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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1257-02
FROM	Dianne Theriault	**SHIFT:**	0730 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	7th January, 2009		Terry Smith, ALL-TECH
		STPA NO.	**TP2-0080**

SUBJECT: 6th January, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 6th of January, 2009. Alison Giovannetti 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:
- Cloudy with flurries
- Temperature: approximately -10°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was put on standby between 1100 hours and 1200 hours due to periods of light flurries. 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 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 – Material Processing Facility
6th January, 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 North of Ferry St. and Railway tracks	0800	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
2 80m North of Inglis and Spar Rd. Intersection	0800	155	8	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 80m North of Inglis and Spar Rd. Intersection	0845	155	3	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 100m North of Ferry St. and Railway tracks	0900	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
5 80m North of Inglis and Spar Rd. Intersection	0900	155	6	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 80m North of Inglis and Spar Rd. Intersection	0915	155	5	West	Downwind	Machines 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 Ferry St. and Railway tracks	1000	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
8 80m North of Inglis and Spar Rd. Intersection	1000	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 80m North of Inglis and Spar Rd. Intersection	1030	155	5	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 100m North of Ferry St. and Railway tracks	1210	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
11 80m North of Inglis and Spar Rd. Intersection	1210	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 80m North of Inglis and Spar Rd. Intersection	1240	155	6	West	Downwind	Machines moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM10 Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
13 100m North of Ferry St. and Railway tracks	1300	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
14 80m North of Inglis and Spar Rd. Intersection	1300	155	7	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 80m North of Inglis and Spar Rd. Intersection	1330	155	4	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 100m North of Ferry St. and Railway tracks	1400	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
17 80m North of Inglis and Spar Rd. Intersection	1400	155	5	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 80m North of Inglis and Spar Rd. Intersection	1445	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM10 Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
19 100m North of Ferry St. and Railway tracks	1500	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
20 80m North of Inglis and Spar Rd. Intersection	1500	155	5	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
21 80m North of Inglis and Spar Rd. Intersection	1530	155	4	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 100m North of Ferry St. and Railway tracks	1600	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
23 80m North of Inglis and Spar Rd. Intersection	1600	155	4	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
24 80m North of Inglis and Spar Rd. Intersection	1645	155	5	West	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 ($\mu g/m^3$)
80m North of Inglis and Spar Rd. Intersection	0800 to 0859	6	990
80m North of Inglis and Spar Rd. Intersection	0900 to 0959	12	990
80m North of Inglis and Spar Rd. Intersection	1000 to 1059	18	990
80m North of Inglis and Spar Rd. Intersection	1200 to 1259	25	990
80m North of Inglis and Spar Rd. Intersection	1300 to 1359	31	990
80m North of Inglis and Spar Rd. Intersection	1400 to 1459	38	990
80m North of Inglis and Spar Rd. Intersection	1500 to 1559	43	990
80m North of Inglis and Spar Rd. Intersection	1600 to 1659	48	990

VOC Monitoring

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