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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1312-25
FROM	Dianne Theriault	**SHIFT:**	0630 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	**CO2-NSL-0056**

SUBJECT: 22nd May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 22nd of May, 2009. Colin 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 23°C
- Wind Direction: Southwest to Northwest to Northeast to North

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

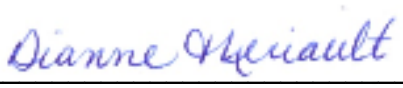
All downwind and upwind measurements of PM_{10} were below the established Site Action Level for this parameter of 155 µg/m^3.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were 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 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 – Tar Cell, Sysco Site
22nd May, 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 70m Southeast of railway maintenance building	0700	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m Northwest of new truck scale	0700	155	21	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m Northwest of new truck scale	0745	155	108	Southwest	Downwind	Machines in operation	Dust from road traffic
4 70m East of railway maintenance building	0800	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 10m Northwest of new truck scale	0800	155	61	Southwest	Downwind	Machines in operation	Dust from road traffic
6 70m East of Railway maintenance building	0815	155	18	Southwest	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
7 10m Northwest of new truck scale	0820	155	48	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
8 60m Northeast of railway maintenance building	0900	155	22	Northwest	Upwind	Background	No observations seen to affect sampling integrity
9 140m South of new truck scale	0900	155	48	Northwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
10 140m South of new truck scale	0945	155	35	Northwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
11 60m Northeast of railway maintenance building	1000	155	22	Northwest	Upwind	Background	No observations seen to affect sampling integrity
12 140m South of new truck scale	1000	155	44	Northwest	Downwind	No activity observed	No observations seen to affect sampling integrity
13 140m South of new truck scale	1025	155	41	Northwest	Downwind	Machines in operation	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 60m Northeast of Railway maintenance building	1100	155	27	Northwest	Upwind	Background	No observations seen to affect sampling integrity
15 140m South of new truck scale	1100	155	70	Northwest	Downwind	Machines in operation	Dust from road traffic
16 140m South of new truck scale	1145	155	24	Northwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
17 60m Northeast of Railway maintenance building	1200	155	19	Northwest	Upwind	Background	No observations seen to affect sampling integrity
18 140m South of new truck scale	1200	155	22	Northwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
19 140m South of new truck scale	1225	155	26	Northwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
20 100m North of new truck scale	1300	155	15	Northeast	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
21 120m East of railway maintenance building	1300	155	30	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 120m East of railway maintenance building	1315	155	27	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
23 100m North of new truck scale	1400	155	12	Northeast	Upwind	Background	No observations seen to affect sampling integrity
24 120m East of railway maintenance building	1400	155	28	Northeast	Downwind	Machines in operation	No observations seen to affect sampling integrity
25 120m East of railway maintenance building	1420	155	30	Northeast	Downwind	Machines in operation	No observations seen to affect sampling integrity
26 120m North of new truck scale	1500	155	15	North	Upwind	Background	No observations seen to affect sampling integrity
27 120m East of railway maintenance building	1500	155	14	North	Downwind	Machines in operation	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
28 120m East of railway maintenance building	1525	155	25	North	Downwind	Machines in operation	No observations seen to affect sampling integrity
29 120m North of new truck scale	1600	155	15	North	Upwind	Background	No observations seen to affect sampling integrity
30 140m East of railway maintenance building	1600	155	13	North	Downwind	Machines in operation	No observations seen to affect sampling integrity
31 140m East of railway maintenance building	1645	155	10	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.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu g/m^3$)	Dust Budget Exceedance Value ($\mu g/m^3$)
30m Northwest of new truck scale	0700 to 0759	65	990
10m Northwest of new truck scale	0800 to 0859	120	990
140m South of new truck scale	0900 to 0959	162	990
140m South of new truck scale	1000 to 1059	205	990
140m South of new truck scale	1100 to 1159	252	990
140m South of new truck scale	1200 to 1259	276	990
120m East of railway maintenance building	1300 to 1359	305	990
120m East of railway maintenance building	1400 to 1459	334	990
140m East of railway maintenance building	1500 to 1559	354	990
140m East of railway maintenance building	1600 to 1659	366	990

VOC Monitoring

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