

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1293-04
FROM	Dianne Theriault	SHIFT:	0800 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	7 th April, 2009	STPA NO.	CO2-0007

**SUBJECT: 6th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency –Tar Cell
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 6th of April, 2009. Shaun Dove 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:

- Mainly cloudy
- Temperature: approximately 5°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0800 hours and sampling began as soon as weather conditions were within instrument specifications. 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 Shaun Dove 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
6th 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 75m West of Victoria Road Bridge, 10m South of Spar Road	1015	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
2 30m North of the Coke Ovens Main Gate	1015	155	11	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m North of the Coke Ovens Main Gate	1040	155	12	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
4 75m West of Victoria Road Bridge, 10m South of Spar Road	1100	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
5 30m North of the Coke Ovens Main Gate	1100	155	10	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
6 30m North of the Coke Ovens Main Gate	1120	155	9	West	Downwind	Excavater Loading Trucks	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 75m West of Victoria Road Bridge, 10m South of Spar Road	1200	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
8 30m North of the Coke Ovens Main Gate	1200	155	10	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
9 30m North of the Coke Ovens Main Gate	1215	155	11	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
10 75m West of Victoria Road Bridge, 10m South of Spar Road	1300	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
11 30m North of the Coke Ovens Main Gate	1300	155	9	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 30m North of the Coke Ovens Main Gate	1345	155	5	West	Downwind	Excavater Loading Trucks	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
13 75m West of Victoria Road Bridge, 10m South of Spar Road	1400	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
14 30m North of the Coke Ovens Main Gate	1400	155	5	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
15 30m North of the Coke Ovens Main Gate	1430	155	5	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
16 75m West of Victoria Road Bridge, 10m South of Spar Road	1500	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
17 30m North of the Coke Ovens Main Gate	1500	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 30m North of the Coke Ovens Main Gate	1545	155	4	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
19 75m West of Victoria Road Bridge, 10m South of Spar Road	1600	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
20 30m North of the Coke Ovens Main Gate	1600	155	5	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
21 30m North of the Coke Ovens Main Gate	1620	155	5	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
22 75m West of Victoria Road Bridge, 10m South of Spar Road	1700	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
23 30m North of the Coke Ovens Main Gate	1700	155	5	West	Downwind	Excavater Loading Trucks	No observations seen to affect sampling integrity
24 30m North of the Coke Ovens Main Gate	1745	155	4	West	Downwind	Excavater Loading Trucks	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 ($\mu\text{g}/\text{m}^3$)
30m North of the Coke Ovens Main Gate	1000 to 1159	12	990
30m North of the Coke Ovens Main Gate	1100 to 1159	22	990
30m North of the Coke Ovens Main Gate	1200 to 1259	33	990
30m North of the Coke Ovens Main Gate	1300 to 1359	40	990
30m North of the Coke Ovens Main Gate	1400 to 1459	45	990
30m North of the Coke Ovens Main Gate	1500 to 1559	50	990
30m North of the Coke Ovens Main Gate	1600 to 1659	55	990
30m North of the Coke Ovens Main Gate	1700 to 1759	59	990

VOC Monitoring

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