

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-09
FROM	Dianne Theriault	SHIFT:	0630 to 1400
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0080

**SUBJECT: 11th October, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 11th of October, 2008. Alison Giovannetti and Nigel MacLean of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Sunny
- Temperature: approximately 13°C
- Wind Direction: East to West to Northwest

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 Alison Giovanetti and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, 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 Study
11th October, 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 20m SE of Ferry and Inglis Intersection	0700	155	6	East	Upwind	Background	No observations seen to affect sampling integrity
2 W of South Pond at Ferry and Walker St Intersection	0700	155	6	East	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 Inglis St. E of South Pond Security gate	0745	155	7	West	Downwind	Personnel working on site	No observations seen to affect sampling integrity
4 5m SE of Ferry and Walker St. Intersection	0800	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis St. E of South Pond Security gate	0800	155	9	West	Downwind	Personnel working on site	No observations seen to affect sampling integrity
6 Inglis St. E of South Pond Security gate	0825	155	10	West	Downwind	Personnel working on site	No observations seen to affect 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 5m SE of Ferry and Walker St Intersection	0900	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
8 Inglis St. E of South Pond Security gate	0900	155	10	West	Downwind	Personnel working on site	No observations seen to affect sampling integrity
9 Inglis St. E of South Pond Security gate	0940	155	30	West	Downwind	Personnel working on site	No observations seen to affect sampling integrity
10 30m N of Ferry and Walker St. Intersection	1000	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis St. 30m N of STPA building	1000	155	9	Northwest	Downwind	Personnel working on site	No observations seen to affect sampling integrity
12 Inglis St. 30m N of STPA building	1015	155	12	Northwest	Downwind	Personnel working on site	No observations seen to affect 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
13 30m N of Ferry and Walker St. Intersection	1100	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 Inglis St. 30m N of STPA building	1100	155	9	Northwest	Downwind	Personnel working on site	No observations seen to affect sampling integrity
15 Inglis St. 30m N of STPA building	1115	155	10	Northwest	Downwind	Personnel working on site	No observations seen to affect sampling integrity
16 30m N of Ferry and Walker St. Intersection	1200	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis St. 30m N of STPA building	1200	155	32	Northwest	Downwind	Personnel working on site	No observations seen to affect sampling integrity
18 Inglis St. 30m N of STPA building	1245	155	6	Northwest	Downwind	Personnel working on site	No observations seen to affect 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
19 30m N of Ferry and Walker St. Intersection	1300	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 Inglis St 30m N of STPA Building	1315	155	6	Northwest	Downwind	Personnel working on site	No observations seen to affect 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 ($\mu\text{g}/\text{m}^3$)
W of South Pond at Ferry and Walker St Intersection/ Inglis St. E of South Pond Security gate	0700 to 0759	7	990
Inglis St. E of South Pond Security gate	0800 to 0859	17	990
Inglis St. E of South Pond Security gate	0900 to 0959	37	990
Inglis St 30m N of STPA Building	1000 to 1059	48	990
Inglis St 30m N of STPA Building	1100 to 1159	57	990
Inglis St 30m N of STPA Building	1200 to 1259	76	990
Inglis St 30m N of STPA Building	1300 to 1359	82	990

VOC Monitoring

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