



**AAFCO**  
Association of American Feed Control Officials



**Minerals Scheme**

**Llama and Alpaca Feed**  
**Test Material Code # 202351**

**Analyte Summary Report**

**# Labs Reporting: 26**  
**# Analytes Reported: 16**  
**Issue Date : 04/30/2023**

Analyte Group Code	Analyte and Method	Total # Tests Submitted	# Tests in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	Horwitz SD	Uncertainty (U) Robust	% RSD - Horwitz	Average Range (Rob R-bar)	Thompson Horwitz %RSD
015	Aluminum (ppm)	17	17	590.1	59.78	<b>589.5</b>	36.10	17.47	6.12%	6.786	6.12%
017	Boron (ppm)	8	7	21.74	0.7861	<b>21.80</b>	2.193	0.3535	10.06%	0.5684	10.06%
021	Cobalt (ppm)	18	18	22.40	2.171	<b>22.47</b>	2.250	0.6477	10.01%	0.6738	10.01%
022	Copper (ppm)	23	23	49.20	7.874	<b>50.27</b>	4.459	1.357	8.87%	1.286	8.87%
023	Fluorine (ppm)	2	2	117.8	3.889						
024	Iodine (ppm)	2	2	48.78	64.10						
034	Selenium, Total (Se) (ppm)	18	15	0.9761	0.6055	<b>0.8049</b>	0.1330	0.0675	16.53%	0.0359	16.53%
036	Sulfur (%)	13	13	0.3854	0.0248	<b>0.3814</b>	0.0176	0.0058	4.62%	0.0152	4.62%
038	Molybdenum (ppm)	20	19	4.097	0.6764	<b>4.186</b>	0.5398	0.1323	12.90%	0.2325	12.90%
041	Vanadium (ppm)	10	10	18.88	2.148	<b>18.93</b>	1.945	0.9271	10.28%	0.4339	10.28%
516	Arsenic, Total (As) (ppm)	19	17	10.22	1.218	<b>10.12</b>	1.143	0.3291	11.29%	0.2579	11.29%
518	Cadmium (ppm)	22	21	5.541	0.6322	<b>5.572</b>	0.6883	0.1582	12.35%	0.1677	12.35%
520	Chromium, Total (Cr) (ppm)	20	19	11.83	3.635	<b>12.21</b>	1.341	0.9294	10.98%	0.2812	10.98%
526	Lead (ppm)	22	20	1.787	0.3297	<b>1.833</b>	0.2676	0.0717	14.60%	0.0712	14.60%
529	Mercury (ppb)	10	9	1,514	834.8	<b>1,542</b>	231.1	367.9	14.99%	49.50	14.99%
539	Nickel (ppm)	18	17	11.06	2.642	<b>11.47</b>	1.271	0.5630	11.08%	0.4120	11.08%

Notes: Robust statistics not used if < 6 labs reporting. In this case Means and SD's may be reported based on Raw Data with obvious blunders removed. Robust Assigned Values indicated in bold font. Horwitz and Revised Horwitz SD's assigned regardless of participant number.