

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-09
FROM	Dianne Theriault	SHIFT:	1000 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	11 th May, 2009	STPA NO.	CO2-NSL-0040

**SUBJECT: 8th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 8th of May, 2009. Kelly Morrison 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 14°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 1000 hours due to precipitation, and began at 1200 hours when weather conditions were within instrument specifications. 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
8th May, 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 North of rail yard building	1200	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m Southwest of the old incinerator	1215	155	5	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
3 20m Southwest of the old incinerator	1245	155	13	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
4 100m North of rail yard building	1300	155	24	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m Southwest of the old incinerator	1300	155	5	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
6 20m Southwest of the old incinerator	1330	155	3	Southwest	Downwind	Excavators, dump trucks operating	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 100m North of rail yard building	1400	155	3	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 20m Southwest of the old incinerator	1400	155	16	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
9 20m Southwest of the old incinerator	1445	155	5	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
10 100m North of rail yard building	1500	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m Southwest of the old incinerator	1500	155	4	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
12 20m Southwest of the old incinerator	1535	155	5	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
13 100m North of rail yard building	1600	155	5	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 20m Southwest of the old incinerator	1600	155	17	Southwest	Downwind	Excavators, dump trucks operating	No observations seen to affect sampling integrity
15 20m Southwest of the old incinerator	1645	155	6	Southwest	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 ($\mu\text{g}/\text{m}^3$)
20m Southwest of the old incinerator	1200 to 1259	9	990
20m Southwest of the old incinerator	1300 to 1359	13	990
20m Southwest of the old incinerator	1400 to 1459	24	990
20m Southwest of the old incinerator	1500 to 1559	29	990
20m Southwest of the old incinerator	1600 to 1659	41	990

VOC Monitoring

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