

UNITED STATES DEPARTMENT OF AGRICULTURE

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FEDERAL MILK ORDERS 124 & 131

MA RAW MILK CONTROL SET -- REFERENCE CHEMISTRY BASED ON TRUE PROTEIN

Today's date:	1/11/2008	Controls shipped:	1/8/2008
Controls produced:	1/8/2008	New stripe color:	BLACK

sample ID	fat (ether)	true prot (kjeldahl)	t.solids (oven dry)	ash f(protein)	lactose (diff.)	o. sol (diff.)	SNF (diff.)	SCC (DM)
RED	3.809	3.024	12.597	0.718	4.856	5.764	8.788	218
DK BLUE	3.662	2.990	12.423	0.716	4.865	5.771	8.761	74
PURPLE	3.658	3.233	12.643	0.731	4.831	5.752	8.985	528
CLEAR	3.124	3.226	12.131	0.730	4.861	5.782	9.007	470
GOLD	3.675	2.983	12.379	0.716	4.815	5.721	8.703	180
DK ORANGE	3.815	3.198	12.750	0.729	4.818	5.736	8.935	238
TURQUOISE	5.917	3.868	15.424	0.768	4.680	5.639	9.506	190
GREEN	4.499	3.260	13.402	0.732	4.720	5.643	8.903	1054
BROWN	5.132	3.568	14.473	0.751	4.832	5.773	9.341	231
PINK	4.556	3.526	13.831	0.748	4.811	5.749	9.275	308
WHITE	4.273	3.192	12.990	0.728	4.606	5.524	8.716	385
HOT PINK	4.636	3.405	13.763	0.741	4.791	5.722	9.127	83
average	4.230	3.289	13.234	0.734	4.791	5.715	9.004	330

**for those labs that can only calibrate on 10 controls, we recommend leaving out the two vials with the highest somatic cell counts.*

Calculation Bases per Seattle MA Lab

Primary reference results: fat by ether extraction (4-lab mean; each lab runs duplicates)
true protein by kjeldahl direct analysis (4-lab mean; each lab runs duplicates)
total solids by oven drying (4-lab mean; each lab runs duplicates)

Secondary reference values: ash = 0.5379 + 0.0596*protein
lactose = TS – fat – protein – ash -- 0.19
other solids = TS – fat – protein (= lactose + ash + 0.19)
SNF = TS – fat (= lactose + ash + 0.19 + protein)

(if lactose is determined by difference, all reference chemical values should be internally consistent -- i.e., all terms in above equations must add and subtract perfectly)

Somatic cell counts: included for those labs interested in this measurement. Reference values (thousands of counts) represent average of direct microscopy by 7-10 technicians.