

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1330-11
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0630 to 1345
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	16 <sup>th</sup> June, 2009		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>CO2-PM-0075</b>

**SUBJECT: 15<sup>th</sup> June, 2009, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Tar Cell, Pug Mill  
FINAL REPORT**

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Attached is a summary of Real-time particulate (as PM<sub>10</sub>) results for air monitoring performed on the 15<sup>th</sup> of June, 2009. Jeff King and Keith Neville of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly sunny
- Temperature: approximately 20°C
- Wind Direction: Southeast to Southwest to South

**Comments:** *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity. Air monitoring was performed during SLR's construction activities.*

All downwind and upwind measurements of PM<sub>10</sub> were below the established Site Action Level for this parameter of 155 µg/m<sup>3</sup>.

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 Jeff King and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Dianne Theriault, B.Tech  
Environmental Technologist  
**ALL-TECH Environmental Services Cape Breton Ltd.**

Copied via e-mail:

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

**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Tar Cell, Pug Mill**  
**15<sup>th</sup> June, 2009**

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 80m Northwest of Harbourside Elementary (N46°09.709' W060°11.378')	0700	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 140m Northwest of railway building (N46°08.948' W060°11.906')	0700	155	10	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 140m Northwest of railway building (N46°08.948' W060°11.906')	0745	155	6	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 80m Northwest of Harbourside Elementary (N46°09.709' W060°11.378')	0800	155	7	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 140m Northwest of railway building (N46°08.948' W060°11.906')	0800	155	7	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 140m Northwest of railway building (N46°08.948' W060°11.906')	0825	155	7	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity

<b>Sample No. &amp; Air Monitoring Location</b>	<b>Time of Day</b>	<b>PM<sub>10</sub> Action Level (µg/m<sup>3</sup>)</b>	<b>Average Result (µg/m<sup>3</sup>)</b>	<b>Wind Direction</b>	<b>Relative Position</b>	<b>Description of Activity</b>	<b>Observations that may affect sample</b>
7 110m Northwest of railway building (N46°08.959' W060°11.853')	0915	155	7	Southwest	Upwind	Background	Late sample due to location change
8 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	0920	155	8	Southwest	Downwind	No activity observed on site	Late sample due to location change
9 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	0940	155	6	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 110m Northwest of railway building (N46°08.959' W060°11.853')	1000	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1000	155	6	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1025	155	6	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
13 110m Northwest of railway building (N46°08.959' W060°11.853')	1100	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1100	155	4	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1125	155	5	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 110m Northwest of railway building (N46°08.959' W060°11.853')	1200	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1200	155	5	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1220	155	3	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 110m Northwest of railway building (N46°08.959' W060°11.853')	1300	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
20 75m Northwest of Harbourside Elementary (N46°09.712' W060°11.382')	1300	155	2	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.**

### Summary of Downwind PM<sub>10</sub> Action Levels

Average PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	Averaging Period (Hours)	Downwind Action Level (µg/m <sup>3</sup> )
8	1	125
7	4	85

### VOC Monitoring

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