

Reindeer & Caribou Metal & Mineral Data (where known)

Metals and minerals measured by ICP/MS. This mineral data is based on Puls, Mineral Levels in Animal Health, 1994. (n = 100)

Blood and Serum/Plasma

Analyte	Sample	Normal Range (adults)	Units	Deficient	High	Toxic
Cobalt	Serum	-	ng/mL	-	-	-
Copper	Serum	0.70 - 1.80	µg/mL	-	-	-
Iron	Serum	-	µg/dl	-	-	-
Manganese	Serum	-	ng/mL	-	-	-
Molybdenum	Serum	-	ng/mL	-	-	-
Selenium	Serum	50 -140	ng/mL	-	-	-
Zinc	Serum	1.10 - 2.50	µg/mL	-	-	-
Arsenic	Blood	-	ng/mL	-	-	-
Cadmium	Blood	-	ng/mL	-	-	-
Lead	Blood	-	ng/mL	-	-	-
Thallium	Blood	-	ng/mL	-	-	-

For information only, the following data are known for white-tailed deer:

White Tailed, Black Tailed, and Mule Deer Metal & Mineral Data (where known)

Metals and minerals measured by ICP/MS. This mineral data is based on Puls, Mineral Levels in Animal Health, 1994 and data gathered by Dr. Tom Herdt, Nutritionist at the Michigan State University Veterinary Diagnostic Laboratory. We are in the process of gathering population data for multiple species to adjust the adequate ranges.

Blood and Serum/Plasma

Analyte	Sample	Cervid Normal Range	Units	Deficient	High	Toxic
Cobalt	Serum	-	ng/mL	-	-	-
Copper	Serum	0.60 - 1.30	µg/mL	< 0.50	-	-
Iron	Serum	152 - 277	µg/dL	-	-	-
Manganese	Serum	-	ng/mL	-	-	-
Molybdenum	Serum	-	ng/mL	-	-	-
Selenium	Serum	60 - 150	ng/mL	< 60	-	-
Zinc	Serum	0.50 – 1.00	µg/mL	-	-	-
Arsenic	Blood	-	ng/mL	-	-	-
Cadmium	Blood	-	ng/mL	-	-	-
Lead	Blood	-	ng/mL	-	-	-
Thallium	Blood	-	ng/mL	-	-	-