

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1243-04
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0730 to 1230
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	6 <sup>th</sup> December, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0066</b>

**SUBJECT: 5<sup>th</sup> December, 2008, 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 5<sup>th</sup> of December, 2008. Reg Peters 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:

- Overcast with showers
- Temperature: approximately 3°C
- Wind Direction: Northwest

**Comments:** *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity, but was put on standby at 0900 and later ended for the day at 1230, due to ongoing precipitation. 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 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**  
**5<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 Railway property, 200m North of Ferry Street	0800	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 15m North of Inglis Street, Spar Road intersection	0800	155	24	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 15m North of Inglis Street, Spar Road intersection	0845	155	14	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 Railway property, 200m North of Ferry Street	0900	155	10	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 15m North of Inglis Street, Spar Road intersection	0900	155	13	Northwest	Downwind	Excavators moving material	No observations seen to effect 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 ( $\mu\text{g}/\text{m}^3$ )
15m North of Inglis Street, Spar Road intersection	0800 to 0900	19	990
15m North of Inglis Street, Spar Road intersection	0900 to 1000	32	990

### VOC Monitoring

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