

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1153-09
<b>FROM</b>	Peter Ibrahim	<b>SHIFT:</b>	0630 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>	13 <sup>th</sup> June, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>CP-0148</b>

**SUBJECT: 12<sup>th</sup> June 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Cooling Pond  
FINAL REPORT**

---

Attached is a summary of Real-time particulate (as PM<sub>10</sub>) results for air monitoring performed on the 12<sup>th</sup> of June, 2008. Colin MacIsaac and Donald MacIsaac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast changing to mainly clear skies
- Temperature: approximately 18°C
- Wind Direction: Southwest / West / Northeast / Northwest

**Comments:** *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. 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 Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



---

Peter Ibrahim

**ALL-TECH Environmental Services Cape Breton Ltd.**

Copied via e-mail:

Shawn Bernon [shawn@tarpondscleanup.ca](mailto:shawn@tarpondscleanup.ca), Wilfred Kaiser [wilfred@tarpondscleanup.ca](mailto:wilfred@tarpondscleanup.ca), Nancy LeDrew [nancy@tarpondscleanup.ca](mailto:nancy@tarpondscleanup.ca), Trish Magliaro [trish@tarpondscleanup.ca](mailto:trish@tarpondscleanup.ca), Terry Smith [tsmith@toalltech.com](mailto:tsmith@toalltech.com), Phyllis Low [pjlow@toalltech.com](mailto:pjlow@toalltech.com), Dianne Theriault [dtheriault@toalltech.com](mailto:dtheriault@toalltech.com), Darren Gardiner [dgardiner@croworld.com](mailto:dgardiner@croworld.com), Darren Lawless [dlawless@toalltech.com](mailto:dlawless@toalltech.com), Kevin Mac Pherson [kevinmacp@cbcl.ca](mailto:kevinmacp@cbcl.ca), Kathy Harquail [kharquail@toalltech.com](mailto:kharquail@toalltech.com)

**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Cooling Pond**  
**12<sup>th</sup> June, 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 30m North of STPA building	0705	155	13	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
2 35m Northeast of Acadian Lines terminal	0710	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
3 20m West of STPA building	0745	155	21	West	Downwind	No activity observed	No observations seen to effect sampling integrity
4 10m North of Ferry Street, Walker Street intersection	0800	155	19	West	Upwind	Background	No observations seen to effect sampling integrity
5 20m West of STPA building	0800	155	26	West	Downwind	No activity observed	No observations seen to effect sampling integrity
6 20m West of STPA building	0830	155	21	West	Downwind	No activity observed	No observations seen to effect sampling integrity
7 10m North of Ferry Street, Walker Street intersection	0900	155	13	West	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	Description of Activity	Observations that may affect sample
8 10m South of Inglis Street, Cape Breton Street intersection	0900	155	15	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
9 10m South of Inglis Street, Cape Breton Street intersection	0915	155	13	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
10 10m North of Ferry Street, Walker Street intersection	1000	155	8	West	Upwind	Background	No observations seen to effect sampling integrity
11 10m South of Inglis Street, Cape Breton Street intersection	1000	155	6	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
12 10m South of Inglis Street, Cape Breton Street intersection	1045	155	7	Northwest	Downwind	Excavator driving around	No observations seen to effect sampling integrity
13 40m North of Ferry Street, Walker Street intersection	1100	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 10m South of Inglis Street, Cape Breton Street intersection	1100	155	10	Northwest	Downwind	No activity observed	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
15 10m South of Inglis Street, Cape Breton Street intersection	1130	155	6	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
16 30m Northeast of North Pond main gate	1200	155	1	North	Upwind	Background	No observations seen to effect sampling integrity
17 25m Northeast of Acadian Lines terminal	1200	155	3	Northeast	Downwind	No activity observed	No observations seen to effect sampling integrity
18 25m Northeast of Acadian Lines terminal	1215	155	4	Northeast	Downwind	No activity observed	No observations seen to effect sampling integrity
19 30m Northeast of North Pond main gate	1300	155	2	North	Upwind	Background	No observations seen to effect sampling integrity
20 25m Northeast of Acadian Lines terminal	1300	155	4	Northeast	Downwind	No activity observed	No observations seen to effect sampling integrity
21 25m Northeast of Acadian Lines terminal	1320	155	4	Northeast	Downwind	No activity observed	No observations seen to effect sampling integrity
22 40m North of Ferry Street, Walker Street intersection	1400	155	16	Northwest	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	Description of Activity	Observations that may affect sample
23 10m South of Inglis Street, Cape Breton Street intersection	1400	155	19	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
24 10m South of Inglis Street, Cape Breton Street intersection	1445	155	8	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
25 40m North of Ferry Street, Walker Street intersection	1500	155	16	Northwest	Upwind	Background	No observations seen to effect sampling integrity
26 10m South of Inglis Street, Cape Breton Street intersection	1500	155	9	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
27 10m South of Inglis Street, Cape Breton Street intersection	1530	155	7	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
28 40m North of Ferry Street, Walker Street intersection	1600	155	20	Northwest	Upwind	Background	No observations seen to effect sampling integrity
29 10m South of Inglis Street, Cape Breton Street intersection	1600	155	18	Northwest	Downwind	No activity observed	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
30 10m South of Inglis Street, Cape Breton Street intersection	1615	155	22	Northwest	Downwind	No activity observed	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 (µg/m <sup>3</sup> )	Dust Budget Exceedance Value (µg/m <sup>3</sup> )
30m North of STPA building	0700 to 0759	17	990
20m West of STPA building	0800 to 0859	41	990
10m South of Inglis Street, Cape Breton Street intersection	0900 to 0959	55	990
10m South of Inglis Street, Cape Breton Street intersection	1000 to 1059	62	990
10m South of Inglis Street, Cape Breton Street intersection	1100 to 1159	70	990
25m Northeast of Inglis Street, Cape Breton Street intersection	1200 to 1259	73	990

Location	Duration	Dust Budget Value ( $\mu\text{g}/\text{m}^3$ )	Dust Budget Exceedance Value ( $\mu\text{g}/\text{m}^3$ )
25m Northeast of Inglis Street, Cape Breton Street intersection	1300 to 1359	76	990
10m South of Inglis Street, Cape Breton Street intersection	1400 to 1459	90	990
10m South of Inglis Street, Cape Breton Street intersection	1500 to 1559	98	990
10m South of Inglis Street, Cape Breton Street intersection	1600 to 1659	118	990

### VOC Monitoring

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