

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Peter Ibrahim
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DATE 17th June, 2008

FILE NO. S-1151-09
SHIFT: 0730 to 1700
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. CO6II-0009

**SUBJECT: 16th 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 16^h of June, 2008. Colin MacIsaac, Ryan Butts 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:

- Overcast giving way to sunny periods
- Temperature: approximately 15°C
- Wind Direction: North to Northwest

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 Ryan Butts and reviewed by Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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
16th June, 2008

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 20M South of Spar road, 20m West of overpass	0820	155	21	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 30m South of Coke Ovens Site security trailer	0831	155	17	Northwest	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
3 20m South of Spar Road, 20m West of overpass	0900	155	16	Northwest	Upwind	Background	No observations seen to effect sampling integrity
4 30m South of Coke Ovens Site security trailer	0900	155	12	West	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
5 30m South of Coke Ovens Site security trailer	0938	155	20	West	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
6 10m West of Victoria Road fixed Station	1000	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
7 150m East of Lingan Road and Spar Road intersection	1000	155	16	West	Downwind	Excavator Moving soil	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 150m East of Lingan Road and Spar Road intersection	1027	155	13	West	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
9 50m East of Fredrick Street, Lingan Road intersection	1100	155	3	North	Upwind	Background	No observations seen to effect sampling integrity
10 170m East of Salvation Army store	1100	155	10	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
11 170m East of Salvation Army store	1117	155	6	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
12 50m East of Fredrick Street, Lingan Road intersection	1200	155	4	North	Upwind	Background	No observations seen to effect sampling integrity
13 170m East of Salvation Army store	1200	155	8	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
14 170m East of Salvation Army store	1243	155	8	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
15 50m East of Fredrick Street, Lingan Road intersection	1300	155	12	North	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
16 170m East of Salvation Army store	1300	155	8	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
17 170m East of Salvation Army store	1345	155	9	North	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
18 50m East of Fredrick Street, Lingan Road intersection	1400	155	13	North	Upwind	Background	No observations seen to effect sampling integrity
19 170m East of Salvation Army store	1400	155	8	Northwest	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
20 30m South of Coke Ovens Site security trailer	1437	155	6	Northwest	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
21 50m East of Fredrick Street, Lingan Road intersection	1500	155	19	Northwest	Upwind	Background	No observations seen to effect sampling integrity
22 30m South of Coke Ovens Site security trailer	1500	155	8	Northwest	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
23 30m South of Coke Ovens Site security trailer	1523	155	7	Northwest	Downwind	Excavator Moving soil	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 50m East of Fredrick Street, Lingan Road intersection	1600	155	8	Northwest	Upwind	Background	No observations seen to effect sampling integrity
25 30m South of Coke Ovens Site security trailer	1600	155	8	Northwest	Downwind	Excavator Moving soil	No observations seen to effect sampling integrity
26 30m South of Coke Ovens Site security trailer	1615	155	14	Northwest	Downwind	Excavator Moving soil	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
30m South of Coke Ovens Site security trailer	0800 to 0859	16	990
30m South of Coke Ovens Site security trailer	0900 to 0959	31	990
150m East of Lingan Road and Spar Road intersection	1000 to 1059	39	990
170m East of Salvation Army store	1100 to 1159	47	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
170m East of Salvation Army store	1200 to 1259	55	990
170m East of Salvation Army store	1300 to 1359	64	990
170m East of Salvation Army store	1400 to 1459	71	990
30m South of Coke Ovens Site security trailer	1500 to 1559	79	990
30m South of Coke Ovens Site security trailer	1600 to 1659	90	990

VOC Monitoring

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