

## MEMORANDUM

**TO** Dawn MacNeil, STPA  
**FROM** Grant Harrigan  
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**DATE** 16<sup>th</sup> January, 2008

**FILE NO.** S-1053-12  
**SHIFT:** 1115 to 1745  
**CC:** Shawn Bernon, STPA  
Wilfred Kaiser, STPA  
Terry Smith, ALL-TECH  
**STPA NO.** CP-0045

**SUBJECT: 15<sup>th</sup> January, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Cooling Pond  
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 15<sup>th</sup> of January, 2008. Peter Ibrahim, Tyler Rowe and Reggie Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, periods of drizzle
- Temperature: 1°C
- Wind Direction: Southwest to Northwest

**Comments:** ALL-TECH was on-Site at 1115 and sampling began as soon as the weather permitted. Air monitoring was performed during EarthTech's construction activities. At 1330, Peter Ibrahim left the field and was replaced by Tyler Rowe.

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

This report has been prepared by Tyler Rowe and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Grant Harrigan, 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 – Cooling Pond**  
**15<sup>th</sup> January, 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>Activity Description</b>	<b>Observations that may affect sample</b>
1 10m South of Intercolonial Street fixed sampling station	1130	155	5	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 40m Northwest of STPA office	1130	155	9	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 40m Northwest of STPA office	1145	155	7	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 20m East of Ritchie Street	1215	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 40m Northwest of STPA office	1215	155	7	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 40m Northwest of STPA office	1234	155	7	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
7 20m East of Ritchie Street	1315	155	9	Southwest	Upwind	Background	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	Activity Description	Observations that may affect sample
8 30m South of STPA office	1315	155	11	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 30m South of STPA office	1339	155	12	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
10 20m East of Ritchie Street	1415	155	9	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 60m South of STPA office	1415	155	17	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 40m South of STPA office	1433	155	53	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
13 50m North of Intercolonial Street fixed sampling station	1515	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
14 30m Northwest of STPA office	1515	155	16	West	Downwind	Excavators moving material	No observations seen to effect sampling integrity
15 30m Northwest of STPA office	1531	155	11	West	Downwind	Excavators moving material	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	Activity Description	Observations that may affect sample
16 50m North of Intercolonial Street fixed sampling station	1615	155	4	West	Upwind	Background	No observations seen to effect sampling integrity
17 30m Northwest of STPA office	1615	155	8	West	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 30m Northwest of STPA office	1631	155	6	West	Downwind	Excavators moving material	No observations seen to effect sampling integrity
19 50m North of Intercolonial Street fixed sampling station	1700	155	2	West	Upwind	Background	No observations seen to effect sampling integrity
20 30m Northwest of STPA office	1700	155	5	West	Downwind	No observable activity	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 ( $\mu\text{g}/\text{m}^3$ )
40m Northwest of STPA office	1130 to 1200	8	990
40m Northwest of STPA office	1215 to 1249	15	990
30m South of STPA office	1315 to 1354	27	990
60m / 40m South of STPA office	1415 to 1448	62	990
30m Northwest of STPA office	1515 to 1546	76	990
30m Northwest of STPA office	1615 to 1646	83	990
30m Northwest of STPA office	1700 to 1715	88	990

### VOC Monitoring

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

**\*P.I.D. was used for all samples and was below detection level.**