

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-05
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-0076

**SUBJECT: 7th 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 7th of October, 2008. Reg Peters and Tyler Rowe 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 8°C
- Wind Direction: Northwest

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. Monitoring was put on standby between 0930 and 1200 due to precipitation.*

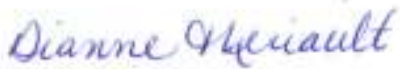
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 – South Pond Pilot Study
7th October, 2008

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
1 Railway property, 100m North of Ferry Street	0800	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 150m Northwest of STPA building	0800	155	5	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 150m Northwest of STPA building	0820	155	7	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
4 Railway property, 100m North of Ferry Street	0900	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 150m Northwest of STPA building	0900	155	5	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
6 150m Northwest of STPA building	0915	155	2	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 Railway property, 100m North of Ferry Street	1200	155	1	Northwest	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 150m Northwest of STPA building	1200	155	0	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 150m Northwest of STPA building	1245	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
10 Railway property, 100m North of Ferry Street	1300	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 60m Southwest of STPA building	1300	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
12 60m Southwest of STPA building	1330	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
13 Railway property, 100m North of Ferry Street	1400	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 60m Southwest of STPA building	1400	155	6	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
15 60m Southwest of STPA building	1445	155	2	Northwest	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 Railway property, 100m North of Ferry Street	1500	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 60m Southwest of STPA building	1500	155	2	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
18 60m Southwest of STPA building	1535	155	2	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
19 Railway property, 100m North of Ferry Street	1600	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 60m Southwest of STPA building	1600	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
21 60m Southwest of STPA building	1645	155	3	Northwest	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 ($\mu\text{g}/\text{m}^3$)
150m Northwest of STPA building	0800 to 0859	6	990
150m Northwest of STPA building	0900 to 0959	10	990
150m Northwest of STPA building	1200 to 1259	12	990
60m Southwest of STPA building	1300 to 1359	15	990
60m Southwest of STPA building	1400 to 1459	19	990
60m Southwest of STPA building	1500 to 1559	21	990
60m Southwest of STPA building	1600 to 1659	24	990

VOC Monitoring

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