

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1244-09
FROM	Dianne Theriault	SHIFT:	1000 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	11 th December, 2008		Terry Smith, ALL-TECH
		STPA NO.	COCW-0024

**SUBJECT: 10th December, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 10th of December, 2008. Colin MacIsaac and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with gusting winds
- Temperature: approximately 9°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 1000 and remained on standby until 1200 due to varying weather conditions. Air monitoring began at 1200, and was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
10th December, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 70m South of Spar Road, Spar Extension intersection	1200	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m Southwest of Lingan Road and Spar Road intersection	1200	155	25	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 30m Southwest of Lingan Road and Spar Road intersection	1245	155	20	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 90m South of Spar Road, Spar Extension intersection	1300	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m Southwest of Lingan Road and Spar Road intersection	1300	155	18	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 30m Southwest of Lingan Road and Spar Road intersection	1340	155	17	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 90m South of Spar Road, Spar Extension intersection	1400	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m Southwest of Lingan Road and Spar Road intersection	1400	155	16	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 30m Southwest of Lingan Road and Spar Road intersection	1445	155	16	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 90m South of Spar Road, Spar Extension intersection	1500	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m Southwest of Lingan Road and Spar Road intersection	1500	155	16	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 30m Southwest of Lingan Road and Spar Road intersection	1520	155	16	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 90m South of Spar Road, Spar Extension intersection	1600	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
14 30m Southwest of Lingan Road and Spar Road intersection	1600	155	18	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 30m Southwest of Lingan Road and Spar Road intersection	1645	155	19	Southwest	Downwind	Machines moving material	No observations seen to affect 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 ($\mu\text{g}/\text{m}^3$)
30m Southwest of Lingan Road and Spar Road intersection	1200 to 1259	23	990
30m Southwest of Lingan Road and Spar Road intersection	1300 to 1359	41	990
30m Southwest of Lingan Road and Spar Road intersection	1400 to 1459	57	990
30m Southwest of Lingan Road and Spar Road intersection	1500 to 1559	73	990
30m Southwest of Lingan Road and Spar Road intersection	1600 to 1659	91	990

VOC Monitoring

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