

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-02
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	4 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0006

**SUBJECT: 3rd September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 3rd of September, 2008. Kelly Morrison 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 sunny, becoming cloudy with showers
- Temperature: approximately 21°C
- Wind Direction: East / Southeast

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 – Material Processing Facility
3rd September, 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 Inglis Street, 40m North of Spar Road	0800	155	1	East	Upwind	Background	No observations seen to affect sampling integrity
2 10m North of Ferry Street and Walker Street intersection	0800	155	3	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 10m North of Ferry Street and Walker Street intersection	0815	155	4	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
4 Inglis Street, 40m North of Spar Road	0900	155	2	East	Upwind	Background	No observations seen to affect sampling integrity
5 30m Northeast of Ferry Street bridge	0900	155	3	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 30m Northeast of Ferry Street bridge	0925	155	2	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
7 Inglis Street, 40m North of Spar Road	1000	155	3	East	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 30m Northeast of Ferry Street bridge	1000	155	5	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 30m Northeast of Ferry Street bridge	1030	155	2	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
10 Inglis Street, 40m North of Spar Road	1100	155	4	East	Upwind	Background	No observations seen to affect sampling integrity
11 30m Northeast of Ferry Street bridge	1100	155	7	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 30m Northeast of Ferry Street bridge	1140	155	4	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
13 Inglis Street, 40m North of Spar Road	1200	155	4	East	Upwind	Background	No observations seen to affect sampling integrity
14 30m Northeast of Ferry Street bridge	1200	155	4	East	Downwind	Dump truck operating	No observations seen to effect sampling integrity
15 30m Northeast of Ferry Street bridge	1220	155	5	East	Downwind	No activity observed on-site	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 Inglis Street, 40m North of Spar Road	1300	155	6	East	Upwind	Background	No observations seen to affect sampling integrity
17 30m Northeast of Ferry Street bridge	1300	155	6	East	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
18 30m Northeast of Ferry Street bridge	1340	155	8	East	Downwind	Excavator moving	No observations seen to effect sampling integrity
19 40m East of South Pond main gate	1400	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
20 Railway property, 150m North of Ferry Street	1400	155	8	Southeast	Downwind	Excavator moving	No observations seen to effect sampling integrity
21 Railway property, 150m North of Ferry Street	1420	155	7	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
22 40m East of South Pond main gate	1500	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
23 Railway property, 150m North of Ferry Street	1500	155	5	Southeast	Downwind	No activity observed on-site	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 Railway property, 150m North of Ferry Street	1535	155	7	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
25 40m East of South Pond main gate	1600	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
26 Railway property, 150m North of Ferry Street	1600	155	6	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
27 Railway property, 150m North of Ferry Street	1645	155	3	Southeast	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 ($\mu\text{g}/\text{m}^3$)
10m North of Ferry Street and Walker Street intersection	0800 to 0859	4	990
30m Northeast of Ferry Street bridge	0900 to 0959	7	990
30m Northeast of Ferry Street bridge	1000 to 1059	11	990
30m Northeast of Ferry Street bridge	1100 to 1159	17	990
30m Northeast of Ferry Street bridge	1200 to 1259	22	990
30m Northeast of Ferry Street bridge	1300 to 1359	29	990
Railway property, 150m North of Ferry Street	1400 to 1459	37	990
Railway property, 150m North of Ferry Street	1500 to 1559	43	990
Railway property, 150m North of Ferry Street	1600 to 1659	48	990

VOC Monitoring

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