



PATIENT NAME: Comet
SPECIMEN ID #: 700092
SPECIES / SEX: Feline / FS
BREED: DSH
AGE: 9.0
WEIGHT: 9.8 lb

MRN: 1071067
COLLECTION DATE: 29-Sep-22
RECEIVED DATE: 30-Sep-22
REPORT DATE: 7-Oct-22
SAMPLE TYPE: Fur

VETERINARIAN:
FACILITY:
PH:
FAX:

Fur/hair is the only matrix suitable for studying a long period of exposure to pollutants. The pollutants circulating in the blood are automatically captured by the web of the fur when it grows and stays intact. Blood analysis is useful, but contrary to fur/hair analysis, blood is a snapshot and not the culmination of weeks of exposure.

Test	Range	Flag	Previous	Results	Notable Change	Comments
				PPM		
Ca	700-3000	low		467.18		Patient values outside of the normal ranges for nutritional minerals may be the result of inadequate diet, environmental exposure, poor metabolism, or other conditions. Evaluate patient and retest in 2 months after correcting for any irregularities. Refer to Mineral Supplementation page for guidance.
Co	0.02-0.5	low		0.01		
Cr	0.6-5	low		0.03		
Cu	8-25			8.95		
Fe	25-400	low		17.24		
K	200-1400			368.01		
Mg	100-450	low		51.60		
Mn	1-10	low		0.19		
Na	700-10000			1214.36		
P	220-500			268.35		
Se	0.4-2.5	high		3.31		
Si	20-600			79.58		
Sr	0-4.5			0.37		
V	0-1.2			0.02		
Zn	150-300			176.47		
Ag	0-2			0.03		Patient values are all within the normal limits indicating no historical or ongoing issues with environmental minerals. Retest if major diet or health change occurs, or animal's environment substantially changes.
Al	0-250			31.98		
Au	0-2			0.01		
B	0-5			4.37		
Ba	0-5			0.71		
Be	0-1			0.00		
Li	0-0.5			0.25		
Mo	0-3			0.00		
Ni	0-10			0.05		
Sn	0-5			0.46		
As	0-1			0.11		Patient has elevated levels of potentially toxic elements. Detoxification is warranted, and source of exposure should be identified and removed.
Cd	0-0.7			0.00		
Hg	0-0.2	high		1.74		
Pb	0-10			0.21		

Reference intervals should be considered as guidelines for comparison with reported test values. These reference ranges were established from a large population of "healthy" animals. They should not be considered as absolute limits for determining deficiency, toxicity or acceptance until fully validated element-specific studies are completed.



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The following minerals have been identified as being outside of the reference interval.

For a description of all minerals, visit our website at: www.vdilab.com

Symbol	Name	Description
Ca	Calcium	Calcium is an essential nutrient that is tightly regulated in the blood. Evaluate blood-serum calcium levels. Calcium is nutritionally derived often from enriched products such as canned and bagged pet food or dairy items.
Co	Cobalt	Cobalt is a dietary mineral which is essential for cell reproduction, growth, and vital organs. Lack of cobalamin can lead to GI and even neurological issues. Good dietary sources of cobalt include organ meats, beef, and eggs. Cobalt in excessive amounts may be highly toxic and would reflect exposure to high levels or ongoing exposure. Elevated Cobalt should be treated right away.
Cr	Chromium	Chromium is an essential dietary mineral. It can be found from the consumption of products such as yeast, wheat, apples and green pepper. A deficiency of chromium can cause insulin resistance and diabetes, however elevated Chromium may be toxic especially if found in fur- indicating long term exposure.
Fe	Iron	Iron in fur suggest the digestion of iron rich foods or consuming certain items such as prenatal vitamins, fertilizer, oxygen absorbers and handwarmers. Iron deficiency may be an indication of nutrient deficiencies or underlying conditions. Too much iron may cause a range of cardiac and GI-related symptoms, however this is typically associated with sudden ingestion of large amounts of Iron.
Mg	Magnesium	Magnesium is essential mineral derived from diet. It can be found in whole grains, soybeans, nuts, spinach and fish. Magnesium deficiency is easy to correct and should be evaluated periodically, both in blood and in fur.
Mn	Manganese	Manganese is dietary derived and can be absorbed by digesting items that have high concentration of manganese. Whole grains, eggs, nuts and leafy vegetables contain a good amount of manganese.
Se	Selenium	Selenium is an essential element. Selenium can be found in Brazil nuts, fish, game poultry etc. Too much consumption of selenium could become toxic.
Hg	Mercury	Mercury enters the environment as a result of normal breakdown of minerals in rocks and soil through exposure to wind and water. Mercury source risks for dogs include fish-based diets, omega oils made with fish, vaccinations, some prescription medications, and environmental contamination.

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SPECIMEN ID #: 700092	COLLECTION DATE: 29-Sep-22	FACILITY:
SPECIES: Feline	RECEIVED DATE: 30-Sep-22	
GENDER: Female Spayed	REPORT DATE: 7-Oct-22	
AGE: 9.0	SAMPLE TYPE: Fur	PH:
WEIGHT: 9.8 lb		FAX:

Metal detoxification can be done safely and effectively using a combination of plant-based products. When used in combination they can help to remove unwanted toxins from the body and restore the natural ecosystem in the animals body. Please review the patient-specific detox regiment below. Contact VDI with questions: 805-577-6742

Mineral Supplement Guidelines, prepared specifically for Comet Barakat

Notes:

Step 1 & 2 should be given together, at the same meal
 Daily administration is key to optimal detoxification
 If only one product is used, IMD is the primary choice

In patients with ongoing exposure to toxic metals, complete removal may not occur
 Dosing regimen is based on patient weight

Step 1: Prime



ClearWay CoFactors is a blend of plant-based antioxidants designed to maximally support metal detoxification.

- ClearWay is intended to:
- Enhance the body's natural antioxidant pathways
 - Stabilize cell membranes
 - Protect the nervous system from toxins
 - Alleviate heavy metal toxicity
 - Support gut barrier integrity
 - Break down biofilms
 - Increase cellular excretion of toxins

DOSE
1/2 cap daily with meals
Complete dosing regimen requires the following number of bottles of CoFactors: 1

Step 2: Clear



IMD (Intestinal Metals Detox) is a silica blend that optimizes the natural elimination of metals through the gut.

- IMD is intended to:
- Bind to metals
 - Perform Antioxidant Removal
 - Protect the Kidneys
 - Aid Immune Function
 - Aid Endocrine Health
 - Aid Neurological Health

DOSE
1 level scoop daily with meals
Complete dosing regimen requires the following number of bottles of IMD: 1

Step 3: Test

Complete 1 full round detox round (60 days) and repeat toxic metals testing. If additional detoxification is needed, repeat another regimen. In the event that toxic metal levels are not diminishing, additional steps may be needed. Contact VDI for support.

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Essential nutrients, those that are obtained by ingestion, are very important to health. Ensuring your pet is receiving enough can be as simple as supplementing their current diet to improve mineral content. Below is patient-specific dosing guidelines to help your pet obtain the proper minerals that may have been low as indicated in this fur analysis.

Mineral Supplement Guidelines, using Rx Minerals, for Comet Barakat

Feline Minerals, Rx Vitamins for Pets



Feline Minerals provides macro- and micro-mineral supplementation, specifically calcium for cats to help balance home-prepared meals and as a general mineral supplement when required.

Feline Minerals is intended to provide:

- Calcium
- Magnesium
- Iron
- Strontium
- Sodium
- Manganese
- Phosphorus
- Potassium
- Chromium

DAILY DOSE

1 scoop
Split among meals

This dose is a total dose for the day. Do not give more than recommended.

Supplementing with Feline Minerals:

- Supplementation listed above is a total daily dose and should be split among meals to avoid any GI discomfort. If your cat is showing signs of discomfort, excessive thirst, panting, or other abnormal signs, stop use of the product and consult a veterinarian.
- The dosage of the individual minerals is very important. Seemingly small variations in mineral content in a diet can have significant impact on animal health. Anytime dietary changes are made, it's important to watch for changes in health and behavior, and retest any labwork to ensure proper balance is achieved.
- This product contains calcium and magnesium, both of which are tightly regulated in the body. If your cat's recent blood work shows abnormal calcium or magnesium levels, consult your veterinarian before starting Canine Minerals. Conversely, if your cat is experience issues with this supplement, blood work may be warranted to check blood levels.

For more information, contact VDI Laboratory (805-577-6742) or Rx Vitamins (800-792-2222)

The Mineral Formula:

The Canine/Feline Minerals Formulas was designed to be used primarily as a mineral-rich dietary supplement to balance home-prepared meals for dogs and cats. It can also be used as a general mineral supplement for those patients who would benefit from dietary mineral supplementation.

The Minerals Formula is a 100% natural multiple mineral and trace element product. It is mined from an exclusive source in the western United States, containing 9 macro- and micro- minerals for optimum health. This mineral deposit, which is totally unique in its makeup, is marine sedimentary in nature and estimated to have been formed during the Triassic-Jurassic periods of the Mesozoic Era, approximately 150 to 200 million years ago. It is one of the most complete sources of naturally-occurring essential minerals and trace elements available.