

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1330-15
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0630 to 1630
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<b>DATE</b>	22 <sup>nd</sup> June, 2009	<b>STPA NO.</b>	<b>CO2-NSL-0079</b>

**SUBJECT: 19<sup>th</sup> June, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Tar Cell, Sysco Site  
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 19<sup>th</sup> of June, 2009. Jennifer Andrews and Shaun Dove of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly overcast
- Temperature: approximately 25°C
- Wind Direction: West to Southwest

**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 180 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 Jennifer Andrews 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:

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**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Tar Cell, Sysco Site**  
**19<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 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	0700	180	7	West	Upwind	Background	No observations seen to affect sampling integrity
2 200m South of new truck scale (N46°08.802' W060°9.0902')	0700	180	42	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
3 200m South of new truck scale (N46°08.802' W060°09.902')	0720	180	18	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
4 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	0800	180	8	West	Upwind	Background	No observations seen to affect sampling integrity
5 200m South of new truck scale (N46°08.802' W060°09.902')	0800	180	29	West	Downwind	Excavators and trucks moving material	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
6 200m South of new truck scale (N46°08.802' W060°09.902')	0815	180	23	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
7 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	0900	180	8	West	Upwind	Background	No observations seen to affect sampling integrity
8 200m South of new truck scale (N46°08.802' W060°09.902')	0900	180	33	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
9 200m South of new truck scale (N46°08.802' W060°09.902')	0915	180	22	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
10 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1000	180	9	West	Upwind	Background	No observations seen to affect sampling integrity
11 200m South of new truck scale (N46°08.802' W060°09.902')	1000	180	11	West	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
12 200m South of new truck scale (N46°08.802' W060°09.902')	1025	180	14	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
13 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1100	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
14 200m South of new truck scale (N46°08.802' W060°09.902')	1100	180	31	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
15 200m South of new truck scale (N46°08.802' W060°09.902')	1115	180	23	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
16 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1200	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
17 200m South of new truck scale (N46°08.802' W060°09.902')	1200	180	27	West	Downwind	Excavators and trucks moving material	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
18 200m South of new truck scale (N46°08.802' W060°09.902')	1230	180	40	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
19 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1300	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
20 200m South of new truck scale (N46°08.802' W060°09.902')	1300	180	21	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
21 200m South of new truck scale (N46°08.802' W060°09.902')	1315	180	26	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
22 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1400	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
23 200m South of new truck scale (N46°08.802' W060°09.902')	1400	180	36	West	Downwind	Excavators and trucks moving material	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
24 200m South of new truck scale (N46°08.802' W060°09.902')	1420	180	42	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
25 50m Northwest of railway maintenance building (N46°08.965' W060°11.823')	1500	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
26 200m South of new truck scale (N46°08.802' W060°09.902')	1500	180	37	West	Downwind	Excavators and trucks moving material	No observations seen to affect sampling integrity
27 200m South of new truck scale (N46°08.802' W060°09.902')	1540	180	34	West	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> )
30	1	125
24	4	85
28	8	70

### VOC Monitoring

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