

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-06
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0010

**SUBJECT: 9th 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 9th of September, 2008. Colin MacIsaac and Grant Harrigan 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 23°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-TECH remained on standby between 1600 and 1700 while construction activities were halted.*

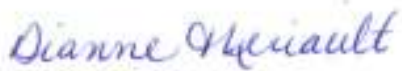
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Grant Harrigan 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
9th 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 15m South of Walker Street /Ferry Street Intersection	0800	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 150m North of Inglis Street and Spar Road Intersection	0808	155	13	Southwest	Downwind	Excavator digging up material	No observations seen to effect sampling integrity
3 150m North of Inglis Street and Spar Road Intersection	0845	155	18	Southwest	Downwind	Excavator digging up material	No observations seen to effect sampling integrity
4 50m South of Walker Street /Ferry Street Intersection	0900	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 150m North of Inglis Street and Spar Road Intersection	0907	155	15	Southwest	Downwind	Excavator digging up material	No observations seen to effect sampling integrity
6 150m North of Inglis Street and Spar Road Intersection	0940	155	18	Southwest	Downwind	Excavator digging up material	No observations seen to effect sampling integrity
7 10m North of Intercolonial Fixed Sampling Station	1000	155	14	Southwest	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 150m North of Inglis Street and Spar Road Intersection	1005	155	15	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 10m North of Intercolonial Fixed Sampling Station	1100	155	14	Southwest	Upwind	Excavator operating	No observations seen to effect sampling integrity
10 150m North of Inglis Street and Spar Road Intersection	1104	155	25	Southwest	Downwind	Excavator digging up material	No observations seen to affect sampling integrity
11 150m North of Inglis Street and Spar Road Intersection	1126	155	19	Southwest	Downwind	Excavator digging up material	No observations seen to effect sampling integrity
12 150m North of Inglis Street and Spar Road Intersection	1145	155	30	Southwest	Downwind	Excavator digging up material	Excavator operating within 2m of instrument
13 10m North of Intercolonial Fixed Sampling Station	1200	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 150m North of Inglis Street and Spar Road Intersection	1240	155	68	Southwest	Downwind	Excavator digging up material	Gusting Winds
15 150m North of Inglis Street and Spar Road Intersection	1256	155	46	Southwest	Downwind	Excavator digging up material	Gusting Winds

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 10m North of Intercolonial Fixed Sampling Station	1300	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 150m North of Inglis Street and Spar Road Intersection	1314	155	44	Southwest	Downwind	Excavator digging up material	Gusting Winds
18 150m North of Inglis Street and Spar Road Intersection	1330	155	36	Southwest	Downwind	Excavator digging up material	Gusting Winds
19 10m North of Intercolonial Fixed Sampling Station	1400	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 150m North of Inglis Street and Spar Road Intersection	1408	155	71	Southwest	Downwind	Excavators operating	Gusting Winds
21 150m North of Inglis Street and Spar Road Intersection	1449	155	53	Southwest	Downwind	Excavators operating	Gusting Winds
22 50m South of Intercolonial Street and Ferry Street Intersection	1500	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 150m North of Spar Road on Inglis Street	1515	155	63	Southwest	Downwind	No activity observed on site	Gusting Winds

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 150m North of Spar Road on Inglis Street	1532	155	35	Southwest	Downwind	No activity observed on site	Gusting Winds
25 50m South of Intercolonial Street and Ferry Street Intersection	1600	155	10	Southwest	Upwind	Background	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 ($\mu\text{g}/\text{m}^3$)
150m North of Inglis Street and Spar Road Intersection	0800 to 0859	16	990
150m North of Inglis Street and Spar Road Intersection	0900 to 0959	31	990
150m North of Inglis Street and Spar Road Intersection	1000 to 1059	51	990
150m North of Inglis Street and Spar Road Intersection	1100 to 1159	76	990
150m North of Inglis Street and Spar Road Intersection	1200 to 1259	133	990
150m North of Inglis Street and Spar Road Intersection	1300 to 1359	173	990
150m North of Inglis Street and Spar Road Intersection	1400 to 1459	235	990
150m North of Inglis Street and Spar Road Intersection	1500 to 1559	293	990

VOC Monitoring

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