

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1074-24
FROM	Grant Harrigan	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	28 th February, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0081

**SUBJECT: 27th February 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Ponds
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 27th of February, 2008. Colin MacIsaac and Reggie Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, snow in the morning changing to rain. Weather conditions cleared in the afternoon precipitation ceased and humidity dropped.
- Temperature: 0°C (data unavailable from Environment Canada)
- Wind Direction: Southeast to Southwest

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM₁₀ were well 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 well 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), TVOC sampling is halted and resumes after the precipitation has ended.

Sampling ceased at 0800 due to periods of snow and rain. ALL-TECH remained on Standby until 1030. All technicians were called back in for monitoring at 1430 when weather conditions allowed for monitoring to continue. Sampling continued at 1500.

This report has been prepared by Colin MacIsaac and reviewed by Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 – Cooling Ponds
27th February, 2008

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 70m South of STPA building, 40m West of Inglis Street	0700	155	15	Southeast	Upwind	Background	No observations seen to effect sampling integrity
2 30m East of Ferry Street bridge	0700	155	17	Southeast	Downwind	No activity observed	No observations seen to effect sampling integrity
3 30m East of Ferry Street bridge	0716	155	17	Southeast	Downwind	Excavators moving materials	No observations seen to effect sampling integrity
4 60m Northeast of Acadian Lines Terminal	1500	155	9	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 60m Northwest of STPA building	1522	155	34	Southwest	Downwind	Excavators moving materials	No observations seen to effect sampling integrity
6 60m Northwest of STPA building	1540	155	21	Southwest	Downwind	Excavators moving materials	No observations seen to effect sampling integrity
7 60m Northeast of Acadian Lines Terminal	1600	155	9	Southwest	Upwind	Background	No observations seen to effect 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
8 60m Northwest of STPA building	1600	155	20	Southwest	Downwind	Excavators moving materials	No observations seen to effect sampling integrity
9 60m Northwest of STPA building	1625	155	11	Southwest	Downwind	Excavators moving materials	No observations seen to effect sampling integrity
10 60m Northeast of Acadian Lines Terminal	1700	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 60m Northwest of STPA building	1700	155	12	Southwest	Downwind	Excavators moving materials	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
30m East of Ferry Street bridge	0700 to 0731	17	990
60m Northwest of STPA building	1522 to 1555	45	990
60m Northwest of STPA building	1600 to 1640	61	990
60m Northwest of STPA building	1700 to 1715	73	990

VOC Monitoring

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