

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1292-23
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	30 th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0033

**SUBJECT: 29th April, 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 29th of April, 2009. Jennifer Andrews and Keith Neville 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 3°C
- Wind Direction: Northwest

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 Keith Neville 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
29th April, 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 Frederick St., 25m East of Lingan Rd.	0700	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 10m Northwest of coke ovens security trailer	0700	155	16	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
3 10m Northwest of coke ovens security trailer	0740	155	13	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
4 Frederick St., 25m East of Lingan Rd.	0800	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 10m Northwest of coke ovens security trailer	0800	155	14	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
6 10m Northwest of coke ovens security trailer	0815	155	13	Northwest	Downwind	Trucks 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
7 Frederick St., 25m East of Lingan Rd.	0900	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 10m Northwest of coke ovens security trailer	0900	155	10	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
9 10m Northwest of coke ovens security trailer	0935	155	16	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
10 Frederick St., 25m East of Lingan Rd.	1000	155	13	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 10m Northwest of coke ovens security trailer	1000	155	16	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 10m Northwest of coke ovens security trailer	1040	155	12	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
13 Frederick St., 25m East of Lingan Rd.	1100	155	8	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 10m Northwest of coke ovens security trailer	1100	155	11	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
15 10m Northwest of coke ovens security trailer	1130	155	13	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
16 Frederick St., 25m East of Lingan Rd.	1200	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 10m Northwest of coke ovens security trailer	1200	155	15	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 10m Northwest of coke ovens security trailer	1215	155	17	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 Frederick St., 25m East of Lingan Rd.	1300	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 10m Northwest of coke ovens security trailer	1300	155	13	Northwest	Downwind	Trucks 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
21 10m Northwest of coke ovens security trailer	1325	155	14	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
22 Frederick St., 25m East of Lingan Rd.	1400	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 10m Northwest of coke ovens security trailer	1400	155	19	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
24 Frederick St., 25m East of Lingan Rd.	1500	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
25 10m Northwest of coke ovens security trailer	1500	155	15	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
26 10m Northwest of coke ovens security trailer	1515	155	26	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
27 Frederick St., 25m East of Lingan Rd.	1600	155	10	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
28 10m Northwest of coke ovens security trailer	1600	155	12	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
29 10m Northwest of coke ovens security trailer	1615	155	11	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
30 Frederick St., 25m East of Lingan Rd.	1700	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
31 10m Northwest of coke ovens security trailer	1700	155	11	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
32 10m Northwest of coke ovens security trailer	1745	155	13	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.

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 Northwest of coke ovens security trailer	0700 to 0759	15	990
10m Northwest of coke ovens security trailer	0800 to 0859	29	990
10m Northwest of coke ovens security trailer	0900 to 0959	42	990
10m Northwest of coke ovens security trailer	1000 to 1059	56	990
10m Northwest of coke ovens security trailer	1100 to 1159	68	990
10m Northwest of coke ovens security trailer	1200 to 1259	84	990
10m Northwest of coke ovens security trailer	1300 to 1359	98	990
10m Northwest of coke ovens security trailer	1400 to 1459	117	990
10m Northwest of coke ovens security trailer	1500 to 1559	138	990
10m Northwest of coke ovens security trailer	1600 to 1659	150	990
10m Northwest of coke ovens security trailer	1700 to 1759	162	990

VOC Monitoring

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