

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1074-12
FROM	Grant Harrigan	SHIFT:	1200 to 1800
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	15 th February, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0069

**SUBJECT: 14th 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 14th of February, 2008. Colin MacIsaac and Trevor Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast with periods of light rain
- Temperature: approximately 3°C (data unavailable from Environment Canada)
- Wind Direction: West to Northeast to North

Comments: *ALL-TECH was on-Site at 1200 due to weather conditions being outside of the equipment's operational criteria. Sampling began as soon as weather conditions allowed. 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.

This report has been prepared by Colin MacIsaac and reviewed by Grant Harrigan and Dianne Theriault. 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
14th 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 5m East of Dodd Street and Intercolonial Street intersection	1210	155	7	Southwest	Upwind	No activity observed on-Site	No observations seen to effect sampling integrity
2 75m South of Spar Road and Inglis Street intersection	1235	155	1	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
3 75m South of Spar Road and Inglis Street intersection	1250	155	2	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
4 5m East of Dodd Street and Intercolonial Street intersection	1300	155	2	West	Upwind	Background	No observations seen to effect sampling integrity
5 20m West of Inglis Street, 10m North of Terminal Road	1315	155	5	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 20m West of Inglis Street, 10m North of Terminal Road	1330	155	4	Northeast	Downwind	Excavators moving material	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
7 20m Northeast of Inglis Street and Spar Road intersection	1400	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
8 20m West of Inglis Street, 10m North of Terminal Road	1400	155	4	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 20m West of Inglis Street, 10m North of Terminal Road	1415	155	4	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
10 20m Northeast of Inglis Street and Spar Road intersection	1500	155	5	North	Upwind	Background	No observations seen to effect sampling integrity
11 20m West of Inglis Street, 10m North of Terminal Road	1500	155	6	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 20m West of Inglis Street, 10m North of Terminal Road	1515	155	4	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
13 20m Northeast of Inglis Street and Spar Road intersection	1600	155	4	North	Upwind	Background	No observations seen to effect sampling integrity
14 20m West of Inglis Street, 10m North of Terminal Road	1600	155	3	North	Downwind	No activity observed on-Site	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
15 20m West of Inglis Street, 10m North of Terminal Road	1615	155	4	North	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
16 20m Northeast of Inglis Street and Spar Road intersection	1700	155	2	North	Upwind	Background	No observations seen to effect sampling integrity
17 20m West of Inglis Street, 10m North of Terminal Road	1700	155	Ø	North	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
18 20m West of Inglis Street, 10m North of Terminal Road	1715	155	Ø	North	Downwind	No activity observed on-Site	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 ($\mu\text{g}/\text{m}^3$)
75m South of Spar Road and Inglis Street intersection	1235 to 1305	2	990
20m West of Inglis Street, 10m North of Terminal Road	1315 to 1345	7	990
20m West of Inglis Street, 10m North of Terminal Road	1400 to 1430	14	990
20m West of Inglis Street, 10m North of Terminal Road	1500 to 1530	19	990
20m West of Inglis Street, 10m North of Terminal Road	1600 to 1630	23	990
20m West of Inglis Street, 10m North of Terminal Road	1700 to 1730	23	990

VOC Monitoring

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