

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 22nd January, 2009

FILE NO. S-1263-02
SHIFT: 0730 to 1445
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP6B-0002

**SUBJECT: 21st January, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Ponds Sampling
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 21st of January, 2009. Tyler Rowe, Jennifer Andrews and Alison Giovannetti, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy with sunny periods
- Temperature: approximately -6°C
- Wind Direction: Northwest to Northeast

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity, but was put on standby between 0845 and 1100 hours due to precipitation. Air monitoring was performed during sampling activities in the Tar Ponds.*

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 Jennifer Andrews 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 Ponds Sampling
21st January, 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 60m North of Ferry and Walker Street intersection	0800	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 10m North of STPA Building	0810	155	12	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
3 10m North of STPA Building	0830	155	12	Northwest	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
4 60m North of Ferry and Walker Street intersection	1100	155	10	Northeast	Upwind	Background	No observations seen to affect sampling integrity
5 30m North of Intercolonial Fixed Station	1100	155	8	Northeast	Downwind	Excavator operating	No observations seen to affect sampling integrity
6 30m North of Intercolonial Fixed Station	1135	155	8	Northeast	Downwind	Activity not visible from sampling 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
7 60m North of Ferry and Walker Street intersection	1200	155	11	Northeast	Upwind	Background	No observations seen to affect sampling integrity
8 30m North of Intercolonial Fixed Station	1200	155	7	Northeast	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
9 30m North of Intercolonial Fixed Station	1220	155	8	Northeast	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
10 60m North of Ferry and Walker Street intersection	1300	155	16	Northeast	Upwind	Background	No observations seen to affect sampling integrity
11 30m North of Intercolonial Fixed Station	1300	155	8	Northeast	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
12 30m North of Intercolonial Fixed Station	1345	155	9	Northeast	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
13 60m North of Ferry and Walker Street intersection	1400	155	6	Northeast	Upwind	Background	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 ($\mu\text{g}/\text{m}^3$)
10m North of STPA Building	0800 to 0859	12	990
30m North of Intercolonial Fixed Station	1100 to 1159	20	990
30m North of Intercolonial Fixed Station	1200 to 1259	28	990
30m North of Intercolonial Fixed Station	1300 to 1359	37	990

VOC Monitoring

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