

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1153-04
FROM	Peter Ibrahim	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	6 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0143

**SUBJECT: 5th June 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 5th of June 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 giving way to sunny periods
- Temperature: approximately 15°C
- Wind Direction: Northeast

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as the relative humidity was within the instrument's specifications. 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 Reg Peters and reviewed by Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

ORIGINAL SIGNED

Peter Ibrahim
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
5th June, 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 90m Northwest of the Northwest corner of STPA building	0800	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 25m Northeast of Bus Terminal	0805	155	8	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
3 25m Northeast of Bus Terminal	0830	155	9	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
4 90m Northwest of the Northwest corner of STPA building	0900	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 25m Northeast of Bus Terminal	0900	155	6	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
6 25m Northeast of Bus Terminal	0945	155	5	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
7 90m Northwest of the Northwest corner of STPA building	1000	155	5	Northeast	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 25m Northeast of Bus Terminal	1000	155	5	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
9 25m Northeast of Bus Terminal	1030	155	5	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
10 90m Northwest of the Northwest corner of STPA building	1100	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 25m Northeast of Bus Terminal	1105	155	5	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
12 25m Northeast of Bus Terminal	1125	155	6	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
13 90m Northwest of the Northwest corner of STPA building	1200	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 25m Northeast of Bus Terminal	1200	155	5	Northeast	Downwind	No Activity	No observations seen to effect 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
15 25m Northeast of Bus Terminal	1215	155	8	Northeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
16 30m South of Southwest corner of STPA building	1300	155	6	East	Upwind	Background	No observations seen to effect sampling integrity
17 40m North Of Intercolonial St. Fixed Monitoring Station	1300	155	8	East	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
18 10m Southeast of intersection of Cape Breton and Inglis Sts.	1330	155	8	Northwest	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
19 90m Northwest of the Northwest corner of STPA building	1400	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 25m Northeast of Bus Terminal	1400	155	7	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
21 25m Northeast of Bus Terminal	1415	155	7	Northeast	Downwind	Machines 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
22 90m Northwest of the Northwest corner of STPA building	1500	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 25m Northeast of Bus Terminal	1500	155	6	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
24 25m Northeast of Bus Terminal	1530	155	6	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
25 90m Northwest of the Northwest corner of STPA building	1600	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 25m Northeast of Bus Terminal	1600	155	6	Northeast	Downwind	Machines Moving Material	No observations seen to effect sampling integrity
27 25m Northeast of Bus Terminal	1645	155	18	Northeast	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 ($\mu\text{g}/\text{m}^3$)
No Monitoring	0700 to 0759	0	990
25m Northeast of Bus Terminal	0800 to 0859	9	990
25m Northeast of Bus Terminal	0900 to 0959	15	990
25m Northeast of Bus Terminal	1000 to 1059	20	990
25m Northeast of Bus Terminal	1100 to 1159	26	990
25m Northeast of Bus Terminal	1200 to 1259	33	990
40m North Of Intercolonial St. Fixed Monitoring Station. 10m Southeast of intersection of Cape Breton and Inglis Sts	1300 to 1359	41	990
25m Northeast of Bus Terminal	1400 to 1459	48	990
25m Northeast of Bus Terminal	1500 to 1559	55	990
25m Northeast of Bus Terminal	1600 to 1659	73	990

VOC Monitoring

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