

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-30
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	28 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0068

**SUBJECT: 27th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Coke Ovens
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 27th of May, 2009. Jennifer Andrews 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 sunny
- Temperature: approximately 8°C
- Wind Direction: West to Northwest to North to East

Comments: *ALL-TECH was on-Site at 0630 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 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 Jennifer Andrews 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, Coke Ovens
27th 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 Southeast of Ferry St. and Spar Rd. intersection	0700	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
2 10m West of Coke Ovens Brook main gate	0700	155	9	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 10m West of Coke Ovens Brook main gate	0725	155	10	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 5m Southeast of Ferry St. and Spar Rd. intersection	0800	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
5 10m West of Coke Ovens Brook main gate	0800	155	9	West	Downwind	Backhoe and loader in operation	No observations seen to affect sampling integrity
6 10m West of Coke Ovens Brook main gate	0830	155	9	West	Downwind	Backhoe and loader in operation	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 1m South of fixed station on Curry's Lane	0900	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 400m Northeast of coke ovens security trailer	0900	155	7	Northwest	Downwind	Backhoe and loader in operation	No observations seen to affect sampling integrity
9 400m Northeast of coke ovens security trailer	0945	155	8	Northwest	Downwind	Backhoe and loader in operation	No observations seen to affect sampling integrity
10 1m South of fixed station on Curry's Lane	1000	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 400m Northeast of coke ovens security trailer	1000	155	8	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 400m Northeast of coke ovens security trailer	1015	155	13	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 1m South of fixed station on Curry's Lane	1100	155	4	Northwest	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 400m Northeast of coke ovens security trailer	1100	155	6	Northwest	Downwind	Backhoe and loader moving material	No observations seen to affect sampling integrity
15 400m Northeast of coke ovens security trailer	1135	155	6	Northwest	Downwind	Roller and dozer operating	No observations seen to affect sampling integrity
16 90m East of Lingan Rd. and Frederick St. intersection	1200	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
17 10m East of Cape Breton St. and Victoria Rd. intersection	1200	155	14	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 10m East of Cape Breton St. and Victoria Rd. intersection	1240	155	23	North	Downwind	Loader moving material	No observations seen to affect sampling integrity
19 90m East of Lingan Rd. and Frederick St. intersection	1300	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
20 10m East of Cape Breton St. and Victoria Rd. intersection	1300	155	7	North	Downwind	Backhoe 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 10m East of Cape Breton St. and Victoria Rd. intersection	1340	155	16	North	Downwind	Backhoe moving material	No observations seen to affect sampling integrity
22 90m East of Lingan Rd. and Frederick St. intersection	1400	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
23 10m East of Cape Breton St. and Victoria Rd. intersection	1400	155	8	North	Downwind	Backhoe moving material	No observations seen to affect sampling integrity
24 10m East of Cape Breton St. and Victoria Rd. intersection	1445	155	13	North	Downwind	Dozer and backhoe moving material	No observations seen to affect sampling integrity
25 90m East of Lingan Rd. and Frederick St. intersection	1500	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
26 10m East of Cape Breton St. and Victoria Rd. intersection	1500	155	10	North	Downwind	Dozer and backhoe moving material	No observations seen to affect sampling integrity
27 10m East of Cape Breton St. and Victoria Rd. intersection	1525	155	29	North	Downwind	Dozer and backhoe 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 10m West of Coke Ovens Brook main gate	1600	155	7	East	Upwind	Background	No observations seen to affect sampling integrity
29 100m North of Cape Breton St. and Victoria Rd. intersection	1600	155	7	East	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
30 100m North of Cape Breton St. and Victoria Rd. intersection	1620	155	9	East	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
31 10m West of Coke Ovens Brook main gate	1700	155	7	East	Upwind	Background	No observations seen to affect sampling integrity
32 100m North of Cape Breton St. and Victoria Rd. intersection	1700	155	7	East	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
33 100m North of Cape Breton St. and Victoria Rd. intersection	1740	155	7	East	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 ($\mu\text{g}/\text{m}^3$)
10m West of coke ovens brook main gate	0700 to 0759	10	990
10m West of coke ovens brook main gate	0800 to 0859	19	990
400m Northeast of coke ovens security trailer	0900 to 0959	27	990
400m Northeast of coke ovens security trailer	1000 to 1059	38	990
400m Northeast of coke ovens security trailer	1100 to 1159	44	990
10m East of Cape Breton St. and Victoria Rd. intersection	1200 to 1259	63	990
10m East of Cape Breton St. and Victoria Rd. intersection	1300 to 1359	75	990
10m East of Cape Breton St. and Victoria Rd. intersection	1400 to 1459	86	990
10m East of Cape Breton St. and Victoria Rd. intersection	1500 to 1559	106	990
100m North of Cape Breton St. and Victoria Rd. intersection	1600 to 1659	114	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
100m North of Cape Breton St. and Victoria Rd. intersection	1700 to 1759	121	990

VOC Monitoring

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