

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-06
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0077

**SUBJECT: 8th 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 8th of October, 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:

- Cloudy with showers
- Temperature: approximately 9°C
- Wind Direction: Northwest to North

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.*

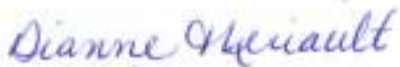
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Giovanetti 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
8th 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 50m N of Ferry St. on Railway Rd. along fence	0800	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 75m NW of STPA building	0800	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 75m NW of STPA building	0845	155	5	Northwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
4 50m N of Ferry St. on Railway Rd. along fence	0900	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
5 60m S of Cape Breton and Inglis Street intersection	0900	155	3	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
6 60m S of Cape Breton and Inglis Street intersection	0940	155	6	North	Downwind	Crane 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
7 50m N of Ferry St. on Railway Rd. along fence	1000	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
8 60m S of Cape Breton and Inglis Street intersection	1000	155	8	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 60m S of Cape Breton and Inglis Street intersection	1025	155	6	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
10 50m N of Ferry St. on Railway Rd. along fence	1100	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
11 60m S of Cape Breton and Inglis Street intersection	1100	155	4	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
12 60m S of Cape Breton and Inglis Street intersection	1145	155	5	North	Downwind	Crane 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
13 50m N of Ferry St. on Railway Rd along fence	1200	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
14 60m S of Cape Breton and Inglis Street intersection	1200	155	6	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 60m S of Cape Breton and Inglis Street intersection	1230	155	7	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
16 50m N of Ferry St. on Railway Rd. along fence	1300	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
17 60m S of Cape Breton and Inglis Street intersection	1300	155	8	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
18 60m S of Cape Breton and Inglis Street intersection	1320	155	7	North	Downwind	Crane 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
19 50m N of Ferry St. on Railway Rd. along fence	1400	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
20 60m S of Cape Breton and Inglis Street intersection	1400	155	8	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
21 60m S of Cape Breton and Inglis Street intersection	1445	155	8	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
22 50m N of Ferry St. on Railway Rd. along fence	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 60m S of Cape Breton and Inglis Street intersection	1500	155	7	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 60m S of Cape Breton and Inglis Street intersection	1530	155	7	North	Downwind	Crane 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
25 50m N of Ferry St. on Railway Rd. along fence	1600	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
26 60m S of Cape Breton and Inglis Street intersection	1600	155	7	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
27 60m S of Cape Breton and Inglis Street intersection	1645	155	7	North	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 ($\mu\text{g}/\text{m}^3$)
75m NW of STPA building	0800 to 0859	6	990
60m S of Cape Breton and Inglis Street intersection	0900 to 0959	10	990
60m S of Cape Breton and Inglis Street intersection	1000 to 1059	17	990
60m S of Cape Breton and Inglis Street intersection	1100 to 1159	22	990
60m S of Cape Breton and Inglis Street intersection	1200 to 1259	29	990
60m S of Cape Breton and Inglis Street intersection	1300 to 1359	37	990
60m S of Cape Breton and Inglis Street intersection	1400 to 1459	45	990
60m S of Cape Breton and Inglis Street intersection	1500 to 1559	52	990
60m S of Cape Breton and Inglis Street intersection	1600 to 1659	59	990

VOC Monitoring

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