

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1100-25
FROM	Grant Harrigan	SHIFT:	0630 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	31 st March, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0110

**SUBJECT: 29th March, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 29th of March, 2008. Tyler Rowe and Reggie Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Early morning snow, cloudy with sunny breaks
- Temperature: -3°C
- Wind Direction: Northeast

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

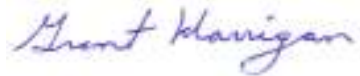
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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), TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Tyler Rowe and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 – Cooling Pond
29th March, 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 120m North of STPA office	0715	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
2 100m NE of Acadian Lines terminal	0715	155	8	North	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
3 30m NW of Terminal Road. and Inglis Street intersection	0745	155	9	North	Downwind	Payloaders moving material	No observations seen to effect sampling integrity
4 120m North of STPA office	0800	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
5 30m NW of Terminal Road. and Inglis Street intersection	0800	155	9	North	Downwind	Payloaders moving material	No observations seen to effect sampling integrity
6 30m NW of Terminal Road. and Inglis Street intersection	0830	155	10	North	Downwind	Excavators and payloader moving material	No observations seen to effect sampling integrity
7 120m North of STPA office	0900	155	7	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
8 30m NW of Terminal Road. and Inglis Street intersection	0900	155	10	North	Downwind	Excavators and payloaders moving material	No observations seen to effect sampling integrity
9 30m NW of Terminal Road. and Inglis Street intersection	0930	155	10	North	Downwind	Excavators and payloaders moving material	No observations seen to effect sampling integrity
10 120m North of STPA office	1000	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
11 30m NW of Terminal Road. and Inglis Street intersection	1000	155	10	North	Downwind	Excavators and payloaders moving material	No observations seen to effect sampling integrity
12 30m NW of Terminal Road. and Inglis Street intersection	1025	155	9	North	Downwind	Excavators and payloaders moving material	No observations seen to effect sampling integrity
13 120m North of STPA office	1100	155	4	North	Upwind	Background	No observations seen to effect sampling integrity
14 40m NW of Terminal Road. and Inglis Street intersection	1100	155	6	North	Downwind	Excavators and payloaders 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
15 40m NW of Terminal Road. and Inglis Street intersection	1145	155	7	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
16 50m NE of Cooling Pond security gate	1200	155	3	North	Upwind	Background	No observations seen to effect sampling integrity
17 40m NW of Terminal Road. and Inglis Street intersection	1200	155	5	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 40m NW of Terminal Road. and Inglis Street intersection	1245	155	12	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
19 50m NE of Cooling Pond security gate	1300	155	6	North	Upwind	Background	No observations seen to effect sampling integrity
20 40m NW of Terminal Road. and Inglis Street intersection	1305	155	8	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
21 40m NW of Terminal Road. and Inglis Street intersection	1320	155	10	North	Downwind	Excavators and payloaders 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
22 50m NE of Cooling Pond security gate	1400	155	7	North	Upwind	Background	No observations seen to effect sampling integrity
23 40m NW of Terminal Road. and Inglis Street intersection	1400	155	8	North	Downwind	Excavators and payloader moving material	No observations seen to effect sampling integrity
24 40m NW of Terminal Road. and Inglis Street intersection	1440	155	9	North	Downwind	Excavators and payloader moving material	No observations seen to effect sampling integrity
25 50m NE of Cooling Pond security gate	1500	155	7	North	Upwind	Background	No observations seen to effect sampling integrity
26 40m NW of Terminal Road. and Inglis Street intersection	1500	155	10	North	Downwind	Excavators and payloader moving material	No observations seen to effect sampling integrity
27 40m NW of Terminal Road. and Inglis Street intersection	1520	155	7	North	Downwind	Excavators and payloader moving material	No observations seen to effect sampling integrity
28 50m NE of Cooling Pond security gate	1600	155	5	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
29 40m NW of Terminal Road. and Inglis Street intersection	1600	155	5	North	Downwind	Excavators and payloaders moving material	No observations seen to effect sampling integrity
30 40m NW of Terminal Road. and Inglis Street intersection	1630	155	6	North	Downwind	Excavators and payloaders moving material	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 ($\mu\text{g}/\text{m}^3$)
100m NE of Acadian Lines terminal / 30m NW of Inglis Street and Terminal Road intersection	0700 to 0759	9	990
30m NW of Inglis Street and Terminal Road intersection	0800 to 0859	19	990
30m NW of Inglis Street and Terminal Road intersection	0900 to 0959	30	990
30m NW of Inglis Street and Terminal Road intersection	1000 to 1059	40	990
40m NW of Inglis Street and Terminal Road intersection	1100 to 1159	47	990
40m NW of Inglis Street and Terminal Road intersection	1200 to 1259	56	990
40m NW of Inglis Street and Terminal Road intersection	1300 to 1359	65	990
40m NW of Inglis Street and Terminal Road intersection	1400 to 1459	74	990
40m NW of Inglis Street and Terminal Road intersection	1500 to 1559	83	990
40m NW of Inglis Street and Terminal Road intersection	1600 to 1659	89	990

VOC Monitoring

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