

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1225-07
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	12 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0051

**SUBJECT: 12th November, 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 12th of November, 2008. Kelly Morrison, Jennifer Andrews, and Reg Peters, 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 5°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.*

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 Jennifer Andrews 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
12th 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 15 m Northwest of Inglis and Sparr Road intersection	0800	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 30 m North of Ferry Street on Railroad Property	0815	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 15 m Northwest of Inglis and Sparr Road intersection	0840	155	2	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
4 30 m North of Ferry Street on Railroad Property	0900	155	27	Northwest	Upwind	Background	Cement truck filling up
5 20 m West of Inglis and Sparr Road Intersection	0900	155	1	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
6 20 m West of Inglis and Sparr Road Intersection	0930	155	11	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity

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
7 30 m North of Ferry Street on Railroad Property	1000	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 20 m West of Inglis and Sparr Road Intersection	1000	155	9	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 20 m West of Inglis and Sparr Road Intersection	1040	155	7	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
10 30 m North of Ferry Street on Railroad Property	1100	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 20 m West of Inglis and Sparr Road Intersection	1100	155	8	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
12 20 m West of Inglis and Sparr Road Intersection	1145	155	10	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity

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
13 30 m North of Ferry Street on Railroad Property	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 20 m West of Inglis and Sparr Road Intersection	1200	155	11	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 20 m West of Inglis and Sparr Road Intersection	1240	155	10	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
16 30 m North of Ferry Street on Railroad Property	1300	155	24	Northwest	Upwind	Background	Cement truck filling up
17 20 m West of Inglis and Sparr Road Intersection	1300	155	10	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
18 20 m West of Inglis and Sparr Road Intersection	1325	155	8	Northwest	Downwind	Machines moving materials	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 20 m West of Inglis and Sparr Road Intersection	1400	155	8	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
20 30 m North of Ferry Street on Railroad Property	1405	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
21 20 m West of Inglis and Sparr Road Intersection	1430	155	9	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
22 30 m North of Ferry Street on Railroad Property	1500	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 20 m West of Inglis and Sparr Road Intersection	1500	155	8	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 20 m West of Inglis and Sparr Road Intersection	1530	155	9	Northwest	Downwind	Machines moving materials	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
25 30 m North of Ferry Street on Railroad Property	1600	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 20 m West of Inglis and Sparr Road Intersection	1600	155	10	Northwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
27 20 m West of Inglis and Sparr Road Intersection	1645	155	8	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 ($\mu\text{g}/\text{m}^3$)
15 m Northwest of Inglis and Sparr Road intersection	0800 to 0859	4	990
20 m West of Inglis and Sparr Road Intersection	0900 to 0959	10	990
20 m West of Inglis and Sparr Road Intersection	1000 to 1059	18	990
20 m West of Inglis and Sparr Road Intersection	1100 to 1159	27	990
20 m West of Inglis and Sparr Road Intersection	1200 to 1259	38	990
20 m West of Inglis and Sparr Road Intersection	1300 to 1359	47	990
20 m West of Inglis and Sparr Road Intersection	1400 to 1459	56	990
20 m West of Inglis and Sparr Road Intersection	1500 to 1559	65	990
20 m West of Inglis and Sparr Road Intersection	1600 to 1659	74	990

VOC Monitoring

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