

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1292-26
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	1 st May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0036

**SUBJECT: 30th 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 30th 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 8°C
- Wind Direction: Southwest to West to 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
30th 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 Cape Breton St., 5m East of Victoria Rd. bridge	0700	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 25m East of TP6D (CO) main entrance	0700	155	12	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 25m East of TP6D (CO) main entrance	0745	155	37	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
4 Curry's Lane 100m East of Lingan Rd.	0800	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
5 4m Southwest of coke ovens brook main entrance	0800	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
6 4m Southwest of coke ovens brook main entrance	0820	155	10	West	Downwind	Activity not visible from sample location	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 Curry's Lane 100m East of Lingan Rd.	0900	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
8 4m Southwest of coke ovens brook main entrance	0900	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
9 4m Southwest of coke ovens brook main entrance	0915	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
10 Curry's Lane 100m East of Lingan Rd.	1000	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
11 4m Southwest of coke ovens brook main entrance	1000	155	9	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
12 4m Southwest of coke ovens brook main entrance	1030	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
13 Curry's Lane 100m East of Lingan Rd.	1100	155	11	West	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 4m Southwest of coke ovens brook main entrance	1100	155	12	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
15 4m Southwest of coke ovens brook main entrance	1145	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
16 Frederick St., 25m East of Lingan Rd.	1200	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 10m Northwest of coke ovens security trailer	1200	155	9	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
18 10m Northwest of coke ovens security trailer	1235	155	9	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
19 Frederick St., 25m East of Lingan Rd.	1300	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 10m Northwest of coke ovens security trailer	1300	155	12	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	1315	155	8	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
22 Frederick St., 25m East of Lingan Rd.	1400	155	13	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 10m Northwest of coke ovens security trailer	1400	155	12	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
24 10m Northwest of coke ovens security trailer	1425	155	16	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
25 Frederick St., 25m East of Lingan Rd.	1500	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 10m Northwest of coke ovens security trailer	1500	155	18	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
27 10m Northwest of coke ovens security trailer	1545	155	11	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
28 Frederick St., 25m East of Lingan Rd.	1600	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 10m Northwest of coke ovens security trailer	1600	155	12	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
30 10m Northwest of coke ovens security trailer	1630	155	9	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
31 Frederick St., 25m East of Lingan Rd.	1700	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 10m Northwest of coke ovens security trailer	1700	155	15	Northwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
33 10m Northwest of coke ovens security trailer	1745	155	10	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 ($\mu\text{g}/\text{m}^3$)
25m East of TP6D (CO) main entrance	0700 to 0759	25	990
4m Southwest of coke ovens brook main entrance	0800 to 0859	36	990
4m Southwest of coke ovens brook main entrance	0900 to 0959	46	990
4m Southwest of coke ovens brook main entrance	1000 to 1059	56	990
4m Southwest of coke ovens brook main entrance	1100 to 1159	67	990
10m Northeast of coke ovens security trailer	1200 to 1259	76	990
10m Northeast of coke ovens security trailer	1300 to 1359	86	990
10m Northeast of coke ovens security trailer	1400 to 1459	100	990
10m Northeast of coke ovens security trailer	1500 to 1559	115	990
10m Northeast of coke ovens security trailer	1600 to 1659	126	990
10m Northeast of coke ovens security trailer	1700 to 1759	139	990

VOC Monitoring

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