

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1288-01
FROM	Dianne Theriault	SHIFT:	0730 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	16 th March, 2009	STPA NO.	TP6D-0001

**SUBJECT: 16th March, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 16th of March, 2009. Reg Peters and Shaun Dove, 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 -5°C
- Wind Direction: West to Northwest

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM's construction activities.*

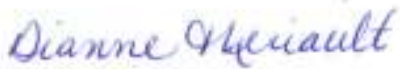
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Reg Peters 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
16th March, 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 100m East of Railroad Office	0800	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
2 60m East of Ferry Street Bridge	0800	155	6	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 60m East of Ferry Street Bridge	0845	155	8	West	Downwind	Machines moving	No observations seen to affect sampling integrity
4 100m East of Railroad Office.	0900	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 80m East of Ferry Street Bridge	0900	155	9	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 80m East of Ferry Street Bridge	0920	155	12	Northwest	Downwind	Machines moving material	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 100m East of Railroad Office	1000	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 80m East of Ferry Street Bridge	1000	155	22	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 80m East of Ferry Street Bridge	1035	155	9	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 100m East of Railroad Office	1100	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 80m East of Ferry Street Bridge	1100	155	13	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 80m East of Ferry Street Bridge	1145	155	4	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 100m East of Railroad Office	1200	155	1	Northwest	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 80m East of Ferry Street Bridge	1200	155	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 80m East of Ferry Street Bridge	1235	155	9	Northwest	Downwind	Machines moving materials.	No observations seen to affect sampling integrity
16 100m East of Railroad Office	1300	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 80m East of Ferry Street Bridge	1300	155	4	Northwest	Downwind	Machines moving material.	No observations seen to affect sampling integrity
18 80m East of Ferry Street Bridge	1345	155	6	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 100m East of Railroad Office	1400	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 80m East of Ferry Street Bridge	1400	155	10	Northwest	Downwind	Machines moving material	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 80m East of Ferry Street Bridge	1440	155	8	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 100m East of Railroad Office	1500	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 80m East of Ferry Street Bridge	1500	155	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 80m East of Ferry Street Bridge	1545	155	6	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 100m East of Railroad Office	1600	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 80m East of Ferry Street Bridge	1600	155	6	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 80m East of Ferry Street Bridge	1645	155	9	Northwest	Downwind	Machines moving material	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 100m East of Railroad Office	1700	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 80m East of Ferry Street Bridge	1700	155	9	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
30 80m East of Ferry Street Bridge	1745	155	7	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 ($\mu\text{g}/\text{m}^3$)
60m East of Ferry Street Bridge	0800 to 0859	7	990
80m East of Ferry Street Bridge	0900 to 0959	18	990
80m East of Ferry Street Bridge	1000 to 1059	34	990
80m East of Ferry Street Bridge	1100 to 1159	43	990
80m East of Ferry Street Bridge	1200 to 1259	50	990
80m East of Ferry Street Bridge	1300 to 1359	55	990
80m East of Ferry Street Bridge	1400 to 1459	64	990
80m East of Ferry Street Bridge	1500 to 1559	70	990
80m East of Ferry Street Bridge	1600 to 1659	78	990
80m East of Ferry Street Bridge	1700 to 1759	86	990

VOC Monitoring

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