

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1244-10
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0830 to 1500
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	15 <sup>th</sup> December, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>COCW-0025</b>

**SUBJECT: 13<sup>th</sup> December, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls  
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 13<sup>th</sup> of December, 2008. Grant Harrigan and Dianne Theriault 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: Northwest

**Comments:** *ALL-TECH was on standby until 1100 due to precipitation. Sampling began as soon as weather conditions were within instrument specifications. Air monitoring was performed during EarthTech'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 Grant Harrigan 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 – Coke Ovens Vertical Cutoff Walls**  
**13<sup>th</sup> December, 2008**

<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 20m West of Victoria Road bridge, 20m Southeast of Sparr Road Extension	1100	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 75m East of Gorman Street and Vulcan Avenue intersection	1105	155	5	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
3 75m East of Gorman Street and Vulcan Avenue intersection	1125	155	7	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
4 20m West of Victoria Road bridge, 20m Southeast of Sparr Road Extension	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 75m East of Gorman Street and Vulcan Avenue intersection	1200	155	3	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
6 75m East of Gorman Street and Vulcan Avenue intersection	1300	155	1	Northwest	Downwind	Activity not visible from sampling location	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 20m West of Victoria Road bridge, 20m Southeast of Sparr Road Extension	1330	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 75m East of Gorman Street and Vulcan Avenue intersection	1320	155	1	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
9 20m West of Victoria Road bridge, 20m Southeast of Sparr Road Extension	1400	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
10 75m East of Gorman Street and Vulcan Avenue intersection	1400	155	2	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
11 75m East of Gorman Street and Vulcan Avenue intersection	1420	155	2	Northwest	Downwind	Activity not visible from sampling location	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 ( $\mu\text{g}/\text{m}^3$ )
75m East of Gorman Street and Vulcan Avenue intersection	1100 to 1159	6	990
75m East of Gorman Street and Vulcan Avenue intersection	1200 to 1259	9	990
75m East of Gorman Street and Vulcan Avenue intersection	1300 to 1359	10	990
75m East of Gorman Street and Vulcan Avenue intersection	1400 to 1459	12	990

### VOC Monitoring

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