

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-28
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	27 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0066

**SUBJECT: 26th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Coke Ovens
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 26th of May, 2009. Jennifer Andrews 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 cloudy
- Temperature: approximately 8°C
- Wind Direction: Northwest

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM'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 Jennifer Andrews 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 Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Access Roads, Coke Ovens
26th May, 2009

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 1m South of fixed station on Curry's Lane	0700	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m East of coke ovens security trailer	0700	155	4	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m East of coke ovens security trailer	0730	155	4	Northwest	Downwind	Backhoe, loader operating	No observations seen to affect sampling integrity
4 1m South of fixed station on Curry's Lane	0800	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m East of coke ovens security trailer	0800	155	4	Northwest	Downwind	Backhoe, loader operating	No observations seen to affect sampling integrity
6 30m East of coke ovens security trailer	0840	155	9	Northwest	Downwind	Backhoe, loader operating	No observations seen to affect sampling integrity

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
7 1m South of fixed station on Curry's Lane	0900	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m East of coke ovens security trailer	0900	155	5	Northwest	Downwind	Backhoe, loader operating	No observations seen to affect sampling integrity
9 30m East of coke ovens security trailer	0915	155	5	Northwest	Downwind	Backhoe, loader operating	No observations seen to affect sampling integrity
10 1m South of fixed station on Curry's Lane	1000	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m East of coke ovens security trailer	1000	155	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 30m East of coke ovens security trailer	1025	155	6	Northwest	Downwind	Bulldozer operating	No observations seen to affect sampling integrity
13 1m South of fixed station on Curry's Lane	1100	155	5	Northwest	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 East of coke ovens security trailer	1100	155	5	Northwest	Downwind	Backhoe, bulldozer, loader operating	No observations seen to affect sampling integrity
15 30m East of coke ovens security trailer	1135	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 1m South of fixed station on Curry's Lane	1200	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m East of coke ovens security trailer	1200	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 30m East of coke ovens security trailer	1245	155	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 1m South of fixed station on Curry's Lane	1300	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 30m East of coke ovens security trailer	1300	155	6	Northwest	Downwind	Backhoe, bulldozer, loader operating	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
21 30m East of coke ovens security trailer	1315	155	6	Northwest	Downwind	Backhoe, bulldozer, loader operating	No observations seen to affect sampling integrity
22 1m South of fixed station on Curry's Lane	1400	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 30m East of coke ovens security trailer	1400	155	7	Northwest	Downwind	Backhoe, bulldozer, loader operating	No observations seen to affect sampling integrity
24 30m East of coke ovens security trailer	1425	155	6	Northwest	Downwind	Backhoe, bulldozer, loader operating	No observations seen to affect sampling integrity
25 1m South of fixed station on Curry's Lane	1500	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 30m East of coke ovens security trailer	1500	155	6	Northwest	Downwind	Backhoe, bulldozer, loader operating	No observations seen to affect sampling integrity
27 30m East of coke ovens security trailer	1530	155	7	Northwest	Downwind	Backhoe, bulldozer, loader operating	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
28 1m South of fixed station on Curry's Lane	1600	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 30m East of coke ovens security trailer	1600	155	9	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
30 30m East of coke ovens security trailer	1645	155	7	Northwest	Downwind	Roller operating	No observations seen to affect sampling integrity
31 1m South of fixed station on Curry's Lane	1700	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 30m East of coke ovens security trailer	1700	155	15	Northwest	Downwind	Roller operating	No observations seen to affect sampling integrity
33 30m East of coke ovens security trailer	1745	155	7	Northwest	Downwind	No activity observed on site	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 East of coke ovens security trailer	0700 to 0759	4	990
30m East of coke ovens security trailer	0800 to 0859	11	990
30m East of coke ovens security trailer	0900 to 0959	16	990
30m East of coke ovens security trailer	1000 to 1059	22	990
30m East of coke ovens security trailer	1100 to 1159	28	990
30m East of coke ovens security trailer	1200 to 1259	34	990
30m East of coke ovens security trailer	1300 to 1359	40	990
30m East of coke ovens security trailer	1400 to 1459	47	990
30m East of coke ovens security trailer	1500 to 1559	54	990
30m East of coke ovens security trailer	1600 to 1659	62	990
30m East of coke ovens security trailer	1700 to 1759	73	990

VOC Monitoring

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