

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-26
FROM	Dianne Theriault	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	26 th May, 2009	STPA NO.	TP6D-CO-0064

**SUBJECT: 25th 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 25th 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 sunny, cloudy with rain
- Temperature: approximately 19°C
- Wind Direction: Northwest to West to Northwest

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity, but was later put on standby at 1715 and cancelled for the day at 1830 due to ongoing precipitation. 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
25th May, 2009

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
1 1m South of fixed station on Curry's Lane	0700	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m East of coke ovens security trailer	0700	155	11	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m East of coke ovens security trailer	0730	155	7	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 1m South of fixed station on Curry's Lane	0800	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m East of coke ovens security trailer	0800	155	7	Northwest	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
6 30m East of coke ovens security trailer	0840	155	7	Northwest	Downwind	Bulldozer, roller 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
7 1m South of fixed station on Curry's Lane	0900	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m East of coke ovens security trailer	0900	155	6	Northwest	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
9 400m Northeast of coke ovens security trailer	0935	155	9	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
10 1m South of fixed station on Curry's Lane	1000	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 400m Northeast of coke ovens security trailer	1000	155	7	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
12 400m Northeast of coke ovens security trailer	1025	155	7	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
13 1m South of fixed station on Curry's Lane	1100	155	9	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 400m Northeast of coke ovens security trailer	1100	155	8	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
15 400m Northeast of coke ovens security trailer	1145	155	8	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
16 1m South of fixed station on Curry's Lane	1200	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 400m Northeast of coke ovens security trailer	1200	155	8	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
18 400m Northeast of coke ovens security trailer	1235	155	8	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
19 60m South of Ferry St. and Spar Rd. intersection	1300	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
20 10m West of coke ovens brook main gate	1300	155	9	West	Downwind	Activity not visible from sample location	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 10m West of coke ovens brook main gate	1340	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
22 60m South of Ferry St. and Spar Rd. intersection	1400	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
23 10m West of coke ovens brook main gate	1400	155	9	West	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
24 10m West of coke ovens brook main gate	1445	155	9	West	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
25 60m South of Ferry St. and Spar Rd. intersection	1500	155	15	West	Upwind	Background	No observations seen to affect sampling integrity
26 10m West of coke ovens brook main gate	1500	155	10	West	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
27 10m West of coke ovens brook main gate	1535	155	16	West	Downwind	Bulldozer, roller 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 60m South of Ferry St. and Spar Rd. intersection	1600	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
29 10m West of coke ovens brook main gate	1600	155	11	West	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
30 10m West of coke ovens brook main gate	1615	155	13	West	Downwind	Bulldozer, roller operating	No observations seen to affect sampling integrity
31 1m South of fixed station on Curry's Lane	1700	155	22	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 30m East of coke ovens security trailer	1700	155	22	Northwest	Downwind	Roller operating	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	9	990
30m East of coke ovens security trailer	0800 to 0859	16	990
30m East / 400m Northeast of coke ovens security trailer	0900 to 0959	24	990
400m Northeast of coke ovens security trailer	1000 to 1059	31	990
400m Northeast of coke ovens security trailer	1100 to 1159	39	990
400m Northeast of coke ovens security trailer	1200 to 1259	47	990
10m West of coke ovens brook main gate	1300 to 1359	57	990
10m West of coke ovens brook main gate	1400 to 1459	66	990
10m West of coke ovens brook main gate	1500 to 1559	79	990
10m West of coke ovens brook main gate	1600 to 1659	91	990
30m East of coke ovens security trailer	1700 to 1759	113	990

VOC Monitoring

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