

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1225-05
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0049

**SUBJECT: 7th November, 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 7th of November, 2008. Reg Peters 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 periods of fog
- Temperature: approximately 15°C
- Wind Direction: West to 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. A sustained odour was detected at approximately 1200. Two Gastec Detector Tube samples for benzene were taken at the downwind position at 1230 and 1245 and determined that benzene was not present.*

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 Colin MacIsaac 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
7th November, 2008

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 30m North of Ferry Street, Walker Street intersection	0800	155	18	West	Upwind	Background	No observations seen to affect sampling integrity
2 30m Northwest of Inglis Street, Spar Road intersection	0800	155	22	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 30m Northwest of Inglis Street, Spar Road intersection	0845	155	21	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
4 30m North of Ferry Street, Walker Street intersection	0900	155	21	West	Upwind	Background	No observations seen to affect sampling integrity
5 30m Northwest of Inglis Street, Spar Road intersection	0900	155	24	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
6 30m Northwest of Inglis Street, Spar Road intersection	0945	155	19	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
7 30m North of Ferry Street, Walker Street intersection	1000	155	17	West	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 Northwest of Inglis Street, Spar Road intersection	1000	155	17	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 30m Northwest of Inglis Street, Spar Road intersection	1030	155	21	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
10 30m North of Ferry Street, Walker Street intersection	1100	155	20	West	Upwind	Background	No observations seen to affect sampling integrity
11 30m Northwest of Inglis Street, Spar Road intersection	1100	155	23	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
12 30m Northwest of Inglis Street, Spar Road intersection	1145	155	34	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
13 30m North of Ferry Street, Walker Street intersection	1200	155	32	West	Upwind	Background	No observations seen to affect sampling integrity
14 30m Northwest of Inglis Street, Spar Road intersection	1200	155	40	West	Downwind	No activity observed on site	Sustained Odour
15 30m Northwest of Inglis Street, Spar Road intersection	1245	155	36	West	Downwind	Workers using hand tools	Sustained Odour

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 30m Northeast of North Pond Gate	1300	155	39	North	Upwind	Background	No observations seen to affect sampling integrity
17 60m West of Inglis Street, Spar Road intersection	1300	155	43	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
18 60m West of Inglis Street, Spar Road intersection	1315	155	22	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
19 30m Northeast of North Pond Gate	1400	155	30	North	Upwind	Background	No observations seen to affect sampling integrity
20 60m West of Inglis Street, Spar Road intersection	1400	155	39	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
21 60m West of Inglis Street, Spar Road intersection	1440	155	20	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
22 30m Northeast of North Pond Gate	1500	155	21	North	Upwind	Background	No observations seen to affect sampling integrity
23 60m West of Inglis Street, Spar Road intersection	1500	155	19	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 60m West of Inglis Street, Spar Road intersection	1545	155	22	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
25 30m Northeast of North Pond Gate	1600	155	35	North	Upwind	Background	No observations seen to effect sampling integrity
26 60m West of Inglis Street, Spar Road intersection	1600	155	28	North	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
27 60m West of Inglis Street, Spar Road intersection	1645	155	30	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 ($\mu\text{g}/\text{m}^3$)
30m Northwest of Inglis Street, Spar Road intersection	0800 to 0859	22	990
30m Northwest of Inglis Street, Spar Road intersection	0900 to 0959	44	990
30m Northwest of Inglis Street, Spar Road intersection	1000 to 1059	63	990
30m Northwest of Inglis Street, Spar Road intersection	1100 to 1159	92	990
30m Northwest of Inglis Street, Spar Road intersection	1200 to 1259	130	990
60m West of Inglis Street, Spar Road intersection	1300 to 1359	163	990
60m West of Inglis Street, Spar Road intersection	1400 to 1459	193	990
60m West of Inglis Street, Spar Road intersection	1500 to 1559	214	990
60m West of Inglis Street, Spar Road intersection	1600 to 1659	243	990

VOC Monitoring

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