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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1244-06
FROM	Dianne Theriault	**SHIFT:**	0730 to 1600
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8th December, 2008		Terry Smith, ALL-TECH
		STPA NO.	**COCW-0021**

SUBJECT: 7th December, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 7th of December, 2008. Colin MacIsaac 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, showers
- Temperature: approximately 4°C
- Wind Direction: East

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity, but later went on standby at 1400 and ended for the day at 1600 due to ongoing precipitation. 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 Colin MacIsaac 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 – Coke Ovens Vertical Cutoff Walls
7th December, 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 60m South of Spar Road, Lingan Road intersection	0800	155	8	East	Upwind	Background	No observations seen to affect sampling integrity
2 90m Southeast of Spar Road and Spar Extension intersection	0800	155	7	East	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 90m Southeast of Spar Road and Spar Extension intersection	0845	155	6	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
4 60m South of Spar Road, Lingan Road intersection	0900	155	9	East	Upwind	Background	No observations seen to affect sampling integrity
5 90m Southeast of Spar Road and Spar Extension intersection	0900	155	7	East	Downwind	Machine moving machinery	No observations seen to affect sampling integrity
6 90m Southeast of Spar Road and Spar Extension intersection	0930	155	11	East	Downwind	Machine moving machinery	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
7 60m South of Spar Road, Lingan Road intersection	1000	155	13	East	Upwind	Background	No observations seen to affect sampling integrity
8 90m Southeast of Spar Road and Spar Extension intersection	1000	155	9	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
9 90m Southeast of Spar Road and Spar Extension intersection	1045	155	14	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
10 60m South of Spar Road, Lingan Road intersection	1100	155	18	East	Upwind	Background	No observations seen to affect sampling integrity
11 90m Southeast of Spar Road and Spar Extension intersection	1100	155	10	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
12 90m Southeast of Spar Road and Spar Extension intersection	1145	155	16	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
13 60m South of Spar Road, Lingan Road intersection	1200	155	22	East	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 90m Southeast of Spar Road and Spar Extension intersection	1200	155	23	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
15 90m Southeast of Spar Road and Spar Extension intersection	1230	155	37	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
16 60m South of Spar Road, Lingan Road intersection	1300	155	49	East	Upwind	Background	No observations seen to affect sampling integrity
17 90m Southeast of Spar Road and Spar Extension intersection	1300	155	32	East	Downwind	Machine moving machinery	No observations seen to effect sampling integrity
18 90m Southeast of Spar Road and Spar Extension intersection	1345	155	20	East	Downwind	Machine moving machinery	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 ($\mu g/m^3$)
90m Southeast of Spar Road and Spar Extension intersection	0800 to 0859	7	990
90m Southeast of Spar Road and Spar Extension intersection	0900 to 0959	16	990
90m Southeast of Spar Road and Spar Extension intersection	1000 to 1059	28	990
90m Southeast of Spar Road and Spar Extension intersection	1100 to 1159	41	990
90m Southeast of Spar Road and Spar Extension intersection	1200 to 1259	71	990
90m Southeast of Spar Road and Spar Extension intersection	1300 to 1359	97	990

VOC Monitoring

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