

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-19
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	19 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-SP-0057

**SUBJECT: 15th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, South Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 15th of May, 2009. Donald MacIsaac and Jennifer Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, showers
- Temperature: approximately 13°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity, but was later put on standby at 0830 hours due to precipitation. Air monitoring resumed at 1000 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 Donald 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Access Roads, South Pond
15th May, 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 5m West of Ferry Street, Inglis Street intersection	0700	155	12	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 60m South of Intercolonial St. fixed monitoring station	0705	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 5m West of Ferry Street, Inglis Street intersection	0725	155	15	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
4 60m South of Intercolonial St. fixed monitoring station	0800	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 5m West of Ferry Street, Inglis Street intersection	0800	155	14	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
6 5m West of Ferry Street, Inglis Street intersection	0815	155	16	Southwest	Downwind	Excavator moving material	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 60m South of Intercolonial St. fixed monitoring station	1000	155	25	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 5m West of Ferry Street, Inglis Street intersection	1000	155	13	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
9 5m West of Ferry Street, Inglis Street intersection	1030	155	15	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 20m South of old train station	1100	155	24	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 60m South of Ferry Street, Inglis Street intersection	1100	155	27	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
12 60m South of Ferry Street, Inglis Street intersection	1115	155	18	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 20m South of old train station	1200	155	22	Southwest	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 60m South of Ferry Street, Inglis Street intersection	1200	155	16	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 60m South of Ferry Street, Inglis Street intersection	1240	155	15	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 20m South of old train station	1300	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 60m South of Ferry Street, Inglis Street intersection	1300	155	17	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
18 60m South of Ferry Street, Inglis Street intersection	1325	155	34	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
19 20m South of old train station	1400	155	21	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 60m South of Ferry Street, Inglis Street intersection	1400	155	16	Southwest	Downwind	Excavator moving material	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
21 60m South of Ferry Street, Inglis Street intersection	1420	155	17	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
22 20m South of old train station	1500	155	20	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 60m South of Ferry Street, Inglis Street intersection	1500	155	18	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
24 60m South of Ferry Street, Inglis Street intersection	1545	155	14	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
25 20m South of old train station	1600	155	19	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 60m South of Ferry Street, Inglis Street intersection	1600	155	15	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
27 60m South of Ferry Street, Inglis Street intersection	1615	155	17	Southwest	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
28 20m South of old train station	1700	155	19	Southwest	Upwind	Background	No observations seen to affect sampling integrity
29 60m South of Ferry Street, Inglis Street intersection	1700	155	15	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
30 60m South of Ferry Street, Inglis Street intersection	1745	155	14	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 ($\mu\text{g}/\text{m}^3$)
5m West of Ferry Street, Inglis Street intersection	0700 to 0759	14	990
5m West of Ferry Street, Inglis Street intersection	0800 to 0859	29	990
5m West of Ferry Street, Inglis Street intersection	0900 to 0959	62	990
5m West of Ferry Street, Inglis Street intersection	1000 to 1059	76	990
60m South of Ferry Street, Inglis Street intersection	1100 to 1159	99	990
60m South of Ferry Street, Inglis Street intersection	1200 to 1259	115	990
60m South of Ferry Street, Inglis Street intersection	1300 to 1359	142	990
60m South of Ferry Street, Inglis Street intersection	1400 to 1459	159	990
60m South of Ferry Street, Inglis Street intersection	1500 to 1559	175	990
60m South of Ferry Street, Inglis Street intersection	1600 to 1659	191	990
60m South of Ferry Street, Inglis Street intersection	1700 to 1759	206	990

VOC Monitoring

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