

**CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY**

DATE: 6 March - 2018

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 5.00 ug/l

EC25 = 5.46 ug/l

EC50 = 7.73 ug/l

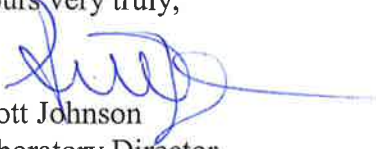
ENDPOINT: REPRODUCTION

NOEC = 10.00 ug/l

IC25 = 16.06 ug/l

IC50 = 22.63 ug/l

Yours very truly,

  
Scott Johnson  
Laboratory Director

# CETIS Summary Report

Report Date: 14 Mar-18 08:39 (p 1 of 2)  
Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

## Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD	✓
02-0389-9938	7d Survival Rate	Fisher Exact/Bonferroni-Holm Test	5	10	7.071		n/a	✓
07-9880-4424	Reproduction	Steel Many-One Rank Sum Test	10	30	17.32		41.5%	

## Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL	TU	✓
15-1388-7401	7d Survival Rate	Linear Interpolation (ICPIN)	EC5	0.75	0.4286	5		✓
			EC10	1.5	0.8571	5.294		✓
			EC15	2.25	1.286	5.625		✓
			EC20	5	1.714	6.111		✓
			EC25	5.455	2.143	6.538		✓
			EC40	6.818	5	8.333		✓
			EC50	7.727	6.154	10		✓
05-6638-7895	Reproduction	Linear Interpolation (ICPIN)	IC5	10.8	0.7892	11.48		
			IC10	12.12	1.578	12.99		
			IC15	13.43	2.368	14.48		
			IC20	14.74	3.952	15.98		
			IC25	16.06	6.148	17.47		
			IC40	20	12.39	22.53		
			IC50	22.63	16.38	26.21		

## Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
02-0389-9938	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
15-1388-7401	7d Survival Rate	Control Resp	1	0.8	>>	Yes	Passes Criteria
05-6638-7895	Reproduction	Control Resp	20.5	15	>>	Yes	Passes Criteria
07-9880-4424	Reproduction	Control Resp	20.5	15	>>	Yes	Passes Criteria
07-9880-4424	Reproduction	PMSD	0.415	0.13	0.47	Yes	Passes Criteria

## 7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
3		10	0.8000	0.4984	1.0000	0.0000	1.0000	0.1333	0.4216	52.70%	20.00%
5		10	0.8000	0.4984	1.0000	0.0000	1.0000	0.1333	0.4216	52.70%	20.00%
10		10	0.2000	0.0000	0.5016	0.0000	1.0000	0.1333	0.4216	210.82%	80.00%
30		10	0.3000	0.0000	0.6456	0.0000	1.0000	0.1528	0.4830	161.02%	70.00%
50		10	0.2000	0.0000	0.5016	0.0000	1.0000	0.1333	0.4216	210.82%	80.00%

## Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	20.5	16.46	24.54	14	31	1.784	5.642	27.52%	0.00%
3		10	19	11.49	26.51	0	29	3.32	10.5	55.26%	7.32%
5		10	21.3	13.31	29.29	0	31	3.531	11.17	52.42%	-3.90%
10		10	20.1	12.92	27.28	7	33	3.174	10.04	49.94%	1.95%
30		10	4.5	0.2713	8.729	0	18	1.869	5.911	131.36%	78.05%
50		10	1.2	-1.273	3.673	0	11	1.093	3.458	288.14%	94.15%

## CETIS Analytical Report

Report Date: 14 Mar-18 08:39 (p 1 of 2)  
 Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Analysis ID: 07-9880-4424	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 14 Mar-18 8:38	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	C > T	10	30	17.32		41.50%

## Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Negative Control		3	104.5	75	2	18	Asymp	0.8218	Non-Significant Effect
		5	117.5	75	3	18	Asymp	0.9824	Non-Significant Effect
		10	101	75	2	18	Asymp	0.7280	Non-Significant Effect
		30*	59.5	75	1	18	Asymp	0.0014	Significant Effect
		50*	55	75	0	18	Asymp	3.8E-04	Significant Effect

## Test Acceptability Criteria

## TAC Limits

Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	20.5	15	>>	Yes	Passes Criteria
PMSD	0.415	0.13	0.47	Yes	Passes Criteria

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4107.13	821.427	5	11.89	<1.0E-37	Significant Effect
Error	3729.6	69.0667	54			
Total	7836.73		59			

## Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance Test	15.3	15.09	0.0091	Unequal Variances
Variances	Levene Equality of Variance Test	4.316	3.377	0.0022	Unequal Variances
Variances	Mod Levene Equality of Variance Test	2.76	3.377	0.0272	Equal Variances
Distribution	Anderson-Darling A2 Normality Test	0.8305	3.878	0.0320	Normal Distribution
Distribution	D'Agostino Kurtosis Test	0.5634	2.576	0.5732	Normal Distribution
Distribution	D'Agostino Skewness Test	1.531	2.576	0.1259	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus Test	2.66	9.21	0.2645	Normal Distribution
Distribution	Kolmogorov-Smirnov D Test	0.08835	0.1331	0.2704	Normal Distribution
Distribution	Shapiro-Wilk W Normality Test	0.9564	0.9459	0.0313	Normal Distribution

## Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N	10	20.5	16.46	24.54	19.5	14	31	1.784	27.52%	0.00%
3		10	19	11.49	26.51	23	0	29	3.32	55.26%	7.32%
5		10	21.3	13.31	29.29	24	0	31	3.531	52.42%	-3.90%
10		10	20.1	12.92	27.28	18	7	33	3.174	49.94%	1.95%
30		10	4.5	0.2713	8.729	2	0	18	1.869	131.36%	78.05%
50		10	1.2	-1.273	3.673	0	0	11	1.093	288.14%	94.15%

# CETIS Analytical Report

Report Date: 14 Mar-18 08:39 (p 1 of 4)  
Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 15-1388-7401	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 14 Mar-18 8:38	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

## Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

## Test Acceptability Criteria

		TAC Limits		Overlap	Decision
Attribute	Test Stat	Lower	Upper		
Control Resp	1	0.8	>>	Yes	Passes Criteria

## Point Estimates

Level	µg/L	95% LCL	95% UCL
EC5	0.75	0.4286	5
EC10	1.5	0.8571	5.294
EC15	2.25	1.286	5.625
EC20	5	1.714	6.111
EC25	5.455	2.143	6.538
EC40	6.818	5	8.333
EC50	7.727	6.154	10

## 7d Survival Rate Summary

		Calculated Variate(A/B)									
Conc-µg/L	Code	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	N	10	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.0%	10	10
3		10	0.8000	0.0000	1.0000	0.1333	0.4216	52.70%	20.0%	8	10
5		10	0.8000	0.0000	1.0000	0.1333	0.4216	52.70%	20.0%	8	10
10		10	0.2000	0.0000	1.0000	0.1333	0.4216	210.80%	80.0%	2	10
30		10	0.3000	0.0000	1.0000	0.1528	0.4830	161.00%	70.0%	3	10
50		10	0.2000	0.0000	1.0000	0.1333	0.4216	210.80%	80.0%	2	10

## 7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000
5		1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
10		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000
30		0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000

## 7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1
5		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	0/1	1/1
10		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1	1/1
30		0/1	0/1	1/1	1/1	0/1	0/1	0/1	1/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1	1/1

## CETIS Analytical Report

Report Date: 14 Mar-18 08:39 (p 3 of 4)  
 Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Analysis ID: 05-6638-7895	Endpoint: Reproduction	CETIS Version: CETISv1.9.2
Analyzed: 14 Mar-18 8:38	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

## Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

## Test Acceptability Criteria

## TAC Limits

Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	20.5	15	>>	Yes	Passes Criteria

## Point Estimates

Level	µg/L	95% LCL	95% UCL
IC5	10.8	0.7892	11.48
IC10	12.12	1.578	12.99
IC15	13.43	2.368	14.48
IC20	14.74	3.952	15.98
IC25	16.06	6.148	17.47
IC40	20	12.39	22.53
IC50	22.63	16.38	26.21

## Reproduction Summary

## Calculated Variate

Conc-µg/L	Code	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	20.5	14	31	1.784	5.642	27.52%	0.0%
3		10	19	0	29	3.32	10.5	55.26%	7.32%
5		10	21.3	0	31	3.531	11.17	52.42%	-3.9%
10		10	20.1	7	33	3.174	10.04	49.94%	1.95%
30		10	4.5	0	18	1.869	5.911	131.40%	78.05%
50		10	1.2	0	11	1.093	3.458	288.10%	94.15%

## Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	14	16	18	17	23	22	21	28	15	31
3		13	28	12	23	27	29	23	0	6	29
5		20	22	28	0	31	26	22	31	3	30
10		28	11	11	33	7	12	19	17	30	33
30		0	3	11	5	0	0	6	18	1	1
50		0	0	0	0	0	0	0	0	1	11

## CETIS Analytical Report

Report Date: 14 Mar-18 08:39 (p 1 of 2)

Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Analysis ID: 02-0389-9938	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.9.2
Analyzed: 14 Mar-18 8:38	Analysis: STP 2xK Contingency Tables	Official Results: Yes
Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	5	10	7.071	

## Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		3	0.2368	Exact	0.4737	Non-Significant Effect
		5	0.2368	Exact	0.4737	Non-Significant Effect
		10*	0.0004	Exact	0.0018	Significant Effect
		30*	0.0015	Exact	0.0046	Significant Effect
		50*	0.0004	Exact	0.0018	Significant Effect

## Test Acceptability Criteria

## TAC Limits

Attribute	Test Stat	Lower	Upper	Overlap	Decision
Control Resp	1	0.8	>>	Yes	Passes Criteria

## Data Summary

Conc-μg/L	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	N	10	0	10	1	0	0.0%
3		8	2	10	0.8	0.2	20.0%
5		8	2	10	0.8	0.2	20.0%
10		2	8	10	0.2	0.8	80.0%
30		3	7	10	0.3	0.7	70.0%
50		2	8	10	0.2	0.8	80.0%

## 7d Survival Rate Detail

Conc-μg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000
5		1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
10		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000
30		0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000

## 7d Survival Rate Binomials

Conc-μg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1
5		1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	0/1	1/1
10		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1	1/1
30		0/1	0/1	1/1	1/1	0/1	0/1	0/1	1/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	1/1	1/1

# CETIS Measurement Report

Report Date: 14 Mar-18 08:39 (p 1 of 2)  
Test Code: CER030618 | 14-4114-6075

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 02-3712-1683	Test Type: Reproduction-Survival (7d)	Analyst:
Start Date: 06 Mar-18 14:00	Protocol: EPA/821/R-02-013 (2002)	Diluent: Laboratory Water
Ending Date: 13 Mar-18 14:00	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 14-1125-6244	Code: CER030618	Client: ABC Labs
Sample Date: 06 Mar-18 14:00	Material: Copper chloride	Project: REF TOX
Receipt Date:	Source: Reference Toxicant	
Sample Age: n/a	Station:	

### Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	66	66	66	66	66	0	0	0.0%	0
50		8	66	66	66	66	66	0	0	0.0%	0
Overall		16	66	66	66	66	66	0	0	0.00%	0 (0%)

### Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	344.5	340.9	348.1	340	351	1.512	4.276	1.24%	0
3		8	350.1	333.3	366.9	338	399	7.1	20.08	5.74%	0
5		8	341.4	338.6	344.2	338	348	1.194	3.378	0.99%	0
10		8	339.4	336.4	342.4	336	346	1.267	3.583	1.06%	0
30		8	337.1	332.4	341.8	330	348	1.986	5.617	1.67%	0
50		8	342.8	335.6	349.9	337	357	3.022	8.548	2.49%	0
Overall		48	342.5	339.6	345.4	330	399	1.439	9.968	2.91%	0 (0%)

### Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.8	7.525	8.075	7.3	8.4	0.1165	0.3295	4.22%	0
3		8	7.937	7.566	8.309	7.6	8.7	0.1569	0.4438	5.59%	0
5		8	7.687	7.102	8.273	6.2	8.7	0.2474	0.6999	9.1%	0
10		8	7.875	7.447	8.303	7.2	8.7	0.181	0.512	6.5%	0
30		8	7.962	7.553	8.372	7.3	8.7	0.1731	0.4897	6.15%	0
50		8	7.688	7.072	8.303	6.2	8.7	0.2601	0.7357	9.57%	0
Overall		48	7.825	7.67	7.98	6.2	8.7	0.07721	0.5349	6.84%	0 (0%)

### Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.0%	0
50		8	95	95	95	95	95	0	0	0.0%	0
Overall		16	94.5	94.22	94.78	94	95	0.1291	0.5164	0.55%	0 (0%)

### pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.925	7.851	7.999	7.8	8	0.03134	0.08864	1.12%	0
3		8	7.75	7.673	7.827	7.6	7.9	0.03273	0.09258	1.2%	0
5		8	7.738	7.675	7.8	7.6	7.8	0.02631	0.07441	0.96%	0
10		8	7.7	7.611	7.789	7.5	7.8	0.0378	0.1069	1.39%	0
30		8	7.7	7.611	7.789	7.5	7.8	0.0378	0.1069	1.39%	0
50		8	7.688	7.574	7.801	7.4	7.8	0.04795	0.1356	1.76%	0
Overall		48	7.75	7.713	7.787	7.4	8	0.01835	0.1272	1.64%	0 (0%)