

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1173-18
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	28 th August, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0043

**SUBJECT: 28th August, 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 28th of August, 2008. Reg Peters and Donald MacIsaac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately 18°C
- Wind Direction: East

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 Donald MacIsaac 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
28th August, 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 45m Southeast of North Pond Main Gate	0800	155	19	East	Upwind	Background	No observations seen to affect sampling integrity
2 70m North of Walker & Ferry Street Intersection	0800	155	17	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
3 70m North of Walker & Ferry Street Intersection	0840	155	15	East	Downwind	Crane operating	No observations seen to affect sampling integrity
4 45m Southeast of North Pond Main Gate	0900	155	18	East	Upwind	Background	No observations seen to affect sampling integrity
5 70m North of Walker & Ferry Street Intersection	0900	155	15	East	Downwind	Crane operating	No observations seen to affect sampling integrity
6 70m North of Walker & Ferry Street Intersection	0930	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
7 45m Southeast of North Pond Main Gate	1000	155	19	East	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 North of Walker & Ferry Street Intersection	1000	155	15	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
9 70m North of Walker & Ferry Street Intersection	1045	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
10 45m Southeast of North Pond Main Gate	1100	155	20	East	Upwind	Background	No observations seen to affect sampling integrity
11 70m North of Walker & Ferry Street Intersection	1100	155	17	East	Downwind	Crane operating	No observations seen to affect sampling integrity
12 70m North of Walker & Ferry Street Intersection	1130	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
13 45m Southeast of North Pond Main Gate	1200	155	20	East	Upwind	Background	No observations seen to affect sampling integrity
14 70m North of Walker & Ferry Street Intersection	1200	155	16	East	Downwind	No activity observed on-site	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
15 70m North of Walker & Ferry Street Intersection	1240	155	17	East	Downwind	Crane operating	No observations seen to affect sampling integrity
16 45m Southeast of North Pond Main Gate	1300	155	22	East	Upwind	Background	No observations seen to affect sampling integrity
17 70m North of Walker & Ferry Street Intersection	1300	155	18	East	Downwind	Crane operating	No observations seen to affect sampling integrity
18 70m North of Walker & Ferry Street Intersection	1320	155	19	East	Downwind	Crane operating	No observations seen to affect sampling integrity
19 45m Southeast of North Pond Main Gate	1400	155	21	East	Upwind	Background	No observations seen to affect sampling integrity
20 70m North of Walker & Ferry Street Intersection	1400	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
21 70m North of Walker & Ferry Street Intersection	1445	155	16	East	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
22 45m Southeast of North Pond Main Gate	1500	155	22	East	Upwind	Background	No observations seen to affect sampling integrity
23 70m North of Walker & Ferry Street Intersection	1500	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
24 70m North of Walker & Ferry Street Intersection	1530	155	17	East	Downwind	Crane operating	No observations seen to affect sampling integrity
25 45m Southeast of North Pond Main Gate	1600	155	21	East	Upwind	Background	No observations seen to affect sampling integrity
26 70m North of Walker & Ferry Street Intersection	1600	155	16	East	Downwind	Crane operating	No observations seen to affect sampling integrity
27 70m North of Walker & Ferry Street Intersection	1645	155	16	East	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 ($\mu\text{g}/\text{m}^3$)
70m North of Walker & Ferry Street Intersection	0800 to 0859	16	990
70m North of Walker & Ferry Street Intersection	0900 to 0959	32	990
70m North of Walker & Ferry Street Intersection	1000 to 1059	48	990
70m North of Walker & Ferry Street Intersection	1100 to 1159	65	990
70m North of Walker & Ferry Street Intersection	1200 to 1259	82	990
70m North of Walker & Ferry Street Intersection	1300 to 1359	101	990
70m North of Walker & Ferry Street Intersection	1400 to 1459	117	990
70m North of Walker & Ferry Street Intersection	1500 to 1559	134	990
70m North of Walker & Ferry Street Intersection	1600 to 1659	150	990

VOC Monitoring

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