

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 21st January, 2009

FILE NO. S-1263-01
SHIFT: 1100 to 1645
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP6B-0001

**SUBJECT: 20th 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 20th of January, 2009. Tyler Rowe and Jennifer Andrews, 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 -3°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 1100 hours and sampling began as soon as there was site activity. 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 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 Ponds Sampling
20th 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 Intercolonial Street, 50m South of Ferry Street	1130	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
2 Wabana Court, 30m South of Spar Road	1130	155	6	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
3 Wabana Court, 30m South of Spar Road	1145	155	5	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
4 Intercolonial Street, 50m South of Ferry Street	1200	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
5 Wabana Court, 30m South of Spar Road	1200	155	5	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
6 Wabana Court, 30m South of Spar Road	1235	155	5	West	Downwind	Excavator in operation	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 Intercolonial Street, 50m South of Ferry Street	1300	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
8 Wabana Court, 30m South of Spar Road	1300	155	5	West	Downwind	Excavator in operation	No observations seen to affect sampling integrity
9 Wabana Court, 30m South of Spar Road	1315	155	5	West	Downwind	Excavator in operation	No observations seen to affect sampling integrity
10 Intercolonial Street, 50m South of Ferry Street	1400	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
11 Wabana Court, 30m South of Spar Road	1400	155	5	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
12 Wabana Court, 30m South of Spar Road	1430	155	5	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
13 Intercolonial Street, 50m South of Ferry Street	1500	155	6	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 Wabana Court, 30m South of Spar Road	1500	155	5	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
15 Wabana Court, 30m South of Spar Road	1520	155	7	West	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
16 Intercolonial Street, 50m South of Ferry Street	1600	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
17 Wabana Court, 30m South of Spar Road	1600	155	6	West	Downwind	Activity not visible from sampling location	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 ($\mu\text{g}/\text{m}^3$)
Wabana Court, 30m South of Spar Road	1100 to 1159	6	990
Wabana Court, 30m South of Spar Road	1200 to 1259	11	990
Wabana Court, 30m South of Spar Road	1300 to 1359	16	990
Wabana Court, 30m South of Spar Road	1400 to 1459	21	990
Wabana Court, 30m South of Spar Road	1500 to 1559	27	990
Wabana Court, 30m South of Spar Road	1600 to 1659	33	990

VOC Monitoring

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