

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1226-06
FROM	Dianne Theriault	SHIFT:	0730 to 1545
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	12 th November, 2008	STPA NO.	PS-0096

**SUBJECT: 10th November 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 10th of November, 2008. Kelly Morrison and Jen Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly Sunny
- Temperature: approximately 10°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0730 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 Kelly Morrison 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

**Real-time Airborne PM₁₀ Concentration Results
 Sydney Tar Ponds Agency –South Pond Pilot Study
 10th November, 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 25m North of Intercolonial Street fixed station.	0810	155	18	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 30m Southeast of Sparr and Inglis Street intersection	0830	155	16	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
3 30m Southeast of Sparr and Inglis Street intersection	0845	155	15	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
4 25m North of Intercolonial Street fixed station.	0900	155	14	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 30m Southeast of Sparr and Inglis Street intersection	0900	155	14	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
6 30m Southeast of Sparr and Inglis Street intersection	0940	155	10	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 25m North of Intercolonial Street fixed station.	1000	155	11	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 Southeast of Sparr and Inglis Street intersection	1000	155	10	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
9 30m Southeast of Sparr and Inglis Street intersection	1020	155	10	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
10 25m North of Intercolonial Street fixed station.	1100	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 30m Southeast of Sparr and Inglis Street intersection	1100	155	10	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
12 30m Southeast of Sparr and Inglis Street intersection	1125	155	9	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
13 25m North of Intercolonial Street fixed station.	1200	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 30m Southeast of Sparr and Inglis Street intersection	1200	155	9	Southwest	Downwind	No visible on site activity	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 30m Southeast of Sparr and Inglis Street intersection	1220	155	8	Southwest	Downwind	No visible on site activity	No observations seen to effect sampling integrity
16 25m North of Intercolonial Street fixed station.	1300	155	8	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 30m Southeast of Sparr and Inglis Street intersection	1300	155	7	Southwest	Downwind	No visible on site activity	No observations seen to effect sampling integrity
18 30m Southeast of Sparr and Inglis Street intersection	1345	155	7	Southwest	Downwind	No visible on site activity	No observations seen to effect sampling integrity
19 25m North of Intercolonial Street fixed station.	1400	155	9	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 30m Southeast of Sparr and Inglis Street intersection	1400	155	8	Southwest	Downwind	No visible on site activity	No observations seen to effect sampling integrity
21 30m Southeast of Sparr and Inglis Street intersection	1445	155	8	Southwest	Downwind	No visible on site activity	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 25m North of Intercolonial Street fixed station.	1500	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
23 30m Southeast of Sparr and Inglis Street intersection	1500	155	8	Southwest	Downwind	No visible on site activity	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 Southeast of Sparr and Inglis Street intersection	0800 to 0859	16	990
30m Southeast of Sparr and Inglis Street intersection	0900 to 0959	28	990
30m Southeast of Sparr and Inglis Street intersection	1000 to 1059	38	990
30m Southeast of Sparr and Inglis Street intersection	1100 to 1159	48	990
30m Southeast of Sparr and Inglis Street intersection	1200 to 1259	57	990
30m Southeast of Sparr and Inglis Street intersection	1300 to 1359	64	990
30m Southeast of Sparr and Inglis Street intersection	1400 to 1459	72	990
30m Southeast of Sparr and Inglis Street intersection	1500 to 1559	80	990

VOC Monitoring

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