

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1153-06
FROM	Peter Ibrahim	SHIFT:	0630 to 1800
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.	CP-0145

**SUBJECT: 9th June, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
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 Donald MacIsaac 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: West / Northwest / North / Northeast

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 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 – Cooling Pond
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	0710	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
2 20m West of STPA building	0715	155	5	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 20m West of STPA building	0745	155	6	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
4 10m North of Intercolonial Street fixed station	0800	155	7	West	Upwind	Background	No observations seen to effect sampling integrity
5 20m West of STPA building	0800	155	6	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
6 20m West of STPA building	0830	155	7	West	Downwind	Payloader operating	No observations seen to effect sampling integrity
7 10m North of Intercolonial Street fixed station	0900	155	11	West	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
8 20m West of STPA building	0900	155	11	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
9 20m West of STPA building	0915	155	17	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
10 30m North of Ferry Street, Walker Street intersection	1000	155	15	Northwest	Upwind	Background	No observations seen to effect sampling integrity
11 15m South of Cape Breton Street, Inglis Street intersection	1000	155	13	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
12 15m South of Cape Breton Street, Inglis Street intersection	1045	155	17	Northwest	Downwind	Payloader moving material	No observations seen to effect sampling integrity
13 30m East of Midland building	1100	155	16	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 15m South of Cape Breton Street, Inglis Street intersection	1100	155	18	Northwest	Downwind	Excavator 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
15 15m South of Cape Breton Street, Inglis Street intersection	1130	155	22	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
16 30m East of Midland building	1200	155	23	Northwest	Upwind	Background	No observations seen to effect sampling integrity
17 15m South of Cape Breton Street, Inglis Street intersection	1200	155	24	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
18 15m South of Cape Breton Street, Inglis Street intersection	1215	155	19	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
19 70m North of Inglis Street, Spar Road intersection	1300	155	19	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 10m North of Terminal Road, Inglis Street intersection	1300	155	18	North	Downwind	Excavator moving material	No observations seen to effect sampling integrity
21 10m North of Terminal Road, Inglis Street intersection	1330	155	29	North	Downwind	Excavator 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
22 70m North of Inglis Street, Spar Road intersection	1400	155	30	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 10m North of Terminal Road, Inglis Street intersection	1400	155	23	North	Downwind	Excavator moving material	No observations seen to effect sampling integrity
24 35m Northeast of Acadian Lines terminal	1445	155	13	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
25 70m North of Inglis Street, Spar Road intersection	1500	155	20	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 35m Northeast of Acadian Lines terminal	1500	155	18	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
27 35m Northeast of Acadian Lines terminal	1530	155	9	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
28 70m North of Inglis Street, Spar Road intersection	1600	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
29 35m Northeast of Acadian Lines terminal	1600	155	6	Northeast	Downwind	Excavator 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
30 35m Northeast of Acadian Lines terminal	1615	155	5	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
31 70m North of Inglis Street, Spar Road intersection	1700	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
32 35m Northeast of Acadian Lines terminal	1700	155	5	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
33 35m Northeast of Acadian Lines terminal	1715	155	6	Northeast	Downwind	Excavator moving material	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)
20m West of STPA building	0700 to 0759	6	990
20m West of STPA building	0800 to 0859	13	990
20m West of STPA building	0900 to 0959	27	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
15m South of Cape Breton Street, Inglis Street intersection	1000 to 1059	42	990
15m South of Cape Breton Street, Inglis Street intersection	1100 to 1159	62	990
15m South of Cape Breton Street, Inglis Street intersection	1200 to 1259	84	990
10m North of Terminal Road, Inglis Street intersection	1300 to 1359	108	990
10m North of Terminal Road, Inglis Street intersection	1400 to 1459	126	990
35m Northeast of Acadian Lines terminal	1500 to 1559	140	990
35m Northeast of Acadian Lines terminal	1600 to 1659	145	990
35m Northeast of Acadian Lines terminal	1700 to 1759	151	990

VOC Monitoring

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