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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1293-26
FROM	Dianne Theriault	**SHIFT:**	0630 to 1830
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	30th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	**CO2-NSL-0029**

SUBJECT: 29th April, 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 29th of April, 2009. Reg Peters and Sue Lanoe 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 3°C
- Wind Direction: Northwest

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 Sue Lanoe 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
29th April, 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 100m Northeast of railway building	0700	155	16	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m North of North Pond main gate	0700	155	14	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
3 120m North of North Pond main gate	0735	155	10	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
4 100m Northeast of railway building	0800	155	22	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m North of North Pond main gate	0800	155	14	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
6 120m North of North Pond main gate	0840	155	8	Northwest	Downwind	Trucks dumping 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 Northeast of railway building	0900	155	25	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m North of North Pond main gate	0900	155	5	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
9 120m North of North Pond main gate	0940	155	7	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
10 100m Northeast of railway building	1000	155	17	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 120m North of North Pond main gate	1000	155	10	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 120m North of North Pond main gate	1025	155	12	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
13 100m Northeast of railway building	1100	155	15	Northwest	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 120m North of North Pond main gate	1100	155	20	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
15 120m North of North Pond main gate	1130	155	18	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
16 100m Northeast of railway building	1200	155	19	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 120m North of North Pond main gate	1200	155	19	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
18 120m North of North Pond main gate	1240	155	17	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
19 100m Northeast of railway building	1300	155	17	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 120m North of North Pond main gate	1300	155	12	Northwest	Downwind	No activity observed on site	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 North of North Pond main gate	1325	155	17	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 100m Northeast of railway building	1400	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 120m North of North Pond main gate	1400	155	34	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
24 120m North of North Pond main gate	1415	155	22	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
25 100m Northeast of railway building	1500	155	22	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 120m North of North Pond main gate	1500	155	21	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
27 120m North of North Pond main gate	1530	155	13	Northwest	Downwind	Trucks dumping 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
28 100m Northeast of railway building	1600	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 120m North of North Pond main gate	1600	155	14	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
30 120m North of North Pond main gate	1615	155	14	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
31 100m Northeast of railway building	1700	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 120m North of North Pond main gate	1700	155	10	Northwest	Downwind	Trucks dumping material	No observations seen to affect sampling integrity
33 120m North of North Pond main gate	1745	155	9	Northwest	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 ($\mu g/m^3$)
120m North of North Pond main gate	0700 to 0759	12	990
120m North of North Pond main gate	0800 to 0859	23	990
120m North of North Pond main gate	0900 to 0959	29	990
120m North of North Pond main gate	1000 to 1059	40	990
120m North of North Pond main gate	1100 to 1159	59	990
120m North of North Pond main gate	1200 to 1259	77	990
120m North of North Pond main gate	1300 to 1359	92	990
120m North of North Pond main gate	1400 to 1459	120	990
120m North of North Pond main gate	1500 to 1559	137	990
120m North of North Pond main gate	1600 to 1659	151	990
120m North of North Pond main gate	1700 to 1759	161	990

VOC Monitoring

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