

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1291-09
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	15 th April, 2009	STPA NO.	TP2-0143

**SUBJECT: 14th 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 14th of April, 2009. Shaun Dove 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 sunny periods, flurries
- Temperature: approximately 1°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as weather conditions were within instrument specifications. 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 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
14th 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 50m East of Midway building on Railway Property	0900	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
2 120m Northwest of Inglis Street, Spar Road intersection	0900	155	3	West	Downwind	Worker Activity	No observations seen to affect sampling integrity
3 120m Northwest of Inglis Street, Spar Road intersection	0920	155	5	West	Downwind	Worker Activity	No observations seen to affect sampling integrity
4 50m East of Midway building on Railway Property	1000	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
5 120m Northwest of Inglis Street, Spar Road intersection	1000	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 120m Northwest of Inglis Street, Spar Road intersection	1015	155	5	West	Downwind	Worker Activity	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 50m East of Midway building on Railway Property	1100	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
8 120m Northwest of Inglis Street, Spar Road intersection	1100	155	4	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
9 120m Northwest of Inglis Street, Spar Road intersection	1120	155	6	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 50m East of Midway building on Railway Property	1200	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
11 120m Northwest of Inglis Street, Spar Road intersection	1200	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 120m Northwest of Inglis Street, Spar Road intersection	1240	155	8	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 50m East of Midway building on Railway Property	1300	155	4	West	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 120m Northwest of Inglis Street, Spar Road intersection	1300	155	8	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
15 120m Northwest of Inglis Street, Spar Road intersection	1320	155	7	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
16 50m East of Midway building on Railway Property	1400	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
17 120m Northwest of Inglis Street, Spar Road intersection	1400	155	9	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
18 120m Northwest of Inglis Street, Spar Road intersection	1445	155	11	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
19 50m East of Midway building on Railway Property	1500	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
20 120m Northwest of Inglis Street, Spar Road intersection	1500	155	10	West	Downwind	Excavator 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 120m Northwest of Inglis Street, Spar Road intersection	1525	155	14	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
22 50m East of Midway building on Railway Property	1600	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
23 120m Northwest of Inglis Street, Spar Road intersection	1600	155	23	West	Downwind	Worker Activity	No observations seen to affect sampling integrity
24 120m Northwest of Inglis Street, Spar Road intersection	1645	155	20	West	Downwind	Worker Activity	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 ($\mu\text{g}/\text{m}^3$)
120m Northwest of Inglis Street, Spar Road intersection	0800 to 0859	33 (Background)	990
120m Northwest of Inglis Street, Spar Road intersection	0900 to 0959	37	990
120m Northwest of Inglis Street, Spar Road intersection	1000 to 1059	42	990
120m Northwest of Inglis Street, Spar Road intersection	1100 to 1159	46	990
120m Northwest of Inglis Street, Spar Road intersection	1200 to 1259	52	990
120m Northwest of Inglis Street, Spar Road intersection	1300 to 1359	60	990
120m Northwest of Inglis Street, Spar Road intersection	1400 to 1459	70	990
120m Northwest of Inglis Street, Spar Road intersection	1500 to 1559	82	990
120m Northwest of Inglis Street, Spar Road intersection	1600 to 1659	104	990

VOC Monitoring

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