

ENVIRONMENT — PEMBERTON TIMBER MILL FIRE — LEFROY BROOK

1280. Hon Sophia Moermond to the parliamentary secretary representing the Minister for Environment:

I refer to the Pemberton Timber Mill fire on 9 December 2022, in particular the adjacent Lefroy Brook, and I ask:

- (a) has testing been done on Lefroy Brook for further contaminants at the Pemberton Mill site since the fire;
- (b) was testing done on Lefroy Brook at the Pemberton Mill site previous to the fire;
- (c) if so, what are the locations and frequency of water testing; and
- (d) if testing was conducted, what were the results?

Hon Darren West replied:

- (a) No.
- (b) Yes.
- (c)–(d) Testing of surface water in Lefroy Brook near the Pemberton Timber Mill site has been undertaken at various times, and for various substances, between late 1990 and March 2021. The results in tables below are from reports on contamination investigations of the Pemberton Mill site and associated former waste disposal areas held on the Department of Water and Environmental Regulation's records.

The results below are arranged by sampling location from upstream to downstream. In the tables, mg/L is milligrams per litre, µg/L is micrograms per litre, and µS/cm is microSiemens per centimetre. Results preceded by '<' were below the analytical laboratory's limit of reporting and '-' indicates a substance was not tested.

Lefroy Brook upstream of Pump Hill Road

Substance (Unit of measurement)	Nov 1990	Dec 1990	Jan 1991	Feb 1991	Mar 1991	May 1991
Arsenic (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
Chromium (mg/L)	<0.1	<0.1	-	<0.05	<0.005	0.01
Copper (mg/L)	0.02	<0.01	-	-	-	-
Pentachlorophenol (µg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Petroleum Hydrocarbon (µg/L)	60	-	-	-	-	-

Substance (Unit of measurement)	Jun 1991	Aug 1991	Jul 1992	Feb 1993	Apr 1993	Jul 1995	May 1996
Arsenic (mg/L)	0.049	<0.001	<0.05	<0.02	<0.002	<0.01	<0.02
Chromium (mg/L)	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.04
Copper (mg/L)	-	-	-	-	-	<0.01	<0.02
Pentachlorophenol (µg/L)	<0.1	-	-	-	-	-	-

Lefroy Brook west of Department of Primary Industries and Regional Development aquaculture facility, upstream of timber mill

Substance (Unit of measurement)	Dec 2020	Mar 2021
Arsenic (mg/L)	<0.001	<0.001
Chromium (mg/L)	<0.001	<0.001
Chromium (Hexavalent) (mg/L)	<0.005	<0.005
Pentachlorophenol (µg/L)	<2	<5

Lefroy Brook near northern boundary of Lot 7396, upstream of timber mill

Substance (Unit of measurement)	Jun 2016	Dec 2020		Mar 2021	
		Location 1	Location 2	Location 1	Location 2
pH (pH units)	-	-	-	-	5.8
Electrical Conductivity (µS/cm)	-	-	-	-	88
Pentachlorophenol (µg/L)	-	<2	<2	<5	<5

Extract from *Hansard*
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<i>Total Metals</i>					
Arsenic (mg/L)	<0.001	-	-	-	-
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (mg/L)	<0.001	-	-	-	-
Copper (mg/L)	<0.001	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-
Nickel (mg/L)	0.001	-	-	-	-
Zinc (mg/L)	<0.005	-	-	-	-
Mercury (mg/L)	<0.0001	-	-	-	-
<i>Dissolved Metals</i>					
Arsenic (mg/L)	<0.001	<0.001	0.002	<0.001	<0.001
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (Hexavalent) (mg/L)	-	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (mg/L)	<0.001	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-
Nickel (mg/L)	0.001	-	-	-	-
Zinc (mg/L)	<0.005	-	-	-	-
Mercury (mg/L)	<0.0001	-	-	-	-

Lefroy Brook west of Lot 7396 and timber mill

Substance (Unit of measurement)	Jun 2016	Dec 2020		Mar 2021	
		Location 1	Location 2	Location 1	Location 2
pH (pH units)	-	-	-	-	7.1
Electrical Conductivity (µS/cm)	-	-	-	-	470
Pentachlorophenol (µg/L)	-	<2	<2	<5	<5
<i>Total Metals</i>					
Arsenic (mg/L)	<0.001	-	-	-	-
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (mg/L)	0.001	-	-	-	-
Copper (mg/L)	<0.001	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-
Nickel (mg/L)	0.001	-	-	-	-
Zinc (mg/L)	<0.005	-	-	-	-
Mercury (mg/L)	<0.0001	-	-	-	-
<i>Dissolved Metals</i>					
Arsenic (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (Hexavalent) (mg/L)	-	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (mg/L)	0.002	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-

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Nickel (mg/L)	0.001	-	-	-	-
Zinc (mg/L)	<0.005	-	-	-	-
Mercury (mg/L)	<0.0001	-	-	-	-

Lefroy Brook upstream of Vasse Highway

Substance (Unit of measurement)	Nov 1990	Dec 1990	Jun 1991	Aug 1991	Jul 1992	Jul 1995	May 19 96
Arsenic (mg/L)	0.15	0.034	0.11	0.206	0.05	0.03	<0.02
Chromium (mg/L)	<0.1	<0.1	<0.01	<0.05	<0.01	<0.01	<0.02
Copper (mg/L)	<0.01	<0.01	-	-	-	0.26	<0.02
Pentachlorophenol (µg/L)	<0.1	9.7	<0.1	-	-	-	-
Total Petroleum Hydrocarbon (µg/L)	<10	-	-	-	-	-	-

Substance (Unit of measurement)	Jun 2016	Dec 2020	Mar 2021
pH (pH units)	-	-	7.2
Electrical Conductivity (µS/cm)	-	-	480
Pentachlorophenol (µg/L)	-	<2	<5

Total Metals

Arsenic (mg/L)	<0.001	-	-
Cadmium (mg/L)	<0.0001	-	-
Chromium (mg/L)	0.002	-	-
Copper (mg/L)	<0.001	-	-
Lead (mg/L)	<0.001	-	-
Nickel (mg/L)	0.001	-	-
Zinc (mg/L)	<0.005	-	-
Mercury (mg/L)	<0.0001	-	-

Dissolved Metals

Arsenic (mg/L)	<0.001	<0.001	<0.001
Cadmium (mg/L)	<0.0001	-	-
Chromium (Hexavalent) (mg/L)	-	<0.005	<0.005
Chromium (mg/L)	0.002	<0.001	<0.001
Copper (mg/L)	<0.001	-	-
Lead (mg/L)	<0.001	-	-
Nickel (mg/L)	0.001	-	-
Zinc (mg/L)	<0.005	-	-
Mercury (mg/L)	<0.0001	-	-

Lefroy Brook at Vasse Highway bridge

Substance (Unit of measurement)	Jun 2016	Dec 2020	Mar 2021
pH (pH units)	-	-	7.2
Electrical Conductivity (µS/cm)	-	-	480
Pentachlorophenol (µg/L)	-	<2	<5

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<i>Total Metals</i>			
Arsenic (mg/L)	<0.001	-	-
Cadmium (mg/L)	<0.0001	-	-
Chromium (mg/L)	0.001	-	-
Copper (mg/L)	0.002	-	-
Lead (mg/L)	<0.001	-	-
Nickel (mg/L)	0.005	-	-
Zinc (mg/L)	<0.005	-	-
Mercury (mg/L)	<0.0001	-	-
<i>Dissolved Metals</i>			
Arsenic (mg/L)	<0.001	<0.001	<0.001
Cadmium (mg/L)	<0.0001	-	-
Chromium (Hexavalent) (mg/L)	-	<0.005	<0.005
Chromium (mg/L)	<0.001	<0.001	<0.001
Copper (mg/L)	<0.001	-	-
Lead (mg/L)	<0.001	-	-
Nickel (mg/L)	<0.001	-	-
Zinc (mg/L)	<0.005	-	-
Mercury (mg/L)	<0.0001	-	-

Lefroy Brook downstream of Vasse Highway

Substance (Unit of measurement)	Jun 2016	Dec 2020		Mar 2021	
		Location 1	Location 2	Location 1	Location 2
Pentachlorophenol (µg/L)	-	<2	<2	<5	<5
<i>Total Metals</i>					
Arsenic (mg/L)	0.002	-	-	-	-
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (mg/L)	0.001	-	-	-	-
Copper (mg/L)	<0.001	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-
Nickel (mg/L)	0.001	-	-	-	-
Zinc (mg/L)	0.009	-	-	-	-
Mercury (mg/L)	<0.0001	-	-	-	-
<i>Dissolved Metals</i>					
Arsenic (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (mg/L)	<0.0001	-	-	-	-
Chromium (Hexavalent) (mg/L)	-	<0.005	<0.005	<0.005	<0.005
Chromium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (mg/L)	<0.001	-	-	-	-
Lead (mg/L)	<0.001	-	-	-	-
Nickel (mg/L)	<0.001	-	-	-	-
Zinc (mg/L)	<0.005	-	-	-	-

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Mercury (mg/L)	<0.0001	-	-	-	-
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Lefroy Brook downstream of Power Road bridge

Substance (Unit of measurement)	Nov 1990	Dec 1990	Jan 1991	Feb 1991	Mar 1991	May 1991
Arsenic (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	0.006
Chromium (mg/L)	<0.1	<0.1	-	<0.05	<0.005	<0.01
Copper (mg/L)	<0.01	<0.01	-	-	-	-
Pentachlorophenol (µg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Petroleum Hydrocarbon (µg/L)	<10	-	-	-		

Substance (Unit of measurement)	Jun 1991	Aug 1991	Jul 1992	Apr 1993	Jul 1995	May 1996
Arsenic (mg/L)	0.022	0.008	<0.05	<0.002	<0.01	<0.02
Chromium (mg/L)	<0.01	<0.05	<0.01	<0.01	<0.01	<0.04
Copper (mg/L)	-	-	-	-	<0.01	<0.02
Pentachlorophenol (µg/L)	<0.1	-	-	-	-	-