

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1332-14
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	17 th June, 2009	STPA NO.	COCW-SB-0057

**SUBJECT: 16th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Vertical Cut-Off Walls, Soil-bentonite Wall
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 16th of June, 2009. David Reeves and Keith Neville of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly sunny
- Temperature: approximately 15°C
- Wind Direction: Northwest to Southeast to East

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby at 0715 hours due to fog. Air monitoring resumed at 0900 hours when weather conditions were within instrument specifications. 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 180 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 David Reeves 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 – Vertical Cut-Off Walls, Soil-bentonite Wall
16th June, 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 90m East of Spar Rd. and Ferry St. intersection (N 46° 09.051' W 060° 10.714')	0700	180	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m Southwest of Coke Ovens security building (N 46° 08.879' W 060° 10.158')	0700	180	2	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 90m East of Spar Rd. and Ferry St. intersection (N 46° 09.051' W 060° 10.714')	0900	180	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
4 50m Southwest of Coke Ovens security building (N 46° 08.879' W 060° 10.158')	0900	180	17	Northwest	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
5 50m Southwest of Coke Ovens security building (N 46° 08.879' W 060° 10.158')	0920	180	13	Northwest	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
6 90m East of Spar Rd. and Ferry St. intersection (N 46° 09.051' W 060° 10.714')	1000	180	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
7 50m Southwest of Coke Ovens security building (N 46° 08.879' W 060° 10.158')	1000	180	11	Northwest	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
8 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1035	180	14	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
9 60m Southeast of Coke Ovens security trailer (N 46° 09.051' W 060° 10.878')	1100	180	5	Southeast	Upwind	Background	No observations seen to affect sampling integrity
10 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1100	180	3	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
11 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894'))	1145	180	6	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
12 60m Southeast of Coke Ovens security trailer (N 46° 09.051' W 060° 10.878')	1200	180	5	Southeast	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
13 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1200	180	5	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
14 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1230	180	5	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
15 60m Southeast of Coke Ovens security trailer (N 46° 09.051' W 060° 10.878')	1300	180	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
16 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1300	180	1	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
17 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1320	180	24	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
18 60m Southeast of Coke Ovens security trailer (N 46° 09.051' W 060° 10.878')	1400	180	7	Southeast	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
19 60m South of Spar Rd. and Ferry St intersection (N 46° 09.023' W 060° 10.894')	1400	180	4	Southeast	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
20 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1445	180	7	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
21 50m Northeast of Coke Ovens security trailer (N 46° 08.878' W 060° 10.139')	1500	180	5	East	Upwind	Background	No observations seen to affect sampling integrity
22 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1500	180	6	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
23 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1515	180	8	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
24 50m Northeast of Coke Ovens security trailer (N 46° 08.878' W 060° 10.139')	1600	180	4	East	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
25 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1600	180	1	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
26 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1635	180	5	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
27 50m Northeast of Coke Ovens security trailer (N 46° 08.878' W 060° 10.139')	1700	180	10	East	Upwind	Background	No observations seen to affect sampling integrity
28 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1700	180	18	East	Downwind	Dump trucks and excavator operating	No observations seen to affect sampling integrity
29 30m South of Spar Rd. and Ferry St intersection (N 46° 09.032' W 060° 10.896')	1745	180	4	East	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM₁₀ Action Levels

Average PM ₁₀ Concentration (µg/m ³)	Averaging Period (Hours)	Downwind Action Level (µg/m ³)
2	1	125
18	4	85
12	8	70

VOC Monitoring

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