

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1332-24
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	29 th June, 2009		Terry Smith, ALL-TECH
		STPA NO.	COCW-CL-0067

**SUBJECT: 26th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Vertical Cut-Off Walls, Clay Wall
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 26th of June, 2009. Dave Reeves and Jeff King 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 26°C
- Wind Direction: Southwest

Comments *Air monitoring was delayed until 0730 hours due to high humidity, and began at 0930 hours when weather was 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 Jeff King 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 – Vertical Cut-Off Walls, Clay Wall
26th 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 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	0930	180	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	0930	180	7	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
3 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1000	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
4 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1000	180	7	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
5 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1035	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	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
6 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1100	180	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
7 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1100	180	5	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
8 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1125	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
9 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1200	180	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
10 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1200	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	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
11 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1215	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
12 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1300	180	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
13 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1300	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
14 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1335	180	3	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
15 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1400	180	11	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
16 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1400	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
17 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1415	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
18 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1500	180	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
19 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1500	180	3	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
20 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1530	180	4	Southwest	Downwind	Excavator moving material and loading dump trucks	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 2m Southeast of Cape Breton St. and Victoria Rd. Intersection (N46°08.831' W060°10.678')	1600	180	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
22 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1600	180	5	Southwest	Downwind	Excavator moving material and loading dump trucks	No observations seen to affect sampling integrity
23 170m East of Lingan Rd. and Spar Rd. intersection (N46°09.068' W060°10.612')	1645	180	4	Southwest	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)
7	1	125
6	4	85
5	8	70

VOC Monitoring

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