

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1128-03
FROM	Grant Harrigan	SHIFT:	0630 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	7 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0135

**SUBJECT: 6th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Test
FINAL REPORT**

Attached is a summary of real-time particulate (as PM₁₀) results for air monitoring performed on the 6th of May, 2008. Donald MacIsaac and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, showers late in the day
- Temperature: 14°C
- Wind Direction: East to South

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.*

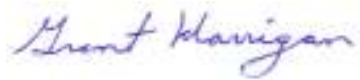
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Tyler Rowe and reviewed by Colin MacIsaac. 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 – South Pond Pilot Test
6th May, 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 30m East of cooling pond security gate	0700	155	20	East	Upwind	Background	No observations seen to effect sampling integrity
2 20m South of corner of Intercolonial Street and Ferry Street	0700	155	22	East	Downwind	No activity	No observations seen to effect sampling integrity
3 20m South of corner of Intercolonial Street and Ferry Street	0745	155	24	East	Downwind	Dump trucks operating	No observations seen to effect sampling integrity
4 30m East of cooling pond security gate	0800	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
5 20m South of corner of Intercolonial Street and Ferry Street	0800	155	17	East	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
6 20m South of corner of Intercolonial Street and Ferry Street	0830	155	23	East	Downwind	Dump trucks, excavator operating	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 30m East of cooling pond security gate	0900	155	24	East	Upwind	Background	No observations seen to effect sampling integrity
8 20m South of corner of Intercolonial Street and Ferry Street	0900	155	27	East	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
9 20m South of corner of Intercolonial Street and Ferry Street	0920	155	22	East	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
10 5m Southeast of corner of Inglis Street and Spar Road	1000	155	33	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 30m South of Intercolonial Street fixed station	1000	155	24	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
12 30m South of Intercolonial Street fixed station	1045	155	23	Northeast	Downwind	Dump trucks, excavator operating	No observations seen to effect sampling integrity
13 100m East of Ferry Street bridge	1100	155	36	North	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
14 10m Northwest of corner of Inglis Street and Terminal Road	1100	155	20	North	Downwind	Site not visible	No observations seen to effect sampling integrity
15 10m Northwest of corner of Inglis Street and Terminal Road	1130	155	22	North	Downwind	Site not visible	No observations seen to effect sampling integrity
16 100m East of Ferry Street bridge	1200	155	61	North	Upwind	Background	Dust from heavy machinery yard upwind
17 10m Northwest of corner of Inglis Street and Terminal Road	1200	155	20	North	Downwind	Site not visible	No observations seen to effect sampling integrity
18 10m Northwest of corner of Inglis Street and Terminal Road	1215	155	21	North	Downwind	Site not visible	No observations seen to effect sampling integrity
19 100m East of Ferry Street bridge	1300	155	-14	North	Upwind	Background	Calibration of Dust Trak using zero filter required
20 10m Northwest of corner of Inglis Street and Terminal Road	1300	155	13	North	Downwind	Site not visible	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
21 10m Northwest of corner of Inglis Street and Terminal Road	1330	155	14	North	Downwind	Site not visible	No observations seen to effect sampling integrity
22 100m East of Ferry Street bridge	1400	155	15	North	Upwind	Background	No observations seen to effect sampling integrity
23 10m Northwest of corner of Inglis Street and Terminal Road	1400	155	18	North	Downwind	Site not visible	No observations seen to effect sampling integrity
24 10m Northwest of corner of Inglis Street and Terminal Road	1415	155	21	North	Downwind	Site not visible	No observations seen to effect sampling integrity
25 10m Northwest of corner of Inglis Street and Terminal Road	1500	155	14	South	Upwind	Background	No observations seen to effect sampling integrity
26 100m East of Ferry Street bridge	1500	155	18	South	Downwind	Site not visible	No observations seen to effect sampling integrity
27 100m East of Ferry Street bridge	1530	155	14	South	Downwind	Site not visible	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
28 10m Northwest of corner of Inglis Street and Terminal Road	1600	155	15	South	Upwind	Background	No observations seen to effect sampling integrity
29 100m East of Ferry Street bridge	1600	155	15	South	Downwind	Site not visible	No observations seen to effect sampling integrity
30 100m East of Ferry Street bridge	1620	155	15	South	Downwind	Site not visible	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 ($\mu\text{g}/\text{m}^3$)
20m South of corner of Intercolonial Street and Ferry Street	0700 to 0759	23	990
20m South of corner of Intercolonial Street and Ferry Street	0800 to 0859	43	990
20m South of corner of Intercolonial Street and Ferry Street	0900 to 0959	67	990
30m South of Intercolonial Street fixed station	1000 to 1059	91	990
10m Northwest of corner of Inglis Street and Terminal Road	1100 to 1159	112	990
10m Northwest of corner of Inglis Street and Terminal Road	1200 to 1259	133	990
10m Northwest of corner of Inglis Street and Terminal Road	1300 to 1359	147	990
10m Northwest of corner of Inglis Street and Terminal Road	1400 to 1459	167	990
100m East of Ferry Street bridge	1500 to 1559	183	990
100m East of Ferry Street bridge	1600 to 1659	198	990

VOC Monitoring

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