

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1138-03
FROM	Grant Harrigan	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	28 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0135

**SUBJECT: 27th May 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 27th of May, 2008. Tyler Rowe 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, showers, high winds
- Temperature: approximately 13°C
- Wind Direction: Southwest

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 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
27th May, 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 100m South of Intercolonial Street fixed station	0700	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 80m North of STPA building	0700	155	11	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
3 80m North of STPA building	0730	155	19	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
4 100m South of Intercolonial Street fixed station	0800	155	17	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 80m North of STPA building	0800	155	17	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
6 80m North of STPA building	0815	155	18	Southwest	Downwind	Trucks operating	No observations seen to effect sampling integrity
7 100m South of Intercolonial Street fixed station	0900	155	18	Southwest	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 80m North of STPA building	0900	155	50	Southwest	Downwind	Trucks operating	Dust kicked up when trailer opened
9 80m North of STPA building	0930	155	20	Southwest	Downwind	Trucks operating	No observations seen to effect sampling integrity
10 100m South of Intercolonial Street fixed station	1000	155	18	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 80m North of STPA building	1000	155	19	Southwest	Downwind	Trucks operating	No observations seen to effect sampling integrity
12 80m North of STPA building	1045	155	46	Southwest	Downwind	No activity observed on-Site	Gust of wind blew dust from site
13 100m South of Intercolonial Street fixed station	1100	155	23	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 80m North of STPA building	1100	155	43	Southwest	Downwind	No activity observed on-Site	Gust of wind blew dust from site
15 80m North of STPA building	1120	155	66	Southwest	Downwind	Personnel working by hand	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 100m South of Intercolonial Street fixed station	1200	155	23	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 80m North of STPA building	1200	155	29	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
18 80m North of STPA building	1230	155	26	Southwest	Downwind	Trucks operating, personnel working by hand	No observations seen to effect sampling integrity
19 100m South of Intercolonial Street fixed station	1300	155	24	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 20m West of STPA building	1300	155	26	Southwest	Downwind	Trucks operating, personnel working by hand	No observations seen to effect sampling integrity
21 20m West of STPA building	1330	155	23	Southwest	Downwind	Trucks operating, personnel working by hand	No observations seen to effect sampling integrity
22 100m South of Intercolonial Street fixed station	1400	155	26	Southwest	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
23 20m West of STPA building	1400	155	28	Southwest	Downwind	Trucks operating, personnel working by hand	No observations seen to effect sampling integrity
24 20m West of STPA building	1445	155	32	Southwest	Downwind	Trucks operating, personnel working by hand	No observations seen to effect sampling integrity
25 100m South of Intercolonial Street fixed station	1500	155	27	Southwest	Upwind	Background	No observations seen to effect sampling integrity
26 20m West of STPA building	1500	155	28	Southwest	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
27 20m West of STPA building	1545	155	31	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
28 100m South of Intercolonial Street fixed station	1600	155	31	Southwest	Upwind	Background	No observations seen to effect sampling integrity
29 20m West of STPA building	1600	155	28	Southwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
30 20m West of STPA building	1645	155	31	Southwest	Downwind	No activity	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 ($\mu\text{g}/\text{m}^3$)
80m North of STPA building	0700 to 0759	15	990
80m North of STPA building	0800 to 0859	33	990
80m North of STPA building	0900 to 0959	68	990
80m North of STPA building	1000 to 1059	101	990
80m North of STPA building	1100 to 1159	156	990
80m North of STPA building	1200 to 1259	184	990
20m West of STPA building	1300 to 1359	209	990
20m West of STPA building	1400 to 1459	239	990
20m West of STPA building	1500 to 1559	269	990
20m West of STPA building	1600 to 1659	299	990

VOC Monitoring

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