

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1291-04
FROM	Dianne Theriault	SHIFT:	0800 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	7 th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0138

**SUBJECT: 6th April, 2009, 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 6th of April, 2009. 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:
- Mainly cloudy
- Temperature: approximately 5°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0800 hours and sampling began as soon as weather conditions were within instrument specifications. Air monitoring was performed during AECOM's construction activities.*

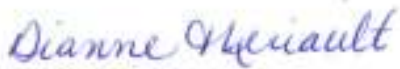
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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:

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
6th April, 2009

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 60m North of Inglis St. and Spar Rd. Intersection	1000	155	7	West	Downwind	Worker activity	No observations seen to affect sampling integrity
2 5m North of Ferry St. and Railway Intersection	1030	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
3 60m North of Inglis St. and Spar Rd. Intersection	1035	155	7	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
4 5m North of Ferry St. and Railway Intersection	1100	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
5 60m North of Inglis St. and Spar Rd. Intersection	1100	155	7	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
6 60m North of Inglis St. and Spar Rd. Intersection	1115	155	5	West	Downwind	Machines in operation	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 5m North of Ferry St. and Railway Intersection	1200	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
8 60m North of Inglis St. and Spar Rd. Intersection	1200	155	6	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 60m North of Inglis St. and Spar Rd. Intersection	1220	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 5m North of Ferry St. and Railway Intersection	1300	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
11 60m North of Inglis St. and Spar Rd. Intersection	1300	155	4	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
12 60m North of Inglis St. and Spar Rd. Intersection	1345	155	1	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
13 5m North of Ferry St. and Railway Intersection	1400	155	6	West	Upwind	Background	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
14 60m North of Inglis St. and Spar Rd. Intersection	1415	155	1	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
15 60m North of Inglis St. and Spar Rd. Intersection	1445	155	7	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
16 5m North of Ferry St. and Railway Intersection	1500	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
17 60m North of Inglis St. and Spar Rd. Intersection	1500	155	5	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
18 60m North of Inglis St. and Spar Rd. Intersection	1530	155	6	West	Downwind	Machines in operation	No observations seen to affect sampling integrity
19 5m North of Ferry St. and Railway Intersection	1600	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
20 60m North of Inglis St. and Spar Rd. Intersection	1600	155	7	West	Downwind	Machines in operation	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
21 60m North of Inglis St. and Spar Rd. Intersection	1645	155	6	West	Downwind	Machines in operation	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 ($\mu\text{g}/\text{m}^3$)
60m North of Inglis St. and Spar Rd. Intersection	1000 to 1059	7	990
60m North of Inglis St. and Spar Rd. Intersection	1100 to 1159	14	990
60m North of Inglis St. and Spar Rd. Intersection	1200 to 1259	21	990
60m North of Inglis St. and Spar Rd. Intersection	1300 to 1359	24	990
60m North of Inglis St. and Spar Rd. Intersection	1400 to 1459	28	990
60m North of Inglis St. and Spar Rd. Intersection	1500 to 1559	34	990
60m North of Inglis St. and Spar Rd. Intersection	1600 to 1659	41	990

VOC Monitoring

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