

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1293-09
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14 th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-NSL-0012

**SUBJECT: 13th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT (Revised)**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 13th of April, 2009. Tyler Rowe and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with sunny periods, showers
- Temperature: approximately 4°C
- Wind Direction: Southwest

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.*

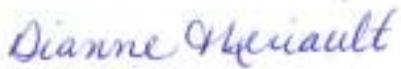
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Tyler Rowe 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 – Tar Cell, Sysco Site
13th April, 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 60m Northeast of railway office	0700	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m North of North end of Inglis Street	0700	155	7	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 100m North of North end of Inglis Street	0730	155	3	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
4 60m Northeast of railway office	0800	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m North of North end of Inglis Street	0800	155	5	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
6 100m North of North end of Inglis Street	0840	155	5	Southwest	Downwind	Dump trucks operating	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 Northeast of railway office	0900	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 100m North of North end of Inglis Street	0900	155	5	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
9 100m North of North end of Inglis Street	0920	155	5	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
10 60m Northeast of railway office	1000	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m North of North end of Inglis Street	1000	155	4	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
12 100m North of North end of Inglis Street	1040	155	5	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
13 60m Northeast of railway office	1100	155	6	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 North of North end of Inglis Street	1100	155	5	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
15 100m North of North end of Inglis Street	1140	155	6	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
16 60m Northeast of railway office	1200	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 100m North of North end of Inglis Street	1200	155	8	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
18 100m North of North end of Inglis Street	1240	155	7	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
19 60m Northeast of railway office	1300	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 100m North of North end of Inglis Street	1300	155	6	Southwest	Downwind	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 North of North end of Inglis Street	1345	155	9	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
22 60m Northeast of railway office	1400	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 100m North of North end of Inglis Street	1400	155	9	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
24 100m North of North end of Inglis Street	1440	155	8	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
25 60m Northeast of railway office	1530	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 100m North of North end of Inglis Street	1540	155	12	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
27 60m Northeast of railway office	1600	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
28 100m North of North end of Inglis Street	1600	155	11	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
29 100m North of North end of Inglis Street	1645	155	10	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
30 60m Northeast of railway office	1700	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
31 100m North of North end of Inglis Street	1700	155	18	Southwest	Downwind	Dump trucks operating	No observations seen to affect sampling integrity
32 100m North of North end of Inglis Street	1745	155	10	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 North of North end of Inglis Street	0700 to 0759	5	990
100m North of North end of Inglis Street	0800 to 0859	10	990
100m North of North end of Inglis Street	0900 to 0959	15	990
100m North of North end of Inglis Street	1000 to 1059	20	990
100m North of North end of Inglis Street	1100 to 1159	25	990
100m North of North end of Inglis Street	1200 to 1259	33	990
100m North of North end of Inglis Street	1300 to 1359	40	990
100m North of North end of Inglis Street	1400 to 1459	49	990
100m North of North end of Inglis Street	1500 to 1559	61	990
100m North of North end of Inglis Street	1600 to 1659	71	990
100m North of North end of Inglis Street	1700 to 1759	85	990

VOC Monitoring

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