

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-11
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	16 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0082

**SUBJECT: 15th October, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 15th of October, 2008. 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:

- Sunny with cloudy periods
- Temperature: approximately 12°C
- Wind Direction: Southwest to West

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 – South Pond Pilot Study
15th 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 2m N of Intercolonial St. fixed station	0800	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 25m SE of Inglis and Sparr Intersection	0800	155	12	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
3 25m SE of Inglis and Sparr Intersection	0825	155	14	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
4 15m NW of Intercolonial St. fixed station	0900	155	16	West	Upwind	Background	No observations seen to affect sampling integrity
5 60m SE of Inglis and Sparr Intersection	0900	155	12	West	Downwind	Crane operating	No observations seen to effect sampling integrity
6 60m SE of Inglis and Sparr Intersection	0925	155	14	West	Downwind	Crane operating	No observations seen to effect sampling integrity
7 15m NW of Intercolonial St. fixed station	1000	155	16	West	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 60m SE of Inglis and Sparr Intersection	1000	155	11	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 60m SE of Inglis and Sparr Intersection	1030	155	14	West	Downwind	Crane operating	No observations seen to effect sampling integrity
10 15m NW of Intercolonial St. fixed station	1100	155	15	West	Upwind	Background	No observations seen to affect sampling integrity
11 60m SE of Inglis and Sparr Intersection	1100	155	13	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 60m SE of Inglis and Sparr Intersection	1145	155	11	West	Downwind	Crane operating	No observations seen to effect sampling integrity
13 15m NW of Intercolonial St. fixed station	1200	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
14 60m SE of Inglis and Sparr Intersection	1200	155	10	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 60m SE of Inglis and Sparr Intersection	1245	155	9	West	Downwind	Crane operating	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 15m NW of Intercolonial St. fixed station	1300	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
17 120m SE of Inglis and Sparr Intersection	1300	155	12	West	Downwind	Crane operating	No observations seen to effect sampling integrity
18 120m SE of Inglis and Sparr Intersection	1330	155	19	West	Downwind	Crane operating	No observations seen to effect sampling integrity
19 15m NW of Intercolonial St. fixed station	1400	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
20 120m SE of Inglis and Sparr Intersection	1400	155	8	West	Downwind	Crane operating	No observations seen to effect sampling integrity
21 120m SE of Inglis and Sparr Intersection	1440	155	9	West	Downwind	Crane operating	No observations seen to effect sampling integrity
22 15m NW of Intercolonial St. fixed station	1500	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
23 120m SE of Inglis and Sparr Intersection	1500	155	10	West	Downwind	Crane operating	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 120m SE of Inglis and Sparr Intersection	1530	155	10	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
25 15m NW of Intercolonial St. fixed station	1600	155	15	West	Upwind	Background	No observations seen to affect sampling integrity
26 120m SE of Inglis and Sparr Intersection	1600	155	12	West	Downwind	Crane operating	No observations seen to effect sampling integrity
27 120m SE of Inglis and Sparr Intersection	1645	155	16	West	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 ($\mu\text{g}/\text{m}^3$)
25m SE of Inglis and Sparr Intersection	0800 to 0859	13	990
60m SE of Inglis and Sparr Intersection	0900 to 0959	26	990
60m SE of Inglis and Sparr Intersection	1000 to 1059	39	990
60m SE of Inglis and Sparr Intersection	1100 to 1159	51	990
60m SE of Inglis and Sparr Intersection	1200 to 1259	66	990
120m SE of Inglis and Sparr Intersection	1300 to 1359	82	990
120m SE of Inglis and Sparr Intersection	1400 to 1459	91	990
120m SE of Inglis and Sparr Intersection	1500 to 1559	101	990
120m SE of Inglis and Sparr Intersection	1600 to 1659	115	990

VOC Monitoring

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