street Intersection	1600	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 70m North of Ferry Street and Inglis Street Intersection	1630	155	4	Northwest	Downwind	Excavators moving material	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 ($\mu\text{g}/\text{m}^3$)
40m North of Ferry Street and Inglis Street Intersection	0800 to 0859	7	990
40m North of Ferry Street and Inglis Street Intersection	0900 to 0959	14	990
70m North of Ferry Street and Inglis Street Intersection	1200 to 1259	17	990
70m North of Ferry Street and Inglis Street Intersection	1300 to 1359	20	990
70m North of Ferry Street and Inglis Street Intersection	1400 to 1459	23	990
70m North of Ferry Street and Inglis Street Intersection	1500 to 1559	26	990
70m North of Ferry Street and Inglis Street Intersection	1600 to 1659	30	990

VOC Monitoring

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