

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-14
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	22 nd September, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0018

**SUBJECT: 19th 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 19th of September, 2008. Alison Giovannetti 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 16°C
- Wind Direction: Northwest / North

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
19th 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 50m East of Midland building	0810	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street 10m North of Spar Road	0810	155	9	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 Inglis Street, 10m North of Spar Road	0825	155	5	Northwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
4 50m East of Midland building	0900	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 10m North of Spar Road	0910	155	5	Northwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
6 Inglis Street, 10m North of Spar Road	0940	155	6	Northwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
7 50m East of Midland building	1000	155	13	North	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 Spar Road, 100m West of Inglis Street	1000	155	7	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
9 Spar Road, 100m West of Inglis Street	1045	155	7	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
10 50m East of Midland building	1100	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
11 Spar Road, 100m West of Inglis Street	1100	155	5	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
12 Spar Road, 100m West of Inglis Street	1140	155	6	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
13 50m East of Midland building	1200	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
14 Spar Road, 100m West of Inglis Street	1200	155	4	North	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 Spar Road, 100m West of Inglis Street	1215	155	4	North	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 50m East of Midland building	1300	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
17 Spar Road, 100m West of Inglis Street	1300	155	8	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
18 Spar Road, 100m West of Inglis Street	1335	155	5	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
19 50m East of Midland building	1400	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
20 Spar Road, 100m West of Inglis Street	1400	155	15	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
21 Spar Road, 100m West of Inglis Street	1420	155	8	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
22 50m East of Midland building	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 Spar Road, 100m West of Inglis Street	1500	155	6	North	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 Spar Road, 100m West of Inglis Street	1540	155	6	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
25 50m East of Midland building	1600	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
26 Spar Road, 100m West of Inglis Street	1600	155	4	North	Downwind	Two excavators operating	No observations seen to effect sampling integrity
27 Spar Road, 100m West of Inglis Street	1645	155	4	North	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, 10m North of Spar Road	0800 to 0859	8	990
Inglis Street, 10m North of Spar Road	0900 to 0959	14	990
Spar Road, 100m West of Inglis Street	1000 to 1059	21	990
Spar Road, 100m West of Inglis Street	1100 to 1159	27	990
Spar Road, 100m West of Inglis Street	1200 to 1259	31	990
Spar Road, 100m West of Inglis Street	1300 to 1359	38	990
Spar Road, 100m West of Inglis Street	1400 to 1459	50	990
Spar Road, 100m West of Inglis Street	1500 to 1559	55	990
Spar Road, 100m West of Inglis Street	1600 to 1659	59	990

VOC Monitoring

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