

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1291-13
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	21 st April, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0147

**SUBJECT: 20th April, 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 20th of April, 2009. Nigel MacLean and Alison Giovannetti, 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 6°C
- Wind Direction: West to North

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
20th April, 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 75m North of Ferry St. and Railway Rd. intersection	0800	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
2 5m North of Spar Rd. Ext. and Inglis St. intersection	0800	155	36	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 5m North of Spar Rd. Ext. and Inglis St. intersection	0820	155	27	West	Downwind	Excavator digging	No observations seen to affect sampling integrity
4 350m North of Inglis St. and Spar Rd. intersection	0900	155	16	North	Upwind	Background	No observations seen to affect sampling integrity
5 20m West of Inglis St. and Terminal Rd. intersection	0900	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
6 20m West of Inglis St. and Terminal Rd. intersection	0930	155	10	North	Downwind	Activity not visible from sampling location	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
7 350m North of Inglis St. and Spar Rd. intersection	1000	155	9	North	Upwind	Background	No observations seen to affect sampling integrity
8 20m West of Inglis St. and Terminal Rd. intersection	1000	155	7	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
9 20m West of Inglis St. and Terminal Rd. intersection	1040	155	13	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
10 350m North of Inglis St. and Spar Rd. intersection	1100	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
11 20m West of Inglis St. and Terminal Rd. intersection	1100	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
12 20m West of Inglis St. and Terminal Rd. intersection	1115	155	7	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
13 350m North of Inglis St. and Spar Rd. intersection	1200	155	10	North	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 20m West of Inglis St. and Terminal Rd. intersection	1200	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
15 20m West of Inglis St. and Terminal Rd. intersection	1230	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
16 350m North of Inglis St. and Spar Rd. intersection	1300	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
17 20m West of Inglis St. and Terminal Rd. intersection	1300	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
18 20m West of Inglis St. and Terminal Rd. intersection	1320	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
19 350m North of Inglis St. and Spar Rd. intersection	1400	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
20 20m West of Inglis St. and Terminal Rd. intersection	1400	155	9	North	Downwind	Activity not visible from sampling location	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 20m West of Inglis St. and Terminal Rd. intersection	1445	155	7	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
22 350m North of Inglis St. and Spar Rd. intersection	1500	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
23 20m West of Inglis St. and Terminal Rd. intersection	1500	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
24 20m West of Inglis St. and Terminal Rd. intersection	1535	155	9	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
25 350m North of Inglis St. and Spar Rd. intersection	1600	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
26 20m West of Inglis St. and Terminal Rd. intersection	1600	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
27 20m West of Inglis St. and Terminal Rd. intersection	1645	155	8	North	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 ($\mu\text{g}/\text{m}^3$)
5m North of Spar Rd. Ext. and Inglis St. intersection	0800 to 0859	32	990
20m West of Inglis St. and Terminal Rd. intersection	0900 to 0959	41	990
20m West of Inglis St. and Terminal Rd. intersection	1000 to 1059	51	990
20m West of Inglis St. and Terminal Rd. intersection	1100 to 1159	59	990
20m West of Inglis St. and Terminal Rd. intersection	1200 to 1259	67	990
20m West of Inglis St. and Terminal Rd. intersection	1300 to 1359	75	990
20m West of Inglis St. and Terminal Rd. intersection	1400 to 1459	83	990
20m West of Inglis St. and Terminal Rd. intersection	1500 to 1559	92	990
20m West of Inglis St. and Terminal Rd. intersection	1600 to 1659	100	990

VOC Monitoring

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