

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1244-02
FROM	Dianne Theriault	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	4 th December, 2008	STPA NO.	COCW-0017

**SUBJECT: 3rd 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 3rd of December, 2008. Tyler Rowe 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:

- Mainly cloudy, midday showers
- Temperature: approximately 5°C
- Wind Direction: Southwest

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 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 Tyler 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, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin MacPherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
3rd 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 30m West of Victoria Road	0700	155	20	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m Southwest of Spar Road, Lingan Road intersection	0700	155	32	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 100m Southwest of Spar Road, Lingan Road intersection	0745	155	41	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
4 30m West of Victoria Road	0800	155	33	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m Southwest of Spar Road, Lingan Road intersection	0800	155	51	Southwest	Downwind	Machine moving machinery	Dust from road traffic
6 100m Southwest of Spar Road, Lingan Road intersection	0830	155	30	Southwest	Downwind	Machine moving machinery	No observations seen to effect 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 30m West of Victoria Road	0900	155	28	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 100m Southwest of Spar Road, Lingan Road intersection	0900	155	26	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
9 100m Southwest of Spar Road, Lingan Road intersection	0945	155	34	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
10 30m West of Victoria Road	1000	155	33	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m Southwest of Spar Road, Lingan Road intersection	1000	155	24	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
12 100m Southwest of Spar Road, Lingan Road intersection	1040	155	35	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
13 30m West of Victoria Road	1100	155	32	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 100m Southwest of Spar Road, Lingan Road intersection	1100	155	28	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
15 100m Southwest of Spar Road, Lingan Road intersection	1130	155	37	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
16 30m West of Victoria Road	1200	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 100m Southwest of Spar Road, Lingan Road intersection	1200	155	7	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
18 100m Southwest of Spar Road, Lingan Road intersection	1240	155	11	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
19 30m West of Victoria Road	1300	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 100m Southwest of Spar Road, Lingan Road intersection	1300	155	17	Southwest	Downwind	Machine moving machinery	No observations seen to effect 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
21 100m Southwest of Spar Road, Lingan Road intersection	1345	155	18	Southwest	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
22 30m West of Victoria Road	1400	155	24	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 100m Southwest of Spar Road, Lingan Road intersection	1400	155	18	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
24 100m Southwest of Spar Road, Lingan Road intersection	1430	155	32	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
25 30m West of Victoria Road	1500	155	25	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 100m Southwest of Spar Road, Lingan Road intersection	1500	155	27	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
27 100m Southwest of Spar Road, Lingan Road intersection	1545	155	19	Southwest	Downwind	No activity observed on site	No observations seen to effect 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
28 30m West of Victoria Road	1600	155	28	Southwest	Upwind	Background	No observations seen to affect sampling integrity
29 100m Southwest of Spar Road, Lingan Road intersection	1600	155	16	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
30 100m Southwest of Spar Road, Lingan Road intersection	1645	155	30	Southwest	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 ($\mu\text{g}/\text{m}^3$)
100m Southwest of Spar Road, Lingan Road intersection	0700 to 0759	37	990
100m Southwest of Spar Road, Lingan Road intersection	0800 to 0859	78	990
100m Southwest of Spar Road, Lingan Road intersection	0900 to 0959	108	990
100m Southwest of Spar Road, Lingan Road intersection	1000 to 1059	138	990
100m Southwest of Spar Road, Lingan Road intersection	1100 to 1159	171	990
100m Southwest of Spar Road, Lingan Road intersection	1200 to 1259	180	990
100m Southwest of Spar Road, Lingan Road intersection	1300 to 1359	198	990
100m Southwest of Spar Road, Lingan Road intersection	1400 to 1459	223	990
100m Southwest of Spar Road, Lingan Road intersection	1500 to 1559	246	990
100m Southwest of Spar Road, Lingan Road intersection	1600 to 1659	269	990

VOC Monitoring

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