

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
TEL (902) 539-3012
FAX (902) 539-3381
DATE 18th December, 2008

FILE NO. S-1243-12
SHIFT: 0730 to 1530
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH

STPA NO. TP2-0074

**SUBJECT: 17th December, 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 17th of December, 2008. 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:

- Cloudy with flurries
- Temperature: approximately 0°C
- Wind Direction: Northeast

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity, but was later put on standby at 1330 hours. Air monitoring was cancelled for the day at 1530 hours due to ongoing precipitation. 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:

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
17th December, 2008

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
1 500m N of Spar & Inglis intersection	0800	155	15	Northeast	Upwind	Background	No observations seen to affect sampling integrity
2 Spar Rd., 40m E of Ferry St. bridge	0800	155	31	Northeast	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 Spar Rd., 40m E of Ferry St. bridge	0830	155	25	Northeast	Downwind	Boom truck operating	No observations seen to effect sampling integrity
4 500m N of Spar & Inglis intersection	0900	155	16	Northeast	Upwind	Background	No observations seen to affect sampling integrity
5 Spar Rd., 40m E of Ferry St. bridge	0900	155	15	Northeast	Downwind	Boom truck operating	No observations seen to effect sampling integrity
6 Spar Rd., 40m E of Ferry St. bridge	0945	155	15	Northeast	Downwind	Boom truck operating	No observations seen to effect sampling integrity
7 500m N of Spar & Inglis intersection	1000	155	32	Northeast	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 Spar Rd., 40m E of Ferry St. bridge	1000	155	15	Northeast	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 Spar Rd., 40m E of Ferry St. bridge	1015	155	22	Northeast	Downwind	No activity observed on site	No observations seen to effect sampling integrity
10 500m N of Spar & Inglis intersection	1100	155	5	Northeast	Upwind	Background	No observations seen to affect sampling integrity
11 Spar Rd., 40m E of Ferry St. bridge	1100	155	12	Northeast	Downwind	Boom truck & excavator operating	No observations seen to effect sampling integrity
12 Spar Rd., 40m E of Ferry St. bridge	1140	155	13	Northeast	Downwind	Boom truck operating	No observations seen to effect sampling integrity
13 500m N of Spar & Inglis intersection	1200	155	4	Northeast	Upwind	Background	No observations seen to affect sampling integrity
14 Spar Rd., 40m E of Ferry St. bridge	1200	155	19	Northeast	Downwind	Boom truck operating	No observations seen to affect sampling integrity
15 Spar Rd., 40m E of Ferry St. bridge	1220	155	13	Northeast	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
16 500m N of Spar & Inglis intersection	1300	155	3	Northeast	Upwind	Background	No observations seen to affect sampling integrity
17 Spar Rd., 40m E of Ferry St. bridge	1300	155	9	Northeast	Downwind	Boom truck operating	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 ($\mu\text{g}/\text{m}^3$)
Spar Rd., 40m E of Ferry St. Bridge	0800 to 0859	28	990
Spar Rd., 40m E of Ferry St. Bridge	0900 to 0959	43	990
Spar Rd., 40m E of Ferry St. Bridge	1000 to 1059	62	990
Spar Rd., 40m E of Ferry St. Bridge	1100 to 1159	75	990
Spar Rd., 40m E of Ferry St. Bridge	1200 to 1259	91	990
Spar Rd., 40m E of Ferry St. Bridge	1300 to 1359	100	990

VOC Monitoring

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