

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-02
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	4 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0046

**SUBJECT: 3rd 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 3rd of September, 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:

- Mainly sunny, becoming cloudy with showers
- Temperature: approximately 21°C
- Wind Direction: East / Southeast

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 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 – North Pond Pilot Study
3rd 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 Inglis Street, 40m North of Spar Road	0800	155	1	East	Upwind	Background	No observations seen to affect sampling integrity
2 75m North of Walker Street and Ferry Street Intersection	0800	155	3	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
3 75m North of Walker Street and Ferry Street Intersection	0830	155	3	East	Downwind	Crane operating	No observations seen to affect sampling integrity
4 Inglis Street, 40m North of Spar Road	0900	155	2	East	Upwind	Background	No observations seen to affect sampling integrity
5 65m North of Walker Street and Ferry Street Intersection	0900	155	5	East	Downwind	Crane operating	No observations seen to affect sampling integrity
6 65m North of Walker Street and Ferry Street Intersection	0915	155	5	East	Downwind	Crane operating	No observations seen to affect sampling integrity

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
7 Inglis Street, 40m North of Spar Road	1000	155	3	East	Upwind	Background	No observations seen to affect sampling integrity
8 65m North of Walker Street and Ferry Street Intersection	1000	155	5	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
9 65m North of Walker Street and Ferry Street Intersection	1035	155	7	East	Downwind	Crane operating	No observations seen to affect sampling integrity
10 Inglis Street, 40m North of Spar Road	1100	155	4	East	Upwind	Background	No observations seen to affect sampling integrity
11 65m North of Walker Street and Ferry Street Intersection	1100	155	8	East	Downwind	Crane operating	No observations seen to affect sampling integrity
12 65m North of Walker Street and Ferry Street Intersection	1140	155	8	East	Downwind	Crane operating	No observations seen to affect sampling integrity
13 Inglis Street, 40m North of Spar Road	1200	155	4	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
14 65m North of Walker Street and Ferry Street Intersection	1200	155	8	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
15 65m North of Walker Street and Ferry Street Intersection	1215	155	8	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
16 Inglis Street, 40m North of Spar Road	1300	155	6	East	Upwind	Background	No observations seen to affect sampling integrity
17 65m North of Walker Street and Ferry Street Intersection	1300	155	9	East	Downwind	Crane operating	No observations seen to affect sampling integrity
18 65m North of Walker Street and Ferry Street Intersection	1330	155	13	East	Downwind	Crane operating	No observations seen to affect sampling integrity
19 40m East of South Pond main gate	1400	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
20 100m North of Walker Street and Ferry Street Intersection	1400	155	13	Southeast	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
21 100m North of Walker Street and Ferry Street Intersection	1430	155	11	Southeast	Downwind	Crane operating	No observations seen to affect sampling integrity
22 40m East of South Pond main gate	1500	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
23 100m North of Walker Street and Ferry Street Intersection	1500	155	10	Southeast	Downwind	Crane operating	No observations seen to affect sampling integrity
24 100m North of Walker Street and Ferry Street Intersection	1545	155	10	Southeast	Downwind	Crane operating	No observations seen to affect sampling integrity
25 40m East of South Pond main gate	1600	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
26 100m North of Walker Street and Ferry Street Intersection	1600	155	9	Southeast	Downwind	Crane operating	No observations seen to affect sampling integrity
27 100m North of Walker Street and Ferry Street Intersection	1645	155	8	Southeast	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 North of Walker Street and Ferry Street Intersection	0800 to 0859	3	990
65m North of Walker Street and Ferry Street Intersection	0900 to 0959	8	990
65m North of Walker Street and Ferry Street Intersection	1000 to 1059	14	990
65m North of Walker Street and Ferry Street Intersection	1100 to 1159	22	990
65m North of Walker Street and Ferry Street Intersection	1200 to 1259	30	990
65m North of Walker Street and Ferry Street Intersection	1300 to 1359	42	990
100m North of Walker Street and Ferry Street Intersection	1400 to 1459	54	990
100m North of Walker Street and Ferry Street Intersection	1500 to 1559	64	990
100m North of Walker Street and Ferry Street Intersection	1600 to 1659	73	990

VOC Monitoring

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