

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1226-08
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0098

**SUBJECT: 13th November, 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 13th of November, 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:

- Cloudy skies
- Temperature: approximately 5°C
- Wind Direction: West to 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.*

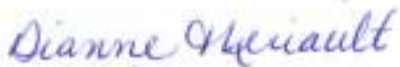
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
13th November, 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 S of Ferry and Intercolonial Intersection	0800	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
2 40m SE of South Pond main gate	0800	155	7	West	Downwind	Crane operating	No observations seen to effect sampling integrity
3 40m SE of South Pond main gate	0840	155	4	West	Downwind	Crane operating	No observations seen to effect sampling integrity
4 80m S of Ferry and Intercolonial Intersection	0900	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
5 40m SE of South Pond main gate	0900	155	3	West	Downwind	Crane operating	No observations seen to effect sampling integrity
6 40m SE of South Pond main gate	0945	155	4	West	Downwind	Crane operating	No observations seen to effect sampling integrity
7 10m N of Walker and Ferry Intersection	1000	155	4	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 70m SE of South Pond main gate	1000	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
9 70m SE of South Pond main gate	1045	155	8	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
10 10m N of Walker and Ferry Intersection	1100	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 70m SE of South Pond main gate	1100	155	5	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
12 70m SE of South Pond main gate	1130	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
13 10m N of Walker and Ferry Intersection	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 70m SE of South Pond main gate	1200	155	6	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 70m SE of South Pond main gate	1245	155	3	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 10m N of Walker and Ferry Intersection	1300	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 70m SE of South Pond main gate	1300	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
8 70m SE of South Pond main gate	1330	155	7	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
19 10m N of Walker and Ferry Intersection	1400	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 70m SE of South Pond main gate	1400	155	7	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
21 70m SE of South Pond main gate	1430	155	5	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
22 10m N of Walker and Ferry Intersection	1500	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 70m SE of South Pond main gate	1500	155	6	Northwest	Downwind	No activity observed on site	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 70m SE of South Pond main gate	1530	155	8	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
25 10m N of Walker and Ferry Intersection	1600	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 70m SE of South Pond main gate	1600	155	9	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
27 70m SE of South Pond main gate	1645	155	11	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 ($\mu\text{g}/\text{m}^3$)
40m SE of South Pond main gate	0800 to 0859	6	990
40m SE of South Pond main gate	0900 to 0959	10	990
70m SE of South Pond main gate	1000 to 1059	16	990
70m SE of South Pond main gate	1100 to 1159	21	990
70m SE of South Pond main gate	1200 to 1259	26	990
70m SE of South Pond main gate	1300 to 1359	31	990
70m SE of South Pond main gate	1400 to 1459	37	990
70m SE of South Pond main gate	1500 to 1559	44	990
70m SE of South Pond main gate	1600 to 1659	54	990

VOC Monitoring

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