

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1309-01
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	1330 to 1730
<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>	5 <sup>th</sup> May, 2009	<b>STPA NO.</b>	<b>TP2-0155</b>

**SUBJECT: 4<sup>th</sup> May, 2009, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Material Processing Facility  
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 4<sup>th</sup> of May, 2009. Dwayne Timmons and Colin MacIsaac 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 18°C
- Wind Direction: West

**Comments:** *ALL-TECH was on-Site at 1330 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM'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 Colin MacIsaac 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 – Material Processing Facility**  
**4<sup>th</sup> May, 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 90m East of Midland Depot	1400	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
2 70m North of Spar Road, Inglis Street intersection	1400	155	44	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
3 70m North of Spar Road, Inglis Street intersection	1415	155	22	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
4 90m East of Midland Depot	1500	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
5 70m North of Spar Road, Inglis Street intersection	1500	155	86	West	Downwind	No activity visible on site	Visible dust coming from site activity
6 70m North of Spar Road, Inglis Street intersection	1540	155	41	West	Downwind	Excavator 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
7 90m East of Midland Depot	1600	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
8 70m North of Spar Road, Inglis Street intersection	1600	155	21	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
9 70m North of Spar Road, Inglis Street intersection	1645	155	15	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.**

### Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ( $\mu\text{g}/\text{m}^3$ )	Dust Budget Exceedance Value ( $\mu\text{g}/\text{m}^3$ )
70m North of Spar Road, Inglis Street intersection	1400 to 1459	33	990
70m North of Spar Road, Inglis Street intersection	1500 to 1559	97	990
70m North of Spar Road, Inglis Street intersection	1600 to 1659	115	990

### VOC Monitoring

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