

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1330-01
FROM	Dianne Theriault	SHIFT:	0900 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	2 nd June, 2009	STPA NO.	CO2-NSL-0065

**SUBJECT: 1st June, 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 1st of June, 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:

- Rain, mainly sunny
- Temperature: approximately 16°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 0900 hours due to precipitation, and began at 1100 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
1st June, 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 100m North of Ferry St. rail crossing	1100	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m South of new truck scale (N 46°09,314' W 060°11,646')	1100	155	13	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
3 50m South of new truck scale (N 46°09,314' W 060°11,646')	1140	155	14	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
4 100m North of Ferry St. rail crossing	1200	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m South of new truck scale (N 46°09,314' W 060°11,646')	1200	155	16	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
6 50m South of new truck scale (N 46°09,314' W 060°11,646')	1225	155	32	Southwest	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
7 120m Southeast of railway building	1300	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1300	155	14	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1330	155	12	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
10 120m Southeast of railway building	1400	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1400	155	15	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
12 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1440	155	28	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
13 120m Southeast of railway building	1500	155	5	Southwest	Upwind	Background	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
14 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1500	155	24	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
15 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1535	155	39	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
16 120m Southeast of railway building	1600	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1600	155	39	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
18 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1625	155	115	Southwest	Downwind	Equipment operating	Dust from road traffic
19 120m Southeast of railway building	1645	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1645	155	101	Southwest	Downwind	Equipment operating	Dust from road traffic

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 120m Southeast of railway building	1700	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
22 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1700	155	13	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
23 25m Southeast of new truck scale (N 46°09,321' W 060°11,649')	1745	155	14	Southwest	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 ($\mu\text{g}/\text{m}^3$)
50m South of new truck scale	1100 to 1159	14	990
50m South of new truck scale	1200 to 1259	38	990
25m Southeast of new truck scale	1300 to 1359	51	990
25m Southeast of new truck scale	1400 to 1459	73	990
25m Southeast of new truck scale	1500 to 1559	105	990
25m Southeast of new truck scale	1600 to 1659	190	990
25m Southeast of new truck scale	1700 to 1759	204	990

VOC Monitoring

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