



Statistical Report

Round 18 – 06

Red Wine

Analysis Dates: 11 October – 17 October 2018

Report Date: 31 October 2018

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Free SO ₂	Sample A	Sample B	Total SO ₂	Sample A	Sample B	pH	Sample A	Sample B	Titrateable Acidity 7.0	Sample A	Sample B
No of cases	158	158	No of cases	163	163	No of cases	158	158	No of cases	36	36
Minimum	13.0	11.0	Minimum	41	40	Minimum	3.47	3.44	Minimum	4.60	4.60
Maximum	26.0	26.0	Maximum	66	66	Maximum	3.67	3.68	Maximum	5.90	5.90
Range	13.0	15.0	Range	25	26	Range	0.20	0.24	Range	1.30	1.30
Median	19.0	19.0	Median	53	54	Median	3.56	3.56	Median	4.83	4.83
Mean	19.3	19.3	Mean	53	53	Mean	3.56	3.56	Mean	4.97	4.97
95% CI Upper	19.7	19.6	95% CI Upper	54	54	95% CI Upper	3.57	3.56	95% CI Upper	5.08	5.08
95% CI Lower	18.9	18.9	95% CI Lower	52	53	95% CI Lower	3.56	3.55	95% CI Lower	4.86	4.87
Standard Dev	2.4	2.4	Standard Dev	4	4	Standard Dev	0.03	0.03	Standard Dev	0.33	0.32
C.V.	12.44%	12.44%	C.V.	7.55%	7.55%	C.V.	0.84%	0.84%	C.V.	6.64%	6.44%
Lab Result			Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

Titrateable Acidity 8.2	Sample A	Sample B	Alcohol	Sample A	Sample B	Specific Gravity	Sample A	Sample B	Dissolved CO ₂	Sample A	Sample B
No of cases	147	147	No of cases	162	162	No of cases	131	131	No of cases	77	77
Minimum	4.98	5.00	Minimum	13.45	13.43	Minimum	0.9909	0.9909	Minimum	0.08	0.07
Maximum	5.73	5.81	Maximum	14.02	14.04	Maximum	0.9945	0.9940	Maximum	0.55	0.72
Range	0.75	0.81	Range	0.57	0.61	Range	0.0036	0.0031	Range	0.47	0.66
Median	5.32	5.32	Median	13.79	13.80	Median	0.9931	0.9931	Median	0.39	0.39
Mean	5.35	5.35	Mean	13.77	13.77	Mean	0.9930	0.9930	Mean	0.38	0.39
95% CI Upper	5.37	5.37	95% CI Upper	13.79	13.79	95% CI Upper	0.9931	0.9931	95% CI Upper	0.40	0.41
95% CI Lower	5.33	5.33	95% CI Lower	13.76	13.76	95% CI Lower	0.9929	0.9928	95% CI Lower	0.36	0.37
Standard Dev	0.13	0.13	Standard Dev	0.10	0.10	Standard Dev	0.0006	0.0006	Standard Dev	0.08	0.10
C.V.	2.43%	2.43%	C.V.	0.73%	0.73%	C.V.	0.06%	0.06%	C.V.	21.05%	25.64%
Lab Result			Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

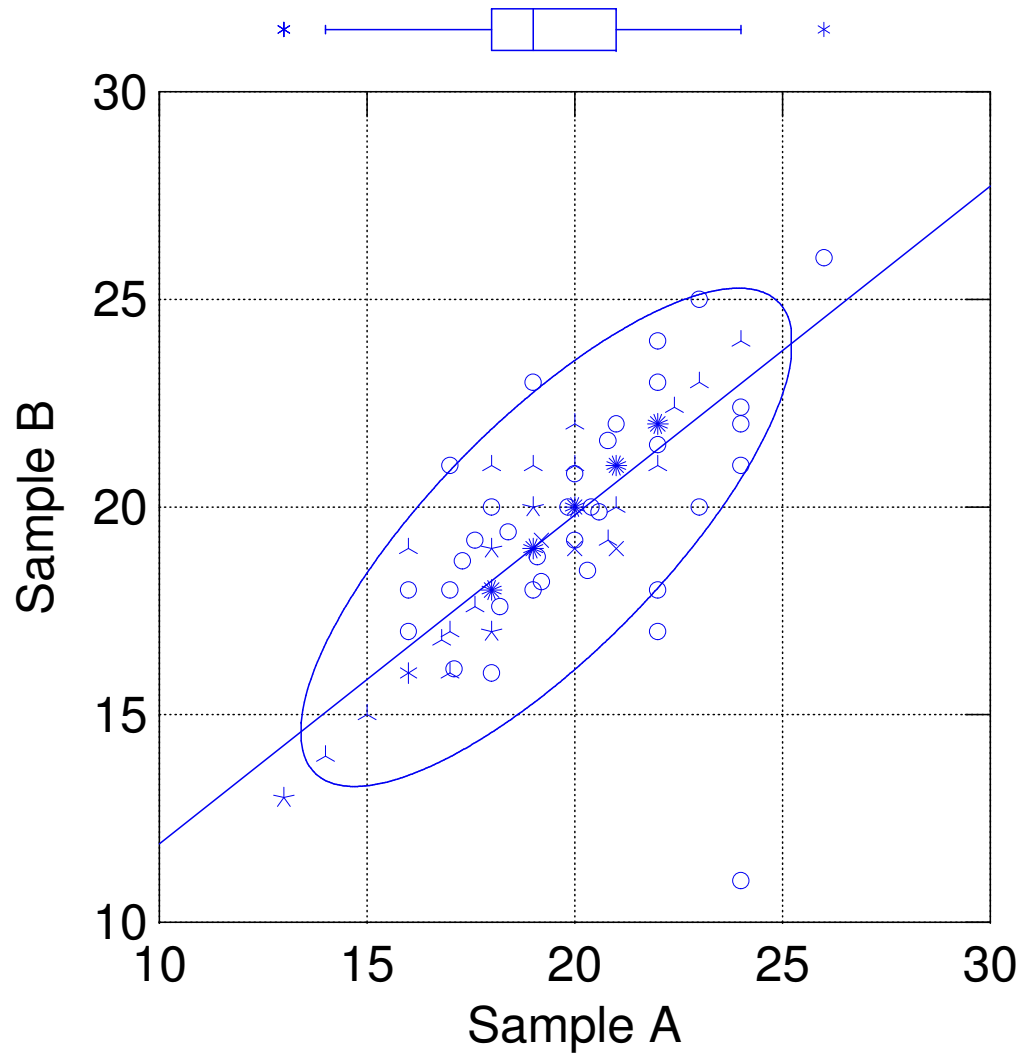
Reducing Sugar	Sample A	Sample B	Glucose & Fructose	Sample A	Sample B	Volatile Acidity	Sample A	Sample B	Acetic Acid	Sample A	Sample B
No of cases	53	53	No of cases	127	127	No of cases	80	80	No of cases	81	81
Minimum	1.91	1.19	Minimum	0.69	0.55	Minimum	0.30	0.30	Minimum	0.33	0.34
Maximum	4.50	4.40	Maximum	2.30	2.22	Maximum	0.70	0.71	Maximum	0.62	0.62
Range	2.59	3.21	Range	1.61	1.67	Range	0.40	0.41	Range	0.29	0.28
Median	3.00	3.00	Median	1.27	1.28	Median	0.51	0.51	Median	0.47	0.48
Mean	3.05	3.05	Mean	1.30	1.30	Mean	0.51	0.51	Mean	0.47	0.47
95% CI Upper	3.20	3.20	95% CI Upper	1.34	1.35	95% CI Upper	0.52	0.53	95% CI Upper	0.48	0.48
95% CI Lower	2.89	2.89	95% CI Lower	1.25	1.26	95% CI Lower	0.50	0.50	95% CI Lower	0.46	0.46
Standard Dev	0.56	0.57	Standard Dev	0.25	0.24	Standard Dev	0.06	0.06	Standard Dev	0.05	0.05
C.V.	18.36%	18.69%	C.V.	19.23%	18.46%	C.V.	11.76%	11.76%	C.V.	10.64%	10.64%
Lab Result			Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

Malic Acid	Sample A	Sample B	Citric Acid	Sample A	Sample B	Turbidity	Sample A	Sample B
No of cases	118	118	No of cases	20	20	No of cases	139	139
Minimum	0.00	0.00	Minimum	0.00	0.00	Minimum	0.03	0.04
Maximum	0.20	0.20	Maximum	0.20	0.20	Maximum	0.86	0.91
Range	0.20	0.20	Range	0.20	0.20	Range	0.83	0.87
Median	0.05	0.04	Median	0.02	0.02	Median	0.30	0.31
Mean	0.04	0.04	Mean	0.04	0.04	Mean	0.35	0.35
95% CI Upper	0.05	0.05	95% CI Upper	0.07	0.07	95% CI Upper	0.38	0.38
95% CI Lower	0.04	0.04	95% CI Lower	0.01	0.02	95% CI Lower	0.33	0.33
Standard Dev	0.03	0.03	Standard Dev	0.06	0.06	Standard Dev	0.15	0.15
C.V.	75.00%	75.00%	C.V.	150.00%	150.00%	C.V.	42.86%	42.86%
Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

Sugar Free Extract	Sample A	Sample B	Methanol	Sample A	Sample B	Potassium	Sample A	Sample B	Sodium	Sample A	Sample B
No of cases	23	23	No of cases	13	13	No of cases	20	20	No of cases	18	18
Minimum	23	23	Minimum	126	136	Minimum	737	734	Minimum	29	24
Maximum	30	29	Maximum	185	190	Maximum	1050	1043	Maximum	40	42
Range	7	6	Range	59	54	Range	313	309	Range	11	18
Median	26	26	Median	162	162	Median	836	848	Median	36	35
Mean	26	26	Mean	158	162	Mean	845	852	Mean	35	35
95% CI Upper	27	27	95% CI Upper	170	172	95% CI Upper	879	887	95% CI Upper	37	37
95% CI Lower	25	25	95% CI Lower	147	151	95% CI Lower	812	818	95% CI Lower	34	33
Standard Dev	2	2	Standard Dev	19	17	Standard Dev	71	74	Standard Dev	3	4
C.V.	7.69%	7.69%	C.V.	12.03%	10.49%	C.V.	8.40%	8.69%	C.V.	8.57%	11.43%
Lab Result			Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

Calcium	Sample A	Sample B	Copper	Sample A	Sample B	Iron	Sample A	Sample B	Manganese	Sample A	Sample B
No of cases	20	20	No of cases	27	27	No of cases	22	22	No of cases	18	18
Minimum	48	49	Minimum	0.01	0.00	Minimum	1.50	1.50	Minimum	1.74	1.73
Maximum	74	75	Maximum	0.25	0.26	Maximum	2.58	2.41	Maximum	2.40	2.40
Range	26	26	Range	0.24	0.26	Range	1.08	0.91	Range	0.66	0.67
Median	60	60	Median	0.13	0.12	Median	2.06	2.00	Median	2.21	2.23
Mean	59	60	Mean	0.13	0.12	Mean	2.04	2.02	Mean	2.18	2.18
95% CI Upper	62	63	95% CI Upper	0.15	0.14	95% CI Upper	2.15	2.12	95% CI Upper	2.28	2.27
95% CI Lower	56	57	95% CI Lower	0.11	0.10	95% CI Lower	1.93	1.92	95% CI Lower	2.09	2.09
Standard Dev	6	7	Standard Dev	0.05	0.05	Standard Dev	0.25	0.22	Standard Dev	0.19	0.18
C.V.	10.17%	11.67%	C.V.	38.46%	41.67%	C.V.	12.25%	10.89%	C.V.	8.72%	8.26%
Lab Result			Lab Result			Lab Result			Lab Result		
Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result			Lab Z-Score Result		

Free Sulphur Dioxide (mg/L)



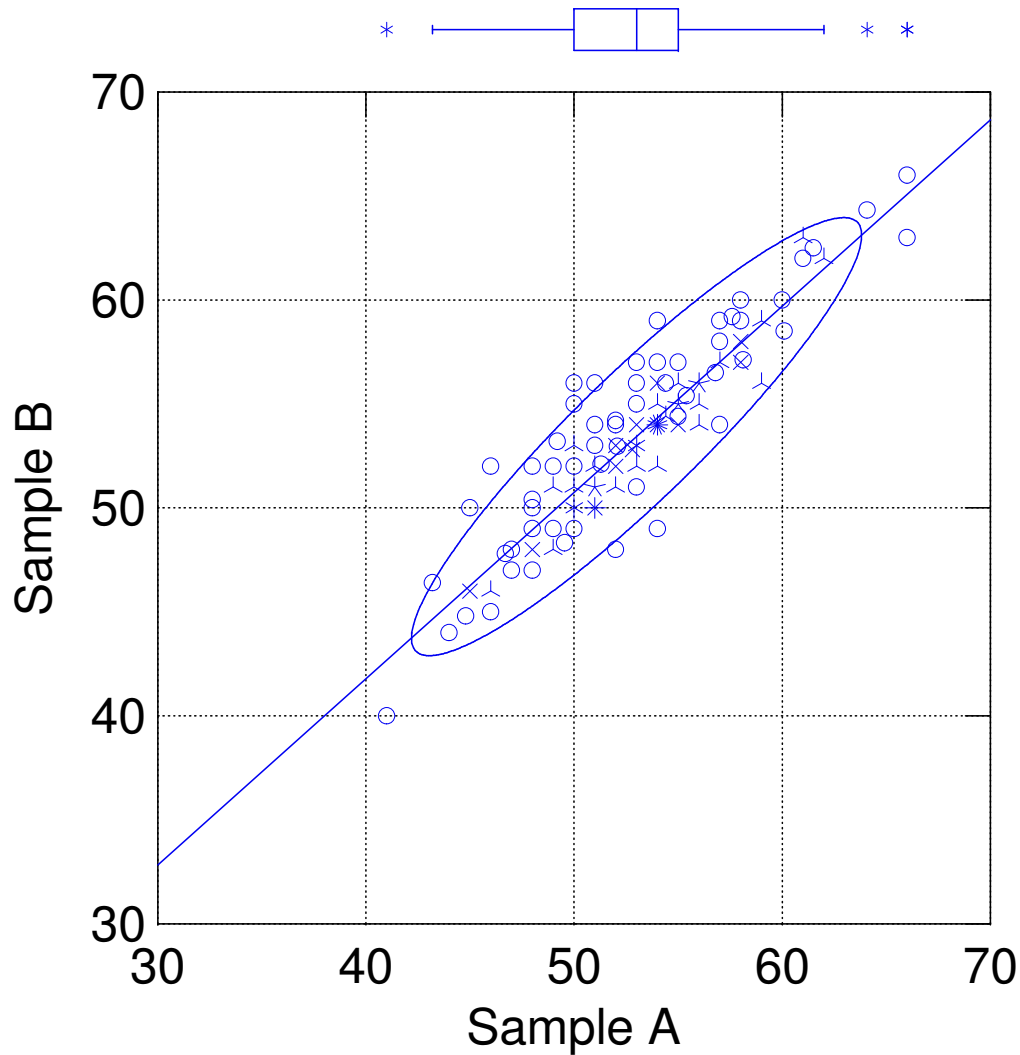
	Sample Replicate	
	A	B
No of cases	158	158
Minimum	13.0	11.0
Maximum	26.0	26.0
Range	13.0	15.0
Median	19.0	19.0
Mean	19.3	19.3
95% CI Upper	19.7	19.6
95% CI Lower	18.9	18.9
Standard Dev	2.4	2.4
C.V.	12.44%	12.44%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Aspiration	131
Automated Colorimetric	14
Ripper, FTIR-MIR + Other	13

Free Sulphur Dioxide Z-Scores

Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B
3	-0.6	-0.5	90	0.7	0.7	176	-0.7	-0.7	247	2.0	1.1	340	0.4	-0.3	455	1.1	1.1
5	0.7	0.7	94	-0.1	-0.1	177	-0.1	0.7	249	-1.4	-1.4	342	-0.1	0.0	459	2.0	-3.4
9	0.5	0.3	95	0.7	0.7	178	-0.1	0.0	250	-0.1	-0.1	346	0.7	1.1	473	-0.6	-0.9
10	1.1	1.1	96	1.1	0.7	181	-0.1	0.3	260	1.5	2.4	351	0.3	-0.1			
14	0.7	0.3	98	2.0	0.7	182	1.1	1.1	261	-1.0	-1.4	356	-1.1	-1.0			
19	-0.1	-0.1	99	-0.6	-0.1	183	0.3	-0.1	266	-2.6	-2.6	358	1.3	1.3			
20	-1.8	-1.8	103	0.7	0.7	188	0.3	0.3	267	1.1	2.0	361	-0.1	-0.2			
21	-2.6	-2.6	105	0.7	0.7	189	0.3	0.3	270	0.3	0.3	363	1.5	0.3			
23	0.3	0.3	107	-0.6	-0.5	192	-0.6	-0.5	273	-0.1	-0.1	364	0.7	0.7			
29	-0.6	-0.1	108	-0.1	-0.1	194	2.8	2.8	276	0.3	1.1	365	1.1	1.1			
31	-0.6	0.7	114	1.1	0.7	198	-0.6	-0.9	278	-0.6	-0.5	366	-0.1	-0.1			
32	1.1	1.1	116	-0.1	-0.4	199	0.7	0.7	284	1.1	-0.9	367	-0.7	-0.7			
36	0.7	0.7	118	-0.1	-0.1	201	-0.6	-0.5	285	-1.4	-0.1	375	0.2	0.3			
39	-1.4	-0.9	126	-1.4	-0.5	204	-2.2	-2.2	286	-0.1	-0.1	378	-0.1	-0.1			
41	-0.9	-1.3	129	-0.6	-0.9	205	0.3	0.3	287	-0.6	-0.5	380	0.3	0.3			
43	-0.1	-0.1	131	-0.1	-0.1	208	1.1	0.9	288	0.3	0.0	382	1.5	1.5			
45	0.3	-0.1	132	-0.1	-0.1	210	-2.6	-2.6	289	0.6	0.0	385	-0.1	-0.5			
49	1.1	1.1	135	-1.0	-0.5	212	-0.1	-0.1	293	-0.1	-0.1	386	2.0	2.0			
51	-0.1	1.5	138	-0.1	-0.1	214	0.7	-0.1	295	-0.6	-1.4	388	-1.0	0.7			
53	-0.1	0.3	141	-0.1	-0.1	215	1.3	1.3	297	1.5	1.5	391	-0.6	-0.1			
55	-0.8	-0.2	142	0.7	0.7	216	1.1	1.1	302	-1.4	-1.4	393	0.3	0.7			
57	-1.0	-0.9	144	-0.1	0.3	217	-0.6	-0.5	303	-1.4	-1.4	396	0.3	0.6			
59	-0.6	-0.5	145	-0.6	-0.5	220	0.3	0.3	307	-0.6	-0.1	397	1.1	-0.5			
61	-0.6	-0.5	152	0.6	0.0	225	2.0	2.0	308	-1.4	-1.4	398	0.7	-0.1			
64	-0.6	-0.5	153	-0.1	0.7	226	0.3	0.3	315	-0.1	-0.1	399	0.5	0.3			
66	0.3	0.7	155	-0.1	0.0	227	-1.0	-1.4	318	0.3	1.1	400	-2.2	-2.2			
74	-1.4	-1.4	157	-0.6	-0.5	233	0.7	-0.1	321	-0.6	-0.9	402	-1.1	-1.0			
78	-1.0	-0.9	169	-2.6	-2.6	236	-1.4	-0.1	323	2.0	1.3	404	0.7	0.3	72	1.1	5.7
81	-0.7	0.0	171	-0.6	0.3	242	-0.6	0.7	327	1.1	1.1	405	-0.1	0.3	213	-0.5	10.7
87	1.1	1.5	172	0.7	0.7	244	-1.8	-1.8	332	-0.4	0.1	409	-0.6	-0.5	296	-0.1	12.8
88	1.1	1.1	173	-0.1	-0.1	245	-0.5	-0.7	334	0.7	0.7	417	0.6	1.0	395	-4.7	-5.0

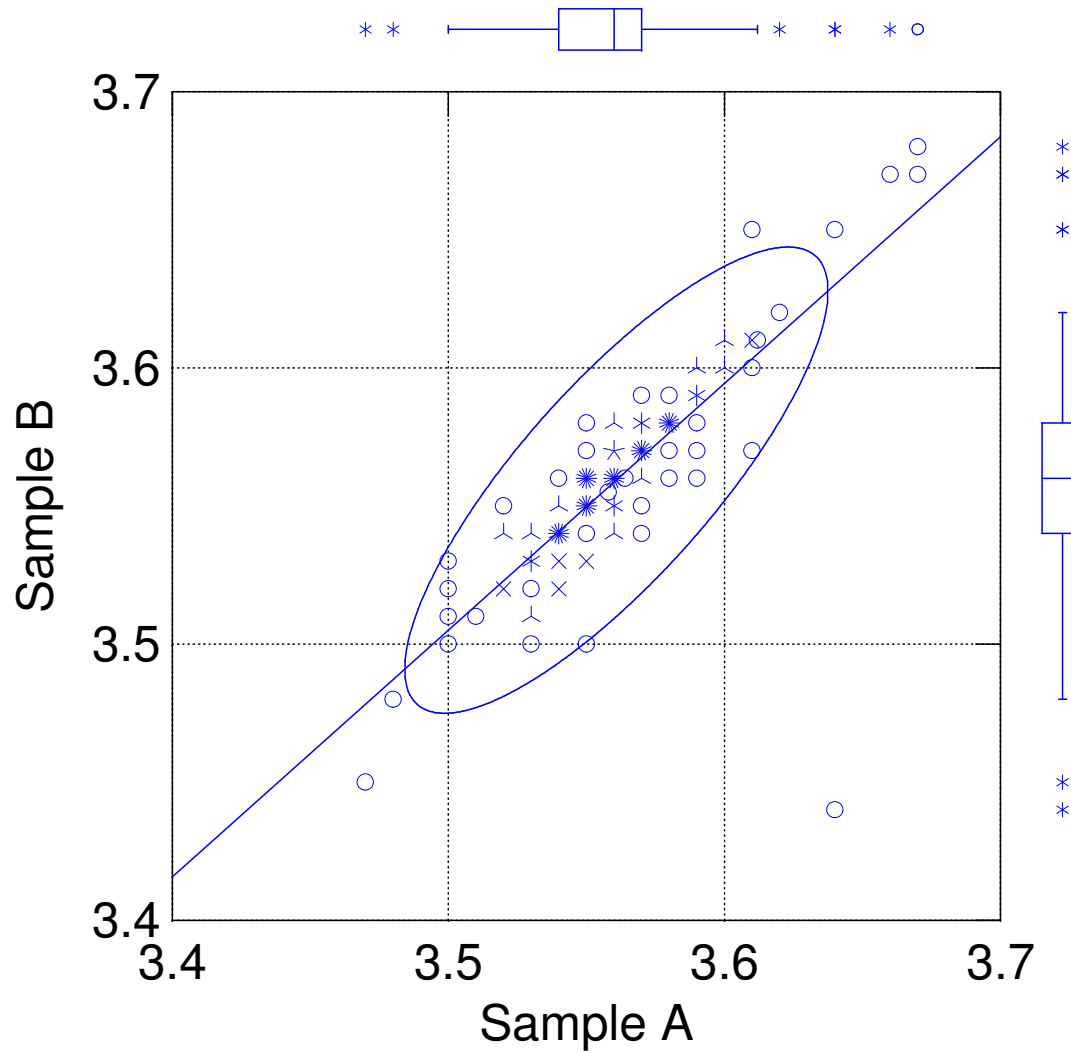
Total Sulphur Dioxide (mg/L)



	Sample Replicate	
	A	B
No of cases	163	163
Minimum	41	40
Maximum	66	66
Range	25	26
Median	53	54
Mean	53	53
95% CI Upper	54	54
95% CI Lower	52	53
Standard Dev	4	4
C.V.	7.55%	7.55%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Aspiration	135
Automated Colorimetric	14
Ripper, FTIR-MIR + Other	14

pH



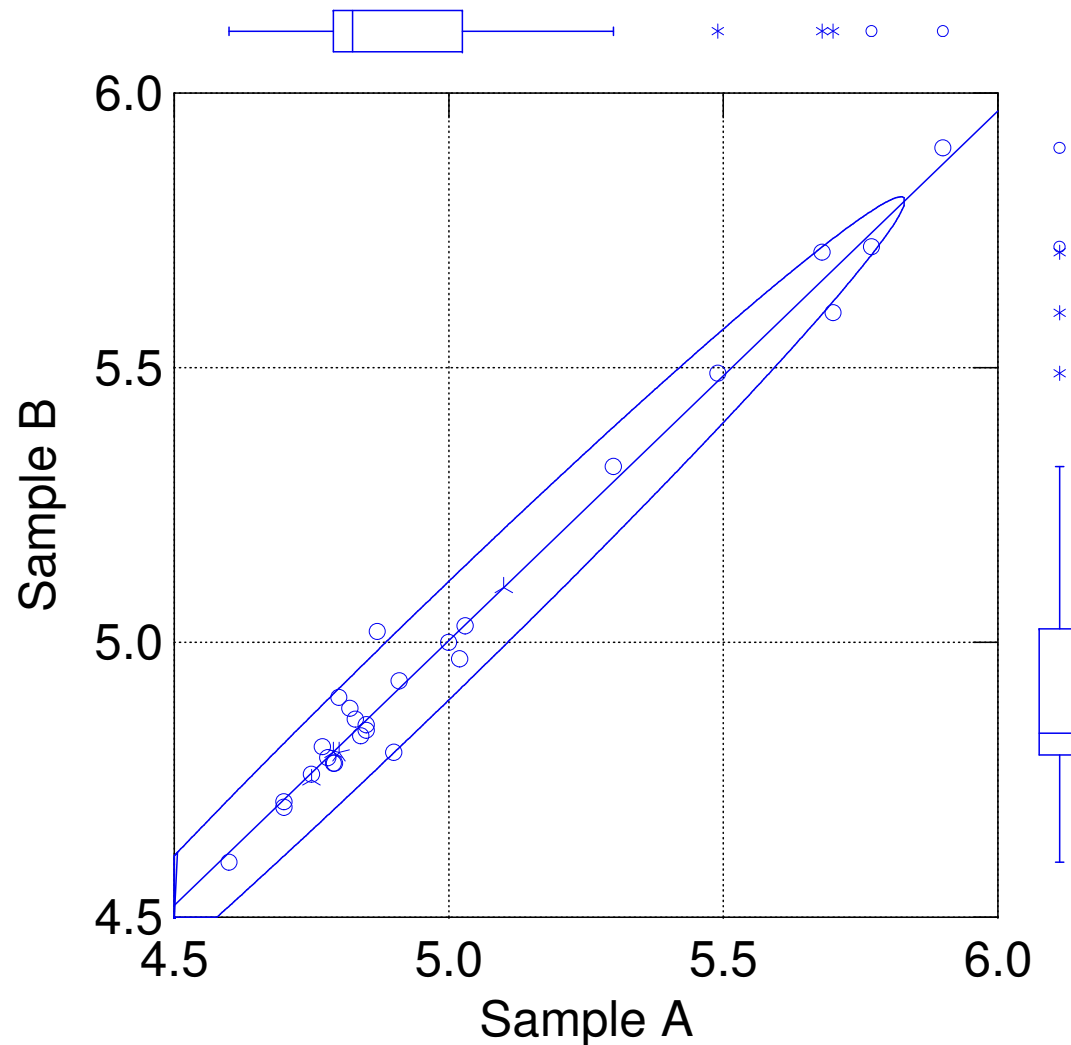
	Sample Replicate	
	A	B
No of cases	158	158
Minimum	3.47	3.44
Maximum	3.67	3.68
Range	0.20	0.24
Median	3.56	3.56
Mean	3.56	3.56
95% CI Upper	3.57	3.56
95% CI Lower	3.56	3.55
Standard Dev	0.03	0.03
C.V.	0.84%	0.84%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
pH Meter	143
FTIR-MIR + Other	15

pH Z-Scores

Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B
3	0.0	-0.3	90	0.3	0.3	177	-0.4	-0.9	247	-1.3	-0.3	334	-0.4	-0.3	417	0.9	0.6
5	0.3	0.6	94	-1.3	-1.2	178	0.0	0.0	249	-0.7	-0.6	340	-1.0	-1.7	455	0.0	-0.3
9	0.6	0.6	95	-0.4	-0.3	181	0.0	0.6	250	0.3	0.3	342	-0.4	-0.3	456	-1.0	-0.9
10	-1.0	-1.4	96	0.9	0.0	182	-1.3	-0.6	260	-2.0	-0.9	346	-0.4	0.0			
14	0.0	0.0	98	0.6	0.6	183	-0.4	-0.3	261	-0.7	-0.6	351	1.3	1.5			
19	0.0	0.3	99	0.0	-0.3	188	0.9	0.9	266	0.0	0.0	356	0.3	-0.6			
20	0.0	0.0	103	-0.4	-0.3	189	0.0	0.0	267	-2.6	-2.3	358	0.9	0.3			
21	0.6	0.6	105	-0.7	-0.6	192	-1.0	-0.9	270	1.9	1.8	361	0.0	-0.3			
23	0.6	0.0	107	-1.0	-0.6	194	0.3	0.3	273	0.0	0.0	363	-0.7	-0.6			
29	0.9	1.2	108	-1.0	-0.9	199	-0.4	-0.3	276	0.3	0.9	364	0.9	0.9			
31	1.6	2.7	114	-2.0	-1.4	201	0.9	1.2	278	0.3	0.3	365	0.9	0.9			
32	0.0	0.0	116	0.0	0.0	204	0.0	0.0	284	-1.0	-1.4	366	-0.7	-0.6			
36	0.0	0.0	118	2.6	2.7	205	-0.4	0.0	285	0.3	0.3	367	0.0	0.6			
39	-0.7	-1.2	126	-0.7	-0.9	208	0.3	0.0	286	0.3	0.6	375	-0.4	0.0			
41	1.3	1.5	129	-0.7	-0.6	210	0.3	0.6	287	0.0	0.0	378	-0.4	0.3			
43	0.6	0.6	131	0.6	0.6	212	0.6	0.6	288	-0.4	0.0	380	0.9	0.9			
45	-0.4	-0.3	132	-0.4	-0.3	213	0.9	0.9	289	1.3	1.2	382	0.0	0.0			
49	0.0	-0.6	135	0.3	0.3	214	0.0	0.3	293	-1.0	-0.9	386	-2.0	-1.7			
51	0.6	0.3	138	0.0	0.0	215	-1.0	-1.2	295	0.0	0.0	388	-0.4	-0.9			
53	-0.7	-0.3	141	-0.4	0.0	216	0.3	0.3	296	0.0	-0.6	391	0.3	0.0			
55	-0.4	0.6	142	3.5	3.5	217	-0.4	0.0	297	3.5	3.3	393	-0.4	-0.3			
57	0.3	0.6	144	0.0	0.3	218	0.1	0.0	302	-1.6	-1.4	395	-0.4	-0.3			
59	-1.0	-0.6	145	0.3	-0.3	220	0.0	0.0	307	-0.4	-0.3	396	1.7	1.5			
61	0.6	0.6	152	-0.4	-0.9	225	-2.0	-1.2	308	-0.4	-0.3	397	0.0	0.3	72	-4.7	-4.3
64	-0.7	0.0	153	-0.7	-1.2	226	-0.7	-0.9	311	1.6	1.2	398	0.0	0.0	169	4.0	4.7
66	-1.0	-0.9	155	-0.7	-0.6	227	-0.7	-0.6	315	-0.1	-0.1	399	0.0	0.0	198	8.7	8.7
74	2.6	-3.5	157	1.6	1.5	233	0.0	0.0	318	-1.3	-0.6	400	-0.4	-0.6	303	-8.3	-7.7
78	-0.7	-0.3	171	0.3	0.6	236	0.0	-0.3	321	-0.4	0.0	402	3.2	3.3	310	-4.3	-4.7
81	-2.9	-3.2	172	1.3	1.2	242	1.6	1.5	323	0.6	0.9	404	-1.3	-1.2	385	0.7	11.7
87	0.0	0.0	173	0.6	0.6	244	1.6	0.3	327	1.6	1.5	405	0.3	0.3	403	-6.3	-6.7
88	-0.7	-1.2	176	0.3	0.3	245	-0.7	-0.9	332	-1.3	-1.2	409	-0.4	-1.7	473	-5.3	-5.3

Titratable Acidity 7.0 (g/L)



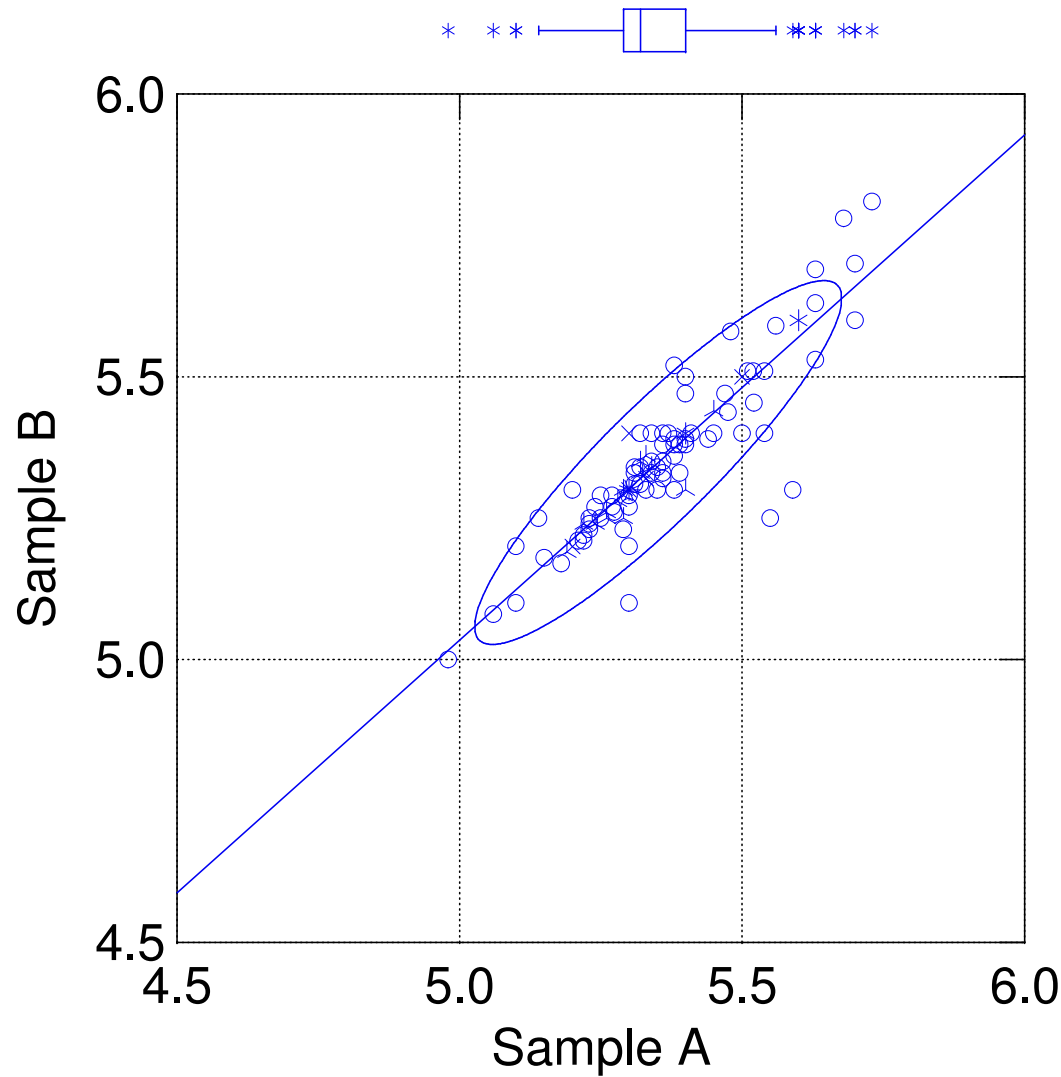
	Sample Replicate	
	A	B
No of cases	36	36
Minimum	4.60	4.60
Maximum	5.90	5.90
Range	1.30	1.30
Median	4.83	4.83
Mean	4.97	4.97
95% CI Upper	5.08	5.08
95% CI Lower	4.86	4.87
Standard Dev	0.33	0.32
C.V.	6.64%	6.44%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Autotitrator	24
FTIR-MIR + Manual Titration + Other	12

Titratable Acidity 7.0 Z-Scores

Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B
3	-0.5	-0.5	363	1.0	1.1												
9	-0.4	-0.4	395	-0.5	-0.3												
10	-0.4	-0.4	402	0.2	0.0												
14	-0.5	-0.5	456	0.2	0.2												
41	-0.5	-0.5	473	0.4	0.4												
45	-1.1	-1.2															
55	-0.2	-0.1															
59	-0.6	-0.6															
74	2.4	2.3															
78	-0.2	-0.5															
81	1.6	1.6															
105	-0.7	-0.7															
107	-0.4	-0.4															
108	-0.8	-0.8															
129	-0.7	-0.7															
135	-0.5	-0.2															
145	-0.6	-0.5															
171	-0.7	-0.7															
181	-0.5	-0.6															
183	-0.5	-0.5															
217	-0.5	-0.5															
218	-0.5	-0.6															
227	0.4	0.4															
273	-0.4	-0.4															
302	-0.3	0.1															
308	-0.5	-0.5															
310	0.1	0.1															
327	2.8	2.9															
340	-0.8	-0.9															
358	2.2	1.9															
361	2.1	2.3															

Titratable Acidity 8.2 (g/L)



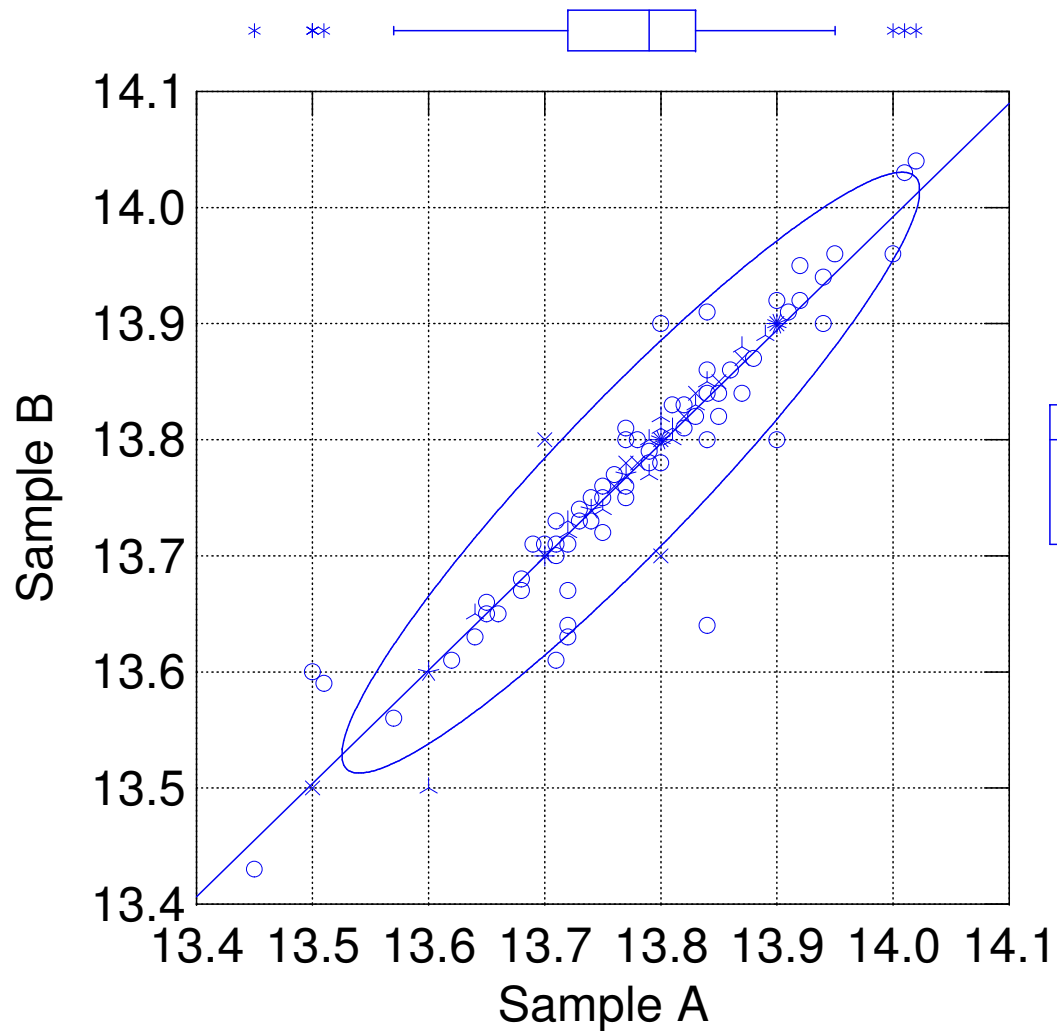
	Sample Replicate	
	A	B
No of cases	147	147
Minimum	4.98	5.00
Maximum	5.73	5.81
Range	0.75	0.81
Median	5.32	5.32
Mean	5.35	5.35
95% CI Upper	5.37	5.37
95% CI Lower	5.33	5.33
Standard Dev	0.13	0.13
C.V.	2.43%	2.43%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Autotitrator	115
FTIR-MIR	7
Manual Titration	25

Titratable Acidity 8.2 Z-Scores

Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B
3	-0.4	-0.4	94	0.4	0.4	181	-0.4	-0.4	261	0.4	0.4	365	1.5	-0.8			
5	-0.6	-0.5	96	-0.3	-0.3	182	1.4	1.2	266	-1.2	-1.1	366	-0.6	-0.6			
9	0.4	0.3	98	1.1	1.2	183	-0.2	-0.1	273	-0.1	-0.1	367	0.9	0.7			
10	0.3	0.2	99	-1.2	-1.1	188	-0.1	-0.1	276	1.8	-0.4	375	0.8	0.7			
14	-0.4	-0.4	103	-0.9	-0.8	189	-0.1	0.0	284	-0.9	-0.6	378	-1.3	-1.4			
19	-0.2	0.1	105	-0.5	-0.5	192	-0.5	-0.8	285	0.2	1.3	380	0.1	0.4			
20	1.1	1.2	107	0.1	0.2	194	-0.7	-0.7	286	-0.1	-0.1	382	-1.2	-1.2			
21	-1.9	-1.1	108	-1.0	-0.8	198	1.4	0.4	287	-0.2	-0.1	386	2.5	3.3			
23	-0.4	0.4	114	-0.4	-0.4	199	-0.4	-0.4	288	-0.2	-0.1	388	0.4	0.9			
29	2.1	1.4	116	0.1	-0.2	201	0.4	1.2	289	0.1	-0.1	391	-0.3	-0.1			
31	-0.1	0.4	118	2.1	2.6	205	-1.6	-0.8	293	-0.5	-0.4	393	0.4	0.4			
32	-0.4	-0.4	126	-1.0	-0.8	208	0.2	0.2	295	-0.5	-0.9	395	0.1	0.4			
36	-0.2	-0.1	129	-0.7	-0.8	210	-0.4	-1.1	296	-0.2	0.1	396	-2.8	-2.7			
39	-0.8	-0.5	131	-0.9	-0.8	212	-0.2	-0.2	297	-1.1	-1.1	397	0.9	0.9			
41	-0.2	-0.2	132	0.2	0.1	213	-0.9	-0.8	303	1.3	1.2	398	2.9	3.6			
43	0.0	-0.4	135	0.4	0.4	214	-0.2	-0.2	307	-0.4	-0.4	399	-0.4	-0.6			
45	-1.9	-1.9	138	-0.9	-0.9	216	-0.5	-0.5	308	-1.2	-0.4	400	1.1	0.4			
49	-1.2	-1.2	141	-0.4	-0.4	217	-0.4	-0.4	309	0.1	0.0	404	-1.2	-1.1			
51	-0.4	-0.5	142	2.7	1.9	218	-0.6	-0.7	315	1.3	0.8	405	1.9	1.9			
53	0.4	-0.4	144	-0.4	-0.4	220	-0.2	0.0	318	1.9	1.9	409	1.9	1.9			
55	0.2	0.3	152	1.0	1.8	225	-0.2	-0.1	321	0.0	-0.1	417	-2.2	-2.1			
57	-0.8	-0.8	153	-0.4	-0.4	226	-0.4	-0.4	323	1.2	1.2	455	-0.5	-0.5			
59	-0.5	-0.8	155	0.4	-0.4	227	1.9	1.9	332	-0.5	-0.5	473	-0.4	0.4			
61	-0.7	-0.7	157	-0.2	-0.3	233	-0.4	-0.4	334	0.8	0.4						
64	-0.4	0.4	169	0.3	-0.1	236	-1.5	-1.3	340	-0.4	-0.4						
66	-1.0	-1.1	171	-0.5	-0.4	242	2.1	2.2	342	-0.7	-0.8				95	12.2	12.2
72	-0.4	-0.4	172	-0.3	-0.1	244	1.6	1.9	346	-1.0	-1.0				204	8.1	5.0
78	0.4	0.4	173	-0.2	0.4	245	0.2	-0.4	350	2.7	2.7				215	3.5	4.0
87	-0.2	-0.4	176	-0.2	-0.1	249	1.1	1.2	351	1.9	1.9				247	4.1	4.0
88	0.8	0.7	177	-0.9	-0.8	250	0.7	0.3	356	0.4	0.2				267	4.2	4.2
90	-0.4	-1.9	178	0.4	0.4	260	-0.2	0.0	364	-0.4	-0.4				385	-1.2	4.2

Alcohol (% v/v)



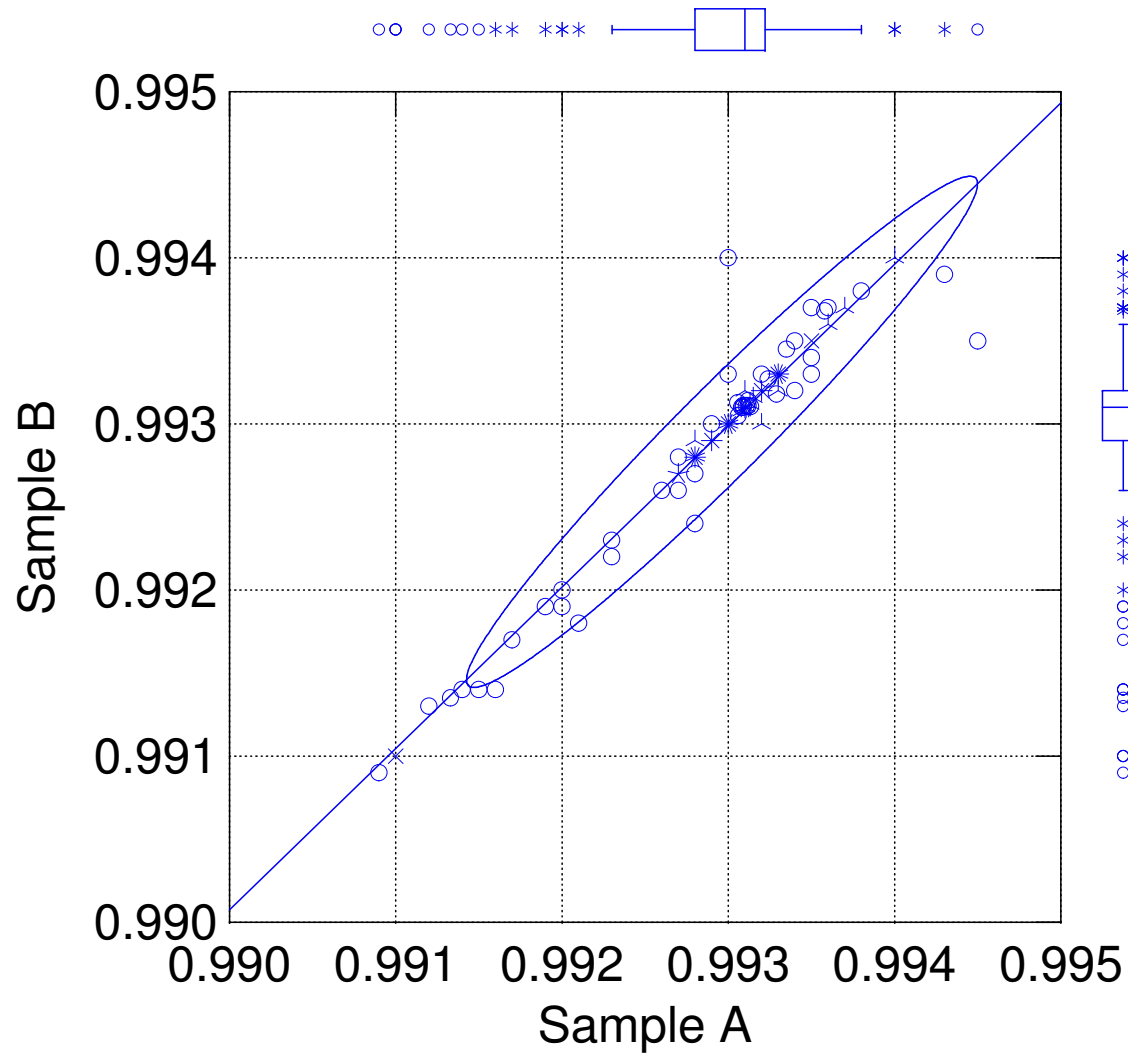
	Sample Replicate	
	A	B
No of cases	162	162
Minimum	13.45	13.43
Maximum	14.02	14.04
Range	0.57	0.61
Median	13.79	13.80
Mean	13.77	13.77
95% CI Upper	13.79	13.79
95% CI Lower	13.76	13.76
Standard Dev	0.10	0.10
C.V.	0.73%	0.73%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Distillation	20
Ebuliometer + GC	7
FTIR-MIR	20
NIR	115

Alcohol Z-Scores

Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B	Stats ID	Sample A	Sample B
3	-0.7	-0.7	90	0.8	0.7	178	0.3	0.3	247	0.7	-1.3	332	0.6	0.7	409	1.7	1.6
5	-0.2	-0.2	94	-0.7	-0.7	181	0.0	0.3	249	1.3	1.2	334	0.9	0.8	417	-0.7	-0.7
9	0.1	0.3	95	1.3	0.3	182	-0.7	0.3	250	-1.3	-1.2	340	0.0	0.1	432	-2.7	-1.6
10	-0.6	-0.7	96	-0.7	0.3	183	0.2	0.2	260	-1.7	-2.6	342	1.0	0.9	434	-2.0	-2.0
14	0.3	0.3	98	0.4	0.6	188	0.8	0.5	261	1.8	1.8	346	-0.7	-0.6	455	-0.7	-0.7
19	0.2	0.0	99	0.3	0.3	189	-0.5	-0.4	266	-0.3	-0.3	350	-1.7	-1.6	456	-1.7	-1.6
20	0.3	0.3	103	-0.3	-0.2	192	-0.9	-0.9	267	0.3	1.2	351	0.3	0.3	466	-2.6	-1.7
21	-0.5	-1.0	105	0.3	0.4	194	0.1	0.1	270	1.5	1.7	356	0.6	0.6			
23	0.3	0.3	107	-1.2	-1.1	198	0.0	0.0	273	0.5	0.5	358	1.3	1.2			
29	-0.1	0.0	108	0.2	0.3	199	1.4	1.3	276	0.2	0.3	361	-0.5	-0.6			
31	-0.5	-1.4	114	1.3	1.2	201	-0.1	-0.1	278	0.0	0.0	363	-0.6	-1.5			
32	0.3	-0.7	116	-0.3	-0.3	204	-0.1	-0.1	284	1.0	1.0	364	1.3	1.2			
36	0.0	0.1	118	-0.6	-0.4	205	0.7	0.3	285	0.3	0.4	366	0.3	0.3			
39	0.4	0.4	126	0.1	0.1	208	-1.1	-1.2	286	-0.8	-0.6	367	0.6	0.5			
41	1.3	1.4	129	0.4	0.3	210	-0.5	-0.4	287	0.0	0.0	375	1.0	1.0			
43	1.7	1.2	131	1.0	0.9	212	0.5	0.5	288	0.7	1.3	378	0.7	0.8			
45	0.3	0.3	132	0.2	0.1	213	0.8	0.8	289	-0.6	-0.6	380	-2.7	-2.6			
49	-0.3	-0.4	135	0.1	0.1	214	1.5	1.4	293	-1.7	-1.6	382	0.0	0.0			
51	-0.3	-0.3	138	0.4	0.4	215	-0.7	0.3	295	0.6	0.7	385	1.3	1.2			
53	0.3	0.3	141	0.3	0.3	216	-1.3	-1.2	296	-0.5	-0.5	386	0.3	0.3			
55	0.0	-0.2	142	0.3	-0.7	217	1.0	0.9	302	-0.5	-1.3	388	0.3	0.1			
57	-0.1	-0.1	144	-2.7	-2.6	218	0.0	0.1	303	0.3	0.3	391	0.5	0.6			
59	0.3	0.5	145	-1.5	-1.5	220	1.0	0.7	307	0.8	0.8	393	0.7	0.8			
61	0.5	0.4	152	-1.7	-1.6	225	0.0	-0.1	308	0.7	0.8	396	-0.9	-1.0			
64	-0.4	-0.4	153	1.3	1.2	226	-0.2	-0.3	309	1.1	0.9	397	0.4	0.3			
66	-0.2	-0.1	155	-0.7	-0.7	227	-1.3	-1.4	310	-2.7	-2.6	398	0.5	0.5			
72	2.4	2.6	157	0.3	0.5	233	2.2	1.8	311	0.8	0.8	399	1.3	1.2			
78	0.3	0.3	169	1.2	1.1	236	1.2	1.1	315	0.6	0.7	400	0.2	0.0	297	-6.7	-6.7
81	-1.7	-2.6	171	-0.2	-0.5	242	-0.7	-0.7	318	0.3	-0.7	402	-0.2	-0.3	395	-5.3	1.8
87	0.6	0.6	173	-3.2	-3.3	244	0.0	0.4	321	-0.5	-0.5	404	-1.2	-1.2	403	-15.7	-14.7
88	-0.4	-0.3	177	0.7	0.7	245	-0.3	-0.3	327	2.3	2.5	405	0.3	0.3	473	-0.7	-4.7

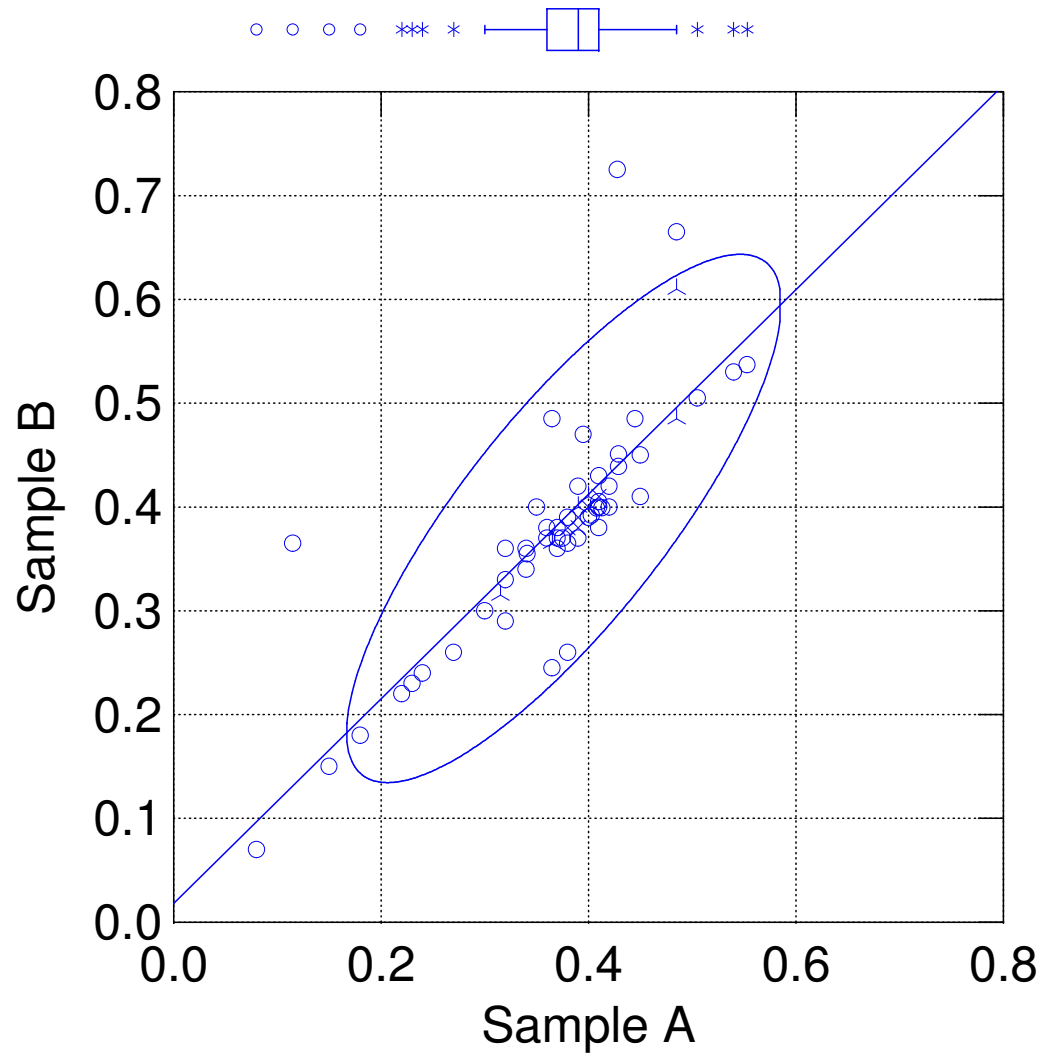
Specific Gravity



	Sample Replicate	
	A	B
No of cases	131	131
Minimum	0.9909	0.9909
Maximum	0.9945	0.9940
Range	0.0036	0.0031
Median	0.9931	0.9931
Mean	0.9930	0.9930
95% CI Upper	0.9931	0.9931
95% CI Lower	0.9929	0.9928
Standard Dev	0.0006	0.0006
C.V.	0.06%	0.06%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Density Meter	104
FTIR-MIR	12
Hydrometry, Pycnometry, + Other	15

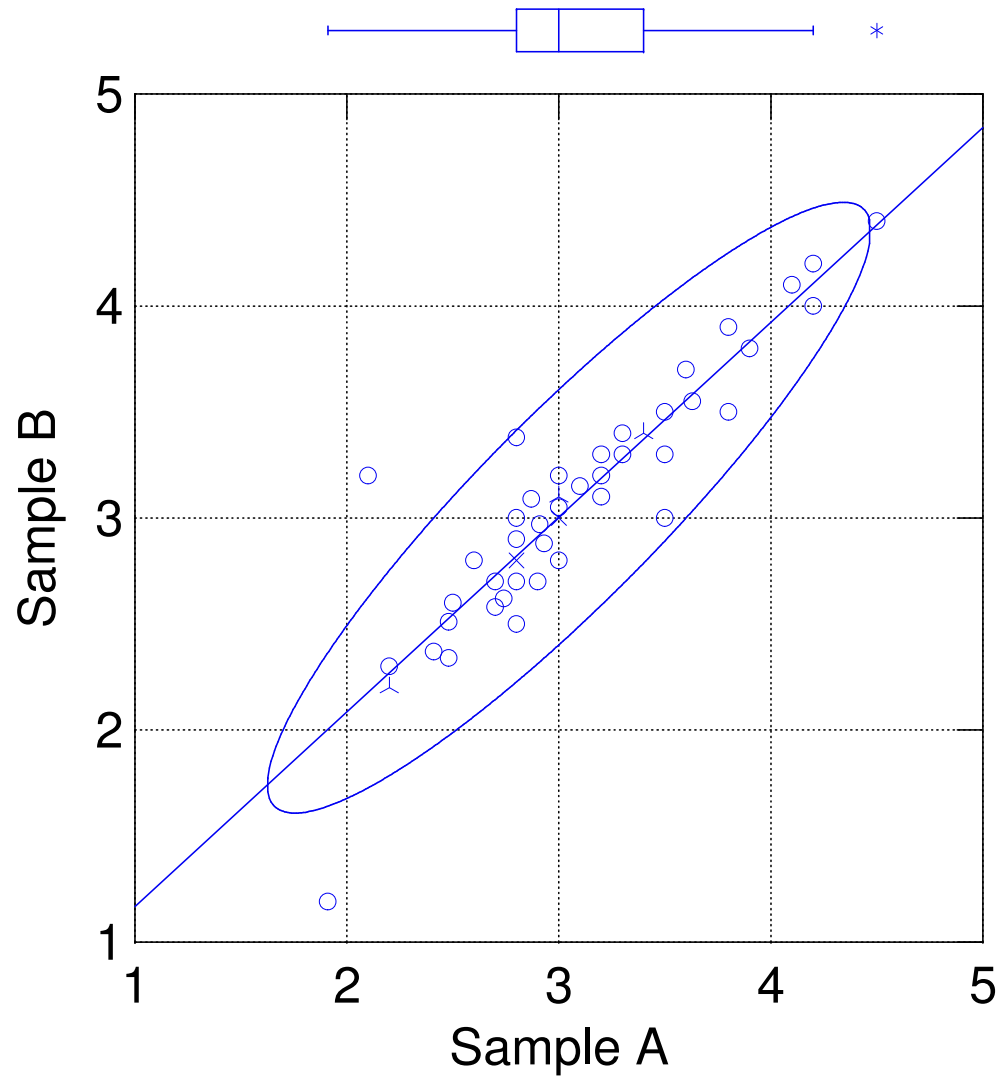
Dissolved Carbon Dioxide (g/L)



	Sample Replicate	
	A	B
No of cases	77	77
Minimum	0.08	0.07
Maximum	0.55	0.72
Range	0.47	0.66
Median	0.39	0.39
Mean	0.38	0.39
95% CI Upper	0.40	0.41
95% CI Lower	0.36	0.37
Standard Dev	0.08	0.10
C.V.	21.05%	25.64%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Carbodoseur	30
Multiple Volume Expansion	33
Thermal Conductivity Sensor, Titration + Other	14

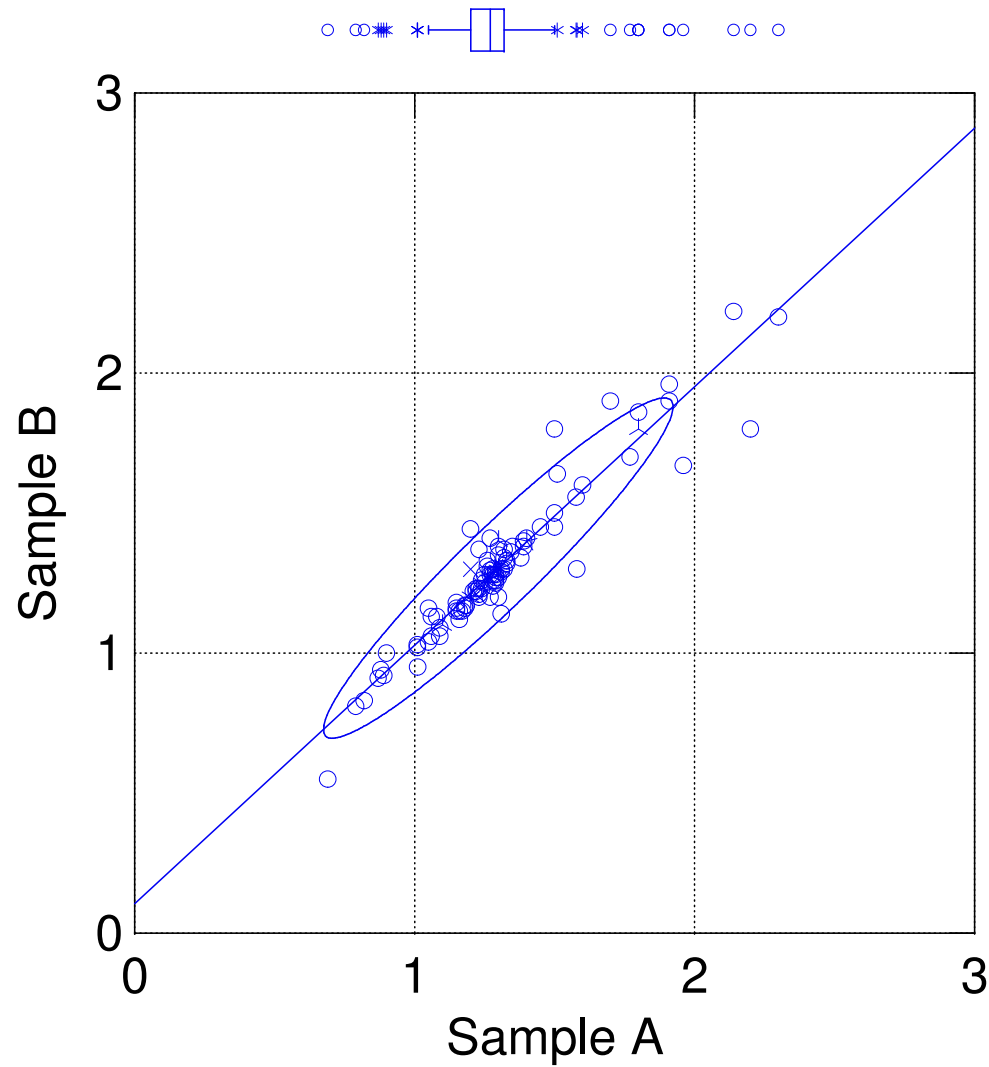
Reducing Sugars (g/L)



	Sample Replicate	
	A	B
No of cases	53	53
Minimum	1.91	1.19
Maximum	4.50	4.40
Range	2.59	3.21
Median	3.00	3.00
Mean	3.05	3.05
95% CI Upper	3.20	3.20
95% CI Lower	2.89	2.89
Standard Dev	0.56	0.57
C.V.	18.36%	18.69%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Lane and Enyon	17
Reblein	25
Other	11

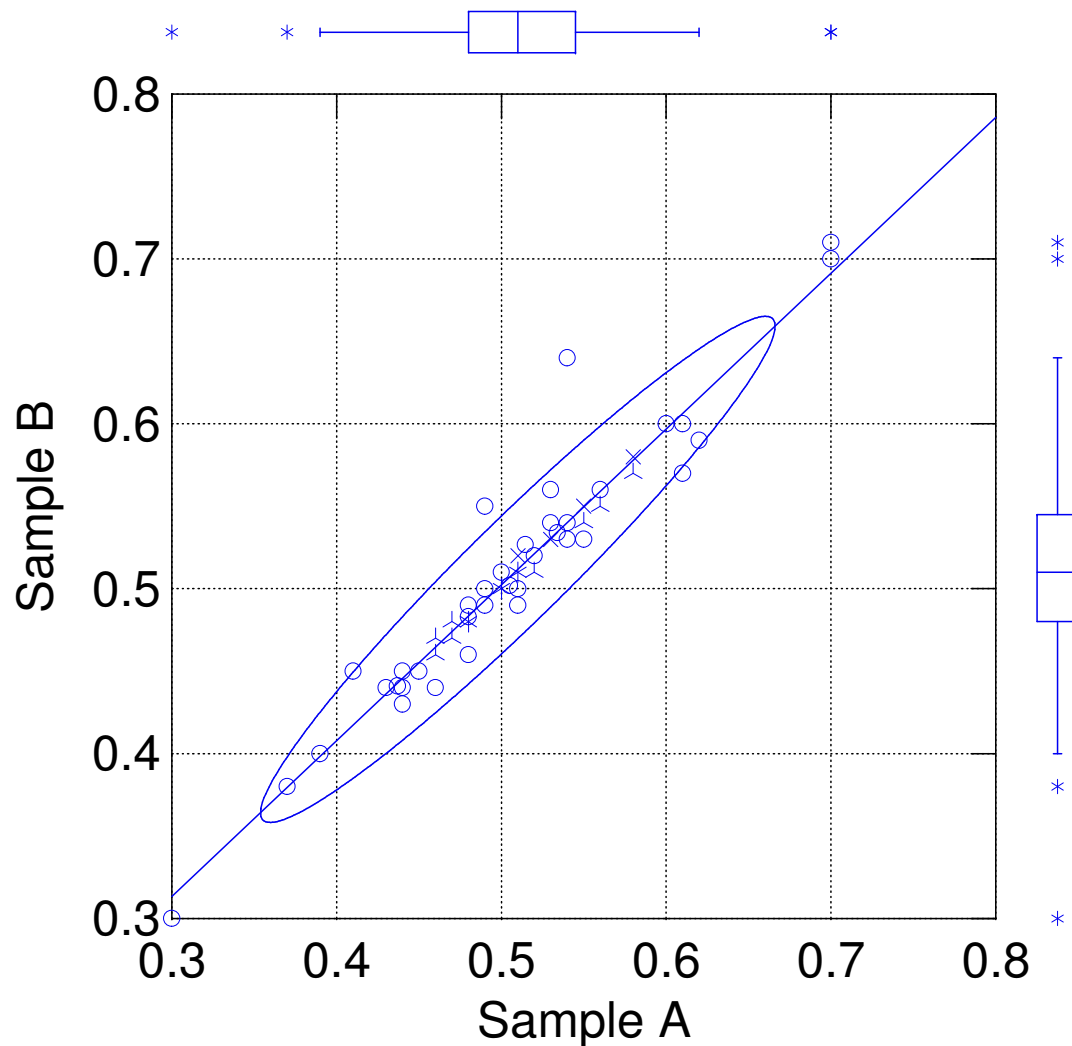
Glucose & Fructose (g/L)



	Sample Replicate	
	A	B
No of cases	127	127
Minimum	0.69	0.55
Maximum	2.30	2.22
Range	1.61	1.67
Median	1.27	1.28
Mean	1.30	1.30
95% CI Upper	1.34	1.35
95% CI Lower	1.25	1.26
Standard Dev	0.25	0.24
C.V.	19.23%	18.46%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Enzymatic	101
FTIR-MIR	13
HPLC + Other	13

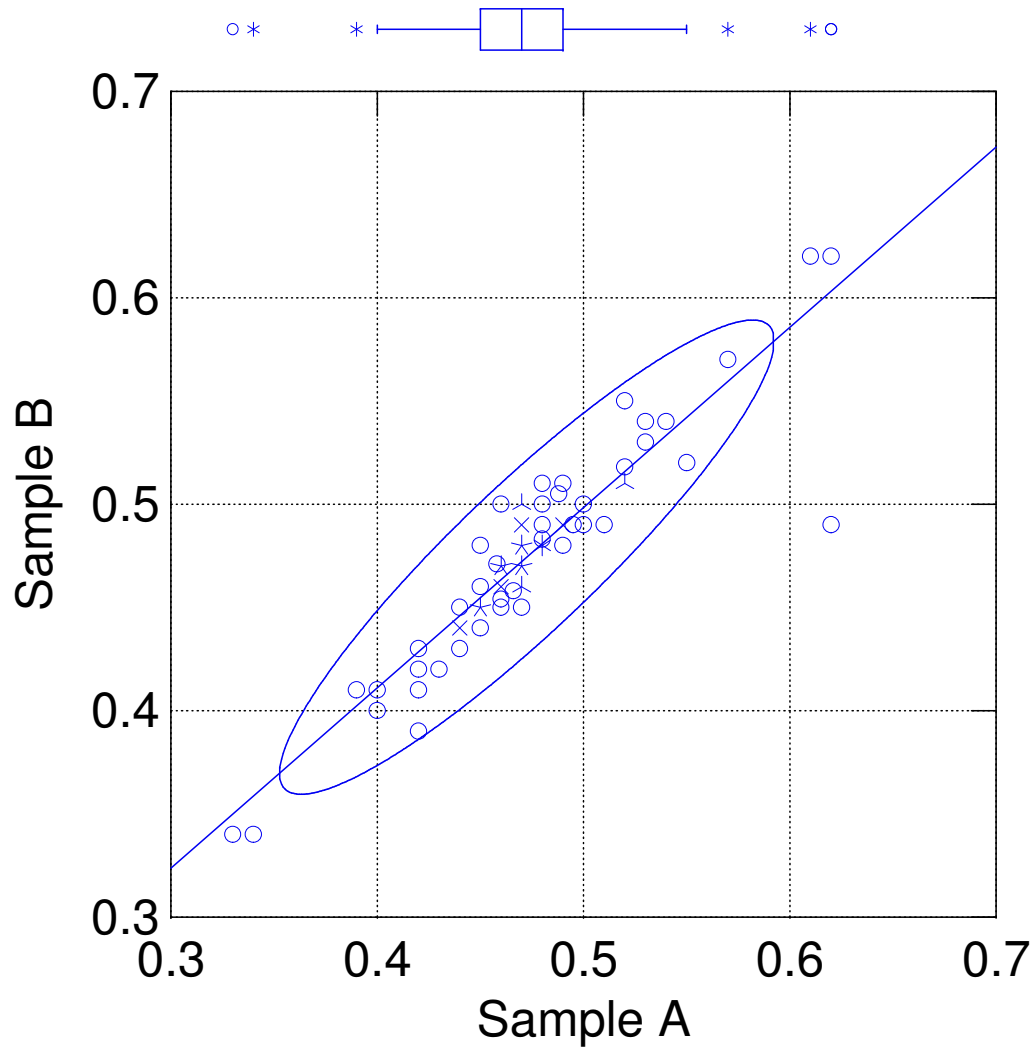
Volatile Acidity (g/L)



	Sample Replicate	
	A	B
No of cases	80	80
Minimum	0.30	0.30
Maximum	0.70	0.71
Range	0.40	0.41
Median	0.51	0.51
Mean	0.51	0.51
95% CI Upper	0.52	0.53
95% CI Lower	0.50	0.50
Standard Dev	0.06	0.06
C.V.	11.76%	11.76%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Automated Steam Distillation	14
Enzymatic	13
FTIR-MIR	20
Manual Steam Distillation	26
Other	7

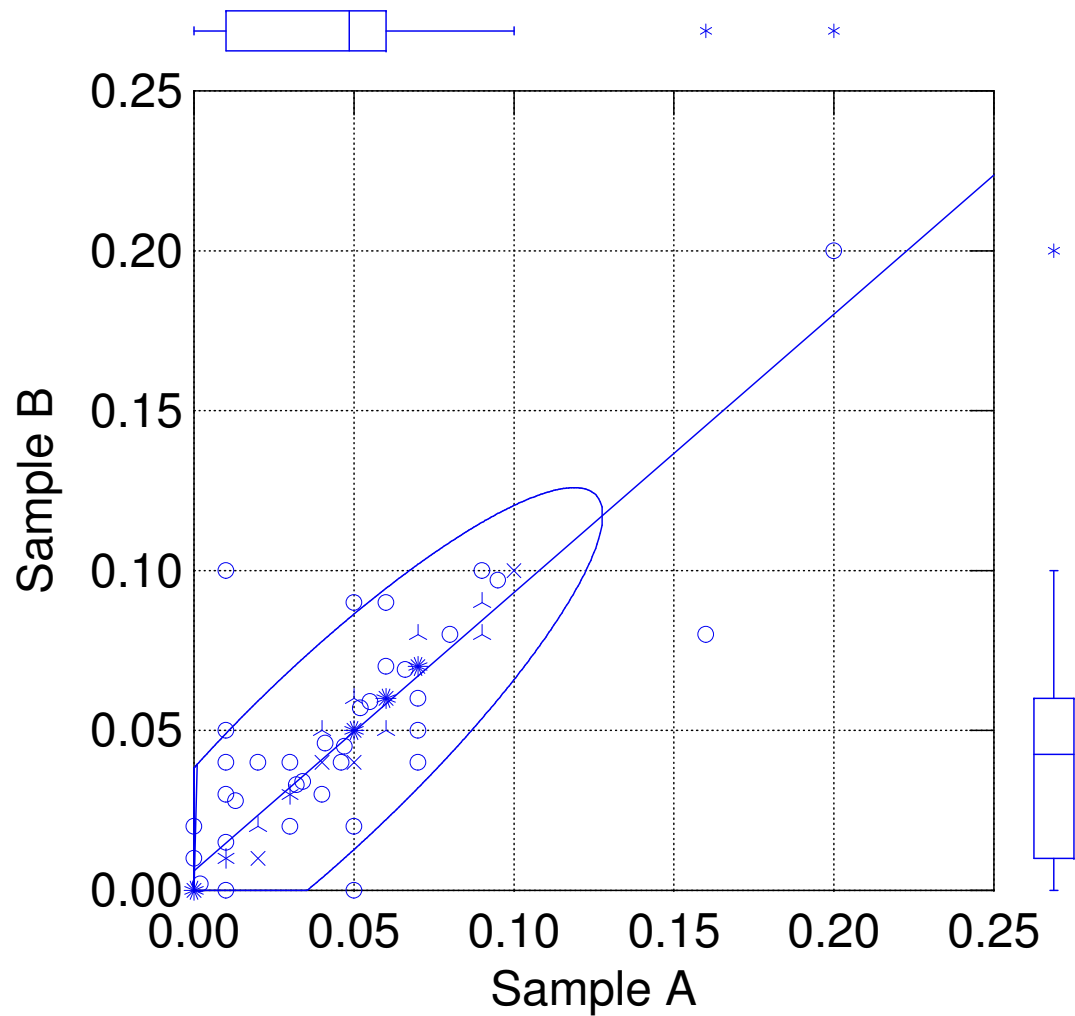
Acetic Acid (g/L)



	Sample Replicate	
	A	B
No of cases	81	81
Minimum	0.33	0.34
Maximum	0.62	0.62
Range	0.29	0.28
Median	0.47	0.48
Mean	0.47	0.47
95% CI Upper	0.48	0.48
95% CI Lower	0.46	0.46
Standard Dev	0.05	0.05
C.V.	10.64%	10.64%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Enzymatic	69
FTIR-MIR + Other	12

Malic Acid (g/L)



	Sample Replicate	
	A	B
No of cases	118	118
Minimum	0.00	0.00
Maximum	0.20	0.20
Range	0.20	0.20
Median	0.05	0.04
Mean	0.04	0.04
95% CI Upper	0.05	0.05
95% CI Lower	0.04	0.04
Standard Dev	0.03	0.03
C.V.	75.00%	75.00%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Enzymatic	99
FTIR-MIR	10
Other	9

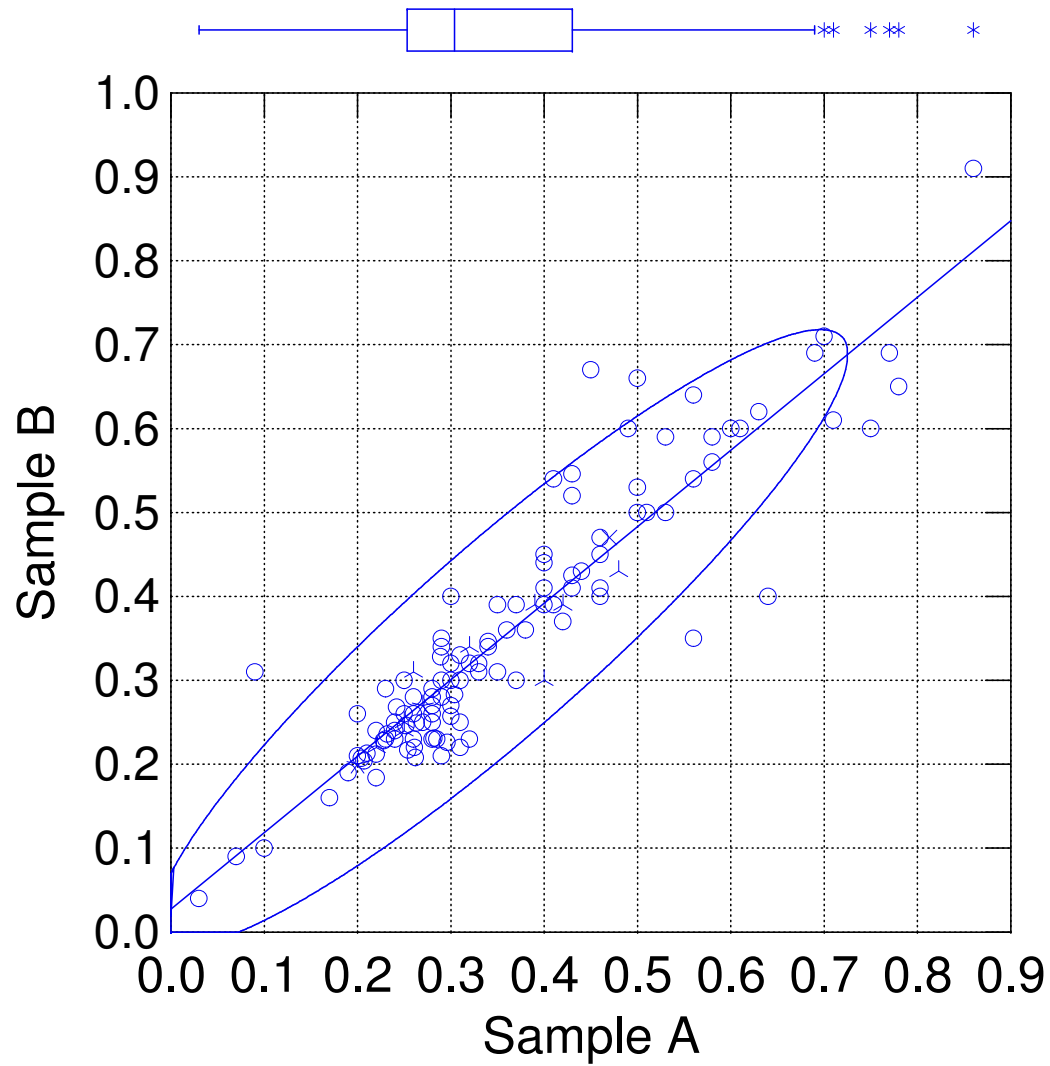
Citric Acid (g/L)

As the results submitted for 'Citric Acid' by members could not be represented by a normal distribution curve, and also because of the large amount of variation in results, the Youden plot and Z-scores were not generated. Basic statistics to the right have been included for information purposes only.

	Sample Replicate	
	A	B
No of cases	20	20
Minimum	0.00	0.00
Maximum	0.20	0.20
Range	0.20	0.20
Median	0.02	0.02
Mean	0.04	0.04
<i>95% CI Upper</i>	0.07	0.07
<i>95% CI Lower</i>	0.01	0.02
Standard Dev	0.06	0.06
C.V.	150.00%	150.00%
Lab Result		
Lab Z-Score Result		
<i>Other Result</i>		

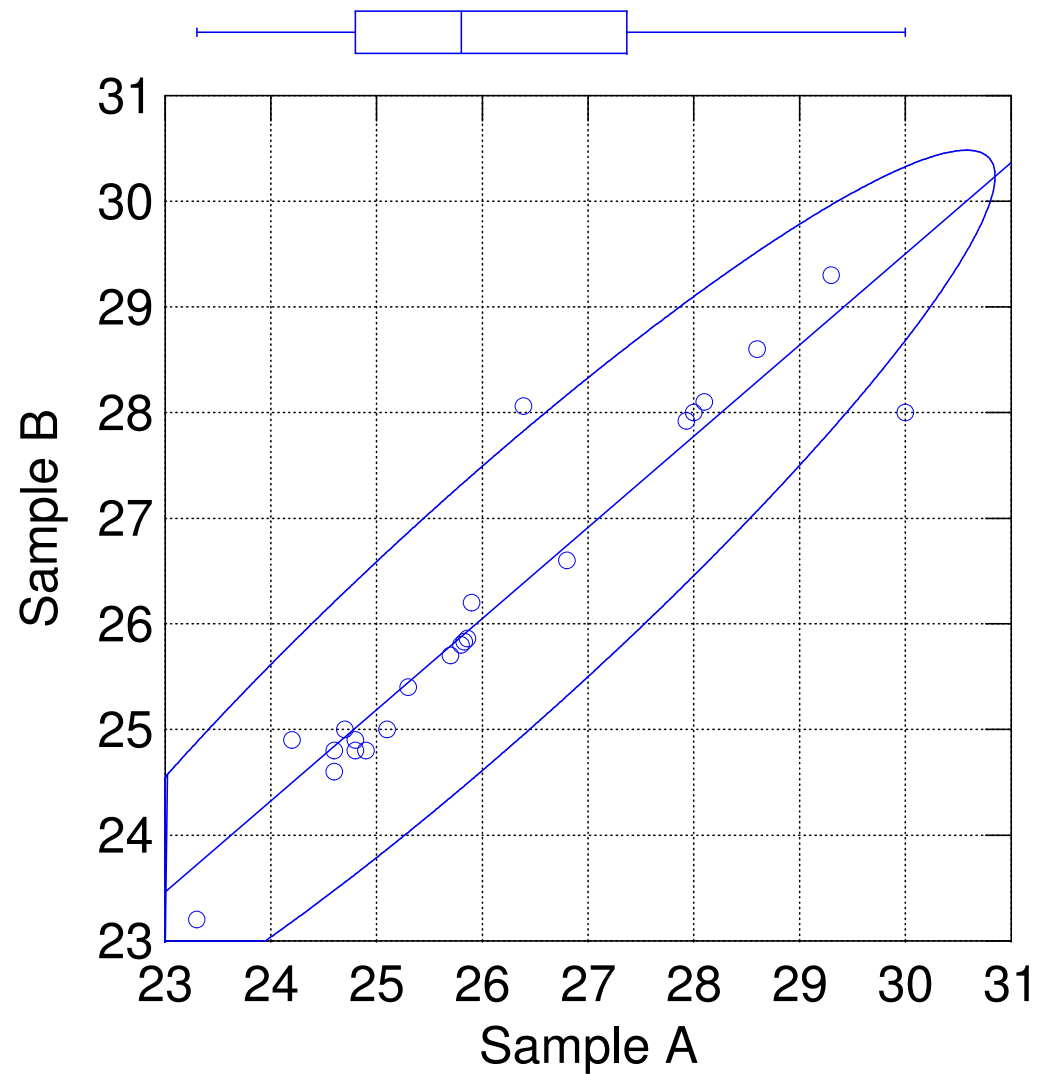
Method Breakdown	
Method	Number of Cases
Enzymatic	14
HPLC + Other	6

Turbidity (NTU)



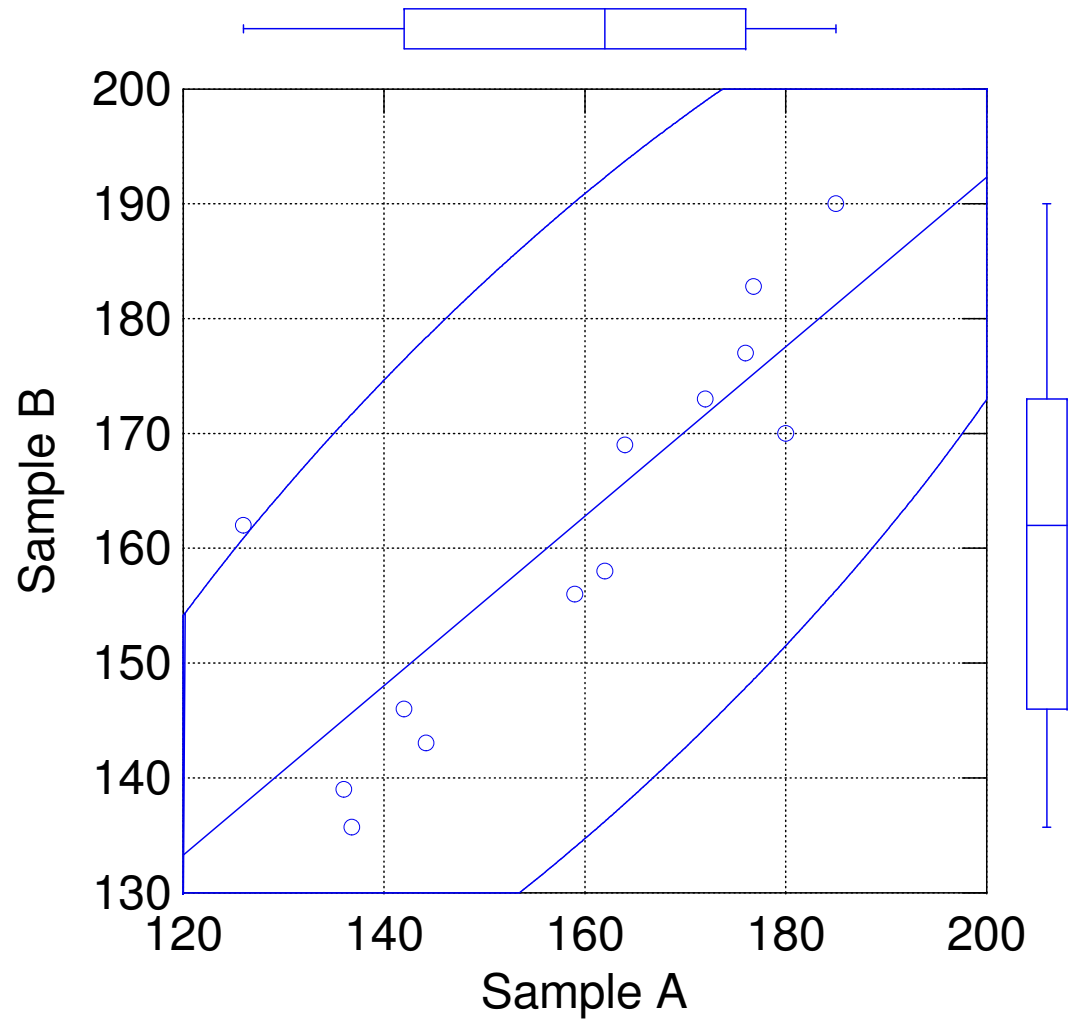
	Sample Replicate	
	A	B
No of cases	139	139
Minimum	0.03	0.04
Maximum	0.86	0.91
Range	0.83	0.87
Median	0.30	0.31
Mean	0.35	0.35
95% CI Upper	0.38	0.38
95% CI Lower	0.33	0.33
Standard Dev	0.15	0.15
C.V.	42.86%	42.86%
Lab Result		
Lab Z-Score Result		
Other Result		

Sugar Free Extract (g/L)



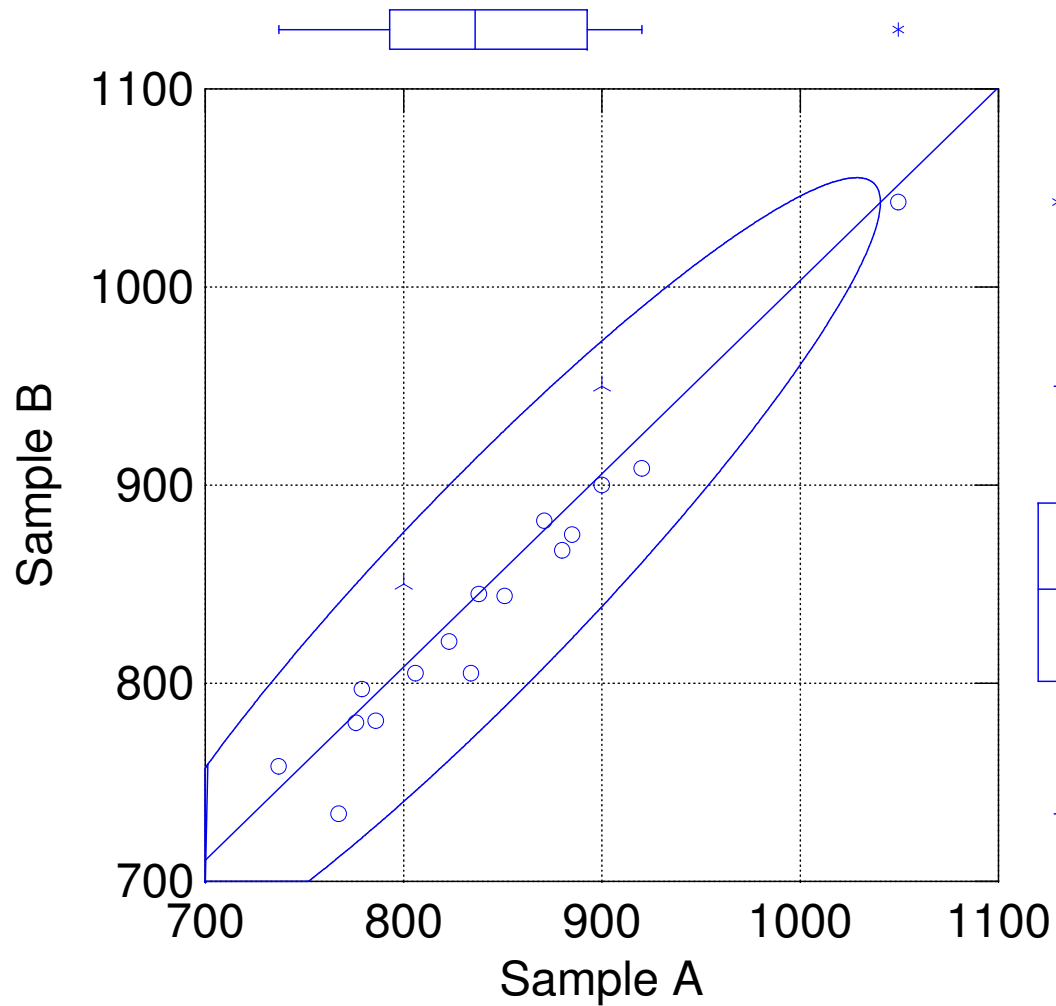
	Sample Replicate	
	A	B
No of cases	23	23
Minimum	23	23
Maximum	30	29
Range	7	6
Median	26	26
Mean	26	26
95% CI Upper	27	27
95% CI Lower	25	25
Standard Dev	2	2
C.V.	7.69%	7.69%
Lab Result		
Lab Z-Score Result		
Other Result		

Methanol (mg/L)



	Sample Replicate	
	A	B
No of cases	13	13
Minimum	126	136
Maximum	185	190
Range	59	54
Median	162	162
Mean	158	162
95% CI Upper	170	172
95% CI Lower	147	151
Standard Dev	19	17
C.V.	12.03%	10.49%
Lab Result		
Lab Z-Score Result		
Other Result		

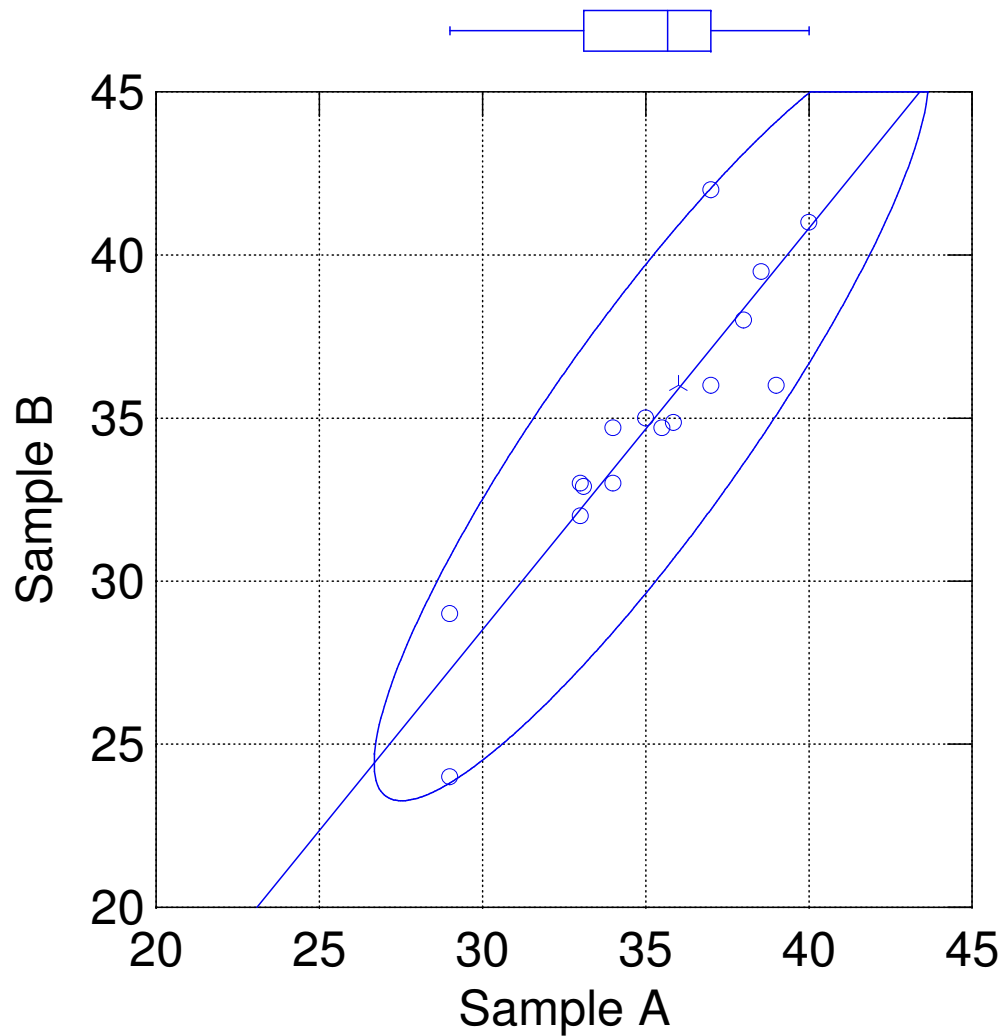
Potassium (mg/L)



	Sample Replicate	
	A	B
No of cases	20	20
Minimum	737	734
Maximum	1050	1043
Range	313	309
Median	836	848
Mean	845	852
95% CI Upper	879	887
95% CI Lower	812	818
Standard Dev	71	74
C.V.	8.40%	8.69%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS	5
8ICP	8
Flame Photometry + Other	7

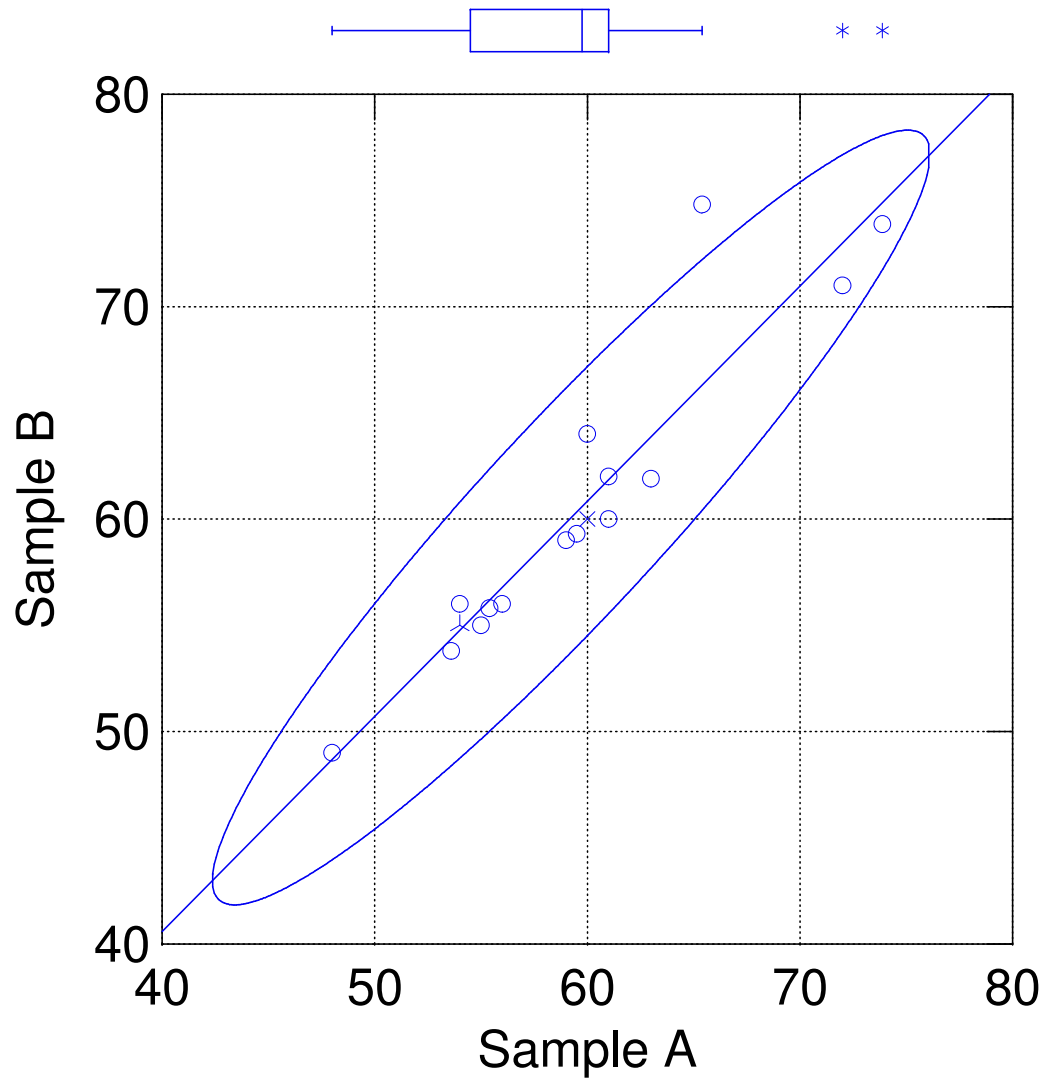
Sodium (mg/L)



	Sample Replicate	
	A	B
No of cases	18	18
Minimum	29	24
Maximum	40	42
Range	11	18
Median	36	35
Mean	35	35
95% CI Upper	37	37
95% CI Lower	34	33
Standard Dev	3	4
C.V.	8.57%	11.43%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS, Flame Photometry + Other	9
ICP	9

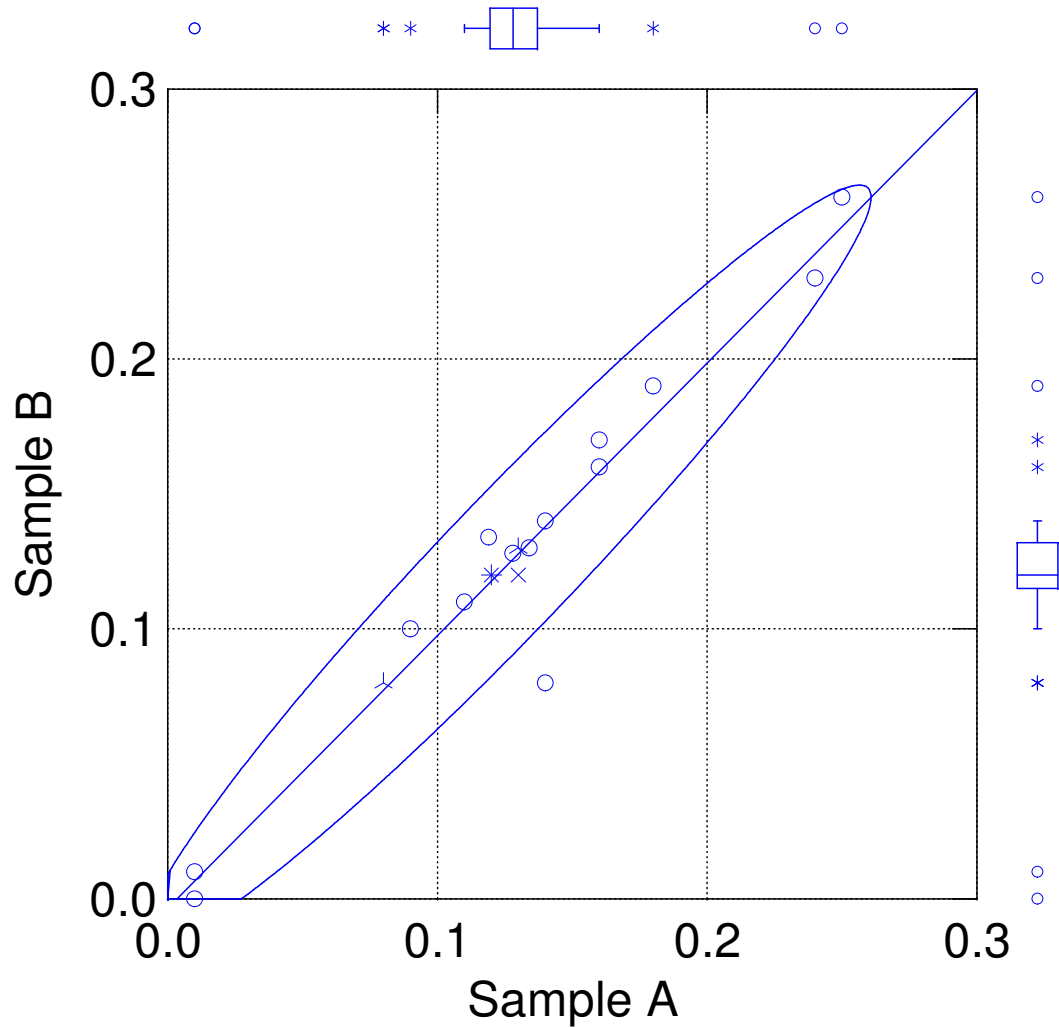
Calcium (mg/L)



	Sample Replicate	
	A	B
No of cases	20	20
Minimum	48	49
Maximum	74	75
Range	26	26
Median	60	60
Mean	59	60
95% CI Upper	62	63
95% CI Lower	56	57
Standard Dev	6	7
C.V.	10.17%	11.67%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS	8
ICP	9
Other	3

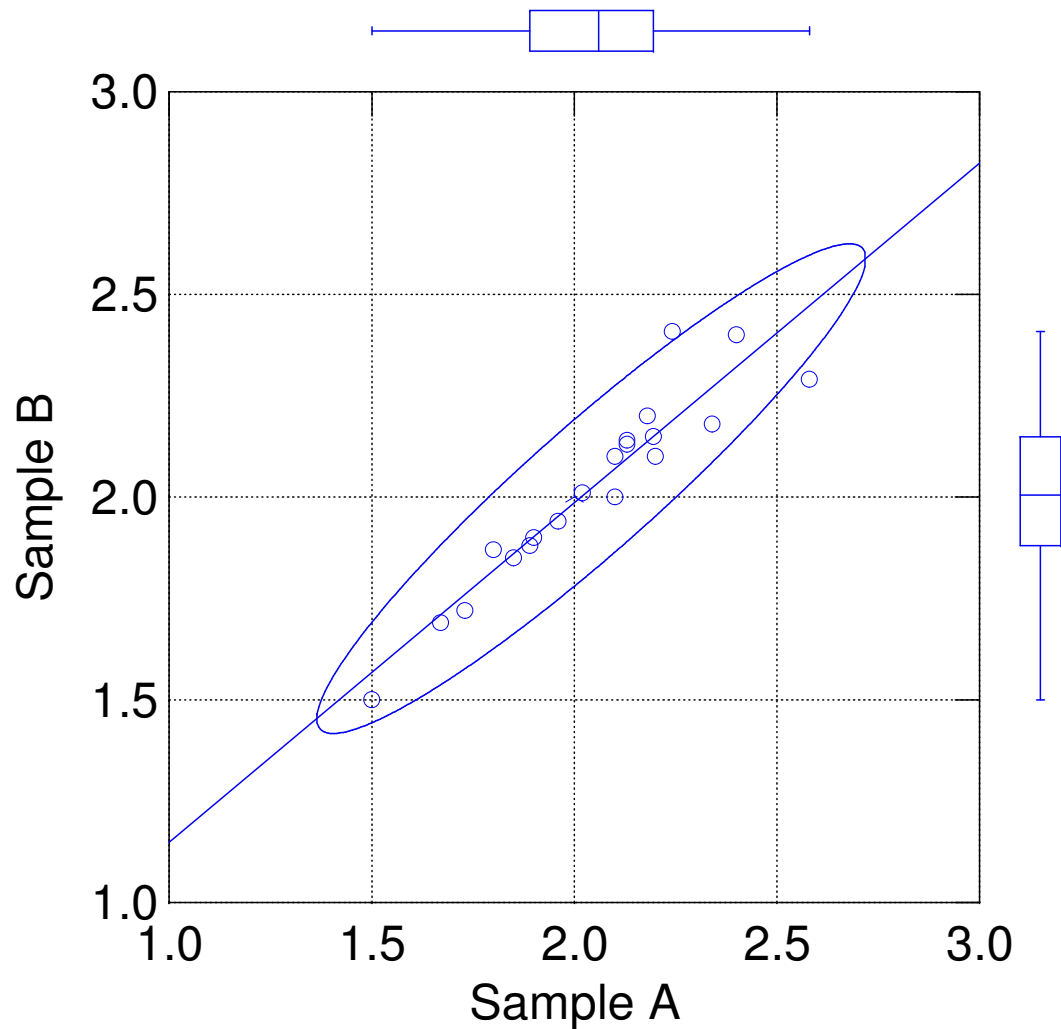
Copper (mg/L)



	Sample Replicate	
	A	B
No of cases	27	27
Minimum	0.01	0.00
Maximum	0.25	0.26
Range	0.24	0.26
Median	0.13	0.12
Mean	0.13	0.12
95% CI Upper	0.15	0.14
95% CI Lower	0.11	0.10
Standard Dev	0.05	0.05
C.V.	38.46%	41.67%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS	13
ICP	10
Other	4

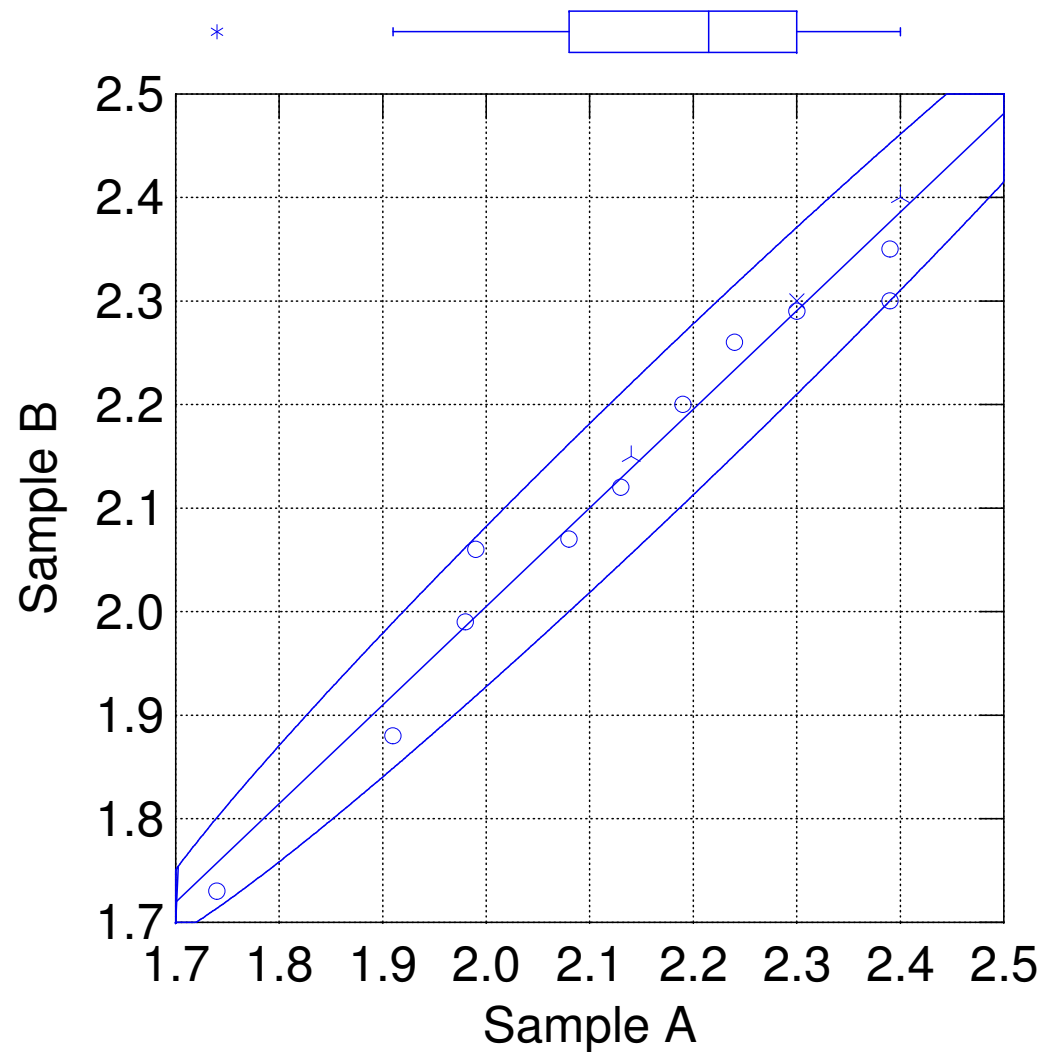
Iron (mg/L)



	Sample Replicate	
	A	B
No of cases	22	22
Minimum	1.50	1.50
Maximum	2.58	2.41
Range	1.08	0.91
Median	2.06	2.00
Mean	2.04	2.02
95% CI Upper	2.15	2.12
95% CI Lower	1.93	1.92
Standard Dev	0.25	0.22
C.V.	12.25%	10.89%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS	11
ICP + Other	11

Manganese (mg/L)



	Sample Replicate	
	A	B
No of cases	18	18
Minimum	1.74	1.73
Maximum	2.40	2.40
Range	0.66	0.67
Median	2.21	2.23
Mean	2.18	2.18
95% CI Upper	2.28	2.27
95% CI Lower	2.09	2.09
Standard Dev	0.19	0.18
C.V.	8.72%	8.26%
Lab Result		
Lab Z-Score Result		
Other Result		

Method Breakdown	
Method	Number of Cases
Flame AAS + Other	9
ICP	9

END OF REPORT