

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-11
FROM	Peter Ibrahim	SHIFT:	0630 to 1445
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	20 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0020

**SUBJECT: 20th 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 20th 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 15°C
- Wind Direction: North to Northeast to North

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
20th June, 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 35m North of North Pond Gate	0715	155	5	North	Upwind	Background	No observations seen to effect sampling integrity
2 5m East of Ferry Street Bridge	0715	155	2	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 5m East of Ferry Street Bridge	0730	155	3	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
4 35m North of North Pond Gate	0800	155	6	North	Upwind	Background	No observations seen to effect sampling integrity
5 5m East of Ferry Street Bridge	0800	155	3	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
6 1m West of Ferry Street Bridge	0845	155	9	Northeast	Downwind	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 30m Northeast of North Pond Gate	0900	155	12	Northeast	Upwind	Background	No observations seen to effect sampling integrity
8 1m West of Ferry Street Bridge	0900	155	9	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
9 1m West of Ferry Street Bridge	0930	155	6	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
10 30m Northeast of North Pond Gate	1000	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 1m West of Ferry Street Bridge	1000	155	4	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
12 1m West of Ferry Street Bridge	1045	155	2	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
13 35m North of North Pond Gate	1100	155	4	North	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 1m West of Ferry Street Bridge	1100	155	3	North	Downwind	Machines moving materials	No observations seen to effect sampling integrity
15 1m West of Ferry Street Bridge	1120	155	7	North	Downwind	Machines moving materials	No observations seen to effect sampling integrity
16 35m North of North Pond Gate	1200	155	3	North	Upwind	Background	No observations seen to effect sampling integrity
17 1m West of Ferry Street Bridge	1200	155	11	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
18 1m West of Ferry Street Bridge	1215	155	2	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
19 35m North of North Pond Gate	1300	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
20 1m West of Ferry Street Bridge	1300	155	4	North	Downwind	No activity observed on-site	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 1m West of Ferry Street Bridge	1330	155	3	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
22 35m East of Ferry St. Bridge	1400	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
23 1m West of Ferry Street Bridge	1400	155	4	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 ($\mu\text{g}/\text{m}^3$)
5m East of Ferry Street Bridge	0700 to 0759	3	990
5m East of Ferry Street Bridge	0800 to 0859	9	990
5m East of Ferry Street Bridge/ 1m West of Ferry Street Bridge	0900 to 0959	17	990
1m West of Ferry Street Bridge	1000 to 1059	20	990
1m West of Ferry Street Bridge	1100 to 1159	25	990
1m West of Ferry Street Bridge	1200 to 1259	32	990
1m West of Ferry Street Bridge	1300 to 1359	36	990
1m West of Ferry Street Bridge	1400 to 1459	39	990

VOC Monitoring

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