

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1189-01
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	1030 to 1700
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	26 <sup>th</sup> August, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0001</b>

**SUBJECT: 25<sup>th</sup> August, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – TP2 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 25<sup>th</sup> of August, 2008. Colin MacIsaac and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, showers
- Temperature: approximately 22°C
- Wind Direction: Southwest

**Comments:** *ALL-TECH was on-site at 1030 and 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 Tyler Rowe 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 – TP2 Material Processing Facility**  
**25<sup>th</sup> August, 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 Southeast of Intercolonial Street and Walker Street intersection	1150	155	23	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 60m North of Spar Road, 40m East of North Pond main gate	1150	155	17	Southwest	Downwind	Personnel surveying area	No observations seen to effect sampling integrity
3 60m North of Spar Road, 40m East of North Pond main gate	1210	155	7	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
4 60m North of Spar Road, 40m East of North Pond main gate	1245	155	3	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
5 20m Southeast of Intercolonial Street and Walker Street intersection	1300	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity
6 60m North of Spar Road, 40m East of North Pond main gate	1300	155	3	Southwest	Downwind	No activity observed on-site	No observations seen to effect 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 Southeast of Intercolonial Street and Walker Street intersection	1500	155	5	Southwest	Upwind	Background	No observations seen to effect sampling integrity
8 60m North of Spar Road, 40m East of North Pond main gate	1500	155	∅	Southwest	Downwind	Personnel erecting fence	No observations seen to effect sampling integrity
9 60m North of Spar Road, 40m East of North Pond main gate	1515	155	∅	Southwest	Downwind	Personnel erecting fence	Re-calibration required
10 20m Southeast of Intercolonial Street and Walker Street intersection	1600	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 60m North of Spar Road, 40m East of North Pond main gate	1600	155	2	Southwest	Downwind	Personnel erecting fence	No observations seen to effect sampling integrity
12 60m North of Spar Road, 40m East of North Pond main gate	1615	155	6	Southwest	Downwind	No activity observed on-site	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 ( $\mu\text{g}/\text{m}^3$ )
60m North of Spar Road, 40m East of North Pond main gate	1100 to 1159	17	990
60m North of Spar Road, 40m East of North Pond main gate	1200 to 1259	22	990
60m North of Spar Road, 40m East of North Pond main gate	1300 to 1359	25	990
60m North of Spar Road, 40m East of North Pond main gate	1500 to 1559	25	990
60m North of Spar Road, 40m East of North Pond main gate	1600 to 1659	29	990

### VOC Monitoring

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