

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1244-03
FROM	Dianne Theriault	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	6 th December, 2008	STPA NO.	COCW-0018

**SUBJECT: 4th December, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 4th of December, 2008. Reg Peters and Alison Giovannetti 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 6°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0630 and sampling began at 0700. Air monitoring was performed during EarthTech's construction activities.*

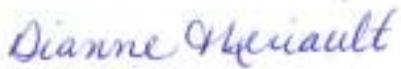
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Alison Giovannetti 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 – Coke Ovens Vertical Cutoff Walls
4th December, 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 300m S of Spar and Spar Rd. Ext. Intersection	0700	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m SW of Lingan and Spar Rd. Intersection	0700	155	15	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 120m SW of Lingan and Spar Rd. Intersection	0725	155	15	Southwest	Downwind	Moving machinery	No observations seen to effect sampling integrity
4 300m S of Spar and Spar Rd. Ext. Intersection	0800	155	21	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m SW of Lingan and Spar Rd. Intersection	0800	155	26	Southwest	Downwind	Moving machinery	No observations seen to effect sampling integrity
6 120m SW of Lingan and Spar Rd. Intersection	0815	155	126	Southwest	Downwind	Moving machinery	Dust created by workers opening bags of material
7 300m S of Spar and Spar Rd. Ext. Intersection	0840	155	19	Southwest	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
8 120m SW of Lingan and Spar Rd. Intersection	0840	155	22	Southwest	Downwind	Excavating and workers opening bags of material	No observations seen to effect sampling integrity
9 300m S of Spar and Spar Rd. Ext. Intersection	0900	155	23	Southwest	Upwind	Background	No observations seen to effect sampling integrity
10 120m SW of Lingan and Spar Rd. Intersection	0900	155	65	Southwest	Downwind	Excavating and workers opening bags of material	Dust from material loading
11 120m SW of Lingan and Spar Rd. Intersection	0920	155	44	Southwest	Downwind	Excavating and workers opening bags of material	No observations seen to affect sampling integrity
12 300m S of Spar and Spar Rd. Ext. Intersection	1000	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
13 120m SW of Lingan and Spar Rd. Intersection	1000	155	22	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
14 120m SW of Lingan and Spar Rd. Intersection	1015	155	15	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 300m S of Spar and Spar Rd. Ext. Intersection	1100	155	11	Southwest	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
16 120m SW of Lingan and Spar Rd. Intersection	1100	155	19	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
17 120m SW of Lingan and Spar Rd. Intersection	1145	155	14	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
18 300m S of Spar and Spar Rd. Ext. Intersection	1200	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
19 120m SW of Lingan and Spar Rd. Intersection	1200	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
20 120m SW of Lingan and Spar Rd. Intersection	1220	155	13	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
21 300m S of Spar and Spar Rd. Ext. Intersection	1300	155	14	Southwest	Upwind	Background	No observations seen to effect sampling integrity
22 120m SW of Lingan and Spar Rd. Intersection	1300	155	18	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
23 120m SW of Lingan and Spar Rd. Intersection	1340	155	21	Southwest	Downwind	Machines moving material	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 300m S of Spar and Spar Rd. Ext. Intersection	1400	155	17	Southwest	Upwind	Background	No observations seen to effect sampling integrity
25 120m SW of Lingan and Spar Rd. Intersection	1400	155	61	Southwest	Downwind	Loading mixer	Dust from material loading
26 120m SW of Lingan and Spar Rd. Intersection	1440	155	97	Southwest	Downwind	Loading mixer	Dust from material loading
27 300m S of Spar and Spar Rd. Ext. Intersection	1500	155	22	Southwest	Upwind	Background	No observations seen to effect sampling integrity
28 120m SW of Lingan and Spar Rd. Intersection	1500	155	87	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
29 120m SW of Lingan and Spar Rd. Intersection	1520	155	29	Southwest	Downwind	Loading mixer	No observations seen to effect sampling integrity
30 300m S of Spar and Spar Rd. Ext. Intersection	1600	155	30	Southwest	Upwind	Background	No observations seen to effect sampling integrity
31 120m SW of Lingan and Spar Rd. Intersection	1600	155	26	Southwest	Downwind	Machines 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
32 120m SW of Lingan and Spar Rd. Intersection	1645	155	32	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
33 300m S of Spar and Spar Rd. Ext. Intersection	1700	155	36	Southwest	Upwind	Background	No observations seen to effect sampling integrity
34 120m SW of Lingan and Spar Rd. Intersection	1700	155	31	Southwest	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 ($\mu\text{g}/\text{m}^3$)
120m SW of Lingan and Spar Rd. Intersection	0700 to 0759	15	990
120m SW of Lingan and Spar Rd. Intersection	0800 to 0859	73	990
120m SW of Lingan and Spar Rd. Intersection	0900 to 0959	128	990
120m SW of Lingan and Spar Rd. Intersection	100 to 1059	147	990
120m SW of Lingan and Spar Rd. Intersection	1100 to 1159	164	990
120m SW of Lingan and Spar Rd. Intersection	1200 to 1259	177	990
120m SW of Lingan and Spar Rd. Intersection	1300 to 1359	197	990
120m SW of Lingan and Spar Rd. Intersection	1400 to 1459	276	990
120m SW of Lingan and Spar Rd. Intersection	1500 to 1559	334	990
120m SW of Lingan and Spar Rd. Intersection	1600 to 1659	363	990
120m SW of Lingan and Spar Rd. Intersection	1700 to 1759	394	990

VOC Monitoring

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