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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1289-03
FROM	Dianne Theriault	**SHIFT:**	0900 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	31st March, 2009		Terry Smith, ALL-TECH
		STPA NO.	**CO2-0003**

SUBJECT: 30th March, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 30th of March, 2009. Trevor Rowe 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:
- Mainly Cloudy with snow
- Temperature: approximately 0°C
- Wind Direction: South East

Comments: *ALL-TECH was on-Site at 0900 hours and sampling began at 1000 hours. Sampling was put on standby at 1600 hours due to precipitation, and was later cancelled for the day at 1730 hours. 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 Trevor Rowe 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
30^{h} March, 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 Sydney Tar Ponds Security Parking Lot off Teak St.	1000	155	16	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1000	155	10	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1025	155	9	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 Sydney Tar Ponds Security Parking Lot off Teak St.	1100	155	15	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1100	155	14	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1140	155	16	Southeast	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 Sydney Tar Ponds Security Parking Lot off Teak St.	1200	155	13	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1200	155	19	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1225	155	20	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 Sydney Tar Ponds Security Parking Lot off Teak St.	1300	155	15	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1300	155	19	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1330	155	22	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 Sydney Tar Ponds Security Parking Lot off Teak St.	1400	155	18	Southeast	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 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1400	155	23	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1420	155	22	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 Sydney Tar Ponds Security Parking Lot off Teak St.	1500	155	36	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1500	155	26	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1545	155	24	Southeast	Downwind	Machines moving material	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 ($\mu g/m^3$)
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1000 to 1059	10	990
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1100 to 1159	25	990
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1200 to 1259	45	990
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1300 to 1359	66	990
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1400 to 1459	89	990
30m East of Spar Rd. & Spar Rd. Ext. Intersection.	1500 to 1559	114	990

VOC Monitoring

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