

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1292-28
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	1 st May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-SP-0038

**SUBJECT: 30th April, 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 30th of April, 2009. Dave 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
- Temperature: approximately 8°C
- Wind Direction: Southwest to West to Northwest

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 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 Dave 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
30th April, 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 20m East of Dodd St. and Pitt St. intersection	0700	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m North of Prince St. and Terminal Rd. intersection	0700	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 120m North of Prince St. and Terminal Rd. intersection	0720	155	12	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 20m East of Dodd St. and Ritchie St. intersection	0800	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
5 250m North of Prince St. and Terminal Rd. intersection	0800	155	12	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 250m North of Prince St. and Terminal Rd. intersection	0835	155	13	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
7 20m East of Dodd St. and Ritchie St. intersection	0900	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
8 110m North of Plaza Ford	0900	155	11	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
9 110m North of Plaza Ford	0935	155	13	West	Downwind	Personnel installing oil boom on shoreline	No observations seen to affect sampling integrity
10 20m East of Dodd St. and Ritchie St. intersection	1000	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
11 110m North of Plaza Ford	1000	155	11	West	Downwind	Personnel installing oil boom on shoreline	No observations seen to affect sampling integrity
12 110m North of Plaza Ford	1030	155	12	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 20m East of Dodd St. and Ritchie St. intersection	1100	155	8	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
14 110m North of Plaza Ford	1100	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
15 110m North of Plaza Ford	1140	155	12	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
16 Intercolonial St. fixed station	1200	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 110m Northeast of Plaza Ford	1200	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
18 110m Northeast of Plaza Ford	1230	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
19 Intercolonial St. fixed station	1300	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 110m Northeast of Plaza Ford	1300	155	12	Northwest	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 110m Northeast of Plaza Ford	1335	155	13	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
22 Intercolonial St. fixed station	1400	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 110m Northeast of Plaza Ford	1400	155	13	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
24 110m Northeast of Plaza Ford	1440	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
25 Intercolonial St. fixed station	1500	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 110m Northeast of Plaza Ford	1500	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
27 110m Northeast of Plaza Ford	1535	155	12	Northwest	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
28 Intercolonial St. fixed station	1600	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 110m Northeast of Plaza Ford	1600	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
30 110m Northeast of Plaza Ford	1620	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
31 Intercolonial St. fixed station	1700	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 110m Northeast of Plaza Ford	1700	155	12	Northwest	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
33 110m Northeast of Plaza Ford	1745	155	12	Northwest	Downwind	No activity observed on site	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 ($\mu\text{g}/\text{m}^3$)
120m North of Prince St. and Terminal Rd. intersection	0700 to 0759	13	990
250m North of Prince St. and Terminal Rd. intersection	0800 to 0859	26	990
110m North of Plaza Ford	0900 to 0959	38	990
110m North of Plaza Ford	1000 to 1059	50	990
110m North of Plaza Ford	1100 to 1159	62	990
110m Northeast of Plaza Ford	1200 to 1259	74	990
110m Northeast of Plaza Ford	1300 to 1359	87	990
110m Northeast of Plaza Ford	1400 to 1459	100	990
110m Northeast of Plaza Ford	1500 to 1559	112	990
110m Northeast of Plaza Ford	1600 to 1659	124	990
110m Northeast of Plaza Ford	1700 to 1759	136	990

VOC Monitoring

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