

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1329-04
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	5 th June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0172

**SUBJECT: 4th June, 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 4th of June, 2009. Reg Peters 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:

- Partly cloudy
- Temperature: approximately 20°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
4th June, 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 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	0800	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	0800	155	12	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	0825	155	13	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
4 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	0900	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	0900	155	21	Southwest	Downwind	Equipment operating	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
6 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	0915	155	35	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
7 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1000	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1000	155	12	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
9 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1035	155	17	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
10 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1100	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1100	155	20	Southwest	Downwind	Worker activity	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
12 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1120	155	25	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
13 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1200	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1200	155	29	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1215	155	21	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1300	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1300	155	31	Southwest	Downwind	Worker activity	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
18 120m North of Material Processing Facility (N 46° 08.963' W 060° 11.293')	1335	155	26	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
19 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1400	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1400	155	50	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
21 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1420	155	33	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
22 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1500	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1500	155	24	Southwest	Downwind	Worker activity	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
24 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1530	155	44	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
25 100m South of Ferry St. and Railway Rd. intersection (N 46° 08.668' W 060° 11.465')	1600	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1600	155	28	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
27 125m North of Material Processing Facility (N 46° 08.963' W 060° 11.305')	1645	155	50	Southwest	Downwind	No activity observed from sampling location	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 ($\mu\text{g}/\text{m}^3$)
120m North of Material Processing Facility	0800 to 0859	13	990
120m North of Material Processing Facility	0900 to 0959	41	990
120m North of Material Processing Facility	1000 to 1059	56	990
120m North of Material Processing Facility	1100 to 1159	79	990
120m North of Material Processing Facility	1200 to 1259	104	990
120m North of Material Processing Facility	1300 to 1359	133	990
125m North of Material Processing Facility	1400 to 1459	175	990
125m North of Material Processing Facility	1500 to 1559	209	990
125m North of Material Processing Facility	1600 to 1659	248	990

VOC Monitoring

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