

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-03
FROM	Peter Ibrahim	SHIFT:	0830 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th June 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0012

**SUBJECT: 9th 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 9th of June, 2008. Colin MacIsaac and Peter Ibrahim 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 10°C
- Wind Direction: Northwest / Northeast

Comments: *ALL-TECH was on-Site at 0830 and sampling began as soon as site activity was observed. 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 Colin 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,

ORIGINAL SIGNED

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
9th 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 10m North of Intercolonial Street fixed station	0900	155	11	West	Upwind	Background	No observations seen to effect sampling integrity
2 50m North of Ferry Street, East of fence line	0945	155	17	Northwest	Downwind	Trucks moving material	No observations seen to effect sampling integrity
3 30m North of Ferry Street, Walker Street intersection	1000	155	15	Northwest	Upwind	Background	No observations seen to effect sampling integrity
4 20m East of Ferry Street Bridge	1015	155	49	North	Downwind	Surveying	No observations seen to effect sampling integrity
5 20m East of Ferry Street Bridge	1030	155	23	North	Downwind	Surveying	No observations seen to effect sampling integrity
6 30m East of Midland building	1100	155	16	Northwest	Upwind	Background	No observations seen to effect sampling integrity
7 20m East of Ferry Street Bridge	1100	155	43	North	Downwind	Excavator digging	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
8 50m East of Ferry Street Bridge	1120	155	56	Northwest	Downwind	Excavator digging	No observations seen to effect sampling integrity
9 30m East of Midland building	1200	155	23	Northwest	Upwind	Background	No observations seen to effect sampling integrity
10 50m East of Ferry Street Bridge	1200	155	45	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
11 50m East of Ferry Street Bridge	1215	155	45	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
12 70m North of Inglis Street, Spar Road intersection	1300	155	19	Northeast	Upwind	Background	No observations seen to effect sampling integrity
13 20m East of Ferry Street Bridge	1300	155	53	North	Downwind	Excavator digging	No observations seen to effect sampling integrity
14 20m East of Ferry Street Bridge	1315	155	64	North	Downwind	Excavator digging	No observations seen to effect sampling integrity
15 20m East of Ferry Street Bridge	1345	155	39	North	Downwind	Excavator digging	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
16 70m North of Inglis Street, Spar Road intersection	1400	155	30	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 20m East of Ferry Street Bridge	1400	155	51	North	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
18 20m East of Ferry Street Bridge	1416	155	55	North	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
19 70m North of Inglis Street, Spar Road intersection	1500	155	20	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 20m East of Ferry Street Bridge	1502	155	13	Northeast	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
21 20m East of Ferry Street Bridge	1518	155	2	Northeast	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
22 70m North of Inglis Street, Spar Road intersection	1600	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 20m East of Ferry Street Bridge	1600	155	34	Northeast	Downwind	Excavator digging, truck 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
24 20m East of Ferry Street Bridge	1615	155	10	Northeast	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
25 70m North of Inglis Street, Spar Road intersection	1700	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 20m East of Ferry Street Bridge	1700	155	14	Northeast	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
50m North of Ferry Street on Eastern Fence Line	0900 to 0959	17	990
20m East of Ferry Street Bridge	1000 to 1059	53	990
20m East of Ferry Street Bridge	1100 to 1159	103	990
50m East of Ferry Street Bridge	1200 to 1259	148	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
20m East of Ferry Street Bridge	1300 to 1359	207	990
20m East of Ferry Street Bridge	1400 to 1459	260	990
20m East of Ferry Street Bridge	1500 to 1559	268	990
20m East of Ferry Street Bridge	1600 to 1659	290	990
20m East of Ferry Street Bridge	1700 to 1759	304	990

VOC Monitoring

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