

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-11
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	17 th September, 2008	STPA NO.	TP2-0015

**SUBJECT: 16th September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Materials Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 16th of September, 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:

- Sunny with cloudy periods
- Temperature: approximately 20°C
- Wind Direction: Northwest

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.*

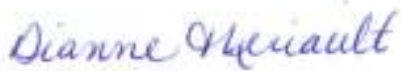
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Tyler Rowe 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 – Materials Processing Facility
16th September, 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 Inglis Street, 20m North of Spar Road	0808	155	12	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
2 50m East of Midland building	0815	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 Inglis Street, 20m North of Spar Road	0825	155	11	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
4 50m East of Midland building	0900	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 20m North of Spar Road	0900	155	11	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 Inglis Street, 20m North of Spar Road	0945	155	4	Northwest	Downwind	Excavator, boom truck operating	No observations seen to effect sampling integrity
7 50m East of Midland building	1000	155	12	Northwest	Upwind	Background	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
8 Inglis Street, 20m North of Spar Road	1000	155	7	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 Inglis Street, 20m North of Spar Road	1015	155	14	Northwest	Downwind	Excavator, boom truck operating	No observations seen to effect sampling integrity
10 50m East of Midland building	1100	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis Street, 20m North of Spar Road	1100	155	7	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 Inglis Street, 20m North of Spar Road	1140	155	30	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
13 50m East of Midland building	1200	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 Inglis Street, 20m North of Spar Road	1200	155	12	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 Inglis Street, 20m North of Spar Road	1235	155	11	Northwest	Downwind	Excavator 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
16 50m East of Midland building	1300	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis Street, 20m North of Spar Road	1300	155	7	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 Inglis Street, 20m North of Spar Road	1320	155	6	Northwest	Downwind	Excavator, water truck operating	No observations seen to effect sampling integrity
19 50m East of Midland building	1400	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 Inglis Street, 20m North of Spar Road	1400	155	10	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 Inglis Street, 20m North of Spar Road	1430	155	11	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
22 50m East of Midland building	1500	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 Inglis Street, 20m North of Spar Road	1500	155	12	Northwest	Downwind	Excavator 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 Inglis Street, 20m North of Spar Road	1540	155	10	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
25 50m East of Midland building	1600	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 Inglis Street, 20m North of Spar Road	1600	155	10	Northwest	Downwind	Dump truck operating	No observations seen to effect sampling integrity
27 Inglis Street, 20m North of Spar Road	1645	155	11	Northwest	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 ($\mu\text{g}/\text{m}^3$)
Inglis Street, 20m North of Spar Road	0800 to 0859	12	990
Inglis Street, 20m North of Spar Road	0900 to 0959	18	990
Inglis Street, 20m North of Spar Road	1000 to 1059	29	990
Inglis Street, 20m North of Spar Road	1100 to 1159	48	990
Inglis Street, 20m North of Spar Road	1200 to 1259	58	990
Inglis Street, 20m North of Spar Road	1300 to 1359	65	990
Inglis Street, 20m North of Spar Road	1400 to 1459	76	990
Inglis Street, 20m North of Spar Road	1500 to 1559	87	990
Inglis Street, 20m North of Spar Road	1600 to 1659	98	990

VOC Monitoring

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