

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1128-05
FROM	Grant Harrigan	SHIFT:	0630 to 1705
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	9 th May, 2008	STPA NO.	PS-0005

**SUBJECT: 8th 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 8th 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:

- Sunny, cloudy in the afternoon
- Temperature: 15°C
- Wind Direction: West to South

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 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
8th 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 60m North of Intercolonial Street fixed station	0700	155	17	West	Upwind	Background	No observations seen to effect sampling integrity
2 150m North of STPA building	0700	155	21	West	Downwind	No activity	No observations seen to effect sampling integrity
3 150m North of STPA building	0745	155	18	West	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
4 60m North of Intercolonial Street fixed station	0800	155	14	West	Upwind	Background	No observations seen to effect sampling integrity
5 150m North of STPA building	0800	155	13	West	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
6 150m North of STPA building	0830	155	14	West	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
7 60m North of Intercolonial Street fixed station	0900	155	12	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 150m North of STPA building	0900	155	11	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
9 100m North of STPA building	0920	155	12	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
10 120m North of Intercolonial Street fixed station	1000	155	12	West	Upwind	Background	No observations seen to effect sampling integrity
11 100m North of STPA building	1000	155	11	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
12 100m North of STPA building	1045	155	13	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
13 120m North of Intercolonial Street fixed station	1100	155	37	West	Upwind	Background	Dust from traffic upwind
14 100m North of STPA building	1100	155	19	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
15 100m North of STPA building	1130	155	18	West	Downwind	Dump trucks, excavator 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
16 120m North of Intercolonial Street fixed station	1200	155	21	West	Upwind	Background	No observations seen to effect sampling integrity
17 100m North of STPA building	1200	155	11	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
18 100m North of STPA building	1215	155	14	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
19 120m North of Intercolonial Street fixed station	1300	155	13	West	Upwind	Background	No observations seen to effect sampling integrity
20 100m North of STPA building	1300	155	12	West	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
21 100m West of Ferry Street bridge	1340	155	48	West	Downwind	Site not visible	No observations seen to effect sampling integrity
22 150m South of STPA building	1400	155	12	Southeast	Upwind	Background	No observations seen to effect sampling integrity
23 100m West of Ferry Street bridge	1400	155	26	Southeast	Downwind	Site not visible	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 50m North of Cooling Pond main gate	1445	155	15	South	Downwind	Excavator, dump truck operating	No observations seen to effect sampling integrity
25 50m East of Acadian Lines terminal	1500	155	12	South	Upwind	Background	No observations seen to effect sampling integrity
26 50m North of Cooling Pond main gate	1500	155	22	South	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
27 50m North of Cooling Pond main gate	1530	155	32	South	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
28 50m East of Acadian Lines terminal	1600	155	11	South	Upwind	Background	No observations seen to effect sampling integrity
29 50m North of Cooling Pond main gate	1600	155	20	South	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
30 50m North of Cooling Pond main gate	1620	155	16	South	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 ($\mu\text{g}/\text{m}^3$)
150m North of STPA building	0700 to 0759	20	990
150m North of STPA building	0800 to 0859	34	990
150m / 100m North of STPA building	0900 to 0959	46	990
100m North of STPA building	1000 to 1059	58	990
100m North of STPA building	1100 to 1159	77	990
100m North of STPA building	1200 to 1259	90	990
100m North of STPA building / 100m West of Ferry Street bridge	1300 to 1359	120	990
100m West of Ferry Street bridge / 50m North of Cooling Pond main gate	1400 to 1459	141	990
50m North of Cooling Pond main gate	1500 to 1559	168	990
50m North of Cooling Pond main gate	1600 to 1659	186	990

VOC Monitoring

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