

**CERTIFICATE OF ANALYSIS - with subcomponents****Material: Liquid Fulvic Acid Minerals****Packaging: 2 ounce Boston round cobalt blue bottles****Lot or Batch Number: 9181430 DOM - 10-06-2014****Retest/Expiration Date: 10-06-2024****Handling Instructions: See MSDS attached****Country of Origin – United States****Mineral Logic FDA registration# 11405908668**

<u>Physical Data</u>	<u>Specification</u>	<u>Result</u>	<u>Method</u>
<b>pH</b>	1.8 - 2.3	2.2	AOAC-943.2 , EPA-150.1
<b>Specific Gravity</b>	1.1 - 1.2	1.164	USP 31 <841>
<b>Color</b>	Brown Liquid	Brown Liquid	Visual
<b>ND = Not Detected</b>			

<u>Mineral Analytes</u>	<u>Specification</u>	<u>Result</u>	<u>Per Unit</u>	<u>Method</u>
Aluminum	< 3,500	2200	ppm	ICP-MS/ICP-OES
Antimony		<0.01	ppm	ICP-MS/ICP-OES
Barium		0.490	ppm	ICP-MS/ICP-OES
Beryllium		4.00	ppm	ICP-MS/ICP-OES
Bismuth		< 0.01	ppm	ICP-MS/ICP-OES
Boron		0.20	ppm	ICP-MS/ICP-OES
Bromine		< 3	ppm	IC
Calcium	200 - 1200	690	ppm	ICP-MS/ICP-OES
Carbon	5000 -30000	24000	ppm	ICP-MS/ICP-OES
Cerium		26.0	ppm	ICP-MS/ICP-OES
Cesium		< 0.01	ppm	ICP-MS/ICP-OES
Chloride		97.2	ppm	IC
Chromium		4.50	ppm	ICP-MS/ICP-OES
Cobalt		17.0	ppm	ICP-MS/ICP-OES
Copper		1.50	ppm	ICP-MS/ICP-OES
Dysprosium		2.20	ppm	ICP-MS/ICP-OES
Erbium		1.20	ppm	ICP-MS/ICP-OES
Europium		0.46	ppm	ICP-MS/ICP-OES
Fluoride		5.83	ppm	IC
Gadolinium		3.20	ppm	ICP-MS/ICP-OES
Gallium		1.30	ppm	ICP-MS/ICP-OES
Germanium		2.40	ppm	ICP-MS/ICP-OES
Gold		0.05	ppm	ICP-MS/ICP-OES
Hafnium		< 0.01	ppm	ICP-MS/ICP-OES
Holmium		0.42	ppm	ICP-MS/ICP-OES
Indium		0.04	ppm	ICP-MS/ICP-OES
Iodine		0.96	ppm	ICP-MS/ICP-OES
Iridium		<0.01	ppm	ICP-MS/ICP-OES
Iron	8000 -20000	13000	ppm	ICP-MS/ICP-OES
Lanthanum		11.0	ppm	ICP-MS/ICP-OES
Lithium		0.78	ppm	ICP-MS/ICP-OES
Lutetium		0.09	ppm	ICP-MS/ICP-OES
Magnesium	500 - 2500	1000	ppm	ICP-MS/ICP-OES
Manganese		53.0	ppm	ICP-MS/ICP-OES
Molybdenum		0.02	ppm	ICP-MS/ICP-OES
Neodymium		9.50	ppm	ICP-MS/ICP-OES
Nickel		19.0	ppm	ICP-MS/ICP-OES
Niobium		< 0.01	ppm	ICP-MS/ICP-OES

<b>Mineral Analytes</b>	<b>Specification</b>	<b>Result</b>	<b>Per Unit</b>	<b>Method</b>
Osmium		<0.01	ppm	ICP-MS/ICP-OES
Palladium		<0.01	ppm	ICP-MS/ICP-OES
Phosphorous		130	ppm	ICP-MS/ICP-OES
Platinum		<0.01	ppm	ICP-MS/ICP-OES
Potassium		63.0	ppm	ICP-MS/ICP-OES
Praseodymium		2.10	ppm	ICP-MS/ICP-OES
Rhenium		<0.01	ppm	ICP-MS/ICP-OES
Rhodium		<0.01	ppm	ICP-MS/ICP-OES
Rubidium		0.32	ppm	ICP-MS/ICP-OES
Ruthenium		<0.01	ppm	ICP-MS/ICP-OES
Samarium		1.90	ppm	ICP-MS/ICP-OES
Scandium		6.33	ppm	ICP-MS/ICP-OES
Selenium		<0.01	ppm	ICP-MS/ICP-OES
Silicon		132	ppm	ICP-MS/ICP-OES
Silver		<0.01	ppm	ICP-MS/ICP-OES
Sodium	1000 - 3000	1700	ppm	ICP-MS/ICP-OES
Strontium		5.30	ppm	ICP-MS/ICP-OES
Sulfur	40000 - 85000	72300	ppm	ICP-MS/ICP-OES
Tantalum		< 0.01	ppm	ICP-MS/ICP-OES
Tellurium		< 0.01	ppm	ICP-MS/ICP-OES
Terbium		<0.01	ppm	ICP-MS/ICP-OES
Thallium		0.049	ppm	ICP-MS/ICP-OES
Thorium		5.30	ppm	ICP-MS/ICP-OES
Thulium		0.17	ppm	ICP-MS/ICP-OES
Tin		< 0.01	ppm	ICP-MS/ICP-OES
Titanium		0.33	ppm	ICP-MS/ICP-OES
Tungsten		< 0.01	ppm	ICP-MS/ICP-OES
Uranium		0.85	ppm	ICP-MS/ICP-OES
Vanadium		3.30	ppm	ICP-MS/ICP-OES
Ytterbium		1.10	ppm	ICP-MS/ICP-OES
Yttrium		10.0	ppm	ICP-MS/ICP-OES
Zinc		52.0	ppm	ICP-MS/ICP-OES
Zirconium		0.17	ppm	ICP-MS/ICP-OES

<b>Amino Acids</b>	<b>Specifications</b>	<b>Result</b>	<b>Per Unit</b>	<b>Method</b>
Alanine		3723	mg/l	Derivative-HPLC
Arginine		1,963	mg/l	Derivative-HPLC
Aspartic acid		7331	mg/l	Derivative-HPLC
Cystine		1,337	mg/l	Derivative-HPLC
Glutamic acid		12,223	mg/l	Derivative-HPLC
Glycine		1303	mg/l	Derivative-HPLC
Histidine		1088	mg/l	Derivative-HPLC
Isoleucine		4438	mg/l	Derivative-HPLC
Leucine		8001	mg/l	Derivative-HPLC
Lysine		7145	mg/l	Derivative-HPLC
Methionine		1602	mg/l	Derivative-HPLC
Phenylalanine		1926	mg/l	Derivative-HPLC
Proline		4049	mg/l	Derivative-HPLC
Serine		3140	mg/l	Derivative-HPLC
Theronine		4938	mg/l	Derivative-HPLC
Tryptophan		1270	mg/l	Derivative-HPLC
Tyrosine		1782	mg/l	Derivative-HPLC
Valine		3593	mg/l	Derivative-HPLC

<u>Heavy Metal Count</u>	<u>Specification</u>	<u>Result</u>	<u>Per Unit</u>	<u>Method</u>
Arsenic	<3	2.20	ppm	ICP-MS/ICP-OES
Cadmium	<0.7	0.43	ppm	ICP-MS/ICP-OES
Lead	<2	ND	ppm	ICP-MS/ICP-OES
Mercury	<0.10	ND	ppm	ICP-MS/ICP-OES

Testing Lab (s) Elemental Analysis  
 Lab Report Number: 9919-14a  
 Completion Date: 10/21/2014

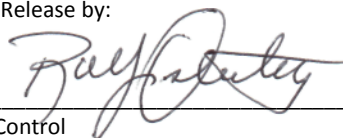
<u>Organic Acids</u>	<u>Specification</u>	<u>Result</u>	<u>Per Unit</u>	<u>Method</u>
Fulvic Acid	10% - 18%	130,000 (13%)	ppm	V & B + LGB
Humic Acid	< 1%	4,500 (0.45%)	ppm	V and B

<u>Microbial Profile</u>	<u>Specification</u>	<u>Result</u>	<u>Per Unit</u>	<u>Method</u>
Total Plate Count	< 1000	< 10 CFU/g	CFU/g	USP <2021>
Coliform	< 10	< 10	CFU/g	AOAC 991.14
E-Coli	< 10	< 10	CFU/g	AOAC 991.14
Salmonella	Absent	Negative	per 25 g	AOAC 998.09
Yeast	< 100	< 10	CFU/g	USP <2021>
Mold	< 100	< 10	CFU/g	USP <2021>

Testing Lab (s) Advanced Labs  
 Lab Report Number: 99099-02  
 Completion Date: 1/20/2015

QA- QC Release Date:  
 1 / 22 /2015

QA - QC Release by:



Quality Control