

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1292-16
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	27 th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-0026

**SUBJECT: 24th April, 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 24th of April, 2009. Nigel MacLean 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 cloudy
- Temperature: approximately 8°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 Dwayne Timmons 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Access Roads
24th 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 30m East of Ferry St. and Intercolonial St. intersection	0700	155	20	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 160m North of TP6D entrance	0700	155	15	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
3 160m North of TP6D entrance	0720	155	14	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
4 30m East of Ferry St. and Intercolonial St. intersection	0800	155	20	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 160m North of TP6D entrance	0800	155	13	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
6 160m North of TP6D entrance	0845	155	8	Southwest	Downwind	Activity not visible from monitoring location	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 30m East of Ferry St. and Intercolonial St. intersection	0900	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 160m North of TP6D entrance	0900	155	7	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
9 160m North of TP6D entrance	0930	155	6	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
10 30m East of Ferry St. and Intercolonial St. intersection	1000	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 160m North of TP6D entrance	1000	155	1	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
12 160m North of TP6D entrance	1040	155	0	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
13 30m East of Ferry St. and Intercolonial St. intersection	1100	155	6	Southwest	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 160m North of TP6D entrance	1100	155	11	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
15 160m North of TP6D entrance	1120	155	14	Southwest	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
16 Railway property, 150m North of Ferry St.	1200	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
17 140m North of TP6D entrance	1200	155	11	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
18 140m North of TP6D entrance	1230	155	9	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
19 Railway property, 150m North of Ferry St.	1300	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
20 140m North of TP6D entrance	1300	155	25	West	Downwind	Activity not visible from monitoring 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 140m North of TP6D entrance	1340	155	19	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
22 Railway property, 150m North of Ferry St.	1400	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
23 140m North of TP6D entrance	1400	155	21	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
24 140m North of TP6D entrance	1440	155	5	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
25 Railway property, 150m North of Ferry St.	1500	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
26 140m North of TP6D entrance	1500	155	12	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
27 140m North of TP6D entrance	1520	155	24	West	Downwind	Activity not visible from monitoring 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 Railway property, 150m North of Ferry St.	1600	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
29 140m North of TP6D entrance	1600	155	8	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
30 140m North of TP6D entrance	1635	155	7	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
31 Railway property, 150m North of Ferry St.	1700	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
32 140m North of TP6D entrance	1700	155	8	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
33 140m North of TP6D entrance	1745	155	6	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 ($\mu\text{g}/\text{m}^3$)
160m North of TP6D entrance	0700 to 0759	15	990
160m North of TP6D entrance	0800 to 0859	26	990
160m North of TP6D entrance	0900 to 0959	33	990
160m North of TP6D entrance	1000 to 1059	34	990
160m North of TP6D entrance	1100 to 1159	47	990
140m North of TP6D entrance	1200 to 1259	57	990
140m North of TP6D entrance	1300 to 1359	79	990
140m North of TP6D entrance	1400 to 1459	92	990
140m North of TP6D entrance	1500 to 1559	110	990
140m North of TP6D entrance	1600 to 1659	118	990
140m North of TP6D entrance	1700 to 1759	125	990

VOC Monitoring

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