

**ORIGINATION INC
JILL FASER OR JOHN FALLIN
1300 MCKNIGHT RD N
MAPLEWOOD MN 55119**

REPORT OF ANALYSIS

For: (28415) ORIGINATION INC
ANIMAL FEED SUPPLEMENT
FINISHED FEEDS

Analysis	Level Found		Units	Reporting		Analyst- Date	Verified- Date
	As Received	Dry Weight		Limit	Method		
Sample ID: MEGANION	Lab Number: 12664688						
Moisture	11.21	//////	%	0.01	AOAC 930.15 *	vrm7-2016/07/07	cde2-2016/07/08
Dry matter	88.79	//////	%	0.010	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Protein (crude)	79.0	89.0	%	0.20	AOAC 990.03 *	kfl0-2016/07/07	cde2-2016/07/08
Fat (crude)	0.11	0.12	%	0.10	AOAC 945.16 *	kfl0-2016/07/07	cde2-2016/07/08
Fiber (acid detergent)	2.6	2.9	%	0.5	ANKOM Tech. Method *	pgr4-2016/07/07	cde2-2016/07/08
Ash	7.62	8.58	%	0.10	AOAC 942.05 *	kap7-2016/07/08	cde2-2016/07/08
Total digestible nutrients	59.4	66.9	%	0.1	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Net energy (lactation)	0.61	0.69	Mcal/lbs	0.01	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Net energy (maint.)	0.61	0.69	Mcal/lbs	0.01	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Net energy (gain)	0.37	0.42	Mcal/lbs	0.01	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Digestible energy	1.19	1.34	Mcal/lbs	0.01	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Metabolizable energy	0.92	1.04	Mcal/lbs	0.01	Calculation *	Auto-2016/07/08	Auto-2016/07/08
Sulfur (total)	3.21	3.62	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Phosphorus (total)	0.40	0.45	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Potassium (total)	1.24	1.40	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Magnesium (total)	2.51	2.83	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Calcium (total)	0.33	0.37	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Sodium (total)	0.04	0.04	%	0.01	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Iron (total)	299	337	ppm	5.0	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08

The result(s) issued on this report only reflect the analysis of the sample(s) submitted.

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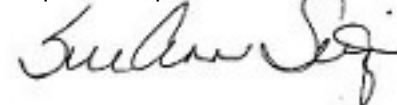
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For: (28415) ORIGINATION INC
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	As Received	Dry Weight		Limit	Method		
Sample ID: MEG ANION	Lab Number: 12664688 (con't)						
Manganese (total)	36.5	41.1	ppm	1.0	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Copper (total)	7.8	8.8	ppm	1.0	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Zinc (total)	34.8	39.2	ppm	1.0	AOAC 985.01 (mod) *	cvs7-2016/07/07	cde2-2016/07/08
Chloride	21.04	23.70	%	0.02	Soil Sci & Plant Analysis *	cvs7-2016/07/07	cde2-2016/07/08
Non-protein nitrogen	48.9	55.1	%	0.1	AOAC 941.04 *	cvs7-2016/07/07	cde2-2016/07/08

ppm = parts per million, ppm = mg/kg Mineral analysis performed by ICAP using a wet digest procedure.

For questions please contact:



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Account Manager
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Detailed Method Description(s)

Moisture

Analysis follows MWL FD 016 which is based on AOAC 930.15. A sample is blended, mixed, or ground to obtain a homogenous sub-sample. The sample aliquot is placed in a pre-weighed tin, weighed to get a sample weight and then placed in a 135°C convection oven for two (2) hours. The sample is then removed, cooled in a desiccator and reweighed. The loss in weight is reported as % moisture

Calculation

Analytical results are entered into applicable formulas to provide a calculated result which is reported.

Protein (Crude)

Analysis follows MWL FD 070 which is based on AOAC 990.03. The sample is placed in a combustion instrument and the amount of nitrogen is obtained. The nitrogen value is multiplied by a factor of 6.25 and that value reported as crude protein.

Crude Fat

Analysis follows MWL FD 026 which is based on AOAC 945.16. The sample is extracted with drip immersion of the sample in petroleum (pet) ether. The pet ether is poured into a pre-weighed container and then evaporated. The container is re-weighed and the increase in weight is reported as crude fat

Acid Detergent Fiber

Analysis follows MWL FD 021 which is based on Ankom Technology method. The sample is sealed in a small bag and the bag immersed in a solution that dissolves certain materials. The bag is washed and dried and re-weighed. The material remaining in the bag is reported as acid detergent fiber

Ash

Analysis follows MWL FD 019 which is based on AOAC 942.05. The sample is weighed and placed in a muffle furnace at 600°C. After a period of time, the sample is removed and the remaining material weighed and reported as ash. Moisture and organic material is driven off.

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REPORT NUMBER

16-190-9498

REPORT DATE
Jul 08, 2016

SEND TO
28415

RECEIVED DATE
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Jul 08, 2016

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ICP analysis of Feeds

Analysis follows MWL ME 029 which is based on AOAC 985.01. Samples have been prepared using MWL ME 069 which is a wet ash procedure that requires mineral acids and heat. Sample analysis involves moving the sample extract into the ICP where it is nebulized and introduced into the high temperature plasma which energizes the electrons of the dissolved minerals/metals. As the energized electrons of the minerals/metals return to ground state, energy is released as light. The emitted wavelength(s) and light intensities are used to identify and quantitate the minerals/metals in the sample

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