

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1257-10
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	19 th January, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0088

**SUBJECT: 16th January, 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 16th of January, 2009. Tyler Rowe 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:

- Mainly sunny
- Temperature: approximately -15°C
- Wind Direction: Southwest to Northwest

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 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 – Material Processing Facility
16th January, 2009

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 10m North of Ferry Street	0800	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street, 100m North of Spar Road	0800	155	18	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 Inglis Street, 100m North of Spar Road	0825	155	9	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
4 Walker Street 10m North of Ferry Street	0900	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 100m North of Spar Road	0900	155	8	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 Inglis Street, 100m North of Spar Road	0915	155	9	Southwest	Downwind	Machine 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
7 Railway property, 300m North of Ferry Street	1000	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 Inglis Street, 60m North of Spar Road	1000	155	7	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 Inglis Street, 60m North of Spar Road	1045	155	8	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
10 Railway property, 300m North of Ferry Street	1100	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis Street, 60m North of Spar Road	1100	155	7	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 Inglis Street, 60m North of Spar Road	1130	155	10	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
13 Railway property, 300m North of Ferry Street	1200	155	2	Northwest	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 Inglis Street, 60m North of Spar Road	1200	155	8	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 Inglis Street, 60m North of Spar Road	1245	155	13	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
16 Railway property, 300m North of Ferry Street	1300	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis Street, 60m North of Spar Road	1300	155	12	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
18 Inglis Street, 60m North of Spar Road	1320	155	15	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
19 Railway property, 300m North of Ferry Street	1400	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 Inglis Street, 60m North of Spar Road	1400	155	9	Northwest	Downwind	Machine 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
21 Inglis Street, 60m North of Spar Road	1430	155	12	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
22 Railway property, 300m North of Ferry Street	1500	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 Inglis Street, 60m North of Spar Road	1500	155	12	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
24 Inglis Street, 60m North of Spar Road	1535	155	9	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
25 Railway property, 300m North of Ferry Street	1600	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 Inglis Street, 60m North of Spar Road	1600	155	8	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
27 Inglis Street, 60m North of Spar Road	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, 100m North of Spar Road	0800 to 0859	14	990
Inglis Street, 100m North of Spar Road	0900 to 0959	23	990
Inglis Street, 60m North of Spar Road	1000 to 1059	31	990
Inglis Street, 60m North of Spar Road	1100 to 1159	40	990
Inglis Street, 60m North of Spar Road	1200 to 1259	51	990
Inglis Street, 60m North of Spar Road	1300 to 1359	65	990
Inglis Street, 60m North of Spar Road	1400 to 1459	76	990
Inglis Street, 60m North of Spar Road	1500 to 1559	87	990
Inglis Street, 60m North of Spar Road	1600 to 1659	96	990

VOC Monitoring

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