

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1269-10
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	17 th February, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0108

**SUBJECT: 17th February, 2009, 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 17th of February, 2009. Alison Giovannetti and Colin MacIsaac, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with flurries
- Temperature: approximately -2°C
- Wind Direction: Northwest/Northeast

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM's construction activities.*

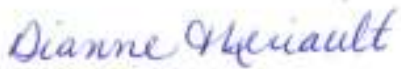
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Alison Giovannetti 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
17th February, 2009

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 250m North of Railway tracks and Ferry St. Intersection	0800	155	25	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m North of Spar Rd. and Inglis St. Intersection	0800	155	22	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m North of Spar Rd. and Inglis St. Intersection	0815	155	22	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 250m North of Railway tracks and Ferry St. Intersection	0900	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m North of Spar Rd. and Inglis St. Intersection	0900	155	1	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 30m North of Spar Rd. and Inglis St. Intersection	0925	155	1	Northwest	Downwind	Machines moving material	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
7 250m North of Railway tracks and Ferry St. Intersection	1000	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m North of Spar Rd. and Inglis St. Intersection	1000	155	1	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 30m North of Spar Rd. and Inglis St. Intersection	1045	155	3	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 250m North of Railway tracks and Ferry St. Intersection	1100	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m North of Spar Rd. and Inglis St. Intersection	1100	155	1	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 30m North of Spar Rd. and Inglis St. Intersection	1115	155	3	Northwest	Downwind	Machines moving material	Wind change NW to NE during sample
13 Inglis Street, 150m North of Spar Road	1200	155	1	Northeast	Upwind	Background	No observations seen to affect 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
14 100m West of Spar Rd. and Inglis St. Intersection	1200	155	2	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 100m West of Spar Rd. and Inglis St. Intersection	1245	155	2	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 Inglis Street, 150m North of Spar Road	1300	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
17 100m West of Spar Rd. and Inglis St. Intersection	1300	155	2	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 100m West of Spar Rd. and Inglis St. Intersection	1345	155	1	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 Inglis Street, 150m North of Spar Road	1400	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
20 100m West of Spar Rd. and Inglis St. Intersection	1400	155	3	Northeast	Downwind	Machines moving material	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
21 100m West of Spar Rd. and Inglis St. Intersection	1440	155	3	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 Inglis Street, 150m North of Spar Road	1500	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
23 100m West of Spar Rd. and Inglis St. Intersection	1500	155	2	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 100m West of Spar Rd. and Inglis St. Intersection	1540	155	3	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 Inglis Street, 150m North of Spar Road	1600	155	9	Northeast	Upwind	Background	Re-zeroed dust track in the field due to zero results
26 100m West of Spar Rd. and Inglis St. Intersection	1600	155	5	Northeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 100m West of Spar Rd. and Inglis St. Intersection	1645	155	4	Northeast	Downwind	No activity observed on site	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 ($\mu\text{g}/\text{m}^3$)
30m North of Spar Rd. and Inglis St. Intersection	0800 to 0859	22	990
30m North of Spar Rd. and Inglis St. Intersection	0900 to 0959	23	990
30m North of Spar Rd. and Inglis St. Intersection	1000 to 1059	25	990
30m North of Spar Rd. and Inglis St. Intersection	1100 to 1159	27	990
100m West of Spar Rd. and Inglis St. Intersection	1200 to 1259	29	990
100m West of Spar Rd. and Inglis St. Intersection	1300 to 1359	31	990
100m West of Spar Rd. and Inglis St. Intersection	1400 to 1459	34	990
100m West of Spar Rd. and Inglis St. Intersection	1500 to 1559	37	990
100m West of Spar Rd. and Inglis St. Intersection	1600 to 1659	42	990

VOC Monitoring

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