

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-31
FROM	Dianne Theriault	SHIFT:	0700 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	29 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-NSL-0062

**SUBJECT: 28th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 28th of May, 2009. Donald MacIsaac and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately 14°C
- Wind Direction: Southwest to Northwest

Comments: *Air monitoring was delayed until 0700 hours due to precipitation, and began at 0900 hours when weather conditions were within instrument specifications. Air monitoring was performed during SLR'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 Donald MacIsaac and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, 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 pilow@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 – Tar Cell, Sysco Site
28th May, 2009

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 110m East of railway building	0900	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 90m South of new truck scale	0900	155	10	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
3 90m South of new truck scale	0925	155	9	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
4 110m East of railway building	1000	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 90m South of new truck scale	1000	155	11	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
6 90m South of new truck scale	1020	155	10	Southwest	Downwind	Equipment operating	No observations seen to affect 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
7 110m East of railway building	1100	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 100m South of new truck scale	1100	155	17	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
9 100m South of new truck scale	1130	155	14	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
10 110m East of railway building	1200	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m South of new truck scale	1200	155	10	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
12 100m South of new truck scale	1215	155	9	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
13 120m Northeast of railway building	1300	155	7	Northwest	Upwind	Background	No observations seen to affect 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
14 140m North of material processing facility	1300	155	9	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 140m North of material processing facility	1330	155	10	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
16 120m Northeast of railway building	1400	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 140m North of material processing facility	1400	155	8	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
18 140m North of material processing facility	1425	155	9	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
19 120m Northeast of railway building	1500	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 110m North of material processing facility	1500	155	8	Northwest	Downwind	Equipment operating	No observations seen to affect 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
21 110m North of material processing facility	1545	155	11	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
22 120m Northeast of railway building	1600	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 110m North of material processing facility	1600	155	12	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
24 110m North of material processing facility	1645	155	10	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
25 120m Northeast of railway building	1700	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 110m North of material processing facility	1700	155	12	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
27 110m North of material processing facility	1745	155	10	Northwest	Downwind	No activity observed on site	No observations seen to affect 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 ($\mu\text{g}/\text{m}^3$)
90m South of new truck scale	0900 to 0959	10	990
90m South of new truck scale	1000 to 1059	21	990
100m South of new truck scale	1100 to 1159	37	990
100m South of new truck scale	1200 to 1259	47	990
140m North of material processing facility	1300 to 1359	57	990
140m North of material processing facility	1400 to 1459	66	990
140m North of material processing facility	1500 to 1559	76	990
140m North of material processing facility	1600 to 1659	87	990
140m North of material processing facility	1700 to 1759	98	990

VOC Monitoring

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