

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 22nd June, 2009

FILE NO. S-1331-24
SHIFT: 0630 to 1800
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP6D-CP-0098

**SUBJECT: 19th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 19th of June, 2009. Tyler Rowe 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 overcast
- Temperature: approximately 25°C
- Wind Direction: West to Southwest

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 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 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Access Roads, Cooling Pond
19th 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 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	0700	180	7	West	Upwind	Background	No observations seen to affect sampling integrity
2 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	0700	180	9	West	Downwind	Excavator mobilizing	No observations seen to affect sampling integrity
3 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	0730	180	10	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
4 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	0800	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
5 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	0800	180	40	West	Downwind	Dump trucks 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
6 10m North of Cape Breton St. and Inglis St. intersection (N46°08.670' W060°10.992')	0840	180	34	West	Downwind	Excavator, roller operating	No observations seen to affect sampling integrity
7 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	0900	180	9	West	Upwind	Background	No observations seen to affect sampling integrity
8 10m North of Cape Breton St. and Inglis St. intersection (N46°08.670' W060°10.992')	0900	180	34	West	Downwind	Excavator, roller operating	No observations seen to affect sampling integrity
9 10m North of Cape Breton St. and Inglis St. intersection (N46°08.670' W060°10.992')	0915	180	20	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
10 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1000	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
11 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1000	180	19	West	Downwind	Excavator 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
12 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1045	180	41	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
13 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1100	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
14 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1100	180	73	West	Downwind	Excavator, roller operating	No observations seen to affect sampling integrity
15 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1120	180	12	West	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
16 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1200	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
17 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1200	180	13	West	Downwind	No activity observed on site	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
18 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1230	180	35	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1300	180	13	West	Upwind	Background	No observations seen to affect sampling integrity
20 5m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.640' W060°11.004')	1300	180	19	West	Downwind	Excavator, dump truck operating	No observations seen to affect sampling integrity
21 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1320	180	13	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
22 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1400	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
23 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1400	180	17	West	Downwind	Excavator 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
24 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1445	180	21	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
25 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1500	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
26 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1500	180	14	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
27 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1520	180	12	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
28 60m Southeast of Walker St., Ferry St. intersection (N46°08.682' W060°11.483')	1600	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
29 10m Southwest of Cape Breton St. and Inglis St. intersection (N46°08.540' W060°11.016')	1600	180	11	West	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
30 40m Northwest of Cape Breton St. and Inglis St. intersection (N46°08.678' W060°11.008')	1630	180	18	Southwest	Upwind	Excavator, dump trucks operating	No observations seen to affect sampling integrity
31 90m Northeast of Acadian Lines (N46°08.529' W060°11.129')	1700	180	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
32 40m Northwest of Cape Breton St. and Inglis St. intersection (N46°08.678' W060°11.008')	1700	180	19	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
33 40m Northwest of Cape Breton St. and Inglis St. intersection (N46°08.678' W060°11.008')	1715	180	12	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)
10	1	125
26	4	85
29	8	70

VOC Monitoring

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