

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1280-05
FROM	Dianne Theriault	SHIFT:	0730 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th March, 2009		Terry Smith, ALL-TECH
		STPA NO.	BTD-0005

**SUBJECT: 10th March, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Benzol Tank Demolition
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 10th of March, 2009. Colin MacIsaac and Reg Peters, 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 -1°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was performed during Nova Scotia Lands' 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 Colin MacIsaac 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 – Benzol Tank Demolition
10th 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 50m East of Fredrick Street, Lingan Road intersection	0800	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
2 30m East of South end of Victoria Road Bridge	0800	155	7	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
3 30m East of South end of Victoria Road Bridge	0820	155	6	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
4 50m East of Fredrick Street, Lingan Road intersection	0900	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
5 30m East of South end of Victoria Road Bridge	0900	155	6	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 30m East of South end of Victoria Road Bridge	0945	155	6	North	Downwind	Machine 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 50m East of Fredrick Street, Lingan Road intersection	1000	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
8 30m East of South end of Victoria Road Bridge	1000	155	6	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
9 30m East of South end of Victoria Road Bridge	1035	155	4	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
10 50m East of Fredrick Street, Lingan Road intersection	1100	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
11 30m East of South end of Victoria Road Bridge	1100	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 30m East of South end of Victoria Road Bridge	1130	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
13 50m East of Fredrick Street, Lingan Road intersection	1200	155	2	North	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 30m East of South end of Victoria Road Bridge	1200	155	3	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
15 30m East of South end of Victoria Road Bridge	1245	155	4	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 50m East of Fredrick Street, Lingan Road intersection	1300	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
17 30m East of South end of Victoria Road Bridge	1300	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
18 30m East of South end of Victoria Road Bridge	1325	155	4	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
19 50m East of Fredrick Street, Lingan Road intersection	1400	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
20 30m East of South end of Victoria Road Bridge	1400	155	5	North	Downwind	Machine 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 30m East of South end of Victoria Road Bridge	1430	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
22 50m East of Fredrick Street, Lingan Road intersection	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 30m East of South end of Victoria Road Bridge	1500	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
24 30m East of South end of Victoria Road Bridge	1530	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
25 50m East of Fredrick Street, Lingan Road intersection	1600	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
26 30m East of South end of Victoria Road Bridge	1600	155	6	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
27 30m East of South end of Victoria Road Bridge	1645	155	5	North	Downwind	Machine 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 50m East of Fredrick Street, Lingan Road intersection	1700	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
29 30m East of South end of Victoria Road Bridge	1700	155	5	North	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 East of South end of Victoria Road Bridge	0800 to 0859	7	990
30m East of South end of Victoria Road Bridge	0900 to 0959	13	990
30m East of South end of Victoria Road Bridge	1000 to 1059	18	990
30m East of South end of Victoria Road Bridge	1100 to 1159	23	990
30m East of South end of Victoria Road Bridge	1200 to 1259	28	990
30m East of South end of Victoria Road Bridge	1300 to 1359	33	990
30m East of South end of Victoria Road Bridge	1400 to 1459	38	990
30m East of South end of Victoria Road Bridge	1500 to 1559	43	990
30m East of South end of Victoria Road Bridge	1600 to 1659	49	990
30m East of South end of Victoria Road Bridge	1700 to 1759	54	990

VOC Monitoring

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