APPENDIX B

Distribution of Block Samples Values, Hand Sample Values and Transfer Reduction Factors

B1 - Distribution of Block Samples Values, Hand Sample Values and Transfer Reduction Factors Based on Block Wipe Data as µg/cm^2 Block Wipe and Hand Rub Data as µg/cm^2 Hand

B2 - Distribution of Block Samples Values, Hand Sample Values and Transfer Reduction Factors Based on Block Wipe Data as µg/cm^2 Test Coupon and Hand Rub Data as µg/cm^2 Hand

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	2.15450107	Sum Observations	1458.59723
Std Deviation	1.43760418	Variance	2.06670578
Skewness	2.29790758	Kurtosis	7.83863933
Uncorrected SS	4539.64239	Corrected SS	1397.09311
Coeff Variation	66.7256192	Std Error Mean	0.05525162

Basic Statistical Measures			
Location		Variability	
Mean	2.154501	Std Deviation	1.43760
Median	1.770750	Variance	2.06671
Mode	1.301250	Range	10.49835
		Interquartile Range	1.44450

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	38.99435	Pr > |t|	<.0001
Sign	M	338.5	Pr >= |M|	<.0001
Signed Rank	S	114751.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	10.860000
99%	8.925000
95%	4.630500
90%	3.770250
75% Q3	2.640000
50% Median	1.770750

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
25% Q1	1.195500
10%	0.891000
5%	0.749700
1%	0.562275
0% Min	0.361650

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.361650	C10984G	561	9.1425	C108467	371
0.383400	C109619	552	9.4425	C108478	372
0.412425	C113900	292	9.5775	C10515R	629
0.488429	C10156O	203	10.1775	C10710S	232
0.527475	C10985H	562	10.8600	C10709Z	231

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	0.59522775	Sum Observations	402.969186
Std Deviation	0.57398189	Variance	0.32945521
Skewness	0.26696497	Kurtosis	-0.0644005
Uncorrected SS	462.570163	Corrected SS	222.711721
Coeff Variation	96.4306335	Std Error Mean	0.02205992

Basic Statistical Measures			
Location		Variability	
Mean	0.595228	Std Deviation	0.57398
Median	0.571403	Variance	0.32946
Mode	0.263325	Range	3.40216
		Interquartile Range	0.79221

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	26.98232	Pr > |t|	<.0001
Sign	M	232.5	Pr >= |M|	<.0001
Signed Rank	S	99668.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	2.385086
99%	2.188856
95%	1.532665
90%	1.327141
75% Q3	0.970779
50% Median	0.571403
25% Q1	0.178565

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
10%	-0.115411
5%	-0.288082
1%	-0.575764
0% Min	-1.017078

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-1.017078	C10984G	561	2.21293	C108467	371
-0.958676	C109619	552	2.24522	C108478	372
-0.885701	C113900	292	2.25942	C10515R	629
-0.716562	C10156O	203	2.32018	C10710S	232
-0.639654	C10985H	562	2.38509	C10709Z	231

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	0.06077718	Sum Observations	41.1461513
Std Deviation	0.10364413	Variance	0.01074211
Skewness	13.4749892	Kurtosis	263.99522
Uncorrected SS	9.76241071	Corrected SS	7.26166364
Coeff Variation	170.531325	Std Error Mean	0.00398337

Basic Statistical Measures			
Location		Variability	
Mean	0.060777	Std Deviation	0.10364
Median	0.034781	Variance	0.01074
Mode	.	Range	2.18664
		Interquartile Range	0.04922

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	15.25774	Pr > |t|	<.0001
Sign	M	338.5	Pr >= |M|	<.0001
Signed Rank	S	114751.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	2.18858773
99%	0.36556919
95%	0.18559235
90%	0.12766288
75% Q3	0.06900593
50% Median	0.03478100
25% Q1	0.01978916

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.01399725
5%	0.01142279
1%	0.00550667
0% Min	0.00195051

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.00195051	C11176W	132	0.383592	C10516S	630
0.00393333	C10334O	677	0.417023	C10688B	211
0.00441525	C10166Q	322	0.451211	C10709Z	231
0.00487892	C10215I	302	0.468443	C106916	214
0.00488000	C10321J	665	2.188588	C10710S	232

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	-3.2530221	Sum Observations	-2202.296
Std Deviation	0.88568155	Variance	0.78443181
Skewness	0.39982319	Kurtosis	0.41959312
Uncorrected SS	7694.39326	Corrected SS	530.275902
Coeff Variation	-27.226423	Std Error Mean	0.03403951

Basic Statistical Measures			
Location		Variability	
Mean	-3.25302	Std Deviation	0.88568
Median	-3.35868	Variance	0.78443
Mode	.	Range	7.02292
		Interquartile Range	1.24906

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-95.5661	Pr > |t|	<.0001
Sign	M	-337.5	Pr >= |M|	<.0001
Signed Rank	S	-114750	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.783256
99%	-1.006300
95%	-1.684203
90%	-2.058362
75% Q3	-2.673563
50% Median	-3.358684
25% Q1	-3.922621
10%	-4.268894
5%	-4.472144

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
1%	-5.201796
0% Min	-6.239665

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.23967	C11176W	132	-0.958176	C10516S	630
-5.53827	C10334O	677	-0.874614	C10688B	211
-5.42269	C10166Q	322	-0.795821	C10709Z	231
-5.32283	C10215I	302	-0.758341	C106916	214
-5.32261	C10321J	665	0.783256	C10710S	232

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	2.74362571	Sum Observations	1862.92186
Std Deviation	2.21805928	Variance	4.91978695
Skewness	7.87948017	Kurtosis	118.580676
Uncorrected SS	8446.77586	Corrected SS	3335.61555
Coeff Variation	80.8440913	Std Error Mean	0.0851213

Basic Statistical Measures			
Location		Variability	
Mean	2.743626	Std Deviation	2.21806
Median	2.278500	Variance	4.91979
Mode	1.572750	Range	39.44250
		Interquartile Range	1.86432

The mode displayed is the smallest of 3 modes with a count of 3.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	32.23195	Pr > |t|	<.0001
Sign	M	339.5	Pr >= |M|	<.0001
Signed Rank	S	115430	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	39.99750
99%	10.65750
95%	5.73300
90%	4.88400
75% Q3	3.40275

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
50% Median	2.27850
25% Q1	1.53843
10%	1.12275
5%	0.88125
1%	0.69335
0% Min	0.55500

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.555000	C10984G	563	10.7325	C10513P	630
0.610875	C11323P	179	10.7625	C10710S	232
0.626250	C11312M	176	12.6450	C108467	372
0.638550	C11319T	178	13.0050	C108478	373
0.669150	C10621S	17	39.9975	C10798G	441

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	0.83018953	Sum Observations	563.698689
Std Deviation	0.57477609	Variance	0.33036755
Skewness	0.3133398	Kurtosis	0.50823383
Uncorrected SS	691.965947	Corrected SS	223.989199
Coeff Variation	69.2343215	Std Error Mean	0.02205788

Basic Statistical Measures			
Location		Variability	
Mean	0.830190	Std Deviation	0.57478
Median	0.823517	Variance	0.33037
Mode	0.452826	Range	4.27760
		Interquartile Range	0.79382

The mode displayed is the smallest of 3 modes with a count of 3.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	37.63687	Pr > |t|	<.0001
Sign	M	289.5	Pr >= |M|	<.0001
Signed Rank	S	111917	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	3.688817
99%	2.366264
95%	1.746239
90%	1.585965
75% Q3	1.224584

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
50% Median	0.823517
25% Q1	0.430763
10%	0.115781
5%	-0.126414
1%	-0.366221
0% Min	-0.588787

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-0.588787	C10984G	563	2.37328	C10513P	630
-0.492863	C11323P	179	2.37607	C10710S	232
-0.468006	C11312M	176	2.53726	C108467	372
-0.448555	C11319T	178	2.56533	C108478	373
-0.401747	C10621S	17	3.68882	C10798G	441

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	0.05782199	Sum Observations	39.2611337
Std Deviation	0.08925329	Variance	0.00796615
Skewness	9.98279673	Kurtosis	163.20245
Uncorrected SS	7.67120601	Corrected SS	5.40104898
Coeff Variation	154.358713	Std Error Mean	0.00342523

Basic Statistical Measures			
Location		Variability	
Mean	0.057822	Std Deviation	0.08925
Median	0.032306	Variance	0.00797
Mode	.	Range	1.67603
		Interquartile Range	0.04559

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	16.88122	Pr > |t|	<.0001
Sign	M	339.5	Pr >= |M|	<.0001
Signed Rank	S	115430	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	1.67848787
99%	0.34376940
95%	0.18855578
90%	0.12910164
75% Q3	0.06419192
50% Median	0.03230579
25% Q1	0.01860657

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.01243091
5%	0.00966819
1%	0.00605087
0% Min	0.00245525

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.00245525	C11176W	132	0.373775	C10724Y	462
0.00371977	C109255	344	0.386678	C10516S	632
0.00375424	C10166Q	322	0.434947	C10709Z	231
0.00389654	C10215I	302	0.599367	C107464	471
0.00416667	C10334O	679	1.678488	C10710S	232

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	-3.3183219	Sum Observations	-2253.1406
Std Deviation	0.90910983	Variance	0.82648068
Skewness	0.40122126	Kurtosis	0.19677784
Uncorrected SS	8036.99953	Corrected SS	560.353903
Coeff Variation	-27.396674	Std Error Mean	0.03488843

Basic Statistical Measures			
Location		Variability	
Mean	-3.31832	Std Deviation	0.90911
Median	-3.43251	Variance	0.82648
Mode	.	Range	6.52742
		Interquartile Range	1.23836

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-95.1124	Pr > |t|	<.0001
Sign	M	-338.5	Pr >= |M|	<.0001
Signed Rank	S	-115428	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.517893
99%	-1.067784
95%	-1.668361
90%	-2.047155
75% Q3	-2.745878
50% Median	-3.432509
25% Q1	-3.984241

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
10%	-4.387569
5%	-4.638915
1%	-5.107553
0% Min	-6.009525

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.00952	C11176W	132	-0.984101	C10724Y	462
-5.59409	C109255	344	-0.950162	C10516S	632
-5.58487	C10166Q	322	-0.832532	C10709Z	231
-5.54767	C10215I	302	-0.511882	C107464	471
-5.48064	C10334O	679	0.517893	C10710S	232

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Copper

Moments			
N	678	Sum Weights	678
Mean	1.59072244	Sum Observations	1078.50982
Std Deviation	1.06268794	Variance	1.12930566
Skewness	3.14103569	Kurtosis	18.9493738
Uncorrected SS	2480.1497	Corrected SS	764.539929
Coeff Variation	66.8053653	Std Error Mean	0.04081228

Basic Statistical Measures			
Location		Variability	
Mean	1.590722	Std Deviation	1.06269
Median	1.307823	Variance	1.12931
Mode	1.081500	Range	11.55090
		Interquartile Range	1.05375

The mode displayed is the smallest of 3 modes with a count of 3.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	38.97656	Pr > |t|	<.0001
Sign	M	339	Pr >= |M|	<.0001
Signed Rank	S	115090.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	11.85750
99%	5.05050
95%	3.46575
90%	2.85975
75% Q3	1.96650

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: X

ANALYTE=Copper

Quantiles (Definition 5)	
Quantile	Estimate
50% Median	1.30782
25% Q1	0.91275
10%	0.68055
5%	0.55950
1%	0.44310
0% Min	0.30660

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.306600	C109302	347	6.7650	C111880	274
0.306750	C10989L	566	7.1760	C11182U	268
0.356625	C10990E	567	7.9650	C11175V	131
0.376040	C10213G	299	8.5500	C11180S	135
0.397601	C10350O	615	11.8575	C11054N	403

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Copper

Moments			
N	678	Sum Weights	678
Mean	0.3020637	Sum Observations	204.799186
Std Deviation	0.55398422	Variance	0.30689852
Skewness	0.290164	Kurtosis	0.1450189
Uncorrected SS	269.632694	Corrected SS	207.770295
Coeff Variation	183.399801	Std Error Mean	0.02127564

Basic Statistical Measures			
Location		Variability	
Mean	0.302064	Std Deviation	0.55398
Median	0.268363	Variance	0.30690
Mode	0.078349	Range	3.65517
		Interquartile Range	0.76755

The mode displayed is the smallest of 3 modes with a count of 3.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	14.19763	Pr > |t|	<.0001
Sign	M	129	Pr >= |M|	<.0001
Signed Rank	S	63364.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	2.4729606
99%	1.6194872
95%	1.2429291
90%	1.0507342
75% Q3	0.6762553

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LX

ANALYTE=Copper

Quantiles (Definition 5)	
Quantile	Estimate
50% Median	0.2683630
25% Q1	-0.0912933
10%	-0.3848540
5%	-0.5807118
1%	-0.8139598
0% Min	-1.1822113

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-1.182211	C109302	347	1.91176	C111880	274
-1.181722	C10989L	566	1.97074	C11182U	268
-1.031070	C10990E	567	2.07506	C11175V	131
-0.978060	C10213G	299	2.14593	C11180S	135
-0.922307	C10350O	615	2.47296	C11054N	403

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Copper

Moments			
N	678	Sum Weights	678
Mean	0.05333301	Sum Observations	36.1597784
Std Deviation	0.0601415	Variance	0.003617
Skewness	4.3347468	Kurtosis	30.7725449
Uncorrected SS	4.37721842	Corrected SS	2.44870872
Coeff Variation	112.765997	Std Error Mean	0.00230972

Basic Statistical Measures			
Location		Variability	
Mean	0.053333	Std Deviation	0.06014
Median	0.033706	Variance	0.00362
Mode	.	Range	0.67440
		Interquartile Range	0.04091

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	23.09068	Pr > |t|	<.0001
Sign	M	339	Pr >= |M|	<.0001
Signed Rank	S	115090.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.67557432
99%	0.30683832
95%	0.15194602
90%	0.11448781
75% Q3	0.06109474
50% Median	0.03370597
25% Q1	0.02018478

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: Y

ANALYTE=Copper

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.01480217
5%	0.01226043
1%	0.00827139
0% Min	0.00117630

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.00117630	C10354S	619	0.336644	C11015G	105
0.00305639	C10215I	301	0.338863	C11175V	131
0.00382309	C109255	342	0.339705	C10604R	53
0.00682667	C10329R	674	0.610106	C10710S	231
0.00756834	C11057Q	406	0.675574	C11035K	125

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Copper

Moments			
N	678	Sum Weights	678
Mean	-3.2944196	Sum Observations	-2233.6165
Std Deviation	0.80932812	Variance	0.65501201
Skewness	0.39348415	Kurtosis	0.42465259
Uncorrected SS	7801.91297	Corrected SS	443.443128
Coeff Variation	-24.566638	Std Error Mean	0.03108206

Basic Statistical Measures			
Location		Variability	
Mean	-3.29442	Std Deviation	0.80933
Median	-3.39008	Variance	0.65501
Mode	.	Range	6.35319
		Interquartile Range	1.10750

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-105.991	Pr > |t|	<.0001
Sign	M	-339	Pr >= |M|	<.0001
Signed Rank	S	-115091	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	-0.392192
99%	-1.181434
95%	-1.884230
90%	-2.167287
75% Q3	-2.795330
50% Median	-3.390081
25% Q1	-3.902827

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF BLOCK AND HAND SAMPLES (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LY

ANALYTE=Copper

Quantiles (Definition 5)	
Quantile	Estimate
10%	-4.212981
5%	-4.401378
1%	-4.794952
0% Min	-6.745385

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.74538	C10354S	619	-1.088729	C11015G	105
-5.79052	C10215I	301	-1.082159	C11175V	131
-5.56670	C109255	342	-1.079678	C10604R	53
-4.98692	C10329R	674	-0.494123	C10710S	231
-4.88378	C11057Q	406	-0.392192	C11035K	125

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	0.03208749	Sum Observations	21.7232288
Std Deviation	0.03792502	Variance	0.00143831
Skewness	4.29644517	Kurtosis	28.8861146
Uncorrected SS	1.6693393	Corrected SS	0.97229547
Coeff Variation	118.192543	Std Error Mean	0.00145758

Basic Statistical Measures			
Location		Variability	
Mean	0.032087	Std Deviation	0.03793
Median	0.019644	Variance	0.00144
Mode	.	Range	0.42988
		Interquartile Range	0.02650

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	22.01427	Pr > |t|	<.0001
Sign	M	338.5	Pr >= |M|	<.0001
Signed Rank	S	114751.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.43185238
99%	0.21642220
95%	0.09425093
90%	0.06910410
75% Q3	0.03800317
50% Median	0.01964356
25% Q1	0.01150138

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.00734061
5%	0.00549706
1%	0.00299774
0% Min	0.00196963

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.00196963	C10329R	673	0.226604	C107464	399
0.00208047	C11047O	328	0.254676	C106701	531
0.00216363	C11176W	124	0.272393	C107599	407
0.00226553	C10334O	677	0.302247	C10801U	372
0.00230037	C11058R	337	0.431852	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

ANALYTE=Arsenic

Moments			
N	677	Sum Weights	677
Mean	-3.8482498	Sum Observations	-2605.2651
Std Deviation	0.87626805	Variance	0.7678457
Skewness	0.23647057	Kurtosis	0.06970125
Uncorrected SS	10544.7748	Corrected SS	519.063692
Coeff Variation	-22.77056	Std Error Mean	0.03367772

Basic Statistical Measures			
Location		Variability	
Mean	-3.84825	Std Deviation	0.87627
Median	-3.93001	Variance	0.76785
Mode	.	Range	5.39024
		Interquartile Range	1.19520

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-114.267	Pr > |t|	<.0001
Sign	M	-338.5	Pr >= |M|	<.0001
Signed Rank	S	-114752	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	-0.839671
99%	-1.530524
95%	-2.361795
90%	-2.672141
75% Q3	-3.270086
50% Median	-3.930006
25% Q1	-4.465289

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

ANALYTE=Arsenic

Quantiles (Definition 5)	
Quantile	Estimate
10%	-4.914333
5%	-5.203542
1%	-5.809897
0% Min	-6.229911

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.22991	C10329R	673	-1.484551	C107464	399
-6.17516	C11047O	328	-1.367763	C106701	531
-6.13597	C11176W	124	-1.300508	C107599	407
-6.08995	C10334O	677	-1.196510	C10801U	372
-6.07469	C11058R	337	-0.839671	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	0.02370929	Sum Observations	16.09861
Std Deviation	0.02681268	Variance	0.00071892
Skewness	3.81950526	Kurtosis	22.9328823
Uncorrected SS	0.86911436	Corrected SS	0.4874277
Coeff Variation	113.089335	Std Error Mean	0.00102898

Basic Statistical Measures			
Location		Variability	
Mean	0.023709	Std Deviation	0.02681
Median	0.014555	Variance	0.0007189
Mode	.	Range	0.28390
		Interquartile Range	0.01988

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	23.04163	Pr > |t|	<.0001
Sign	M	339.5	Pr >= |M|	<.0001
Signed Rank	S	115430	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.28510814
99%	0.13843522
95%	0.06921734
90%	0.05322262
75% Q3	0.02870980
50% Median	0.01455548
25% Q1	0.00882849

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.00544852
5%	0.00379392
1%	0.00193317
0% Min	0.00120755

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.00120755	C11176W	124	0.156275	C107599	409
0.00130862	C109255	274	0.184435	C107464	401
0.00139252	C11057Q	337	0.194872	C106701	533
0.00145428	C10798G	371	0.209360	C10801U	374
0.00149484	C10334O	679	0.285108	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

ANALYTE=Chromium

Moments			
N	679	Sum Weights	679
Mean	-4.1485114	Sum Observations	-2816.8392
Std Deviation	0.88763401	Variance	0.78789414
Skewness	0.11814472	Kurtosis	0.10029126
Uncorrected SS	12219.882	Corrected SS	534.192227
Coeff Variation	-21.396446	Std Error Mean	0.03406427

Basic Statistical Measures			
Location		Variability	
Mean	-4.14851	Std Deviation	0.88763
Median	-4.22979	Variance	0.78789
Mode	.	Range	5.46427
		Interquartile Range	1.17925

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-121.785	Pr > |t|	<.0001
Sign	M	-339.5	Pr >= |M|	<.0001
Signed Rank	S	-115430	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	-1.25489
99%	-1.97735
95%	-2.67050
90%	-2.93327
75% Q3	-3.55052
50% Median	-4.22979
25% Q1	-4.72977

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

ANALYTE=Chromium

Quantiles (Definition 5)	
Quantile	Estimate
10%	-5.21241
5%	-5.57436
1%	-6.24859
0% Min	-6.71916

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.71916	C11176W	124	-1.85614	C107599	409
-6.63878	C109255	274	-1.69046	C107464	401
-6.57664	C11057Q	337	-1.63541	C106701	533
-6.53324	C10798G	371	-1.56370	C10801U	374
-6.50574	C10334O	679	-1.25489	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Copper

Moments			
N	678	Sum Weights	678
Mean	0.03747471	Sum Observations	25.4078525
Std Deviation	0.03903492	Variance	0.00152373
Skewness	4.38167114	Kurtosis	32.3672402
Uncorrected SS	1.9837139	Corrected SS	1.03156203
Coeff Variation	104.163383	Std Error Mean	0.00149913

Basic Statistical Measures			
Location		Variability	
Mean	0.037475	Std Deviation	0.03903
Median	0.025716	Variance	0.00152
Mode	.	Range	0.47691
		Interquartile Range	0.02649

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	24.99768	Pr > |t|	<.0001
Sign	M	339	Pr >= |M|	<.0001
Signed Rank	S	115090.5	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	0.477859821
99%	0.187778706
95%	0.105730503
90%	0.075086856
75% Q3	0.043265832
50% Median	0.025715501
25% Q1	0.016780718

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: R

ANALYTE=Copper

Quantiles (Definition 5)	
Quantile	Estimate
10%	0.011242298
5%	0.008898783
1%	0.004805357
0% Min	0.000947098

Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
0.000947098	C10354S	649	0.211700	C107599	408
0.002016914	C11180S	127	0.234148	C106701	532
0.003634794	C11179Z	126	0.261820	C10710S	203
0.004398150	C109255	273	0.330395	C10801U	373
0.004628681	C114721	444	0.477860	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

ANALYTE=Cooper

Moments			
N	678	Sum Weights	678
Mean	-3.5964833	Sum Observations	-2438.4157
Std Deviation	0.75808413	Variance	0.57469154
Skewness	0.23426411	Kurtosis	0.92543585
Uncorrected SS	9158.78731	Corrected SS	389.066173
Coeff Variation	-21.078483	Std Error Mean	0.02911405

Basic Statistical Measures			
Location		Variability	
Mean	-3.59648	Std Deviation	0.75808
Median	-3.66066	Variance	0.57469
Mode	.	Range	6.22367
		Interquartile Range	0.94713

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	-123.531	Pr > |t|	<.0001
Sign	M	-339	Pr >= |M|	<.0001
Signed Rank	S	-115091	Pr >= |S|	<.0001

Quantiles (Definition 5)	
Quantile	Estimate
100% Max	-0.738438
99%	-1.672491
95%	-2.246862
90%	-2.589110
75% Q3	-3.140392
50% Median	-3.660663
25% Q1	-4.087525

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

DISTRIBUTIONS OF TRANSFER FACTORS (COMBINED DATA)

The UNIVARIATE Procedure
Variable: LR

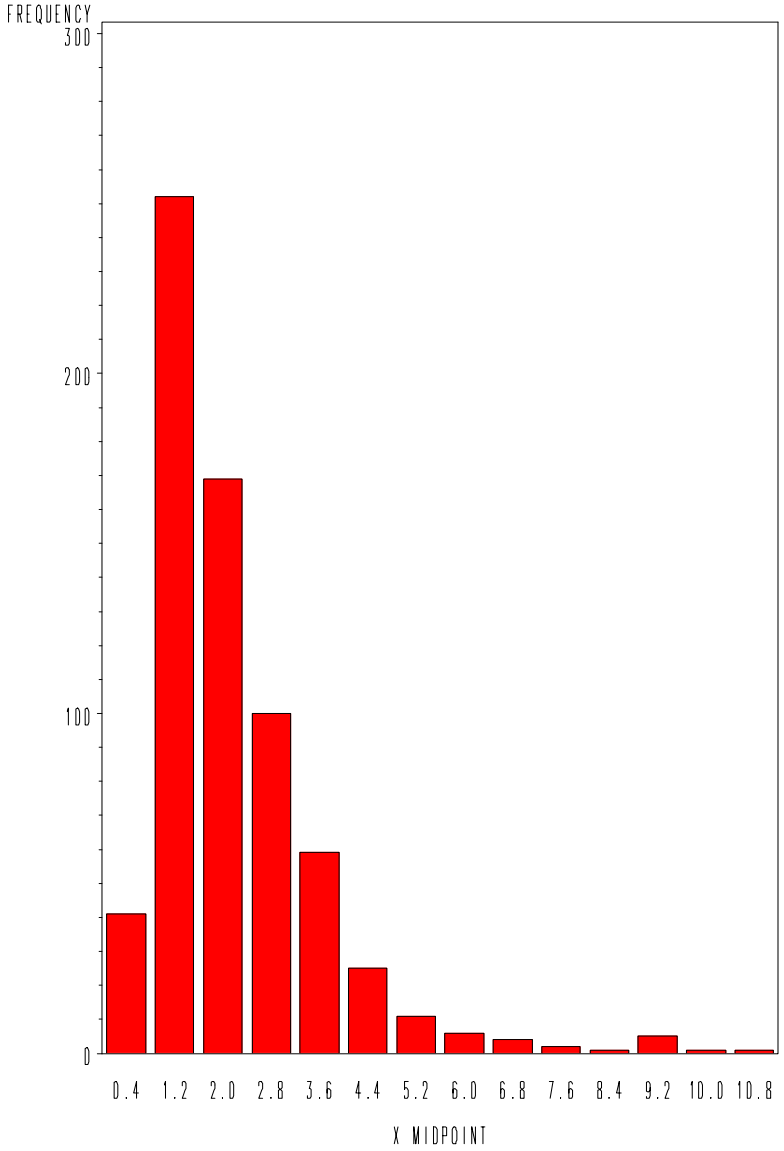
ANALYTE=Cooper

Quantiles (Definition 5)	
Quantile	Estimate
10%	-4.488072
5%	-4.721841
1%	-5.338024
0% Min	-6.962107

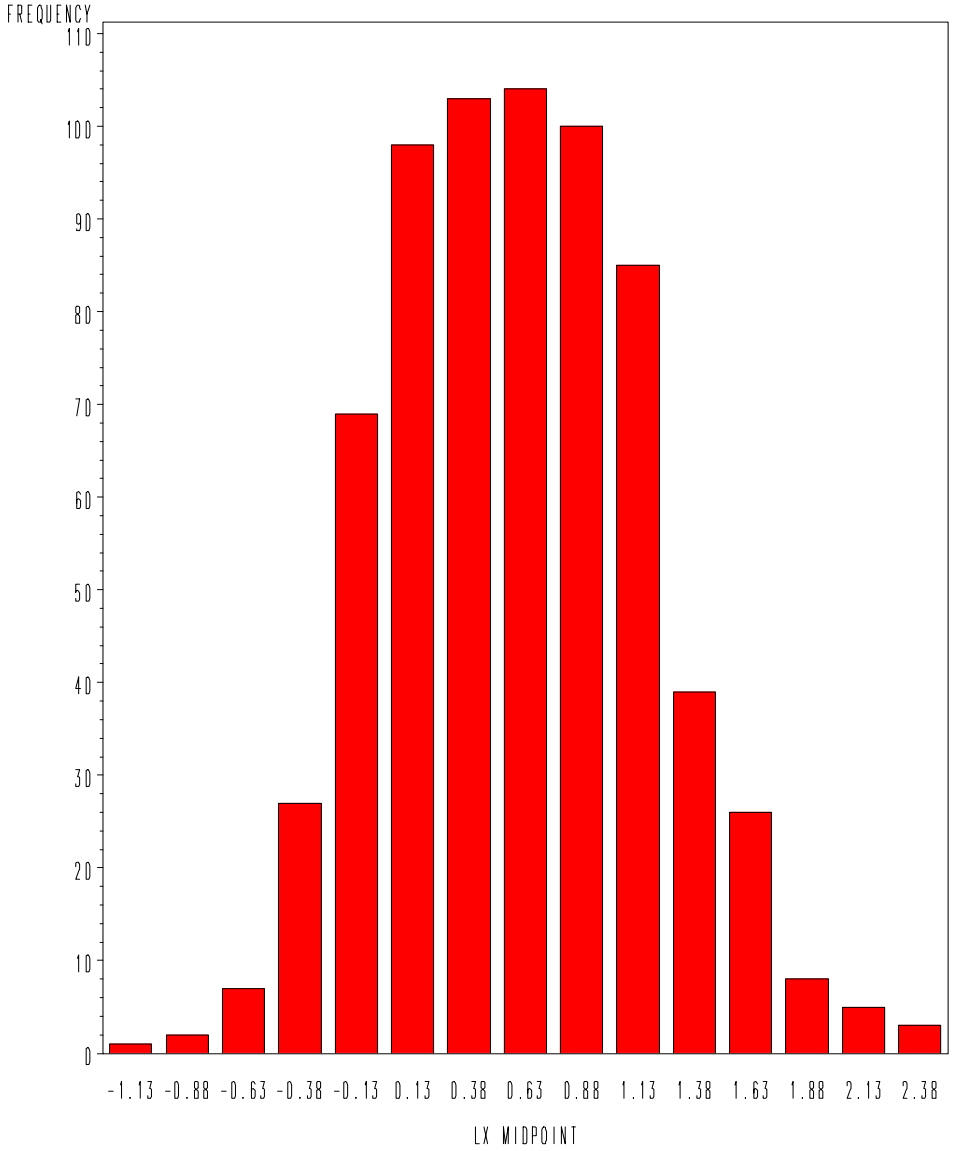
Extreme Observations					
Lowest			Highest		
Value	COUPONID	Obs	Value	COUPONID	Obs
-6.96211	C10354S	649	-1.552586	C107599	408
-6.20619	C11180S	127	-1.451801	C106701	532
-5.61720	C11179Z	126	-1.340099	C10710S	203
-5.42657	C109255	273	-1.107465	C10801U	373
-5.37548	C114721	444	-0.738438	C11035K	117

X = BLOCK SAMPLE ug/cm2 LX=LOG(X)
Y = HAND SAMPLE (TOTAL) ug/cm2 LY=LOG(Y)
R = HAND / BLOCK LR=LOG(R)

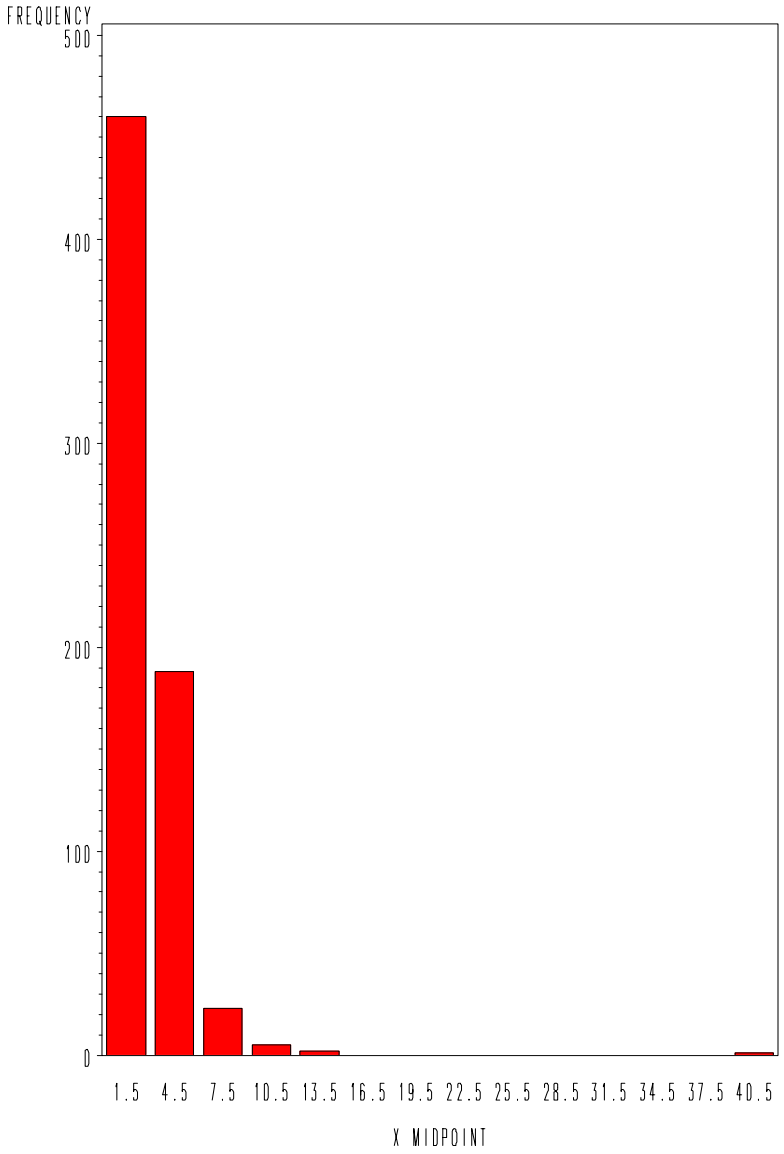
BLOCK SAMPLE – ARSENIC (COMBINED DATA)



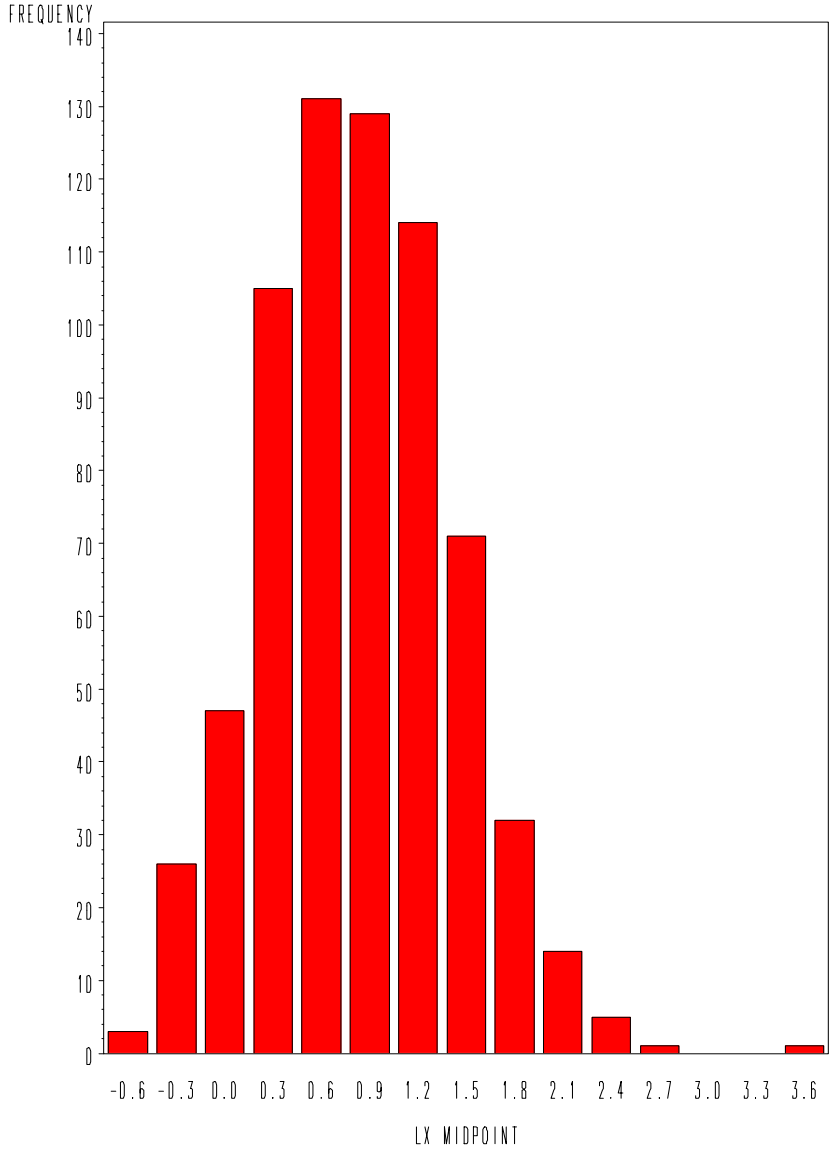
BLOCK SAMPLE – ARSENIC (COMBINED DATA)



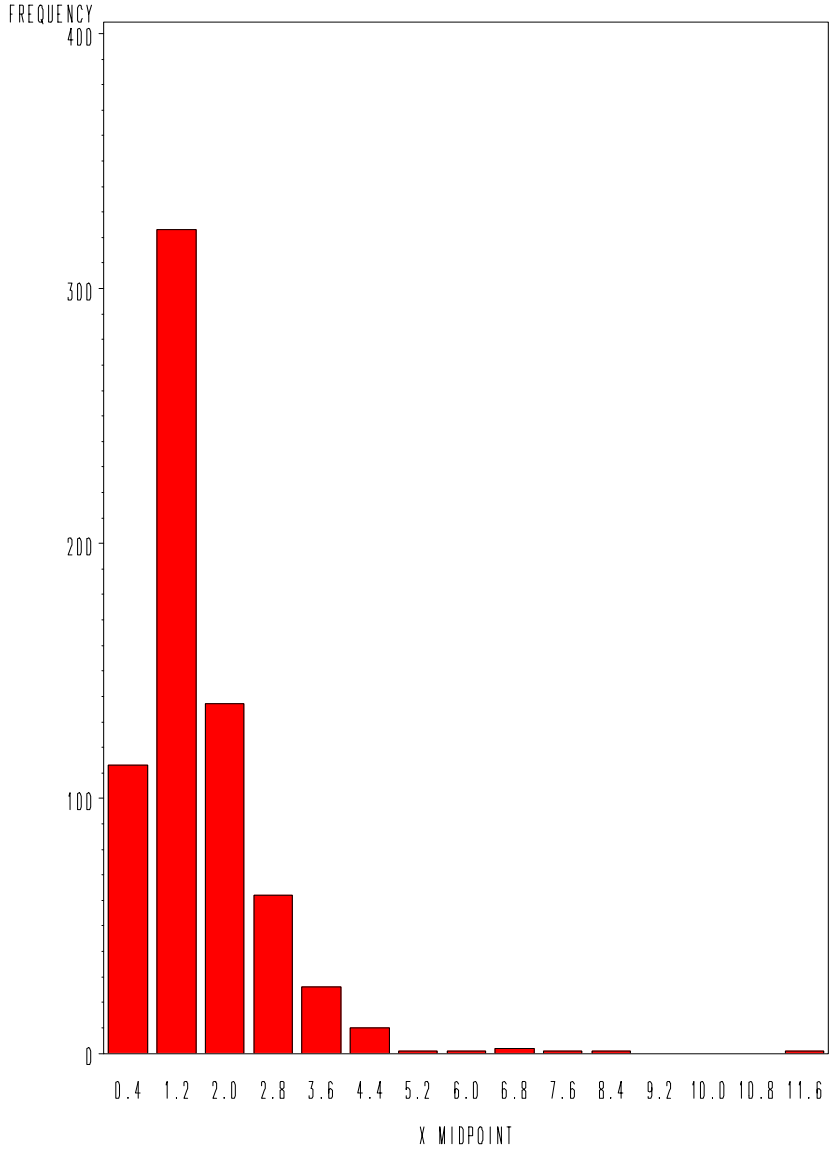
BLOCK SAMPLE – CHROMIUM (COMBINED DATA)



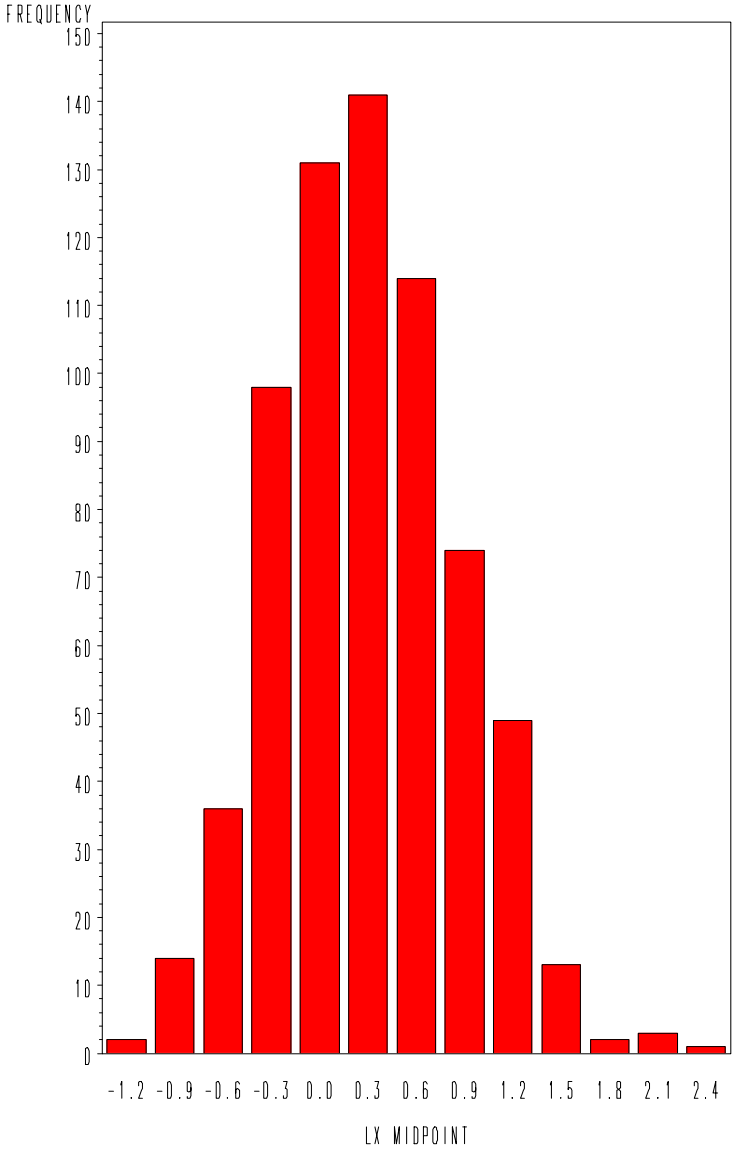
BLOCK SAMPLE – CHROMIUM (COMBINED DATA)



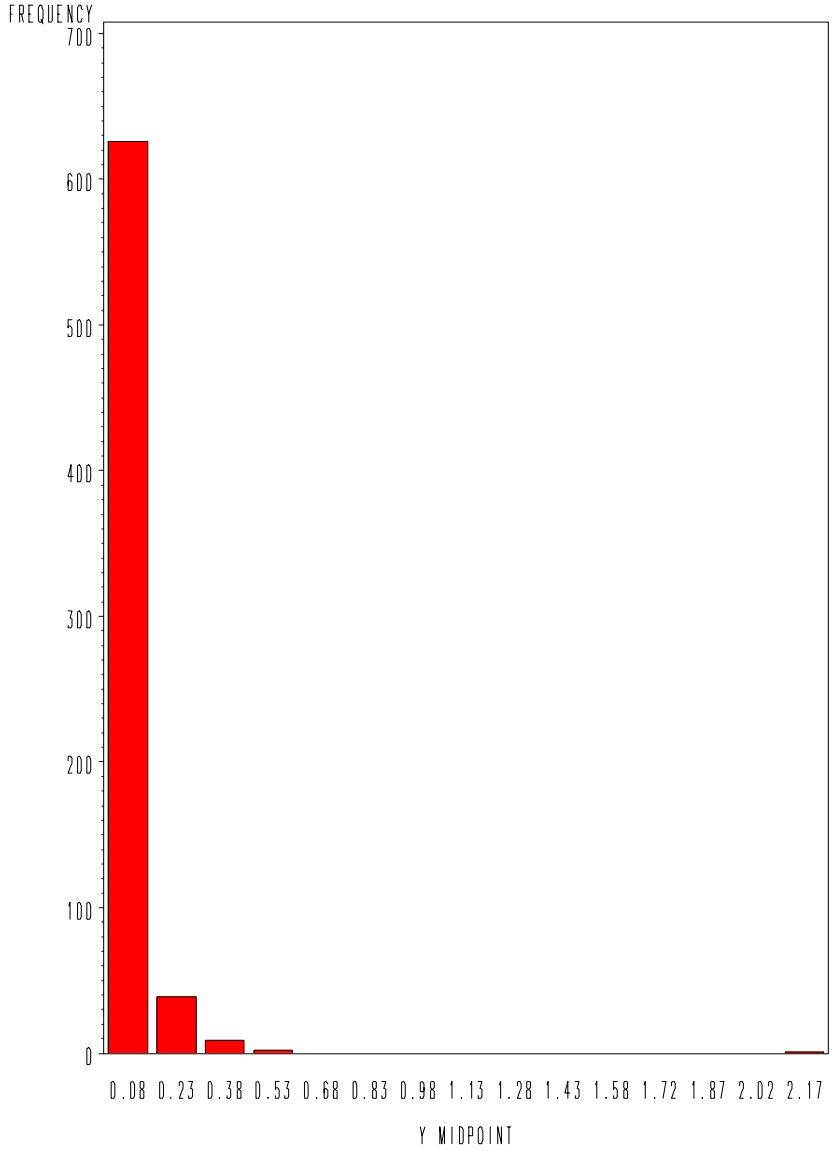
BLOCK SAMPLE – COPPER (COMBINED DATA)



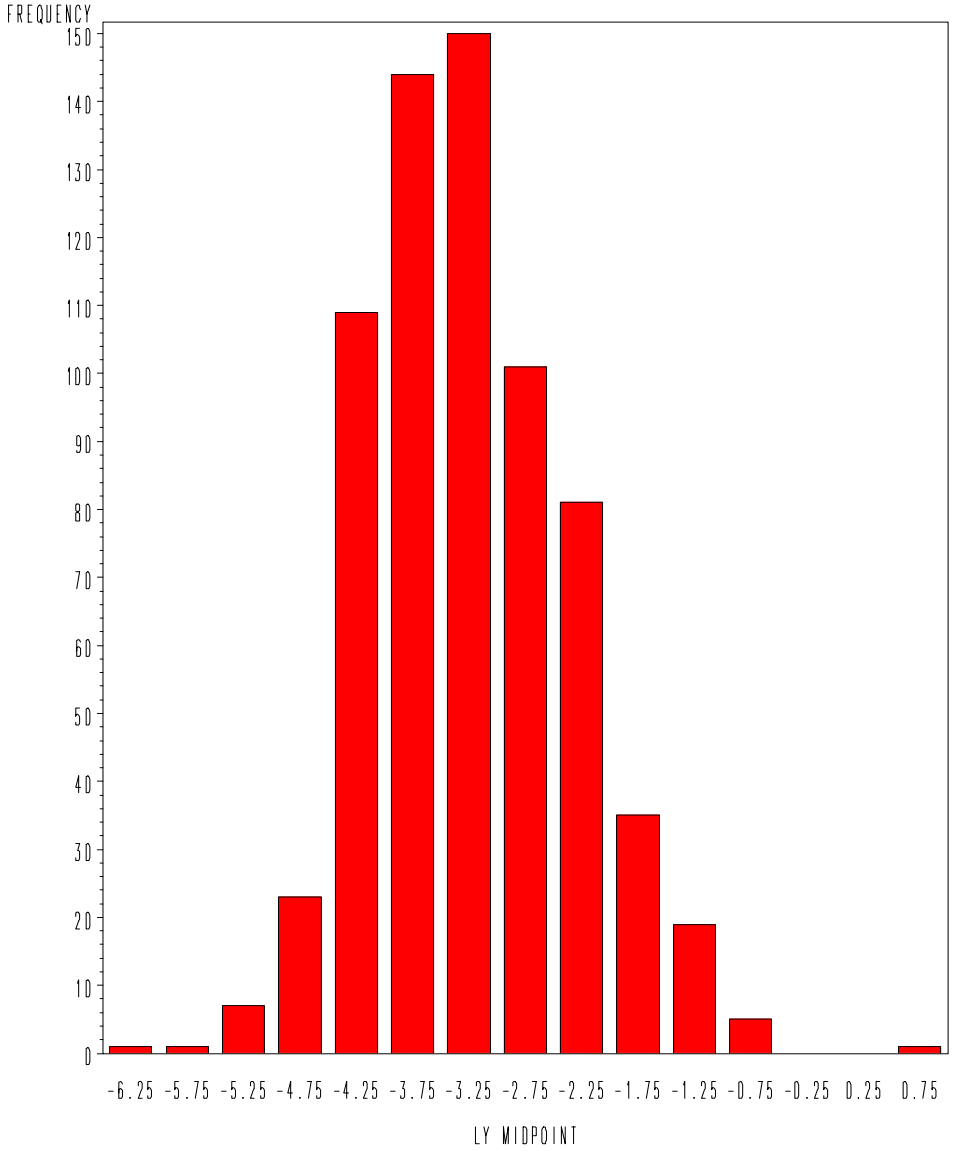
BLOCK SAMPLE – COPPER (COMBINED DATA)



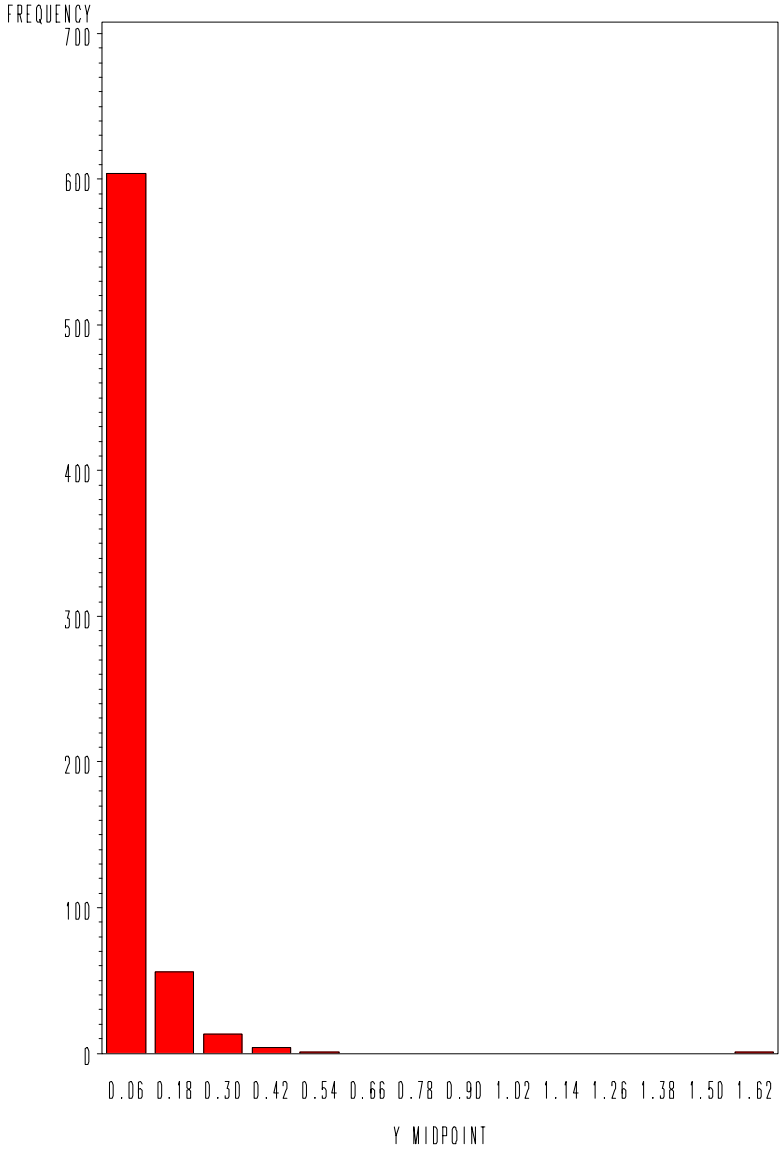
HAND SAMPLE – ARSENIC (COMBINED DATA)



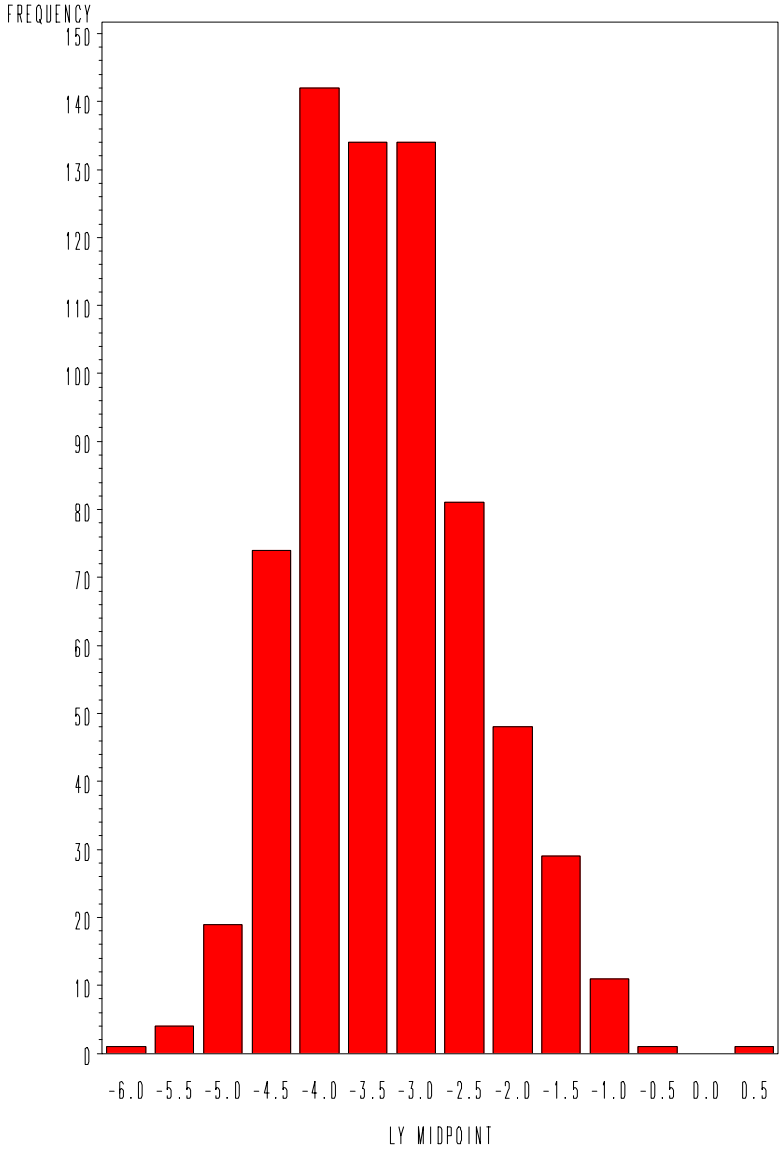
HAND SAMPLE – ARSENIC (COMBINED DATA)



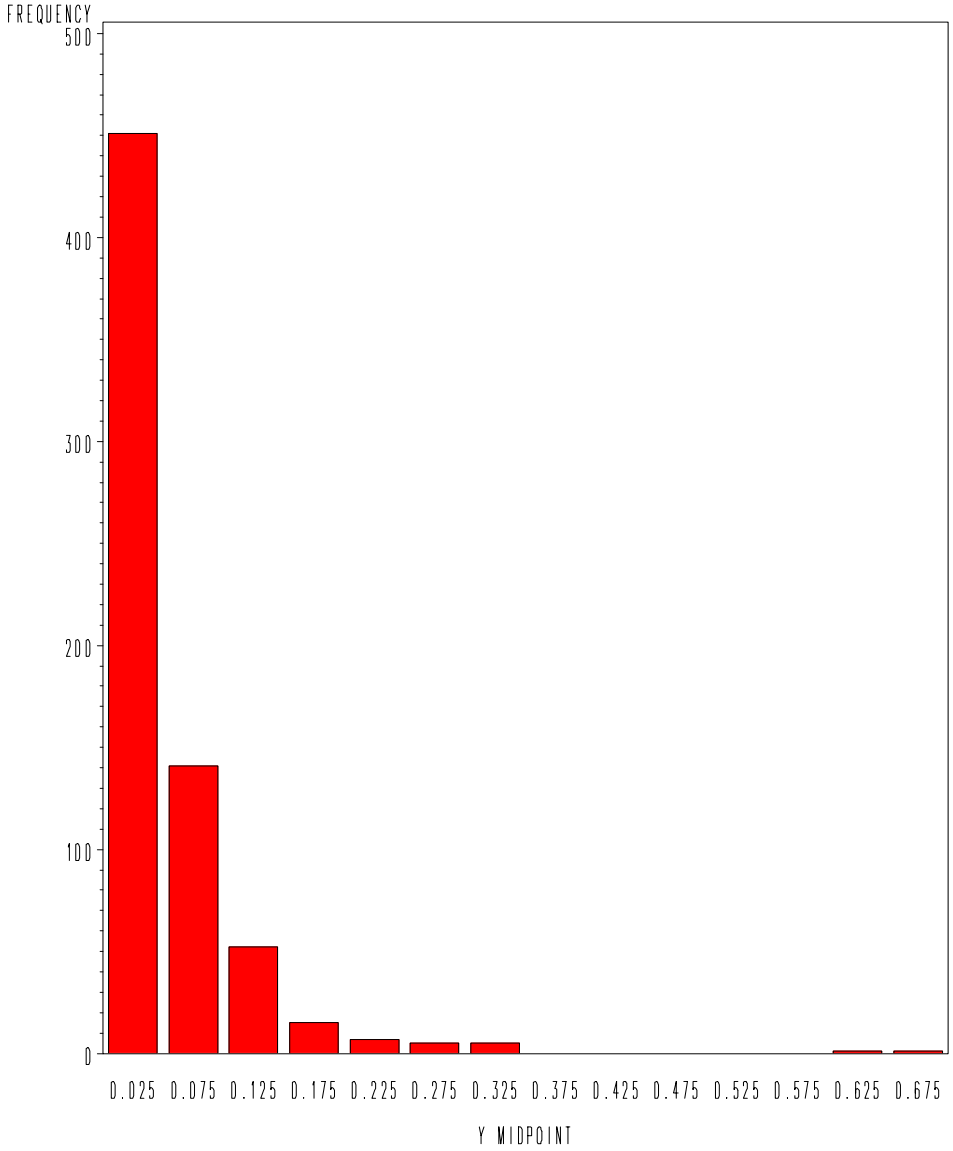
HAND SAMPLE – CHROMIUM (COMBINED DATA)



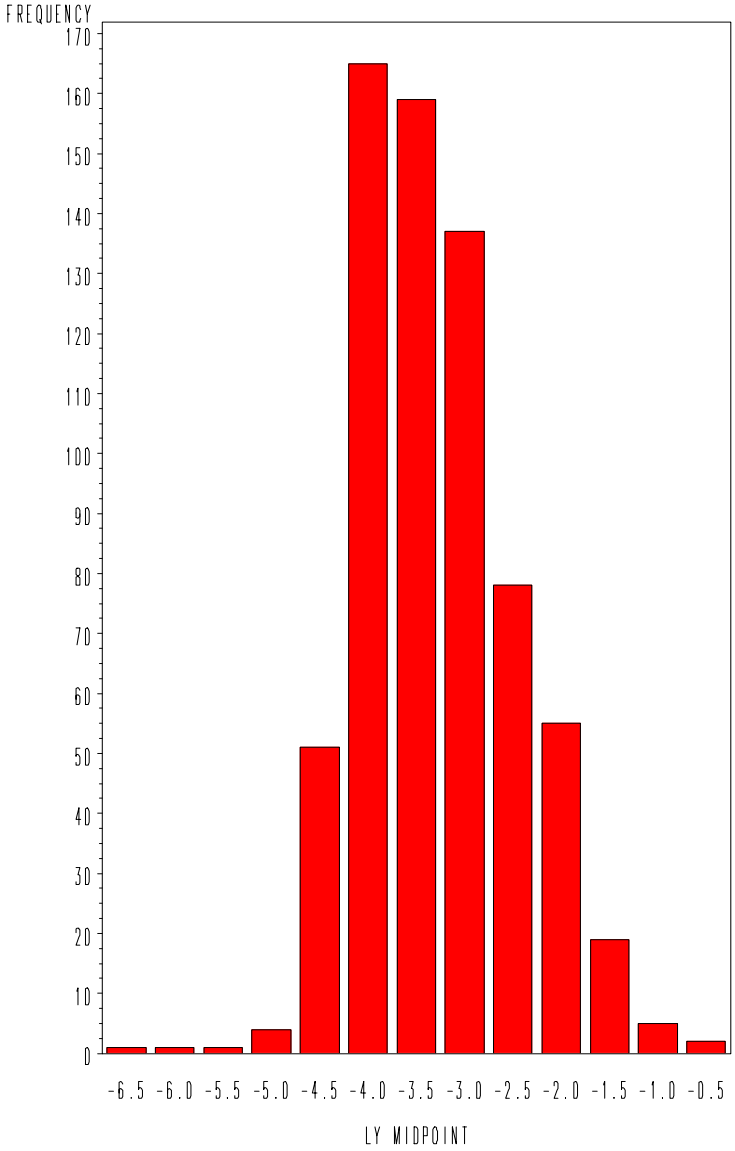
HAND SAMPLE – CHROMIUM (COMBINED DATA)



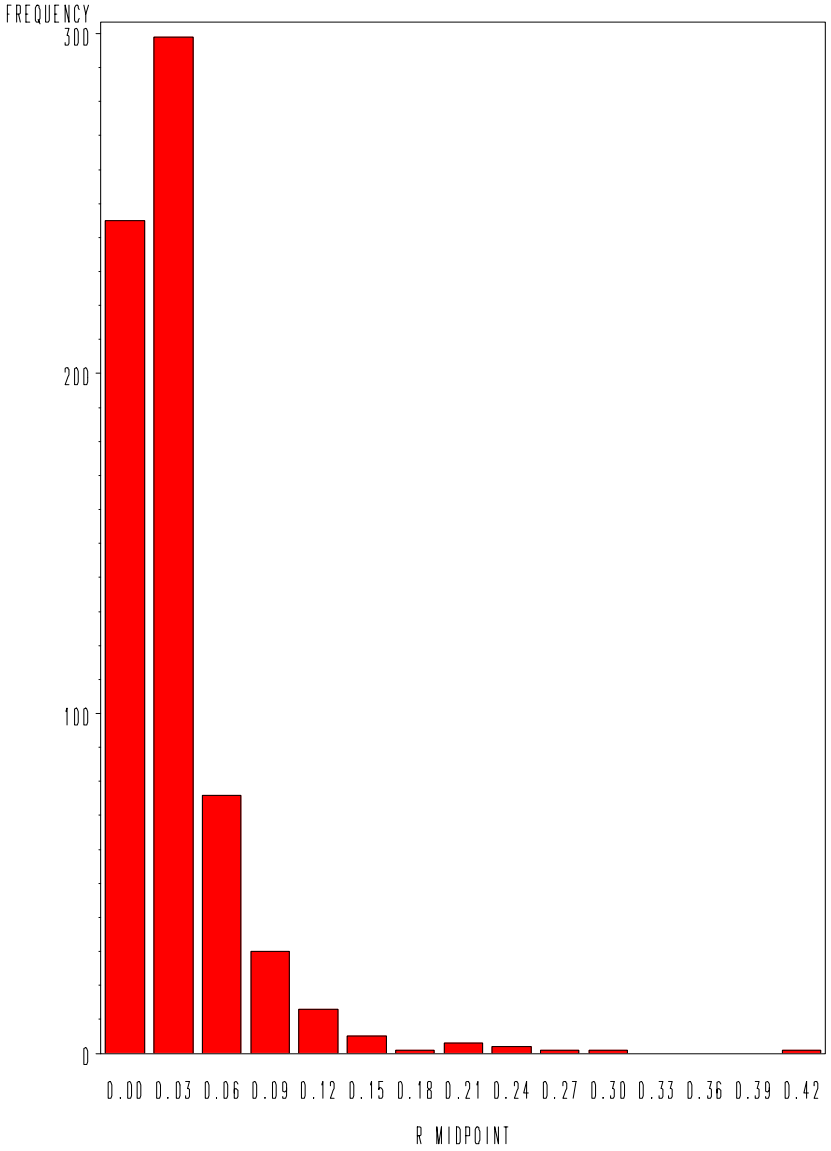
HAND SAMPLE – COPPER (COMBINED DATA)



HAND SAMPLE – COPPER (COMBINED DATA)



TRANSFER FACTORS FOR ARSENIC (COMBINED DATA)



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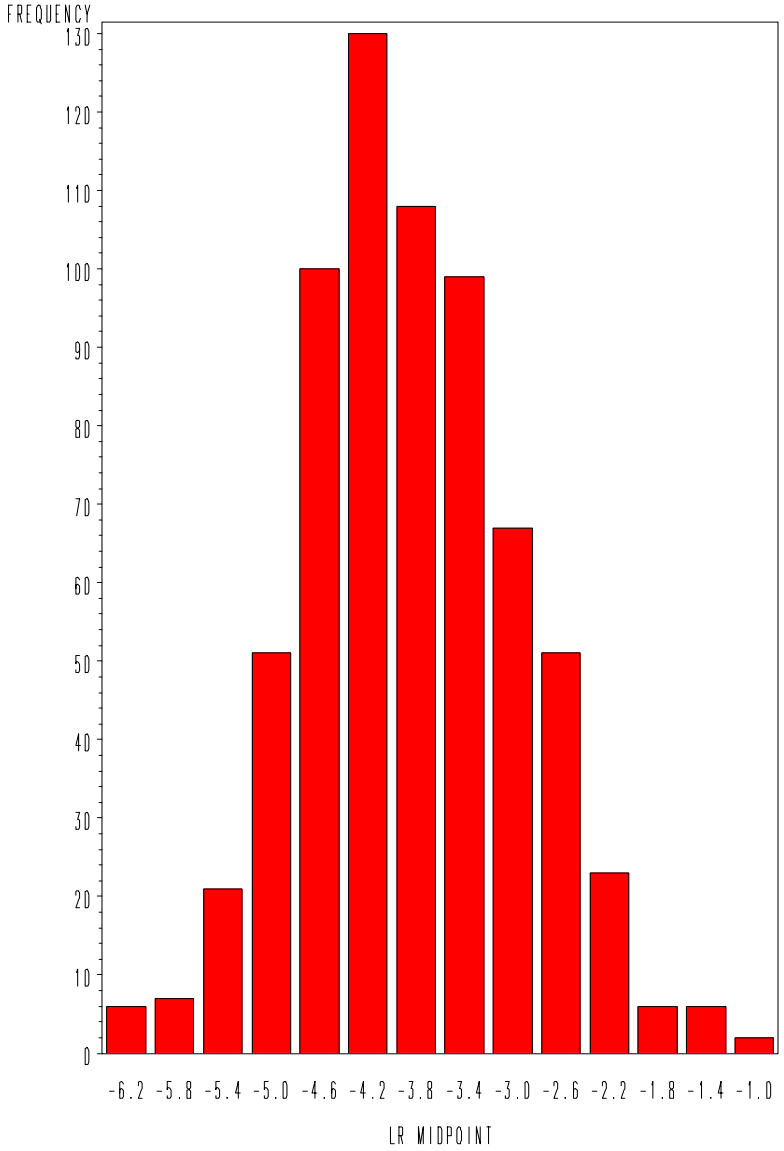
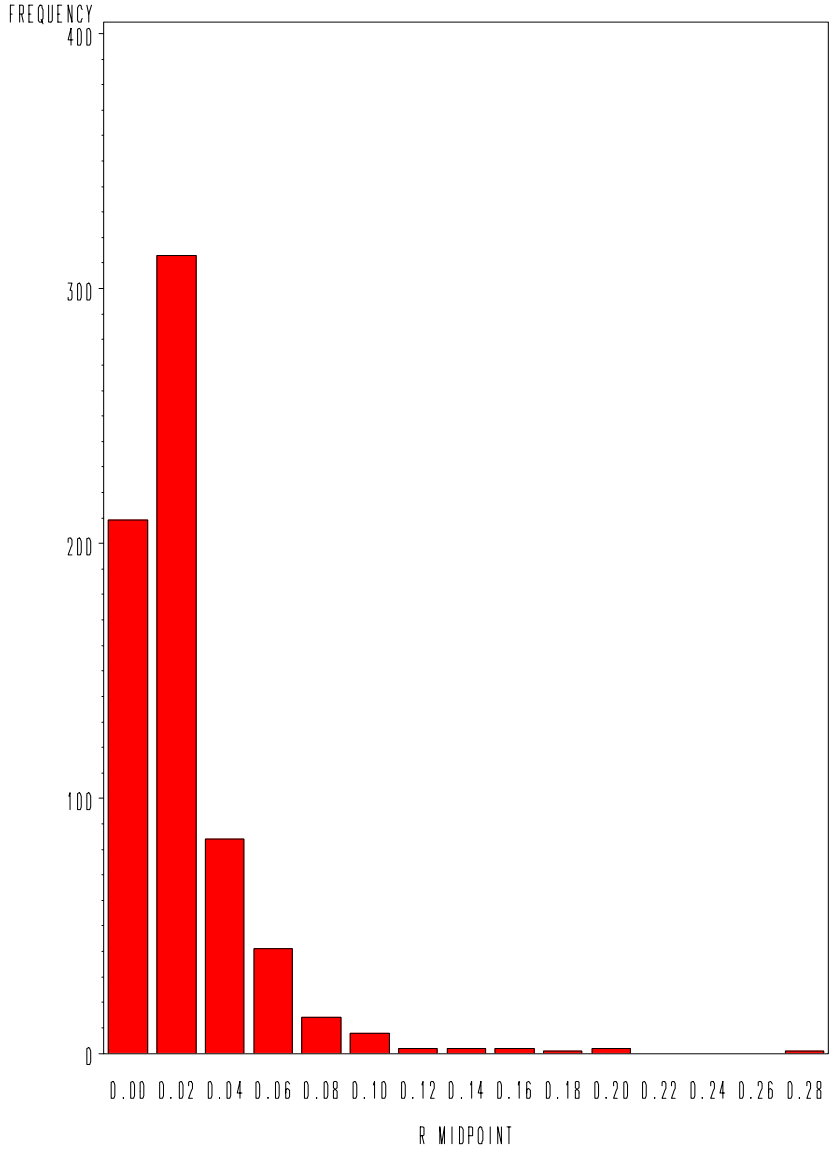
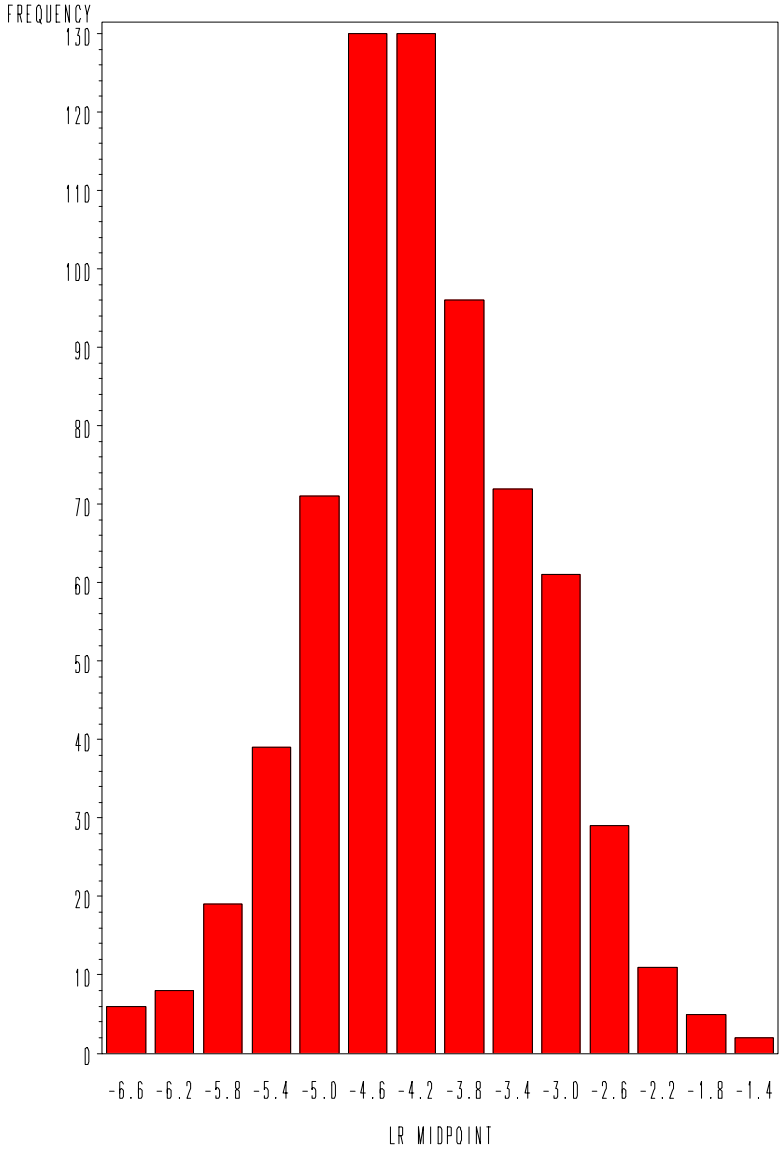


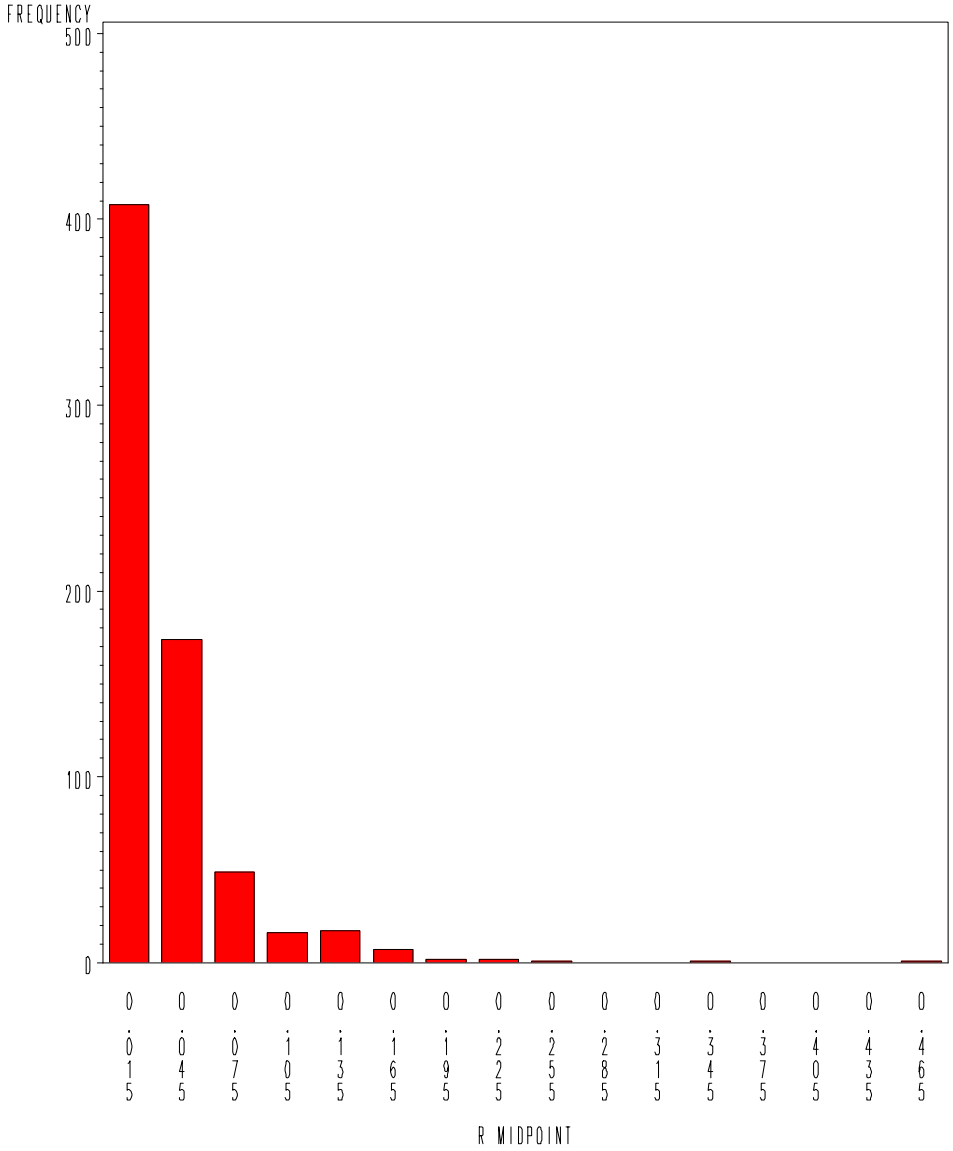
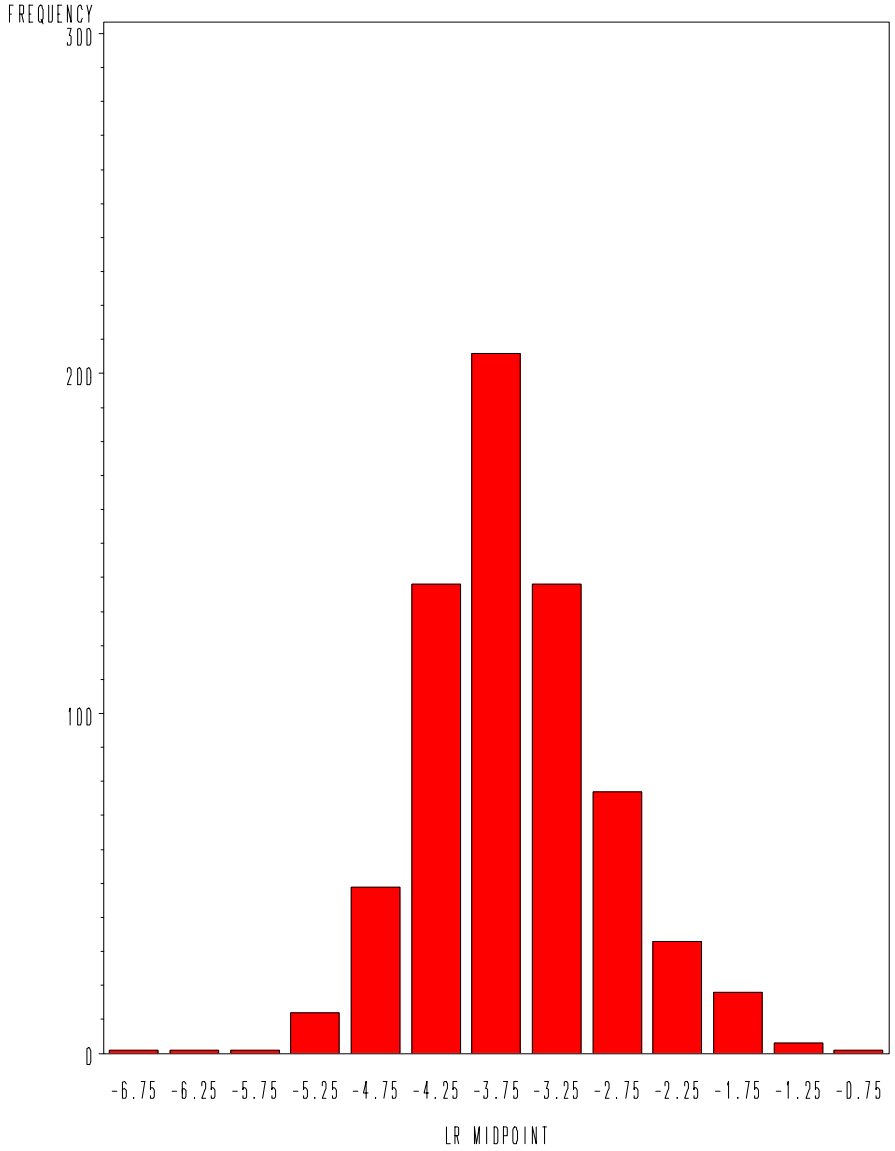
TRANSFER FACTORS FOR CHROMIUM (COMBINED DATA)



TRANSFER FACTORS FOR CHROMIUM (COMBINED DATA)



TRANSFER FACTORS FOR COPPER (COMBINED DATA)



TRANSFER FACTORS FOR COPPER (COMBINED DATA)