

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1166-02
FROM	Dianne Theriault	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	29 th July, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0023

**SUBJECT: 29th July, 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 29th of July, 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:

- Overcast giving way to mainly sunny periods
- Temperature: approximately 27°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0630 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
29th July, 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 Walker Street, 20m North of Ferry Street	0700	155	19	West	Upwind	Background	No observations seen to effect sampling integrity
2 50m Northwest of Inglis Street and Spar Road Intersection	0700	155	18	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 50m Northwest of Inglis Street and Spar Road Intersection	0730	155	18	West	Downwind	Trucks arriving with steel	No observations seen to effect sampling integrity
4 Walker Street, 20m North of Ferry Street	0800	155	17	West	Upwind	Background	No observations seen to effect sampling integrity
5 60m Northwest of Inglis Street and Spar Road Intersection	0800	155	16	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
6 60m Northwest of Inglis Street and Spar Road Intersection	0830	155	16	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
7 Walker Street, 20m North of Ferry Street	0900	155	18	West	Upwind	Background	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
8 60m Northwest of Inglis Street and Spar Road Intersection	0900	155	18	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
9 60m Northwest of Inglis Street and Spar Road Intersection	0945	155	19	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
10 Walker Street, 20m North of Ferry Street	1000	155	17	West	Upwind	Background	No observations seen to effect sampling integrity
11 60m Northwest of Inglis Street and Spar Road Intersection	1000	155	20	West	Downwind	Trucks unloading	No observations seen to effect sampling integrity
12 60m Northwest of Inglis Street and Spar Road Intersection	1030	155	19	West	Downwind	Trucks unloading	No observations seen to effect sampling integrity
13 Walker Street, 20m North of Ferry Street	1100	155	18	West	Upwind	Background	No observations seen to effect sampling integrity
14 60m Northwest of Inglis Street and Spar Road Intersection	1100	155	20	West	Downwind	Trucks unloading	No observations seen to effect sampling integrity
15 60m Northwest of Inglis Street and Spar Road Intersection	1145	155	25	West	Downwind	Trucks unloading	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 Walker Street, 20m North of Ferry Street	1200	155	24	West	Upwind	Background	No observations seen to effect sampling integrity
17 60m Northwest of Inglis Street and Spar Road Intersection	1200	155	25	West	Downwind	Trucks unloading	No observations seen to effect sampling integrity
18 60m Northwest of Inglis Street and Spar Road Intersection	1240	155	29	West	Downwind	Trucks unloading	No observations seen to effect sampling integrity
19 Walker Street, 20m North of Ferry Street	1300	155	23	West	Upwind	Background	No observations seen to effect sampling integrity
20 60m Northwest of Inglis Street and Spar Road Intersection	1300	155	29	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
21 60m Northwest of Inglis Street and Spar Road Intersection	1315	155	27	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
22 Walker Street, 20m North of Ferry Street	1400	155	22	West	Upwind	Background	No observations seen to effect sampling integrity
23 60m Northwest of Inglis Street and Spar Road Intersection	1400	155	30	West	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 60m Northwest of Inglis Street and Spar Road Intersection	1415	155	31	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
25 Walker Street, 20m North of Ferry Street	1500	155	22	West	Upwind	Background	No observations seen to effect sampling integrity
26 60m Northwest of Inglis Street and Spar Road Intersection	1500	155	28	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
27 60m Northwest of Inglis Street and Spar Road Intersection	1545	155	34	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
28 Walker Street, 20m North of Ferry Street	1600	155	35	West	Upwind	Background	No observations seen to effect sampling integrity
29 60m Northwest of Inglis Street and Spar Road Intersection	1600	155	41	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
30 60m Northwest of Inglis Street and Spar Road Intersection	1645	155	40	West	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 ($\mu\text{g}/\text{m}^3$)
50m Northwest of Inglis Street and Spar Road Intersection	0700 to 0759	18	990
60m Northwest of Inglis Street and Spar Road Intersection	0800 to 0859	35	990
60m Northwest of Inglis Street and Spar Road Intersection	0900 to 0959	54	990
60m Northwest of Inglis Street and Spar Road Intersection	1000 to 1059	74	990
60m Northwest of Inglis Street and Spar Road Intersection	1100 to 1159	97	990
60m Northwest of Inglis Street and Spar Road Intersection	1200 to 1259	114	990
60m Northwest of Inglis Street and Spar Road Intersection	1300 to 1359	142	990
60m Northwest of Inglis Street and Spar Road Intersection	1400 to 1459	173	990
60m Northwest of Inglis Street and Spar Road Intersection	1500 to 1559	204	990
60m Northwest of Inglis Street and Spar Road Intersection	1600 to 1659	245	990

VOC Monitoring

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