

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Peter Ibrahim
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DATE 9th June, 2008

FILE NO. S-1151-03
SHIFT: 0730 to 1700
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. CO6II-0003

**SUBJECT: 6th June 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Infrastructure Investigation
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 6th of June, 2008. Tyler Rowe, Darren Lawless and Peter Ibrahim 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 18°C
- Wind Direction: Northeast / East

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech'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 Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

ORIGINAL SIGNED

Peter Ibrahim,
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 – Coke Ovens Infrastructure Investigation
6th June, 2008

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 Northwest corner of Coke Ovens security complex	0845	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 150m North of Nova Towing	0913	155	4	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
3 150m North of Nova Towing	0931	155	5	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
4 Northwest corner of Coke Ovens security complex	1000	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 170m Northwest of Nova Towing	1005	155	5	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 200m Northwest of Nova Towing	1035	155	4	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
7 Northwest corner of Coke Ovens security complex	1100	155	5	Northeast	Upwind	Background	No observations seen to effect 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
8 100m Northeast Salvation Army	1105	155	5	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 Backyard of 182 Victoria Road	1138	155	4	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
10 20m East of Coke Ovens security trailer	1200	155	4	East	Upwind	Background	No observations seen to effect sampling integrity
11 Backyard of 182 Victoria Road	1200	155	3	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 Backyard of 182 Victoria Road	1247	155	3	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
13 Northwest corner of Coke Ovens security complex	1300	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 Backyard of 182 Victoria Road	1300	155	4	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
15 Backyard of 182 Victoria Road	1319	155	3	Northeast	Downwind	Excavator operating	No observations seen to effect 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
16 Northwest corner of Coke Ovens security complex	1400	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 Backyard of 182 Victoria Road	1405	155	3	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 Backyard of 182 Victoria Road	1428	155	2	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
19 Northwest corner of Coke Ovens security complex	1500	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 Backyard of 182 Victoria Road	1500	155	1	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 Backyard of 182 Victoria Road	1520	155	3	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
22 Northwest corner of Coke Ovens security complex	1608	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 Backyard of 182 Victoria Road	1605	155	1	Northeast	Downwind	Excavator operating	No observations seen to effect 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
24 Backyard of 182 Victoria Road	1620	155	7	Northeast	Downwind	Excavator operating	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
150m North of Nova Towing	0900 to 0959	4	990
170m / 200m Northwest of Nova Towing	1000 to 1059	9	990
100m Northeast of Salvation Army / Backyard of 182 Victoria Road	1100 to 1159	14	990
Backyard of 182 Victoria Road	1200 to 1259	17	990
Backyard of 182 Victoria Road	1300 to 1359	21	990
Backyard of 182 Victoria Road	1400 to 1459	24	990
Backyard of 182 Victoria Road	1500 to 1559	26	990
Backyard of 182 Victoria Road	1600 to 1659	30	990

VOC Monitoring

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