

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1114-02
FROM	Grant Harrigan	SHIFT:	1100 to 2045
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	3 rd April, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0113

**SUBJECT: 2nd April, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 2nd of April, 2008. Colin MacIsaac and Reggie Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly clear skies with some cloud cover
- Temperature: approximately 5°C (data unavailable from Environment Canada)
- Wind Direction: Southwest to Northwest to West

Comments: *ALL-TECH remained on standby until weather conditions were within instrument specifications. Sampling began at 1130. Air monitoring was performed during EarthTech's construction activities.*

The downwind sampling location had an exceedance at 1725 with an average of 175 µg/m³. ALL-TECH contacted EarthTech to let them know of the exceedance.

ALL-TECH performs continuous monitoring for one hour after an exceedance.

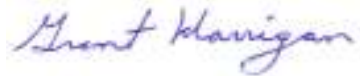
All upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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), TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Colin MacIsaac and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 – Cooling Pond
2nd April, 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 60m Northeast of Acadian Lines terminal	1130	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 50m Northwest of STPA building	1150	155	7	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 35m Northeast of Acadian Lines terminal	1200	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity
4 50m Northwest of STPA building	1205	155	8	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
5 5m Northeast of Inglis Street, Cape Breton Street intersection	1245	155	13	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 20m Southeast of Ferry Street, Walker Street intersection	1300	155	9	Northwest	Upwind	Background	No observations seen to effect sampling integrity
7 5m Northeast of Inglis Street, Cape Breton Street intersection	1300	155	10	Northwest	Downwind	Excavators moving material	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 5m Northeast of Inglis Street, Cape Breton Street intersection	1335	155	13	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 20m Southeast of Ferry Street, Walker Street intersection	1400	155	10	Northwest	Upwind	Background	No observations seen to effect sampling integrity
10 50m North of Inglis Street, Cape Breton Street intersection	1400	155	118	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
11 50m North of Inglis Street, Cape Breton Street intersection	1415	155	70	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
12 20m Southeast of Ferry Street, Walker Street intersection	1422	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity
13 20m Southeast of Ferry Street, Walker Street intersection	1438	155	10	Northwest	Upwind	Background	Varying winds
14 30m North of Intercolonial Street fixed station	1500	155	5	West	Upwind	Background	Varying winds

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 50m North of Inglis Street, Cape Breton Street intersection	1500	155	7	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
16 50m North of Inglis Street, Cape Breton Street intersection	1525	155	6	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
17 30m North of Intercolonial Street fixed station	1600	155	5	West	Upwind	Background	Varying winds
18 50m North of Inglis Street, Cape Breton Street intersection	1600	155	5	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
19 50m North of Inglis Street, Cape Breton Street intersection	1640	155	9	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
20 30m North of Intercolonial Street fixed station	1700	155	4	West	Upwind	Background	Varying winds
21 50m North of Inglis Street, Cape Breton Street intersection	1700	155	5	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
22 50m North of Inglis Street, Cape Breton Street intersection	1725	155	175	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
23 50m North of Inglis Street, Cape Breton Street intersection	1740	155	19	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
24 30m North of Intercolonial Street fixed station	1745	155	4	West	Upwind	Background	Varying winds
25 30m North of Intercolonial Street fixed station	1800	155	5	West	Upwind	Background	Varying winds
26 50m North of Inglis Street, Cape Breton Street intersection	1800	155	57	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
27 50m North of Inglis Street, Cape Breton Street intersection	1815	155	81	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
28 30m North of Intercolonial Street fixed station	1900	155	6	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
29 50m North of Inglis Street, Cape Breton Street intersection	1900	155	95	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
30 50m North of Inglis Street, Cape Breton Street intersection	1915	155	22	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
31 30m North of Intercolonial Street fixed station	2000	155	16	West	Upwind	Background	No observations seen to effect sampling integrity
32 50m North of Inglis Street, Cape Breton Street intersection	2000	155	13	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
50m Northwest of STPA building	1100 to 1159	7	990
50m Northwest of STPA building	1200 to 1259	18	990

5m Northeast of Inglis Street, Cape Breton Street intersection	1300 to 1359	30	990
50m North of Inglis Street, Cape Breton Street intersection	1400 to 1459	124	990
50m North of Inglis Street, Cape Breton Street intersection	1500 to 1559	131	990
50m North of Inglis Street, Cape Breton Street intersection	1600 to 1659	138	990
50m North of Inglis Street, Cape Breton Street intersection	1700 to 1759	204	990
50m North of Inglis Street, Cape Breton Street intersection	1800 to 1859	273	990
50m North of Inglis Street, Cape Breton Street intersection	1900 to 1959	332	990
50m North of Inglis Street, Cape Breton Street intersection	2000 to 2059	345	990

VOC Monitoring

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