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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1292-09
FROM	Dianne Theriault	**SHIFT:**	0630 to 1830
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	15th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	**TP6D-0019**

SUBJECT: 14th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 14th of April, 2009. Jennifer Andrews, Nigel MacLean and Kelly Morrison, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:
- Cloudy with sunny periods, flurries
- Temperature: approximately 1°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby between 0800 and 0900 hours due to precipitation. 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 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 Jennifer Andrews 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
14th 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 120M North of Ferry St and Railway Rd Intersection	0700	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
2 100M North of TP6D Entrance Gate	0700	155	4	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
3 100M North of TP6D Entrance Gate	0730	155	4	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
4 120M North of Ferry St and Railway Rd Intersection	0900	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
5 100M North of TP6D Entrance Gate	0900	155	3	West	Downwind	Dump trucks moving material	No observations seen to affect sampling integrity
6 100M North of TP6D Entrance Gate	0930	155	4	West	Downwind	Dump trucks 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 120M North of Ferry St and Railway Rd Intersection	1000	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
8 100M North of TP6D Entrance Gate	1000	155	3	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 100M North of TP6D Entrance Gate	1025	155	3	West	Downwind	Dump trucks moving material	No observations seen to affect sampling integrity
10 120M North of Ferry St and Railway Rd Intersection	1100	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
11 100M North of TP6D Entrance Gate	1100	155	6	West	Downwind	Dump trucks moving material	No observations seen to affect sampling integrity
12 100M North of TP6D Entrance Gate	1135	155	6	West	Downwind	Dump trucks moving material	No observations seen to affect sampling integrity
13 120M North of Ferry St and Railway Rd Intersection	1200	155	9	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
14 100M North of TP6D Entrance Gate	1200	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 100M North of TP6D Entrance Gate	1215	155	5	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 120M North of Ferry St and Railway Rd Intersection	1300	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
17 100M North of TP6D Entrance Gate	1300	155	8	West	Downwind	Dump trucks moving material	No observations seen to affect sampling integrity
18 100M North of TP6D Entrance Gate	1345	155	12	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
19 120M North of Ferry St and Railway Rd Intersection	1400	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
20 100M North of TP6D Entrance Gate	1400	155	9	West	Downwind	Activity not visible from monitoring location	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 100M North of TP6D Entrance Gate	1440	155	15	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
22 120M North of Ferry St and Railway Rd Intersection	1500	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
23 100M North of TP6D Entrance Gate	1500	155	6	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
24 100M North of TP6D Entrance Gate	1525	155	12	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
25 120M North of Ferry St and Railway Rd Intersection	1600	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
26 100M North of TP6D Entrance Gate	1600	155	13	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
27 100M North of TP6D Entrance Gate	1635	155	18	West	Downwind	Activity not visible from monitoring location	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 North of Ferry St and Railway Rd Intersection	1700	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
29 100M North of TP6D Entrance Gate	1700	155	9	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
30 100M North of TP6D Entrance Gate	1745	155	9	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu g/m^3$)	Dust Budget Exceedance Value ($\mu g/m^3$)
100M North of TP6D Entrance Gate	0700 to 0759	4	990
100M North of TP6D Entrance Gate	0800 to 0859	37 (Background)	990
100M North of TP6D Entrance Gate	0900 to 0959	41	990
100M North of TP6D Entrance Gate	1000 to 1059	44	990
100M North of TP6D Entrance Gate	1100 to 1159	50	990
100M North of TP6D Entrance Gate	1200 to 1259	55	990
100M North of TP6D Entrance Gate	1300 to 1359	65	990
100M North of TP6D Entrance Gate	1400 to 1459	77	990
100M North of TP6D Entrance Gate	1500 to 1559	86	990
100M North of TP6D Entrance Gate	1600 to 1659	102	990
100M North of TP6D Entrance Gate	1700 to 1759	111	990

VOC Monitoring

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