

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1293-05
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0630 to 1300
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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<b>DATE</b>	7 <sup>th</sup> April, 2009	<b>STPA NO.</b>	CO2-0008

**SUBJECT: 7<sup>th</sup> April, 2009, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Tar Cell  
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 7<sup>th</sup> of April, 2009. Shaun Dove 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 with periods of rain
- Temperature: approximately 2°C
- Wind Direction: Southeast

**Comments:** *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby at 0930 hours due to precipitation. Site activities were later cancelled for the day due to the wet conditions. Air monitoring was performed during SLR's construction activities.*

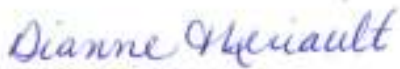
All downwind and upwind measurements of PM<sub>10</sub> were below the established Site Action Level for this parameter of 155 µg/m<sup>3</sup>.

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 Shaun Dove 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**  
**7<sup>th</sup> April, 2009**

<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>
1 30m North of the Coke Ovens Main Gate	0700	155	7	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 30m South of C02 Gate	0700	155	30	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m South of C02 Gate	0720	155	8	Southeast	Downwind	Excavator Loading Trucks	No observations seen to affect sampling integrity
4 30m North of the Coke Ovens Main Gate	0800	155	7	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 30m South of C02 Gate	0800	155	8	Southeast	Downwind	Excavator Loading Trucks	No observations seen to affect sampling integrity
6 30m South of C02 Gate	0840	155	4	Southeast	Downwind	Excavator Loading Trucks	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
7 30m North of the Coke Ovens Main Gate	0900	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 30m South of C02 Gate	0900	155	7	Southeast	Downwind	Excavator Loading Trucks	No observations seen to affect sampling integrity
9 30m South of C02 Gate	0935	155	6	Southeast	Downwind	Excavator Loading Trucks	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 ( $\mu\text{g}/\text{m}^3$ )
30m South of C02 Gate	0700 to 0759	19	990
30m South of C02 Gate	0800 to 0859	25	990
30m South of C02 Gate	0900 to 0959	33	990

### VOC Monitoring

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