

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1329-01
FROM	Dianne Theriault	SHIFT:	0900 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	2 nd June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0168

**SUBJECT: 1st June, 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 1st of June, 2009. Tyler Rowe, Dave Reeves and Jeff King of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Rain, mainly sunny
- Temperature: approximately 16°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 0900 hours due to precipitation, and began at 1100 hours when 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 Jeff King 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
1st 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 20m Southwest of Walker St. and Ferry St. intersection	1100	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1100	155	11	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
3 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1115	155	14	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
4 20m Southwest of Walker St. and Ferry St. intersection	1200	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1200	155	14	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
6 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1235	155	22	Southwest	Downwind	Excavator operating, workers pouring concrete	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 20m Southwest of Walker St. and Ferry St. intersection	1300	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1300	155	17	Southeast	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
9 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1330	155	16	Southeast	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
10 20m Southwest of Walker St. and Ferry St. intersection	1400	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1400	155	11	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
12 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1445	155	11	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
13 20m Southwest of Walker St. and Ferry St. intersection	1500	155	7	Southwest	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 Northeast of TP2 (N 46°08.974') (W060°11.303)	1500	155	13	Southwest	Downwind	Excavator operating, workers pouring concrete	No observations seen to affect sampling integrity
15 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1525	155	15	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
16 20m Southwest of Walker St. and Ferry St. intersection	1600	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1600	155	12	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
18 100m Northeast of TP2 (N 46°08.974') (W060°11.303)	1645	155	11	Southwest	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 Northeast of TP2	1100 to 1159	13	990
100m Northeast of TP2	1200 to 1259	31	990
100m Northeast of TP2	1300 to 1359	48	990
100m Northeast of TP2	1400 to 1459	59	990
100m Northeast of TP2	1500 to 1559	73	990
100m Northeast of TP2	1600 to 1659	85	990

VOC Monitoring

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