

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1269-06
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	11 th February, 2009	STPA NO.	TP2-0104

**SUBJECT: 10th 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 10th of February, 2009. Tyler Rowe 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:

- Sunny with cloudy periods
- Temperature: approximately -10°C
- Wind Direction: Northwest

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
10th 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 400m North of Ferry St and Railway Intersection	0800	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street, 20m North of Spar Rd.	0800	155	6	Northwest	Downwind	Boom truck operating	No observations seen to affect sampling integrity
3 Inglis Street, 20m North of Spar Rd.	0825	155	4	Northwest	Downwind	Boom truck operating, bobcat operating	No observations seen to affect sampling integrity
4 400m North of Ferry St and Railway Intersection	0900	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 20m North of Spar Rd.	0900	155	4	Northwest	Downwind	Boom truck operating, bobcat operating	No observations seen to affect sampling integrity
6 Inglis Street, 20m North of Spar Rd.	0920	155	5	Northwest	Downwind	Boom truck operating, bobcat operating	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 400m North of Ferry St and Railway Intersection	1000	155	-2	Northwest	Upwind	Background	Re-zeroed Dustrak due to negative sample
8 Inglis Street, 20m North of Spar Rd.	1000	155	3	Northwest	Downwind	Boom truck operating	No observations seen to affect sampling integrity
9 Inglis Street, 20m North of Spar Rd.	1035	155	3	Northwest	Downwind	Boom truck operating	No observations seen to affect sampling integrity
10 400m North of Ferry St and Railway Intersection	1100	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis Street, 20m North of Spar Rd.	1100	155	4	Northwest	Downwind	Boom truck operating	No observations seen to affect sampling integrity
12 Inglis Street, 20m North of Spar Rd.	1130	155	3	Northwest	Downwind	Boom truck operating	No observations seen to affect sampling integrity
13 400m North of Ferry St and Railway Intersection	1200	155	4	Northwest	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
14 Inglis Street, 20m North of Spar Rd.	1200	155	5	Northwest	Downwind	No activity visible on site	No observations seen to affect sampling integrity
15 Inglis Street, 20m North of Spar Rd.	1215	155	4	Northwest	Downwind	No activity visible on site	No observations seen to affect sampling integrity
16 400m North of Ferry St and Railway Intersection	1300	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis Street, 20m North of Spar Rd.	1300	155	4	Northwest	Downwind	Personnel working by hand	No observations seen to affect sampling integrity
18 Inglis Street, 20m North of Spar Rd.	1340	155	2	Northwest	Downwind	Personnel working by hand	No observations seen to affect sampling integrity
19 400m North of Ferry St and Railway Intersection	1400	155	4	Northwest	Upwind	Background	High winds
20 Inglis Street, 20m North of Spar Rd.	1400	155	3	Northwest	Downwind	Personnel working by hand	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 Inglis Street, 20m North of Spar Rd.	1420	155	2	Northwest	Downwind	Personnel working by hand	No observations seen to affect sampling integrity
22 400m North of Ferry St and Railway Intersection	1500	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 Inglis Street, 20m North of Spar Rd.	1500	155	2	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 Inglis Street, 20m North of Spar Rd.	1515	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
25 400m North of Ferry St and Railway Intersection	1600	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 Inglis Street, 20m North of Spar Rd.	1600	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
27 Inglis Street, 20m North of Spar Rd.	1645	155	2	Northwest	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 ($\mu\text{g}/\text{m}^3$)
Inglis Street, 20m North of Spar Rd.	0800 to 0859	5	990
Inglis Street, 20m North of Spar Rd.	0900 to 0959	10	990
Inglis Street, 20m North of Spar Rd.	1000 to 1059	13	990
Inglis Street, 20m North of Spar Rd.	1100 to 1159	17	990
Inglis Street, 20m North of Spar Rd.	1200 to 1259	22	990
Inglis Street, 20m North of Spar Rd.	1300 to 1359	25	990
Inglis Street, 20m North of Spar Rd.	1400 to 1459	28	990
Inglis Street, 20m North of Spar Rd.	1500 to 1559	31	990
Inglis Street, 20m North of Spar Rd.	1600 to 1659	34	990

VOC Monitoring

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