

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1292-05
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0630 to 1730
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	7 <sup>th</sup> April, 2009		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP6D-0015</b>

**SUBJECT: 7<sup>th</sup> April, 2009, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Access Roads  
FINAL REPORT**

---

Attached is a summary of Real-time particulate (as PM<sub>10</sub>) results for air monitoring performed on the 7<sup>th</sup> of April, 2009. Trevor Rowe and Nigel MacLean, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy with periods of rain
- Temperature: approximately 2°C
- Wind Direction: Southeast

**Comments:** *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby between 0930 and 1230 hours and between 1530 and 1730 due to precipitation. 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 Trevor Rowe and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



---

Dianne Theriault, B.Tech  
Environmental Technologist  
**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 [pilow@toalltech.com](mailto:pilow@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 – Access Roads**  
**7<sup>th</sup> April, 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
1 100 M North of Spar Road & Inglis Street Intersection	0700	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 500 M North of Ferry Street Intersection on Railway Property	0700	155	10	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
3 500 M North of Ferry Street Intersection on Railway Property	0740	155	8	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
4 100 M North of Spar Road & Inglis Street Intersection	0800	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 500 M North of Ferry Street Intersection on Railway Property	0800	155	22	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
6 500 M North of Ferry Street Intersection on Railway Property	0845	155	25	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity

<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>
7 100 M North of Spar Road & Inglis Street Intersection	0900	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 500 M North of Ferry Street Intersection on Railway Property	0900	155	11	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
9 500 M North of Ferry Street Intersection on Railway Property	0920	155	12	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
10 100 M North of Spar Road & Inglis Street Intersection	1300	155	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 500 M North of Ferry Street Intersection on Railway Property	1300	155	16	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
12 500 M North of Ferry Street Intersection on Railway Property	1315	155	20	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
13 100 M North of Spar Road & Inglis Street Intersection	1400	155	24	Southeast	Upwind	Background	No observations seen to affect sampling integrity

<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>
14 500 M North of Ferry Street Intersection on Railway Property	1400	155	26	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
15 500 M North of Ferry Street Intersection on Railway Property	1415	155	25	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
16 100 M North of Spar Road & Inglis Street Intersection	1500	155	17	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 500 M North of Ferry Street Intersection on Railway Property	1500	155	13	Southeast	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity

### Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ( $\mu\text{g}/\text{m}^3$ )	Dust Budget Exceedance Value ( $\mu\text{g}/\text{m}^3$ )
500 M North of Ferry Street Intersection on Railway Property	0700 to 0759	9	990
500 M North of Ferry Street Intersection on Railway Property	0800 to 0859	20	990
500 M North of Ferry Street Intersection on Railway Property	0900 to 0959	32	990
500 M North of Ferry Street Intersection on Railway Property	1300 to 1359	50	990
500 M North of Ferry Street Intersection on Railway Property	1400 to 1459	76	990
500 M North of Ferry Street Intersection on Railway Property	1500 to 1559	89	990

### VOC Monitoring

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