

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1166-01
FROM	Dianne Theriault	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	18 th July, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0022

**SUBJECT: 18th July, 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 18th of July, 2008. Colin MacIsaac and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly clear skies
- Temperature: approximately 22°C
- Wind Direction: Southwest

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.*

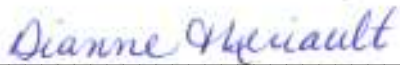
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 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
18th July, 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 20m North of Intercolonial Street fixed station	0700	155	23	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 30m Northeast of South Pond main gate	0700	155	21	Southwest	Downwind	Truck operating	No observations seen to effect sampling integrity
3 30m Northeast of South Pond main gate	0725	155	21	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
4 30m South of Intercolonial Street fixed station	0800	155	15	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 30m Northeast of South Pond main gate	0800	155	13	Southwest	Downwind	Drilling	No observations seen to effect sampling integrity
6 30m Northeast of South Pond main gate	0845	155	12	Southwest	Downwind	Drilling	No observations seen to effect sampling integrity
7 30m South of Intercolonial Street fixed station	0900	155	16	Southwest	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
8 30m Northeast of South Pond main gate	0900	155	14	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
9 30m Northeast of South Pond main gate	0940	155	11	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
10 30m South of Intercolonial Street fixed station	1000	155	18	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 30m Northeast of South Pond main gate	1000	155	11	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
12 30m Northeast of South Pond main gate	1035	155	12	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
13 30m South of Intercolonial Street fixed station	1100	155	20	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 30m Northeast of South Pond main gate	1100	155	26	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
15 30m Northeast of South Pond main gate	1120	155	17	Southwest	Downwind	Packing up equipment	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 30m South of Intercolonial Street fixed station	1200	155	26	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 30m Northeast of South Pond main gate	1200	155	18	Southwest	Downwind	Picker truck operating	No observations seen to effect sampling integrity
18 30m Northeast of South Pond main gate	1230	155	21	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
19 30m South of Intercolonial Street fixed station	1300	155	35	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 30m Northeast of South Pond main gate	1300	155	34	Southwest	Downwind	Personnel moving equipment	No observations seen to effect sampling integrity
21 30m Northeast of South Pond main gate	1335	155	22	Southwest	Downwind	Personnel moving equipment	No observations seen to effect sampling integrity
22 30m South of Intercolonial Street fixed station	1400	155	34	Southwest	Upwind	Background	No observations seen to effect sampling integrity
23 30m Northeast of South Pond main gate	1400	155	26	Southwest	Downwind	Picker truck operating	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 30m Northeast of South Pond main gate	1415	155	35	Southwest	Downwind	Picker truck operating	No observations seen to effect sampling integrity
25 30m South of Intercolonial Street fixed station	1500	155	-10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
26 30m Northeast of South Pond main gate	1500	155	36	Southwest	Downwind	Personnel moving equipment	No observations seen to effect sampling integrity
27 30m Northeast of South Pond main gate	1525	155	29	Southwest	Downwind	Personnel moving equipment	No observations seen to effect sampling integrity
28 30m South of Intercolonial Street fixed station	1600	155	-6	Southwest	Upwind	Background	Unit re-calibrated
29 30m Northeast of South Pond main gate	1600	155	21	Southwest	Downwind	Personnel moving equipment	No observations seen to effect sampling integrity
30 30m Northeast of South Pond main gate	1620	155	22	Southwest	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 ($\mu\text{g}/\text{m}^3$)
30m Northeast of South Pond main gate	0700 to 0800	21	990
30m Northeast of South Pond main gate	0800 to 0900	34	990
30m Northeast of South Pond main gate	0900 to 1000	47	990
30m Northeast of South Pond main gate	1000 to 1100	59	990
30m Northeast of South Pond main gate	1100 to 1200	81	990
30m Northeast of South Pond main gate	1200 to 1300	101	990
30m Northeast of South Pond main gate	1300 to 1400	124	990
30m Northeast of South Pond main gate	1400 to 1500	155	990
30m Northeast of South Pond main gate	1500 to 1600	188	990
30m Northeast of South Pond main gate	1600 to 1700	210	990

VOC Monitoring

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