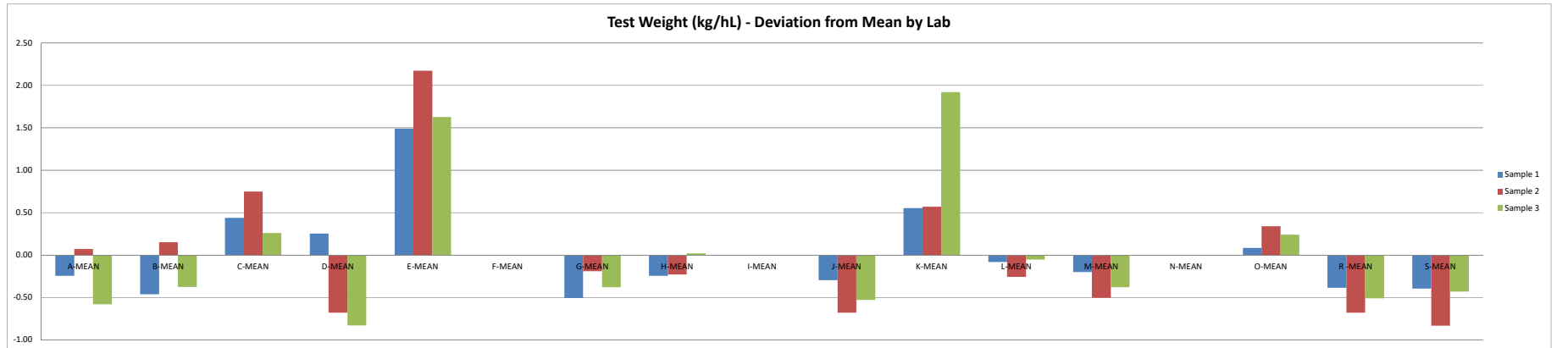


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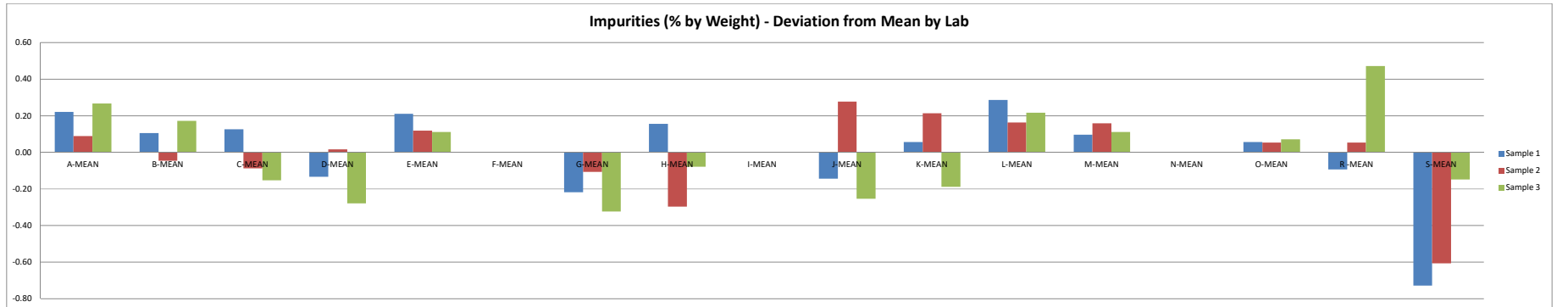
Test Weight (kg/hL)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1	68.00	-0.25	67.79	-0.46	68.69	0.44	68.50	0.25	69.74	1.49			67.74	-0.51	68.00	-0.25			67.95	-0.30	68.80	0.55	68.17	-0.08	68.045	-0.20			68.33	0.08	67.86	-0.39	67.85	-0.40	0.54	68.25
Sample 2	67.50	0.07	67.58	0.15	68.18	0.75	66.75	-0.68	69.61	2.17			67.24	-0.19	67.20	-0.23			66.75	-0.68	68.00	0.57	67.18	-0.26	66.925	-0.51			67.77	0.34	66.75	-0.68	66.60	-0.83	0.80	67.43
Sample 3	66.50	-0.58	66.71	-0.37	67.34	0.26	66.25	-0.83	68.71	1.63			66.70	-0.38	67.10	0.02			66.55	-0.53	69.00	1.92	67.03	-0.05	66.7	-0.38			67.32	0.24	66.57	-0.51	66.65	-0.43	0.82	67.08
Mean Absolute Difference		0.30		0.33		0.48		0.59		1.76				0.36		0.17				0.50		1.01		0.13		0.36			0.22		0.53		0.55			
Mean of Difference		-0.25		-0.23		0.48		-0.42		1.76				-0.36		-0.15				-0.50		1.01		-0.13		-0.36			0.22		-0.53		-0.55			



Test Weight (kg/hL) Z - score																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S	
Sample 1	-0.45	-0.85	0.81	0.47	2.75			-0.93	-0.45		-0.55	1.02	-0.15	-0.37		0.15	-0.71	-0.73
Sample 2	0.09	0.19	0.94	-0.85	2.73			-0.24	-0.29		-0.85	0.72	-0.32	-0.63		0.43	-0.85	-1.04
Sample 3	-0.71	-0.46	0.32	-1.02	1.99			-0.47	0.02		-0.65	2.36	-0.07	-0.47		0.29	-0.63	-0.53

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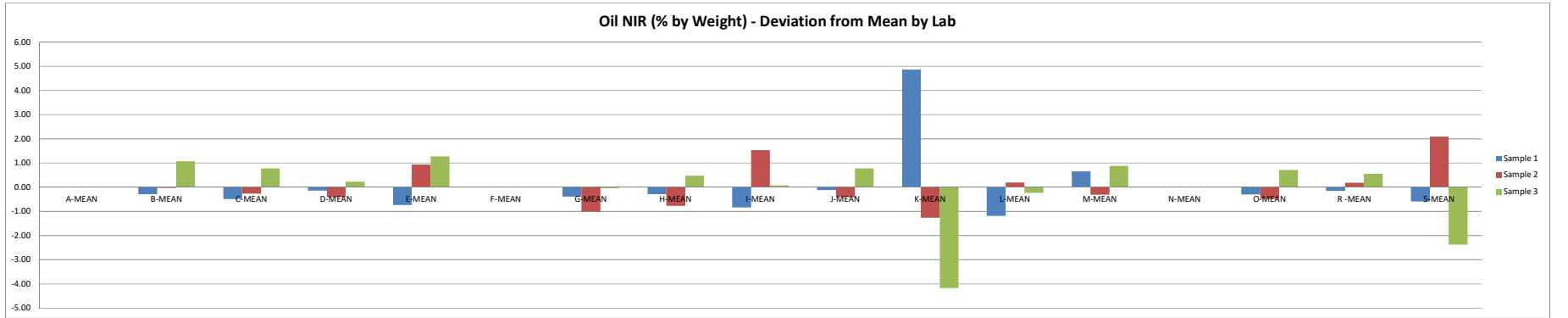
Impurities (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1	0.97	0.22	0.85	0.11	0.87	0.13	0.61	-0.13	0.96	0.21			0.53	-0.22	0.90	0.16			0.60	-0.14	0.80	0.06	1.03	0.29	0.84	0.10		0.80	0.06	0.65	-0.09	0.02	-0.73	0.26	0.74	
Sample 2	0.74	0.09	0.60	-0.05	0.56	-0.09	0.66	0.02	0.77	0.12			0.54	-0.11	0.35	-0.30			0.93	0.28	0.86	0.21	0.81	0.16	0.81	0.16		0.70	0.05	0.70	0.05	0.04	-0.61	0.23	0.65	
Sample 3	1.00	0.27	0.90	0.17	0.58	-0.15	0.45	-0.28	0.84	0.11			0.41	-0.32	0.65	-0.08			0.48	-0.25	0.54	-0.19	0.95	0.22	0.84	0.11		0.80	0.07	1.20	0.47	0.58	-0.15	0.24	0.73	
Mean Absolute Difference		0.19		0.11		0.12		0.14		0.15				0.22		0.18				0.23		0.15		0.22		0.12			0.06		0.21			0.49		
Mean of Difference		0.19		0.08		-0.04		-0.13		0.15				-0.22		-0.07				-0.04		0.03		0.22		0.12			0.06		0.14			-0.49		



Impurities (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	0.86	0.41	0.49	-0.52	0.82		-0.85	0.61		-0.56	0.22	1.11	0.37		0.22	-0.36	-2.82
Sample 2	0.39	-0.20	-0.38	0.07	0.52		-0.47	-1.30		1.22	0.93	0.71	0.69		0.23	0.23	-2.65
Sample 3	1.12	0.72	-0.65	-1.17	0.47		-1.36	-0.33		-1.07	-0.79	0.91	0.47		0.30	1.99	-0.62

AOF Test Check Program 2019 - Round 1

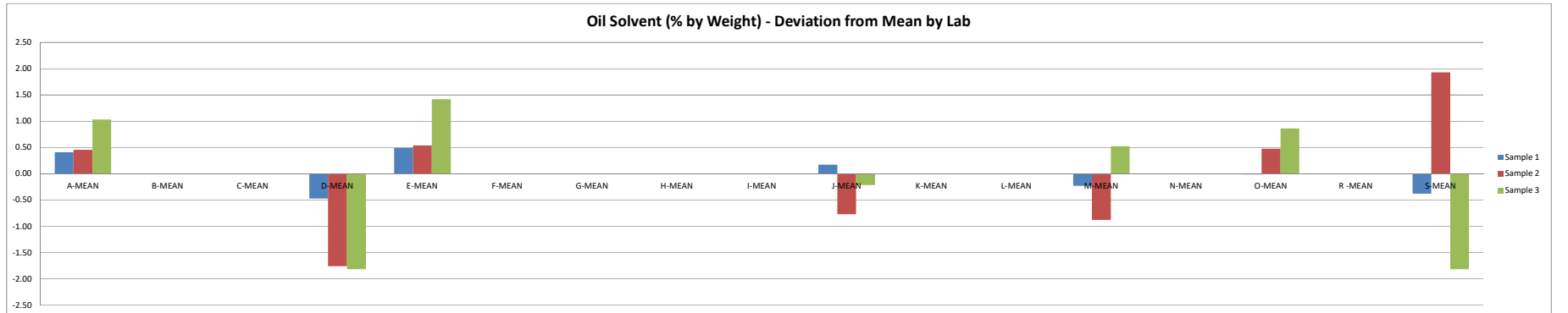
Oil NIR (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1			43.85	-0.29	43.65	-0.49	44.00	-0.14	43.40	-0.74			43.76	-0.38	43.85	-0.29	43.30	-0.84	44.02	-0.12	49.00	4.86	42.95	-1.19	44.80	0.66			43.84	-0.30	43.99	-0.15	43.55	-0.59	1.46	44.14
Sample 2			46.49	-0.03	46.25	-0.26	46.10	-0.41	47.45	0.94			45.52	-1.00	45.75	-0.76	48.05	1.54	46.11	-0.41	45.25	-1.26	46.71	0.20	46.20	-0.31			46.04	-0.47	46.70	0.19	48.60	2.09	0.94	46.51
Sample 3			49.45	1.08	49.15	0.77	48.60	0.23	49.65	1.28			48.34	-0.04	48.85	0.47	48.45	0.08	49.15	0.77	44.20	-4.18	48.15	-0.23	49.25	0.88			49.09	0.71	48.94	0.56	46.00	-2.38	1.49	48.38
Mean Absolute Difference				0.47		0.51		0.26		0.98				0.47		0.51		0.82		0.44		3.43		0.54		0.62			0.49		0.30		1.68			
Mean of Difference				0.25		0.01		-0.11		0.49				-0.47		-0.19		0.26		0.08		-0.19		-0.41		0.41			-0.02		0.20		-0.29			



Oil NIR (% by Weight) Z - score																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S	
Sample 1		-0.20	-0.33	-0.10	-0.51		-0.26	-0.20	-0.57	-0.08	3.33	-0.81	0.45			-0.20	-0.10	-0.40
Sample 2		-0.03	-0.28	-0.44	0.99		-1.06	-0.81	1.63	-0.43	-1.34	0.21	-0.33			-0.50	0.20	2.21
Sample 3		0.72	0.52	0.15	0.85		-0.03	0.32	0.05	0.52	-2.80	-0.15	0.59			0.48	0.38	-1.59

**AOF Test Check Program 2019 - Round 1**

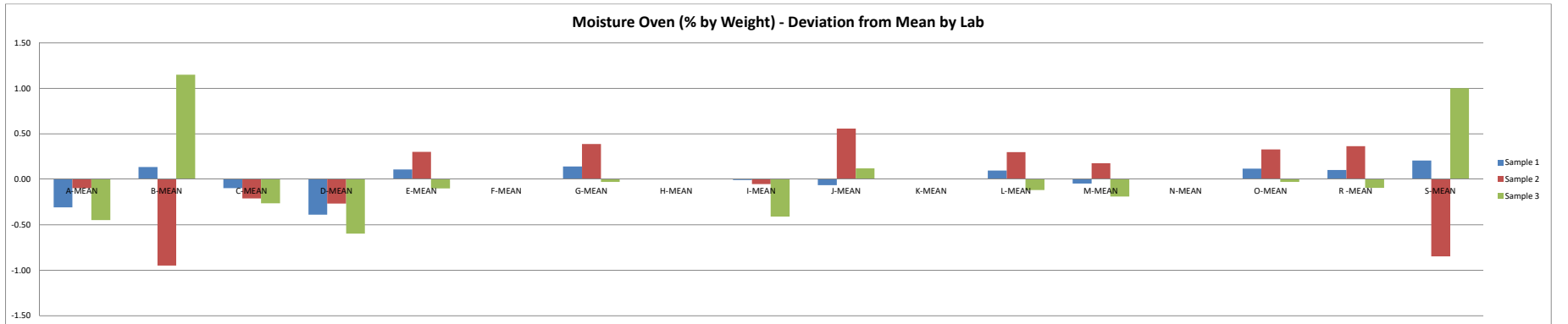
Oil Solvent (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1	44.09	0.41					43.21	-0.47	44.17	0.49									43.85	0.17					43.45	-0.23			43.67	-0.01			43.30	-0.38	0.38	43.68
Sample 2	47.13	0.46					44.91	-1.76	47.21	0.54									45.90	-0.77					45.79	-0.88			47.15	0.48			48.60	1.93	1.22	46.67
Sample 3	49.55	1.03					46.70	-1.82	49.94	1.42									48.30	-0.21					49.04	0.52			49.38	0.86			46.70	-1.81	1.34	48.51
Mean Absolute Difference		0.63						1.35		0.82										0.39						0.54			0.45					1.37		
Mean of Difference		0.63						-1.35		0.82										-0.27						-0.19			0.44					-0.09		



Oil Solvent (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	1.09			-1.24	1.31						0.46			-0.60	-0.03		-0.99
Sample 2	0.37			-1.44	0.44						-0.63			-0.72		0.39	1.58
Sample 3	0.77			-1.36	1.06						-0.16			0.39		0.64	-1.35

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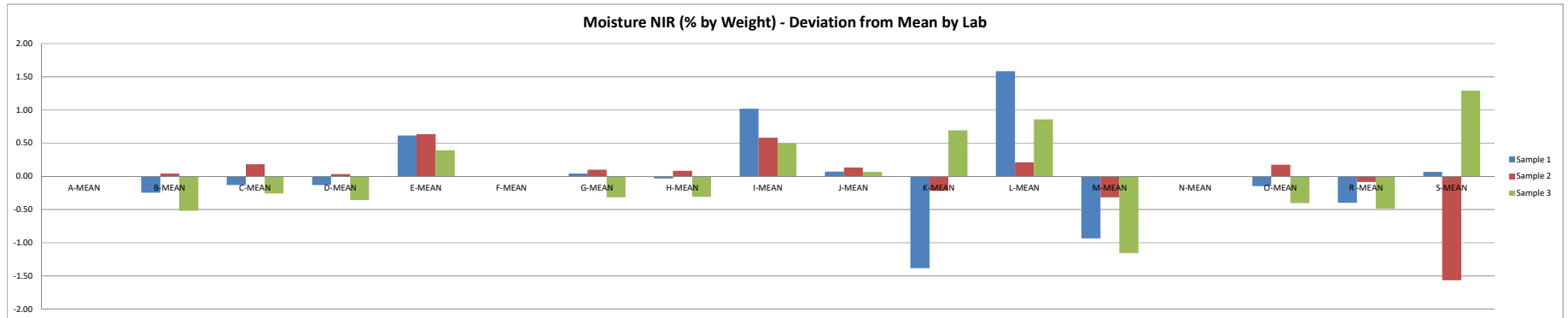
Moisture Oven (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1	5.09	-0.31	5.53	0.14	5.30	-0.10	5.01	-0.39	5.50	0.11			5.54	0.14			5.39	-0.01	5.33	-0.06			5.49	0.10	5.35	-0.05			5.51	0.12	5.50	0.10	5.60	0.21	0.18	5.39
Sample 2	5.00	-0.10	4.15	-0.95	4.89	-0.21	4.83	-0.27	5.40	0.30			5.49	0.39			5.05	-0.05	5.66	0.56			5.40	0.30	5.28	0.18			5.43	0.33	5.46	0.36	4.25	-0.85	0.47	5.10
Sample 3	3.85	-0.45	5.45	1.15	4.04	-0.26	3.70	-0.60	4.20	-0.10			4.27	-0.03			3.89	-0.41	4.42	0.12			4.18	-0.12	4.11	-0.19			4.27	-0.03	4.21	-0.09	5.30	1.00	0.52	4.30
Mean Absolute Difference		0.28		0.75		0.19		0.42		0.17			0.19				0.16		0.25				0.17		0.14			0.16		0.19		0.69				
Mean of Difference		-0.28		0.11		-0.19		-0.42		0.10			0.17				-0.16		0.21				0.09		-0.02			0.14		0.12		0.12				



Moisture Oven (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	-1.71	0.76	-0.54	-2.16	0.60		0.79		-0.04	-0.35		0.54	-0.27		0.65	0.57	1.15
Sample 2	-0.21	-2.01	-0.45	-0.57	0.65		0.83		-0.11	1.19		0.63	0.38		0.70	0.77	-1.80
Sample 3	-0.87	2.23	-0.51	-1.16	-0.19		-0.06		-0.79	0.24		-0.23	-0.36		-0.06	-0.18	1.94

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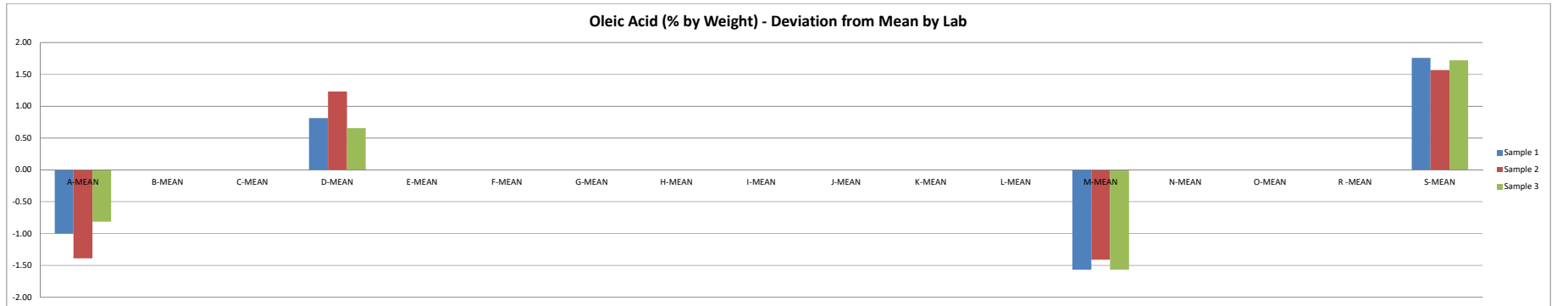
Moisture NIR (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1			4.74	-0.25	4.85	-0.13	4.85	-0.13	5.60	0.62			5.03	0.04	4.95	-0.03	6.00	1.02	5.06	0.07	3.60	-1.38	6.57	1.58	4.05	-0.93			4.84	-0.15	4.59	-0.40	5.05	0.07	0.73	4.98
Sample 2			5.16	0.04	5.30	0.18	5.15	0.03	5.75	0.63			5.22	0.10	5.20	0.08	5.70	0.58	5.25	0.13	4.90	-0.22	5.33	0.21	4.80	-0.32			5.29	0.17	5.03	-0.09	3.55	-1.57	0.52	5.12
Sample 3			3.49	-0.52	3.75	-0.26	3.65	-0.36	4.40	0.39			3.69	-0.32	3.70	-0.31	4.50	0.49	4.08	0.07	4.70	0.69	4.87	0.86	2.85	-1.16			3.61	-0.40	3.52	-0.49	5.30	1.29	0.66	4.01
Mean Absolute Difference				0.27		0.19		0.17		0.55				0.15		0.14		0.70		0.09		0.76		0.88		0.80			0.24		0.32		0.98			
Mean of Difference				-0.24		-0.07		-0.15		0.55				-0.06		-0.08		0.70		0.09		-0.30		0.88		-0.80			-0.12		-0.32		-0.07			



Moisture NIR (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1		-0.34	-0.18	-0.18	0.84		0.06	-0.04	1.39	0.10	-1.88	2.16	-1.27		-0.20	-0.54	0.09
Sample 2		0.09	0.36	0.07	1.22		0.19	0.16	1.13	0.26	-0.42	0.40	-0.61		0.34	-0.17	-3.02
Sample 3		-0.78	-0.39	-0.54	0.59		-0.48	-0.46	0.75	0.10	1.05	1.30	-1.75		-0.61	-0.74	1.96

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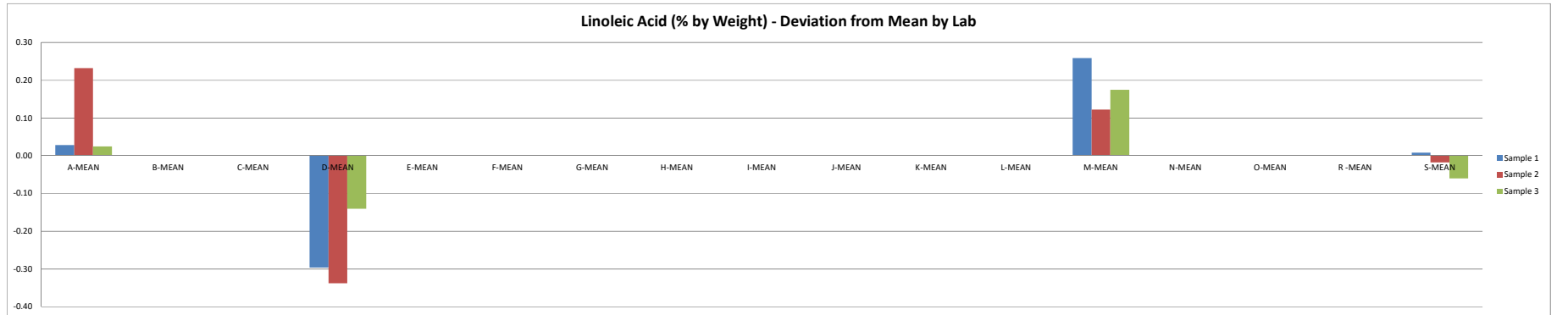
Oleic Acid (% by Weight)																																							
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN			
Sample 1	61.29	-1.00					63.11	0.81																	60.73	-1.57								64.05	1.76	1.55	62.29		
Sample 2	64.49	-1.39					67.11	1.23																	64.47	-1.41								67.45	1.57	1.62	65.88		
Sample 3	59.37	-0.81					60.84	0.66																	58.61	-1.57								61.90	1.72	1.47	60.18		
Mean Absolute Difference		1.07						0.90																											1.52				
Mean of Difference		-1.07						0.90																												-1.52			1.68



Oleic Acid (% by Weight) (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	-0.65			0.52									-1.01				1.13
Sample 2	-0.86			0.76									-0.87				0.97
Sample 3	-0.55			0.45									-1.06				1.17

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Linoleic Acid (% by Weight)																																					
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN	
Sample 1		21.42	0.03				21.10	-0.30																	21.65	0.26								21.40	0.01	0.23	21.39
Sample 2		16.15	0.23				15.58	-0.34																	16.04	0.12								15.90	-0.02	0.25	15.92
Sample 3		22.54	0.02				22.37	-0.14																	22.69	0.18								22.45	-0.06	0.13	22.51
Mean Absolute Difference			0.10					0.26																											0.03		
Mean of Difference								-0.26																											-0.02		

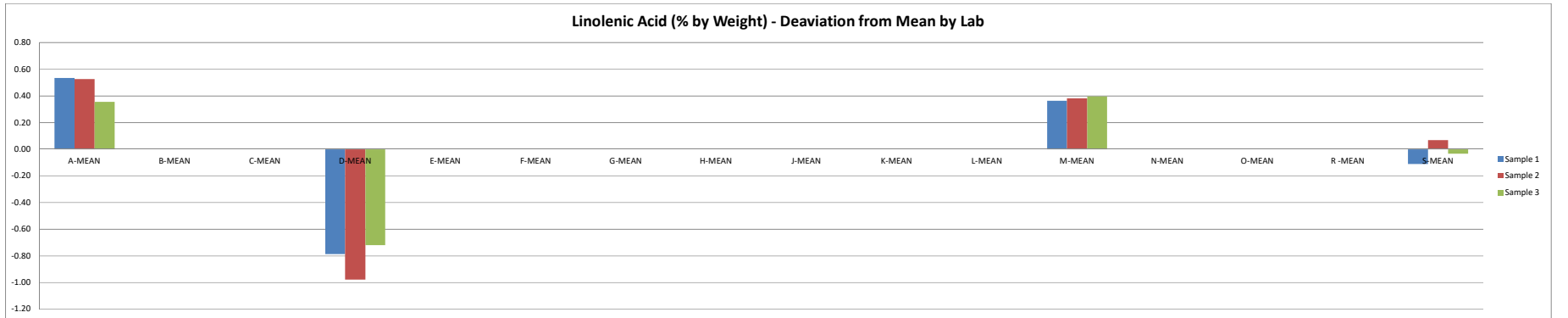


Linoleic Acid (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	0.13			-1.30									1.14				0.04
Sample 2	0.94			-1.37									0.50				-0.07
Sample 3	0.19			-1.04									1.30				-0.45



**AOF Test Check Program 2019 - Round 1**

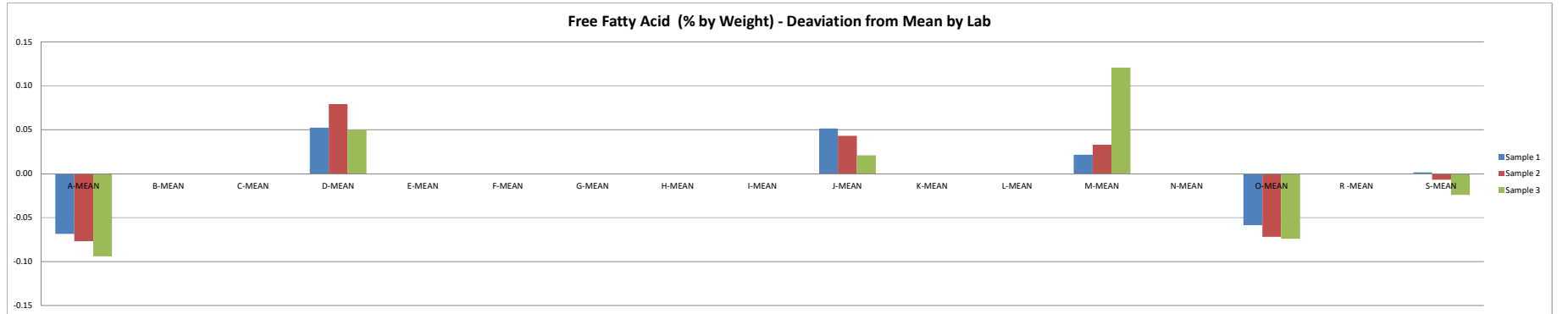
Linolenic Acid (% by Weight)																																					
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN	
Sample 1		8.95	0.53					7.63	-0.79																8.78	0.36								8.30	-0.11	0.59	8.41
Sample 2		10.66	0.53					9.16	-0.98																10.52	0.38								10.20	0.07	0.68	10.13
Sample 3		9.94	0.36					8.87	-0.72																9.98	0.40								9.55	-0.03	0.52	9.58
Mean Absolute Difference			0.47						0.83																	0.38									0.07		
Mean of Difference			0.47						-0.83																	0.38									-0.03		



Linolenic Acid (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	0.90			-1.33									0.62				-0.19
Sample 2	0.78			-1.44									0.56				0.10
Sample 3	0.69			-1.39									0.77				-0.07

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Free Fatty Acid (% by Weight)																																				
	A	A-MEAN	B	B-MEAN	C	C-MEAN	D	D-MEAN	E	E-MEAN	F	F-MEAN	G	G-MEAN	H	H-MEAN	I	I-MEAN	J	J-MEAN	K	K-MEAN	L	L-MEAN	M	M-MEAN	N	N-MEAN	O	O-MEAN	R	R-MEAN	S	S-MEAN	STDEV	MEAN
Sample 1		0.05	-0.07					0.17	0.05										0.17	0.05					0.14	0.02			0.06	-0.06			0.12	0.00	0.05	0.12
Sample 2		0.05	-0.08					0.21	0.08										0.17	0.04					0.16	0.03			0.06	-0.07			0.12	-0.01	0.06	0.13
Sample 3		0.09	-0.09					0.23	0.05										0.20	0.02					0.30	0.12			0.11	-0.07			0.16	-0.02	0.08	0.18
Mean Absolute Difference			0.08						0.06											0.04						0.06			0.07					0.01		
Mean of Difference			-0.08						0.06											0.04						0.06			-0.07					-0.01		



Free Fatty Acid (% by Weight) Z - score																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1	-1.30			0.99						0.97			0.41		-1.11		0.03
Sample 2	-1.20			1.24						0.68			0.52		-1.13		-0.11
Sample 3	-1.17			0.62						0.26			1.50		-0.92		-0.30

# AOF Test Check Program 2019 - Round 1

2019 - Round 1

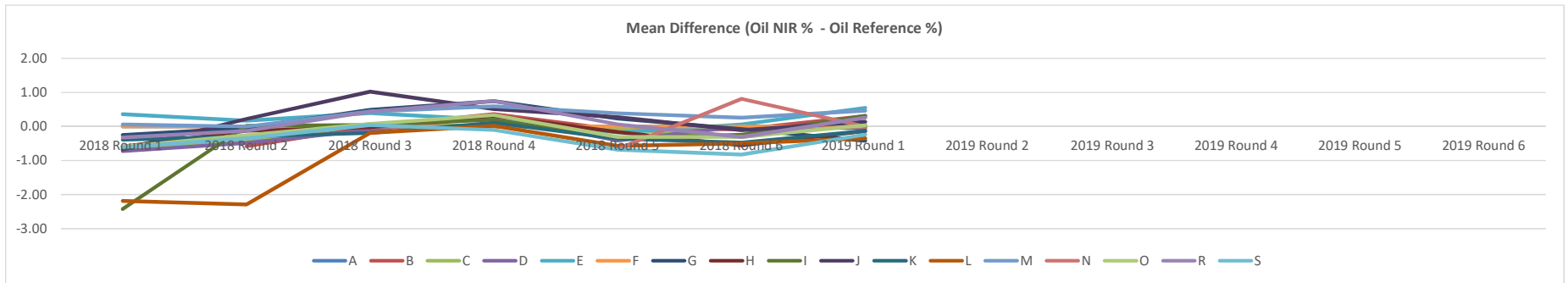
Oil % (NIR) - Oil % (Mean Reference)																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1		0.17	-0.02	0.32	-0.28		0.08	0.17	-0.38	0.34	5.33	-0.73	1.12		0.16	0.31	-0.13
Sample 2		-0.18	-0.42	-0.57	0.78		-1.15	-0.92	1.38	-0.56	-1.42	0.04	-0.47		-0.63	0.03	1.93
Sample 3		0.94	0.64	0.09	1.14		-0.18	0.34	-0.06	0.64	-4.31	-0.37	0.74		0.57	0.42	-2.51
Average		0.31	0.06	-0.05	0.55		-0.42	-0.14	0.31	0.14	-0.14	-0.35	0.46		0.04	0.26	-0.24

Moisture % (NIR) - Moisture % (Mean Reference)																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
Sample 1		-0.66	-0.54	-0.54	0.21		-0.37	-0.44	0.61	-0.34	-1.79	1.17	-1.34		-0.56	-0.81	-0.34
Sample 2		0.06	0.20	0.05	0.65		0.12	0.10	0.60	0.15	-0.20	0.23	-0.30		0.19	-0.07	-1.55
Sample 3		-0.81	-0.55	-0.65	0.10		-0.61	-0.60	0.20	-0.22	0.40	0.57	-1.45		-0.69	-0.78	1.00
Average		-0.47	-0.30	-0.38	0.32		-0.29	-0.31	0.47	-0.14	-0.53	0.66	-1.03		-0.35	-0.55	-0.30

# AOF Test Check Program 2019 - Round 1

## Collective Oil

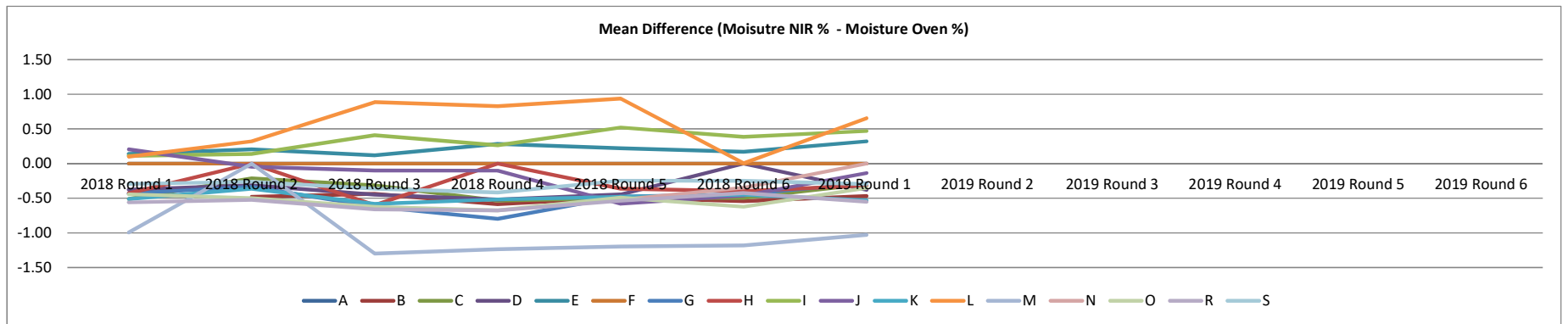
Mean Difference (Oil NIR % - Oil Reference %)																			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S		
2018 Round 1			-0.64	-0.72	0.36		-0.25	-0.59	-2.42	-0.67	-0.39	-2.18	0.06		-0.59	-0.32	-0.61		
2018 Round 2		-0.58	-0.45	-0.48	0.17		-0.04	-0.13	0.02	0.22	-0.30	-2.29			-0.26	-0.13	-0.35		
2018 Round 3		0.00	0.08	-0.11	0.39		0.49	-0.02	0.04	1.02	-0.19	-0.19	0.44		0.08	0.44	0.04		
2018 Round 4		0.36	0.01	0.29	0.19		0.74	0.31	0.20	0.51	0.11	0.02	0.59		0.33	0.75	-0.11		
2018 Round 5		-0.10	-0.08	-0.41	-0.18		0.23	-0.16	-0.34	0.27	-0.36	-0.57	0.39	-0.66	-0.31	0.06	-0.68		
2018 Round 6		-0.08	-0.31		0.06		-0.07	-0.56	-0.24	-0.11	-0.48	-0.50	0.26	0.81	-0.31	-0.31	-0.83		
2019 Round 1		0.31	0.06	-0.05	0.55		-0.42	-0.14	0.31	0.14	-0.14	-0.35	0.46		0.04	0.26	-0.24		
2019 Round 2																			
2019 Round 3																			
2019 Round 4																			
2019 Round 5																			
2019 Round 6																			



# AOF Test Check Program 2019 - Round 1

## Collective Moisture

Mean Difference (Moisture NIR % - Moisture Reference %)																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	R	S
2018 Round 1			-0.51	-0.38	0.14		-0.43	-0.43	0.11	0.21	-0.51	0.10	-0.99		-0.44	-0.56	-0.29
2018 Round 2		-0.48	-0.21	-0.31	0.21		-0.33		0.14	-0.04	-0.36	0.32			-0.50	-0.52	-0.26
2018 Round 3		-0.44	-0.31	-0.45	0.12		-0.62	-0.60	0.41	-0.10	-0.58	0.89	-1.30		-0.62	-0.66	-0.36
2018 Round 4		-0.59	-0.53	-0.52	0.28		-0.80		0.26	-0.10	-0.52	0.83	-1.23		-0.67	-0.68	-0.42
2018 Round 5		-0.49	-0.50	-0.45	0.22		-0.47	-0.36	0.52	-0.58	-0.48	0.94	-1.20	-0.52	-0.49	-0.54	-0.25
2018 Round 6		-0.54	-0.50		0.17		-0.44	-0.40	0.39	-0.46	-0.45	0.00	-1.18	-0.35	-0.62	-0.43	-0.25
2019 Round 1		-0.47	-0.30	-0.38	0.32		-0.29	-0.31	0.47	-0.14	-0.53	0.66	-1.03		-0.35	-0.55	-0.30
2019 Round 2																	
2019 Round 3																	
2019 Round 4																	
2019 Round 5																	
2019 Round 6																	



# AOF Test Check Program 2019 - Round 1

Appendix 1:

$$z = (x - X) / \hat{\sigma} \quad \dots(19)$$

where  $\hat{\sigma}$  is the standard deviation for proficiency assessment.

**NOTE** ISO Guide 43 uses the symbol  $s$  for the standard deviation in the definition of the z-score. This is appropriate when this quantity is derived as the standard deviation of a number of results, but not in other cases (for example, when it is calculated from the results of a precision experiment, or by reference to a generalised linear model).

**Interpretation of z-scores.** When a participant reports a result that gives rise to a z-score above 3,0 or below -3,0 then the result shall be considered to give an “action signal”. Likewise, a z-score above 2,0 or below -2,0 shall be considered to give a “warning signal”. A single “action signal”, or “warning signals” in two successive rounds, shall be taken as evidence that an anomaly has occurred that requires investigation.

Reference : ISO 13528 statistical methods for use in proficiency testing by interlaboratory comparisons

AOF Test Check Program 2019 - Round 1

Appendix 2: Raw Data

Reporting Date	29/01/2019		Lab	A								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		68.00	68.00	68.00	67.50	67.50	67.50	66.50	66.50	66.50	
Impurities	% by weight	AOF4-1.3	0.99	0.94	0.97	0.72	0.75	0.74	0.97	1.02	1.00	
Oil NIR (Clean Seed)	% by weight											
Oil Solvent (Clean Seed)	% by weight	FOSFA	44.03	44.14	44.09	46.98	47.27	47.13	49.43	49.66	49.55	
Moisture Oven	% by weight		5.08	5.09	5.09	5.00	5.00	5.00	3.85	3.85	3.85	
Moisture NIR	% by weight											
Oleic Acid	% by weight	Methanolic KOH	61.27	61.31	61.29	64.50	64.48	64.49	59.48	59.25	59.37	
Linoleic Acid	% by weight	Methanolic KOH	21.45	21.39	21.42	16.13	16.17	16.15	22.46	22.61	22.54	
Linolenic Acid	% by weight	Methanolic KOH	8.93	8.96	8.95	10.69	10.63	10.66	9.95	9.93	9.94	
Free Fatty Acid	% by weight	AOCS AC5-41	0.05	0.05	0.05	0.05	0.05	0.05	0.09	0.08	0.09	

Reporting Date	14/01/2019		Lab	B								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL	Balance	67.94	67.63	67.79	68.09	67.07	67.58	66.65	66.76	66.71	
Impurities	% by weight	Agtator	0.70	1.00	0.85	0.50	0.70	0.60	0.70	1.10	0.90	
Oil NIR (Clean Seed)	% by weight	NIR	43.75	43.94	43.85	46.38	46.59	46.49	49.66	49.24	49.45	
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight	Oven	5.51	5.55	5.53	4.15	4.15	4.15	5.45	5.45	5.45	
Moisture NIR	% by weight	NIR	4.77	4.70	4.74	5.22	5.10	5.16	3.43	3.55	3.49	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date	15/01/2019		Lab	C								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL	weigh	68.76	68.61	68.69	67.65	68.71	68.18	67.04	67.64	67.34	
Impurities	% by weight	sieve & weigh	1.02	0.72	0.87	0.58	0.54	0.56	0.64	0.51	0.58	
Oil NIR (Clean Seed)	% by weight	NIR (Foss 1241)	43.70	43.60	43.65	46.40	46.10	46.25	49.30	49.00	49.15	
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight	Hot plate	5.65	4.94	5.30	4.85	4.92	4.89	3.77	4.30	4.04	
Moisture NIR	% by weight	NIR (Foss 1241)	4.8	4.9	4.9	5.2	5.4	5.3	3.9	3.6	3.8	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date	29/01/2019		Lab	D								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		69.50	67.50	68.5	66.50	67.00	66.8	66.00	66.50	66.3	
Impurities	% by weight		0.70	0.52	0.6	0.70	0.63	0.7	0.50	0.40	0.5	
Oil NIR (Clean Seed)	% by weight		43.90	44.10	44.0	46.00	46.20	46.1	48.50	48.70	48.6	
Oil Solvent (Clean Seed)	% by weight		43.13	43.28	43.2	44.84	44.98	44.9	46.92	46.47	46.7	
Moisture Oven	% by weight		5.00	5.01	5.0	4.86	4.80	4.8	3.69	3.71	3.7	
Moisture NIR	% by weight		4.90	4.80	4.9	5.30	5.00	5.2	3.70	3.60	3.7	
Oleic Acid	% by weight		62.88	63.33	63.1	66.76	67.46	67.1	60.71	60.96	60.8	
Linoleic Acid	% by weight		21.27	20.92	21.1	15.45	15.71	15.6	22.37	22.37	22.4	
Linolenic Acid	% by weight		7.81	7.44	7.6	9.20	9.11	9.2	8.92	8.81	8.9	
Free Fatty Acid	% by weight		0.19	0.16	0.17	0.19	0.22	0.21	0.23	0.23	0.23	

**AOF Test Check Program 2019 - Round 1**

Reporting Date	1/02/2019		Lab	E								
			Sample 1			Sample 2			Sample 3			
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL	Chondrometer	69.87	69.60	69.74	69.54	69.67	69.61	68.57	68.84	68.71	
Impurities	% by weight	Aerovac	1.04	0.87	0.96	0.77	0.76	0.77	0.86	0.82	0.84	
Oil NIR (Clean Seed)	% by weight	NIR	43.30	43.50	43.40	47.40	47.50	47.45	49.80	49.50	49.65	
Oil Solvent (Clean Seed)	% by weight	ISO-659	44.19	44.15	44.17	47.23	47.19	47.21	49.97	49.90	49.94	
Moisture Oven	% by weight	AOF method	5.5	5.5	5.5	5.4	5.4	5.4	4.2	4.2	4.2	
Moisture NIR	% by weight	NIR	5.6	5.6	5.6	5.9	5.6	5.8	4.4	4.4	4.4	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date			Lab	F								
			Sample 1			Sample 2			Sample 3			
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL											
Impurities	% by weight											
Oil NIR (Clean Seed)	% by weight											
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight											
Moisture NIR	% by weight											
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date	31/01/2019		Lab	G								
			Sample 1			Sample 2			Sample 3			
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		67.90	67.58	67.74	67.04	67.44	67.24	66.72	66.68	66.70	
Impurities	% by weight		0.50	0.55	0.53	0.58	0.50	0.54	0.43	0.38	0.41	
Oil NIR (Clean Seed)	% by weight	NIR	43.54	43.97	43.76	45.77	45.26	45.52	48.31	48.36	48.34	
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight		5.53	5.54	5.54	5.48	5.49	5.49	4.26	4.28	4.27	
Moisture NIR	% by weight	NIR	5.09	4.96	5.03	5.31	5.12	5.22	3.68	3.70	3.69	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date	7/01/2019		Lab	H								
			Sample 1			Sample 2			Sample 3			
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		68.0	68.0	68.00	67.2	67.2	67.20	67.2	67.0	67.10	
Impurities	% by weight		1.0	0.8	0.90	0.4	0.3	0.35	0.8	0.5	0.65	
Oil NIR (Clean Seed)	% by weight		43.9	43.8	43.85	45.8	45.7	45.75	48.9	48.8	48.85	
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight											
Moisture NIR	% by weight		5.00	4.90	4.95	5.30	5.10	5.20	3.70	3.70	3.70	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											



**AOF Test Check Program 2019 - Round 1**

Reporting Date	24/01/2019		Lab	I							
			Sample 1			Sample 2			Sample 3		
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL										
Impurities	% by weight										
Oil NIR (Clean Seed)	% by weight	Near-Infra Red (NIR)	43.10	43.50	43.30	48.00	48.10	48.05	48.40	48.50	48.45
Oil Solvent (Clean Seed)	% by weight										
Moisture Oven	% by weight	AOF 4 - 1.5	5.37	5.40	5.39	5.02	5.07	5.05	3.90	3.88	3.89
Moisture NIR	% by weight	Near-Infra Red (NIR)	6.00	6.00	6.00	5.70	5.70	5.70	4.50	4.50	4.50
Oleic Acid	% by weight										
Linoleic Acid	% by weight										
Linolenic Acid	% by weight										
Free Fatty Acid	% by weight										

Reporting Date	8/01/2019		Lab	J							
			Sample 1			Sample 2			Sample 3		
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL	Chondrometer	68.00	67.90	68.0	66.80	66.70	66.8	66.50	66.60	66.6
Impurities	% by weight	AOF Quality Standard	0.60	0.60	0.6	0.90	0.95	0.9	0.50	0.45	0.5
Oil NIR (Clean Seed)	% by weight	NIR	44.08	43.95	44.0	46.09	46.12	46.1	49.19	49.11	49.2
Oil Solvent (Clean Seed)	% by weight	AOCS AM 2-93	43.80	43.90	43.9	45.90	45.90	45.9	48.30	48.30	48.3
Moisture Oven	% by weight	AOAC 925.10	5.34	5.32	5.3	5.67	5.64	5.7	4.41	4.43	4.4
Moisture NIR	% by weight	NIR	5.06	5.05	5.1	5.30	5.20	5.3	4.08	4.07	4.1
Oleic Acid	% by weight										
Linoleic Acid	% by weight										
Linolenic Acid	% by weight										
Free Fatty Acid	% by weight	AOCS Ca 5a-40	0.17	0.17	0.17	0.17	0.17	0.17	0.20	0.20	0.20

Reporting Date	14/01/2019		Lab	K							
			Sample 1			Sample 2			Sample 3		
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL		68.80	68.80	68.8	68.00	68.00	68.0	69.00	69.00	69.0
Impurities	% by weight	AOF 2a-86	0.80	0.80	0.80	0.86	0.86	0.86	0.54	0.54	0.5
Oil NIR (Clean Seed)	% by weight	NIR	49.00	49.00	49.0	44.20	46.30	45.3	44.20	44.20	44.2
Oil Solvent (Clean Seed)	% by weight										
Moisture Oven	% by weight										
Moisture NIR	% by weight	NIR	3.60	3.60	3.6	4.70	5.10	4.9	4.70	4.70	4.7
Oleic Acid	% by weight										
Linoleic Acid	% by weight										
Linolenic Acid	% by weight										
Free Fatty Acid	% by weight										

Reporting Date	16/01/2019		Lab	L							
			Sample 1			Sample 2			Sample 3		
Parameter	Unit	Method	Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL	Chondrometer	68.19	68.14	68.17	67.17	67.18	67.18	67.00	67.05	67.03
Impurities	% by weight	AOF 4 - 1.3	1.06	1.00	1.03	0.81	0.81	0.81	0.98	0.91	0.95
Oil NIR (Clean Seed)	% by weight	Near-Infra Red (NIR)	42.96	42.94	42.95	46.63	46.79	46.71	48.17	48.12	48.15
Oil Solvent (Clean Seed)	% by weight	N/A									
Moisture Oven	% by weight	AOF 4 - 1.5	5.49	5.49	5.49	5.40	5.39	5.40	4.19	4.17	4.18
Moisture NIR	% by weight	Near-Infra Red (NIR)	6.60	6.53	6.57	5.30	5.35	5.33	4.77	4.96	4.87
Oleic Acid	% by weight	N/A									
Linoleic Acid	% by weight	N/A									
Linolenic Acid	% by weight	N/A									
Free Fatty Acid	% by weight	N/A									

**AOF Test Check Program 2019 - Round 1**

Reporting Date	31/01/2019		Lab	M								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		68.05	68.04	68.05	66.82	67.03	66.93	66.71	66.69	66.70	
Impurities	% by weight		0.86	0.82	0.84	0.82	0.79	0.81	0.85	0.83	0.84	
Oil NIR (Clean Seed)	% by weight		44.80	44.80	44.80	46.30	46.10	46.20	49.30	49.20	49.25	
Oil Solvent (Clean Seed)	% by weight		43.42	43.48	43.45	45.64	45.94	45.79	48.92	49.15	49.04	
Moisture Oven	% by weight		5.35	5.34	5.35	5.29	5.26	5.28	4.13	4.09	4.11	
Moisture NIR	% by weight		4.10	4.00	4.05	4.80	4.80	4.80	2.80	2.90	2.85	
Oleic Acid	% by weight		60.72	60.73	60.73	64.46	64.48	64.47	58.58	58.64	58.61	
Linoleic Acid	% by weight		21.63	21.67	21.65	16.03	16.05	16.04	22.66	22.71	22.69	
Linolenic Acid	% by weight		8.77	8.78	8.78	10.52	10.51	10.52	10.00	9.96	9.98	
Free Fatty Acid	% by weight		0.14	0.14	0.14	0.14	0.18	0.16	0.29	0.31	0.30	

Reporting Date			Lab	N								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL											
Impurities	% by weight											
Oil NIR (Clean Seed)	% by weight											
Oil Solvent (Clean Seed)	% by weight											
Moisture Oven	% by weight											
Moisture NIR	% by weight											
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight											

Reporting Date	31/01/2019		Lab	O								
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3			
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average	
Test Weight	kg/hL		68.36	68.30	68.33	67.78	67.76	67.77	67.34	67.30	67.32	
Impurities	% by weight	AOF 4-1.2	0.80	0.80	0.80	0.70	0.70	0.70	0.80	0.80	0.80	
Oil NIR (Clean Seed)	% by weight	NIR	43.85	43.83	43.84	46.06	46.02	46.04	49.11	49.06	49.09	
Oil Solvent (Clean Seed)	% by weight	AOF 4-1.5 FOSFA	43.70	43.63	43.67	47.18	47.11	47.15	49.38	49.37	49.38	
Moisture Oven	% by weight	AOF-1.5	5.51	5.51	5.51	5.45	5.40	5.43	4.27	4.27	4.27	
Moisture NIR	% by weight	NIR	4.85	4.82	4.84	5.30	5.28	5.29	3.60	3.61	3.61	
Oleic Acid	% by weight											
Linoleic Acid	% by weight											
Linolenic Acid	% by weight											
Free Fatty Acid	% by weight	AOF 4-2.19	0.06	0.06	0.06	0.05	0.06	0.06	0.11	0.10	0.11	

**AOF Test Check Program 2019 - Round 1**

Reporting Date	4/01/2019		Lab	R							
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3		
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL	½ litre measure & electronic balance	67.84	67.88	67.86	66.84	66.66	66.75	66.70	66.44	66.57
Impurities	% by weight	Hand sieve (3.0/1.0mm), aspirate & hand pick	0.70	0.60	0.65	0.60	0.80	0.70	1.30	1.10	1.20
Oil NIR (Clean Seed)	% by weight	Infratec 1241 Serial No: 91724323	43.91	44.07	43.99	46.66	46.74	46.70	48.82	49.05	48.94
Oil Solvent (Clean Seed)	% by weight										
Moisture Oven	% by weight	10g @ 130 oC for 1hr in duplicate (AOF method)	5.51	5.48	5.50	5.46	5.46	5.46	4.22	4.19	4.21
Moisture NIR	% by weight	Infratec 1241 Serial No: 91724323	4.57	4.60	4.59	4.95	5.11	5.03	3.43	3.61	3.52
Oleic Acid	% by weight										
Linoleic Acid	% by weight										
Linolenic Acid	% by weight										
Free Fatty Acid	% by weight										

Reporting Date	31/01/2019		Lab	S							
Parameter	Unit	Method	Sample 1			Sample 2			Sample 3		
			Result A	Result B	Average	Result A	Result B	Average	Result A	Result B	Average
Test Weight	kg/hL	TP 016	68.00	67.70	67.85	66.60	66.60	66.60	66.70	66.60	66.65
Impurities	% by weight	TP 052	0.02	0.01	0.02	0.04	0.04	0.04	0.59	0.57	0.58
Oil NIR (Clean Seed)	% by weight	TP 054	43.70	43.40	43.55	48.60	48.60	48.60	46.20	45.80	46.00
Oil Solvent (Clean Seed)	% by weight	TP 053	43.30	43.30	43.30	48.60	48.60	48.60	46.80	46.60	46.70
Moisture Oven	% by weight	TP 022	5.60	5.60	5.60	4.30	4.20	4.25	5.30	5.30	5.30
Moisture NIR	% by weight	TP 054	5.00	5.10	5.05	3.70	3.40	3.55	5.30	5.30	5.30
Oleic Acid	% by weight	TP 047	64.00	64.10	64.05	67.40	67.50	67.45	61.90	61.90	61.90
Linoleic Acid	% by weight	TP 047	21.40	21.40	21.40	15.90	15.90	15.90	22.40	22.50	22.45
Linolenic Acid	% by weight	TP 047	8.30	8.30	8.30	10.20	10.20	10.20	9.50	9.60	9.55
Free Fatty Acid	% by weight	TP 046	0.13	0.11	0.12	0.11	0.13	0.12	0.17	0.14	0.16