



AAFCO
Proficiency Testing Program



Animal Feed Scheme
Llama & Alpaca Mineral
Test Material Code # 201796

Analyte Summary Report

Analytes Reported: 76
Labs Reporting: 166
Issue Date : 07/31/2017

Analyte Group Code	Analyte and Method	Total # Tests Submitted	# Tests in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
000	Urea (%)	1	1	0.10000							
001	Loss on Drying (%)	58	55	3.9500	0.37532	3.9362	0.27477	0.04631	6.98%	0.10464	3.25%
002	Protein (%)	61	57	6.1892	2.2067	5.8487	0.38627	0.06395	6.60%	0.13997	3.07%
003	Fat (%)	37	33	0.55198	0.20734	0.54911	0.19775	0.04303	36.01%	0.06270	4.38%
004	Fiber (%)	32	31	8.7430	2.7709	8.3297	1.5336	0.34430	18.41%	0.36405	2.91%
005	Ash (%)	112	109	58.241	2.0160	58.409	1.4360	0.17193	2.46%	0.36733	1.31%
006	Total sugars (%)	2	2	5.7643	0.47482						
008	Fiber (%)	15	15	9.5118	2.4186	10.003	0.66189	0.21362	6.62%	0.35480	2.83%
009	Fiber (%)	16	16	12.063	4.3895	12.097	1.2712	0.39726	10.51%	0.50594	2.75%
010	Moisture (%)	23	22	4.4133	1.3481	4.1087	0.61145	0.16295	14.88%	0.12286	3.23%
011	Loss on Drying (%)	49	48	5.5267	0.41048	5.5626	0.30968	0.05587	5.57%	0.10806	3.09%
012	Starch (%)	13	12	1.8599	1.2282	1.8330	1.3333	0.48110	72.74%	0.22484	3.65%
013	Fat (%)	19	18	1.3115	0.59341	1.2693	0.57345	0.16896	45.18%	0.16021	3.86%
015	Aluminum (mg / kg (ppm))	14	14	1,739.7	224.63	1,726.9	214.48	71.652	12.42%	62.087	5.21%
017	Boron (mg / kg (ppm))	13	12	14.692	5.1504	14.641	5.7331	2.0688	39.16%	0.59462	10.68%
019	Calcium (%)	129	128	15.069	2.4024	15.189	0.97944	0.10821	6.45%	0.35258	2.57%
021	Cobalt (mg / kg (ppm))	30	30	20.794	4.4610	21.192	3.9586	0.90343	18.68%	0.98025	10.10%
022	Copper (mg / kg (ppm))	95	93	98.830	12.375	98.557	10.701	1.3870	10.86%	3.8061	8.02%
024	Iodine (mg / kg (ppm))	4	4	290.58	201.32	290.58	201.32	100.66	69.28%	6.5775	6.81%
025	Iron (mg / kg (ppm))	88	86	2,514.4	322.41	2,520.3	242.57	32.696	9.62%	71.576	4.92%
027	Magnesium (%)	104	100	1.2124	0.18436	1.2345	0.08125	0.01016	6.58%	0.03285	3.87%
028	Manganese (mg / kg (ppm))	93	92	1,520.2	159.91	1,533.3	127.02	16.553	8.28%	48.671	5.30%
031	Phosphorus (%)	127	125	3.6247	0.29926	3.6305	0.20379	0.02278	5.61%	0.06908	3.29%
032	Potassium (%)	98	96	2.5552	0.29916	2.5250	0.15908	0.02030	6.30%	0.06137	3.48%
033	Salt as chloride (%)	61	59	8.4104	0.85335	8.5022	0.37764	0.06146	4.44%	0.14243	2.90%
034	Selenium (mg / kg (ppm))	26	25	6.7555	3.0982	6.3657	2.0256	0.50641	31.82%	0.80008	12.11%
035	Sodium (%)	79	77	2.7609	0.31877	2.7503	0.17429	0.02483	6.34%	0.07668	3.43%
036	Sulfur (%)	36	35	2.2581	0.29631	2.2417	0.22658	0.04787	10.11%	0.05601	3.54%
037	Zinc (mg / kg (ppm))	96	94	3,743.8	594.97	3,821.6	338.13	43.595	8.85%	112.48	4.62%
038	Molybdenum (mg / kg (ppm))	14	13	4.6502	0.70598	4.6417	0.78241	0.27125	16.86%	0.22718	12.70%

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040	Barium (mg / kg (ppm))	2	2	13.614	2.2000						
041	Vanadium (mg / kg (ppm))	1	1	30.000							
042	Chloride (%)	1	1	4.6200							
101	Choline Chloride (mg / kg (ppm))	3	3	937.00	228.74	937.00	228.74	132.06	24.41%	26.667	5.71%
102	Niacin (mg / kg (ppm))	3	3	102.49	125.13	102.49	125.13	72.244	122.09%	11.540	7.97%
103	Pantothenic Acid (mg / kg (ppm))	2	2	63.475	74.282						
104	Riboflavin (mg / kg (ppm))	1	1	2.0850							
105	Thiamine (mg / kg (ppm))	6	6	81.535	18.927	81.017	20.247	10.332	24.99%	5.9108	8.26%
106	Vitamin A (KU / kg)	28	27	344.46	89.453	344.03	81.223	19.539	23.61%	17.868	
107	Vitamin B12 (µg / kg (ppb))	1	1	5,395.0							
108	Vitamin D3 (KU / kg)	10	9	46.287	4.8508	46.287	5.5008	2.2920	11.88%	1.4491	
109	Vitamin E (IU/kg)	23	22	1,135.3	612.99	1,080.2	339.94	90.594	31.47%	38.952	
111	Vitamin C, phosphorylated (mg / kg (ppm))	5	5	177.43	49.579	177.43	49.579	22.172	27.94%	9.3000	7.34%
112	Pyridoxine (µg / g)	1	1	170.50							
113	Folic Acid (mg / kg (ppm))	1	1	1.4100							
114	Biotin (mg / kg (ppm))	2	2	0.31275	0.05339						
120	Alanine (%)	6	5	0.17806	0.00536	0.17806	0.00536	0.00299	3.01%	0.00136	5.19%
121	Arginine (%)	7	7	0.29611	0.02621	0.29611	0.02972	0.01404	10.04%	0.01530	4.80%
122	Aspartic (%)	6	6	0.40399	0.02000	0.40465	0.02115	0.01079	5.23%	0.01275	4.58%
124	Cysteine/Cystine (%)	8	8	0.09166	0.10150	0.06187	0.01634	0.00722	26.41%	0.00238	6.08%
125	Glutamic (%)	6	6	0.65994	0.01869	0.65312	0.00262	0.00134	0.40%	0.01928	4.26%
126	Glycine (%)	6	6	0.18565	0.00704	0.18565	0.00798	0.00407	4.30%	0.00363	5.15%
127	Histidine (%)	6	6	0.09205	0.00818	0.09205	0.00927	0.00473	10.07%	0.00520	5.73%
128	Isoleucine (%)	6	6	0.12083	0.00633	0.12083	0.00718	0.00366	5.94%	0.00585	5.50%
129	Leucine (%)	6	6	0.22474	0.00938	0.22474	0.01064	0.00543	4.73%	0.00565	5.01%
130	L-Lysine (%)	12	12	1.0145	0.28042	1.0618	0.14623	0.05277	13.77%	0.03936	3.96%
131	Methionine (%)	7	7	0.32911	0.17562	0.31359	0.16181	0.07645	51.60%	0.01674	4.76%
132	Phenylalanine (%)	6	6	0.18639	0.02183	0.18393	0.01876	0.00957	10.20%	0.00475	5.16%
133	Proline (%)	6	6	0.16669	0.02370	0.16669	0.02687	0.01371	16.12%	0.00852	5.24%
134	Serine (%)	6	5	0.16832	0.00381	0.16832	0.00381	0.00213	2.27%	0.00144	5.23%
135	Threonine (%)	7	7	0.12742	0.00484	0.12742	0.00549	0.00259	4.31%	0.00453	5.45%
136	Tryptophan (%)	5	5	0.04619	0.00650	0.04619	0.00650	0.00291	14.07%	0.00590	6.35%
137	Tyrosine (%)	6	6	0.12360	0.02203	0.12360	0.02499	0.01275	20.22%	0.00480	5.48%
138	Valine (%)	6	6	0.17041	0.00990	0.17075	0.00571	0.00291	3.34%	0.00788	5.22%
160	Fructose (%)	1	1	0.42500							
162	Glucose (%)	1	1	0.28000							
163	Lactose (%)	1	1	0.33000							
165	Sucrose (%)	1	1	3.1750							

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166	Raffinose (%)	1	1	0.23500							
400	Water activity (Units)	8	8	0.44593	0.01120	0.44637	0.01062	0.00469	2.38%	0.00259	
412	#N/A	1	1	1.2450							
516	Arsenic, total (mg / kg (ppm))	8	8	3.1986	0.26427	3.1925	0.28599	0.12639	8.96%	0.10621	13.43%
518	Cadmium (mg / kg (ppm))	9	9	0.68502	0.08075	0.68790	0.08502	0.03543	12.36%	0.03840	16.92%
520	Chromium (mg / kg (ppm))	8	8	42.229	7.1778	42.229	8.1396	3.5972	19.28%	1.2563	9.11%
526	Lead (mg / kg (ppm))	8	8	1.5516	0.44424	1.6442	0.24171	0.10682	14.70%	0.08889	14.84%
539	Nickel (mg / kg (ppm))	5	5	14.710	4.1026	14.710	4.1026	1.8347	27.89%	0.49714	10.67%

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.