

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-06
FROM	Dianne Theriault	SHIFT:	0630 to 1800
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	5 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-SP-0044

**SUBJECT: 4th 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 4th 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
- Temperature: approximately 18°C
- Wind Direction: Southwest to West

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 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
4th May, 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., Pitt St. intersection	0700	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m Southwest of Inglis St. and Spar Rd. intersection	0700	155	14	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m Southwest of Inglis St. and Spar road intersection	0740	155	15	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 20m East of Dodd St., Pitt St. intersection	0800	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m Southwest of Inglis St. and Spar Rd. intersection	0800	155	11	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 30m Southwest of Inglis St. and Spar Rd. intersection	0825	155	10	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity

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
7 20m East of Dodd St., Pitt St. intersection	0900	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m Southwest of Inglis St. and Spar Rd. intersection	0900	155	11	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 30m Southwest of Inglis St. and Spar Rd. intersection	0945	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 20m East of Dodd St., Pitt St. intersection	1000	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m Southwest of Inglis St. and Spar Rd. intersection	1000	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 30m Southwest of Inglis St. and Spar Rd. intersection	1025	155	14	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 20m East of Dodd St., Pitt St. intersection	1100	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity

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
14 30m Southwest of Inglis St. and Spar Rd. intersection	1100	155	15	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 30m Southwest of Inglis St. and Spar Rd. intersection	1135	155	17	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 20m East of Dodd St., Pitt St. intersection	1200	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m Southwest of Inglis St. and Spar Rd. intersection	1200	155	18	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 30m Southwest of Inglis St. and Spar Rd. intersection	1240	155	20	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 20m East of Dodd St., Pitt St. intersection	1300	155	19	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 30m Southwest of Inglis St. and Spar Rd. intersection	1300	155	18	Southwest	Downwind	Workers on site	No observations seen to affect sampling integrity

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
21 30m Southwest of Inglis St. and Spar Rd. intersection	1315	155	21	Southwest	Downwind	Workers on site	No observations seen to affect sampling integrity
22 20m East of Dodd St., Pitt St. intersection	1400	155	16	West	Upwind	No activity observed on site	No observations seen to affect sampling integrity
23 65m Southwest of Inglis St. and Spar Rd. intersection	1400	155	27	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 65m Southwest of Inglis St. and Spar Rd. intersection	1445	155	19	West	Downwind	Workers on site	No observations seen to affect sampling integrity
25 20m East of Dodd St., Pitt St. intersection	1500	155	15	West	Upwind	No activity observed on site	No observations seen to affect sampling integrity
26 65m Southwest of Inglis St. and Spar Rd. intersection	1500	155	20	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
27 65m Southwest of Inglis St. and Spar Rd. intersection	1540	155	24	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
28 20m East of Dodd St., Pitt St. intersection	1600	155	15	West	Upwind	No activity observed on site	No observations seen to affect sampling integrity
29 65m Southwest of Inglis St. and Spar Rd. intersection	1600	155	21	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
30 65m Southwest of Inglis St. and Spar Rd. intersection	1645	155	20	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
31 20m East of Dodd St., Pitt St. intersection	1700	155	14	West	Upwind	No activity observed on site	No observations seen to affect sampling integrity
32 65m Southwest of Inglis St. and Spar Rd. intersection	1700	155	21	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
33 65m Southwest of Inglis St. and Spar Rd. intersection	1715	155	18	West	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 ($\mu\text{g}/\text{m}^3$)
30m Southwest of Inglis St. and Spar Rd. intersection	0700 to 0759	15	990
30m Southwest of Inglis St. and Spar Rd. intersection	0800 to 0859	26	990
30m Southwest of Inglis St. and Spar Rd. intersection	0900 to 0959	38	990
30m Southwest of Inglis St. and Spar Rd. intersection	1000 to 1059	52	990
30m Southwest of Inglis St. and Spar Rd. intersection	1100 to 1159	68	990
30m Southwest of Inglis St. and Spar Rd. intersection	1200 to 1259	87	990
30m Southwest of Inglis St. and Spar Rd. intersection	1300 to 1359	107	990
65m Southwest of Inglis St. and Spar Rd. intersection	1400 to 1459	130	990
65m Southwest of Inglis St. and Spar Rd. intersection	1500 to 1559	152	990
65m Southwest of Inglis St. and Spar Rd. intersection	1600 to 1659	173	990
65m Southwest of Inglis St. and Spar Rd. intersection	1700 to 1759	193	990

VOC Monitoring

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