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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1353-05
FROM	Dianne Theriault	**SHIFT:**	0700 to 1830
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8th July, 2009		Terry Smith, ALL-TECH
		STPA NO.	**TP6D-SP-0112**

SUBJECT: 7th July, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, South Pond
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 7th of July, 2009. Donald MacIsaac and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:
- Mainly sunny
- Temperature: approximately 17°C
- Wind Direction: Northeast to North

Comments: *Air monitoring was delayed until 0700 hours due to precipitation, and began at 0900 hours when weather conditions were within instrument specifications. Air monitoring was performed during AECOM`s construction activities.*

All downwind and upwind measurements of PM_{10} were below the established Site Action Level for this parameter of 180 µg/m^3.

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 Donald MacIsaac 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 PM_{10} Concentration Results
Sydney Tar Ponds Agency – Access Roads, South Pond
7th July, 2009

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 80m Northeast of Plaza Ford (N 46°08.501' W 060°11.238')	0900	180	2	Northeast	Upwind	Background	No observations seen to affect sampling integrity
2 60m Southeast of old train station (N 46°08.400' W 060°11.341')	0900	180	8	Northeast	Downwind	Equipment moving material	No observations seen to affect sampling integrity
3 60m Southeast of old train station (N 46°08.400' W 060°11.341')	0925	180	1	Northeast	Downwind	Equipment moving material	No observations seen to affect sampling integrity
4 80m Northeast of Plaza Ford (N 46°08.501' W 060°11.238')	1000	180	2	Northeast	Upwind	Background	No observations seen to affect sampling integrity
5 60m Southeast of old train station (N 46°08.400' W 060°11.341')	1000	180	1	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 60m Southeast of old train station (N 46°08.400' W 060°11.341')	1040	180	3	Northeast	Downwind	Equipment moving material	No observations seen to affect 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
7 100m North of old train station (N 46°08.510' W 060°11.380')	1100	180	3	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
8 60m Southeast of South Pond security trailer (N 46°08.870' W 060°11.213')	1105	180	4	North	Upwind	Background	No observations seen to affect sampling integrity
9 100m North of old train station (N 46°08.510' W 060°11.380')	1140	180	4	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
10 40m East of South Pond security trailer (N 46°08.847' W 060°11.130')	1200	180	5	North	Upwind	Background	No observations seen to affect sampling integrity
11 100m North of old train station (N 46°08.510' W 060°11.380')	1200	180	3	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 100m North of old train station (N 46°08.510' W 060°11.380')	1245	180	3	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
13 40m East of South Pond security trailer (N 46°08.847' W 060°11.130')	1300	180	4	North	Upwind	Background	No observations seen to affect 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
14 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1300	180	3	North	Downwind	No Activity observed	No observations seen to affect sampling integrity
15 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1345	180	5	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
16 15m Southwest of Ferry St., Inglis St. intersection (N 46°08.870' W 060°11.213')	1400	180	5	North	Upwind	Background	No observations seen to affect sampling integrity
17 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1400	180	4	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
18 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1425	180	6	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
19 15m Southwest of Ferry St., Inglis St. intersection (N 46°08.870' W 060°11.213')	1500	180	5	North	Upwind	Background	No observations seen to affect 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
20 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1500	180	4	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
21 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1520	180	5	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 15m Southwest of Ferry St., Inglis St. intersection (N 46°08.870' W 060°11.213')	1600	180	7	North	Upwind	Background	No observations seen to affect sampling integrity
23 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1600	180	5	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
24 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1645	180	5	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
25 15m Southwest of Ferry St., Inglis St. intersection (N 46°08.870' W 060°11.213')	1700	180	7	North	Upwind	Background	No observations seen to affect 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
26 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1700	180	6	North	Downwind	Equipment moving material	No observations seen to affect sampling integrity
27 2m North of Intercolonial St. fixed station (N 46°08.569' W 060°11.403')	1740	180	5	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM_{10} Action Levels

Average PM_{10} Concentration ($\mu g/m^3$)	Averaging Period (Hours)	Downwind Action Level ($\mu g/m^3$)
5	1	125
4	4	85
5	8	70

VOC Monitoring

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