



PT. NEWMONT MINAHASA RAYA

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KUNINGAN JAKARTA 12950 - INDONESIA
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Buyat Bay Water and Fish Sampling & Analysis

Newmont has continuously monitored the health of water and fish in Buyat Bay before and since opening the Minahasa mine in 1996. Monitoring results have been reported to the Government of Indonesia every three months since then. The Indonesian Ministry of Environment conducted an independent survey of Buyat Bay in 2003.

After allegations were made concerning pollution in Buyat Bay, Newmont asked a credible outside scientific organization (Commonwealth Scientific and Industrial Research Organization - CSIRO) to conduct testing and analysis of water and fish conditions, with a focus on levels of arsenic and mercury. In addition, Indonesian Government officials conducted two rounds of tests: one survey was conducted by the North Sulawesi Independent Team and another survey by the Integrated Team established by the Indonesian Ministry of Environment.

In summary, the seawater quality test results from all the above-mentioned studies demonstrate that arsenic and mercury in Buyat Bay water are well below the most stringent Indonesian standards, and in fact are equivalent to ocean water anywhere in the world.

Results of the fish samples from all the studies also demonstrate that arsenic and mercury content are well below international standards such as the World Health Organization (WHO) and the Australian Food Standard. The average mercury concentration in Buyat Bay fish is within the natural range for fish in the open ocean (University of London Monitoring and Assessment Research Centre)¹ and no different to fish caught anywhere in the world.

Newmont remains willing to share technical details about sampling methodology and laboratory selection.

Please see the data charts below for detailed information.

¹ The Monitoring and Assessment Research Center (MARC) found fish in the open ocean have mercury content ranging from 0.03 to 0.3 mg/kg. (1981) MARC is a partner of the United Nations Global Environment Monitoring System and the UN World Health Organization (WHO).

For further information, kindly contact us:

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Buyat Bay Seawater Sampling Results

	Mercury µg/L	Arsenic µg/L
Indonesian Government: maximum concentration permitted by law	1	12
1. Newmont results (ALS Laboratory) (summary of data 1996-2004)	0.055 (390 samples)	2.7 (390 samples)
2. Ministry of Environment Study, Nov 2003	0.059 (11 samples)	0.001 (11 samples)
3. Government Integrated Team, Aug/Sept 2004	less than 0.5 (15 samples)	1.5 (15 samples)
4. CSIRO, Commonwealth Scientific and Industrial Research Organization, Aug 2004	0.0053 (13 samples)	2.4 (13 samples)
5. North Sulawesi Independent Team, Aug 2004	less than 0.05 (9 samples)	2.5 (9 samples)
6. World Health Organization/Minamata Institute, August 2004	0.0002 (1 sample)	Not tested

Fish Tissue Sample Results

	Mercury Mg/kg	Arsenic Mg/kg²
Most stringent WHO mercury standard for fish. FSANZ standard for Inorganic Arsenic.	0.5 mg/kg	2 mg/kg
1. Newmont results (ALS Laboratory) (summary of data 1996-2004)	0.19 (287 samples)	0.07 (287 samples)
2. Ministry of Environment Study, Nov 2003	0.05 (11 samples)	0.39 (11 samples)
3. Government Integrated Team, Aug/Sept 2004	0.17 (25 samples)	0.18 (20 samples)
4. CSIRO, Aug 2004	0.09 (19 samples)	0.16 (19 samples)
5. WHO/Minamata Institute, Aug 2004	0.24 (15 samples)	Not tested

² Conservatively assumes that up to 10% of total arsenic in fish tissue could be inorganic.

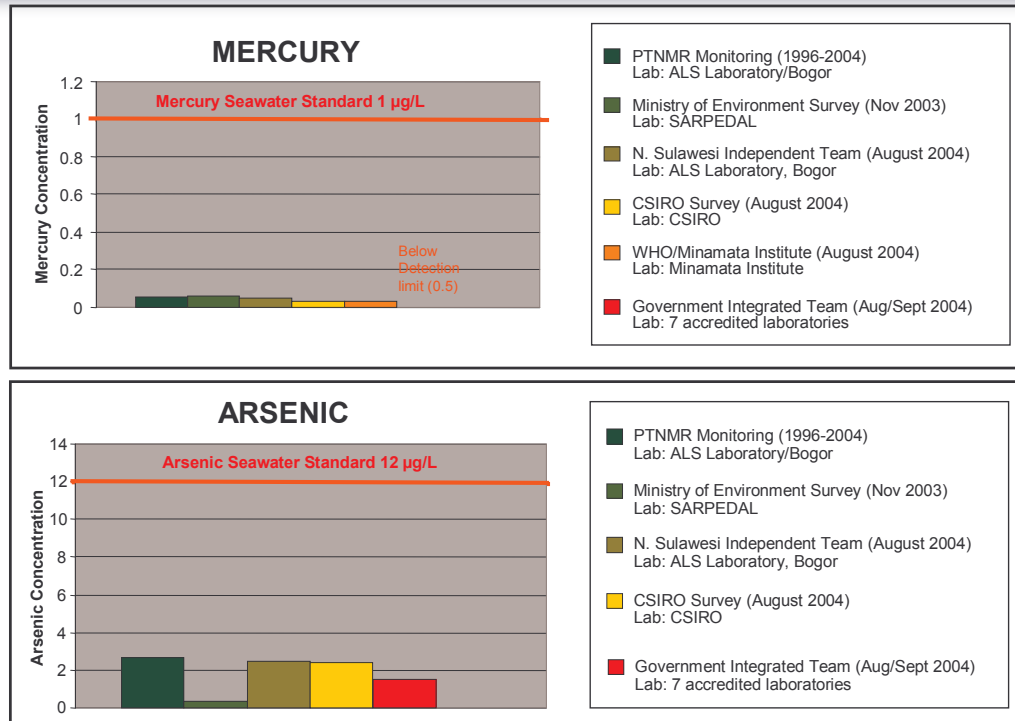
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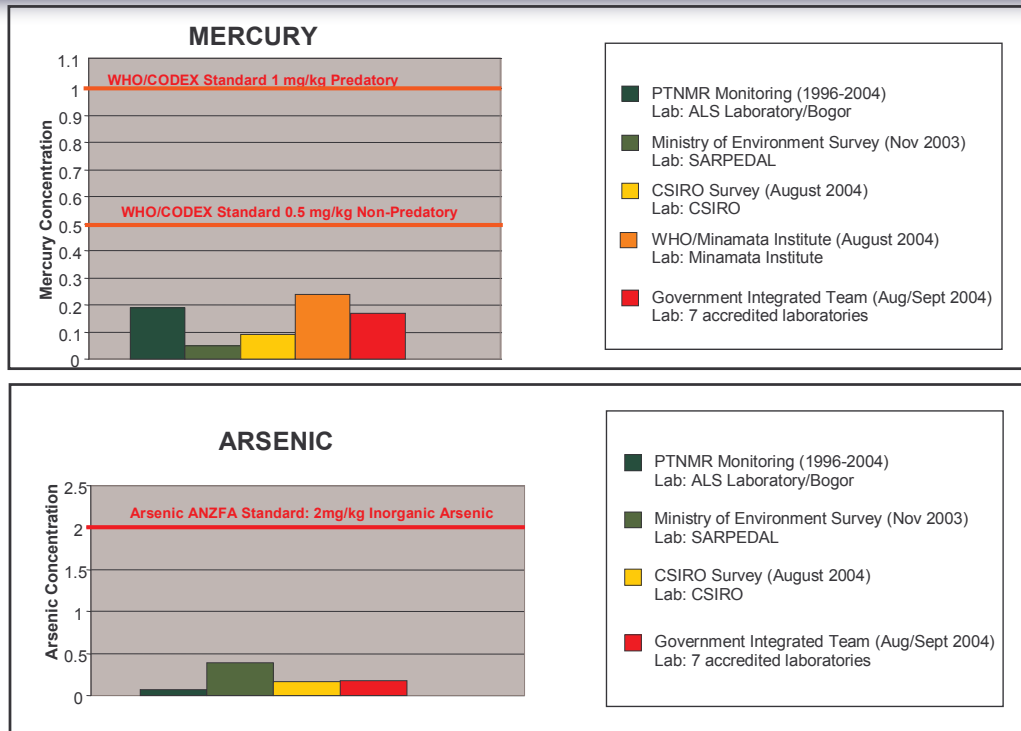
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Mercury and Arsenic in Seawater



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Mercury and Arsenic in Fish Compared to Standard Values



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Arsenic concentrations in Buyat Bay fish compared to literature values

Location	Total arsenic mg/kg	Reference
Buyat Bay	<0.004 – 9.34 1.76 (mean)	Technical Team Draft Report (2004)
Adriatic Sea	22.3 (mean)	Juresa D et al (2003)
Arabian Gulf	32.3 (mean)	Attar K M et al (1992)
Australia	0.5 - 44	Maher (1983), Maher W A and Batley G E (1990)
Canada	0.4 - 118	Federal-Provincial Committee on Drinking Water Ottawa (2004)
Greenland	7 - 80	Bohn A (1975)
Japan	1 – 7.2	Shinagawa et al (1983)
Norway	0.8 – 5.2	Staveland G et al (1993), Engman J & Jorhem L (1998)
UK	1.1 - 24	Edmonds J S, Francesconi KA (1993), UK MAAF (1998)