

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1293-06
FROM	Dianne Theriault	SHIFT:	1030 to 1815
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8 th April, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-0009

**SUBJECT: 8th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 8th of April, 2009. Shaun Dove 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:

- Overcast, periods of rain, sunny with cloudy periods
- Temperature: approximately 8°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on standby until 1030 hours, and sampling began as soon as weather conditions were within instrument specifications. Air monitoring was performed during SLR's construction activities.*

All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Shaun Dove 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 PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Tar Cell
8th April, 2009

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 100m Southwest of C02 Main Gate	1215	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m East of C02 Main Gate	1215	155	11	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
3 100m East of C02 Main Gate	1240	155	9	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
4 100m Southwest of C02 Main Gate	1300	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m East of C02 Main Gate	1300	155	9	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 100m East of C02 Main Gate	1340	155	11	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 100m Southwest of C02 Main Gate	1400	155	67	Southwest	Upwind	Background	Dust from Truck near sampling location
8 100m East of C02 Main Gate	1400	155	11	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
9 100m East of C02 Main Gate	1430	155	11	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
10 100m Southwest of C02 Main Gate	1500	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m East of C02 Main Gate	1500	155	13	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
12 100m East of C02 Main Gate	1530	155	13	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
13 100m Southwest of C02 Main Gate	1600	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
14 100m East of C02 Main Gate	1600	155	11	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
15 100m East of C02 Main Gate	1630	155	11	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
16 100m Southwest of C02 Main Gate	1700	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 100m East of C02 Main Gate	1700	155	12	Southwest	Downwind	Excavators Loading Trucks	No observations seen to affect sampling integrity
18 100m East of C02 Main Gate	1730	155	11	Southwest	Downwind	Excavators Loading Trucks	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 ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
100m East of C02 Main Gate	1200 to 1259	10	990
100m East of C02 Main Gate	1300 to 1359	20	990
100m East of C02 Main Gate	1400 to 1459	31	990
100m East of C02 Main Gate	1500 to 1559	44	990
100m East of C02 Main Gate	1600 to 1650	55	990
100m East of C02 Main Gate	1700 to 1759	67	990

VOC Monitoring

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