

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-18
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	27 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0043

**SUBJECT: 27th 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 27th of October, 2008. Colin MacIsaac 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 13°C
- Wind Direction: South to Southwest

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 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
27th 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 80m W of Ferry St bridge along Sparr Rd.	0800	155	22	South	Upwind	Background	No observations seen to affect sampling integrity
2 10m N of North Pond main gate	0800	155	25	South	Downwind	Excavators in operation Excavators in operation	No observations seen to effect sampling integrity
3 10m N of North Pond main gate	0845	155	21	South	Downwind	Excavators in operation	No observations seen to effect sampling integrity
4 80m S of Ferry & Intercolonial Intersection.	0900	155	26	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 80m N of Ferry and Inglis Intersection	0900	155	20	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
6 80m N of Ferry and Inglis Intersection	0945	155	21	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
7 80m S of Ferry & Intercolonial Intersection	1000	155	19	Southwest	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
8 80m N of Ferry and Inglis Intersection	1000	155	20	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 80m N of Ferry and Inglis Intersection	1015	155	28	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
10 80m S of Ferry & Intercolonial Intersection	1100	155	22	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 80m N of Ferry and Inglis Intersection	1100	155	20	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 80m N of Ferry and Inglis Intersection	1145	155	21	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
3 80m S of Ferry & Intercolonial Intersection	1200	155	22	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 80m N of Ferry and Inglis Intersection	1200	155	18	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 80m N of Ferry and Inglis Intersection	1235	155	20	Southwest	Downwind	Excavators in operation	No observations seen to effect 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
16 80m S of Ferry & Intercolonial Intersection	1300	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 80m N of Ferry and Inglis Intersection	1300	155	18	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
18 80m N of Ferry and Inglis Intersection	1345	155	17	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
19 80m S of Ferry & Intercolonial Intersection.	1400	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 80m N of Ferry and Inglis Intersection	1400	155	16	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
21 80m N of Ferry and Inglis Intersection	1440	155	17	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
22 80m S of Ferry & Intercolonial Intersection	1500	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 80m N of Ferry and Inglis Intersection	1500	155	16	Southwest	Downwind	Excavators in operation	No observations seen to effect 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 80m N of Ferry and Inglis Intersection	1515	155	18	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
25 80m S of Ferry & Intercolonial Intersection	1600	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 80m N of Ferry and Inglis Intersection	1600	155	15	Southwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
27 80m N of Ferry and Inglis Intersection	1630	155	37	Southwest	Downwind	No activity observed on site	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
10m N of North Pond main gate	0800 to 0859	23	990
80m N of Ferry and Inglis Intersection	0900 to 0959	44	990
80m N of Ferry and Inglis Intersection	1000 to 1059	68	990
80m N of Ferry and Inglis Intersection	1100 to 1159	89	990
80m N of Ferry and Inglis Intersection	1200 to 1259	108	990
80m N of Ferry and Inglis Intersection	1300 to 1359	126	990
80m N of Ferry and Inglis Intersection	1400 to 1459	143	990
80m N of Ferry and Inglis Intersection	1500 to 1559	160	990
80m N of Ferry and Inglis Intersection	1600 to 1659	186	990

VOC Monitoring

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