

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1293-01
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	2 nd April, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-0004

**SUBJECT: 1st April, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 1st of April, 2009. Tyler Rowe 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 2°C
- Wind Direction: North / East

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Air monitoring was performed during SLR'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 Tyler Rowe 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 – Tar Cell
1st 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 Curry's Lane fixed station	0700	155	34	North	Upwind	Background	No observations seen to affect sampling integrity
2 Cape Breton Street, 60m North of Victoria Road	0700	155	27	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
3 Cape Breton Street, 60m North of Victoria Road	0720	155	31	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
4 Curry's Lane fixed station	0800	155	39	North	Upwind	Background	No observations seen to affect sampling integrity
5 Cape Breton Street, 60m North of Victoria Road	0800	155	22	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
6 Cape Breton Street, 60m North of Victoria Road	0815	155	21	North	Downwind	Excavators loading dump trucks	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 Curry's Lane fixed station	0900	155	26	North	Upwind	Background	No observations seen to affect sampling integrity
8 Cape Breton Street, 60m North of Victoria Road	0900	155	23	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
9 Cape Breton Street, 60m North of Victoria Road	0930	155	22	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
10 Curry's Lane fixed station	1000	155	15	North	Upwind	Background	No observations seen to affect sampling integrity
11 Cape Breton Street, 60m North of Victoria Road	1000	155	14	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 Cape Breton Street, 60m North of Victoria Road	1045	155	15	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
13 Curry's Lane fixed station	1100	155	11	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 Cape Breton Street, 60m North of Victoria Road	1100	155	18	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
15 Cape Breton Street, 60m North of Victoria Road	1120	155	16	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
16 Curry's Lane fixed station	1200	155	13	North	Upwind	Background	No observations seen to affect sampling integrity
17 Cape Breton Street, 60m North of Victoria Road	1200	155	14	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
18 Cape Breton Street, 60m North of Victoria Road	1240	155	12	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
19 Curry's Lane fixed station	1300	155	15	North	Upwind	Background	No observations seen to affect sampling integrity
20 Cape Breton Street, 60m North of Victoria Road	1300	155	17	North	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
21 Cape Breton Street, 60m North of Victoria Road	1345	155	16	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
22 Curry's Lane fixed station	1400	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
23 Cape Breton Street, 60m North of Victoria Road	1400	155	17	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
24 Cape Breton Street, 60m North of Victoria Road	1445	155	16	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
25 Curry's Lane fixed station	1500	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
26 Cape Breton Street, 60m North of Victoria Road	1500	155	14	North	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
27 Cape Breton Street, 60m North of Victoria Road	1520	155	11	North	Downwind	Excavators loading dump trucks	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 10m West of Coke Ovens Brook main gate	1600	155	14	East	Upwind	Background	No observations seen to affect sampling integrity
29 30m Southwest of CO2 main gate	1600	155	15	East	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
30 30m Southwest of CO2 main gate	1625	155	16	East	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
31 10m West of Coke Ovens Brook main gate	1700	155	14	East	Upwind	Background	No observations seen to affect sampling integrity
32 30m Southwest of CO2 main gate	1700	155	14	East	Downwind	Excavators loading dump trucks	No observations seen to affect sampling integrity
33 30m Southwest of CO2 main gate	1745	155	15	East	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 ($\mu\text{g}/\text{m}^3$)
Cape Breton Street, 60m North of Victoria Road	0700 to 0759	29	990
Cape Breton Street, 60m North of Victoria Road	0800 to 0859	51	990
Cape Breton Street, 60m North of Victoria Road	0900 to 0959	74	990
Cape Breton Street, 60m North of Victoria Road	1000 to 1059	89	990
Cape Breton Street, 60m North of Victoria Road	1100 to 1159	106	990
Cape Breton Street, 60m North of Victoria Road	1200 to 1259	119	990
Cape Breton Street, 60m North of Victoria Road	1300 to 1359	136	990
Cape Breton Street, 60m North of Victoria Road	1400 to 1459	153	990
Cape Breton Street, 60m North of Victoria Road	1500 to 1559	166	990
30m Southwest of CO2 main gate	1600 to 1659	182	990
30m Southwest of CO2 main gate	1700 to 1759	197	990

VOC Monitoring

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