

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-25
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	26 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-SP-0063

**SUBJECT: 25th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, South Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 25th of May, 2009. David Reeves and Nigel MacLean 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 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Access Roads, South Pond
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 10m North of fixed station off Intercolonial St.	0700	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 65m North of Plaza Ford	0700	155	7	Northwest	Downwind	Roller and excavator operating	No observations seen to affect sampling integrity
3 65m North of Plaza Ford	0725	155	6	Northwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
4 10m North of fixed station off Intercolonial St.	0800	155	14	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 65m North of Plaza Ford	0800	155	7	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
6 65m North of Plaza Ford	0825	155	7	Northwest	Downwind	Trucks, roller and 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
7 10m North of fixed station off Intercolonial St.	0900	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 45m West of Plaza Ford	0900	155	9	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
9 45m West of Plaza Ford	0920	155	8	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
10 10m North of fixed station off Intercolonial St.	1000	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 45m West of Plaza Ford	1000	155	11	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
12 45m West of Plaza Ford	1020	155	11	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
13 10m North of fixed station off Intercolonial St.	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 45m West of Plaza Ford	1100	155	10	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
15 45m West of Plaza Ford	1135	155	14	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
16 10m North of fixed station off Intercolonial St.	1200	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 45m West of Plaza Ford	1200	155	9	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
18 45m West of Plaza Ford	1230	155	8	Northwest	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
19 50m East of Kenmount Ford	1300	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
20 50m Southwest of Plaza Ford	1300	155	11	West	Downwind	Trucks, roller and 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
21 50m Southwest of Plaza Ford	1320	155	10	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
22 50m East of Kenmount Ford	1400	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
23 50m Southwest of Plaza Ford	1400	155	23	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
24 50m Southwest of Plaza Ford	1430	155	15	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
25 50m East of Kenmount Ford	1500	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
26 50m Southwest of Plaza Ford	1500	155	15	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
27 50m Southwest of Plaza Ford	1525	155	27	West	Downwind	Trucks, roller and 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
28 50m East of Kenmount Ford	1600	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
29 50m Southwest of Plaza Ford	1600	155	15	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
30 50m Southwest of Plaza Ford	1625	155	15	West	Downwind	Trucks, roller and excavator operating	No observations seen to affect sampling integrity
31 10m North of fixed station off Intercolonial St.	1700	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 70m Southwest of Plaza Ford	1700	155	41	Northwest	Downwind	Trucks, roller and excavator 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 ($\mu\text{g}/\text{m}^3$)
65m North of Plaza Ford	0700 to 0759	7	990
65m North of Plaza Ford	0800 to 0859	14	990
45m West of Plaza Ford	0900 to 0959	23	990
45m West of Plaza Ford	1000 to 1059	34	990
45m West of Plaza Ford	1100 to 1159	46	990
45m West of Plaza Ford	1200 to 1259	55	990
50m Southwest of Plaza Ford	1300 to 1359	66	990
50m Southwest of Plaza Ford	1400 to 1459	85	990
50m Southwest of Plaza Ford	1500 to 1559	106	990
50m Southwest of Plaza Ford	1600 to 1659	121	990
70m Southwest of Plaza Ford	1700 to 1759	162	990

VOC Monitoring

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