

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1151-11
<b>FROM</b>	Peter Ibrahim	<b>SHIFT:</b>	0730 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>	18 <sup>th</sup> June, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>CO6II-0011</b>

**SUBJECT: 18<sup>th</sup> June, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Coke Ovens Infrastructure Investigation  
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 18<sup>th</sup> of June, 2008. Tyler Rowe and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly overcast
- Temperature: approximately 19°C
- Wind Direction: East to Southeast

**Comments:** *ALL-TECH was on-Site at 0730 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 Tyler Rowe and reviewed by Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Peter Ibrahim

**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 – Coke Ovens Infrastructure Investigation**  
**18<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 200m Northeast of Coke Ovens security trailer	0845	155	5	East	Upwind	Background	No observations seen to effect sampling integrity
2 40m West of Spar Road and Lingan Road intersection	0845	155	5	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
3 200m Northeast of Coke Ovens security trailer	0900	155	8	East	Upwind	Background	No observations seen to effect sampling integrity
4 40m West of Spar Road and Lingan Road intersection	0900	155	8	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
5 40m West of Spar Road and Lingan Road intersection	0928	155	8	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 200m Northeast of Coke Ovens security trailer	1000	155	5	East	Upwind	Background	No observations seen to effect sampling integrity
7 40m West of Spar Road and Lingan Road intersection	1000	155	7	East	Downwind	Excavator operating	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 40m West of Spar Road and Lingan Road intersection	1041	155	9	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 200m Northeast of Coke Ovens security trailer	1100	155	5	East	Upwind	Background	No observations seen to effect sampling integrity
10 40m West of Spar Road and Lingan Road intersection	1100	155	14	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
11 40m West of Spar Road and Lingan Road intersection	1117	155	27	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 200m Northeast of Coke Ovens security trailer	1200	155	5	East	Upwind	Background	No observations seen to effect sampling integrity
13 40m West of Spar Road and Lingan Road intersection	1200	155	15	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
14 40m West of Spar Road and Lingan Road intersection	1224	155	23	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
15 200m Northeast of Coke Ovens security trailer	1300	155	8	East	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
16 40m West of Spar Road and Lingan Road intersection	1300	155	9	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
17 40m West of Spar Road and Lingan Road intersection	1321	155	17	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 40m Southeast of Coke Ovens security trailer	1400	155	10	Southeast	Upwind	Background	No observations seen to effect sampling integrity
19 Frederick Street, 20m East of Lingan Road	1400	155	35	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
20 Frederick Street, 20m East of Lingan Road	1435	155	23	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 40m Southeast of Coke Ovens security trailer	1500	155	9	Southeast	Upwind	Background	No observations seen to effect sampling integrity
22 Frederick Street, 20m East of Lingan Road	1500	155	24	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
23 Frederick Street, 20m East of Lingan Road	1518	155	18	Southeast	Downwind	Excavator operating	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
24 40m Southeast of Coke Ovens security trailer	1600	155	10	Southeast	Upwind	Background	No observations seen to effect sampling integrity
25 Frederick Street, 20m East of Lingan Road	1600	155	13	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
26 Frederick Street, 20m East of Lingan Road	1615	155	9	Southeast	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 ( $\mu\text{g}/\text{m}^3$ )
40m West of Spar Road and Lingan Road intersection	0800 to 0859	5	990
40m West of Spar Road and Lingan Road intersection	0900 to 0959	13	990
40m West of Spar Road and Lingan Road intersection	1000 to 1059	21	990
40m West of Spar Road and Lingan Road intersection	1100 to 1159	42	990
40m West of Spar Road and Lingan Road intersection	1200 to 1259	61	990
40m West of Spar Road and Lingan Road intersection	1300 to 1359	74	990
Frederick Street, 20m East of Lingan Road	1400 to 1459	103	990
Frederick Street, 20m East of Lingan Road	1500 to 1559	124	990
Frederick Street, 20m East of Lingan Road	1600 to 1659	135	990

### VOC Monitoring

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