

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1330-09
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	12 th June, 2009	STPA NO.	CO2-PM-0073

**SUBJECT: 11th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency –Tar Cell, Pug Mill
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 11th of June, 2009. Jeff King and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately 11°C
- Wind Direction: Southeast

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity. Air monitoring was performed during SLR'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 Dwayne Timmons 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 –Tar Cell, Pug Mill
 11th June, 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 500m Southeast of old incinerator (N46°09.341' W060°11.410')	0700	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0700	155	11	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0740	155	-	Southeast	Downwind	Pug mill, dump trucks operating	Battery failure, sample was not recorded
4 500m Southeast of old incinerator (N46°09.341' W060°11.410')	0800	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0800	155	11	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
6 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0845	155	7	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity

Sydney Tar Ponds Agency - Ambient Air Monitoring Program
 Real-time Air Monitoring Daily Report

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 500m Southeast of old incinerator (N46°09.341' W060°11.410')	0900	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0900	155	9	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
9 100m Northwest of rail yard building (N46°08.964' W060°11.839')	0925	155	10	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
10 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1000	155	15	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1000	155	9	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
12 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1015	155	7	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
13 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1100	155	12	Southeast	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 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1100	155	9	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
15 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1130	155	11	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
16 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1200	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1200	155	7	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
18 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1245	155	8	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
19 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1300	155	13	Southeast	Upwind	Background	No observations seen to affect sampling integrity
20 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1300	155	8	Southeast	Downwind	Pug mill, dump trucks operating	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 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1330	155	7	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
22 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1400	155	12	Southeast	Upwind	Background	No observations seen to affect sampling integrity
23 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1400	155	10	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
24 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1420	155	8	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
25 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1500	155	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
26 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1500	155	8	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
27 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1545	155	8	Southeast	Downwind	Pug mill, dump trucks operating	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
28 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1600	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
29 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1600	155	8	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
30 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1620	155	9	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
31 500m Southeast of old incinerator (N46°09.341' W060°11.410')	1700	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
32 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1700	155	10	Southeast	Downwind	Pug mill, dump trucks operating	No observations seen to affect sampling integrity
33 100m Northwest of rail yard building (N46°08.964' W060°11.839')	1745	155	8	Southeast	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 ($\mu\text{g}/\text{m}^3$)
100m Northwest of rail yard building	0700 to 0759	11	990
100m Northwest of rail yard building	0800 to 0859	20	990
100m Northwest of rail yard building	0900 to 0959	30	990
100m Northwest of rail yard building	1000 to 1059	38	990
100m Northwest of rail yard building	1100 to 1159	48	990
100m Northwest of rail yard building	1200 to 1259	56	990
100m Northwest of rail yard building	1300 to 1359	64	990
100m Northwest of rail yard building	1400 to 1459	73	990
100m Northwest of rail yard building	1500 to 1559	81	990
100m Northwest of rail yard building	1600 to 1659	90	990
100m Northwest of rail yard building	1700 to 1759	99	990

VOC Monitoring

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