

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-13
FROM	Dianne Theriault	SHIFT:	0630 to 1545
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0057

**SUBJECT: 12th September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – North Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 12th of September, 2008. Alison Giovannetti 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:

- Sunny with cloudy periods
- Temperature: approximately 18°C
- Wind Direction: East to Southwest to West

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

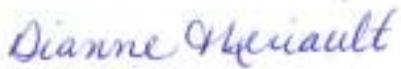
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 – North Pond Pilot Study
12th September, 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 10m NE of Sparr & Inglis Intersection	0700	155	21	East	Upwind	Background	No observations seen to affect sampling integrity
2 60m NW of Railway & Ferry St. Intersection	0700	155	6	East	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 60m NW of Railway & Ferry St. Intersection	0745	155	5	East	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 10m S of Ferry St. & Intercolonial Intersection	0800	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 60m NE of North Pond Main Gate	0800	155	8	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 60m NE of North Pond Main Gate	0830	155	6	Southwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
7 5m S of Ferry St. & Intercolonial Intersection	0900	155	8	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 60m NE of North Pond Main Gate	0900	155	6	Southwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
9 60m NE of North Pond Main Gate	0930	155	7	Southwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
10 5m S of Ferry St. & Intercolonial Intersection	1000	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 60m NE of North Pond Main Gate	1000	155	8	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 60m NE of North Pond Main Gate	1045	155	9	Southwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
13 5m N of Ferry & Walker St. Intersection	1100	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
14 10m NW of Sparr & Inglis Intersection	1100	155	10	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
15 10m NW of Sparr & Inglis Intersection	1135	155	12	West	Downwind	Workers using hand tools	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
16 5m N of Ferry St. & Walker St. Intersection	1200	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
17 10m NW of Sparr & Inglis Intersection	1200	155	11	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 10m NW of Sparr & Inglis Intersection	1245	155	11	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
19 5m N of Ferry St. & Walker St. Intersection	1300	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
20 10m NW of Sparr & Inglis Intersection	1300	155	11	West	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
21 10m NW of Sparr & Inglis Intersection	1320	155	12	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
22 5m N of Ferry St. & Walker St. Intersection	1400	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
23 10m NW of Sparr & Inglis Intersection	1400	155	13	West	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
24 10m NW of Sparr & Inglis Intersection	1445	155	11	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
25 5m N of Ferry St. & Walker St. Intersection	1500	155	6	West	Upwind	Background	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 ($\mu\text{g}/\text{m}^3$)
15m NE of North Pond main gate	0700 to 0759	6	990
15m NE of North Pond main gate	0800 to 0859	14	990
30m NE of Ferry St. Bridge	0900 to 0959	21	990
30m NE of Ferry St. Bridge	1000 to 1059	30	990
30m NE of Ferry St. Bridge	1100 to 1159	41	990
30m NE of Ferry St. Bridge	1200 to 1259	52	990
30m NE of Ferry St. Bridge	1300 to 1359	64	990
30m NE of Ferry St. Bridge	1400 to 1459	76	990

VOC Monitoring

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