

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 7th July, 2009

FILE NO. S-1351-02
SHIFT: 0730 to 1730
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP2-0187

**SUBJECT: 6th July, 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 6th of July, 2009. Shaun Dove 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:
- Mainly sunny
- Temperature: approximately 16°C
- Wind Direction: West to Northwest

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. 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 180 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
6th July, 2009

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 150m North of Ferry St. and Railway Rd. intersection (N 46° 08.773' W 060° 11.561')	0800	180	4	West	Upwind	Background	No observations seen to affect sampling integrity
2 20m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.874' W 060° 11.222')	0800	180	4	West	Downwind	Worker activity	No observations seen to affect sampling integrity
3 20m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.874' W 060° 11.222')	0820	180	4	West	Downwind	Dozer and excavator moving material	No observations seen to affect sampling integrity
4 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	0900	180	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	0900	180	3	Northwest	Downwind	Dozer and boom truck 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
6 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	0915	180	4	Northwest	Downwind	Dozer and boom truck operating	No observations seen to affect sampling integrity
7 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1000	180	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1000	180	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1025	180	4	Northwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1100	180	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1100	180	2	Northwest	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
12 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1130	180	2	Northwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1200	180	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1200	180	2	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1225	180	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1300	180	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1300	180	3	Northwest	Downwind	Excavator moving material, boom truck 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
18 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1325	180	7	Northwest	Downwind	Excavator moving material, boom truck operating	No observations seen to affect sampling integrity
19 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1400	180	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1400	180	18	Northwest	Downwind	Excavator moving material, boom truck operating	No observations seen to affect sampling integrity
21 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1420	180	11	Northwest	Downwind	Excavator moving material, boom truck operating	No observations seen to affect sampling integrity
22 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1500	180	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1500	180	10	Northwest	Downwind	No activity observed on site	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
24 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1535	180	9	Northwest	Downwind	Excavator moving material, roller operating	No observations seen to affect sampling integrity
25 300m North of Ferry St. and Railway Rd. intersection (N 46° 08.883' W 060° 11.665')	1600	180	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1600	180	6	Northwest	Downwind	Roller operating	No observations seen to affect sampling integrity
27 40m Southwest of Inglis St. and Ferry St. intersection (N 46° 08.856' W 060° 11.202')	1640	180	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM₁₀ Action Levels

Average PM ₁₀ Concentration (µg/m ³)	Averaging Period (Hours)	Downwind Action Level (µg/m ³)
4	1	125
4	4	85
6	8	70

VOC Monitoring

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