

# UI Analytical Sciences Laboratory

## Certificate of Analysis

**Client Sample ID: Nutro Max Puppy Lot #  
16 Sep 2008**

Sample Type: As Received

UIASL Sample ID: V0902196

Species: NA

Preservation: None

**Macro/Micro Trace Element Screen**

Method: ICP -- Nitric Digest

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	4.7	4.0	—
Barium	12	0.10	—
Calcium	14000	0.50	—
Cadmium	0.20	0.10	—
Cobalt	0.17	0.030	—
Chromium	1.3	0.50	—
Copper	12	0.10	—
Iron	130	1.0	—
Potassium	8800	10	—
Magnesium	3200	0.050	—
Manganese	99	0.050	—
Molybdenum	< 0.5	0.50	—
Sodium	3900	20	—
Phosphorus	11000	5.0	—
Lead	< 1	1.0	—
Sulfur	4100	15	—
Zinc	170	0.20	—

**Comment:**

# UI Analytical Sciences Laboratory

## Certificate of Analysis

**Client Sample ID: California Natural Lamb  
Meal & Rice**

Lot # Unknown

Sample Type: As Received

UIASL Sample ID: V0902197

Species: NA

Preservation: None

## Macro/Micro Trace Element Screen

Method: ICP -- Nitric Digest

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 4	4.0	—
Barium	38	0.10	—
Calcium	29000	0.50	—
Cadmium	0.20	0.10	—
Cobalt	0.59	0.030	—
Chromium	1.7	0.50	—
Copper	17	0.10	—
Iron	190	1.0	—
Potassium	7600	10	—
Magnesium	1400	0.050	—
Manganese	45	0.050	—
Molybdenum	1.0	0.50	—
Sodium	4200	20	—
Phosphorus	18000	5.0	—
Lead	< 1	1.0	—
Sulfur	3800	15	—
Zinc	230	0.20	—

Comment:

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## Certificate of Analysis

Client Sample ID: Nutro Max Puppy Lot #  
Free Sample

Sample Type: As Received

UIASL Sample ID: V0902198

Species: NA

Preservation: None

**Macro/Micro Trace Element Screen**

Method: ICP -- Nitric Digest

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	4.3	4.0	—
Barium	7.9	0.10	—
Calcium	15000	0.50	—
Cadmium	0.27	0.10	—
Cobalt	0.26	0.030	—
Chromium	1.4	0.50	—
Copper	14	0.10	—
Iron	110	1.0	—
Potassium	9200	10	—
Magnesium	3300	0.050	—
Manganese	110	0.050	—
Molybdenum	< 0.5	0.50	—
Sodium	4000	20	—
Phosphorus	13000	5.0	—
Lead	< 1	1.0	—
Sulfur	4100	15	—
Zinc	180	0.20	—

Comment:

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## Certificate of Analysis

**Client Sample ID: Nutro Complete Care  
Adult Ocean Fish Flavor**

Lot # Unknown

Sample Type: As Received

UIASL Sample ID: V0902199

Species: NA

Preservation: None

**Macro/Micro Trace Element Screen**

Method: ICP -- Nitric Digest

	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic	< 4	4.0	—
Barium	8.6	0.10	—
Calcium	16000	0.50	—
Cadmium	< 0.1	0.10	—
Cobalt	0.41	0.030	—
Chromium	1.3	0.50	—
Copper	24	0.10	—
Iron	170	1.0	—
Potassium	9500	10	—
Magnesium	890	0.050	—
Manganese	52	0.050	—
Molybdenum	< 0.5	0.50	—
Sodium	4500	20	—
Phosphorus	11000	5.0	—
Lead	< 1	1.0	—
Sulfur	6400	15	—
Zinc	2100	0.20	—

**Comment:**

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## Certificate of Analysis

Client Sample ID: **Before Grain Tuna Flavor**    Lot # Unknown    Sample Type: As Received  
 UIASL Sample ID: V0902200    Species: NA    Preservation: None

Macro/Micro Trace Element Screen	Method: ICP -- Nitric Digest	Results (µg/g)	RL	Adult Approx. Ref. Range
Arsenic		< 4	4.0	—
Barium		6.5	0.10	—
Calcium		29000	0.50	—
Cadmium		0.22	0.10	—
Cobalt		0.31	0.030	—
Chromium		1.3	0.50	—
Copper		15	0.10	—
Iron		140	1.0	—
Potassium		9800	10	—
Magnesium		1400	0.050	—
Manganese		26	0.050	—
Molybdenum		< 0.5	0.50	—
Sodium		7800	20	—
Phosphorus		19000	5.0	—
Lead		< 1	1.0	—
Sulfur		5000	15	—
Zinc		200	0.20	—

Comment:

Note: Any included reference ranges are only guidelines and the analytical results need to be interpreted in conjunction with management and dietary factors, as well as with clinical and/or postmortem observations. Reference ranges can vary significantly between individuals or groups of animals from different ranges and habitats or on different diets.

Note: Serum concentrations of some elements (e.g., zinc, iron, phosphorus, magnesium) may be artificially elevated due to hemolysis or leaching from the red blood cells. Zinc can leach from some rubber blood collection tube stoppers. The sample should be spun and the serum separated from the clot prior to shipping. We recommend collecting blood in plastic vials or royal blue top vacutainer tubes without heparin (for trace element analysis) for submission of samples to be analyzed for zinc.

Samples will be discarded one month after date of final report unless otherwise requested.