

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1128-04
FROM	Grant Harrigan	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0004

**SUBJECT: 7th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of real-time particulate (as PM₁₀) results for air monitoring performed on the 7th of May, 2008. Donald MacIsaac 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:

- Sunny
- Temperature: 13°C
- Wind Direction: West to East

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.*

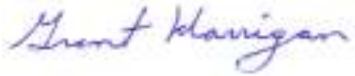
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were well 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 Tyler Rowe and reviewed by Colin MacIsaac and Peter Ibrahim. 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pjlow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – South Pond Pilot Study
7th 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 150m North of Intercolonial Street fixed station	0700	155	29	West	Upwind	Background	No observations seen to effect sampling integrity
2 20m East of Cooling Pond security gate	0700	155	36	West	Downwind	No activity	No observations seen to effect sampling integrity
3 20m East of Cooling Pond security gate	0730	155	35	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
4 150m North of Intercolonial Street fixed station	0800	155	25	West	Upwind	Background	No observations seen to effect sampling integrity
5 20m East of Cooling Pond security gate	0800	155	41	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
6 20m East of Cooling Pond security gate	0820	155	53	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
7 100m East of Ferry Street bridge	0900	155	27	North	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 20m Northwest of corner of Inglis Street and Terminal Road	0900	155	15	North	Downwind	Site not visible	No observations seen to effect sampling integrity
9 20m Northwest of corner of Inglis Street and Terminal Road	0945	155	15	North	Downwind	Site not visible	No observations seen to effect sampling integrity
10 100m East of Ferry Street bridge	1000	155	14	North	Upwind	Background	No observations seen to effect sampling integrity
11 20m Northwest of corner of Inglis Street and Terminal Road	1000	155	18	North	Downwind	Site not visible	No observations seen to effect sampling integrity
12 20m Northwest of corner of Inglis Street and Terminal Road	1030	155	16	North	Downwind	Site not visible	No observations seen to effect sampling integrity
13 20m East of Cooling Pond security gate	1100	155	11	East	Upwind	Background	No observations seen to effect sampling integrity
14 50m South of Ferry Street	1100	155	13	East	Downwind	Dump trucks operating	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
15 50m South of Ferry Street	1120	155	14	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
16 150m North of STPA office	1200	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
17 50m South of Ferry Street	1200	155	15	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
18 50m South of Ferry Street	1215	155	20	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
19 150m North of STPA office	1300	155	9	East	Upwind	Background	No observations seen to effect sampling integrity
20 50m South of Ferry Street	1300	155	20	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
21 50m South of Ferry Street	1340	155	27	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
22 150m North of STPA office	1400	155	17	East	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 50m South of Ferry Street	1400	155	26	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
24 20m South of Intercolonial Street fixed station	1430	155	16	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
25 10m Southeast of corner of Inglis Street and Spar Road	1500	155	9	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 20m South of Intercolonial Street fixed station	1500	155	13	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
27 20m South of Intercolonial Street fixed station	1520	155	14	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
28 10m Southeast of corner of Inglis Street and Spar Road	1600	155	10	Northeast	Upwind	Background	No observations seen to effect sampling integrity
29 20m South of Intercolonial Street fixed station	1600	155	12	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
30 20m South of Intercolonial Street fixed station	1645	155	13	Northeast	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 ($\mu\text{g}/\text{m}^3$)
20m East of Cooling Pond security gate	0700 to 0759	35	990
20m East of Cooling Pond security gate	0800 to 0859	82	990
20m Northwest of corner of Inglis Street and Terminal Road	0900 to 0959	97	990
20m Northwest of corner of Inglis Street and Terminal Road	1000 to 1059	114	990
50m South of Ferry Street	1100 to 1159	128	990
50m South of Ferry Street	1200 to 1259	146	990
50m South of Ferry Street	1300 to 1359	170	990
50m South of Ferry Street / 20m South of Intercolonial Street fixed station	1400 to 1459	191	990
20m South of Intercolonial Street fixed station	1500 to 1559	205	990
20m South of Intercolonial Street fixed station	1600 to 1659	218	990

VOC Monitoring

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