

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1114-09
FROM	Grant Harrigan	SHIFT:	1200 to 2015
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th April, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0120

**SUBJECT: 9th April, 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 9th of April, 2008. Colin MacIsaac 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:

- Overcast
- Temperature: approximately 6°C (data unavailable from Environment Canada)
- Wind Direction: North to Northwest

Comments: *ALL-TECH began sampling at 1200 when the humidity level met operational criteria. Air monitoring was performed during EarthTech's construction activities. Due to high humidity, ALL-TECH remained on stand-by until 1945, at which time sampling activities were concluded for the day.*

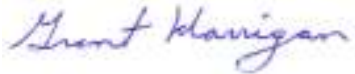
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Colin MacIsaac 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
9th April, 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 50m Southeast of Inglis Street, Spar Road intersection	1230	155	19	North	Upwind	Background	No observations seen to effect sampling integrity
2 20m Northwest of Inglis Street, Terminal Road intersection	1248	155	17	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 30m Northeast of Cooling Pond main gate	1300	155	19	North	Upwind	Background	No observations seen to effect sampling integrity
4 20m Northwest of Inglis Street, Terminal Road intersection	1304	155	14	North	Downwind	Excavators moving material	No observations seen to effect sampling integrity
5 90m North of Inglis Street, Terminal Road intersection	1345	155	20	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 40m East of Ferry Street bridge	1400	155	16	Northwest	Upwind	Background	No observations seen to effect sampling integrity
7 10m Northeast of Inglis Street, Terminal Road intersection	1400	155	94	Northwest	Downwind	Excavators moving material	Visible dust coming from site

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 10m Northeast of Inglis Street, Terminal Road intersection	1420	155	79	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
9 40m East of Ferry Street bridge	1500	155	23	Northwest	Upwind	Background	No observations seen to effect sampling integrity
10 10m Northeast of Inglis Street, Terminal Road intersection	1500	155	31	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
11 10m Northeast of Inglis Street, Terminal Road intersection	1540	155	29	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 40m East of Ferry Street bridge	1600	155	19	Northwest	Upwind	Background	No observations seen to effect sampling integrity
13 10m Northeast of Inglis Street, Terminal Road intersection	1600	155	46	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
14 10m Northeast of Inglis Street, Terminal Road intersection	1620	155	75	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
15 40m East of Ferry Street bridge	1700	155	21	Northwest	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 10m Northeast of Inglis Street, Terminal Road intersection	1700	155	57	Northwest	Downwind	Excavators moving material	Visible dust coming from activity site
17 10m Northeast of Inglis Street, Terminal Road intersection	1720	155	23	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 40m East of Ferry Street bridge	1800	155	25	Northwest	Upwind	Background	No observations seen to effect sampling integrity
19 10m Northeast of Inglis Street, Terminal Road intersection	1800	155	20	Northwest	Downwind	Washing equipment	No observations seen to effect sampling integrity
20 10m Northeast of Inglis Street, Terminal Road intersection	1815	155	26	Northwest	Downwind	Washing equipment	No observations seen to effect sampling integrity
21 40m East of Ferry Street bridge	1900	155	24	Northwest	Upwind	Background	No observations seen to effect sampling integrity
22 10m Northeast of Inglis Street, Terminal Road intersection	1900	155	26	Northwest	Downwind	Washing equipment	No observations seen to effect sampling integrity
23 10m Northeast of Inglis Street, Terminal Road intersection	1930	155	23	Northwest	Downwind	Washing equipment	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 ($\mu\text{g}/\text{m}^3$)
20m Northwest of Inglis Street and Terminal Road intersection	1200 to 1259	17	990
20m Northwest of Inglis Street and Terminal Road intersection	1300 to 1359	34	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1400 to 1459	121	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1500 to 1559	151	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1600 to 1659	212	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1700 to 1759	252	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1800 to 1859	276	990
10m Northeast of Inglis Street and Cape Breton Street intersection	1900 to 1959	301	990

VOC Monitoring

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