

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1226-03
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	6 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0093

**SUBJECT: 5th November, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 5th of November, 2008. Nigel MacLean and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately 13°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0730 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 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 Reg Peters 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 – South Pond Pilot Study
5th November, 2008

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
1 2m South of Intercolonial Street fixed station	0800	155	30	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m South of Inglis Street and Spar Road intersection	0800	155	31	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 20m South of Inglis Street and Spar Road intersection	0830	155	37	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
4 2m South of Intercolonial Street fixed station	0900	155	30	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m South of Inglis Street and Spar Road intersection	0900	155	36	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
6 20m South of Inglis Street and Spar Road intersection	0920	155	35	Southwest	Downwind	Crane 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 2m South of Intercolonial Street fixed station	1000	155	33	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 20m South of Inglis Street and Spar Road intersection	1000	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 20m South of Inglis Street and Spar Road intersection	1030	155	39	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
10 2m South of Intercolonial Street fixed station	1100	155	37	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m South of Inglis Street and Spar Road intersection	1100	155	40	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
12 20m South of Inglis Street and Spar Road intersection	1120	155	39	Southwest	Downwind	Crane 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
13 2m South of Intercolonial Street fixed station	1200	155	37	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 20m South of Inglis Street and Spar Road intersection	1200	155	36	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 20m South of Inglis Street and Spar Road intersection	1225	155	37	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
16 2m South of Intercolonial Street fixed station	1300	155	40	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 20m South of Inglis Street and Spar Road intersection	1300	155	40	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
18 20m South of Inglis Street and Spar Road intersection	1325	155	41	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity

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
19 2m South of Intercolonial Street fixed station	1400	155	45	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 20m South of Inglis Street and Spar Road intersection	1400	155	43	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
21 20m South of Inglis Street and Spar Road intersection	1420	155	46	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
22 2m South of Intercolonial Street fixed station	1500	155	51	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 20m South of Inglis Street and Spar Road intersection	1500	155	50	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 20m South of Inglis Street and Spar Road intersection	1530	155	52	Southwest	Downwind	Crane 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
25 2m South of Intercolonial Street fixed station	1600	155	52	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 20m South of Inglis Street and Spar Road intersection	1600	155	56	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
27 20m South of Inglis Street and Spar Road intersection	1645	155	52	Southwest	Downwind	Crane operating	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 South of Inglis Street and Spar Road intersection	0800 to 0859	34	990
20m South of Inglis Street and Spar Road intersection	0900 to 0959	70	990
20m South of Inglis Street and Spar Road intersection	1000 to 1059	107	990
20m South of Inglis Street and Spar Road intersection	1100 to 1159	147	990
20m South of Inglis Street and Spar Road intersection	1200 to 1259	184	990
20m South of Inglis Street and Spar Road intersection	1300 to 1359	225	990
20m South of Inglis Street and Spar Road intersection	1400 to 1459	270	990
20m South of Inglis Street and Spar Road intersection	1500 to 1559	321	990
20m South of Inglis Street and Spar Road intersection	1600 to 1659	375	990

VOC Monitoring

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