

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-10
FROM	Peter Ibrahim	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	18 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0019

**SUBJECT: 18th June, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – North Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 18th of June, 2008. Donald MacIsaac 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:

- Mainly overcast
- Temperature: approximately 19°C
- Wind Direction: East

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 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 Donald MacIsaac and reviewed by Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Peter Ibrahim

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 – North Pond Pilot Study
18th June, 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 35m East of Ferry St. Bridge	0725	155	4	East	Upwind	Background	No observations seen to effect sampling integrity
2 150m Northwest of intersection of Inglis St and Spar Rd	0715	155	3	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 150m Northwest of intersection of Inglis St and Spar Rd	0740	155	4	East	Downwind	Trucks Dumping/ Machines moving materials	No observations seen to effect sampling integrity
4 35m East of Ferry St. Bridge	0800	155	5	East	Upwind	Background	No observations seen to effect sampling integrity
5 150m Northwest of intersection of Inglis St and Spar Rd	0800	155	4	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
6 150m Northwest of intersection of Inglis St and Spar Rd	0820	155	4	East	Downwind	Trucks Dumping/ Machines moving materials	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 35m East of Ferry St. Bridge	0900	155	6	East	Upwind	Background	No observations seen to effect sampling integrity
8 150m Northwest of intersection of Inglis St and Spar Rd	0900	155	4	East	Downwind	Trucks Dumping/ Machines moving materials	No observations seen to effect sampling integrity
9 20m Northwest of DesBarres St. Fixed Station	0945	155	4	East	Downwind	Excavation	No observations seen to effect sampling integrity
10 35m East of Ferry St. Bridge	1000	155	4	East	Upwind	Background	No observations seen to effect sampling integrity
11 20m Northwest of DesBarres St. Fixed Station	1000	155	4	East	Downwind	Excavation	No observations seen to effect sampling integrity
12 20m Northwest of DesBarres St. Fixed Station	1040	155	4	East	Downwind	Excavation	No observations seen to effect sampling integrity
13 35m East of Ferry St. Bridge	1100	155	4	East	Upwind	Background	No observations seen to effect 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
14 20m Northwest of DesBarres St. Fixed Station	1100	155	4	East	Downwind	Excavation	No observations seen to effect sampling integrity
15 20m Northwest of DesBarres St. Fixed Station	1125	155	3	East	Downwind	Excavation	No observations seen to effect sampling integrity
16 35m East of Ferry St. Bridge	1200	155	3	East	Upwind	Background	No observations seen to effect sampling integrity
17 20m Northwest of DesBarres St. Fixed Station	1200	155	2	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
18 20m Northwest of DesBarres St. Fixed Station	1225	155	4	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
19 35m East of Ferry St. Bridge	1305	155	6	East	Upwind	Background	No observations seen to effect sampling integrity
20 20m Northwest of DesBarres St. Fixed Station	1300	155	4	East	Downwind	Excavation/ Machines moving materials	No observations seen to effect 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
21 20m Northwest of DesBarres St. Fixed Station	1345	155	7	East	Downwind	Excavation/ Machines moving materials	No observations seen to effect sampling integrity
22 35m East of Ferry St. Bridge	1400	155	9	East	Upwind	Background	No observations seen to effect sampling integrity
23 20m Northwest of DesBarres St. Fixed Station	1400	155	7	East	Downwind	Excavation/ Machines moving materials	No observations seen to effect sampling integrity
24 20m Northwest of DesBarres St. Fixed Station	1430	155	6	East	Downwind	Excavation/ Machines moving materials	No observations seen to effect sampling integrity
25 35m East of Ferry St. Bridge	1500	155	6	East	Upwind	Background	No observations seen to effect sampling integrity
26 20m Northwest of DesBarres St. Fixed Station	1500	155	5	East	Downwind	Trucks operating/ Machines moving materials	No observations seen to effect 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
27 20m Northwest of DesBarres St. Fixed Station	1525	155	5	East	Downwind	Trucks operating/ Machines moving materials	No observations seen to effect sampling integrity
28 35m East of Ferry St. Bridge	1600	155	4	East	Upwind	Background	No observations seen to effect sampling integrity
29 20m Northwest of DesBarres St. Fixed Station	1600	155	4	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
30 20m Northwest of DesBarres St. Fixed Station	1615	155	4	East	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 ($\mu\text{g}/\text{m}^3$)
150m Northwest of intersection of Inglis St and Spar Rd	0700 to 0759	4	990
150m Northwest of intersection of Inglis St and Spar Rd	0800 to 0859	7	990
150m Northwest of intersection of Inglis St and Spar Rd/ 20m Northwest of DesBarres St. Fixed Station	0900 to 0959	11	990
20m Northwest of DesBarres St. Fixed Station	1000 to 1059	15	990
20m Northwest of DesBarres St. Fixed Station	1100 to 1159	19	990
20m Northwest of DesBarres St. Fixed Station	1200 to 1259	22	990
20m Northwest of DesBarres St. Fixed Station	1300 to 1359	28	990
20m Northwest of DesBarres St. Fixed Station	1400 to 1459	35	990
20m Northwest of DesBarres St. Fixed Station	1500 to 1559	40	990
20m Northwest of DesBarres St. Fixed Station	1600 to 1659	44	990

VOC Monitoring

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