

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-22
FROM	Dianne Theriault	SHIFT:	0630 to 1315
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	21 st May, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-PM-0053

**SUBJECT: 20th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Pug Mill
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 20th of May, 2009. Donald MacIsaac 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 sunny
- Temperature: approximately 11°C
- Wind Direction: Southwest to West

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 Donald 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 – Tar Cell, Pug Mill
20th May, 2009

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
1 Shore Road, 200m North of Dominion Street	0700	155	10	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
2 250m Southeast of old incinerator	0705	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 Shore Road, 200m North of Dominion Street	0730	155	7	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
4 200m South of old incinerator	0800	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 Shore Road, 200m North of Dominion Street	0800	155	8	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
6 Shore Road, 200m North of Dominion Street	0835	155	7	Southwest	Downwind	Site not visible from sampling 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 200m South of old incinerator	0900	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 20m South of Matilda St. and Dominion St. intersection	0900	155	8	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
9 20m South of Matilda St. and Dominion St. intersection	0945	155	8	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
10 200m South of old incinerator	1000	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m South of Matilda St. and Dominion St. intersection	1000	155	8	Southwest	Downwind	Site not visible from sampling location	No observations seen to affect sampling integrity
12 20m South of Matilda St. and Dominion St. intersection	1030	155	8	Southwest	Downwind	Machines operating	No observations seen to affect sampling integrity
13 120m Southwest of old incinerator	1100	155	5	West	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 80m Southeast of Holy Redeemer gym	1100	155	6	West	Downwind	Machines operating	No observations seen to affect sampling integrity
15 80m Southeast of Holy Redeemer gym	1125	155	6	West	Downwind	Machines operating	No observations seen to affect sampling integrity
16 120m Southwest of old incinerator	1200	155	43	West	Upwind	Background	No observations seen to affect sampling integrity
17 80m Southeast of Holy Redeemer gym	1200	155	8	West	Downwind	Machines operating	No observations seen to affect sampling integrity
18 80m Southeast of Holy Redeemer gym	1230	155	7	West	Downwind	Machines operating	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 ($\mu\text{g}/\text{m}^3$)
Shore Road, 200m North of Dominion Street	0700 to 0759	9	990
Shore Road, 200m North of Dominion Street	0800 to 0859	17	990
20m South of Matilda St. and Dominion St. intersection	0900 to 0959	25	990
20m South of Matilda St. and Dominion St. intersection	1000 to 1059	33	990
80m Southeast of Holy Redeemer gym	1100 to 1159	39	990
80m Southeast of Holy Redeemer gym	1200 to 1259	47	990

VOC Monitoring

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