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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1207-19
FROM	Dianne Theriault	**SHIFT:**	0730 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	31st October, 2008		Terry Smith, ALL-TECH
		STPA NO.	**PS-0090**

SUBJECT: 30th October, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 30th of October, 2008. Reg Peters and Alison Giovannetti 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 10°C
- Wind Direction: Southwest to West

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. 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 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 Alison Giovannetti 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 – South Pond Pilot Study
30th October, 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 2m N of fixed station on Intercolonial St.	0800	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m SW of Inglis and Spar Intersection	0800	155	9	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
3 20m SW of Inglis and Spar Intersection	0830	155	6	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
4 2m N of fixed station on Intercolonial St.	0900	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m SW of Inglis and Spar Intersection	0900	155	6	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
6 20m SW of Inglis and Spar Intersection	0935	155	4	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 80m S of Ferry and Intercolonial Intersection	1000	155	5	West	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
8 50m SE of Inglis and Spar Intersection	1000	155	4	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 50m SE of Inglis and Spar Intersection	1035	155	5	West	Downwind	Crane operating	No observations seen to effect sampling integrity
10 80m S of Ferry and Intercolonial Intersection	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
11 50m SE of Inglis and Spar Intersection	1100	155	4	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 50m SE of Inglis and Spar Intersection	1130	155	6	West	Downwind	Crane operating	No observations seen to effect sampling integrity
13 80m S of Ferry and Intercolonial Intersection	1200	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
14 50m SE of Inglis and Spar Intersection	1200	155	5	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 50m SE of Inglis and Spar Intersection	1245	155	6	West	Downwind	Crane operating	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 80m S of Ferry and Intercolonial Intersection.	1300	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
17 50m SE of Inglis and Spar Intersection	1300	155	5	West	Downwind	Crane operating	No observations seen to effect sampling integrity
18 50m SE of Inglis and Spar Intersection	1340	155	4	West	Downwind	Crane operating	No observations seen to effect sampling integrity
19 80m S of Ferry and Intercolonial Intersection	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
20 50m SE of Inglis and Spar Intersection	1400	155	6	West	Downwind	Crane operating	No observations seen to effect sampling integrity
21 50m SE of Inglis and Spar Intersection	1445	155	7	West	Downwind	Crane operating	No observations seen to effect sampling integrity
22 80m S of Ferry and Intercolonial Intersection	1500	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
23 50m SE of Inglis and Spar Intersection	1500	155	8	West	Downwind	Crane operating	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
24 50m SE of Inglis and Spar Intersection	1520	155	7	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
25 80m S of Ferry and Intercolonial Intersection	1600	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
26 50m SE of Inglis and Spar Intersection	1600	155	6	West	Downwind	Crane operating	No observations seen to effect sampling integrity
27 50m SE of Inglis and Spar Intersection	1645	155	5	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 SW of Inglis and Spar Intersection	0800 to 0859	8	990
20m SW of Inglis and Spar Intersection	0900 to 0959	13	990
50m SE of Inglis and Spar Intersection	1000 to 1059	18	990
50m SE of Inglis and Spar Intersection	1100 to 1159	23	990
50m SE of Inglis and Spar Intersection	1200 to 1259	29	990
50m SE of Inglis and Spar Intersection	1300 to 1359	34	990
50m SE of Inglis and Spar Intersection	1400 to 1459	41	990
50m SE of Inglis and Spar Intersection	1500 to 1559	49	990
50m SE of Inglis and Spar Intersection	1600 to 1659	55	990

VOC Monitoring

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