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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1114-06
FROM	Grant Harrigan	**SHIFT:**	1300 to 2015
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	7th April, 2008		Terry Smith, ALL-TECH
		STPA NO.	**CP-0117**

SUBJECT: 4th April, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 4th of April, 2008. Colin MacIsaac and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities on the asphalt pad North of the Cooling Pond.

Weather conditions on the day of sampling:
- Overcast
- Temperature: approximately 5°C (data unavailable from Environment Canada)
- Wind Direction: Northwest

Comments: *ALL-TECH began sampling at 1300. Air monitoring was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM_{10} were below the established Site Action Level for this parameter of 155 µg/m^3.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were well 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 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 PM_{10} Concentration Results
Sydney Tar Ponds Agency – Cooling Pond
4th April, 2008

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 50m East of Ferry Street bridge	1300	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 20m West of former weigh station east of Inglis Street	1330	155	32	Northwest	Downwind	Truck being sprayed	No observations seen to effect sampling integrity
3 20m West of former weigh station east of Inglis Street	1345	155	26	Northwest	Downwind	Payloader being sprayed	No observations seen to effect sampling integrity
4 50m East of Ferry Street bridge	1400	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 20m West of former weigh station east of Inglis Street	1400	155	60	Northwest	Downwind	Truck being sprayed	Dust coming from Inglis Street
6 20m West of former weigh station east of Inglis Street	1440	155	24	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
7 50m East of Ferry Street bridge	1500	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
8 50m East of Ferry Street bridge	1500	155	32	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
9 50m East of Ferry Street bridge	1525	155	31	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
10 20m East of Ferry Street bridge	1600	155	12	West	Upwind	Background	No observations seen to effect sampling integrity
11 40m East of Cooling Pond Gate	1600	155	23	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
12 40m East of Cooling Pond Gate	1615	155	22	West	Downwind	Bobcat cleaning pad	No observations seen to effect sampling integrity
13 20m East of Ferry Street bridge	1700	155	11	West	Upwind	Background	No observations seen to effect sampling integrity
14 50m East of Cooling Pond Gate	1700	155	25	West	Downwind	Bobcat cleaning pad	No observations seen to effect sampling integrity
15 50m East of Cooling Pond Gate	1720	155	18	West	Downwind	Bobcat cleaning pad	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
16 35m Southeast of Ferry Street, Walker Street intersection	1800	155	13	West	Upwind	Background	No observations seen to effect sampling integrity
17 40m East of Cooling Pond Gate	1800	155	28	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
18 40m East of Cooling Pond Gate	1825	155	15	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
19 35m Southeast of Ferry Street, Walker Street intersection	1900	155	19	West	Upwind	Background	No observations seen to effect sampling integrity
20 40m East of Cooling Pond Gate	1900	155	25	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
21 40m East of Cooling Pond Gate	1930	155	26	West	Downwind	No activity observed on-Site	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 ($\mu g/m^3$)	Dust Budget Exceedance Value ($\mu g/m^3$)
20m West of former Train Weigh Station	1300 to 1359	29	990
20m West of former Train Weigh Station	1400 to 1459	71	990
20m West of former Train Weigh Station	1500 to 1559	103	990
20m West of former Train Weigh Station	1600 to 1659	126	990
40m East of Cooling Pond Gate	1700 to 1759	148	990
50m East of Cooling Pond Gate	1800 to 1859	170	990
40m East of Cooling Pond Gate	1900 to 1959	196	990

VOC Monitoring

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