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NSWC INDIAN HEAD
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RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATION/ CERTIFICATION INVESTIGATION REPORT STUMP NECK ANNEX VOLUME 4 OF 4 APPENDICES O - P NSWC INDIAN HEAD MD

1/1/1998

BROWN AND ROOT ENVIRONMENTAL

RCRA Facility Investigation/ Verification Investigation Report

for

Stump Neck Annex
Indian Head Division
Naval Surface Warfare Center

Indian Head, Maryland

Volume IV of IV - Appendices O - P

Engineering Field Activity Chesapeake
Naval Facilities Engineering Command

Northern Division Contract Number N62472-90-D-1298

Contract Task Order 0287

January 1998

Brown & Root Environmental

A Division of Halliburton NUS Corporation

APPENDICES

A Soil Gas Survey Results
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APPENDIX O
STATISTICAL ANALYSIS OF ENVIRONMENTAL DATA

SWMU 5 RANGE 6

The minimum and maximum values present on the following statistical calculations may not be the same as the range of detection presented on the COPC selection tables. The true minimum and maximum detected values can be found in the raw data.

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ALUMINUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	6085.0000	7874.1667
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6085.0000	2010.0000
Positive Hits - Maximum	6085.0000 UCL	13400.0000
Average Of Positive Hits	6085.0000	7874.1667
Standard Deviation	0.0000	3821.2527
Upper Confidence Limit - Normal	**********	9855.3354
Upper Confidence Limit - Lognormal	0.0000	12637.9613
95th Percentile - Nonparametric	6085.0000	13400.0000
95th Percentile - Normal	6085.0000	14160.1273
95th Percentile - Lognormal	6085.0000	18810.7489
Upper Tolerance Limit - Normal	**********	18329.1140 UTL
Upper Tolerance Limit - Lognormal	**********	36938.3448

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9843
Corr Coeff - Detected - Lognormal	**********	0.9509
Corr Coeff - Total - Normal	0.0000	0.9843
Corr Coeff - Total - Lognormal	0.0000	0.9509
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9486
W-Test - Lognormal	**********	0.8930
Type of Distribution	UNDEFINED ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	18.0000	
Average	0.5057	
Detection Limit - Minimum	0.0525	
Detection Limits - Maximum	0.0525	
Positive Hits - Minimum	0.2300	
Positive Hits - Maximum	1.9000	
Average Of Positive Hits	0.5308	
Standard Deviation	0.3876	
Upper Confidence Limit - Normal	0.6599	
Upper Confidence Limit - Lognormal	0.7614 UCL	
95th Percentile - Nonparametric	1.9000	
95th Percentile - Normal	1.1433	
95th Percentile - Lognormal	1.3077	
Upper Tolerance Limit - Normal	1.4449	
Upper Tolerance Limit - Lognormal	2.2729	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7802	
Corr Coeff - Detected - Lognormal	0.9440	
Corr Coeff - Total - Normal	0.8271	
Corr Coeff - Total - Lognormal	0.9263	
Corr Coeff - Crit Val - Detected	0.9450	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.7191	NA
W-Test - Lognormal	0.9084	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	2.7816	2.1807
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.2000	0.7800
Positive Hits - Maximum	4.1000	3.3000
Average Of Positive Hits	2.7816	2.1807
Standard Deviation	0.8095	0.7934
Upper Confidence Limit - Normal	3.1036 UCL	2.5563
Upper Confidence Limit - Lognormal	3.2016	2.8641
95th Percentile - Nonparametric	4.1000	3.3000
95th Percentile - Normal	4.1133	3.4859
95th Percentile - Lognormal	4.4359	4.2001
Upper Tolerance Limit - Normal	4.7431	4.2547 UTL
Upper Tolerance Limit - Lognormal	5.6452	6.4760

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9518	0.9822
Corr Coeff - Detected - Lognormal	0.9463	0.9370
Corr Coeff - Total - Normal	0.9518	0.9822
Corr Coeff - Total - Lognormal	0.9463	0.9370
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.9418	0.9501
W-Test - Lognormal	0.9363	0.8719
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	39.9395	39.0643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	21.2000	12.5000
Positive Hits - Maximum	110.0000 UCL	84.8000
Average Of Positive Hits	39.9395	39.0643
Standard Deviation	22.8955	19.8123
Upper Confidence Limit - Normal	49.0475	48.4418
Upper Confidence Limit - Lognormal	48.3768	55.3528
95th Percentile - Nonparametric	110.0000	84.8000
95th Percentile - Normal	77.6026	71.6554
95th Percentile - Lognormal	73.8750	84.6340
Upper Tolerance Limit - Normal	95.4152	90.8535
Upper Tolerance Limit - Lognormal	104.0070	143.9192 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8489	0.9645
Corr Coeff - Detected - Lognormal	0.9301	0.9739
Corr Coeff - Total - Normal	0.8489	0.9645
Corr Coeff - Total - Lognormal	0.9301	0.9739
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.7153	0.9348
W-Test - Lognormal	0.8647	0.9467
Type of Distribution	UNDEFINED ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	18.0000	12.0000
Average	0.3839	0.3489
Detection Limit - Minimum	0.0350	0.0500
Detection Limits - Maximum	0.0350	0.0750
Positive Hits - Minimum	0.2200	0.0500
Positive Hits - Maximum	0.9800 UCL	0.6100
Average Of Positive Hits	0.4033	0.3967
Standard Deviation	0.1990	0.2127
Upper Confidence Limit - Normal	0.4631	0.4496
Upper Confidence Limit - Lognormal	0.5759	0.7858
95th Percentile - Nonparametric	0.9800	0.6100
95th Percentile - Normal	0.7113	0.6988
95th Percentile - Lognormal	0.9768	1.1822
Upper Tolerance Limit - Normal	0.8661	0.9050 UTL
Upper Tolerance Limit - Lognormal	1.6336	2.8846

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8878	0.9489
Corr Coeff - Detected - Lognormal	0.9672	0.8792
Corr Coeff - Total - Normal	0.9302	0.9566
Corr Coeff - Total - Lognormal	0.8724	0.9200
Corr Coeff - Crit Val - Detected	0.9450	0.9260
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.8868	0.8844 ✓
W-Test - Lognormal	0.8013	0.8249
Type of Distribution	LOGNORMAL* UNDEFINED	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

		Sample Results	Background Results
Count		19.0000	14.0000
Number of Detects		19.0000	6.0000
Average		0.8834	0.1689
Detection Limit - Minimum	NA		0.0550
Detection Limits - Maximum	NA		0.2850
Positive Hits - Minimum		0.2100	0.1500
Positive Hits - Maximum		2.1000	0.2600 UTL
Average Of Positive Hits		0.8834	0.2267
Standard Deviation		0.5695	0.0917
Upper Confidence Limit - Normal		1.1100	0.2123
Upper Confidence Limit - Lognormal		1.3798 UCL	0.2677
95th Percentile - Nonparametric		2.1000	0.2850
95th Percentile - Normal		1.8202	0.3197
95th Percentile - Lognormal		2.3850	0.4195
Upper Tolerance Limit - Normal		2.2632	0.4085
Upper Tolerance Limit - Lognormal		4.2682	0.7967

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9554	0.8540
Corr Coeff - Detected - Lognormal		0.9576	0.8205
Corr Coeff - Total - Normal		0.9554	0.9331
Corr Coeff - Total - Lognormal		0.9576	0.9184
Corr Coeff - Crit Val - Detected		0.9470	0.8900
Corr Coeff - Crit Val - Total		0.9470	0.9340
W-Test - Table Value		0.9010	0.8740
W-Test - Normal		0.9117	0.8388
W-Test - Lognormal		0.9167	0.8133
Type of Distribution		LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	12.5789	11.9857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.0000	3.5000
Positive Hits - Maximum	21.1000	20.8000
Average Of Positive Hits	12.5789	11.9857
Standard Deviation	4.4262	4.6797
Upper Confidence Limit - Normal	14.3397 UCL	14.2007
Upper Confidence Limit - Lognormal	15.0720	15.8437
95th Percentile - Nonparametric	21.1000	20.8000
95th Percentile - Normal	19.8600	19.6839
95th Percentile - Lognormal	22.1229	23.3486
Upper Tolerance Limit - Normal	23.3035	24.2185 UTL
Upper Tolerance Limit - Lognormal	29.7954	36.3493

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9732	0.9854
Corr Coeff - Detected - Lognormal	0.9670	0.9550
Corr Coeff - Total - Normal	0.9732	0.9854
Corr Coeff - Total - Lognormal	0.9670	0.9550
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.9677	0.9744
W-Test - Lognormal	0.9579	0.9259
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	5.2921	5.0586
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.1000	0.5800
Positive Hits - Maximum	10.4000	15.0000
Average Of Positive Hits	5.2921	5.0586
Standard Deviation	1.9344	4.6659
Upper Confidence Limit - Normal	6.0616	7.2670
Upper Confidence Limit - Lognormal	6.1740	10.7597
95th Percentile - Nonparametric	10.4000	15.0000
95th Percentile - Normal	8.4742	12.7339
95th Percentile - Lognormal	8.7995	16.1061
Upper Tolerance Limit - Normal	9.9792	17.2551
Upper Tolerance Limit - Lognormal	11.5033	39.7328 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9369	0.8837
Corr Coeff - Detected - Lognormal	0.9571	0.9764
Corr Coeff - Total - Normal	0.9369	0.8837
Corr Coeff - Total - Lognormal	0.9571	0.9764
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.8834	0.7774
W-Test - Lognormal	0.9220	0.9513
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : COPPER (mg/kg)

		Sample Results	Background Results
Count		19.0000	14.0000
Number of Detects		19.0000	12.0000
Average		50.8658	4.7393
Detection Limit - Minimum	NA		2.2500
Detection Limits - Maximum	NA		2.3000
Positive Hits - Minimum		6.8000	1.8000
Positive Hits - Maximum		217.0000	17.3000
Average Of Positive Hits		50.8658	5.1500
Standard Deviation		47.1382	3.9231
Upper Confidence Limit - Normal		69.6177	6.5962
Upper Confidence Limit - Lognormal		98.9015 UCL	6.7231
95th Percentile - Nonparametric		217.0000	17.3000
95th Percentile - Normal		128.4081	11.1928
95th Percentile - Lognormal		169.2020	10.4300
Upper Tolerance Limit - Normal		165.0815	14.9943
Upper Tolerance Limit - Lognormal		357.4696	18.6594 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8432	0.7737
Corr Coeff - Detected - Lognormal	0.9471	0.9438
Corr Coeff - Total - Normal	0.8432	0.7909
Corr Coeff - Total - Lognormal	0.9471	0.9500
Corr Coeff - Crit Val - Detected	0.9470	0.9260
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.7291	0.6551
W-Test - Lognormal	0.9039	0.9113
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : IRON (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	14350.0000	10290.0000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	14350.0000	2770.0000
Positive Hits - Maximum	14350.0000	25300.0000
Average Of Positive Hits	14350.0000	10290.0000
Standard Deviation	0.0000	5884.2965
Upper Confidence Limit - Normal	**********	13340.7756
Upper Confidence Limit - Lognormal	0.0000	15532.5982
95th Percentile - Nonparametric	14350.0000	25300.0000
95th Percentile - Normal	14350.0000	19969.6678
95th Percentile - Lognormal	14350.0000	23005.5663
Upper Tolerance Limit - Normal	**********	26389.4353
Upper Tolerance Limit - Lognormal	**********	43169.5357

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9323
Corr Coeff - Detected - Lognormal	**********	0.9812
Corr Coeff - Total - Normal	0.0000	0.9323
Corr Coeff - Total - Lognormal	0.0000	0.9812
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.8902
W-Test - Lognormal	**********	0.9782
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	12.0000
Average	39.5211	17.8000
Detection Limit - Minimum	NA	4.7000
Detection Limits - Maximum	NA	5.0000
Positive Hits - Minimum	5.3000	3.5000
Positive Hits - Maximum	181.0000	149.0000 UTL
Average Of Positive Hits	39.5211	19.9583
Standard Deviation	45.4780	37.8694
Upper Confidence Limit - Normal	57.6125	35.7243
Upper Confidence Limit - Lognormal	69.8018 UCL	25.4296
95th Percentile - Nonparametric	181.0000	149.0000
95th Percentile - Normal	114.3324	80.0952
95th Percentile - Lognormal	119.5962	38.7106
Upper Tolerance Limit - Normal	149.7143	116.7907
Upper Tolerance Limit - Lognormal	251.4137	91.7636

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8375	0.5784
Corr Coeff - Detected - Lognormal	0.9796	0.8094
Corr Coeff - Total - Normal	0.8375	0.5719
Corr Coeff - Total - Lognormal	0.9796	0.8192
Corr Coeff - Crit Val - Detected	0.9470	0.9260
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.6970	0.3635
W-Test - Lognormal	0.9655	0.7067

Type of Distribution ..... LOGNORMAL ✓ UNDEFINED ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : MAGNESIUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	302.0000	575.9167
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	302.0000	143.0000
Positive Hits - Maximum	302.0000	1090.0000
Average Of Positive Hits	302.0000	575.9167
Standard Deviation	0.0000	294.5182
Upper Confidence Limit - Normal	**********	728.6128
Upper Confidence Limit - Lognormal	0.0000	892.4718
95th Percentile - Nonparametric	302.0000	1090.0000
95th Percentile - Normal	302.0000	1060.3992
95th Percentile - Lognormal	302.0000	1324.9974
Upper Tolerance Limit - Normal	**********	1381.7186
Upper Tolerance Limit - Lognormal	**********	2528.9805

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9820
Corr Coeff - Detected - Lognormal	**********	0.9758
Corr Coeff - Total - Normal	0.0000	0.9820
Corr Coeff - Total - Lognormal	0.0000	0.9758
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9545
W-Test - Lognormal	**********	0.9518
Type of Distribution	UNDEFINED ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : MANGANESE (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	86.2500	197.0083
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	86.2500	22.7000
Positive Hits - Maximum	86.2500	882.0000
Average Of Positive Hits	86.2500	197.0083
Standard Deviation	0.0000	239.2851
Upper Confidence Limit - Normal	**********	321.0682
Upper Confidence Limit - Lognormal	0.0000	569.1304
95th Percentile - Nonparametric	86.2500	882.0000
95th Percentile - Normal	86.2500	590.6323
95th Percentile - Lognormal	86.2500	688.4215
Upper Tolerance Limit - Normal	**********	851.6923
Upper Tolerance Limit - Lognormal	**********	2247.7369

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8242
Corr Coeff - Detected - Lognormal	**********	0.9918
Corr Coeff - Total - Normal	0.0000	0.8242
Corr Coeff - Total - Lognormal	0.0000	0.9918
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.7030
W-Test - Lognormal	**********	0.9784
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

		Sample Results	Background Results
Count		19.0000	14.0000
Number of Detects		19.0000	12.0000
Average		0.2950	0.0400
Detection Limit - Minimum	NA		0.0100
Detection Limits - Maximum	NA		0.0400
Positive Hits - Minimum		0.0150	0.0300
Positive Hits - Maximum		1.6000	0.0800
Average Of Positive Hits		0.2950	0.0425
Standard Deviation		0.3929	0.0180
Upper Confidence Limit - Normal		0.4513	0.0485
Upper Confidence Limit - Lognormal		0.9040	0.0543
95th Percentile - Nonparametric		1.6000	0.0800
95th Percentile - Normal		0.9413	0.0696
95th Percentile - Lognormal		1.2474	0.0815
Upper Tolerance Limit - Normal		1.2469	0.0870
Upper Tolerance Limit - Lognormal		3.5078	0.1314

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.8264	0.9066
Corr Coeff - Detected - Lognormal		0.9706	0.9328
Corr Coeff - Total - Normal		0.8264	0.9287
Corr Coeff - Total - Lognormal		0.9706	0.9141
Corr Coeff - Crit Val - Detected		0.9470	0.9260
Corr Coeff - Crit Val - Total		0.9470	0.9340
W-Test - Table Value		0.9010	0.8740
W-Test - Normal		0.6974	0.8790
W-Test - Lognormal		0.9579	0.8636
Type of Distribution		LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	7.2500	4.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.2000	1.7000
Positive Hits - Maximum	20.9000 UCL	10.5000
Average Of Positive Hits	7.2500	4.9000
Standard Deviation	3.6586	2.6402
Upper Confidence Limit - Normal	8.7054	6.1497
Upper Confidence Limit - Lognormal	8.4258	6.9452
95th Percentile - Nonparametric	20.9000	10.5000
95th Percentile - Normal	13.2683	9.2432
95th Percentile - Lognormal	12.1533	10.6461
Upper Tolerance Limit - Normal	16.1147	11.8015
Upper Tolerance Limit - Lognormal	16.0771	18.2456 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7918	0.9667
Corr Coeff - Detected - Lognormal	0.9219	0.9889
Corr Coeff - Total - Normal	0.7918	0.9667
Corr Coeff - Total - Lognormal	0.9219	0.9889
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.6352	0.9268
W-Test - Lognormal	0.8559	0.9649
Type of Distribution	UNDEFINED ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : POTASSIUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	284.0000	456.5000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	284.0000	128.0000
Positive Hits - Maximum	284.0000	787.0000
Average Of Positive Hits	284.0000	456.5000
Standard Deviation	0.0000	226.2985
Upper Confidence Limit - Normal	**********	573.8268
Upper Confidence Limit - Lognormal	0.0000	685.2277
95th Percentile - Nonparametric	284.0000	787.0000
95th Percentile - Normal	284.0000	828.7610
95th Percentile - Lognormal	284.0000	1012.6217
Upper Tolerance Limit - Normal	**********	1075.6526
Upper Tolerance Limit - Lognormal	**********	1874.0986

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9694
Corr Coeff - Detected - Lognormal	**********	0.9711
Corr Coeff - Total - Normal	0.0000	0.9694
Corr Coeff - Total - Lognormal	0.0000	0.9711
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9188
W-Test - Lognormal	**********	0.9341
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	18.0000	11.0000
Average	0.8348	0.4579
Detection Limit - Minimum	0.0413	0.0850
Detection Limits - Maximum	0.0413	0.2650
Positive Hits - Minimum	0.5400	0.1700
Positive Hits - Maximum	1.7000	0.8300
Average Of Positive Hits	0.8789	0.5409
Standard Deviation	0.3426	0.2425
Upper Confidence Limit - Normal	0.9711 UCL	0.5726
Upper Confidence Limit - Lognormal	1.4269	0.7910
95th Percentile - Nonparametric	1.7000	0.8300
95th Percentile - Normal	1.3984	0.8567
95th Percentile - Lognormal	2.4677	1.2426
Upper Tolerance Limit - Normal	1.6650	1.0916 UTL
Upper Tolerance Limit - Lognormal	4.4297	2.5070

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9320	0.9769
Corr Coeff - Detected - Lognormal	0.9731	0.9122
Corr Coeff - Total - Normal	0.9599	0.9847
Corr Coeff - Total - Lognormal	0.7685	0.9417
Corr Coeff - Crit Val - Detected	0.9450	0.9220
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.9415	0.9508
W-Test - Lognormal	0.6290	0.8769
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	0.0573	
Detection Limit - Minimum	0.0100	
Detection Limits - Maximum	0.1675	
Positive Hits - Minimum	0.2450	
Positive Hits - Maximum	0.2450	
Average Of Positive Hits	0.2450	
Standard Deviation	0.0601	
Upper Confidence Limit - Normal	0.0812	
Upper Confidence Limit - Lognormal	0.0983 UCL	
95th Percentile - Nonparametric	0.2450	
95th Percentile - Normal	0.1562	
95th Percentile - Lognormal	0.1699	
Upper Tolerance Limit - Normal	0.2030	
Upper Tolerance Limit - Lognormal	0.3451	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8569	
Corr Coeff - Total - Lognormal	0.9711	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.7409	NA
W-Test - Lognormal	0.9538	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : TIN (mg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	1.1980	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	1.1000	
Positive Hits - Minimum	5.4000	
Positive Hits - Maximum	6.1000	
Average Of Positive Hits	5.7500	
Standard Deviation	1.6228	
Upper Confidence Limit - Normal	1.8436	
Upper Confidence Limit - Lognormal	1.6524	
95th Percentile - Nonparametric	6.1000	
95th Percentile - Normal	3.8675	
95th Percentile - Lognormal	2.8685	
Upper Tolerance Limit - Normal	5.1300	
Upper Tolerance Limit - Lognormal	5.2923	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7147	
Corr Coeff - Total - Lognormal	0.8960	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.4954	NA
W-Test - Lognormal	0.7874	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	19.1526	19.1643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.4000	9.8000
Positive Hits - Maximum	28.7000	38.7000
Average Of Positive Hits	19.1526	19.1643
Standard Deviation	5.2826	8.5776
Upper Confidence Limit - Normal	21.2541 UCL	23.2242
Upper Confidence Limit - Lognormal	21.8033	24.4035
95th Percentile - Nonparametric	28.7000	38.7000
95th Percentile - Normal	27.8426	33.2744
95th Percentile - Lognormal	29.6888	35.3914
Upper Tolerance Limit - Normal	31.9525	41.5861
Upper Tolerance Limit - Lognormal	37.1921	53.4527 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9671	0.9398
Corr Coeff - Detected - Lognormal	0.9658	0.9634
Corr Coeff - Total - Normal	0.9671	0.9398
Corr Coeff - Total - Lognormal	0.9658	0.9634
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.9763	0.8795
W-Test - Lognormal	0.9733	0.9164
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	19.0000	14.0000
Number of Detects	19.0000	14.0000
Average	62.6658	18.0857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	16.6000	6.2000
Positive Hits - Maximum	446.0000 UCL	30.8000
Average Of Positive Hits	62.6658	18.0857
Standard Deviation	98.5357	7.6596
Upper Confidence Limit - Normal	101.8640	21.7111
Upper Confidence Limit - Lognormal	85.1769	24.6053
95th Percentile - Nonparametric	446.0000	30.8000
95th Percentile - Normal	224.7570	30.6857
95th Percentile - Lognormal	148.0240	36.8983
Upper Tolerance Limit - Normal	301.4178	38.1078 UTL
Upper Tolerance Limit - Lognormal	277.0124	59.6065

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6688	0.9903
Corr Coeff - Detected - Lognormal	0.8994	0.9681
Corr Coeff - Total - Normal	0.6688	0.9903
Corr Coeff - Total - Lognormal	0.8994	0.9681
Corr Coeff - Crit Val - Detected	0.9470	0.9340
Corr Coeff - Crit Val - Total	0.9470	0.9340
W-Test - Table Value	0.9010	0.8740
W-Test - Normal	0.4582	0.9656
W-Test - Lognormal	0.8242	0.9265
Type of Distribution	UNDEFINED ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : 4-METHYL-2-PENTANONE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	1.2961	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.5000	
Positive Hits - Maximum	1.5000	
Average Of Positive Hits	1.5000	
Standard Deviation	0.0951	
Upper Confidence Limit - Normal	1.3339	
Upper Confidence Limit - Lognormal	1.4534	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.4525	
95th Percentile - Lognormal	1.4497	
Upper Tolerance Limit - Normal	1.5265	
Upper Tolerance Limit - Lognormal	1.5303	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7067	
Corr Coeff - Total - Lognormal	0.7055	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5192	NA
W-Test - Lognormal	0.5204	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	19.0000	3.0000
Number of Detects	3.0000	2.0000
Average	25.4816	5067.3167
Detection Limit - Minimum	2.5000	1.9500
Detection Limits - Maximum	24.0000	1.9500
Positive Hits - Minimum	81.0000	2200.0000
Positive Hits - Maximum	130.0000	13000.0000 UCL
Average Of Positive Hits	103.6667	7600.0000
Standard Deviation	36.2062	6957.2591
Upper Confidence Limit - Normal	39.8846	16796.3009
Upper Confidence Limit - Lognormal	51.9458 UCL	2.2862578E+94
95th Percentile - Nonparametric	130.0000	13000.0000
95th Percentile - Normal	85.0407	16512.0079
95th Percentile - Lognormal	83.0822	810165.5693
Upper Tolerance Limit - Normal	113.2091	**********
Upper Tolerance Limit - Lognormal	199.9601	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9917	1.0000
Corr Coeff - Detected - Lognormal	0.9980	1.0000
Corr Coeff - Total - Normal	0.8005	0.9341
Corr Coeff - Total - Lognormal	0.9667	0.9455
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9470	**********
W-Test - Table Value	0.9010	0.7670
W-Test - Normal	0.6193	0.8726
W-Test - Lognormal	0.9252	0.8940
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : CHLOROFORM (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	1.3487	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	2.5000	
Positive Hits - Maximum	2.5000	
Average Of Positive Hits	2.5000	
Standard Deviation	0.2904	
Upper Confidence Limit - Normal	1.4642	
Upper Confidence Limit - Lognormal	1.4415	
95th Percentile - Nonparametric	2.5000	
95th Percentile - Normal	1.8264	
95th Percentile - Lognormal	1.7405	
Upper Tolerance Limit - Normal	2.0523	
Upper Tolerance Limit - Lognormal	1.9778	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6111	
Corr Coeff - Total - Lognormal	0.6414	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.3921	NA
W-Test - Lognormal	0.4325	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : ETHYLBENZENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	1.1974	
Detection Limit - Minimum	0.3750	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.2256	
Upper Confidence Limit - Normal	1.2871	
Upper Confidence Limit - Lognormal	1.3734	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.5685	
95th Percentile - Lognormal	1.8674	
Upper Tolerance Limit - Normal	1.7440	
Upper Tolerance Limit - Lognormal	2.3363	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7382	
Corr Coeff - Total - Lognormal	0.6517	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5755	NA
W-Test - Lognormal	0.4579	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	7.0000	
Average	15.3434	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	5.2500	
Positive Hits - Minimum	19.0000	
Positive Hits - Maximum	77.0000	
Average Of Positive Hits	38.2857	
Standard Deviation	21.4612	
Upper Confidence Limit - Normal	23.8808	
Upper Confidence Limit - Lognormal	81.9310	
95th Percentile - Nonparametric	77.0000	
95th Percentile - Normal	50.6471	
95th Percentile - Lognormal	74.5736	
Upper Tolerance Limit - Normal	67.3439	
Upper Tolerance Limit - Lognormal	271.9891	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9276	
Corr Coeff - Detected - Lognormal	0.9794	
Corr Coeff - Total - Normal	0.8468	
Corr Coeff - Total - Lognormal	0.9336	
Corr Coeff - Crit Val - Detected	0.8990	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.7332	NA
W-Test - Lognormal	0.8915	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : TOLUENE (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	1.2329	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	0.3000	
Positive Hits - Maximum	0.3000	
Average Of Positive Hits	0.3000	
Standard Deviation	0.2401	
Upper Confidence Limit - Normal	1.3284	
Upper Confidence Limit - Lognormal	1.4615	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.6278	
95th Percentile - Lognormal	2.0733	
Upper Tolerance Limit - Normal	1.8146	
Upper Tolerance Limit - Lognormal	2.6980	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6568	
Corr Coeff - Total - Lognormal	0.5706	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.4586	NA
W-Test - Lognormal	0.3561	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : TRICHLOROFLUOROMETHANE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	1.2476	
Detection Limit - Minimum	0.0800	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	1.5000	
Standard Deviation	0.3444	
Upper Confidence Limit - Normal	1.3846	
Upper Confidence Limit - Lognormal	1.9431	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	1.8141	
95th Percentile - Lognormal	3.2884	
Upper Tolerance Limit - Normal	2.0820	
Upper Tolerance Limit - Lognormal	5.4667	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7734	
Corr Coeff - Total - Lognormal	0.5971	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6463	NA
W-Test - Lognormal	0.3963	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : 2,4-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	3.0000	
Average	263.6395	
Detection Limit - Minimum	12.9000	
Detection Limits - Maximum	129.0000	
Positive Hits - Minimum	290.0000	
Positive Hits - Maximum	3530.0000 UCL	
Average Of Positive Hits	1446.0000	
Standard Deviation	801.1241	
Upper Confidence Limit - Normal	582.3322	
Upper Confidence Limit - Lognormal	708.5894	
95th Percentile - Nonparametric	3530.0000	
95th Percentile - Normal	1581.4886	
95th Percentile - Lognormal	653.5439	
Upper Tolerance Limit - Normal	2204.7632	
Upper Tolerance Limit - Lognormal	2367.8948	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8958	
Corr Coeff - Detected - Lognormal	0.9553	
Corr Coeff - Total - Normal	0.5765	
Corr Coeff - Total - Lognormal	0.8628	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.3429	NA
W-Test - Lognormal	0.7530	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	86.3447	
Detection Limit - Minimum	3.3000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	44.0000	
Positive Hits - Maximum	97.0000	
Average Of Positive Hits	70.5000	
Standard Deviation	31.3899	
Upper Confidence Limit - Normal	98.8318	
Upper Confidence Limit - Lognormal	157.1398	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	137.9811	
95th Percentile - Lognormal	272.8624	
Upper Tolerance Limit - Normal	162.4024	
Upper Tolerance Limit - Lognormal	504.8139	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7881	
Corr Coeff - Total - Lognormal	0.6396	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6592	NA
W-Test - Lognormal	0.4483	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	87.5461	
Detection Limit - Minimum	4.1250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	73.0000	
Positive Hits - Maximum	73.0000	
Average Of Positive Hits	73.0000	
Standard Deviation	29.6806	
Upper Confidence Limit - Normal	99.3532	
Upper Confidence Limit - Lognormal	148.1989	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	136.3707	
95th Percentile - Lognormal	255.4362	
Upper Tolerance Limit - Normal	159.4622	
Upper Tolerance Limit - Lognormal	450.6497	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7371	
Corr Coeff - Total - Lognormal	0.5987	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5882	NA
W-Test - Lognormal	0.3994	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	97.0921	
Detection Limit - Minimum	12.2500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000	
Average Of Positive Hits	170.0000	
Standard Deviation	38.1395	
Upper Confidence Limit - Normal	112.2643	
Upper Confidence Limit - Lognormal	132.2996	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	159.8315	
95th Percentile - Lognormal	214.1514	
Upper Tolerance Limit - Normal	189.5041	
Upper Tolerance Limit - Lognormal	326.3839	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8342	
Corr Coeff - Total - Lognormal	0.7417	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6834	NA
W-Test - Lognormal	0.5717	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(G,H,I)PERYLENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	88.6895	
Detection Limit - Minimum	12.6000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	90.0000	
Average Of Positive Hits	90.0000	
Standard Deviation	28.1384	
Upper Confidence Limit - Normal	99.8831	
Upper Confidence Limit - Lognormal	116.2524	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	134.9772	
95th Percentile - Lognormal	182.4738	
Upper Tolerance Limit - Normal	156.8689	
Upper Tolerance Limit - Lognormal	265.9346	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7077	
Corr Coeff - Total - Lognormal	0.6303	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5407	NA
W-Test - Lognormal	0.4393	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(K)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	89.6105	
Detection Limit - Minimum	10.1000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	28.9395	
Upper Confidence Limit - Normal	101.1228	
Upper Confidence Limit - Lognormal	122.9999	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	137.2160	
95th Percentile - Lognormal	198.5588	
Upper Tolerance Limit - Normal	159.7309	
Upper Tolerance Limit - Lognormal	301.3262	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7492	
Corr Coeff - Total - Lognormal	0.6407	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6006	NA
W-Test - Lognormal	0.4520	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	19.0000	3.0000
Number of Detects	1.0000	1.0000
Average	88.4737	290.4833
Detection Limit - Minimum	17.7500	36.4500
Detection Limits - Maximum	180.0000	195.0000
Positive Hits - Minimum	72.0000	640.0000
Positive Hits - Maximum	72.0000 UCL	640.0000 UTL
Average Of Positive Hits	72.0000	640.0000
Standard Deviation	27.6713	312.8993
Upper Confidence Limit - Normal	99.4815	817.9886
Upper Confidence Limit - Lognormal	109.4837	96854832671.09
95th Percentile - Nonparametric	180.0000	640.0000
95th Percentile - Normal	133.9930	805.2026
95th Percentile - Lognormal	164.2514	1769.4511
Upper Tolerance Limit - Normal	155.5212	**********
Upper Tolerance Limit - Lognormal	226.5281	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7424	0.9644
Corr Coeff - Total - Lognormal	0.6862	0.9952
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9470	**********
W-Test - Table Value	0.9010	0.7670
W-Test - Normal	0.5933	0.9301
W-Test - Lognormal	0.5167	0.9904
Type of Distribution	Undefined ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	3.0000	
Average	87.4539	
Detection Limit - Minimum	5.1250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	51.0000	
Positive Hits - Maximum	130.0000	
Average Of Positive Hits	84.6667	
Standard Deviation	32.3044	
Upper Confidence Limit - Normal	100.3049	
Upper Confidence Limit - Lognormal	141.1446	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	140.5947	
95th Percentile - Lognormal	241.7081	
Upper Tolerance Limit - Normal	165.7275	
Upper Tolerance Limit - Lognormal	415.6818	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7151	
Corr Coeff - Detected - Lognormal	0.7915	
Corr Coeff - Total - Normal	0.8434	
Corr Coeff - Total - Lognormal	0.6867	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.7381	NA
W-Test - Lognormal	0.5093	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	8.0000	
Average	598.6711	
Detection Limit - Minimum	85.0000	
Detection Limits - Maximum	93.7500	
Positive Hits - Minimum	48.0000	
Positive Hits - Maximum	6500.0000	
Average Of Positive Hits	1300.1250	
Standard Deviation	1513.1653	
Upper Confidence Limit - Normal	1200.6186	
Upper Confidence Limit - Lognormal	972.7640	
95th Percentile - Nonparametric	6500.0000	
95th Percentile - Normal	3087.8280	
95th Percentile - Lognormal	1389.0101	
Upper Tolerance Limit - Normal	4265.0707	
Upper Tolerance Limit - Lognormal	3792.3097	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7862	
Corr Coeff - Detected - Lognormal	0.9875	
Corr Coeff - Total - Normal	0.6256	
Corr Coeff - Total - Lognormal	0.8100	
Corr Coeff - Crit Val - Detected	0.9050	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.4006	NA
W-Test - Lognormal	0.6898	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	95.7145	
Detection Limit - Minimum	12.3250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	220.0000	
Positive Hits - Maximum	220.0000	
Average Of Positive Hits	220.0000	
Standard Deviation	41.2450	
Upper Confidence Limit - Normal	112.1220	
Upper Confidence Limit - Lognormal	129.5937	
95th Percentile - Nonparametric	220.0000	
95th Percentile - Normal	163.5626	
95th Percentile - Lognormal	209.4835	
Upper Tolerance Limit - Normal	195.6512	
Upper Tolerance Limit - Lognormal	318.5750	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7738	
Corr Coeff - Total - Lognormal	0.7199	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6100	NA
W-Test - Lognormal	0.5511	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : INDENO(1,2,3-CD)PYRENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	88.6197	
Detection Limit - Minimum	11.2750	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	90.0000	
Average Of Positive Hits	90.0000	
Standard Deviation	28.3384	
Upper Confidence Limit - Normal	99.8930	
Upper Confidence Limit - Lognormal	118.6091	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	135.2364	
95th Percentile - Lognormal	188.7160	
Upper Tolerance Limit - Normal	157.2837	
Upper Tolerance Limit - Lognormal	280.2161	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7076	
Corr Coeff - Total - Lognormal	0.6237	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5408	NA
W-Test - Lognormal	0.4307	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : N-NITROSODIPHENYLAMINE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	99.3632	
Detection Limit - Minimum	9.1500	
Detection Limits - Maximum	93.7500	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	380.0000	
Average Of Positive Hits	235.0000	
Standard Deviation	70.3849	
Upper Confidence Limit - Normal	127.3628	
Upper Confidence Limit - Lognormal	142.6290	
95th Percentile - Nonparametric	380.0000	
95th Percentile - Normal	215.1463	
95th Percentile - Lognormal	239.9321	
Upper Tolerance Limit - Normal	269.9057	
Upper Tolerance Limit - Lognormal	393.1205	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.6041	
Corr Coeff - Total - Lognormal	0.6673	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.3908	NA
W-Test - Lognormal	0.4907	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	1.0000	
Average	90.8684	
Detection Limit - Minimum	10.2500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	130.0000	
Positive Hits - Maximum	130.0000	
Average Of Positive Hits	130.0000	
Standard Deviation	30.0495	
Upper Confidence Limit - Normal	102.8223	
Upper Confidence Limit - Lognormal	124.9691	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	140.2999	
95th Percentile - Lognormal	202.0988	
Upper Tolerance Limit - Normal	163.6785	
Upper Tolerance Limit - Lognormal	307.5633	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7832	
Corr Coeff - Total - Lognormal	0.6634	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.6436	NA
W-Test - Lognormal	0.4785	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	2.0000	
Average	99.5737	
Detection Limit - Minimum	22.6500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	63.0000	
Positive Hits - Maximum	310.0000	
Average Of Positive Hits	186.5000	
Standard Deviation	57.8462	
Upper Confidence Limit - Normal	122.5853	
Upper Confidence Limit - Lognormal	124.6823	
95th Percentile - Nonparametric	310.0000	
95th Percentile - Normal	194.7308	
95th Percentile - Lognormal	194.6776	
Upper Tolerance Limit - Normal	239.7351	
Upper Tolerance Limit - Lognormal	281.7682	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7341	
Corr Coeff - Total - Lognormal	0.8094	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.5500	NA
W-Test - Lognormal	0.6822	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : AMMONIA (mg/kg)

	Sample Results	Background Results
Count	1.0000	2.0000
Number of Detects	1.0000	2.0000
Average	18.8500	35.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	18.8500	21.9000
Positive Hits - Maximum	18.8500 UCL	49.9000 UTL
Average Of Positive Hits	18.8500	35.9000
Standard Deviation	0.0000	19.7990
Upper Confidence Limit - Normal	**********	**********
Upper Confidence Limit - Lognormal	0.0000	830.1779
95th Percentile - Nonparametric	18.8500	49.9000
95th Percentile - Normal	18.8500	68.4693
95th Percentile - Lognormal	18.8500	86.1579
Upper Tolerance Limit - Normal	**********	**********
Upper Tolerance Limit - Lognormal	**********	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.0000	1.0000
Corr Coeff - Total - Lognormal	0.0000	1.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	**********
W-Test - Table Value	0.0000	0.0000
W-Test - Normal	**********	1.0000
W-Test - Lognormal	**********	1.0000
Type of Distribution	UNDEFINED ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

PASS

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : NITRATE/NITRITE (mg/kg)

	Sample Results	Background Results
Count	1.0000	2.0000
Number of Detects	1.0000	1.0000
Average	3.4000	1.3250
Detection Limit - Minimum	NA	0.7500
Detection Limits - Maximum	NA	0.7500
Positive Hits - Minimum	3.4000	1.9000
Positive Hits - Maximum	3.4000 UCL	1.9000 UCL
Average Of Positive Hits	3.4000	1.9000
Standard Deviation	0.0000	0.8132
Upper Confidence Limit - Normal	**********	**********
Upper Confidence Limit - Lognormal	0.0000	72.7910
95th Percentile - Nonparametric	3.4000	1.9000
95th Percentile - Normal	3.4000	2.6627
95th Percentile - Lognormal	3.4000	3.5195
Upper Tolerance Limit - Normal	**********	**********
Upper Tolerance Limit - Lognormal	**********	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.0000	0.0000
Corr Coeff - Total - Lognormal	0.0000	1.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	**********
W-Test - Table Value	0.0000	0.0000
W-Test - Normal	**********	1.0000
W-Test - Lognormal	**********	1.0000
Type of Distribution	UNDEFINED ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	13.0000	
Average	15228.6526	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	139.0000	
Positive Hits - Maximum	248000.0000	
Average Of Positive Hits	22253.1538	
Standard Deviation	56533.1244	
Upper Confidence Limit - Normal	37717.9186	
Upper Confidence Limit - Lognormal	2962182.6816	
95th Percentile - Nonparametric	248000.0000	
95th Percentile - Normal	108225.6423	
95th Percentile - Lognormal	46970.4275	
Upper Tolerance Limit - Normal	152208.4131	
Upper Tolerance Limit - Lognormal	507322.8201	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5219	
Corr Coeff - Detected - Lognormal	0.5486	
Corr Coeff - Total - Normal	0.5241	
Corr Coeff - Total - Lognormal	0.9382	
Corr Coeff - Crit Val - Detected	0.9310	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.2908	NA
W-Test - Lognormal	0.9091	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	11.0000	
Average	1689.0513	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	116.7500	
Positive Hits - Minimum	324.0000	
Positive Hits - Maximum	16000.0000 UCL	
Average Of Positive Hits	2899.4091	
Standard Deviation	3899.4626	
Upper Confidence Limit - Normal	3240.2844	
Upper Confidence Limit - Lognormal	70161.3967	
95th Percentile - Nonparametric	16000.0000	
95th Percentile - Normal	8103.6672	
95th Percentile - Lognormal	10485.9498	
Upper Tolerance Limit - Normal	11137.4491	
Upper Tolerance Limit - Lognormal	70230.0459	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5335	
Corr Coeff - Detected - Lognormal	0.4279	
Corr Coeff - Total - Normal	0.6889	
Corr Coeff - Total - Lognormal	0.9275	
Corr Coeff - Crit Val - Detected	0.9220	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.4846	NA
W-Test - Lognormal	0.8712	NA

Type of Distribution ..... UNDEFINED ✓

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : HMX (μg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	7.0000	
Average	3051.0526	
Detection Limit - Minimum	17.6250	
Detection Limits - Maximum	17.6250	
Positive Hits - Minimum	454.0000	
Positive Hits - Maximum	26700.0000 UCL	
Average Of Positive Hits	8251.2143	
Standard Deviation	7304.3676	
Upper Confidence Limit - Normal	5956.7803	
Upper Confidence Limit - Lognormal	145145.8963	
95th Percentile - Nonparametric	26700.0000	
95th Percentile - Normal	15066.7373	
95th Percentile - Lognormal	9483.8100	
Upper Tolerance Limit - Normal	20749.5353	
Upper Tolerance Limit - Lognormal	77176.4803	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8972	
Corr Coeff - Detected - Lognormal	0.9285	
Corr Coeff - Total - Normal	0.7135	
Corr Coeff - Total - Lognormal	0.8368	
Corr Coeff - Crit Val - Detected	0.8990	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.4888	NA
W-Test - Lognormal	0.7050	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : RDX (µg/kg)

	Sample Results	Background Results
Count	19.0000	No samples
Number of Detects	10.0000	
Average	27271.7118	
Detection Limit - Minimum	12.7250	
Detection Limits - Maximum	12.7250	
Positive Hits - Minimum	243.0000	
Positive Hits - Maximum	397000.0000	
Average Of Positive Hits	51804.8000	
Standard Deviation	93041.4863	
Upper Confidence Limit - Normal	64284.2554	
Upper Confidence Limit - Lognormal	6004630.2550	
95th Percentile - Nonparametric	397000.0000	
95th Percentile - Normal	180324.9568	
95th Percentile - Lognormal	42282.4713	
Upper Tolerance Limit - Normal	252711.2331	
Upper Tolerance Limit - Lognormal	526768.2176	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5646	
Corr Coeff - Detected - Lognormal	0.6185	
Corr Coeff - Total - Normal	0.5747	
Corr Coeff - Total - Lognormal	0.9006	
Corr Coeff - Crit Val - Detected	0.9170	
Corr Coeff - Crit Val - Total	0.9470	
W-Test - Table Value	0.9010	NA
W-Test - Normal	0.3354	NA
W-Test - Lognormal	0.8178	NA

Type of Distribution ..... UNDEFINED

Test Results:

Dataset: INR6S_RES
Media : Indian Head Range 6 Statistics
Group : Surface Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	2085.0000	5953.3333
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2085.0000	1620.0000
Positive Hits - Maximum	2085.0000	14000.0000
Average Of Positive Hits	2085.0000	5953.3333
Standard Deviation	0.0000	3960.5540
Upper Confidence Limit - Normal	**********	8006.7243
Upper Confidence Limit - Lognormal	0.0000	9875.7688
95th Percentile - Nonparametric	2085.0000	14000.0000
95th Percentile - Normal	2085.0000	12468.4446
95th Percentile - Lognormal	2085.0000	14711.9247
Upper Tolerance Limit - Normal	**********	16789.4090
Upper Tolerance Limit - Lognormal	**********	30695.0707

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9336
Corr Coeff - Detected - Lognormal	**********	0.9795
Corr Coeff - Total - Normal	0.0000	0.9336
Corr Coeff - Total - Lognormal	0.0000	0.9795
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.8642
W-Test - Lognormal	**********	0.9481
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2,4-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	5.0000	
Average	272.8792	
Detection Limit - Minimum	6.2375	
Detection Limits - Maximum	87.5000	
Positive Hits - Minimum	74.0000	
Positive Hits - Maximum	5790.0000	
Average Of Positive Hits	1403.2000	
Standard Deviation	1110.5662	
Upper Confidence Limit - Normal	637.5001	
Upper Confidence Limit - Lognormal	246.7853	
95th Percentile - Nonparametric	5790.0000	
95th Percentile - Normal	2099.7606	
95th Percentile - Lognormal	345.9036	
Upper Tolerance Limit - Normal	2786.3126	
Upper Tolerance Limit - Lognormal	914.9764	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7779	
Corr Coeff - Detected - Lognormal	0.9624	
Corr Coeff - Total - Normal	0.4686	
Corr Coeff - Total - Lognormal	0.7594	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.2537	NA
W-Test - Lognormal	0.5957	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHLOROFORM (μg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	1.0000	
Average	1.6500	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	2.3000	
Positive Hits - Maximum	2.3000	
Average Of Positive Hits	2.3000	
Standard Deviation	1.0914	
Upper Confidence Limit - Normal	2.0083	
Upper Confidence Limit - Lognormal	1.8087	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	3.4454	
95th Percentile - Lognormal	2.6293	
Upper Tolerance Limit - Normal	4.1201	
Upper Tolerance Limit - Lognormal	3.2333	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5420	
Corr Coeff - Total - Lognormal	0.6777	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3299	NA
W-Test - Lognormal	0.4935	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	27.0000	3.0000
Number of Detects	5.0000	1.0000
Average	118.3435	601.9000
Detection Limit - Minimum	2.5000	0.7000
Detection Limits - Maximum	41.2500	5.0000
Positive Hits - Minimum	26.0000	1800.0000
Positive Hits - Maximum	2700.0000	1800.0000
Average Of Positive Hits	591.8000	1800.0000
Standard Deviation	516.4745	1037.5873
Upper Confidence Limit - Normal	287.9123	2351.1298
Upper Confidence Limit - Lognormal	104.4836	8.6805716E+71
95th Percentile - Nonparametric	2700.0000	1800.0000
95th Percentile - Normal	967.9440	2308.7310
95th Percentile - Lognormal	156.3051	15328.4024
Upper Tolerance Limit - Normal	1287.2285	**********
Upper Tolerance Limit - Lognormal	396.9360	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7403	
Corr Coeff - Detected - Lognormal	0.8748	
Corr Coeff - Total - Normal	0.4392	0.8671
Corr Coeff - Total - Lognormal	0.9112	0.9609
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9600	**********
W-Test - Table Value	0.9230	0.7670
W-Test - Normal	0.2264	0.7518
W-Test - Lognormal	0.8451	0.9233
Type of Distribution	Undefined	~~Undefined~~ LOGNORM

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	8.0000	
Average	13.8940	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	11.6375	
Positive Hits - Minimum	22.0000	
Positive Hits - Maximum	71.5000	
Average Of Positive Hits	40.1875	
Standard Deviation	19.4291	
Upper Confidence Limit - Normal	20.2730	
Upper Confidence Limit - Lognormal	41.4280	
95th Percentile - Nonparametric	71.5000	
95th Percentile - Normal	45.8549	
95th Percentile - Lognormal	60.1196	
Upper Tolerance Limit - Normal	57.8660	
Upper Tolerance Limit - Lognormal	155.6908	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9644	
Corr Coeff - Detected - Lognormal	0.9890	
Corr Coeff - Total - Normal	0.8474	
Corr Coeff - Total - Lognormal	0.9606	
Corr Coeff - Crit Val - Detected	0.9050	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.7188	NA
W-Test - Lognormal	0.9039	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : TRICHLOROFLUOROMETHANE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	2.0000	
Average	1.5678	
Detection Limit - Minimum	0.0813	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	1.5000	
Standard Deviation	1.1322	
Upper Confidence Limit - Normal	1.9395	
Upper Confidence Limit - Lognormal	2.1599	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	3.4302	
95th Percentile - Lognormal	3.9094	
Upper Tolerance Limit - Normal	4.1301	
Upper Tolerance Limit - Lognormal	5.8555	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6047	
Corr Coeff - Total - Lognormal	0.6875	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.4139	NA
W-Test - Lognormal	0.5330	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 1,1,1-TRICHLOROETHANE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	2.0000	
Average	1.5388	
Detection Limit - Minimum	0.0475	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	1.1342	
Upper Confidence Limit - Normal	1.9112	
Upper Confidence Limit - Lognormal	2.3198	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	3.4045	
95th Percentile - Lognormal	4.3449	
Upper Tolerance Limit - Normal	4.1056	
Upper Tolerance Limit - Lognormal	6.8708	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5923	
Corr Coeff - Total - Lognormal	0.6566	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3990	NA
W-Test - Lognormal	0.4894	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	1.0000	
Average	1.8083	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	8.0000	
Positive Hits - Maximum	8.0000	
Average Of Positive Hits	8.0000	
Standard Deviation	1.6634	
Upper Confidence Limit - Normal	2.3545	
Upper Confidence Limit - Lognormal	2.1516	
95th Percentile - Nonparametric	8.0000	
95th Percentile - Normal	4.5446	
95th Percentile - Lognormal	3.6840	
Upper Tolerance Limit - Normal	5.5729	
Upper Tolerance Limit - Lognormal	5.1737	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6149	
Corr Coeff - Total - Lognormal	0.7383	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.4062	NA
W-Test - Lognormal	0.5899	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : TETRACHLOROETHENE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	1.0000	
Average	1.5553	
Detection Limit - Minimum	0.2425	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	1.1212	
Upper Confidence Limit - Normal	1.9234	
Upper Confidence Limit - Lognormal	1.8523	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	3.3997	
95th Percentile - Lognormal	3.0313	
Upper Tolerance Limit - Normal	4.0929	
Upper Tolerance Limit - Lognormal	4.0803	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5740	
Corr Coeff - Total - Lognormal	0.7228	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3758	NA
W-Test - Lognormal	0.5860	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ALUMINUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	6130.0000	13633.3333
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6130.0000	3070.0000
Positive Hits - Maximum	6130.0000	25300.0000
Average Of Positive Hits	6130.0000	13633.3333
Standard Deviation	0.0000	7592.5063
Upper Confidence Limit - Normal	**********	17569.7482
Upper Confidence Limit - Lognormal	0.0000	23999.9006
95th Percentile - Nonparametric	6130.0000	25300.0000
95th Percentile - Normal	6130.0000	26123.0062
95th Percentile - Lognormal	6130.0000	35698.1232
Upper Tolerance Limit - Normal	**********	34406.4305
Upper Tolerance Limit - Lognormal	**********	76573.4196

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9780
Corr Coeff - Detected - Lognormal	**********	0.9563
Corr Coeff - Total - Normal	0.0000	0.9780
Corr Coeff - Total - Lognormal	0.0000	0.9563
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9351
W-Test - Lognormal	**********	0.9005
Type of Distribution	UNDEFINED	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	26.0000	14.0000
Number of Detects	22.0000	3.0000
Average	0.4321	0.4855
Detection Limit - Minimum	0.0475	0.0850
Detection Limits - Maximum	0.1450	0.5000
Positive Hits - Minimum	0.2000	0.6800
Positive Hits - Maximum	2.0000	1.8000
Average Of Positive Hits	0.4936	1.3933
Standard Deviation	0.3617	0.5598
Upper Confidence Limit - Normal	0.5533	0.7505
Upper Confidence Limit - Lognormal	0.6200 UCL	0.9701
95th Percentile - Nonparametric	2.0000	1.8000
95th Percentile - Normal	1.0272	1.4064
95th Percentile - Lognormal	1.1546	1.4449
Upper Tolerance Limit - Normal	1.2560	1.9488
Upper Tolerance Limit - Lognormal	1.8529	3.6023 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6727	0.8411
Corr Coeff - Detected - Lognormal	0.8865	0.8254
Corr Coeff - Total - Normal	0.7876	0.8188
Corr Coeff - Total - Lognormal	0.9483	0.9676
Corr Coeff - Crit Val - Detected	0.9540	**********
Corr Coeff - Crit Val - Total	0.9590	0.9340
W-Test - Table Value	0.9200	0.8740
W-Test - Normal	0.6565	0.6737
W-Test - Lognormal	0.9201	0.9262
Type of Distribution	LOGNORMAL ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	13.0000
Average	3.0274	4.5286
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.1400	1.8000
Positive Hits - Maximum	7.8000	10.4000
Average Of Positive Hits	3.0274	4.8038
Standard Deviation	1.3798	3.2919
Upper Confidence Limit - Normal	3.4804	6.0867
Upper Confidence Limit - Lognormal	3.5729 UCL	7.5976
95th Percentile - Nonparametric	7.8000	10.4000
95th Percentile - Normal	5.2972	9.9437
95th Percentile - Lognormal	5.6465	11.9283
Upper Tolerance Limit - Normal	6.1501	13.1335
Upper Tolerance Limit - Lognormal	7.3829	24.4274 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9262	0.9274
Corr Coeff - Detected - Lognormal	0.9804	0.9595
Corr Coeff - Total - Normal	0.9262	0.9169
Corr Coeff - Total - Lognormal	0.9804	0.9701
Corr Coeff - Crit Val - Detected	0.9600	0.9310
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.8759	0.8241
W-Test - Lognormal	0.9669	0.9290
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	30.8352	37.4143
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.6000	9.1000
Positive Hits - Maximum	74.2000	101.0000
Average Of Positive Hits	30.8352	37.4143
Standard Deviation	15.6684	26.3822
Upper Confidence Limit - Normal	35.9794	49.9015
Upper Confidence Limit - Lognormal	39.2075 UCL	61.0314
95th Percentile - Nonparametric	74.2000	101.0000
95th Percentile - Normal	56.6096	80.8130
95th Percentile - Lognormal	67.3956	95.8978
Upper Tolerance Limit - Normal	66.2958	106.3773
Upper Tolerance Limit - Lognormal	95.0303	190.7245 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9534	0.9398
Corr Coeff - Detected - Lognormal	0.9578	0.9926
Corr Coeff - Total - Normal	0.9534	0.9398
Corr Coeff - Total - Lognormal	0.9578	0.9926
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9146	0.8846
W-Test - Lognormal	0.9237	0.9760
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	23.0000	12.0000
Average	0.3437	0.3821
Detection Limit - Minimum	0.0363	0.0700
Detection Limits - Maximum	0.0425	0.0900
Positive Hits - Minimum	0.2600	0.1200
Positive Hits - Maximum	0.8400	1.1000
Average Of Positive Hits	0.3965	0.4325
Standard Deviation	0.1942	0.2876
Upper Confidence Limit - Normal	0.4074 UCL	0.5183
Upper Confidence Limit - Lognormal	0.5822	0.7141
95th Percentile - Nonparametric	0.8400	1.1000
95th Percentile - Normal	0.6631	0.8553
95th Percentile - Lognormal	1.1225	1.1095
Upper Tolerance Limit - Normal	0.7831	1.1340
Upper Tolerance Limit - Lognormal	1.9255	2.4552 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8623	0.9670
Corr Coeff - Detected - Lognormal	0.9170	0.9822
Corr Coeff - Total - Normal	0.9625	0.9441
Corr Coeff - Total - Lognormal	0.8778	0.9889
Corr Coeff - Crit Val - Detected	0.9550	0.9260
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9275	0.8950
W-Test - Lognormal	0.7685	0.9683
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	25.0000	5.0000
Average	0.5006	0.1632
Detection Limit - Minimum	0.0350	0.0600
Detection Limits - Maximum	0.0925	0.2950
Positive Hits - Minimum	0.1300	0.1550
Positive Hits - Maximum	1.3000	0.2700
Average Of Positive Hits	0.5356	0.2200
Standard Deviation	0.3667	0.0860
Upper Confidence Limit - Normal	0.6210	0.2039
Upper Confidence Limit - Lognormal	0.8087	0.2385
95th Percentile - Nonparametric	1.3000	0.2950
95th Percentile - Normal	1.1038	0.3047
95th Percentile - Lognormal	1.5608	0.3686
Upper Tolerance Limit - Normal	1.3305	0.3881
Upper Tolerance Limit - Lognormal	2.6941	0.6500

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9716	0.9446
Corr Coeff - Detected - Lognormal	0.9823	0.9280
Corr Coeff - Total - Normal	0.9550	0.9562
Corr Coeff - Total - Lognormal	0.9750	0.9546
Corr Coeff - Crit Val - Detected	0.9580	0.8790
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.8987	0.8867
W-Test - Lognormal	0.9490	0.8835

Type of Distribution ..... LOGNORMAL ~~Undefined~~ NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CALCIUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	2.0000
Average	126.0000	59.4250
Detection Limit - Minimum	NA	24.8000
Detection Limits - Maximum	NA	124.7500
Positive Hits - Minimum	126.0000	50.7000
Positive Hits - Maximum	126.0000	134.0000
Average Of Positive Hits	126.0000	92.3500
Standard Deviation	0.0000	34.0535
Upper Confidence Limit - Normal	**********	77.0804
Upper Confidence Limit - Lognormal	0.0000	80.5425
95th Percentile - Nonparametric	126.0000	134.0000
95th Percentile - Normal	126.0000	115.4429
95th Percentile - Lognormal	126.0000	116.3434
Upper Tolerance Limit - Normal	**********	152.5953
Upper Tolerance Limit - Lognormal	**********	196.3486

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.0000	0.8520
Corr Coeff - Total - Lognormal	0.0000	0.9345
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.7344
W-Test - Lognormal	**********	0.8829
Type of Distribution	UNDEFINED	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	12.5500	21.8571
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.7000	6.2000
Positive Hits - Maximum	21.6000	44.7000
Average Of Positive Hits	12.5500	21.8571
Standard Deviation	5.0814	13.5346
Upper Confidence Limit - Normal	14.2183 UCL	28.2633
Upper Confidence Limit - Lognormal	15.0976	34.1236
95th Percentile - Nonparametric	21.6000	44.7000
95th Percentile - Normal	20.9088	44.1216
95th Percentile - Lognormal	24.2864	53.4589
Upper Tolerance Limit - Normal	24.0501	57.2366
Upper Tolerance Limit - Lognormal	32.2168	101.4624 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9866	0.9551
Corr Coeff - Detected - Lognormal	0.9731	0.9788
Corr Coeff - Total - Normal	0.9866	0.9551
Corr Coeff - Total - Lognormal	0.9731	0.9788
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9544 ✓	0.8892
W-Test - Lognormal	0.9297	0.9361 ✓
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	5.0126	12.3718
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.8900	0.8450
Positive Hits - Maximum	10.8000	133.0000 UCL
Average Of Positive Hits	5.0126	12.3718
Standard Deviation	2.0270	34.7885
Upper Confidence Limit - Normal	5.6781 UCL	28.8379
Upper Confidence Limit - Lognormal	6.1112	23.3619
95th Percentile - Nonparametric	10.8000	133.0000
95th Percentile - Normal	8.3471	69.5989
95th Percentile - Lognormal	9.9264	26.4170
Upper Tolerance Limit - Normal	9.6002	103.3090
Upper Tolerance Limit - Lognormal	13.2757	90.8715

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9684	0.5598
Corr Coeff - Detected - Lognormal	0.9329	0.8917
Corr Coeff - Total - Normal	0.9684	0.5598
Corr Coeff - Total - Lognormal	0.9329	0.8917
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9538	0.3490
W-Test - Lognormal	0.8975	0.8174
Type of Distribution	NORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	22.0000	12.0000
Average	20.3653	7.7036
Detection Limit - Minimum	0.7500	0.7500
Detection Limits - Maximum	1.9500	2.2500
Positive Hits - Minimum	3.9000	2.6000
Positive Hits - Maximum	83.6000	22.7000
Average Of Positive Hits	[illegible]	8.7375
Standard Deviation	[illegible] 96.8	5.8880
Upper Confidence Limit - Normal	28.2506	10.4905
Upper Confidence Limit - Lognormal	54.3145 UCL	15.7950
95th Percentile - Nonparametric	83.6000	22.7000
95th Percentile - Normal	59.8734	17.3894
95th Percentile - Lognormal	91.3560	24.1595
Upper Tolerance Limit - Normal	74.7208	23.0949
Upper Tolerance Limit - Lognormal	211.8545	56.4931 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7740	0.9562
Corr Coeff - Detected - Lognormal	0.9050	0.9930
Corr Coeff - Total - Normal	0.8737	0.9398
Corr Coeff - Total - Lognormal	0.9813	0.9781
Corr Coeff - Crit Val - Detected	0.9540	0.9260
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.7583	0.8928
W-Test - Lognormal	0.9477	0.9670
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : IRON (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	12900.0000	24191.6667
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12900.0000	5370.0000
Positive Hits - Maximum	12900.0000	61100.0000
Average Of Positive Hits	12900.0000	24191.6667
Standard Deviation	0.0000	17845.7812
Upper Confidence Limit - Normal	**********	33444.0000
Upper Confidence Limit - Lognormal	0.0000	44743.5855
95th Percentile - Nonparametric	12900.0000	61100.0000
95th Percentile - Normal	12900.0000	53547.9767
95th Percentile - Lognormal	12900.0000	65813.2114
Upper Tolerance Limit - Normal	**********	73017.7240
Upper Tolerance Limit - Lognormal	**********	151452.7997

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9423
Corr Coeff - Detected - Lognormal	**********	0.9911
Corr Coeff - Total - Normal	0.0000	0.9423
Corr Coeff - Total - Lognormal	0.0000	0.9911
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.8800
W-Test - Lognormal	**********	0.9692
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	11.0000
Average	16.1722	8.4607
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	1.7000	3.1000
Positive Hits - Maximum	52.9000 UCL	25.5000
Average Of Positive Hits	16.1722	8.6409
Standard Deviation	16.2492	6.3344
Upper Confidence Limit - Normal	21.5072	11.4589
Upper Confidence Limit - Lognormal	28.2704	12.7607
95th Percentile - Nonparametric	52.9000	25.5000
95th Percentile - Normal	42.9021	18.8809
95th Percentile - Lognormal	54.2689	19.9646
Upper Tolerance Limit - Normal	52.9474	25.0189
Upper Tolerance Limit - Lognormal	103.7263	37.4774 UTL

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Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8937	0.9083
Corr Coeff - Detected - Lognormal	0.9693	0.9815
Corr Coeff - Total - Normal	0.8937	0.8887
Corr Coeff - Total - Lognormal	0.9693	0.9792
Corr Coeff - Crit Val - Detected	0.9600	0.9220
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.7857	0.8008
W-Test - Lognormal	0.9211	0.9550
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MAGNESIUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	377.0000	883.0833
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	377.0000	215.0000
Positive Hits - Maximum	377.0000	1990.0000
Average Of Positive Hits	377.0000	883.0833
Standard Deviation	0.0000	510.6070
Upper Confidence Limit - Normal	**********	1147.8129
Upper Confidence Limit - Lognormal	0.0000	1435.6285
95th Percentile - Nonparametric	377.0000	1990.0000
95th Percentile - Normal	377.0000	1723.0319
95th Percentile - Lognormal	377.0000	2139.0803
Upper Tolerance Limit - Normal	**********	2280.1042
Upper Tolerance Limit - Lognormal	**********	4307.2570

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9704
Corr Coeff - Detected - Lognormal	**********	0.9856
Corr Coeff - Total - Normal	0.0000	0.9704
Corr Coeff - Total - Lognormal	0.0000	0.9856
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9436
W-Test - Lognormal	**********	0.9708
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MANGANESE (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	97.4000	156.6417
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	97.4000	18.4000
Positive Hits - Maximum	97.4000 UCL	1270.0000 UTL
Average Of Positive Hits	97.4000	156.6417
Standard Deviation	0.0000	351.6159
Upper Confidence Limit - Normal	**********	338.9406
Upper Confidence Limit - Lognormal	0.0000	332.2619
95th Percentile - Nonparametric	97.4000	1270.0000
95th Percentile - Normal	97.4000	735.0497
95th Percentile - Lognormal	97.4000	391.1934
Upper Tolerance Limit - Normal	**********	1118.6626
Upper Tolerance Limit - Lognormal	**********	1314.8861

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.5994
Corr Coeff - Detected - Lognormal	**********	0.8787
Corr Coeff - Total - Normal	0.0000	0.5994
Corr Coeff - Total - Lognormal	0.0000	0.8787
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.3962
W-Test - Lognormal	**********	0.7982
Type of Distribution	UNDEFINED ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	22.0000	11.0000
Average	0.0951	0.0304
Detection Limit - Minimum	0.0025	0.0250
Detection Limits - Maximum	0.0050	0.0300
Positive Hits - Minimum	0.0100	0.0100
Positive Hits - Maximum	0.7900	0.0700
Average Of Positive Hits	0.1157	0.0309
Standard Deviation	0.1703	0.0174
Upper Confidence Limit - Normal	0.1510	0.0386
Upper Confidence Limit - Lognormal	0.2500	0.0458
95th Percentile - Nonparametric	0.7900	0.0700
95th Percentile - Normal	0.3752	0.0589
95th Percentile - Lognormal	0.3804	0.0713
Upper Tolerance Limit - Normal	0.4804	0.0758
Upper Tolerance Limit - Lognormal	0.9550	0.1299

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6708	0.9565
Corr Coeff - Detected - Lognormal	0.9208	0.9751
Corr Coeff - Total - Normal	0.7368	0.9561
Corr Coeff - Total - Lognormal	0.9875	0.9660
Corr Coeff - Crit Val - Detected	0.9540	0.9220
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.5675	0.9123
W-Test - Lognormal	0.9675	0.9196
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	6.1315	6.3714
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.2000	2.8000
Positive Hits - Maximum	10.5000	18.2000
Average Of Positive Hits	6.1315	6.3714
Standard Deviation	2.3373	4.0429
Upper Confidence Limit - Normal	6.8989 UCL	8.2850
Upper Confidence Limit - Lognormal	7.6488	8.6961
95th Percentile - Nonparametric	10.5000	18.2000
95th Percentile - Normal	9.9763	13.0220
95th Percentile - Lognormal	12.7008	13.2209
Upper Tolerance Limit - Normal	11.4212	16.9396
Upper Tolerance Limit - Lognormal	17.3179	22.1153 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9882	0.8705
Corr Coeff - Detected - Lognormal	0.9206	0.9675
Corr Coeff - Total - Normal	0.9882	0.8705
Corr Coeff - Total - Lognormal	0.9206	0.9675
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9715	0.7763
W-Test - Lognormal	0.8559	0.9344
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : POTASSIUM (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	12.0000
Average	307.0000	995.3333
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	307.0000	250.0000
Positive Hits - Maximum	307.0000	2845.0000
Average Of Positive Hits	307.0000	995.3333
Standard Deviation	0.0000	768.9574
Upper Confidence Limit - Normal	**********	1394.0074
Upper Confidence Limit - Lognormal	0.0000	1793.3217
95th Percentile - Nonparametric	307.0000	2845.0000
95th Percentile - Normal	307.0000	2260.2683
95th Percentile - Lognormal	307.0000	2645.9302
Upper Tolerance Limit - Normal	**********	3099.2008
Upper Tolerance Limit - Lognormal	**********	5997.7739

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9245
Corr Coeff - Detected - Lognormal	**********	0.9931
Corr Coeff - Total - Normal	0.0000	0.9245
Corr Coeff - Total - Lognormal	0.0000	0.9931
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.8587
W-Test - Lognormal	**********	0.9750
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		27.0000	14.0000
Number of Detects		27.0000	10.0000
Average		0.7609	0.8493
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.1700	0.2950
Positive Hits - Maximum		1.6000	2.6000
Average Of Positive Hits		0.7609	1.1185
Standard Deviation		0.3365	0.8168
Upper Confidence Limit - Normal		0.8714	1.2359
Upper Confidence Limit - Lognormal		0.9548	2.2949
95th Percentile - Nonparametric		1.6000	2.6000
95th Percentile - Normal		1.3145	2.1929
95th Percentile - Lognormal		1.6110	3.1381
Upper Tolerance Limit - Normal		1.5225	2.9844
Upper Tolerance Limit - Lognormal		2.2300	8.9313

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9903	0.9483
Corr Coeff - Detected - Lognormal	0.9690	0.9699
Corr Coeff - Total - Normal	0.9903	0.9037
Corr Coeff - Total - Lognormal	0.9690	0.9796
Corr Coeff - Crit Val - Detected	0.9600	0.9170
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9811	0.8100
W-Test - Lognormal	0.9416	0.9494
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	1.0000	2.0000
Average	0.0465	0.0911
Detection Limit - Minimum	0.0125	0.0300
Detection Limits - Maximum	0.1425	0.0750
Positive Hits - Minimum	0.2200	0.0625
Positive Hits - Maximum	0.2200	0.6300
Average Of Positive Hits	0.2200	0.3463
Standard Deviation	0.0564	0.1558
Upper Confidence Limit - Normal	0.0650	0.1648
Upper Confidence Limit - Lognormal	0.0661	0.1254
95th Percentile - Nonparametric	0.2200	0.6300
95th Percentile - Normal	0.1392	0.3474
95th Percentile - Lognormal	0.1280	0.1968
Upper Tolerance Limit - Normal	0.1740	0.4983
Upper Tolerance Limit - Lognormal	0.2270	0.4077

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.7926	0.5870
Corr Coeff - Total - Lognormal	0.8573	0.7996
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.6337	0.3808
W-Test - Lognormal	0.7245	0.6709
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	18.1944	30.9107
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.7000	9.8000
Positive Hits - Maximum	31.1000	61.4000
Average Of Positive Hits	18.1944	30.9107
Standard Deviation	7.1693	17.5157
Upper Confidence Limit - Normal	20.5483 UCL	39.2013
Upper Confidence Limit - Lognormal	22.6466	46.7732
95th Percentile - Nonparametric	31.1000	61.4000
95th Percentile - Normal	29.9879	59.7241
95th Percentile - Lognormal	37.6586	72.8898
Upper Tolerance Limit - Normal	34.4200	76.6968
Upper Tolerance Limit - Lognormal	51.4164	133.386 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9885	0.9628
Corr Coeff - Detected - Lognormal	0.9405	0.9701
Corr Coeff - Total - Normal	0.9885	0.9628
Corr Coeff - Total - Lognormal	0.9405	0.9701
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9685	0.9066
W-Test - Lognormal	0.8888	0.9194
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	27.0000	14.0000
Number of Detects	27.0000	14.0000
Average	23.3111	21.3964
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.1000	7.9000
Positive Hits - Maximum	48.7000	70.4000
Average Of Positive Hits	23.3111	21.3964
Standard Deviation	10.8262	15.7792
Upper Confidence Limit - Normal	26.8656	28.8650
Upper Confidence Limit - Lognormal	29.0955	29.8058
95th Percentile - Nonparametric	48.7000	70.4000
95th Percentile - Normal	41.1201	47.3532
95th Percentile - Lognormal	49.1058	45.8454
Upper Tolerance Limit - Normal	47.8129	62.6432
Upper Tolerance Limit - Lognormal	67.9898	79.4529

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9828	0.8286
Corr Coeff - Detected - Lognormal	0.9740	0.9659
Corr Coeff - Total - Normal	0.9828	0.8286
Corr Coeff - Total - Lognormal	0.9740	0.9659
Corr Coeff - Crit Val - Detected	0.9600	0.9340
Corr Coeff - Crit Val - Total	0.9600	0.9340
W-Test - Table Value	0.9230	0.8740
W-Test - Normal	0.9581	0.7136
W-Test - Lognormal	0.9380	0.9428
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DIETHYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	2.0000	
Average	86.9991	
Detection Limit - Minimum	9.9750	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	52.0000	
Positive Hits - Maximum	57.0000	
Average Of Positive Hits	54.5000	
Standard Deviation	19.5072	
Upper Confidence Limit - Normal	93.4037	
Upper Confidence Limit - Lognormal	107.4422	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	119.0885	
95th Percentile - Lognormal	171.8372	
Upper Tolerance Limit - Normal	131.1479	
Upper Tolerance Limit - Lognormal	226.8603	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8056	
Corr Coeff - Total - Lognormal	0.6381	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.6796	NA
W-Test - Lognormal	0.4448	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : N-NITROSODIPHENYLAMINE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	1.0000	
Average	90.2495	
Detection Limit - Minimum	9.2375	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	17.6255	
Upper Confidence Limit - Normal	96.0364	
Upper Confidence Limit - Lognormal	112.0484	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	119.2435	
95th Percentile - Lognormal	179.3689	
Upper Tolerance Limit - Normal	130.1397	
Upper Tolerance Limit - Lognormal	236.9827	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7222	
Corr Coeff - Total - Lognormal	0.5450	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.5640	NA
W-Test - Lognormal	0.3359	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	10.0000	
Average	151.3630	
Detection Limit - Minimum	14.3000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	41.0000	
Positive Hits - Maximum	1100.0000	
Average Of Positive Hits	260.2500	
Standard Deviation	206.8028	
Upper Confidence Limit - Normal	219.2604	
Upper Confidence Limit - Lognormal	191.1385	
95th Percentile - Nonparametric	1100.0000	
95th Percentile - Normal	491.5536	
95th Percentile - Lognormal	356.8141	
Upper Tolerance Limit - Normal	619.3991	
Upper Tolerance Limit - Lognormal	560.7445	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8058	
Corr Coeff - Detected - Lognormal	0.9190	
Corr Coeff - Total - Normal	0.6198	
Corr Coeff - Total - Lognormal	0.8498	
Corr Coeff - Crit Val - Detected	0.9170	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.4208	NA
W-Test - Lognormal	0.7666	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	10.0000	
Average	154.8370	
Detection Limit - Minimum	16.1000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	1500.0000	
Average Of Positive Hits	264.7000	
Standard Deviation	280.6911	
Upper Confidence Limit - Normal	246.9935	
Upper Confidence Limit - Lognormal	190.2470	
95th Percentile - Nonparametric	1500.0000	
95th Percentile - Normal	616.5739	
95th Percentile - Lognormal	363.9072	
Upper Tolerance Limit - Normal	790.0971	
Upper Tolerance Limit - Lognormal	604.9914	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7630	
Corr Coeff - Detected - Lognormal	0.9207	
Corr Coeff - Total - Normal	0.5758	
Corr Coeff - Total - Lognormal	0.8699	
Corr Coeff - Crit Val - Detected	0.9170	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3684	NA
W-Test - Lognormal	0.7922	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	2.0000	
Average	91.3569	
Detection Limit - Minimum	13.1375	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	~~110.0000~~ 47	
Positive Hits - Maximum	~~116.0000~~ 110	
Average Of Positive Hits	~~113.0000~~ 78.5	
Standard Deviation	17.6672	
Upper Confidence Limit - Normal	97.1574	
Upper Confidence Limit - Lognormal	108.6417	
95th Percentile - Nonparametric	116.0000	
95th Percentile - Normal	120.4195	
95th Percentile - Lognormal	165.4975	
Upper Tolerance Limit - Normal	131.3414	
Upper Tolerance Limit - Lognormal	210.3632	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7696	
Corr Coeff - Total - Lognormal	0.5901	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.6357	NA
W-Test - Lognormal	0.3892	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : AMMONIA (mg/kg)

	Sample Results	Background Results
Count	1.0000	2.0000
Number of Detects	1.0000	2.0000
Average	23.1000	8.6500
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	23.1000	7.8000
Positive Hits - Maximum	23.1000 UCL	9.5000 UCL
Average Of Positive Hits	23.1000	8.6500
Standard Deviation	0.0000	1.2021
Upper Confidence Limit - Normal	**********	**********
Upper Confidence Limit - Lognormal	0.0000	11.5245
95th Percentile - Nonparametric	23.1000	9.5000
95th Percentile - Normal	23.1000	10.6274
95th Percentile - Lognormal	23.1000	10.8271
Upper Tolerance Limit - Normal	**********	**********
Upper Tolerance Limit - Lognormal	**********	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.0000	0.0000
Corr Coeff - Total - Lognormal	0.0000	1.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	**********
W-Test - Table Value	0.0000	0.0000
W-Test - Normal	**********	1.0000
W-Test - Lognormal	**********	1.0000
Type of Distribution	UNDEFINED ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

FAIL

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NITRATE/NITRITE (mg/kg)

	Sample Results	Background Results
Count	1.0000	No samples
Number of Detects	1.0000	
Average	3.0000	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	3.0000	
Average Of Positive Hits	3.0000	
Standard Deviation	0.0000	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	0.0000	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	3.0000	
95th Percentile - Lognormal	3.0000	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.0000	
Corr Coeff - Total - Lognormal	0.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	**********	NA
W-Test - Lognormal	**********	NA

Type of Distribution ..... UNDEFINED

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	10.0000	
Average	1310.0852	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	142.0000	
Positive Hits - Maximum	19200.0000	
Average Of Positive Hits	3522.1000	
Standard Deviation	3851.6413	
Upper Confidence Limit - Normal	2574.6555	
Upper Confidence Limit - Lognormal	17902.0285	
95th Percentile - Nonparametric	19200.0000	
95th Percentile - Normal	7646.0352	
95th Percentile - Lognormal	3754.2491	
Upper Tolerance Limit - Normal	10027.1199	
Upper Tolerance Limit - Lognormal	18512.4785	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7799	
Corr Coeff - Detected - Lognormal	0.9812	
Corr Coeff - Total - Normal	0.5990	
Corr Coeff - Total - Lognormal	0.8523	
Corr Coeff - Crit Val - Detected	0.9170	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3916	NA
W-Test - Lognormal	0.7139	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	8.0000	
Average	755.9935	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	11.6750	
Positive Hits - Minimum	186.0000	
Positive Hits - Maximum	11000.0000	
Average Of Positive Hits	2523.7500	
Standard Deviation	2177.5844	
Upper Confidence Limit - Normal	1470.9377	
Upper Confidence Limit - Lognormal	4665.0291	
95th Percentile - Nonparametric	11000.0000	
95th Percentile - Normal	4338.1198	
95th Percentile - Lognormal	2020.6920	
Upper Tolerance Limit - Normal	5684.3024	
Upper Tolerance Limit - Lognormal	8293.5369	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7903	
Corr Coeff - Detected - Lognormal	0.9838	
Corr Coeff - Total - Normal	0.5989	
Corr Coeff - Total - Lognormal	0.8068	
Corr Coeff - Crit Val - Detected	0.9050	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3922	NA
W-Test - Lognormal	0.6431	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : HMX (μg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	5.0000	
Average	220.2130	
Detection Limit - Minimum	17.6250	
Detection Limits - Maximum	17.6250	
Positive Hits - Minimum	511.0000	
Positive Hits - Maximum	2965.0000	
Average Of Positive Hits	1111.6000	
Standard Deviation	595.2498	
Upper Confidence Limit - Normal	415.6453	
Upper Confidence Limit - Lognormal	339.2444	
95th Percentile - Nonparametric	2965.0000	
95th Percentile - Normal	1199.3989	
95th Percentile - Lognormal	478.3179	
Upper Tolerance Limit - Normal	1567.3823	
Upper Tolerance Limit - Lognormal	1260.7775	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7882	
Corr Coeff - Detected - Lognormal	0.8603	
Corr Coeff - Total - Normal	0.6015	
Corr Coeff - Total - Lognormal	0.7089	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.3941	NA
W-Test - Lognormal	0.5068	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : RDX (μg/kg)

	Sample Results	Background Results
Count	27.0000	No samples
Number of Detects	6.0000	
Average	691.3046	
Detection Limit - Minimum	12.7250	
Detection Limits - Maximum	12.7250	
Positive Hits - Minimum	162.0000	
Positive Hits - Maximum	7995.0000	
Average Of Positive Hits	3066.3333	
Standard Deviation	1893.2056	
Upper Confidence Limit - Normal	1312.8816	
Upper Confidence Limit - Lognormal	1929.9545	
95th Percentile - Nonparametric	7995.0000	
95th Percentile - Normal	3805.6278	
95th Percentile - Lognormal	1179.3695	
Upper Tolerance Limit - Normal	4976.0076	
Upper Tolerance Limit - Lognormal	4363.4841	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9557	
Corr Coeff - Detected - Lognormal	0.9711	
Corr Coeff - Total - Normal	0.6340	
Corr Coeff - Total - Lognormal	0.7428	
Corr Coeff - Crit Val - Detected	0.8900	
Corr Coeff - Crit Val - Total	0.9600	
W-Test - Table Value	0.9230	NA
W-Test - Normal	0.4239	NA
W-Test - Lognormal	0.5503	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6B_RES
Media : Indian Head Range 6 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	1.0000	12.0000
Number of Detects	1.0000	11.0000
Average	2540.0000	1364.4375
Detection Limit - Minimum	NA	43.7500
Detection Limits - Maximum	NA	43.7500
Positive Hits - Minimum	2540.0000	261.0000
Positive Hits - Maximum	2540.0000	3880.0000
Average Of Positive Hits	2540.0000	1484.5000
Standard Deviation	0.0000	1052.0345
Upper Confidence Limit - Normal	**********	1909.8759
Upper Confidence Limit - Lognormal	0.0000	6028.2616
95th Percentile - Nonparametric	2540.0000	3880.0000
95th Percentile - Normal	2540.0000	3095.0343
95th Percentile - Lognormal	2540.0000	6422.7348
Upper Tolerance Limit - Normal	**********	4242.8040
Upper Tolerance Limit - Lognormal	**********	23757.9890

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9552
Corr Coeff - Detected - Lognormal	**********	0.9617
Corr Coeff - Total - Normal	0.0000	0.9521
Corr Coeff - Total - Lognormal	0.0000	0.9214
Corr Coeff - Crit Val - Detected	0.8790	0.9220
Corr Coeff - Crit Val - Total	0.8790	0.9260
W-Test - Table Value	0.0000	0.8590
W-Test - Normal	**********	0.9178
W-Test - Lognormal	**********	0.8680
Type of Distribution	UNDEFINED	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ALUMINUM (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	24.0000
Average	6107.5000	10753.7500
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6085.0000	2010.0000
Positive Hits - Maximum	6130.0000	25300.0000
Average Of Positive Hits	6107.5000	10753.7500
Standard Deviation	31.8198	6573.1250
Upper Confidence Limit - Normal	**********	13053.4813
Upper Confidence Limit - Lognormal	6171.2911	15274.2453
95th Percentile - Nonparametric	6130.0000	25300.0000
95th Percentile - Normal	6159.8436	21566.5406
95th Percentile - Lognormal	6160.0270	27531.0182
Upper Tolerance Limit - Normal	**********	25931.0956
Upper Tolerance Limit - Lognormal	**********	43699.6896

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9653
Corr Coeff - Detected - Lognormal	1.0000	0.9803
Corr Coeff - Total - Normal	1.0000	0.9653
Corr Coeff - Total - Lognormal	0.0000	0.9803
Corr Coeff - Crit Val - Detected	0.8790	0.9570
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.9278
W-Test - Lognormal	1.0000	0.9561
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	45.0000	27.0000
Number of Detects	40.0000	3.0000
Average	0.4632	0.3488
Detection Limit - Minimum	0.0475	0.0850
Detection Limits - Maximum	0.1450	0.5000
Positive Hits - Minimum	0.2000	0.6800
Positive Hits - Maximum	2.0000 UCL	1.8000 UTL
Average Of Positive Hits	0.5104	1.3933
Standard Deviation	0.3704	0.4251
Upper Confidence Limit - Normal	0.5560	0.4884
Upper Confidence Limit - Lognormal	0.5987	0.4564
95th Percentile - Nonparametric	1.9000	1.8000
95th Percentile - Normal	1.0724	1.0481
95th Percentile - Lognormal	1.2128	0.8644
Upper Tolerance Limit - Normal	1.2380	1.3109
Upper Tolerance Limit - Lognormal	1.6807	1.3993

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7244	0.8348
Corr Coeff - Detected - Lognormal	0.9066	0.8188
Corr Coeff - Total - Normal	0.8040	0.7348
Corr Coeff - Total - Lognormal	0.9266	0.9469
Corr Coeff - Crit Val - Detected	0.9720	**********
Corr Coeff - Crit Val - Total	0.9740	0.9600
W-Test - Table Value	0.9450	0.9230
W-Test - Normal	0.6909	0.5554
W-Test - Lognormal	0.9189	0.8948
Type of Distribution	UNDEFINED	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	27.0000
Average	2.9259	3.3546
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.1400	0.7800
Positive Hits - Maximum	7.8000	10.4000
Average Of Positive Hits	2.9259	3.4437
Standard Deviation	1.1735	2.6362
Upper Confidence Limit - Normal	3.2167	4.2031
Upper Confidence Limit - Lognormal	3.2533 UCL	4.3476
95th Percentile - Nonparametric	5.3000	10.4000
95th Percentile - Normal	4.8563	7.6913
95th Percentile - Lognormal	5.1228	7.9572
Upper Tolerance Limit - Normal	5.3745	9.2830
Upper Tolerance Limit - Lognormal	6.0695	11.8849 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9324	0.8536
Corr Coeff - Detected - Lognormal	0.9820	0.9660
Corr Coeff - Total - Normal	0.9324	0.8570
Corr Coeff - Total - Lognormal	0.9820	0.9681
Corr Coeff - Crit Val - Detected	0.9740	0.9600
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.8917	0.7344
W-Test - Lognormal	0.9702	0.9321
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	34.5957	38.2393
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.6000	9.1000
Positive Hits - Maximum	110.0000	101.0000
Average Of Positive Hits	34.5957	38.2393
Standard Deviation	19.2890	22.9090
Upper Confidence Limit - Normal	39.3757	45.6122
Upper Confidence Limit - Lognormal	40.4541	49.9276
95th Percentile - Nonparametric	84.0000	101.0000
95th Percentile - Normal	66.3261	75.9245
95th Percentile - Lognormal	72.0057	89.7130
Upper Tolerance Limit - Normal	74.8441	89.7569
Upper Tolerance Limit - Lognormal	90.7947	130.9347

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9001	0.9554
Corr Coeff - Detected - Lognormal	0.9598	0.9873
Corr Coeff - Total - Normal	0.9001	0.9554
Corr Coeff - Total - Lognormal	0.9598	0.9873
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.8292	0.9108
W-Test - Lognormal	0.9362	0.9660
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	41.0000	24.0000
Average	0.3603	0.3655
Detection Limit - Minimum	0.0350	0.0500
Detection Limits - Maximum	0.0425	0.0900
Positive Hits - Minimum	0.2200	0.0500
Positive Hits - Maximum	0.9800 UCL	1.1000 UTL
Average Of Positive Hits	0.3995	0.4146
Standard Deviation	0.1950	0.2488
Upper Confidence Limit - Normal	0.4086	0.4456
Upper Confidence Limit - Lognormal	0.5117	0.5771
95th Percentile - Nonparametric	0.8400	1.1000
95th Percentile - Normal	0.6811	0.7748
95th Percentile - Lognormal	1.0700	1.1206
Upper Tolerance Limit - Normal	0.7672	0.9250
Upper Tolerance Limit - Lognormal	1.5173	1.8799

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8898	0.9628
Corr Coeff - Detected - Lognormal	0.9550	0.9522
Corr Coeff - Total - Normal	0.9565	0.9589
Corr Coeff - Total - Lognormal	0.8790	0.9650
Corr Coeff - Crit Val - Detected	0.9730	0.9570
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.9201	0.9210
W-Test - Lognormal	0.7733	0.9197

Type of Distribution ..... UNDEFINED ✓ ~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	44.0000	11.0000
Average	0.6588	0.1661
Detection Limit - Minimum	0.0350	0.0550
Detection Limits - Maximum	0.0925	0.2950
Positive Hits - Minimum	0.1300	0.1500
Positive Hits - Maximum	2.1000	0.2700 UPL
Average Of Positive Hits	0.6858	0.2236
Standard Deviation	0.4937	0.0873
Upper Confidence Limit - Normal	0.7811	0.1942
Upper Confidence Limit - Lognormal	0.9413 UCL	0.2165
95th Percentile - Nonparametric	1.7000	0.2950
95th Percentile - Normal	1.4708	0.3096
95th Percentile - Lognormal	2.0344	0.3865
Upper Tolerance Limit - Normal	1.6888	0.3623
Upper Tolerance Limit - Lognormal	3.0030	0.5597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9608	0.8762
Corr Coeff - Detected - Lognormal	0.9776	0.8461
Corr Coeff - Total - Normal	0.9515	0.9421
Corr Coeff - Total - Lognormal	0.9789	0.9338
Corr Coeff - Crit Val - Detected	0.9740	0.9220
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.8976	0.8601
W-Test - Lognormal	0.9566	0.8453
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CALCIUM (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	1.0000	4.0000
Average	73.3688	81.1250
Detection Limit - Minimum	20.7375	24.8000
Detection Limits - Maximum	20.7375	137.5000
Positive Hits - Minimum	126.0000	50.7000
Positive Hits - Maximum	126.0000 UCL	409.0000 UCL
Average Of Positive Hits	126.0000	178.1750
Standard Deviation	74.4318	76.3983
Upper Confidence Limit - Normal	**********	107.8544
Upper Confidence Limit - Lognormal	285054739.3351	99.2478
95th Percentile - Nonparametric	126.0000	409.0000
95th Percentile - Normal	195.8091	206.8003
95th Percentile - Lognormal	416.9233	169.5543
Upper Tolerance Limit - Normal	**********	257.5288
Upper Tolerance Limit - Lognormal	**********	248.2367

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8513
Corr Coeff - Detected - Lognormal	**********	0.9603
Corr Coeff - Total - Normal	0.0000	0.7173
Corr Coeff - Total - Lognormal	0.0000	0.9264
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.5463
W-Test - Lognormal	1.0000	0.8842
Type of Distribution	UNDEFINED ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	12.5620	16.9214
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.7000	3.5000
Positive Hits - Maximum	21.6000	44.7000
Average Of Positive Hits	12.5620	16.9214
Standard Deviation	4.7702	11.1359
Upper Confidence Limit - Normal	13.7441	20.5054
Upper Confidence Limit - Lognormal	14.2383	21.5942
95th Percentile - Nonparametric	21.1000	44.7000
95th Percentile - Normal	20.4090	35.2400
95th Percentile - Lognormal	23.2655	38.5060
Upper Tolerance Limit - Normal	22.5155	41.9639
Upper Tolerance Limit - Lognormal	28.0523	55.6988

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9901	0.9146
Corr Coeff - Detected - Lognormal	0.9786	0.9847
Corr Coeff - Total - Normal	0.9901	0.9146
Corr Coeff - Total - Lognormal	0.9786	0.9847
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.9563	0.8321
W-Test - Lognormal	0.9363	0.9682
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	5.1280	8.7152
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.8900	0.5800
Positive Hits - Maximum	10.8000	133.0000 UPL
Average Of Positive Hits	5.1280	8.7152
Standard Deviation	1.9724	24.6385
Upper Confidence Limit - Normal	5.6168 UCL	16.6448
Upper Confidence Limit - Lognormal	5.8191	10.5836
95th Percentile - Nonparametric	10.4000	133.0000
95th Percentile - Normal	8.3726	49.2456
95th Percentile - Lognormal	9.4839	20.3893
Upper Tolerance Limit - Normal	9.2436	64.1223
Upper Tolerance Limit - Lognormal	11.4207	39.5276

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9687	0.5142
Corr Coeff - Detected - Lognormal	0.9495	0.9453
Corr Coeff - Total - Normal	0.9687	0.5142
Corr Coeff - Total - Lognormal	0.9495	0.9453
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.9454	0.3010
W-Test - Lognormal	0.9270	0.9120
Type of Distribution	NORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	41.0000	24.0000
Average	32.9633	6.2214
Detection Limit - Minimum	0.7500	0.7500
Detection Limits - Maximum	1.9500	2.3000
Positive Hits - Minimum	4.9000	1.8000
Positive Hits - Maximum	217.0000	22.7000
Average Of Positive Hits	36.8402	6.9438
Standard Deviation	38.1133	5.1362
Upper Confidence Limit - Normal	42.4083	7.8745
Upper Confidence Limit - Lognormal	72.2054	8.6985
95th Percentile - Nonparametric	83.6000	22.7000
95th Percentile - Normal	95.6597	14.6706
95th Percentile - Lognormal	153.6022	16.5253
Upper Tolerance Limit - Normal	112.4906	17.7718
Upper Tolerance Limit - Lognormal	279.6513	26.1939

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8394	0.8992
Corr Coeff - Detected - Lognormal	0.9727	0.9877
Corr Coeff - Total - Normal	0.8419	0.8916
Corr Coeff - Total - Lognormal	0.9722	0.9882
Corr Coeff - Crit Val - Detected	0.9730	0.9570
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.7354	0.8038
W-Test - Lognormal	0.9355	0.9810
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : IRON (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	24.0000
Average	13625.0000	17240.8333
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12900.0000	2770.0000
Positive Hits - Maximum	14350.0000	61100.0000
Average Of Positive Hits	13625.0000	17240.8333
Standard Deviation	1025.3048	14808.3457
Upper Confidence Limit - Normal	**********	22421.8113
Upper Confidence Limit - Lognormal	15743.1670	24662.1187
95th Percentile - Nonparametric	14350.0000	61100.0000
95th Percentile - Normal	15311.6264	41600.5621
95th Percentile - Lognormal	15400.4196	45326.2240
Upper Tolerance Limit - Normal	**********	51433.3037
Upper Tolerance Limit - Lognormal	**********	75236.9859

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.8859
Corr Coeff - Detected - Lognormal	1.0000	0.9908
Corr Coeff - Total - Normal	1.0000	0.8859
Corr Coeff - Total - Lognormal	1.0000	0.9908
Corr Coeff - Crit Val - Detected	0.8790	0.9570
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.7875
W-Test - Lognormal	1.0000	0.9818
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		46.0000	28.0000
Number of Detects		46.0000	23.0000
Average		25.8163	13.1304
Detection Limit - Minimum	NA		2.6500
Detection Limits - Maximum	NA		14.4000
Positive Hits - Minimum		1.7000	3.1000
Positive Hits - Maximum		181.0000	149.0000 UTL
Average Of Positive Hits		25.8163	14.5457
Standard Deviation		33.3910	27.0633
Upper Confidence Limit - Normal		34.0910	21.8403
Upper Confidence Limit - Lognormal		39.3875 UCL	14.7332
95th Percentile - Nonparametric		111.0000	149.0000
95th Percentile - Normal		80.7445	57.6495
95th Percentile - Lognormal		87.9132	28.1071
Upper Tolerance Limit - Normal		95.4900	73.9903
Upper Tolerance Limit - Lognormal		143.1705	44.9330

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7992	0.5641
Corr Coeff - Detected - Lognormal	0.9902	0.8944
Corr Coeff - Total - Normal	0.7992	0.5386
Corr Coeff - Total - Lognormal	0.9902	0.9017
Corr Coeff - Crit Val - Detected	0.9740	0.9550
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.6634	0.3276
W-Test - Lognormal	0.9698	0.8391
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : MAGNESIUM (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	24.0000
Average	339.5000	729.5000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	302.0000	143.0000
Positive Hits - Maximum	377.0000	1990.0000
Average Of Positive Hits	339.5000	729.5000
Standard Deviation	53.0330	436.7953
Upper Confidence Limit - Normal	**********	882.3211
Upper Confidence Limit - Lognormal	474.2771	988.1329
95th Percentile - Nonparametric	377.0000	1990.0000
95th Percentile - Normal	426.7393	1448.0283
95th Percentile - Lognormal	436.7465	1740.5610
Upper Tolerance Limit - Normal	**********	1738.0605
Upper Tolerance Limit - Lognormal	**********	2657.4153

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9548
Corr Coeff - Detected - Lognormal	1.0000	0.9882
Corr Coeff - Total - Normal	0.0000	0.9548
Corr Coeff - Total - Lognormal	1.0000	0.9882
Corr Coeff - Crit Val - Detected	0.8790	0.9570
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.9167
W-Test - Lognormal	1.0000	0.9782
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : MANGANESE (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	24.0000
Average	91.8250	176.8250
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	86.2500	18.4000
Positive Hits - Maximum	97.4000 UCL	1270.0000
Average Of Positive Hits	91.8250	176.8250
Standard Deviation	7.8842	294.8528
Upper Confidence Limit - Normal	**********	279.9848
Upper Confidence Limit - Lognormal	108.1819	297.8388
95th Percentile - Nonparametric	97.4000	1270.0000
95th Percentile - Normal	104.7946	661.8579
95th Percentile - Lognormal	105.5785	536.3782
Upper Tolerance Limit - Normal	**********	857.6402
Upper Tolerance Limit - Lognormal	**********	1126.8368 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.7272
Corr Coeff - Detected - Lognormal	1.0000	0.9684
Corr Coeff - Total - Normal	1.0000	0.7272
Corr Coeff - Total - Lognormal	0.0000	0.9684
Corr Coeff - Crit Val - Detected	0.8790	0.9570
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.5426
W-Test - Lognormal	1.0000	0.9330
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	41.0000	23.0000
Average	0.1777	0.0352
Detection Limit - Minimum	0.0025	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0100	0.0100
Positive Hits - Maximum	1.6000	0.0800
Average Of Positive Hits	0.1988	0.0370
Standard Deviation	0.2973	0.0180
Upper Confidence Limit - Normal	0.2513	0.0410
Upper Confidence Limit - Lognormal	0.4300	0.0450
95th Percentile - Nonparametric	0.8400	0.0800
95th Percentile - Normal	0.6667	0.0648
95th Percentile - Lognormal	0.8098	0.0787
Upper Tolerance Limit - Normal	0.7980	0.0757
Upper Tolerance Limit - Lognormal	1.6301	0.1114

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7412	0.9647
Corr Coeff - Detected - Lognormal	0.9721	0.9614
Corr Coeff - Total - Normal	0.7648	0.9548
Corr Coeff - Total - Lognormal	0.9907	0.9506
Corr Coeff - Crit Val - Detected	0.9730	0.9550
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.6111	0.9072
W-Test - Lognormal	0.9679	0.8941
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	6.5935	5.6357
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.2000	1.7000
Positive Hits - Maximum	20.9000	18.2000
Average Of Positive Hits	6.5935	5.6357
Standard Deviation	2.9699	3.4333
Upper Confidence Limit - Normal	7.3295	6.7407
Upper Confidence Limit - Lognormal	7.5653	6.9635
95th Percentile - Nonparametric	10.5000	18.2000
95th Percentile - Normal	11.4790	11.2835
95th Percentile - Lognormal	12.6975	11.9795
Upper Tolerance Limit - Normal	12.7905	13.3565
Upper Tolerance Limit - Lognormal	15.5153	16.6913

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8857	0.9034
Corr Coeff - Detected - Lognormal	0.9331	0.9894
Corr Coeff - Total - Normal	0.8857	0.9034
Corr Coeff - Total - Lognormal	0.9331	0.9894
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.8265	0.8342
W-Test - Lognormal	0.9046	0.9800
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : POTASSIUM (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	24.0000
Average	295.5000	725.9167
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	284.0000	128.0000
Positive Hits - Maximum	307.0000 UCL	2845.0000
Average Of Positive Hits	295.5000	725.9167
Standard Deviation	16.2635	618.8917
Upper Confidence Limit - Normal	**********	942.4476
Upper Confidence Limit - Lognormal	328.8211	1013.0528
95th Percentile - Nonparametric	307.0000	2845.0000
95th Percentile - Normal	322.2534	1743.9935
95th Percentile - Lognormal	323.2716	1845.7889
Upper Tolerance Limit - Normal	**********	2154.9376
Upper Tolerance Limit - Lognormal	**********	2997.4360 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.8717
Corr Coeff - Detected - Lognormal	1.0000	0.9910
Corr Coeff - Total - Normal	1.0000	0.8717
Corr Coeff - Total - Lognormal	1.0000	0.9910
Corr Coeff - Crit Val - Detected	0.8790	0.9570
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.7684
W-Test - Lognormal	1.0000	0.9827
Type of Distribution	UNDEFINED ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	45.0000	21.0000
Average	0.7914	0.6536
Detection Limit - Minimum	0.0413	0.0750
Detection Limits - Maximum	0.0413	0.2700
Positive Hits - Minimum	0.1700	0.1700
Positive Hits - Maximum	1.7000	2.6000
Average Of Positive Hits	0.8081	0.8160
Standard Deviation	0.3372	0.6239
Upper Confidence Limit - Normal	0.8750	0.8544
Upper Confidence Limit - Lognormal	1.0112	1.0383
95th Percentile - Nonparametric	1.6000	2.6000
95th Percentile - Normal	1.3462	1.6799
95th Percentile - Lognormal	1.9295	2.0301
Upper Tolerance Limit - Normal	1.4951	2.0566
Upper Tolerance Limit - Lognormal	2.5393	3.5352

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9606	0.8812
Corr Coeff - Detected - Lognormal	0.9194	0.9673
Corr Coeff - Total - Normal	0.9891	0.8571
Corr Coeff - Total - Lognormal	0.8859	0.9771
Corr Coeff - Crit Val - Detected	0.9740	0.9520
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.9819	0.7420
W-Test - Lognormal	0.8156	0.9479
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	2.0000	2.0000
Average	0.0510	0.0673
Detection Limit - Minimum	0.0100	0.0300
Detection Limits - Maximum	0.1675	0.0750
Positive Hits - Minimum	0.2200	0.0625
Positive Hits - Maximum	0.2450 UCL	0.6300 UTL
Average Of Positive Hits	0.2325	0.3463
Standard Deviation	0.0575	0.1112
Upper Confidence Limit - Normal	0.0652	0.1031
Upper Confidence Limit - Lognormal	0.0661	0.0726
95th Percentile - Nonparametric	0.2200	0.6300
95th Percentile - Normal	0.1456	0.2503
95th Percentile - Lognormal	0.1445	0.1276
Upper Tolerance Limit - Normal	0.1710	0.3174
Upper Tolerance Limit - Lognormal	0.2172	0.1816

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.8361	0.5097
Corr Coeff - Total - Lognormal	0.9261	0.7946
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.7005	0.2966
W-Test - Lognormal	0.8394	0.6626
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... FAIL

Pass

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	1.0000	2.0000
Average	0.1046	0.3377
Detection Limit - Minimum	0.0400	0.1100
Detection Limits - Maximum	0.4250	1.1000
Positive Hits - Minimum	0.2400	0.5300
Positive Hits - Maximum	0.2400	3.1000
Average Of Positive Hits	0.2400	1.8150
Standard Deviation	0.0754	0.5839
Upper Confidence Limit - Normal	0.1233	0.5256
Upper Confidence Limit - Lognormal	0.1208	0.3963
95th Percentile - Nonparametric	0.2500	3.1000
95th Percentile - Normal	0.2287	1.2983
95th Percentile - Lognormal	0.2217	0.7586
Upper Tolerance Limit - Normal	0.2620	1.6508
Upper Tolerance Limit - Lognormal	0.2847	1.2220

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.8533	0.6149
Corr Coeff - Total - Lognormal	0.9480	0.8531
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.7449	0.4124
W-Test - Lognormal	0.8911	0.7385
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : TIN (mg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	0.8609	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	1.1250	
Positive Hits - Minimum	5.4000	
Positive Hits - Maximum	6.1000	
Average Of Positive Hits	5.7500	
Standard Deviation	1.0752	
Upper Confidence Limit - Normal	1.1273	
Upper Confidence Limit - Lognormal	0.9241	
95th Percentile - Nonparametric	5.4000	
95th Percentile - Normal	2.6295	
95th Percentile - Lognormal	1.6970	
Upper Tolerance Limit - Normal	3.1043	
Upper Tolerance Limit - Lognormal	2.1793	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.5960	
Corr Coeff - Total - Lognormal	0.8683	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3861	NA
W-Test - Lognormal	0.7719	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	18.5902	25.0375
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.7000	9.8000
Positive Hits - Maximum	31.1000	61.4000
Average Of Positive Hits	18.5902	25.0375
Standard Deviation	6.4099	14.7958
Upper Confidence Limit - Normal	20.1787	29.7993
Upper Confidence Limit - Lognormal	21.2530	31.1373
95th Percentile - Nonparametric	28.7000	61.4000
95th Percentile - Normal	29.1345	49.3766
95th Percentile - Lognormal	34.8713	53.9656
Upper Tolerance Limit - Normal	31.9651	58.3103
Upper Tolerance Limit - Lognormal	42.1307	75.7429

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9938	0.9376
Corr Coeff - Detected - Lognormal	0.9439	0.9798
Corr Coeff - Total - Normal	0.9938	0.9376
Corr Coeff - Total - Lognormal	0.9439	0.9798
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.9777	0.8679
W-Test - Lognormal	0.8990	0.9395
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	46.0000	28.0000
Number of Detects	46.0000	28.0000
Average	39.5663	19.7411
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.1000	6.2000
Positive Hits - Maximum	446.0000	70.4000
Average Of Positive Hits	39.5663	19.7411
Standard Deviation	65.8427	12.2870
Upper Confidence Limit - Normal	55.8830	23.6955
Upper Confidence Limit - Lognormal	43.7248	24.0318
95th Percentile - Nonparametric	165.0000	70.4000
95th Percentile - Normal	147.8776	39.9532
95th Percentile - Lognormal	88.5188	40.7019
Upper Tolerance Limit - Normal	176.9537	47.3721
Upper Tolerance Limit - Lognormal	121.8025	55.8789

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5715	0.8549
Corr Coeff - Detected - Lognormal	0.9394	0.9802
Corr Coeff - Total - Normal	0.5715	0.8549
Corr Coeff - Total - Lognormal	0.9394	0.9802
Corr Coeff - Crit Val - Detected	0.9740	0.9620
Corr Coeff - Crit Val - Total	0.9740	0.9620
W-Test - Table Value	0.9450	0.9240
W-Test - Normal	0.3725	0.7597
W-Test - Lognormal	0.9056	0.9695
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : 1,1,1-TRICHLOROETHANE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	1.4070	
Detection Limit - Minimum	0.0475	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.8963	
Upper Confidence Limit - Normal	1.6291	
Upper Confidence Limit - Lognormal	1.9871	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	2.8813	
95th Percentile - Lognormal	4.0682	
Upper Tolerance Limit - Normal	3.2771	
Upper Tolerance Limit - Lognormal	5.6532	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5653	
Corr Coeff - Total - Lognormal	0.6247	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3783	NA
W-Test - Lognormal	0.4381	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : 4-METHYL-2-PENTANONE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	1.4630	
Detection Limit - Minimum	0.4250	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.5000	
Positive Hits - Maximum	1.5000	
Average Of Positive Hits	1.5000	
Standard Deviation	0.8561	
Upper Confidence Limit - Normal	1.6752	
Upper Confidence Limit - Lognormal	1.5627	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	2.8714	
95th Percentile - Lognormal	2.2948	
Upper Tolerance Limit - Normal	3.2495	
Upper Tolerance Limit - Lognormal	2.6362	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4957	
Corr Coeff - Total - Lognormal	0.6668	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.2999	NA
W-Test - Lognormal	0.5224	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	46.0000	6.0000
Number of Detects	8.0000	3.0000
Average	79.9875	2834.6083
Detection Limit - Minimum	2.5000	0.7000
Detection Limits - Maximum	41.2500	5.0000
Positive Hits - Minimum	26.0000	1800.0000
Positive Hits - Maximum	2700.0000	13000.0000
Average Of Positive Hits	408.7500	5666.6667
Standard Deviation	395.9562	5076.8101
Upper Confidence Limit - Normal	178.1106	7010.8954
Upper Confidence Limit - Lognormal	56.3629 UCL	6.3619540E+19
95th Percentile - Nonparametric	130.0000	13000.0000
95th Percentile - Normal	731.3354	11185.9609
95th Percentile - Lognormal	120.1965	92039.7902
Upper Tolerance Limit - Normal	906.1896	12698.8503
Upper Tolerance Limit - Lognormal	218.1873	327061.8421 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6438	0.9220
Corr Coeff - Detected - Lognormal	0.8363	0.9438
Corr Coeff - Total - Normal	0.3888	0.7911
Corr Coeff - Total - Lognormal	0.9313	0.9414
Corr Coeff - Crit Val - Detected	0.9050	**********
Corr Coeff - Crit Val - Total	0.9740	0.8900
W-Test - Table Value	0.9450	0.7880
W-Test - Normal	0.1914	0.6474
W-Test - Lognormal	0.8801	0.8572
Type of Distribution	Undefined ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	1.5712	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	8.0000	
Positive Hits - Maximum	8.0000	
Average Of Positive Hits	8.0000	
Standard Deviation	1.3047	
Upper Confidence Limit - Normal	1.8945	
Upper Confidence Limit - Lognormal	1.7422	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	3.7175	
95th Percentile - Lognormal	2.9835	
Upper Tolerance Limit - Normal	4.2937	
Upper Tolerance Limit - Lognormal	3.6836	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5603	
Corr Coeff - Total - Lognormal	0.7135	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3511	NA
W-Test - Lognormal	0.5577	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CHLOROFORM (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	1.5255	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	2.3000	
Positive Hits - Maximum	2.5000	
Average Of Positive Hits	2.4000	
Standard Deviation	0.8628	
Upper Confidence Limit - Normal	1.7394	
Upper Confidence Limit - Lognormal	1.6093	
95th Percentile - Nonparametric	2.5000	
95th Percentile - Normal	2.9449	
95th Percentile - Lognormal	2.2851	
Upper Tolerance Limit - Normal	3.3259	
Upper Tolerance Limit - Lognormal	2.5887	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.5238	
Corr Coeff - Total - Lognormal	0.6781	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3189	NA
W-Test - Lognormal	0.4987	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : ETHYLBENZENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	1.4212	
Detection Limit - Minimum	0.3750	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.8765	
Upper Confidence Limit - Normal	1.6384	
Upper Confidence Limit - Lognormal	1.5562	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	2.8631	
95th Percentile - Lognormal	2.4411	
Upper Tolerance Limit - Normal	3.2502	
Upper Tolerance Limit - Lognormal	2.8871	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5442	
Corr Coeff - Total - Lognormal	0.7322	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3515	NA
W-Test - Lognormal	0.5988	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (μg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	15.0000	
Average	14.4927	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	11.6375	
Positive Hits - Minimum	19.0000	
Positive Hits - Maximum	77.0000	
Average Of Positive Hits	39.3000	
Standard Deviation	20.0714	
Upper Confidence Limit - Normal	19.4666	
Upper Confidence Limit - Lognormal	33.6704	
95th Percentile - Nonparametric	71.5000	
95th Percentile - Normal	47.5101	
95th Percentile - Lognormal	63.8933	
Upper Tolerance Limit - Normal	56.3736	
Upper Tolerance Limit - Lognormal	127.9959	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9495	
Corr Coeff - Detected - Lognormal	0.9865	
Corr Coeff - Total - Normal	0.8512	
Corr Coeff - Total - Lognormal	0.9550	
Corr Coeff - Crit Val - Detected	0.9370	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.7199	NA
W-Test - Lognormal	0.8854	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : TETRACHLOROETHENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	1.4208	
Detection Limit - Minimum	0.2400	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.8822	
Upper Confidence Limit - Normal	1.6394	
Upper Confidence Limit - Lognormal	1.6111	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	2.8720	
95th Percentile - Lognormal	2.6889	
Upper Tolerance Limit - Normal	3.2616	
Upper Tolerance Limit - Lognormal	3.2764	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5453	
Corr Coeff - Total - Lognormal	0.6951	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3541	NA
W-Test - Lognormal	0.5433	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : TOLUENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	1.4321	
Detection Limit - Minimum	0.2013	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	0.3000	
Positive Hits - Maximum	0.3000	
Average Of Positive Hits	0.3000	
Standard Deviation	0.8795	
Upper Confidence Limit - Normal	1.6500	
Upper Confidence Limit - Lognormal	1.6239	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	2.8788	
95th Percentile - Lognormal	2.7051	
Upper Tolerance Limit - Normal	3.2672	
Upper Tolerance Limit - Lognormal	3.2928	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5381	
Corr Coeff - Total - Lognormal	0.6831	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3466	NA
W-Test - Lognormal	0.5325	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : TRICHLOROFLUOROMETHANE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	4.0000	
Average	1.4356	
Detection Limit - Minimum	0.0800	
Detection Limits - Maximum	7.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	1.5000	
Standard Deviation	0.9019	
Upper Confidence Limit - Normal	1.6591	
Upper Confidence Limit - Lognormal	1.8669	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	2.9192	
95th Percentile - Lognormal	3.6302	
Upper Tolerance Limit - Normal	3.3175	
Upper Tolerance Limit - Lognormal	4.8411	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.0000	
Corr Coeff - Detected - Lognormal	0.0000	
Corr Coeff - Total - Normal	0.6004	
Corr Coeff - Total - Lognormal	0.6742	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.4196	NA
W-Test - Lognormal	0.5050	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : 2,4-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	8.0000	
Average	269.0628	
Detection Limit - Minimum	6.2375	
Detection Limits - Maximum	129.0000	
Positive Hits - Minimum	74.0000	
Positive Hits - Maximum	5790.0000	
Average Of Positive Hits	1419.2500	
Standard Deviation	984.5545	
Upper Confidence Limit - Normal	513.0482	
Upper Confidence Limit - Lognormal	243.8712	
95th Percentile - Nonparametric	3530.0000	
95th Percentile - Normal	1888.6549	
95th Percentile - Lognormal	451.2036	
Upper Tolerance Limit - Normal	2323.4341	
Upper Tolerance Limit - Lognormal	918.1672	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8205	
Corr Coeff - Detected - Lognormal	0.9629	
Corr Coeff - Total - Normal	0.5090	
Corr Coeff - Total - Lognormal	0.8178	
Corr Coeff - Crit Val - Detected	0.9050	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.2953	NA
W-Test - Lognormal	0.6742	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	88.2367	
Detection Limit - Minimum	3.3000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	44.0000	
Positive Hits - Maximum	97.0000	
Average Of Positive Hits	70.5000	
Standard Deviation	24.2989	
Upper Confidence Limit - Normal	94.2583	
Upper Confidence Limit - Lognormal	124.5934	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	128.2083	
95th Percentile - Lognormal	249.3328	
Upper Tolerance Limit - Normal	138.9387	
Upper Tolerance Limit - Lognormal	339.7988	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7542	
Corr Coeff - Total - Lognormal	0.5791	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6253	NA
W-Test - Lognormal	0.3706	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	88.7505	
Detection Limit - Minimum	4.1250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	73.0000	
Positive Hits - Maximum	73.0000	
Average Of Positive Hits	73.0000	
Standard Deviation	23.3249	
Upper Confidence Limit - Normal	94.5308	
Upper Confidence Limit - Lognormal	120.3597	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	127.1200	
95th Percentile - Lognormal	233.8582	
Upper Tolerance Limit - Normal	137.4202	
Upper Tolerance Limit - Lognormal	311.6834	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7341	
Corr Coeff - Total - Lognormal	0.5639	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.5995	NA
W-Test - Lognormal	0.3543	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	92.8720	
Detection Limit - Minimum	12.2500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000	
Average Of Positive Hits	170.0000	
Standard Deviation	27.4872	
Upper Confidence Limit - Normal	99.6837	
Upper Confidence Limit - Lognormal	109.1512	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	138.0884	
95th Percentile - Lognormal	183.3360	
Upper Tolerance Limit - Normal	150.2267	
Upper Tolerance Limit - Lognormal	224.1075	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7812	
Corr Coeff - Total - Lognormal	0.6704	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6486	NA
W-Test - Lognormal	0.4871	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(G,H,I)PERYLENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	89.4092	
Detection Limit - Minimum	12.6000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	90.0000	
Average Of Positive Hits	90.0000	
Standard Deviation	21.8339	
Upper Confidence Limit - Normal	94.8200	
Upper Confidence Limit - Lognormal	103.9798	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	125.3260	
95th Percentile - Lognormal	170.1935	
Upper Tolerance Limit - Normal	134.9679	
Upper Tolerance Limit - Lognormal	205.3802	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.7261
Corr Coeff - Total - Lognormal	0.6093
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.9740

W-Test - Table Value	0.9450	NA
W-Test - Normal	0.5896	NA
W-Test - Lognormal	0.4132	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(K)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	89.7351	
Detection Limit - Minimum	10.1000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	22.4366	
Upper Confidence Limit - Normal	95.2951	
Upper Confidence Limit - Lognormal	107.1193	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	126.6433	
95th Percentile - Lognormal	182.4679	
Upper Tolerance Limit - Normal	136.5513	
Upper Tolerance Limit - Lognormal	224.6624	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7395	
Corr Coeff - Total - Lognormal	0.6035	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6079	NA
W-Test - Lognormal	0.4044	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	46.0000	6.0000
Number of Detects	11.0000	1.0000
Average	125.3870	211.6417
Detection Limit - Minimum	14.3000	36.4500
Detection Limits - Maximum	180.0000	195.0000
Positive Hits - Minimum	41.0000	640.0000
Positive Hits - Maximum	1100.0000 UCL	640.0000
Average Of Positive Hits	243.1364	640.0000
Standard Deviation	161.2343	222.0473
Upper Confidence Limit - Normal	165.3429	394.3023
Upper Confidence Limit - Lognormal	141.4492	2391.9141
95th Percentile - Nonparametric	490.0000	640.0000
95th Percentile - Normal	390.6174	576.9095
95th Percentile - Lognormal	270.7765	811.2748
Upper Tolerance Limit - Normal	461.8185	643.0795
Upper Tolerance Limit - Lognormal	357.1483	1124.9931 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8289	
Corr Coeff - Detected - Lognormal	0.9311	
Corr Coeff - Total - Normal	0.5597	0.8600
Corr Coeff - Total - Lognormal	0.8139	0.9414
Corr Coeff - Crit Val - Detected	0.9220	**********
Corr Coeff - Crit Val - Total	0.9740	0.8900
W-Test - Table Value	0.9450	0.7880
W-Test - Normal	0.3600	0.7604
W-Test - Lognormal	0.7132	0.8819
Type of Distribution	Undefined ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	3.0000	
Average	88.7345	
Detection Limit - Minimum	5.1250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	51.0000	
Positive Hits - Maximum	130.0000	
Average Of Positive Hits	84.6667	
Standard Deviation	24.6052	
Upper Confidence Limit - Normal	94.8320	
Upper Confidence Limit - Lognormal	116.4902	
95th Percentile - Nonparametric	130.0000	
95th Percentile - Normal	129.2101	
95th Percentile - Lognormal	221.0979	
Upper Tolerance Limit - Normal	140.0758	
Upper Tolerance Limit - Lognormal	289.9425	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.2478	
Corr Coeff - Detected - Lognormal	0.1336	
Corr Coeff - Total - Normal	0.7941	
Corr Coeff - Total - Lognormal	0.6138	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6845	NA
W-Test - Lognormal	0.4132	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	18.0000	
Average	338.1598	
Detection Limit - Minimum	16.1000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	6500.0000	
Average Of Positive Hits	724.8889	
Standard Deviation	1005.0912	
Upper Confidence Limit - Normal	587.2345	
Upper Confidence Limit - Lognormal	308.2773	
95th Percentile - Nonparametric	2200.0000	
95th Percentile - Normal	1991.5348	
95th Percentile - Lognormal	687.7332	
Upper Tolerance Limit - Normal	2435.3831	
Upper Tolerance Limit - Lognormal	1101.4167	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7198	
Corr Coeff - Detected - Lognormal	0.9686	
Corr Coeff - Total - Normal	0.5171	
Corr Coeff - Total - Lognormal	0.8471	
Corr Coeff - Crit Val - Detected	0.9450	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3097	NA
W-Test - Lognormal	0.7448	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	90.3459	
Detection Limit - Minimum	13.0250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	116.0000	
Average Of Positive Hits	113.0000	
Standard Deviation	22.3072	
Upper Confidence Limit - Normal	95.8739	
Upper Confidence Limit - Lognormal	104.8743	
95th Percentile - Nonparametric	116.0000	
95th Percentile - Normal	127.0413	
95th Percentile - Lognormal	171.2708	
Upper Tolerance Limit - Normal	136.8922	
Upper Tolerance Limit - Lognormal	206.4528	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7624	
Corr Coeff - Total - Lognormal	0.6328	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6410	NA
W-Test - Lognormal	0.4420	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : DIETHYL PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	87.7201	
Detection Limit - Minimum	9.9000	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	52.0000	
Positive Hits - Maximum	57.0000	
Average Of Positive Hits	54.5000	
Standard Deviation	23.3912	
Upper Confidence Limit - Normal	93.5168	
Upper Confidence Limit - Lognormal	105.1048	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	126.1987	
95th Percentile - Lognormal	180.6396	
Upper Tolerance Limit - Normal	136.5282	
Upper Tolerance Limit - Lognormal	223.4524	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7806	
Corr Coeff - Total - Lognormal	0.6490	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6657	NA
W-Test - Lognormal	0.4603	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	92.3049	
Detection Limit - Minimum	12.3250	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	220.0000	
Positive Hits - Maximum	220.0000	
Average Of Positive Hits	220.0000	
Standard Deviation	29.1446	
Upper Confidence Limit - Normal	99.5273	
Upper Confidence Limit - Lognormal	108.2067	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	140.2478	
95th Percentile - Lognormal	181.4145	
Upper Tolerance Limit - Normal	153.1180	
Upper Tolerance Limit - Lognormal	221.5510	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7298	
Corr Coeff - Total - Lognormal	0.6555	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.5873	NA
W-Test - Lognormal	0.4736	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : INDENO(1,2,3-CD)PYRENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	89.3514	
Detection Limit - Minimum	11.2750	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	90.0000	
Average Of Positive Hits	90.0000	
Standard Deviation	22.0426	
Upper Confidence Limit - Normal	94.8138	
Upper Confidence Limit - Lognormal	105.2160	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	125.6115	
95th Percentile - Lognormal	175.6345	
Upper Tolerance Limit - Normal	135.3455	
Upper Tolerance Limit - Lognormal	214.0215	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7247	
Corr Coeff - Total - Lognormal	0.6017	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.5873	NA
W-Test - Lognormal	0.4032	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : N-NITROSODIPHENYLAMINE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	3.0000	
Average	94.0139	
Detection Limit - Minimum	9.1500	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	90.0000	
Positive Hits - Maximum	380.0000	
Average Of Positive Hits	193.3333	
Standard Deviation	46.7086	
Upper Confidence Limit - Normal	105.5888	
Upper Confidence Limit - Lognormal	113.6069	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	170.8494	
95th Percentile - Lognormal	202.6281	
Upper Tolerance Limit - Normal	191.4759	
Upper Tolerance Limit - Lognormal	255.7999	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8952	
Corr Coeff - Detected - Lognormal	0.9231	
Corr Coeff - Total - Normal	0.5679	
Corr Coeff - Total - Lognormal	0.6246	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3837	NA
W-Test - Lognormal	0.4426	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : PHENANTHRENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	1.0000	
Average	90.2573	
Detection Limit - Minimum	10.2500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	130.0000	
Positive Hits - Maximum	130.0000	
Average Of Positive Hits	130.0000	
Standard Deviation	23.0089	
Upper Confidence Limit - Normal	95.9592	
Upper Confidence Limit - Lognormal	107.6884	
95th Percentile - Nonparametric	130.0000	
95th Percentile - Normal	128.1070	
95th Percentile - Lognormal	183.4752	
Upper Tolerance Limit - Normal	138.2677	
Upper Tolerance Limit - Lognormal	225.9269	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7573	
Corr Coeff - Total - Lognormal	0.6157	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.6318	NA
W-Test - Lognormal	0.4190	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	2.0000	
Average	94.1250	
Detection Limit - Minimum	22.6500	
Detection Limits - Maximum	180.0000	
Positive Hits - Minimum	63.0000	
Positive Hits - Maximum	310.0000	
Average Of Positive Hits	186.5000	
Standard Deviation	38.5607	
Upper Confidence Limit - Normal	103.6808	
Upper Confidence Limit - Lognormal	104.4413	
95th Percentile - Nonparametric	180.0000	
95th Percentile - Normal	157.5574	
95th Percentile - Lognormal	161.8009	
Upper Tolerance Limit - Normal	174.5858	
Upper Tolerance Limit - Lognormal	190.2815	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.6645	
Corr Coeff - Total - Lognormal	0.7348	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.4999	NA
W-Test - Lognormal	0.5947	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : AMMONIA (mg/kg)

	Sample Results	Background Results
Count	2.0000	4.0000
Number of Detects	2.0000	4.0000
Average	20.9750	22.2750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	18.8500	7.8000
Positive Hits - Maximum	23.1000	49.9000
Average Of Positive Hits	20.9750	22.2750
Standard Deviation	3.0052	19.4594
Upper Confidence Limit - Normal	**********	45.1690
Upper Confidence Limit - Lognormal	28.2710	1050.8067
95th Percentile - Nonparametric	23.1000	49.9000
95th Percentile - Normal	25.9186	54.2858
95th Percentile - Lognormal	26.4346	68.3216
Upper Tolerance Limit - Normal	**********	122.3937
Upper Tolerance Limit - Lognormal	**********	1339.8063

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9207
Corr Coeff - Detected - Lognormal	1.0000	0.9677
Corr Coeff - Total - Normal	1.0000	0.9207
Corr Coeff - Total - Lognormal	1.0000	0.9677
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.8680
W-Test - Table Value	0.0000	0.7480
W-Test - Normal	1.0000	0.8465
W-Test - Lognormal	1.0000	0.9237
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : NITRATE/NITRITE (mg/kg)

	Sample Results	Background Results
Count	2.0000	4.0000
Number of Detects	2.0000	1.0000
Average	3.2000	1.2125
Detection Limit - Minimum	NA	0.7500
Detection Limits - Maximum	NA	1.3000
Positive Hits - Minimum	3.0000	1.9000
Positive Hits - Maximum	3.4000	1.9000
Average Of Positive Hits	3.2000	1.9000
Standard Deviation	0.2828	0.5138
Upper Confidence Limit - Normal	**********	1.8169
Upper Confidence Limit - Lognormal	3.7874	3.2266
95th Percentile - Nonparametric	3.4000	1.9000
95th Percentile - Normal	3.6653	2.0576
95th Percentile - Lognormal	3.6943	2.2381
Upper Tolerance Limit - Normal	**********	3.8558
Upper Tolerance Limit - Lognormal	**********	9.4667

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.0000	0.9663
Corr Coeff - Total - Lognormal	0.0000	0.9861
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8680
W-Test - Table Value	0.0000	0.7480
W-Test - Normal	1.0000	0.9283
W-Test - Lognormal	1.0000	0.9632
Type of Distribution	UNDEFINED	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	23.0000	
Average	7059.0587	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	139.0000	
Positive Hits - Maximum	248000.0000 UCL	
Average Of Positive Hits	14109.2174	
Standard Deviation	36537.3721	
Upper Confidence Limit - Normal	16113.4970	
Upper Confidence Limit - Lognormal	58763.9498	
95th Percentile - Nonparametric	19200.0000	
95th Percentile - Normal	67163.0358	
95th Percentile - Lognormal	12774.0050	
Upper Tolerance Limit - Normal	83297.9394	
Upper Tolerance Limit - Lognormal	45735.0360	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5011	
Corr Coeff - Detected - Lognormal	0.9605	
Corr Coeff - Total - Normal	0.4023	
Corr Coeff - Total - Lognormal	0.9078	
Corr Coeff - Crit Val - Detected	0.9550	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.2026	NA
W-Test - Lognormal	0.8087	NA

Type of Distribution ..... ~~LOGNORMAL~~ UNDEFINED

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	19.0000	
Average	1141.3870	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	116.7500	
Positive Hits - Minimum	186.0000	
Positive Hits - Maximum	16000.0000	
Average Of Positive Hits	2741.2368	
Standard Deviation	3006.2982	
Upper Confidence Limit - Normal	1886.3869	
Upper Confidence Limit - Lognormal	7238.7707	
95th Percentile - Nonparametric	11000.0000	
95th Percentile - Normal	6086.7476	
95th Percentile - Lognormal	4507.0410	
Upper Tolerance Limit - Normal	7414.3289	
Upper Tolerance Limit - Lognormal	13148.5768	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7957	
Corr Coeff - Detected - Lognormal	0.9665	
Corr Coeff - Total - Normal	0.6372	
Corr Coeff - Total - Lognormal	0.8800	
Corr Coeff - Crit Val - Detected	0.9470	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.4357	NA
W-Test - Lognormal	0.7523	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : HMX (µg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	12.0000	
Average	1389.4728	
Detection Limit - Minimum	17.6250	
Detection Limits - Maximum	17.6250	
Positive Hits - Minimum	454.0000	
Positive Hits - Maximum	26700.0000	
Average Of Positive Hits	5276.3750	
Standard Deviation	4851.0026	
Upper Confidence Limit - Normal	2591.6147	
Upper Confidence Limit - Lognormal	2027.9795	
95th Percentile - Nonparametric	17600.0000	
95th Percentile - Normal	9369.3721	
95th Percentile - Lognormal	2006.0960	
Upper Tolerance Limit - Normal	11511.5749	
Upper Tolerance Limit - Lognormal	5195.2307	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7940	
Corr Coeff - Detected - Lognormal	0.8970	
Corr Coeff - Total - Normal	0.5445	
Corr Coeff - Total - Lognormal	0.7787	
Corr Coeff - Crit Val - Detected	0.9260	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.3290	NA
W-Test - Lognormal	0.6014	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : RDX (μg/kg)

	Sample Results	Background Results
Count	46.0000	No samples
Number of Detects	16.0000	
Average	11670.1685	
Detection Limit - Minimum	12.7250	
Detection Limits - Maximum	12.7250	
Positive Hits - Minimum	162.0000	
Positive Hits - Maximum	397000.0000	
Average Of Positive Hits	33527.8750	
Standard Deviation	60331.1840	
Upper Confidence Limit - Normal	26621.0243	
Upper Confidence Limit - Lognormal	21702.0162	
95th Percentile - Nonparametric	111000.0000	
95th Percentile - Normal	110914.9661	
95th Percentile - Lognormal	6764.5798	
Upper Tolerance Limit - Normal	137557.2169	
Upper Tolerance Limit - Lognormal	22728.6952	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5905	
Corr Coeff - Detected - Lognormal	0.9388	
Corr Coeff - Total - Normal	0.4154	
Corr Coeff - Total - Lognormal	0.8327	
Corr Coeff - Crit Val - Detected	0.9400	
Corr Coeff - Crit Val - Total	0.9740	
W-Test - Table Value	0.9450	NA
W-Test - Normal	0.2123	NA
W-Test - Lognormal	0.6896	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6O_RES
Media : Indian Head Range 6 Statistics
Group : All Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	2.0000	24.0000
Number of Detects	2.0000	23.0000
Average	2312.5000	3658.8854
Detection Limit - Minimum	NA	43.7500
Detection Limits - Maximum	NA	43.7500
Positive Hits - Minimum	2085.0000	261.0000
Positive Hits - Maximum	2540.0000	14000.0000
Average Of Positive Hits	2312.5000	3816.0652
Standard Deviation	321.7336	3677.5949
Upper Confidence Limit - Normal	**********	4945.5611
Upper Confidence Limit - Lognormal	3082.2810	10403.0079
95th Percentile - Nonparametric	2540.0000	14000.0000
95th Percentile - Normal	2841.7517	9708.5290
95th Percentile - Lognormal	2895.2595	17251.3364
Upper Tolerance Limit - Normal	**********	12150.4521
Upper Tolerance Limit - Lognormal	**********	40499.7691

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9147
Corr Coeff - Detected - Lognormal	1.0000	0.9832
Corr Coeff - Total - Normal	0.0000	0.8984
Corr Coeff - Total - Lognormal	1.0000	0.9560
Corr Coeff - Crit Val - Detected	0.8790	0.9550
Corr Coeff - Crit Val - Total	0.8790	0.9570
W-Test - Table Value	0.0000	0.9160
W-Test - Normal	1.0000	0.8027
W-Test - Lognormal	1.0000	0.9235
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ANTIMONY (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.8750	
Detection Limit - Minimum	0.5750	
Detection Limits - Maximum	0.5750	
Positive Hits - Minimum	1.7750	
Positive Hits - Maximum	1.7750	
Average Of Positive Hits	1.7750	
Standard Deviation	0.6000	
Upper Confidence Limit - Normal	1.5809	
Upper Confidence Limit - Lognormal	4.9250	
95th Percentile - Nonparametric	1.7750	
95th Percentile - Normal	1.8620	
95th Percentile - Lognormal	1.9261	
Upper Tolerance Limit - Normal	3.9620	
Upper Tolerance Limit - Lognormal	13.8474	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ARSENIC (mg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	3.0000
Average	5.0875	3.2525
Detection Limit - Minimum	0.4750	0.9500
Detection Limits - Maximum	0.4750	2.3000
Positive Hits - Minimum	3.0000	2.2000
Positive Hits - Maximum	16.4000	19.1000
Average Of Positive Hits	9.7000	8.1583
Standard Deviation	7.6350	5.6248
Upper Confidence Limit - Normal	14.0701	6.5129
Upper Confidence Limit - Lognormal	22465797.1323	7.2917
95th Percentile - Nonparametric	16.4000	19.1000
95th Percentile - Normal	17.6471	12.5053
95th Percentile - Lognormal	30.0165	8.4449
Upper Tolerance Limit - Normal	44.3697	19.6263
Upper Tolerance Limit - Lognormal	11604.9359	28.6338

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.8662
Corr Coeff - Detected - Lognormal	1.0000	0.9149
Corr Coeff - Total - Normal	0.8553	0.6618
Corr Coeff - Total - Lognormal	0.9393	0.8258
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7389	0.4720
W-Test - Lognormal	0.8656	0.6958
Type of Distribution	LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	110.1250	195.2400
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12.3000	12.9000
Positive Hits - Maximum	307.0000	688.0000
Average Of Positive Hits	110.1250	195.2400
Standard Deviation	133.2343	246.9751
Upper Confidence Limit - Normal	266.8752	338.3980
Upper Confidence Limit - Lognormal	1058753.1434	918.5620
95th Percentile - Nonparametric	307.0000	688.0000
95th Percentile - Normal	329.2955	601.5140
95th Percentile - Lognormal	529.7204	756.0337
Upper Tolerance Limit - Normal	795.6157	914.1844
Upper Tolerance Limit - Lognormal	52670.2939	3552.7445

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8722	0.8253
Corr Coeff - Detected - Lognormal	0.9684	0.9752
Corr Coeff - Total - Normal	0.8722	0.8253
Corr Coeff - Total - Lognormal	0.9684	0.9752
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7781	0.6808
W-Test - Lognormal	0.9582	0.9509
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BERYLLIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	2.0000
Average	0.2388	2.5025
Detection Limit - Minimum	0.0500	0.4500
Detection Limits - Maximum	0.4750	1.4250
Positive Hits - Minimum	0.2250	7.8000
Positive Hits - Maximum	0.2250	11.0000
Average Of Positive Hits	0.2250	9.4000
Standard Deviation	0.1758	3.7231
Upper Confidence Limit - Normal	0.4456	4.6606
Upper Confidence Limit - Lognormal	27.7431	7.9832
95th Percentile - Nonparametric	0.4750	11.0000
95th Percentile - Normal	0.5280	8.6269
95th Percentile - Lognormal	0.8534	7.6742
Upper Tolerance Limit - Normal	1.1435	13.3403
Upper Tolerance Limit - Lognormal	22.8782	31.6879

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.9602	0.7680
Corr Coeff - Total - Lognormal	0.9503	0.8755
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9407	0.6008
W-Test - Lognormal	0.9220	0.7637
Type of Distribution	~~Undefined~~ NORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	7.0000
Average	20.6250	35.8050
Detection Limit - Minimum	0.5000	1.0000
Detection Limits - Maximum	0.5000	1.0000
Positive Hits - Minimum	4.8000	2.5000
Positive Hits - Maximum	55.7000 UCL	191.0000
Average Of Positive Hits	27.3333	50.7214
Standard Deviation	25.0763	61.8552
Upper Confidence Limit - Normal	50.1273	71.6591
Upper Confidence Limit - Lognormal	150513965396.9	1541.0918
95th Percentile - Nonparametric	55.7000	191.0000
95th Percentile - Normal	61.8756	137.5569
95th Percentile - Lognormal	214.8888	196.8388
Upper Tolerance Limit - Normal	149.6427	215.8656
Upper Tolerance Limit - Lognormal	284931.3771	2271.6834 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7521	0.9112
Corr Coeff - Detected - Lognormal	0.9229	0.9847
Corr Coeff - Total - Normal	0.9388	0.7910
Corr Coeff - Total - Lognormal	0.9826	0.9661
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8796	0.6429
W-Test - Lognormal	0.9623	0.9078
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	9.0000
Average	14.0500	89.0000
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	1.8000	2.1000
Positive Hits - Maximum	47.8000 UCL	641.0000
Average Of Positive Hits	14.0500	98.8500
Standard Deviation	22.5231	200.4999
Upper Confidence Limit - Normal	40.5484	205.2189
Upper Confidence Limit - Lognormal	1560929.3190	8280.9572
95th Percentile - Nonparametric	47.8000	641.0000
95th Percentile - Normal	51.1005	418.8224
95th Percentile - Lognormal	63.2136	425.1857
Upper Tolerance Limit - Normal	129.9313	672.6553
Upper Tolerance Limit - Lognormal	11734.6467	6592.9873 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8096	0.7470
Corr Coeff - Detected - Lognormal	0.9040	0.9720
Corr Coeff - Total - Normal	0.8096	0.6934
Corr Coeff - Total - Lognormal	0.9040	0.9812
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6692	0.5118
W-Test - Lognormal	0.8245	0.9719
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	6.0000
Average	17.1875	32.6500
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.8250	2.0000
Positive Hits - Minimum	12.6000	4.4000
Positive Hits - Maximum	54.5000	166.0000
Average Of Positive Hits	33.5500	53.2583
Standard Deviation	25.4868	52.5954
Upper Confidence Limit - Normal	47.1727	63.1367
Upper Confidence Limit - Lognormal	191921711257.9	697.7216
95th Percentile - Nonparametric	54.5000	166.0000
95th Percentile - Normal	59.1133	119.1695
95th Percentile - Lognormal	143.3644	167.1567
Upper Tolerance Limit - Normal	148.3171	185.7553
Upper Tolerance Limit - Lognormal	211141.7232	1519.1228

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9425
Corr Coeff - Detected - Lognormal	1.0000	0.9740
Corr Coeff - Total - Normal	0.8782	0.8076
Corr Coeff - Total - Lognormal	0.9375	0.9509
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7749	0.6694
W-Test - Lognormal	0.8544	0.8776
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : LEAD (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	2.0000
Average	11.1125	12.1825
Detection Limit - Minimum	0.3250	1.1000
Detection Limits - Maximum	0.3250	6.2000
Positive Hits - Minimum	1.0250	46.0000
Positive Hits - Maximum	33.0000	51.0000
Average Of Positive Hits	14.7083	48.5000
Standard Deviation	15.2558	19.2725
Upper Confidence Limit - Normal	29.0609	23.3537
Upper Confidence Limit - Lognormal	217664562002.5	79.9856
95th Percentile - Nonparametric	33.0000	51.0000
95th Percentile - Normal	36.2082	43.8858
95th Percentile - Lognormal	103.5433	45.6478
Upper Tolerance Limit - Normal	89.6034	68.2848
Upper Tolerance Limit - Lognormal	163913.5737	272.8699

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7191	1.0000
Corr Coeff - Detected - Lognormal	0.9421	1.0000
Corr Coeff - Total - Normal	0.9074	0.7781
Corr Coeff - Total - Lognormal	0.9845	0.9315
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8233	0.6058
W-Test - Lognormal	0.9529	0.8492
Type of Distribution	LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : MERCURY (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	2.0000
Average	0.1413	0.0765
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.1000
Positive Hits - Minimum	0.1400	0.1300
Positive Hits - Maximum	0.2300	0.1700
Average Of Positive Hits	0.1800	0.1500
Standard Deviation	0.0861	0.0428
Upper Confidence Limit - Normal	0.2425	0.1013
Upper Confidence Limit - Lognormal	30.9498	0.1073
95th Percentile - Nonparametric	0.2300	0.1700
95th Percentile - Normal	0.2828	0.1469
95th Percentile - Lognormal	0.5582	0.1479
Upper Tolerance Limit - Normal	0.5840	0.2012
Upper Tolerance Limit - Lognormal	18.3309	0.2677

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7559	1.0000
Corr Coeff - Detected - Lognormal	0.7969	1.0000
Corr Coeff - Total - Normal	0.9734	0.8388
Corr Coeff - Total - Lognormal	0.8941	0.8582
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9581	0.7034
W-Test - Lognormal	0.8126	0.7250
Type of Distribution	NORMAL	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : NICKEL (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	7.0000
Average	9.2641	30.9550
Detection Limit - Minimum	0.2063	0.5500
Detection Limits - Maximum	0.6500	15.4500
Positive Hits - Minimum	7.5000	2.6000
Positive Hits - Maximum	28.7000	166.0000
Average Of Positive Hits	18.1000	41.8571
Standard Deviation	13.3805	52.6558
Upper Confidence Limit - Normal	25.0062	61.4767
Upper Confidence Limit - Lognormal	5310537863507	1351.4538
95th Percentile - Nonparametric	28.7000	166.0000
95th Percentile - Normal	31.2750	117.5738
95th Percentile - Lognormal	93.7697	186.4911
Upper Tolerance Limit - Normal	78.1067	184.2360
Upper Tolerance Limit - Lognormal	246124.6849	2093.7509

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.8619
Corr Coeff - Detected - Lognormal	1.0000	0.9817
Corr Coeff - Total - Normal	0.8931	0.7828
Corr Coeff - Total - Lognormal	0.9842	0.9800
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8000	0.6337
W-Test - Lognormal	0.9522	0.9462
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : SELENIUM (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	1.0000
Average	1.0938	2.4350
Detection Limit - Minimum	0.6250	0.7500
Detection Limits - Maximum	0.6250	1.2500
Positive Hits - Minimum	2.5000	14.1000
Positive Hits - Maximum	2.5000	14.1000
Average Of Positive Hits	2.5000	14.1000
Standard Deviation	0.9375	4.1039
Upper Confidence Limit - Normal	2.1967	4.8138
Upper Confidence Limit - Lognormal	14.1718	4.3618
95th Percentile - Nonparametric	2.5000	14.1000
95th Percentile - Normal	2.6359	9.1860
95th Percentile - Lognormal	2.7643	5.6308
Upper Tolerance Limit - Normal	5.9172	14.3815
Upper Tolerance Limit - Lognormal	31.2748	16.0985

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	0.6050
Corr Coeff - Total - Lognormal	0.7838	0.7153
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6297	0.4041
W-Test - Lognormal	0.6297	0.5534
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : VANADIUM (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	5.0000
Average	28.4813	51.2700
Detection Limit - Minimum	0.3250	0.3500
Detection Limits - Maximum	0.3250	1.7500
Positive Hits - Minimum	5.2000	20.9000
Positive Hits - Maximum	75.7000	281.0000
Average Of Positive Hits	37.8667	101.6900
Standard Deviation	34.5553	89.0264
Upper Confidence Limit - Normal	69.1355	102.8737
Upper Confidence Limit - Lognormal	1.3648765E+15	53916.4472
95th Percentile - Nonparametric	75.7000	281.0000
95th Percentile - Normal	85.3247	197.7184
95th Percentile - Lognormal	426.4457	448.4920
Upper Tolerance Limit - Normal	206.2681	310.4258
Upper Tolerance Limit - Lognormal	1990547.4825	11316.5481

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7962	0.9487
Corr Coeff - Detected - Lognormal	0.9519	0.9948
Corr Coeff - Total - Normal	0.9459	0.7967
Corr Coeff - Total - Lognormal	0.9721	0.9595
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8883	0.6543
W-Test - Lognormal	0.9403	0.8915
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	4.0000
Average	14.8250	89.7050
Detection Limit - Minimum	21.3500	3.2000
Detection Limits - Maximum	21.3500	35.0500
Positive Hits - Minimum	2.7000	45.2000
Positive Hits - Maximum	30.8000	483.0000
Average Of Positive Hits	12.6500	209.0625
Standard Deviation	13.5700	157.6455
Upper Confidence Limit - Normal	30.7901	181.0835
Upper Confidence Limit - Lognormal	26001.1249	1951.2798
95th Percentile - Nonparametric	30.8000	483.0000
95th Percentile - Normal	37.1476	349.0318
95th Percentile - Lognormal	65.9785	418.2108
Upper Tolerance Limit - Normal	84.6425	548.6110
Upper Tolerance Limit - Lognormal	4142.2917	3975.8975

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8925	0.9766
Corr Coeff - Detected - Lognormal	0.9467	0.9593
Corr Coeff - Total - Normal	0.9539	0.7794
Corr Coeff - Total - Lognormal	0.9582	0.9515
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8877	0.6249
W-Test - Lognormal	0.8929	0.8875

Type of Distribution ..... LOGNORMAL ~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... ~~PASS~~
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	1.0000	3.0000
Average	2.5625	3.7000
Detection Limit - Minimum	2.7500	2.7000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	2.0000	1.0000
Positive Hits - Maximum	2.0000	6.0000
Average Of Positive Hits	2.0000	3.4333
Standard Deviation	0.3750	2.0603
Upper Confidence Limit - Normal	3.0037	5.6645
Upper Confidence Limit - Lognormal	3.2670	15.4706
95th Percentile - Nonparametric	2.7500	6.0000
95th Percentile - Normal	3.1794	7.0893
95th Percentile - Lognormal	3.3000	10.1701
Upper Tolerance Limit - Normal	4.4919	12.3575
Upper Tolerance Limit - Lognormal	5.7616	63.9361

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9989
Corr Coeff - Detected - Lognormal	**********	0.9820
Corr Coeff - Total - Normal	0.7838	0.9780
Corr Coeff - Total - Lognormal	0.7838	0.9476
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.6297	0.9416
W-Test - Lognormal	0.6297	0.8978
Type of Distribution	Undefined	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (μg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	2.0000	2.0000
Average	1.8750	1.9400
Detection Limit - Minimum	2.7500	1.0000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	1.0000	1.0000
Positive Hits - Maximum	1.0000	1.0000
Average Of Positive Hits	1.0000	1.0000
Standard Deviation	1.0104	1.9920
Upper Confidence Limit - Normal	3.0637	3.8393
Upper Confidence Limit - Lognormal	12.2115	8.0932
95th Percentile - Nonparametric	2.7500	5.5000
95th Percentile - Normal	3.5370	5.2168
95th Percentile - Lognormal	4.3343	4.9773
Upper Tolerance Limit - Normal	7.0733	10.3103
Upper Tolerance Limit - Lognormal	33.4726	33.5456

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	**********
Corr Coeff - Detected - Lognormal	**********	**********
Corr Coeff - Total - Normal	0.8768	0.7477
Corr Coeff - Total - Lognormal	0.8768	0.7761
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.7309	0.5819
W-Test - Lognormal	0.7309	0.6220
Type of Distribution	UNDEFINED	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	11.0500	
Detection Limit - Minimum	0.1500	
Detection Limits - Maximum	0.1500	
Positive Hits - Minimum	43.7500	
Positive Hits - Maximum	43.7500	
Average Of Positive Hits	43.7500	
Standard Deviation	21.8000	
Upper Confidence Limit - Normal	36.6977	
Upper Confidence Limit - Lognormal	2.8081938E+19	
95th Percentile - Nonparametric	43.7500	
95th Percentile - Normal	46.9110	
95th Percentile - Lognormal	66.0210	
Upper Tolerance Limit - Normal	123.2110	
Upper Tolerance Limit - Lognormal	1359046.2835	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	15.3250	
Detection Limit - Minimum	0.1500	
Detection Limits - Maximum	0.1500	
Positive Hits - Minimum	2.8000	
Positive Hits - Maximum	58.2000	
Average Of Positive Hits	30.5000	
Standard Deviation	28.6106	
Upper Confidence Limit - Normal	48.9854	
Upper Confidence Limit - Lognormal	8.9765131E+19	
95th Percentile - Nonparametric	58.2000	
95th Percentile - Normal	62.3895	
95th Percentile - Lognormal	150.1321	
Upper Tolerance Limit - Normal	162.5266	
Upper Tolerance Limit - Lognormal	3214612.0051	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8058	
Corr Coeff - Total - Lognormal	0.9374	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6625	NA
W-Test - Lognormal	0.8641	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : 4-NITROTOLUENE (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.6813	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.7500	
Positive Hits - Maximum	1.7500	
Average Of Positive Hits	1.7500	
Standard Deviation	0.7125	
Upper Confidence Limit - Normal	1.5195	
Upper Confidence Limit - Lognormal	28.4455	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	1.8533	
95th Percentile - Lognormal	1.9772	
Upper Tolerance Limit - Normal	4.3471	
Upper Tolerance Limit - Lognormal	37.6329	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : HMX (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	10.1813	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	39.7500	
Positive Hits - Maximum	39.7500	
Average Of Positive Hits	39.7500	
Standard Deviation	19.7125	
Upper Confidence Limit - Normal	33.3730	
Upper Confidence Limit - Lognormal	1.3783703E+14	
95th Percentile - Nonparametric	39.7500	
95th Percentile - Normal	42.6083	
95th Percentile - Lognormal	56.3219	
Upper Tolerance Limit - Normal	111.6021	
Upper Tolerance Limit - Lognormal	253350.4223	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : RDX (μg/L)

	Sample Results	Background Results
Count	4.0000	4.0000
Number of Detects	1.0000	1.0000
Average	86.2438	0.6538
Detection Limit - Minimum	0.3250	0.3700
Detection Limits - Maximum	0.3250	0.6500
Positive Hits - Minimum	344.0000	1.2000
Positive Hits - Maximum	344.0000 UCL	1.2000
Average Of Positive Hits	344.0000	1.2000
Standard Deviation	171.8375	0.3855
Upper Confidence Limit - Normal	288.4106	1.1073
Upper Confidence Limit - Lognormal	7.0726993E+29	3.3478
95th Percentile - Nonparametric	344.0000	1.2000
95th Percentile - Normal	368.9164	1.2879
95th Percentile - Lognormal	569.9639	1.4243
Upper Tolerance Limit - Normal	970.3477	2.6372
Upper Tolerance Limit - Lognormal	111951206.6122	9.5959 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	0.9194
Corr Coeff - Total - Lognormal	0.7838	0.9505
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8680
W-Test - Table Value	0.7480	0.7480
W-Test - Normal	0.6297	0.8432
W-Test - Lognormal	0.6297	0.8929
Type of Distribution	Undefined	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6U_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/L)

	Sample Results	Background Results
Count	1.0000	8.0000
Number of Detects	1.0000	7.0000
Average	17.0000	2.8688
Detection Limit - Minimum	NA	0.5000
Detection Limits - Maximum	NA	0.5000
Positive Hits - Minimum	17.0000	0.9400
Positive Hits - Maximum	17.0000	6.9000
Average Of Positive Hits	17.0000	3.2071
Standard Deviation	0.0000	2.1006
Upper Confidence Limit - Normal	**********	4.2761
Upper Confidence Limit - Lognormal	0.0000	9.2567
95th Percentile - Nonparametric	17.0000	6.9000
95th Percentile - Normal	17.0000	6.3243
95th Percentile - Lognormal	17.0000	9.1761
Upper Tolerance Limit - Normal	**********	9.5655
Upper Tolerance Limit - Lognormal	**********	35.8981

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9615
Corr Coeff - Detected - Lognormal	**********	0.9477
Corr Coeff - Total - Normal	0.0000	0.9542
Corr Coeff - Total - Lognormal	0.0000	0.9676
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9050
W-Test - Table Value	0.0000	0.8180
W-Test - Normal	**********	0.9135
W-Test - Lognormal	**********	0.9318
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ANTIMONY (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.8750	
Detection Limit - Minimum	0.5750	
Detection Limits - Maximum	0.5750	
Positive Hits - Minimum	1.7750	
Positive Hits - Maximum	1.7750	
Average Of Positive Hits	1.7750	
Standard Deviation	0.6000	
Upper Confidence Limit - Normal	1.5809	
Upper Confidence Limit - Lognormal ..	4.9250	
95th Percentile - Nonparametric.....	1.7750	
95th Percentile - Normal.....	1.8620	
95th Percentile - Lognormal	1.9261	
Upper Tolerance Limit - Normal	3.9620	
Upper Tolerance Limit - Lognormal	13.8474	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Pass: "clean" (eg background

Fail = stats. ?

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ARSENIC (mg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	5.0875	
Detection Limit - Minimum	0.4750	
Detection Limits - Maximum	0.4750	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	16.4000	
Average Of Positive Hits	9.7000	
Standard Deviation	7.6350	
Upper Confidence Limit - Normal	14.0701	
Upper Confidence Limit - Lognormal	22465797.1323	
95th Percentile - Nonparametric	16.4000	
95th Percentile - Normal	17.6471	
95th Percentile - Lognormal	30.0165	
Upper Tolerance Limit - Normal	44.3697	
Upper Tolerance Limit - Lognormal	11604.9359	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8553	
Corr Coeff - Total - Lognormal	0.9393	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7389	NA
W-Test - Lognormal	0.8656	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	4.0000	6.0000
Average	110.1250	64.5167
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12.3000	12.9000
Positive Hits - Maximum	307.0000	139.0000
Average Of Positive Hits	110.1250	64.5167
Standard Deviation	133.2343	44.7782
Upper Confidence Limit - Normal	266.8752	101.3521
Upper Confidence Limit - Lognormal	1058753.1434	282.9026
95th Percentile - Nonparametric	307.0000	139.0000
95th Percentile - Normal	329.2955	138.1768
95th Percentile - Lognormal	529.7204	197.9494
Upper Tolerance Limit - Normal	795.6157	151.5207
Upper Tolerance Limit - Lognormal	52670.2939	253.5200

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8722	0.9743
Corr Coeff - Detected - Lognormal	0.9684	0.9796
Corr Coeff - Total - Normal	0.8722	0.9743
Corr Coeff - Total - Lognormal	0.9684	0.9796
Corr Coeff - Crit Val - Detected	0.8680	0.8900
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7781	0.9539
W-Test - Lognormal	0.9582	0.9670
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BERYLLIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.2388	
Detection Limit - Minimum	0.0500	
Detection Limits - Maximum	0.4750	
Positive Hits - Minimum	0.2250	
Positive Hits - Maximum	0.2250	
Average Of Positive Hits	0.2250	
Standard Deviation	0.1758	
Upper Confidence Limit - Normal	0.4456	
Upper Confidence Limit - Lognormal	27.7431	
95th Percentile - Nonparametric	0.4750	
95th Percentile - Normal	0.5280	
95th Percentile - Lognormal	0.8534	
Upper Tolerance Limit - Normal	1.1435	
Upper Tolerance Limit - Lognormal	22.8782	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9602	
Corr Coeff - Total - Lognormal	0.9503	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9407	NA
W-Test - Lognormal	0.9220	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	3.0000
Average	20.6250	4.3500
Detection Limit - Minimum	0.5000	1.0000
Detection Limits - Maximum	0.5000	1.0000
Positive Hits - Minimum	4.8000	2.5000
Positive Hits - Maximum	55.7000	16.4000
Average Of Positive Hits	27.3333	7.7000
Standard Deviation	25.0763	6.0385
Upper Confidence Limit - Normal	50.1273	9.3174
Upper Confidence Limit - Lognormal	150513965396.9	48.1520
95th Percentile - Nonparametric	55.7000	16.4000
95th Percentile - Normal	61.8756	14.2833
95th Percentile - Lognormal	214.8888	14.9611
Upper Tolerance Limit - Normal	149.6427	16.0827
Upper Tolerance Limit - Lognormal	284931.3771	20.9076

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7521	0.9502
Corr Coeff - Detected - Lognormal	0.9229	0.9874
Corr Coeff - Total - Normal	0.9388	0.7974
Corr Coeff - Total - Lognormal	0.9826	0.9129
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8796	0.6556
W-Test - Lognormal	0.9623	0.8257
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	4.0000	5.0000
Average	14.0500	5.4583
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	1.8000	2.1000
Positive Hits - Maximum	47.8000	15.6000
Average Of Positive Hits	14.0500	6.4800
Standard Deviation	22.5231	5.4056
Upper Confidence Limit - Normal	40.5484	9.9051
Upper Confidence Limit - Lognormal	1560929.3190	159.3152
95th Percentile - Nonparametric	47.8000	15.6000
95th Percentile - Normal	51.1005	14.3505
95th Percentile - Lognormal	63.2136	26.9999
Upper Tolerance Limit - Normal	129.9313	15.9614
Upper Tolerance Limit - Lognormal	11734.6467	39.5740

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8096	0.9183
Corr Coeff - Detected - Lognormal	0.9040	0.9835
Corr Coeff - Total - Normal	0.8096	0.9108
Corr Coeff - Total - Lognormal	0.9040	0.9572
Corr Coeff - Crit Val - Detected	0.8680	0.8790
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.6692	0.8483
W-Test - Lognormal	0.8245	0.9364
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	2.0000	2.0000
Average	17.1875	5.6250
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.8250	2.0000
Positive Hits - Minimum	12.6000	4.4000
Positive Hits - Maximum	54.5000 UCL	22.4000 UCL
Average Of Positive Hits	33.5500	13.4000
Standard Deviation	25.4868	8.2879
Upper Confidence Limit - Normal	47.1727	12.4428
Upper Confidence Limit - Lognormal	191921711257.9	42.3211
95th Percentile - Nonparametric	54.5000	22.4000
95th Percentile - Normal	59.1133	19.2585
95th Percentile - Lognormal	143.3644	17.1766
Upper Tolerance Limit - Normal	148.3171	21.7283
Upper Tolerance Limit - Lognormal	211141.7232	23.4245

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.8782	0.7469
Corr Coeff - Total - Lognormal	0.9375	0.8408
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7749	0.5827
W-Test - Lognormal	0.8544	0.7158
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : LEAD (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	3.0000	
Average	11.1125	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.0250	
Positive Hits - Maximum	33.0000	
Average Of Positive Hits	14.7083	
Standard Deviation	15.2558	
Upper Confidence Limit - Normal	29.0609	
Upper Confidence Limit - Lognormal	217664562002.5	
95th Percentile - Nonparametric	33.0000	
95th Percentile - Normal	36.2082	
95th Percentile - Lognormal	103.5433	
Upper Tolerance Limit - Normal	89.6034	
Upper Tolerance Limit - Lognormal	163913.5737	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7191	
Corr Coeff - Detected - Lognormal	0.9421	
Corr Coeff - Total - Normal	0.9074	
Corr Coeff - Total - Lognormal	0.9845	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8233	NA
W-Test - Lognormal	0.9529	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : MERCURY (µg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	1.0000
Average	0.1413	0.0658
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0650
Positive Hits - Minimum	0.1400	0.1300
Positive Hits - Maximum	0.2300	0.1300
Average Of Positive Hits	0.1800	0.1300
Standard Deviation	0.0861	0.0320
Upper Confidence Limit - Normal	0.2425	0.0922
Upper Confidence Limit - Lognormal	30.9498	0.1000
95th Percentile - Nonparametric	0.2300	0.1300
95th Percentile - Normal	0.2828	0.1185
95th Percentile - Lognormal	0.5582	0.1151
Upper Tolerance Limit - Normal	0.5840	0.1280
Upper Tolerance Limit - Lognormal	18.3309	0.1290

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7559	
Corr Coeff - Detected - Lognormal	0.7969	
Corr Coeff - Total - Normal	0.9734	0.7635
Corr Coeff - Total - Lognormal	0.8941	0.7923
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.9581	0.6049
W-Test - Lognormal	0.8126	0.6445
Type of Distribution	NORMAL	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	2.0000	4.0000
Average	9.2641	5.2833
Detection Limit - Minimum	0.2063	0.5500
Detection Limits - Maximum	0.6500	0.5500
Positive Hits - Minimum	7.5000	2.6000
Positive Hits - Maximum	28.7000	16.6000
Average Of Positive Hits	18.1000	7.6500
Standard Deviation	13.3805	6.2996
Upper Confidence Limit - Normal	25.0062	10.4655
Upper Confidence Limit - Lognormal	5310537863507	248.6762
95th Percentile - Nonparametric	28.7000	16.6000
95th Percentile - Normal	31.2750	15.6461
95th Percentile - Lognormal	93.7697	25.7447
Upper Tolerance Limit - Normal	78.1067	17.5234
Upper Tolerance Limit - Lognormal	246124.6849	39.0087

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9629
Corr Coeff - Detected - Lognormal	1.0000	0.9600
Corr Coeff - Total - Normal	0.8931	0.8952
Corr Coeff - Total - Lognormal	0.9842	0.9644
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8000	0.8023
W-Test - Lognormal	0.9522	0.9068
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : SELENIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.0938	
Detection Limit - Minimum	0.6250	
Detection Limits - Maximum	0.6250	
Positive Hits - Minimum	2.5000	
Positive Hits - Maximum	2.5000	
Average Of Positive Hits	2.5000	
Standard Deviation	0.9375	
Upper Confidence Limit - Normal	2.1967	
Upper Confidence Limit - Lognormal	14.1718	
95th Percentile - Nonparametric	2.5000	
95th Percentile - Normal	2.6359	
95th Percentile - Lognormal	2.7643	
Upper Tolerance Limit - Normal	5.9172	
Upper Tolerance Limit - Lognormal	31.2748	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : VANADIUM (µg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	1.0000
Average	28.4813	4.1917
Detection Limit - Minimum	0.3250	0.3500
Detection Limits - Maximum	0.3250	1.7500
Positive Hits - Minimum	5.2000	20.9000
Positive Hits - Maximum	75.7000 UCL	20.9000
Average Of Positive Hits	37.8667	20.9000
Standard Deviation	34.5553	8.2036
Upper Confidence Limit - Normal	69.1355	10.9401
Upper Confidence Limit - Lognormal	1.3648765E+15	300.9986
95th Percentile - Nonparametric	75.7000	20.9000
95th Percentile - Normal	85.3247	17.6866
95th Percentile - Lognormal	426.4457	15.2529
Upper Tolerance Limit - Normal	206.2681	20.1313
Upper Tolerance Limit - Lognormal	1990547.4825	24.1193 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7962	
Corr Coeff - Detected - Lognormal	0.9519	
Corr Coeff - Total - Normal	0.9459	0.7257
Corr Coeff - Total - Lognormal	0.9721	0.9106
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8883	0.5546
W-Test - Lognormal	0.9403	0.8351
Type of Distribution	LOGNORMAL ✓	~~Undefined~~ LOGNORM

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ZINC (µg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	1.0000
Average	14.8250	11.8250
Detection Limit - Minimum	21.3500	3.2000
Detection Limits - Maximum	21.3500	6.6000
Positive Hits - Minimum	2.7000	45.2000
Positive Hits - Maximum	30.8000	45.2000
Average Of Positive Hits	12.6500	45.2000
Standard Deviation	13.5700	16.4004
Upper Confidence Limit - Normal	30.7901	25.3163
Upper Confidence Limit - Lognormal	26001.1249	62.4968
95th Percentile - Nonparametric	30.8000	45.2000
95th Percentile - Normal	37.1476	38.8036
95th Percentile - Lognormal	65.9785	33.7588
Upper Tolerance Limit - Normal	84.6425	43.6910
Upper Tolerance Limit - Lognormal	4142.2917	44.6778

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8925	
Corr Coeff - Detected - Lognormal	0.9467	
Corr Coeff - Total - Normal	0.9539	0.7368
Corr Coeff - Total - Lognormal	0.9582	0.8596
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8877	0.5729
W-Test - Lognormal	0.8929	0.7668
Type of Distribution	LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	1.0000	1.0000
Average	2.5625	3.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	2.0000	1.0000
Positive Hits - Maximum	2.0000	1.0000
Average Of Positive Hits	2.0000	1.0000
Standard Deviation	0.3750	3.1820
Upper Confidence Limit - Normal	3.0037	**********
Upper Confidence Limit - Lognormal	3.2670	2462421.1886
95th Percentile - Nonparametric	2.7500	5.5000
95th Percentile - Normal	3.1794	8.4844
95th Percentile - Lognormal	3.3000	17.0359
Upper Tolerance Limit - Normal	4.4919	**********
Upper Tolerance Limit - Lognormal	5.7616	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	0.0000
Corr Coeff - Total - Lognormal	0.7838	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.6297	1.0000
W-Test - Lognormal	0.6297	1.0000
Type of Distribution	Undefined	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : DI-N-BUTYL PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	2.0000	1.0000
Average	1.8750	3.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	1.0000	1.0000
Positive Hits - Maximum	1.0000	1.0000
Average Of Positive Hits	1.0000	1.0000
Standard Deviation	1.0104	3.1820
Upper Confidence Limit - Normal	3.0637	**********
Upper Confidence Limit - Lognormal	12.2115	2462421.1886
95th Percentile - Nonparametric	2.7500	5.5000
95th Percentile - Normal	3.5370	8.4844
95th Percentile - Lognormal	4.3343	17.0359
Upper Tolerance Limit - Normal	7.0733	**********
Upper Tolerance Limit - Lognormal	33.4726	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8768	0.0000
Corr Coeff - Total - Lognormal	0.8768	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.7309	1.0000
W-Test - Lognormal	0.7309	1.0000
Type of Distribution	UNDEFINED	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : 2,4,6-TRINITROTOLUENE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	11.0500	
Detection Limit - Minimum	0.1500	
Detection Limits - Maximum	0.1500	
Positive Hits - Minimum	43.7500	
Positive Hits - Maximum	43.7500	
Average Of Positive Hits	43.7500	
Standard Deviation	21.8000	
Upper Confidence Limit - Normal	36.6977	
Upper Confidence Limit - Lognormal	2.8081938E+19	
95th Percentile - Nonparametric	43.7500	
95th Percentile - Normal	46.9110	
95th Percentile - Lognormal	66.0210	
Upper Tolerance Limit - Normal	123.2110	
Upper Tolerance Limit - Lognormal	1359046.2835	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	15.3250	
Detection Limit - Minimum	0.1500	
Detection Limits - Maximum	0.1500	
Positive Hits - Minimum	2.8000	
Positive Hits - Maximum	58.2000	
Average Of Positive Hits	30.5000	
Standard Deviation	28.6106	
Upper Confidence Limit - Normal	48.9854	
Upper Confidence Limit - Lognormal	8.9765131E+19	
95th Percentile - Nonparametric	58.2000	
95th Percentile - Normal	62.3895	
95th Percentile - Lognormal	150.1321	
Upper Tolerance Limit - Normal	162.5266	
Upper Tolerance Limit - Lognormal	3214612.0051	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8058	
Corr Coeff - Total - Lognormal	0.9374	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6625	NA
W-Test - Lognormal	0.8641	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : 4-NITROTOLUENE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.6813	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.7500	
Positive Hits - Maximum	1.7500	
Average Of Positive Hits	1.7500	
Standard Deviation	0.7125	
Upper Confidence Limit - Normal	1.5195	
Upper Confidence Limit - Lognormal	28.4455	
95th Percentile - Nonparametric	1.7500	
95th Percentile - Normal	1.8533	
95th Percentile - Lognormal	1.9772	
Upper Tolerance Limit - Normal	4.3471	
Upper Tolerance Limit - Lognormal	37.6329	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : HMX (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	10.1813	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	39.7500	
Positive Hits - Maximum	39.7500	
Average Of Positive Hits	39.7500	
Standard Deviation	19.7125	
Upper Confidence Limit - Normal	33.3730	
Upper Confidence Limit - Lognormal	1.3783703E+14	
95th Percentile - Nonparametric	39.7500	
95th Percentile - Normal	42.6083	
95th Percentile - Lognormal	56.3219	
Upper Tolerance Limit - Normal	111.6021	
Upper Tolerance Limit - Lognormal	253350.4223	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.7838
Corr Coeff - Total - Lognormal	0.7838
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.8680

W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : RDX (µg/L)

	Sample Results	Background Results
Count	4.0000	1.0000
Number of Detects	1.0000	1.0000
Average	86.2438	1.2000
Detection Limit - Minimum	0.3250	NA
Detection Limits - Maximum	0.3250	NA
Positive Hits - Minimum	344.0000	1.2000
Positive Hits - Maximum	344.0000 UCL	1.2000 UTL
Average Of Positive Hits	344.0000	1.2000
Standard Deviation	171.8375	0.0000
Upper Confidence Limit - Normal	288.4106	**********
Upper Confidence Limit - Lognormal	7.0726993E+29	0.0000
95th Percentile - Nonparametric	344.0000	1.2000
95th Percentile - Normal	368.9164	1.2000
95th Percentile - Lognormal	569.9639	8.7169
Upper Tolerance Limit - Normal	970.3477	**********
Upper Tolerance Limit - Lognormal	111951206.6122	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.6297	**********
W-Test - Lognormal	0.6297	**********
Type of Distribution	Undefined ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: INR6T_RES
Media : Indian Head Range 6 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : TOTAL ORGANIC CARBON (mg/L)

	Sample Results	Background Results
Count	1.0000	5.0000
Number of Detects	1.0000	5.0000
Average	17.0000	3.4420
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	17.0000	1.1100
Positive Hits - Maximum	17.0000	6.9000
Average Of Positive Hits	17.0000	3.4420
Standard Deviation	0.0000	2.1134
Upper Confidence Limit - Normal	**********	5.4570
Upper Confidence Limit - Lognormal	0.0000	11.2148
95th Percentile - Nonparametric	17.0000	6.9000
95th Percentile - Normal	17.0000	6.9185
95th Percentile - Lognormal	17.0000	8.5613
Upper Tolerance Limit - Normal	**********	12.3224
Upper Tolerance Limit - Lognormal	**********	45.0467

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9096
Corr Coeff - Detected - Lognormal	**********	0.9350
Corr Coeff - Total - Normal	0.0000	0.9096
Corr Coeff - Total - Lognormal	0.0000	0.9350
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8790	0.8790
W-Test - Table Value	0.0000	0.7620
W-Test - Normal	**********	0.8603
W-Test - Lognormal	**********	0.9088
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : ARSENIC, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	3.1875	
Detection Limit - Minimum	0.4750	
Detection Limits - Maximum	0.4750	
Positive Hits - Minimum	2.8000	
Positive Hits - Maximum	9.0000	
Average Of Positive Hits	5.9000	
Standard Deviation	4.0270	
Upper Confidence Limit - Normal	7.9253	
Upper Confidence Limit - Lognormal	194614.2938	
95th Percentile - Nonparametric	9.0000	
95th Percentile - Normal	9.8119	
95th Percentile - Lognormal	16.5629	
Upper Tolerance Limit - Normal	23.9065	
Upper Tolerance Limit - Lognormal	2579.6493	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8957	
Corr Coeff - Total - Lognormal	0.9399	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8025	NA
W-Test - Lognormal	0.8617	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : BARIUM, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	9.0000
Average	66.7250	36.7400
Detection Limit - Minimum	NA	7.0000
Detection Limits - Maximum	NA	7.0000
Positive Hits - Minimum	5.1000	4.0000
Positive Hits - Maximum	189.0000	86.7000
Average Of Positive Hits	66.7250	40.0444
Standard Deviation	85.2032	26.5507
Upper Confidence Limit - Normal	166.9665	52.1300
Upper Confidence Limit - Lognormal	75431018.1629	128.1767
95th Percentile - Nonparametric	189.0000	86.7000
95th Percentile - Normal	206.8842	80.4159
95th Percentile - Lognormal	415.1801	138.6789
Upper Tolerance Limit - Normal	505.0954	114.0290
Upper Tolerance Limit - Lognormal	119890.3154	509.6195

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9114	0.9736
Corr Coeff - Detected - Lognormal	0.9892	0.9499
Corr Coeff - Total - Normal	0.9114	0.9774
Corr Coeff - Total - Lognormal	0.9892	0.9558
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8314	0.9468
W-Test - Lognormal	0.9653	0.9031
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : COBALT, FILTERED (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	7.0000
Average	9.5250	4.8500
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	7.0000
Positive Hits - Minimum	1.0000	2.3000
Positive Hits - Maximum	33.0000	8.2500
Average Of Positive Hits	9.5250	4.8786
Standard Deviation	15.6643	2.7887
Upper Confidence Limit - Normal	27.9540	6.4664
Upper Confidence Limit - Lognormal	3733869.1639	15.4892
95th Percentile - Nonparametric	33.0000	8.2500
95th Percentile - Normal	35.2927	9.4374
95th Percentile - Lognormal	44.6420	17.9622
Upper Tolerance Limit - Normal	90.1176	12.9678
Upper Tolerance Limit - Lognormal	10907.4117	60.8006

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8087	0.9381
Corr Coeff - Detected - Lognormal	0.9123	0.9290
Corr Coeff - Total - Normal	0.8087	0.9530
Corr Coeff - Total - Lognormal	0.9123	0.8782
Corr Coeff - Crit Val - Detected	0.8680	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6680	0.8898
W-Test - Lognormal	0.8408	0.7854
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : CHROMIUM, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.5500	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	0.5000	
Positive Hits - Minimum	4.7000	
Positive Hits - Maximum	4.7000	
Average Of Positive Hits	4.7000	
Standard Deviation	2.1000	
Upper Confidence Limit - Normal	4.0207	
Upper Confidence Limit - Lognormal	1078.0957	
95th Percentile - Nonparametric	4.7000	
95th Percentile - Normal	5.0045	
95th Percentile - Lognormal	5.5290	
Upper Tolerance Limit - Normal	12.3545	
Upper Tolerance Limit - Lognormal	279.0123	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : COPPER, FILTERED (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	1.0000
Average	1.4938	3.0350
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.8250	7.5000
Positive Hits - Minimum	3.5000	3.8000
Positive Hits - Maximum	3.5000	3.8000
Average Of Positive Hits	3.5000	3.8000
Standard Deviation	1.3375	2.4469
Upper Confidence Limit - Normal	3.0673	4.4533
Upper Confidence Limit - Lognormal	23.9656	5.0888
95th Percentile - Nonparametric	3.5000	7.5000
95th Percentile - Normal	3.6939	7.0601
95th Percentile - Lognormal	3.8866	7.0597
Upper Tolerance Limit - Normal	8.3752	10.1579
Upper Tolerance Limit - Lognormal	48.7410	16.0525

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	0.7880
Corr Coeff - Total - Lognormal	0.7838	0.8027
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6297	0.6121
W-Test - Lognormal	0.6297	0.6307
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : MERCURY, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	1.0000
Average	0.0838	0.0630
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0700
Positive Hits - Minimum	0.1400	0.1600
Positive Hits - Maximum	0.1450 UCL	0.1600 UTL
Average Of Positive Hits	0.1425	0.1600
Standard Deviation	0.0679	0.0347
Upper Confidence Limit - Normal	0.1636	0.0831
Upper Confidence Limit - Lognormal	18.5285	0.0803
95th Percentile - Nonparametric	0.1450	0.1600
95th Percentile - Normal	0.1954	0.1200
95th Percentile - Lognormal	0.3117	0.1070
Upper Tolerance Limit - Normal	0.4329	0.1639
Upper Tolerance Limit - Lognormal	10.4997	0.1712

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8866	0.6450
Corr Coeff - Total - Lognormal	0.8816	0.6766
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7492	0.4495
W-Test - Lognormal	0.7397	0.4880
Type of Distribution	NORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : NICKEL, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	6.0000
Average	0.8250	4.0500
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	0.8750	8.5000
Positive Hits - Minimum	1.8000	1.4000
Positive Hits - Maximum	1.8000	7.5000
Average Of Positive Hits	1.8000	3.6250
Standard Deviation	0.7027	3.0245
Upper Confidence Limit - Normal	1.6517	5.8032
Upper Confidence Limit - Lognormal	44.5645	10.7551
95th Percentile - Nonparametric	1.8000	8.5000
95th Percentile - Normal	1.9809	9.0254
95th Percentile - Lognormal	2.5871	13.1365
Upper Tolerance Limit - Normal	4.4403	12.8544
Upper Tolerance Limit - Lognormal	53.3276	41.3564

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8849
Corr Coeff - Detected - Lognormal	**********	0.9392
Corr Coeff - Total - Normal	0.9360	0.9397
Corr Coeff - Total - Lognormal	0.9728	0.9694
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8713	0.8586
W-Test - Lognormal	0.9309	0.9286
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : VANADIUM, FILTERED (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.3063	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	4.7000	
Positive Hits - Maximum	4.7000	
Average Of Positive Hits	4.7000	
Standard Deviation	2.2625	
Upper Confidence Limit - Normal	3.9681	
Upper Confidence Limit - Lognormal	1686212.3747	
95th Percentile - Nonparametric	4.7000	
95th Percentile - Normal	5.0281	
95th Percentile - Lognormal	5.9663	
Upper Tolerance Limit - Normal	12.9468	
Upper Tolerance Limit - Lognormal	1890.4246	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6F_RES
Media : Indian Head Range 6 Statistics
Group : Filtered Groundwater

Parameter : ZINC, FILTERED (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	1.0000
Average	3.0875	4.8625
Detection Limit - Minimum	0.6250	3.0500
Detection Limits - Maximum	1.2750	6.4000
Positive Hits - Minimum	4.2000	7.3000
Positive Hits - Maximum	6.2500	7.3000
Average Of Positive Hits	5.2250	7.3000
Standard Deviation	2.6197	1.3315
Upper Confidence Limit - Normal	6.1696	5.6343
Upper Confidence Limit - Lognormal	1295.5769	5.8032
95th Percentile - Nonparametric	6.2500	7.3000
95th Percentile - Normal	7.3969	7.0529
95th Percentile - Lognormal	12.2790	7.3104
Upper Tolerance Limit - Normal	16.5657	8.7386
Upper Tolerance Limit - Lognormal	505.9695	10.2597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9692	0.9642
Corr Coeff - Total - Lognormal	0.9776	0.9776
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9216	0.9272
W-Test - Lognormal	0.9380	0.9542
Type of Distribution	LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6W_RES
Media : Indian Head Range 6 Statistics
Group : Surface Water

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	36.5750	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	34.4000	
Positive Hits - Maximum	38.1000 UCL	
Average Of Positive Hits	36.5750	
Standard Deviation	1.5650	
Upper Confidence Limit - Normal	38.4162	
Upper Confidence Limit - Lognormal	39.7374	
95th Percentile - Nonparametric	38.1000	
95th Percentile - Normal	39.1494	
95th Percentile - Lognormal	39.2516	
Upper Tolerance Limit - Normal	44.6268	
Upper Tolerance Limit - Lognormal	45.6842	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9558	
Corr Coeff - Detected - Lognormal	0.9520	
Corr Coeff - Total - Normal	0.9558	
Corr Coeff - Total - Lognormal	0.9520	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9269	NA
W-Test - Lognormal	0.9196	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: INR6W_RES
Media : Indian Head Range 6 Statistics
Group : Surface Water

Parameter : COPPER (μg/L)

		Sample Results	Background Results
Count		4.0000	No samples
Number of Detects		4.0000	
Average		3.9250	
Detection Limit - Minimum	NA		
Detection Limits - Maximum	NA		
Positive Hits - Minimum		3.4000	
Positive Hits - Maximum		5.2000 UCL	
Average Of Positive Hits		3.9250	
Standard Deviation		0.8617	
Upper Confidence Limit - Normal		4.9388	
Upper Confidence Limit - Lognormal		5.4400	
95th Percentile - Nonparametric		5.2000	
95th Percentile - Normal		5.3425	
95th Percentile - Lognormal		5.3868	
Upper Tolerance Limit - Normal		8.3584	
Upper Tolerance Limit - Lognormal		10.9358	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8585	
Corr Coeff - Detected - Lognormal	0.8708	
Corr Coeff - Total - Normal	0.8585	
Corr Coeff - Total - Lognormal	0.8708	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7439	NA
W-Test - Lognormal	0.7633	NA

Type of Distribution ..... LOGNORMAL ✓

Test Results:

Dataset: INR6W_RES
Media : Indian Head Range 6 Statistics
Group : Surface Water

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	2.5500	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	2.3000	
Positive Hits - Maximum	2.7000	
Average Of Positive Hits	2.5500	
Standard Deviation	0.1732	
Upper Confidence Limit - Normal	2.7538	
Upper Confidence Limit - Lognormal	2.8657	
95th Percentile - Nonparametric	2.7000	
95th Percentile - Normal	2.8349	
95th Percentile - Lognormal	2.8556	
Upper Tolerance Limit - Normal	3.4411	
Upper Tolerance Limit - Lognormal	3.6470	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9051	
Corr Coeff - Detected - Lognormal	0.8991	
Corr Coeff - Total - Normal	0.9051	
Corr Coeff - Total - Lognormal	0.8991	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8395	NA
W-Test - Lognormal	0.8285	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: INR6W_RES
Media : Indian Head Range 6 Statistics
Group : Surface Water

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	7.5250	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	6.5000	
Positive Hits - Maximum	8.2000	
Average Of Positive Hits	7.5250	
Standard Deviation	0.7274	
Upper Confidence Limit - Normal	8.3808	
Upper Confidence Limit - Lognormal	8.6548	
95th Percentile - Nonparametric	8.2000	
95th Percentile - Normal	8.7216	
95th Percentile - Lognormal	8.8416	
Upper Tolerance Limit - Normal	11.2677	
Upper Tolerance Limit - Lognormal	12.5581	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9473	
Corr Coeff - Detected - Lognormal	0.9379	
Corr Coeff - Total - Normal	0.9473	
Corr Coeff - Total - Lognormal	0.9379	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9098	NA
W-Test - Lognormal	0.8921	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.1144	
Detection Limit - Minimum	0.0500	
Detection Limits - Maximum	0.0600	
Positive Hits - Minimum	0.2900	
Positive Hits - Maximum	0.2900	
Average Of Positive Hits	0.2900	
Standard Deviation	0.1172	
Upper Confidence Limit - Normal	0.2522	
Upper Confidence Limit - Lognormal	4.2844	
95th Percentile - Nonparametric	0.2900	
95th Percentile - Normal	0.3071	
95th Percentile - Lognormal	0.3288	
Upper Tolerance Limit - Normal	0.7172	
Upper Tolerance Limit - Lognormal	5.9836	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8053	
Corr Coeff - Total - Lognormal	0.8370	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6639	NA
W-Test - Lognormal	0.7163	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : ARSENIC (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	9.0000
Average		1.3200	3.0160
Detection Limit - Minimum	NA		0.4100
Detection Limits - Maximum	NA		0.4100
Positive Hits - Minimum		0.4700	0.2800
Positive Hits - Maximum		3.0000	9.5500
Average Of Positive Hits		1.3200	3.3056
Standard Deviation		1.1399	3.4113
Upper Confidence Limit - Normal		2.6610	4.9933
Upper Confidence Limit - Lognormal		32.6102	16.6094
95th Percentile - Nonparametric		3.0000	9.5500
95th Percentile - Normal		3.1951	8.6276
95th Percentile - Lognormal		3.7067	12.6643
Upper Tolerance Limit - Normal		7.1845	12.9463
Upper Tolerance Limit - Lognormal		55.9182	62.9604

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8829	0.8773
Corr Coeff - Detected - Lognormal	0.9582	0.9846
Corr Coeff - Total - Normal	0.8829	0.8853
Corr Coeff - Total - Lognormal	0.9582	0.9774
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7951	0.7732
W-Test - Lognormal	0.9341	0.9312

Type of Distribution ..... LOGNORMAL LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	12.1500	41.9750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.5000	5.8000
Positive Hits - Maximum	24.1000	175.0000
Average Of Positive Hits	12.1500	41.9750
Standard Deviation	8.1230	52.8775
Upper Confidence Limit - Normal	21.7067	72.6252
Upper Confidence Limit - Lognormal	76.7970	145.1041
95th Percentile - Nonparametric	24.1000	175.0000
95th Percentile - Normal	25.5124	128.9586
95th Percentile - Lognormal	27.5085	143.4017
Upper Tolerance Limit - Normal	53.9429	195.9015
Upper Tolerance Limit - Lognormal	211.0406	577.1926

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8858	0.8317
Corr Coeff - Detected - Lognormal	0.9393	0.9742
Corr Coeff - Total - Normal	0.8858	0.8317
Corr Coeff - Total - Lognormal	0.9393	0.9742
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7932	0.7090
W-Test - Lognormal	0.8863	0.9408
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	7.0000
Average	0.0919	0.5070
Detection Limit - Minimum	0.0100	0.0450
Detection Limits - Maximum	0.0325	1.3750
Positive Hits - Minimum	0.3100	0.1350
Positive Hits - Maximum	0.3100	1.0000
Average Of Positive Hits	0.3100	0.5150
Standard Deviation	0.1457	0.4502
Upper Confidence Limit - Normal	0.2633	0.7679
Upper Confidence Limit - Lognormal	20062.2225	2.8364
95th Percentile - Nonparametric	0.3100	1.3750
95th Percentile - Normal	0.3316	1.2475
95th Percentile - Lognormal	0.4366	2.2863
Upper Tolerance Limit - Normal	0.8417	1.8175
Upper Tolerance Limit - Lognormal	93.3913	10.9163

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9735
Corr Coeff - Detected - Lognormal	**********	0.9592
Corr Coeff - Total - Normal	0.8205	0.9559
Corr Coeff - Total - Lognormal	0.9355	0.9635
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6862	0.9015
W-Test - Lognormal	0.8790	0.9063
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	7.0000
Average	0.4375	0.3185
Detection Limit - Minimum	NA	0.0800
Detection Limits - Maximum	NA	0.4500
Positive Hits - Minimum	0.2200	0.1450
Positive Hits - Maximum	0.8000	0.8600
Average Of Positive Hits	0.4375	0.3479
Standard Deviation	0.2528	0.2283
Upper Confidence Limit - Normal	0.7349	0.4508
Upper Confidence Limit - Lognormal	2.1725	0.5699
95th Percentile - Nonparametric	0.8000	0.8600
95th Percentile - Normal	0.8533	0.6941
95th Percentile - Lognormal	0.9480	0.7866
Upper Tolerance Limit - Normal	1.7380	0.9832
Upper Tolerance Limit - Lognormal	6.2596	1.8472

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9309	0.9182
Corr Coeff - Detected - Lognormal	0.9790	0.9870
Corr Coeff - Total - Normal	0.9309	0.9107
Corr Coeff - Total - Lognormal	0.9790	0.9891
Corr Coeff - Crit Val - Detected	0.8680	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8784	0.8457
W-Test - Lognormal	0.9689	0.9882
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	7.9750	11.5800
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.6000	3.3000
Positive Hits - Maximum	10.9000	27.7000
Average Of Positive Hits	7.9750	11.5800
Standard Deviation	3.3290	8.1746
Upper Confidence Limit - Normal	11.8916	16.3184
Upper Confidence Limit - Lognormal	33.8337	22.9076
95th Percentile - Nonparametric	10.9000	27.7000
95th Percentile - Normal	13.4513	25.0272
95th Percentile - Lognormal	16.8828	30.9388
Upper Tolerance Limit - Normal	25.1029	35.3762
Upper Tolerance Limit - Lognormal	99.7198	79.1602

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9624	0.9502
Corr Coeff - Detected - Lognormal	0.9341	0.9777
Corr Coeff - Total - Normal	0.9624	0.9502
Corr Coeff - Total - Lognormal	0.9341	0.9777
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9164	0.8929
W-Test - Lognormal	0.8698	0.9351
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	1.4225	5.9695
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.6700	0.6700
Positive Hits - Maximum	3.3000	17.0500
Average Of Positive Hits	1.4225	5.9695
Standard Deviation	1.2601	5.9423
Upper Confidence Limit - Normal	2.9050	9.4139
Upper Confidence Limit - Lognormal	26.0721	30.6991
95th Percentile - Nonparametric	3.3000	17.0500
95th Percentile - Normal	3.4953	15.7446
95th Percentile - Lognormal	3.7901	24.9428
Upper Tolerance Limit - Normal	7.9055	23.2675
Upper Tolerance Limit - Lognormal	50.3978	118.3767

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8434	0.9255
Corr Coeff - Detected - Lognormal	0.8960	0.9582
Corr Coeff - Total - Normal	0.8434	0.9255
Corr Coeff - Total - Lognormal	0.8960	0.9582
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7219	0.8399
W-Test - Lognormal	0.8076	0.8895
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	16.7750	9.4985
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.2000	0.6350
Positive Hits - Maximum	50.5000	26.7500
Average Of Positive Hits	16.7750	9.4985
Standard Deviation	22.8297	10.6209
Upper Confidence Limit - Normal	43.6342	15.6549
Upper Confidence Limit - Lognormal	587385.6495	91.4263
95th Percentile - Nonparametric	50.5000	26.7500
95th Percentile - Normal	54.3299	26.9699
95th Percentile - Lognormal	81.0501	46.4598
Upper Tolerance Limit - Normal	134.2339	40.4159
Upper Tolerance Limit - Lognormal	11219.0914	296.5670

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8682	0.8992
Corr Coeff - Detected - Lognormal	0.9702	0.9550
Corr Coeff - Total - Normal	0.8682	0.8992
Corr Coeff - Total - Lognormal	0.9702	0.9550
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7612	0.7832
W-Test - Lognormal	0.9330	0.8807
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	10.5750	23.0750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.4000	2.1000
Positive Hits - Maximum	28.0000 UCL	79.3000
Average Of Positive Hits	10.5750	23.0750
Standard Deviation	12.0699	25.6307
Upper Confidence Limit - Normal	24.7752	37.9317
Upper Confidence Limit - Lognormal	16560.5672	124.9997
95th Percentile - Nonparametric	28.0000	79.3000
95th Percentile - Normal	30.4300	65.2375
95th Percentile - Lognormal	43.8502	96.4635
Upper Tolerance Limit - Normal	72.6746	97.6859
Upper Tolerance Limit - Lognormal	2717.8957	475.5218 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8966	0.9044
Corr Coeff - Detected - Lognormal	0.9450	0.9774
Corr Coeff - Total - Normal	0.8966	0.9044
Corr Coeff - Total - Lognormal	0.9450	0.9774
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8044	0.8168
W-Test - Lognormal	0.8750	0.9353
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	0.0950	0.0670
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.1300	0.2300
Average Of Positive Hits	0.0950	0.0670
Standard Deviation	0.0507	0.0747
Upper Confidence Limit - Normal	0.1546	0.1103
Upper Confidence Limit - Lognormal	7.5506	0.1960
95th Percentile - Nonparametric	0.1300	0.2300
95th Percentile - Normal	0.1783	0.1899
95th Percentile - Lognormal	0.3349	0.2161
Upper Tolerance Limit - Normal	0.3557	0.2844
Upper Tolerance Limit - Lognormal	7.7426	0.7779

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8735	0.8527
Corr Coeff - Detected - Lognormal	0.8286	0.9397
Corr Coeff - Total - Normal	0.8735	0.8527
Corr Coeff - Total - Lognormal	0.8286	0.9397
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7754	0.7311
W-Test - Lognormal	0.7006	0.8808
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	8.0000
Average	6.1000	7.4355
Detection Limit - Minimum	NA	0.2750
Detection Limits - Maximum	NA	0.2900
Positive Hits - Minimum	2.3000	0.5400
Positive Hits - Maximum	12.8000	25.2000
Average Of Positive Hits	6.1000	9.2238
Standard Deviation	4.8696	8.7626
Upper Confidence Limit - Normal	11.8291	12.5147
Upper Confidence Limit - Lognormal	192.8307	156.6594
95th Percentile - Nonparametric	12.8000	25.2000
95th Percentile - Normal	14.1105	21.8500
95th Percentile - Lognormal	17.9402	45.7199
Upper Tolerance Limit - Normal	31.1543	32.9434
Upper Tolerance Limit - Lognormal	298.4124	382.0099

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9366	0.9709
Corr Coeff - Detected - Lognormal	0.9647	0.9615
Corr Coeff - Total - Normal	0.9366	0.9102
Corr Coeff - Total - Lognormal	0.9647	0.9740
Corr Coeff - Crit Val - Detected	0.8680	0.9050
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8706	0.8189
W-Test - Lognormal	0.9131	0.9207
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	7.0000
Average		0.5500	0.7190
Detection Limit - Minimum	NA		0.1300
Detection Limits - Maximum	NA		0.4250
Positive Hits - Minimum		0.3500	0.4500
Positive Hits - Maximum		0.9600	1.5500
Average Of Positive Hits		0.5500	0.9257
Standard Deviation		0.2837	0.5172
Upper Confidence Limit - Normal		0.8837	1.0188
Upper Confidence Limit - Lognormal		1.8398	1.7273
95th Percentile - Nonparametric		0.9600	1.5500
95th Percentile - Normal		1.0166	1.5698
95th Percentile - Lognormal		1.0810	2.1996
Upper Tolerance Limit - Normal		2.0095	2.2245
Upper Tolerance Limit - Lognormal		5.4756	6.4546

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9032	0.9436
Corr Coeff - Detected - Lognormal	0.9370	0.9464
Corr Coeff - Total - Normal	0.9032	0.9431
Corr Coeff - Total - Lognormal	0.9370	0.9625
Corr Coeff - Crit Val - Detected	0.8680	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8179	0.8704
W-Test - Lognormal	0.8736	0.9122
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	7.6750	18.6350
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.0000	3.2000
Positive Hits - Maximum	17.4000	46.3000
Average Of Positive Hits	7.6750	18.6350
Standard Deviation	6.6989	15.4646
Upper Confidence Limit - Normal	15.5563	27.5990
Upper Confidence Limit - Lognormal	232.2004	50.5807
95th Percentile - Nonparametric	17.4000	46.3000
95th Percentile - Normal	18.6948	44.0743
95th Percentile - Lognormal	22.1342	60.4356
Upper Tolerance Limit - Normal	42.1411	63.6525
Upper Tolerance Limit - Lognormal	363.9352	196.4642

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8988	0.9446
Corr Coeff - Detected - Lognormal	0.9561	0.9876
Corr Coeff - Total - Normal	0.8988	0.9446
Corr Coeff - Total - Lognormal	0.9561	0.9876
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8110	0.8744
W-Test - Lognormal	0.9067	0.9533
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : ZINC (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	9.0000
Average		19.0250	37.1350
Detection Limit - Minimum	NA		0.5500
Detection Limits - Maximum	NA		0.5500
Positive Hits - Minimum		7.5000	4.4000
Positive Hits - Maximum		43.5000	146.5000
Average Of Positive Hits		19.0250	41.2000
Standard Deviation		16.7016	45.8496
Upper Confidence Limit - Normal		38.6744	63.7115
Upper Confidence Limit - Lognormal		503.0736	585.3022
95th Percentile - Nonparametric		43.5000	146.5000
95th Percentile - Normal		46.4991	112.5576
95th Percentile - Lognormal		53.7477	225.7454
Upper Tolerance Limit - Normal		104.9546	170.6031
Upper Tolerance Limit - Lognormal		836.0802	1659.5817

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8893	0.8906
Corr Coeff - Detected - Lognormal	0.9559	0.9880
Corr Coeff - Total - Normal	0.8893	0.8610
Corr Coeff - Total - Lognormal	0.9559	0.9607
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7972	0.7546
W-Test - Lognormal	0.9118	0.9388
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	90.8750	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	71.0000	
Positive Hits - Maximum	71.0000	
Average Of Positive Hits	71.0000	
Standard Deviation	14.3084	
Upper Confidence Limit - Normal	107.7088	
Upper Confidence Limit - Lognormal	117.5568	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	114.4123	
95th Percentile - Lognormal	118.4091	
Upper Tolerance Limit - Normal	164.4915	
Upper Tolerance Limit - Lognormal	212.4365	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9513	
Corr Coeff - Total - Lognormal	0.9365	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9210	NA
W-Test - Lognormal	0.8931	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	88.1250	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	60.0000	
Positive Hits - Maximum	60.0000	
Average Of Positive Hits	60.0000	
Standard Deviation	19.5123	
Upper Confidence Limit - Normal	111.0812	
Upper Confidence Limit - Lognormal	136.5296	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	120.2227	
95th Percentile - Lognormal	129.7272	
Upper Tolerance Limit - Normal	188.5157	
Upper Tolerance Limit - Lognormal	309.1117	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9185	
Corr Coeff - Total - Lognormal	0.8964	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8601	NA
W-Test - Lognormal	0.8198	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	98.1250	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	100.0000	
Positive Hits - Maximum	100.0000 UCL	
Average Of Positive Hits	100.0000	
Standard Deviation	5.5434	
Upper Confidence Limit - Normal	104.6468	
Upper Confidence Limit - Lognormal	108.5370	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	107.2439	
95th Percentile - Lognormal	107.4990	
Upper Tolerance Limit - Normal	126.6457	
Upper Tolerance Limit - Lognormal	130.8609	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9869	
Corr Coeff - Total - Lognormal	0.9885	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9643	NA
W-Test - Lognormal	0.9671	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : CHRYSENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	87.1250	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	56.0000	
Positive Hits - Maximum	56.0000	
Average Of Positive Hits	56.0000	
Standard Deviation	21.4413	
Upper Confidence Limit - Normal	112.3507	
Upper Confidence Limit - Lognormal	147.5968	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	122.3959	
95th Percentile - Lognormal	134.7890	
Upper Tolerance Limit - Normal	197.4405	
Upper Tolerance Limit - Lognormal	361.4479	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9090	
Corr Coeff - Total - Lognormal	0.8850	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8427	NA
W-Test - Lognormal	0.7994	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	186.8750	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	102.5000	
Positive Hits - Minimum	160.0000	
Positive Hits - Maximum	390.0000	
Average Of Positive Hits	275.0000	
Standard Deviation	138.4945	
Upper Confidence Limit - Normal	349.8138	
Upper Confidence Limit - Lognormal	1804.7025	
95th Percentile - Nonparametric	390.0000	
95th Percentile - Normal	414.6985	
95th Percentile - Lognormal	456.4070	
Upper Tolerance Limit - Normal	899.4293	
Upper Tolerance Limit - Lognormal	4419.8139	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8823	
Corr Coeff - Total - Lognormal	0.9317	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7838	NA
W-Test - Lognormal	0.8653	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	96.2500	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	102.5000	
Positive Hits - Minimum	95.0000	
Positive Hits - Maximum	95.0000	
Average Of Positive Hits	95.0000	
Standard Deviation	4.3301	
Upper Confidence Limit - Normal	101.3444	
Upper Confidence Limit - Lognormal	104.7127	
95th Percentile - Nonparametric	102.5000	
95th Percentile - Normal	103.3731	
95th Percentile - Lognormal	103.4424	
Upper Tolerance Limit - Normal	118.5285	
Upper Tolerance Limit - Lognormal	120.7747	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9051	
Corr Coeff - Total - Lognormal	0.9090	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8395	NA
W-Test - Lognormal	0.8468	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	92.3750	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	77.0000	
Positive Hits - Maximum	77.0000 UCL	
Average Of Positive Hits	77.0000	
Standard Deviation	11.5857	
Upper Confidence Limit - Normal	106.0056	
Upper Confidence Limit - Lognormal	111.5528	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	111.4335	
95th Percentile - Lognormal	113.5772	
Upper Tolerance Limit - Normal	151.9836	
Upper Tolerance Limit - Lognormal	178.6065	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9718	
Corr Coeff - Total - Lognormal	0.9634	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9599	NA
W-Test - Lognormal	0.9435	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: INR6D_RES
Media : Indian Head Range 6 Statistics
Group : Sediment Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	88.8750	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	105.0000	
Positive Hits - Minimum	63.0000	
Positive Hits - Maximum	63.0000 UCL	
Average Of Positive Hits	63.0000	
Standard Deviation	18.0757	
Upper Confidence Limit - Normal	110.1410	
Upper Confidence Limit - Lognormal	129.8654	
95th Percentile - Nonparametric	105.0000	
95th Percentile - Normal	118.6094	
95th Percentile - Lognormal	126.2911	
Upper Tolerance Limit - Normal	181.8742	
Upper Tolerance Limit - Lognormal	276.9373	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9265	
Corr Coeff - Total - Lognormal	0.9060	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8747	NA
W-Test - Lognormal	0.8371	NA

Type of Distribution ~~Undefined~~ NORMAL

Test Results:

SWMU 2/3 RANGE 3/CHICAMUXEN CREEK'S EDGE DUMP SITE A

The minimum and maximum values present on the following statistical calculations may not be the same as the range of detection presented on the COPC selection tables. The true minimum and maximum detected values can be found in the raw data.

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	14.0000	3.0000
Number of Detects	9.0000	2.0000
Average	775.9286	5067.3167
Detection Limit - Minimum	2.7500	1.9500
Detection Limits - Maximum	55.0000	1.9500
Positive Hits - Minimum	96.0000	2200.0000
Positive Hits - Maximum	2600.0000	13000.0000 UL
Average Of Positive Hits	1196.2222	7600.0000
Standard Deviation	983.1189	6957.2591
Upper Confidence Limit - Normal	1241.2581	16796.3009
Upper Confidence Limit - Lognormal	24976.237 UCL	2.2862578E+94
95th Percentile - Nonparametric	2600.0000	13000.0000
95th Percentile - Normal	2393.1592	16512.0079
95th Percentile - Lognormal	8487.0111	810165.5693
Upper Tolerance Limit - Normal	3345.8015	**********
Upper Tolerance Limit - Lognormal	88755.3327	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.2365	1.0000
Corr Coeff - Detected - Lognormal	0.2051	1.0000
Corr Coeff - Total - Normal	0.8867	0.9341
Corr Coeff - Total - Lognormal	0.9679	0.9455
Corr Coeff - Crit Val - Detected	0.9120	**********
Corr Coeff - Crit Val - Total	0.9340	**********
W-Test - Table Value	0.8740	0.7670
W-Test - Normal	0.7666	0.8726
W-Test - Lognormal	0.9116	0.8940
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	52.4196	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	5.5000	
Positive Hits - Minimum	700.0000	
Positive Hits - Maximum	700.0000	
Average Of Positive Hits	700.0000	
Standard Deviation	186.3898	
Upper Confidence Limit - Normal	140.6416	
Upper Confidence Limit - Lognormal	65.5026	
95th Percentile - Nonparametric	700.0000	
95th Percentile - Normal	359.0309	
95th Percentile - Lognormal	47.5123	
Upper Tolerance Limit - Normal	539.6427	
Upper Tolerance Limit - Lognormal	217.2711	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5165	
Corr Coeff - Total - Lognormal	0.7091	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3019	NA
W-Test - Lognormal	0.5396	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	88.5714	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	45.0000	
Positive Hits - Maximum	45.0000	
Average Of Positive Hits	45.0000	
Standard Deviation	13.0721	
Upper Confidence Limit - Normal	94.7587	
Upper Confidence Limit - Lognormal	98.1259	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	110.0750	
95th Percentile - Lognormal	120.2318	
Upper Tolerance Limit - Normal	122.7418	
Upper Tolerance Limit - Lognormal	145.1903	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7005	
Corr Coeff - Total - Lognormal	0.6514	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.5328	NA
W-Test - Lognormal	0.4652	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)PYRENE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	88.5714	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	45.0000	
Positive Hits - Maximum	45.0000	
Average Of Positive Hits	45.0000	
Standard Deviation	13.0721	
Upper Confidence Limit - Normal	94.7587	
Upper Confidence Limit - Lognormal	98.1259	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	110.0750	
95th Percentile - Lognormal	120.2318	
Upper Tolerance Limit - Normal	122.7418	
Upper Tolerance Limit - Lognormal	145.1903	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7005	
Corr Coeff - Total - Lognormal	0.6514	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.5328	NA
W-Test - Lognormal	0.4652	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	91.4286	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	85.0000	
Positive Hits - Maximum	85.0000	
Average Of Positive Hits	85.0000	
Standard Deviation	4.1271	
Upper Confidence Limit - Normal	93.3820	
Upper Confidence Limit - Lognormal	101.5891	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	98.2177	
95th Percentile - Lognormal	98.2389	
Upper Tolerance Limit - Normal	102.2168	
Upper Tolerance Limit - Lognormal	102.5412	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8931	
Corr Coeff - Total - Lognormal	0.8998	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.8109	NA
W-Test - Lognormal	0.8234	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	14.0000	3.0000
Number of Detects	4.0000	1.0000
Average	189.3571	290.4833
Detection Limit - Minimum	87.5000	36.4500
Detection Limits - Maximum	100.0000	195.0000
Positive Hits - Minimum	86.0000	640.0000
Positive Hits - Maximum	780.0000 UCL	640.0000 UTL
Average Of Positive Hits	431.5000	640.0000
Standard Deviation	218.4821	312.8993
Upper Confidence Limit - Normal	292.7690	817.9886
Upper Confidence Limit - Lognormal	290.6564	96854832671.09
95th Percentile - Nonparametric	780.0000	640.0000
95th Percentile - Normal	548.7602	805.2026
95th Percentile - Lognormal	455.9065	1769.4511
Upper Tolerance Limit - Normal	760.4694	**********
Upper Tolerance Limit - Lognormal	946.3608	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9890	
Corr Coeff - Detected - Lognormal	0.9659	
Corr Coeff - Total - Normal	0.7247	0.9644
Corr Coeff - Total - Lognormal	0.7693	0.9952
Corr Coeff - Crit Val - Detected	0.8680	**********
Corr Coeff - Crit Val - Total	0.9340	**********
W-Test - Table Value	0.8740	0.7670
W-Test - Normal	0.5400	0.9301
W-Test - Lognormal	0.5960	0.9904
Type of Distribution	Undefined ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... ~~PASS~~ FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	89.1429	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	53.0000	
Positive Hits - Maximum	53.0000	
Average Of Positive Hits	53.0000	
Standard Deviation	11.0374	
Upper Confidence Limit - Normal	94.3671	
Upper Confidence Limit - Lognormal	96.3482	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	107.2994	
95th Percentile - Lognormal	113.4149	
Upper Tolerance Limit - Normal	117.9946	
Upper Tolerance Limit - Lognormal	131.4214	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7305	
Corr Coeff - Total - Lognormal	0.6866	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.5760	NA
W-Test - Lognormal	0.5131	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	4.0000	
Average	79.1071	
Detection Limit - Minimum	13.0000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	37.0000	
Positive Hits - Maximum	96.0000	
Average Of Positive Hits	65.5000	
Standard Deviation	25.8049	
Upper Confidence Limit - Normal	91.3211	
Upper Confidence Limit - Lognormal	117.1682	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	121.5562	
95th Percentile - Lognormal	179.7800	
Upper Tolerance Limit - Normal	146.5611	
Upper Tolerance Limit - Lognormal	309.0751	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8792	
Corr Coeff - Detected - Lognormal	0.9162	
Corr Coeff - Total - Normal	0.8578	
Corr Coeff - Total - Lognormal	0.7658	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.7436	NA
W-Test - Lognormal	0.6103	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	106.2500	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	290.0000	
Positive Hits - Maximum	290.0000	
Average Of Positive Hits	290.0000	
Standard Deviation	53.0217	
Upper Confidence Limit - Normal	131.3462	
Upper Confidence Limit - Lognormal	123.4107	
95th Percentile - Nonparametric	290.0000	
95th Percentile - Normal	193.4707	
95th Percentile - Lognormal	166.1768	
Upper Tolerance Limit - Normal	244.8487	
Upper Tolerance Limit - Lognormal	224.2574	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5625	
Corr Coeff - Total - Lognormal	0.6028	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3525	NA
W-Test - Lognormal	0.3998	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : FLUORANTHENE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	3.0000	
Average	86.8929	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	57.0000	
Positive Hits - Maximum	88.0000	
Average Of Positive Hits	68.0000	
Standard Deviation	12.8230	
Upper Confidence Limit - Normal	92.9622	
Upper Confidence Limit - Lognormal	94.8701	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	107.9867	
95th Percentile - Lognormal	113.7243	
Upper Tolerance Limit - Normal	120.4122	
Upper Tolerance Limit - Lognormal	134.2283	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8934	
Corr Coeff - Detected - Lognormal	0.8995	
Corr Coeff - Total - Normal	0.8191	
Corr Coeff - Total - Lognormal	0.7909	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.6835	NA
W-Test - Lognormal	0.6386	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	3.0000	
Average	83.6786	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	49.0000	
Positive Hits - Maximum	57.0000	
Average Of Positive Hits	53.0000	
Standard Deviation	17.0932	
Upper Confidence Limit - Normal	91.7691	
Upper Confidence Limit - Lognormal	95.1319	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	111.7969	
95th Percentile - Lognormal	121.3207	
Upper Tolerance Limit - Normal	128.3602	
Upper Tolerance Limit - Lognormal	153.1533	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	0.9998	
Corr Coeff - Total - Normal	0.8451	
Corr Coeff - Total - Lognormal	0.8241	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.7121	NA
W-Test - Lognormal	0.6789	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	2.0000	
Average	88.2143	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	49.0000	
Positive Hits - Maximum	81.0000	
Average Of Positive Hits	65.0000	
Standard Deviation	12.2234	
Upper Confidence Limit - Normal	93.9999	
Upper Confidence Limit - Lognormal	96.5113	
95th Percentile - Nonparametric	100.0000	
95th Percentile - Normal	108.3218	
95th Percentile - Lognormal	115.9642	
Upper Tolerance Limit - Normal	120.1663	
Upper Tolerance Limit - Lognormal	137.2037	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7714	
Corr Coeff - Total - Lognormal	0.7188	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.6334	NA
W-Test - Lognormal	0.5557	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : 1,3,5-TRINITROBENZENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	45.0429	
Detection Limit - Minimum	10.0500	
Detection Limits - Maximum	90.0000	
Positive Hits - Minimum	420.0000	
Positive Hits - Maximum	420.0000 UCL	
Average Of Positive Hits	420.0000	
Standard Deviation	110.0028	
Upper Confidence Limit - Normal	97.1093	
Upper Confidence Limit - Lognormal	72.7305	
95th Percentile - Nonparametric	420.0000	
95th Percentile - Normal	225.9975	
95th Percentile - Lognormal	96.4371	
Upper Tolerance Limit - Normal	332.5902	
Upper Tolerance Limit - Lognormal	284.7592	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5809	
Corr Coeff - Total - Lognormal	0.6490	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3716	NA
W-Test - Lognormal	0.4450	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	3.0000	
Average	492.3500	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	104.0000	
Positive Hits - Maximum	6570.0000 UCL	
Average Of Positive Hits	2265.0000	
Standard Deviation	1749.6705	
Upper Confidence Limit - Normal	1320.5034	
Upper Confidence Limit - Lognormal	1309.7998	
95th Percentile - Nonparametric	6570.0000	
95th Percentile - Normal	3370.5580	
95th Percentile - Lognormal	463.5412	
Upper Tolerance Limit - Normal	5065.9887	
Upper Tolerance Limit - Lognormal	2910.9371	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8672	
Corr Coeff - Detected - Lognormal	0.8817	
Corr Coeff - Total - Normal	0.5232	
Corr Coeff - Total - Lognormal	0.7061	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3088	NA
W-Test - Lognormal	0.5218	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	3.0000	
Average	70.8161	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	11.6750	
Positive Hits - Minimum	127.0000	
Positive Hits - Maximum	525.0000 UCL	
Average Of Positive Hits	287.6667	
Standard Deviation	143.4642	
Upper Confidence Limit - Normal	138.7205	
Upper Confidence Limit - Lognormal	183.4876	
95th Percentile - Nonparametric	525.0000	
95th Percentile - Normal	306.8146	
95th Percentile - Lognormal	196.0566	
Upper Tolerance Limit - Normal	445.8314	
Upper Tolerance Limit - Lognormal	704.6940	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9486	
Corr Coeff - Detected - Lognormal	0.9868	
Corr Coeff - Total - Normal	0.6843	
Corr Coeff - Total - Lognormal	0.7413	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.4953	NA
W-Test - Lognormal	0.5549	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : HMX (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	41.7232	
Detection Limit - Minimum	17.6250	
Detection Limits - Maximum	17.6250	
Positive Hits - Minimum	355.0000	
Positive Hits - Maximum	355.0000 UCL	
Average Of Positive Hits	355.0000	
Standard Deviation	90.1673	
Upper Confidence Limit - Normal	84.4012	
Upper Confidence Limit - Lognormal	52.4515	
95th Percentile - Nonparametric	355.0000	
95th Percentile - Normal	190.0484	
95th Percentile - Lognormal	81.7748	
Upper Tolerance Limit - Normal	277.4204	
Upper Tolerance Limit - Lognormal	177.9713	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5118	
Corr Coeff - Total - Lognormal	0.5118	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.2969	NA
W-Test - Lognormal	0.2969	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	7.0000	
Average	0.3435	
Detection Limit - Minimum	0.0750	
Detection Limits - Maximum	0.1525	
Positive Hits - Minimum	0.4200	
Positive Hits - Maximum	0.8700	
Average Of Positive Hits	0.5800	
Standard Deviation	0.2682	
Upper Confidence Limit - Normal	0.4704	
Upper Confidence Limit - Lognormal	0.7145	
95th Percentile - Nonparametric	0.8700	
95th Percentile - Normal	0.7846	
95th Percentile - Lognormal	1.0803	
Upper Tolerance Limit - Normal	1.0445	
Upper Tolerance Limit - Lognormal	2.6060	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9453	
Corr Coeff - Detected - Lognormal	0.9717	
Corr Coeff - Total - Normal	0.9355	
Corr Coeff - Total - Lognormal	0.9389	
Corr Coeff - Crit Val - Detected	0.8990	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.8585	NA
W-Test - Lognormal	0.8551	NA

Type of Distribution ..... ~~LOGNORMAL~~ UNDETINED

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	4.3607	2.1807
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.5500	0.7800
Positive Hits - Maximum	6.7000	3.3000
Average Of Positive Hits	4.3607	2.1807
Standard Deviation	1.0492	0.7934
Upper Confidence Limit - Normal	4.8573	2.5563
Upper Confidence Limit - Lognormal	4.9494 UCL	2.8641
95th Percentile - Nonparametric	6.7000	3.3000
95th Percentile - Normal	6.0867	3.4859
95th Percentile - Lognormal	6.3189	4.2001
Upper Tolerance Limit - Normal	7.1033	4.2547 UTL
Upper Tolerance Limit - Lognormal	7.9871	6.4760

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9691	0.9822
Corr Coeff - Detected - Lognormal	0.9760	0.9370
Corr Coeff - Total - Normal	0.9691	0.9822
Corr Coeff - Total - Lognormal	0.9760	0.9370
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.9531	0.9501
W-Test - Lognormal	0.9670	0.8719
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	36.3643	39.0643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	18.5000	12.5000
Positive Hits - Maximum	94.1000	84.8000
Average Of Positive Hits	36.3643	39.0643
Standard Deviation	20.2491	19.8123
Upper Confidence Limit - Normal	45.9486	48.4418
Upper Confidence Limit - Lognormal	46.1184 UL	55.3528
95th Percentile - Nonparametric	94.1000	84.8000
95th Percentile - Normal	69.6741	71.6554
95th Percentile - Lognormal	67.2630	84.6340
Upper Tolerance Limit - Normal	89.2955	90.8535
Upper Tolerance Limit - Lognormal	102.6485	143.9192 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8406	0.9645
Corr Coeff - Detected - Lognormal	0.9372	0.9739
Corr Coeff - Total - Normal	0.8406	0.9645
Corr Coeff - Total - Lognormal	0.9372	0.9739
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.7269	0.9348
W-Test - Lognormal	0.8885	0.9467
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

		Sample Results	Background Results
Count		14.0000	14.0000
Number of Detects		14.0000	12.0000
Average		0.2943	0.3489
Detection Limit - Minimum	NA		0.0500
Detection Limits - Maximum	NA		0.0750
Positive Hits - Minimum		0.1500	0.0500
Positive Hits - Maximum		0.7200	0.6100
Average Of Positive Hits		0.2943	0.3967
Standard Deviation		0.1615	0.2127
Upper Confidence Limit - Normal		0.3707	0.4496
Upper Confidence Limit - Lognormal		0.3821 UCL	0.7858
95th Percentile - Nonparametric		0.7200	0.6100
95th Percentile - Normal		0.5600	0.6988
95th Percentile - Lognormal		0.5648	1.1822
Upper Tolerance Limit - Normal		0.7165	0.9050 UTL
Upper Tolerance Limit - Lognormal		0.8850	2.8846

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.8920	0.9489
Corr Coeff - Detected - Lognormal		0.9646	0.8792
Corr Coeff - Total - Normal		0.8920	0.9566
Corr Coeff - Total - Lognormal		0.9646	0.9200
Corr Coeff - Crit Val - Detected		0.9340	0.9260
Corr Coeff - Crit Val - Total		0.9340	0.9340
W-Test - Table Value		0.8740	0.8740
W-Test - Normal		0.8043	0.8844 ✓
W-Test - Lognormal		0.9255 ✓	0.8249
Type of Distribution		LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

		Sample Results	Background Results
Count		14.0000	14.0000
Number of Detects		14.0000	6.0000
Average		0.4736	0.1689
Detection Limit - Minimum	NA		0.0550
Detection Limits - Maximum	NA		0.2850
Positive Hits - Minimum		0.1500	0.1500
Positive Hits - Maximum		0.9500	0.2600 UTL
Average Of Positive Hits		0.4736	0.2267
Standard Deviation		0.2570	0.0917
Upper Confidence Limit - Normal		0.5952	0.2123
Upper Confidence Limit - Lognormal		0.6772 UCL	0.2677
95th Percentile - Nonparametric		0.9500	0.2850
95th Percentile - Normal		0.8963	0.3197
95th Percentile - Lognormal		1.0410	0.4195
Upper Tolerance Limit - Normal		1.1453	0.4085
Upper Tolerance Limit - Lognormal		1.8003	0.7967

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9609	0.8540
Corr Coeff - Detected - Lognormal		0.9838	0.8205
Corr Coeff - Total - Normal		0.9609	0.9331
Corr Coeff - Total - Lognormal		0.9838	0.9184
Corr Coeff - Crit Val - Detected		0.9340	0.8900
Corr Coeff - Crit Val - Total		0.9340	0.9340
W-Test - Table Value		0.8740	0.8740
W-Test - Normal		0.9093	0.8388
W-Test - Lognormal		0.9553	0.8133
Type of Distribution		LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	18.5036	11.9857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.7000	3.5000
Positive Hits - Maximum	35.8000	20.8000
Average Of Positive Hits	18.5036	11.9857
Standard Deviation	6.8608	4.6797
Upper Confidence Limit - Normal	21.7509	14.2007
Upper Confidence Limit - Lognormal	22.6813 UCL	15.8437
95th Percentile - Nonparametric	35.8000	20.8000
95th Percentile - Normal	29.7896	19.6839
95th Percentile - Lognormal	31.7478	23.3486
Upper Tolerance Limit - Normal	36.4378	24.2185 UTL
Upper Tolerance Limit - Lognormal	45.2494	36.3493

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9442	0.9854
Corr Coeff - Detected - Lognormal	0.9693	0.9550
Corr Coeff - Total - Normal	0.9442	0.9854
Corr Coeff - Total - Lognormal	0.9693	0.9550
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.9024	0.9744
W-Test - Lognormal	0.9395	0.9259
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	6.3336	5.0586
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.0700	0.5800
Positive Hits - Maximum	21.6000	15.0000
Average Of Positive Hits	6.3336	5.0586
Standard Deviation	5.5432	4.6659
Upper Confidence Limit - Normal	8.9573	7.2670
Upper Confidence Limit - Lognormal	11.4734	10.7597
95th Percentile - Nonparametric	21.6000	15.0000
95th Percentile - Normal	15.4521	12.7339
95th Percentile - Lognormal	17.8491	16.1061
Upper Tolerance Limit - Normal	20.8234	17.2551
Upper Tolerance Limit - Lognormal	39.2556	39.7328

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8739	0.8837
Corr Coeff - Detected - Lognormal	0.9765	0.9764
Corr Coeff - Total - Normal	0.8739	0.8837
Corr Coeff - Total - Lognormal	0.9765	0.9764
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.7800	0.7774
W-Test - Lognormal	0.9585	0.9513
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	13.0000	12.0000
Average	14.1634	4.7393
Detection Limit - Minimum	1.2875	2.2500
Detection Limits - Maximum	1.2875	2.3000
Positive Hits - Minimum	7.1000	1.8000
Positive Hits - Maximum	46.7000	17.3000
Average Of Positive Hits	15.1538	5.1500
Standard Deviation	10.4951	3.9231
Upper Confidence Limit - Normal	19.1309	6.5962
Upper Confidence Limit - Lognormal	25.7429	6.7231
95th Percentile - Nonparametric	46.7000	17.3000
95th Percentile - Normal	31.4278	11.1928
95th Percentile - Lognormal	40.2959	10.4300
Upper Tolerance Limit - Normal	41.5976	14.9943
Upper Tolerance Limit - Lognormal	85.3612	18.6594

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7459	0.7737
Corr Coeff - Detected - Lognormal	0.8973	0.9438
Corr Coeff - Total - Normal	0.8273	0.7909
Corr Coeff - Total - Lognormal	0.8876	0.9500
Corr Coeff - Crit Val - Detected	0.9310	0.9260
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.7233	0.6551
W-Test - Lognormal	0.8323	0.9113
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		14.0000	14.0000
Number of Detects		14.0000	12.0000
Average		15.5607	17.8000
Detection Limit - Minimum	NA		4.7000
Detection Limits - Maximum	NA		5.0000
Positive Hits - Minimum		4.1500	3.5000
Positive Hits - Maximum		37.2000	149.0000 UTL
Average Of Positive Hits		15.5607	19.9583
Standard Deviation		8.1909	37.8694
Upper Confidence Limit - Normal		19.4376	35.7243
Upper Confidence Limit - Lognormal		21.3637 UCL	25.4296
95th Percentile - Nonparametric		37.2000	149.0000
95th Percentile - Normal		29.0347	80.0952
95th Percentile - Lognormal		32.3150	38.7106
Upper Tolerance Limit - Normal		36.9716	116.7907
Upper Tolerance Limit - Lognormal		53.3205	91.7636

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9208	0.5784
Corr Coeff - Detected - Lognormal		0.9635	0.8094
Corr Coeff - Total - Normal		0.9208	0.5719
Corr Coeff - Total - Lognormal		0.9635	0.8192
Corr Coeff - Crit Val - Detected		0.9340	0.9260
Corr Coeff - Crit Val - Total		0.9340	0.9340
W-Test - Table Value		0.8740	0.8740
W-Test - Normal		0.8700	0.3635
W-Test - Lognormal		0.9532	0.7067
Type of Distribution		LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	12.0000
Average	0.0786	0.0400
Detection Limit - Minimum	NA	0.0100
Detection Limits - Maximum	NA	0.0400
Positive Hits - Minimum	0.0200	0.0300
Positive Hits - Maximum	0.2000	0.0800
Average Of Positive Hits	0.0786	0.0425
Standard Deviation	0.0592	0.0180
Upper Confidence Limit - Normal	0.1066	0.0485
Upper Confidence Limit - Lognormal	0.1302 UCL	0.0543
95th Percentile - Nonparametric	0.2000	0.0800
95th Percentile - Normal	0.1760	0.0696
95th Percentile - Lognormal	0.2044	0.0815
Upper Tolerance Limit - Normal	0.2333	0.0870 UTL
Upper Tolerance Limit - Lognormal	0.4151	0.1314

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9107	0.9066
Corr Coeff - Detected - Lognormal	0.9804	0.9328
Corr Coeff - Total - Normal	0.9107	0.9287
Corr Coeff - Total - Lognormal	0.9804	0.9141
Corr Coeff - Crit Val - Detected	0.9340	0.9260
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.8207	0.8790
W-Test - Lognormal	0.9465	0.8636
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	9.7536	4.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.5500	1.7000
Positive Hits - Maximum	26.7000	10.5000
Average Of Positive Hits	9.7536	4.9000
Standard Deviation	7.8399	2.6402
Upper Confidence Limit - Normal	13.4644	6.1497
Upper Confidence Limit - Lognormal	15.9534	6.9452
95th Percentile - Nonparametric	26.7000	10.5000
95th Percentile - Normal	22.6502	9.2432
95th Percentile - Lognormal	25.0571	10.6461
Upper Tolerance Limit - Normal	30.2471	11.8015
Upper Tolerance Limit - Lognormal	50.8715	18.2456

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8892	0.9667
Corr Coeff - Detected - Lognormal	0.9766	0.9889
Corr Coeff - Total - Normal	0.8892	0.9667
Corr Coeff - Total - Lognormal	0.9766	0.9889
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.7860	0.9268
W-Test - Lognormal	0.9417	0.9649
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		14.0000	14.0000
Number of Detects		14.0000	11.0000
Average		1.1193	0.4579
Detection Limit - Minimum	NA		0.0850
Detection Limits - Maximum	NA		0.2650
Positive Hits - Minimum		0.4500	0.1700
Positive Hits - Maximum		2.2000	0.8300
Average Of Positive Hits		1.1193	0.5409
Standard Deviation		0.4421	0.2425
Upper Confidence Limit - Normal		1.3285	0.5726
Upper Confidence Limit - Lognormal		1.431 UCL	0.7910
95th Percentile - Nonparametric		2.2000	0.8300
95th Percentile - Normal		1.8465	0.8567
95th Percentile - Lognormal		2.0711	1.2426
Upper Tolerance Limit - Normal		2.2748	1.0916 UTL
Upper Tolerance Limit - Lognormal		3.1139	2.5070

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9578	0.9769
Corr Coeff - Detected - Lognormal	0.9652	0.9122
Corr Coeff - Total - Normal	0.9578	0.9847
Corr Coeff - Total - Lognormal	0.9652	0.9417
Corr Coeff - Crit Val - Detected	0.9340	0.9220
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.9329	0.9508
W-Test - Lognormal	0.9401	0.8769
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	0.0367	
Detection Limit - Minimum	0.0140	
Detection Limits - Maximum	0.0525	
Positive Hits - Minimum	0.2500	
Positive Hits - Maximum	0.2500	
Average Of Positive Hits	0.2500	
Standard Deviation	0.0622	
Upper Confidence Limit - Normal	0.0662	
Upper Confidence Limit - Lognormal	0.0519	
95th Percentile - Nonparametric	0.2500	
95th Percentile - Normal	0.1391	
95th Percentile - Lognormal	0.0812	
Upper Tolerance Limit - Normal	0.1994	
Upper Tolerance Limit - Lognormal	0.1725	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6037	
Corr Coeff - Total - Lognormal	0.7679	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3993	NA
W-Test - Lognormal	0.6147	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	26.1250	19.1643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	11.4000	9.8000
Positive Hits - Maximum	37.6000	38.7000
Average Of Positive Hits	26.1250	19.1643
Standard Deviation	8.0523	8.5776
Upper Confidence Limit - Normal	29.9363	23.2242
Upper Confidence Limit - Lognormal	32.0282	24.4035
95th Percentile - Nonparametric	37.6000	38.7000
95th Percentile - Normal	39.3710	33.2744
95th Percentile - Lognormal	44.5922	35.3914
Upper Tolerance Limit - Normal	47.1737	41.5861
Upper Tolerance Limit - Lognormal	63.0531	53.4527

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9786	0.9398
Corr Coeff - Detected - Lognormal	0.9505	0.9634
Corr Coeff - Total - Normal	0.9786	0.9398
Corr Coeff - Total - Lognormal	0.9505	0.9634
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.9456	0.8795
W-Test - Lognormal	0.8983	0.9164
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	14.0000	14.0000
Number of Detects	14.0000	14.0000
Average	25.4214	18.0857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.3000	6.2000
Positive Hits - Maximum	53.4000	30.8000
Average Of Positive Hits	25.4214	18.0857
Standard Deviation	12.5058	7.6596
Upper Confidence Limit - Normal	31.3407	21.7111
Upper Confidence Limit - Lognormal	34.8253 UCL	24.6053
95th Percentile - Nonparametric	53.4000	30.8000
95th Percentile - Normal	45.9935	30.6857
95th Percentile - Lognormal	52.5967	36.8983
Upper Tolerance Limit - Normal	58.1117	38.1078 UTL
Upper Tolerance Limit - Lognormal	86.4440	59.6065

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9717	0.9903
Corr Coeff - Detected - Lognormal	0.9887	0.9681
Corr Coeff - Total - Normal	0.9717	0.9903
Corr Coeff - Total - Lognormal	0.9887	0.9681
Corr Coeff - Crit Val - Detected	0.9340	0.9340
Corr Coeff - Crit Val - Total	0.9340	0.9340
W-Test - Table Value	0.8740	0.8740
W-Test - Normal	0.9427	0.9656 ✓
W-Test - Lognormal	0.9699 ✓	0.9265
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3S_RES
Media : Indian Head Range 3 Statistics
Group : Surface Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	14.0000	12.0000
Number of Detects	13.0000	12.0000
Average	7069.8214	5953.3333
Detection Limit - Minimum	327.5000	NA
Detection Limits - Maximum	327.5000	NA
Positive Hits - Minimum	1570.0000	1620.0000
Positive Hits - Maximum	30000.0000	14000.0000
Average Of Positive Hits	7588.4615	5953.3333
Standard Deviation	8394.8616	3960.5540
Upper Confidence Limit - Normal	11043.2744	8006.7243
Upper Confidence Limit - Lognormal	20217.8935 UCL	9875.7688
95th Percentile - Nonparametric	30000.0000	14000.0000
95th Percentile - Normal	20879.3687	12468.4446
95th Percentile - Lognormal	26283.8826	14711.9247
Upper Tolerance Limit - Normal	29013.9895	16789.4090
Upper Tolerance Limit - Lognormal	79335.1337	30695.0707 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8404	0.9336
Corr Coeff - Detected - Lognormal	0.9687	0.9795
Corr Coeff - Total - Normal	0.8415	0.9336
Corr Coeff - Total - Lognormal	0.9700	0.9795
Corr Coeff - Crit Val - Detected	0.9310	0.9260
Corr Coeff - Crit Val - Total	0.9340	0.9260
W-Test - Table Value	0.8740	0.8590
W-Test - Normal	0.7223	0.8642
W-Test - Lognormal	0.9551	0.9481
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2-BUTANONE (µg/kg)

	Sample Results	Background Results
Count	1.0000	No samples
Number of Detects	1.0000	
Average	170.0000	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000 UCL	
Average Of Positive Hits	170.0000	
Standard Deviation	0.0000	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	0.0000	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	170.0000	
95th Percentile - Lognormal	170.0000	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.0000	
Corr Coeff - Total - Lognormal	0.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	**********	NA
W-Test - Lognormal	**********	NA

Type of Distribution ..... UNDEFINED ✓

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	22.0000	3.0000
Number of Detects	9.0000	1.0000
Average	765.5284	601.9000
Detection Limit - Minimum	2.7500	0.7000
Detection Limits - Maximum	65.1250	5.0000
Positive Hits - Minimum	160.0000	1800.0000
Positive Hits - Maximum	4700.0000 UCL	1800.0000 UCL
Average Of Positive Hits	1835.5556	1800.0000
Standard Deviation	1344.5624	1037.5873
Upper Confidence Limit - Normal	1258.8731	2351.1298
Upper Confidence Limit - Lognormal	37108.1134	8.6805716E+71
95th Percentile - Nonparametric	4700.0000	1800.0000
95th Percentile - Normal	2977.3335	2308.7310
95th Percentile - Lognormal	5190.5959	15328.4024
Upper Tolerance Limit - Normal	3925.2500	**********
Upper Tolerance Limit - Lognormal	32035.9500	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9527	
Corr Coeff - Detected - Lognormal	0.9228	
Corr Coeff - Total - Normal	0.7919	0.8671
Corr Coeff - Total - Lognormal	0.9594	0.9609
Corr Coeff - Crit Val - Detected	0.9120	**********
Corr Coeff - Crit Val - Total	0.9540	**********
W-Test - Table Value	0.9110	0.7670
W-Test - Normal	0.6321	0.7518
W-Test - Lognormal	0.8985	0.9233
Type of Distribution	Undefined ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	6.5057	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	23.1184	
Upper Confidence Limit - Normal	14.9883	
Upper Confidence Limit - Lognormal	4.7359	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	44.5355	
95th Percentile - Lognormal	8.6188	
Upper Tolerance Limit - Normal	60.8340	
Upper Tolerance Limit - Lognormal	16.5489	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4463	
Corr Coeff - Total - Lognormal	0.5512	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2289	NA
W-Test - Lognormal	0.3367	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (μg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	3.0000	
Average	25.0227	
Detection Limit - Minimum	0.7500	
Detection Limits - Maximum	9.2500	
Positive Hits - Minimum	6.2500	
Positive Hits - Maximum	410.0000 UCL	
Average Of Positive Hits	161.7500	
Standard Deviation	87.1453	
Upper Confidence Limit - Normal	56.9979	
Upper Confidence Limit - Lognormal	31.2223	
95th Percentile - Nonparametric	410.0000	
95th Percentile - Normal	168.3767	
95th Percentile - Lognormal	42.8198	
Upper Tolerance Limit - Normal	229.8141	
Upper Tolerance Limit - Lognormal	119.1955	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9292	
Corr Coeff - Detected - Lognormal	0.9964	
Corr Coeff - Total - Normal	0.5110	
Corr Coeff - Total - Lognormal	0.8947	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2919	NA
W-Test - Lognormal	0.8148	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2,4-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	52.8818	
Detection Limit - Minimum	12.9000	
Detection Limits - Maximum	12.9000	
Positive Hits - Minimum	892.5000	
Positive Hits - Maximum	892.5000	
Average Of Positive Hits	892.5000	
Standard Deviation	187.5314	
Upper Confidence Limit - Normal	121.6905	
Upper Confidence Limit - Lognormal	37.9244	
95th Percentile - Nonparametric	892.5000	
95th Percentile - Normal	361.3709	
95th Percentile - Lognormal	69.1113	
Upper Tolerance Limit - Normal	493.5805	
Upper Tolerance Limit - Lognormal	130.6520	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4375	
Corr Coeff - Total - Lognormal	0.4375	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2207	NA
W-Test - Lognormal	0.2207	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2,6-DINITROTOLUENE (μg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	17.7227	
Detection Limit - Minimum	11.9000	
Detection Limits - Maximum	11.9000	
Positive Hits - Minimum	140.0000	
Positive Hits - Maximum	140.0000	
Average Of Positive Hits	140.0000	
Standard Deviation	27.3110	
Upper Confidence Limit - Normal	27.7436	
Upper Confidence Limit - Lognormal	19.2379	
95th Percentile - Nonparametric	140.0000	
95th Percentile - Normal	62.6493	
95th Percentile - Lognormal	31.5994	
Upper Tolerance Limit - Normal	81.9036	
Upper Tolerance Limit - Lognormal	45.7714	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4375	
Corr Coeff - Total - Lognormal	0.4375	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2207	NA
W-Test - Lognormal	0.2207	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	9.0000	
Average	372.3864	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	59.0000	
Positive Hits - Maximum	4000.0000	
Average Of Positive Hits	755.0000	
Standard Deviation	866.0107	
Upper Confidence Limit - Normal	690.1417	
Upper Confidence Limit - Lognormal	467.0350	
95th Percentile - Nonparametric	4000.0000	
95th Percentile - Normal	1796.9740	
95th Percentile - Lognormal	833.8326	
Upper Tolerance Limit - Normal	2407.5115	
Upper Tolerance Limit - Lognormal	1730.6542	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7691	
Corr Coeff - Detected - Lognormal	0.9528	
Corr Coeff - Total - Normal	0.5944	
Corr Coeff - Total - Lognormal	0.8324	
Corr Coeff - Crit Val - Detected	0.9120	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.3824	NA
W-Test - Lognormal	0.7063	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	105.4318	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	52.0000	
Positive Hits - Maximum	52.0000	
Average Of Positive Hits	52.0000	
Standard Deviation	31.5086	
Upper Confidence Limit - Normal	116.9929	
Upper Confidence Limit - Lognormal	116.7895	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	157.2635	
95th Percentile - Lognormal	156.5322	
Upper Tolerance Limit - Normal	179.4771	
Upper Tolerance Limit - Lognormal	188.2137	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8162	
Corr Coeff - Total - Lognormal	0.8657	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.6937	NA
W-Test - Lognormal	0.7828	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	2.0000	
Average	162.2045	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	96.0000	
Positive Hits - Maximum	1292.5000	
Average Of Positive Hits	694.2500	
Standard Deviation	254.1075	
Upper Confidence Limit - Normal	255.4413	
Upper Confidence Limit - Lognormal	180.4797	
95th Percentile - Nonparametric	1292.5000	
95th Percentile - Normal	580.2113	
95th Percentile - Lognormal	304.3250	
Upper Tolerance Limit - Normal	759.3571	
Upper Tolerance Limit - Lognormal	456.2051	

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Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.5077	
Corr Coeff - Total - Lognormal	0.6615	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2890	NA
W-Test - Lognormal	0.4677	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	104.6818	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	38.0000	
Average Of Positive Hits	38.0000	
Standard Deviation	32.8048	
Upper Confidence Limit - Normal	116.7185	
Upper Confidence Limit - Lognormal	118.6663	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	158.6457	
95th Percentile - Lognormal	165.6260	
Upper Tolerance Limit - Normal	181.7731	
Upper Tolerance Limit - Lognormal	205.3866	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8275	
Corr Coeff - Total - Lognormal	0.8418	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.7162	NA
W-Test - Lognormal	0.7483	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DIETHYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	118.5227	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	340.0000	
Positive Hits - Maximum	340.0000	
Average Of Positive Hits	340.0000	
Standard Deviation	57.4231	
Upper Confidence Limit - Normal	139.5923	
Upper Confidence Limit - Lognormal	133.7138	
95th Percentile - Nonparametric	340.0000	
95th Percentile - Normal	212.9838	
95th Percentile - Lognormal	190.6174	
Upper Tolerance Limit - Normal	253.4671	
Upper Tolerance Limit - Lognormal	240.4321	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7077	
Corr Coeff - Total - Lognormal	0.7905	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.5255	NA
W-Test - Lognormal	0.6415	NA
Type of Distribution	Undefined	

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	106.6591	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	79.0000	
Positive Hits - Maximum	79.0000	
Average Of Positive Hits	79.0000	
Standard Deviation	29.8083	
Upper Confidence Limit - Normal	117.5963	
Upper Confidence Limit - Lognormal	115.9909	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	155.6937	
95th Percentile - Lognormal	149.6548	
Upper Tolerance Limit - Normal	176.7085	
Upper Tolerance Limit - Lognormal	175.0803	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7783	
Corr Coeff - Total - Lognormal	0.8417	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.6236	NA
W-Test - Lognormal	0.7244	NA
Type of Distribution	Undefined	

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : N-NITROSODIPHENYLAMINE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	116.7045	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	300.0000	
Positive Hits - Maximum	300.0000	
Average Of Positive Hits	300.0000	
Standard Deviation	50.2635	
Upper Confidence Limit - Normal	135.1472	
Upper Confidence Limit - Lognormal	130.9415	
95th Percentile - Nonparametric	300.0000	
95th Percentile - Normal	199.3880	
95th Percentile - Lognormal	183.4648	
Upper Tolerance Limit - Normal	234.8238	
Upper Tolerance Limit - Lognormal	228.2038	

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Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7343	
Corr Coeff - Total - Lognormal	0.8033	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.5602	NA
W-Test - Lognormal	0.6587	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	107.0682	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	88.0000	
Positive Hits - Maximum	88.0000	
Average Of Positive Hits	88.0000	
Standard Deviation	29.4704	
Upper Confidence Limit - Normal	117.8814	
Upper Confidence Limit - Lognormal	116.1777	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	155.5471	
95th Percentile - Lognormal	149.1176	
Upper Tolerance Limit - Normal	176.3237	
Upper Tolerance Limit - Lognormal	173.8175	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7593	
Corr Coeff - Total - Lognormal	0.8163	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.5912	NA
W-Test - Lognormal	0.6770	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	107.2045	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	91.0000	
Positive Hits - Maximum	91.0000	
Average Of Positive Hits	91.0000	
Standard Deviation	29.3848	
Upper Confidence Limit - Normal	117.9864	
Upper Confidence Limit - Lognormal	116.2714	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	155.5426	
95th Percentile - Lognormal	149.0672	
Upper Tolerance Limit - Normal	176.2589	
Upper Tolerance Limit - Lognormal	173.6201	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7555	
Corr Coeff - Total - Lognormal	0.8114	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.5858	NA
W-Test - Lognormal	0.6698	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	2.0000	
Average	57.9045	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	497.0000	
Positive Hits - Maximum	598.9000	
Average Of Positive Hits	547.9500	
Standard Deviation	159.3902	
Upper Confidence Limit - Normal	116.3877	
Upper Confidence Limit - Lognormal	57.2398	
95th Percentile - Nonparametric	598.9000	
95th Percentile - Normal	320.1014	
95th Percentile - Lognormal	94.9125	
Upper Tolerance Limit - Normal	432.4715	
Upper Tolerance Limit - Lognormal	222.9587	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.5654	
Corr Coeff - Total - Lognormal	0.5628	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.3383	NA
W-Test - Lognormal	0.3326	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	22.0000	No samples
Number of Detects	1.0000	
Average	29.5534	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	11.6750	
Positive Hits - Minimum	405.0000	
Positive Hits - Maximum	405.0000	
Average Of Positive Hits	405.0000	
Standard Deviation	83.8572	
Upper Confidence Limit - Normal	60.3222	
Upper Confidence Limit - Lognormal	26.4465	
95th Percentile - Nonparametric	405.0000	
95th Percentile - Normal	167.4985	
95th Percentile - Lognormal	47.5813	
Upper Tolerance Limit - Normal	226.6178	
Upper Tolerance Limit - Lognormal	81.0846	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4375	
Corr Coeff - Total - Lognormal	0.4375	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9540	
W-Test - Table Value	0.9110	NA
W-Test - Normal	0.2207	NA
W-Test - Lognormal	0.2207	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	22.0000	12.0000
Number of Detects	20.0000	11.0000
Average	13234.4545	1364.4375
Detection Limit - Minimum	219.5000	43.7500
Detection Limits - Maximum	317.5000	43.7500
Positive Hits - Minimum	391.0000	261.0000
Positive Hits - Maximum	104000.0000	3880.0000
Average Of Positive Hits	14531.0500	1484.5000
Standard Deviation	27401.1036	1052.0345
Upper Confidence Limit - Normal	23288.4245	1909.8759
Upper Confidence Limit - Lognormal	47235.9262 UCL	6028.2616
95th Percentile - Nonparametric	104000.0000	3880.0000
95th Percentile - Normal	58309.2700	3095.0343
95th Percentile - Lognormal	51960.3367	6422.7348
Upper Tolerance Limit - Normal	77627.0480	4242.8040 UTL
Upper Tolerance Limit - Lognormal	165148.3646	23757.9890

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6483	0.9552
Corr Coeff - Detected - Lognormal	0.9544	0.9617
Corr Coeff - Total - Normal	0.6917	0.9521
Corr Coeff - Total - Lognormal	0.9866	0.9214
Corr Coeff - Crit Val - Detected	0.9500	0.9220
Corr Coeff - Crit Val - Total	0.9540	0.9260
W-Test - Table Value	0.9110	0.8590
W-Test - Normal	0.4944	0.9178
W-Test - Lognormal	0.9681	0.8680
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	20.0000	14.0000
Number of Detects	7.0000	3.0000
Average	0.3653	0.4855
Detection Limit - Minimum	0.0775	0.0850
Detection Limits - Maximum	0.3250	0.5000
Positive Hits - Minimum	0.3200	0.6800
Positive Hits - Maximum	1.3050	1.8000
Average Of Positive Hits	0.7221	1.3933
Standard Deviation	0.3632	0.5598
Upper Confidence Limit - Normal	0.5057	0.7505
Upper Confidence Limit - Lognormal	0.5539	0.9701
95th Percentile - Nonparametric	1.3050	1.8000
95th Percentile - Normal	0.9627	1.4064
95th Percentile - Lognormal	0.9787	1.4449
Upper Tolerance Limit - Normal	1.2354	1.9488
Upper Tolerance Limit - Lognormal	1.7999	3.6023

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9291	0.8411
Corr Coeff - Detected - Lognormal	0.9635	0.8254
Corr Coeff - Total - Normal	0.8434	0.8188
Corr Coeff - Total - Lognormal	0.9731	0.9676
Corr Coeff - Crit Val - Detected	0.8990	**********
Corr Coeff - Crit Val - Total	0.9500	0.9340
W-Test - Table Value	0.9050	0.8740
W-Test - Normal	0.7132	0.6737
W-Test - Lognormal	0.9375	0.9262
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	13.0000
Average	4.7591	4.5286
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.6000	1.8000
Positive Hits - Maximum	9.1000	10.4000
Average Of Positive Hits	4.7591	4.8038
Standard Deviation	2.1591	3.2919
Upper Confidence Limit - Normal	5.5513	6.0867
Upper Confidence Limit - Lognormal	5.9411	7.5976
95th Percentile - Nonparametric	9.1000	10.4000
95th Percentile - Normal	8.3108	9.9437
95th Percentile - Lognormal	9.5356	11.9283
Upper Tolerance Limit - Normal	9.8329	13.1335
Upper Tolerance Limit - Lognormal	13.4445	24.4274

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9833	0.9274
Corr Coeff - Detected - Lognormal	0.9892	0.9595
Corr Coeff - Total - Normal	0.9833	0.9169
Corr Coeff - Total - Lognormal	0.9892	0.9701
Corr Coeff - Crit Val - Detected	0.9540	0.9310
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.9552	0.8241
W-Test - Lognormal	0.9684	0.9290
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	52.6864	37.4143
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.1000	9.1000
Positive Hits - Maximum	119.0000	101.0000
Average Of Positive Hits	52.6864	37.4143
Standard Deviation	34.8332	26.3822
Upper Confidence Limit - Normal	65.4673	49.9015
Upper Confidence Limit - Lognormal	77.7862 UCL	61.0314
95th Percentile - Nonparametric	119.0000	101.0000
95th Percentile - Normal	109.9869	80.8130
95th Percentile - Lognormal	139.1921	95.8978
Upper Tolerance Limit - Normal	134.5443	106.3773
Upper Tolerance Limit - Lognormal	233.2502	190.7245 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9568	0.9398
Corr Coeff - Detected - Lognormal	0.9848	0.9926
Corr Coeff - Total - Normal	0.9568	0.9398
Corr Coeff - Total - Lognormal	0.9848	0.9926
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8997	0.8846
W-Test - Lognormal	0.9589	0.9760
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	19.0000	12.0000
Average	0.4720	0.3821
Detection Limit - Minimum	0.0425	0.0700
Detection Limits - Maximum	0.0800	0.0900
Positive Hits - Minimum	0.1200	0.1200
Positive Hits - Maximum	1.3000	1.1000
Average Of Positive Hits	0.5374	0.4325
Standard Deviation	0.3654	0.2876
Upper Confidence Limit - Normal	0.6061	0.5183
Upper Confidence Limit - Lognormal	0.9260 UCL	0.7141
95th Percentile - Nonparametric	1.3000	1.1000
95th Percentile - Normal	1.0731	0.8553
95th Percentile - Lognormal	1.6667	1.1095
Upper Tolerance Limit - Normal	1.3306	1.1340
Upper Tolerance Limit - Lognormal	3.3820	2.4552 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9552	0.9670
Corr Coeff - Detected - Lognormal	0.9507	0.9822
Corr Coeff - Total - Normal	0.9596	0.9441
Corr Coeff - Total - Lognormal	0.9735	0.9889
Corr Coeff - Crit Val - Detected	0.9470	0.9260
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.9106	0.8950
W-Test - Lognormal	0.9356 ✓	0.9683 ✓
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	5.0000
Average	0.4755	0.1632
Detection Limit - Minimum	NA	0.0600
Detection Limits - Maximum	NA	0.2950
Positive Hits - Minimum	0.1500	0.1550
Positive Hits - Maximum	1.4000	0.2700
Average Of Positive Hits	0.4755	0.2200
Standard Deviation	0.3492	0.0860
Upper Confidence Limit - Normal	0.6036	0.2039
Upper Confidence Limit - Lognormal	0.6375 UCL	0.2385
95th Percentile - Nonparametric	1.4000	0.2950
95th Percentile - Normal	1.0500	0.3047
95th Percentile - Lognormal	1.1082	0.3686
Upper Tolerance Limit - Normal	1.2962	0.3881 UTL
Upper Tolerance Limit - Lognormal	1.7429	0.6500

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8911	0.9446
Corr Coeff - Detected - Lognormal	0.9792	0.9280
Corr Coeff - Total - Normal	0.8911	0.9562
Corr Coeff - Total - Lognormal	0.9792	0.9546
Corr Coeff - Crit Val - Detected	0.9540	0.8790
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.7936	0.8867
W-Test - Lognormal	0.9481 ✓	0.8835
Type of Distribution	LOGNORMAL ✓	~~Undefined~~ NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... ~~FAIL~~

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	17.4045	21.8571
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.5000	6.2000
Positive Hits - Maximum	31.5000	44.7000
Average Of Positive Hits	17.4045	21.8571
Standard Deviation	7.5492	13.5346
Upper Confidence Limit - Normal	20.1745	28.2633
Upper Confidence Limit - Lognormal	21.5735 UCL	34.1236
95th Percentile - Nonparametric	31.5000	44.7000
95th Percentile - Normal	29.8230	44.1216
95th Percentile - Lognormal	34.2849	53.4589
Upper Tolerance Limit - Normal	35.1452	57.2366
Upper Tolerance Limit - Lognormal	47.8232	101.4624 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9841	0.9551
Corr Coeff - Detected - Lognormal	0.9866	0.9788
Corr Coeff - Total - Normal	0.9841	0.9551
Corr Coeff - Total - Lognormal	0.9866	0.9788
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.9565	0.8892
W-Test - Lognormal	0.9667	0.9361
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	6.9227	12.3718
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.6000	0.8450
Positive Hits - Maximum	19.7000	133.0000 UCL
Average Of Positive Hits	6.9227	12.3718
Standard Deviation	5.4241	34.7885
Upper Confidence Limit - Normal	8.9129	28.8379
Upper Confidence Limit - Lognormal	10.1884 UCL	23.3619
95th Percentile - Nonparametric	19.7000	133.0000
95th Percentile - Normal	15.8454	69.5989
95th Percentile - Lognormal	18.3449	26.4170
Upper Tolerance Limit - Normal	19.6694	103.3090
Upper Tolerance Limit - Lognormal	31.3455	90.8715

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9203	0.5598
Corr Coeff - Detected - Lognormal	0.9868	0.8917
Corr Coeff - Total - Normal	0.9203	0.5598
Corr Coeff - Total - Lognormal	0.9868	0.8917
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8389	0.3490
W-Test - Lognormal	0.9581	0.8174
Type of Distribution	LOGNORMAL	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	21.0000	12.0000
Average	14.6182	7.7036
Detection Limit - Minimum	1.0500	0.7500
Detection Limits - Maximum	1.0500	2.2500
Positive Hits - Minimum	5.1000	2.6000
Positive Hits - Maximum	40.1000 UL	22.7000
Average Of Positive Hits	15.2643	8.7375
Standard Deviation	9.5591	5.8880
Upper Confidence Limit - Normal	18.1256	10.4905
Upper Confidence Limit - Lognormal	22.5012	15.7950
95th Percentile - Nonparametric	40.1000	22.7000
95th Percentile - Normal	30.3429	17.3894
95th Percentile - Lognormal	40.4260	24.1595
Upper Tolerance Limit - Normal	37.0821	23.0949
Upper Tolerance Limit - Lognormal	68.5721	56.4931 UL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9178	0.9562
Corr Coeff - Detected - Lognormal	0.9877	0.9930
Corr Coeff - Total - Normal	0.9194	0.9398
Corr Coeff - Total - Lognormal	0.9304	0.9781
Corr Coeff - Crit Val - Detected	0.9520	0.9260
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8529	0.8928
W-Test - Lognormal	0.8882	0.9670
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	11.0000
Average	21.8659	8.4607
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	2.4000	3.1000
Positive Hits - Maximum	154.9500	25.5000
Average Of Positive Hits	21.8659	8.6409
Standard Deviation	32.5932	6.3344
Upper Confidence Limit - Normal	33.8250	11.4589
Upper Confidence Limit - Lognormal	33.9935 UCL	12.7607
95th Percentile - Nonparametric	154.9500	25.5000
95th Percentile - Normal	75.4818	18.8809
95th Percentile - Lognormal	61.7476	19.9646
Upper Tolerance Limit - Normal	98.4600	25.0189
Upper Tolerance Limit - Lognormal	120.2566	37.4774 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7052	0.9083
Corr Coeff - Detected - Lognormal	0.9671	0.9815
Corr Coeff - Total - Normal	0.7052	0.8887
Corr Coeff - Total - Lognormal	0.9671	0.9792
Corr Coeff - Crit Val - Detected	0.9540	0.9220
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.5264	0.8008
W-Test - Lognormal	0.9461	0.9550
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... ~~FAIL~~
UTL Test - Lognormal..... FAIL

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	19.0000	11.0000
Average	0.3899	0.0304
Detection Limit - Minimum	0.0025	0.0250
Detection Limits - Maximum	0.0050	0.0300
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	3.5000	0.0700
Average Of Positive Hits	0.4508	0.0309
Standard Deviation	0.8579	0.0174
Upper Confidence Limit - Normal	0.7047	0.0386
Upper Confidence Limit - Lognormal	1.9478 UCL	0.0458
95th Percentile - Nonparametric	3.5000	0.0700
95th Percentile - Normal	1.8012	0.0589
95th Percentile - Lognormal	1.5045	0.0713
Upper Tolerance Limit - Normal	2.4060	0.0758
Upper Tolerance Limit - Lognormal	5.6141	0.1299 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6373	0.9565
Corr Coeff - Detected - Lognormal	0.8917	0.9751
Corr Coeff - Total - Normal	0.6956	0.9561
Corr Coeff - Total - Lognormal	0.9751	0.9660
Corr Coeff - Crit Val - Detected	0.9470	0.9220
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.5039	0.9123
W-Test - Lognormal	0.9494	0.9196
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	9.4500	6.3714
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.6000	2.8000
Positive Hits - Maximum	25.3000	18.2000
Average Of Positive Hits	9.4500	6.3714
Standard Deviation	6.4541	4.0429
Upper Confidence Limit - Normal	11.8181	8.2850
Upper Confidence Limit - Lognormal	12.7261 UCL	8.6961
95th Percentile - Nonparametric	25.3000	18.2000
95th Percentile - Normal	20.0669	13.0220
95th Percentile - Lognormal	22.0792	13.2209
Upper Tolerance Limit - Normal	24.6171	16.9396
Upper Tolerance Limit - Lognormal	34.6051	22.1153 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9211	0.8705
Corr Coeff - Detected - Lognormal	0.9839	0.9675
Corr Coeff - Total - Normal	0.9211	0.8705
Corr Coeff - Total - Lognormal	0.9839	0.9675
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8438	0.7763
W-Test - Lognormal	0.9587	0.9344
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		22.0000	14.0000
Number of Detects		22.0000	10.0000
Average		1.2448	0.8493
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.4600	0.2950
Positive Hits - Maximum		2.7000	2.6000
Average Of Positive Hits		1.2448	1.1185
Standard Deviation		0.6935	0.8168
Upper Confidence Limit - Normal		1.4992	1.2359
Upper Confidence Limit - Lognormal		1.6216 UCL	2.2949
95th Percentile - Nonparametric		2.7000	2.6000
95th Percentile - Normal		2.3856	2.1929
95th Percentile - Lognormal		2.7251	3.1381
Upper Tolerance Limit - Normal		2.8745	2.9844
Upper Tolerance Limit - Lognormal		4.0660	8.9313 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9587	0.9483
Corr Coeff - Detected - Lognormal	0.9831	0.9699
Corr Coeff - Total - Normal	0.9587	0.9037
Corr Coeff - Total - Lognormal	0.9831	0.9796
Corr Coeff - Crit Val - Detected	0.9540	0.9170
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.9048	0.8100
W-Test - Lognormal	0.9470	0.9494
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	1.0000	2.0000
Average	0.0294	0.0911
Detection Limit - Minimum	0.0125	0.0300
Detection Limits - Maximum	0.0620	0.0750
Positive Hits - Minimum	0.1600	0.0625
Positive Hits - Maximum	0.1600 UCL	0.6300 UTL
Average Of Positive Hits	0.1600	0.3463
Standard Deviation	0.0311	0.1558
Upper Confidence Limit - Normal	0.0408	0.1648
Upper Confidence Limit - Lognormal	0.0355	0.1254
95th Percentile - Nonparametric	0.1600	0.6300
95th Percentile - Normal	0.0806	0.3474
95th Percentile - Lognormal	0.0596	0.1968
Upper Tolerance Limit - Normal	0.1025	0.4983
Upper Tolerance Limit - Lognormal	0.0888	0.4077

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.6638	0.5870
Corr Coeff - Total - Lognormal	0.8701	0.7996
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.4716	0.3808
W-Test - Lognormal	0.7764	0.6709
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	25.9023	30.9107
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.2000	9.8000
Positive Hits - Maximum	56.2000	61.4000
Average Of Positive Hits	25.9023	30.9107
Standard Deviation	14.1809	17.5157
Upper Confidence Limit - Normal	31.1055	39.2013
Upper Confidence Limit - Lognormal	33.4897 UCL	46.7732
95th Percentile - Nonparametric	56.2000	61.4000
95th Percentile - Normal	49.2299	59.7241
95th Percentile - Lognormal	55.8137	72.8898
Upper Tolerance Limit - Normal	59.2275	76.6968
Upper Tolerance Limit - Lognormal	82.3525	133.3861 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9397	0.9628
Corr Coeff - Detected - Lognormal	0.9818	0.9701
Corr Coeff - Total - Normal	0.9397	0.9628
Corr Coeff - Total - Lognormal	0.9818	0.9701
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8760	0.9066
W-Test - Lognormal	0.9585	0.9194
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3B_RES
Media : Indian Head Range 3 Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	22.0000	14.0000
Number of Detects	22.0000	14.0000
Average	31.3318	21.3964
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.8000	7.9000
Positive Hits - Maximum	83.7000	70.4000
Average Of Positive Hits	31.3318	21.3964
Standard Deviation	21.1648	15.7792
Upper Confidence Limit - Normal	39.0976	28.8650
Upper Confidence Limit - Lognormal	42.4127 UCL	29.8058
95th Percentile - Nonparametric	83.7000	70.4000
95th Percentile - Normal	66.1479	47.3532
95th Percentile - Lognormal	73.6925	45.8454
Upper Tolerance Limit - Normal	81.0691	62.6432
Upper Tolerance Limit - Lognormal	115.8022	79.4529 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9299	0.8286
Corr Coeff - Detected - Lognormal	0.9878	0.9659
Corr Coeff - Total - Normal	0.9299	0.8286
Corr Coeff - Total - Lognormal	0.9878	0.9659
Corr Coeff - Crit Val - Detected	0.9540	0.9340
Corr Coeff - Crit Val - Total	0.9540	0.9340
W-Test - Table Value	0.9110	0.8740
W-Test - Normal	0.8590	0.7136
W-Test - Lognormal	0.9609	0.9428
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 2-BUTANONE (μg/kg)

	Sample Results	Background Results
Count	2.0000	No samples
Number of Detects	1.0000	
Average	86.5000	
Detection Limit - Minimum	3.0000	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000	
Average Of Positive Hits	170.0000	
Standard Deviation	118.0868	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	1.4361618E+35	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	280.7528	
95th Percentile - Lognormal	2473.0873	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	1.0000	
Corr Coeff - Total - Lognormal	1.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	1.0000	NA
W-Test - Lognormal	1.0000	NA

Type of Distribution ..... UNDEFINED

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	36.0000	6.0000
Number of Detects	18.0000	3.0000
Average	769.5729	2834.6083
Detection Limit - Minimum	2.7500	0.7000
Detection Limits - Maximum	65.1250	5.0000
Positive Hits - Minimum	96.0000	1800.0000
Positive Hits - Maximum	4700.0000 UCL	13000.0000
Average Of Positive Hits	1515.8889	5666.6667
Standard Deviation	1201.5529	5076.8101
Upper Confidence Limit - Normal	1108.1105	7010.8954
Upper Confidence Limit - Lognormal	15983.0496	6.3619540E+19
95th Percentile - Nonparametric	4700.0000	13000.0000
95th Percentile - Normal	2746.1275	11185.9609
95th Percentile - Lognormal	6219.5214	92039.7902
Upper Tolerance Limit - Normal	3362.5241	12698.8503
Upper Tolerance Limit - Lognormal	22579.9125	327061.8421 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9432	0.9220
Corr Coeff - Detected - Lognormal	0.9486	0.9438
Corr Coeff - Total - Normal	0.8278	0.7911
Corr Coeff - Total - Lognormal	0.9644	0.9414
Corr Coeff - Crit Val - Detected	0.9450	**********
Corr Coeff - Crit Val - Total	0.9680	0.8900
W-Test - Table Value	0.9350	0.7880
W-Test - Normal	0.6875	0.6474
W-Test - Lognormal	0.9007	0.8572
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	4.5174	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000 UCL	
Average Of Positive Hits	110.0000	
Standard Deviation	18.0852	
Upper Confidence Limit - Normal	9.6129	
Upper Confidence Limit - Lognormal	2.8462	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	34.2675	
95th Percentile - Lognormal	5.5947	
Upper Tolerance Limit - Normal	43.5452	
Upper Tolerance Limit - Lognormal	8.1554	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.3777	
Corr Coeff - Total - Lognormal	0.5079	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.1784	NA
W-Test - Lognormal	0.2997	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	4.0000	
Average	35.6771	
Detection Limit - Minimum	0.7500	
Detection Limits - Maximum	9.2500	
Positive Hits - Minimum	6.2500	
Positive Hits - Maximum	700.0000	
Average Of Positive Hits	296.3125	
Standard Deviation	132.8304	
Upper Confidence Limit - Normal	73.1021	
Upper Confidence Limit - Lognormal	23.8782	
95th Percentile - Nonparametric	700.0000	
95th Percentile - Normal	254.1831	
95th Percentile - Lognormal	43.1011	
Upper Tolerance Limit - Normal	322.3251	
Upper Tolerance Limit - Lognormal	91.9461	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9644	
Corr Coeff - Detected - Lognormal	0.9645	
Corr Coeff - Total - Normal	0.5067	
Corr Coeff - Total - Lognormal	0.8443	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.2895	NA
W-Test - Lognormal	0.7275	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 2,4-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	39.4750	
Detection Limit - Minimum	12.9000	
Detection Limits - Maximum	90.0000	
Positive Hits - Minimum	892.5000	
Positive Hits - Maximum	892.5000	
Average Of Positive Hits	892.5000	
Standard Deviation	146.7959	
Upper Confidence Limit - Normal	80.8347	
Upper Confidence Limit - Lognormal	27.1985	
95th Percentile - Nonparametric	892.5000	
95th Percentile - Normal	280.9543	
95th Percentile - Lognormal	54.2084	
Upper Tolerance Limit - Normal	356.2606	
Upper Tolerance Limit - Lognormal	80.3993	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.3932
Corr Coeff - Total - Lognormal	0.4635
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.9680

W-Test - Table Value	0.9350	NA
W-Test - Normal	0.1910	NA
W-Test - Lognormal	0.2494	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 2,6-DINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	17.6278	
Detection Limit - Minimum	11.9000	
Detection Limits - Maximum	90.0000	
Positive Hits - Minimum	140.0000	
Positive Hits - Maximum	140.0000	
Average Of Positive Hits	140.0000	
Standard Deviation	24.6855	
Upper Confidence Limit - Normal	24.5829	
Upper Confidence Limit - Lognormal	18.3534	
95th Percentile - Nonparametric	140.0000	
95th Percentile - Normal	58.2355	
95th Percentile - Lognormal	31.9197	
Upper Tolerance Limit - Normal	70.8992	
Upper Tolerance Limit - Lognormal	41.7644	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4752	
Corr Coeff - Total - Lognormal	0.4801	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.2573	NA
W-Test - Lognormal	0.2571	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	99.9306	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	45.0000	
Positive Hits - Maximum	45.0000	
Average Of Positive Hits	45.0000	
Standard Deviation	25.8256	
Upper Confidence Limit - Normal	107.2069	
Upper Confidence Limit - Lognormal	106.6618	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	142.4136	
95th Percentile - Lognormal	140.6926	
Upper Tolerance Limit - Normal	155.6621	
Upper Tolerance Limit - Lognormal	157.8033	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7554	
Corr Coeff - Total - Lognormal	0.8035	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6141	NA
W-Test - Lognormal	0.6985	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	99.9306	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	45.0000	
Positive Hits - Maximum	45.0000 UCL	
Average Of Positive Hits	45.0000	
Standard Deviation	25.8256	
Upper Confidence Limit - Normal	107.2069	
Upper Confidence Limit - Lognormal	106.6618	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	142.4136	
95th Percentile - Lognormal	140.6926	
Upper Tolerance Limit - Normal	155.6621	
Upper Tolerance Limit - Lognormal	157.8033	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7554	
Corr Coeff - Total - Lognormal	0.8035	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6141	NA
W-Test - Lognormal	0.6985	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	101.0417	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	85.0000	
Positive Hits - Maximum	85.0000 UCL	
Average Of Positive Hits	85.0000	
Standard Deviation	24.2043	
Upper Confidence Limit - Normal	107.8612	
Upper Confidence Limit - Lognormal	106.2840	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	140.8577	
95th Percentile - Lognormal	133.7691	
Upper Tolerance Limit - Normal	153.2745	
Upper Tolerance Limit - Lognormal	146.8836	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7048	
Corr Coeff - Total - Lognormal	0.7723	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.5220	NA
W-Test - Lognormal	0.6174	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	36.0000	6.0000
Number of Detects	13.0000	1.0000
Average	301.2083	211.6417
Detection Limit - Minimum	87.5000	36.4500
Detection Limits - Maximum	202.5000	195.0000
Positive Hits - Minimum	59.0000	640.0000
Positive Hits - Maximum	4000.0000	640.0000
Average Of Positive Hits	655.4615	640.0000
Standard Deviation	689.8576	222.0473
Upper Confidence Limit - Normal	495.5757	394.3023
Upper Confidence Limit - Lognormal	317.3940	2391.9141
95th Percentile - Nonparametric	4000.0000	640.0000
95th Percentile - Normal	1436.0240	576.9095
95th Percentile - Lognormal	660.4220	811.2748
Upper Tolerance Limit - Normal	1789.9210	643.0795
Upper Tolerance Limit - Lognormal	1062.5940	1124.9931

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7525	
Corr Coeff - Detected - Lognormal	0.9735	
Corr Coeff - Total - Normal	0.5699	0.8600
Corr Coeff - Total - Lognormal	0.8240	0.9414
Corr Coeff - Crit Val - Detected	0.9310	**********
Corr Coeff - Crit Val - Total	0.9680	0.8900
W-Test - Table Value	0.9350	0.7880
W-Test - Normal	0.3632	0.7604
W-Test - Lognormal	0.6933	0.8819
Type of Distribution	Undefined	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : CHRYSENE (μg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	2.0000	
Average	99.0972	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	52.0000	
Positive Hits - Maximum	53.0000	
Average Of Positive Hits	52.5000	
Standard Deviation	26.5666	
Upper Confidence Limit - Normal	106.5824	
Upper Confidence Limit - Lognormal	106.0927	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	142.7992	
95th Percentile - Lognormal	141.4659	
Upper Tolerance Limit - Normal	156.4279	
Upper Tolerance Limit - Lognormal	159.4730	

UCL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7859	
Corr Coeff - Total - Lognormal	0.8425	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6535	NA
W-Test - Lognormal	0.7464	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	6.0000	
Average	129.8889	
Detection Limit - Minimum	13.0000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	37.0000	
Positive Hits - Maximum	1292.5000	
Average Of Positive Hits	275.0833	
Standard Deviation	201.6870	
Upper Confidence Limit - Normal	186.7142	
Upper Confidence Limit - Lognormal	144.5831	
95th Percentile - Nonparametric	1292.5000	
95th Percentile - Normal	461.6639	
95th Percentile - Lognormal	266.7777	
Upper Tolerance Limit - Normal	565.1294	
Upper Tolerance Limit - Lognormal	365.3191	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7792	
Corr Coeff - Detected - Lognormal	0.8934	
Corr Coeff - Total - Normal	0.4811	
Corr Coeff - Total - Lognormal	0.7624	
Corr Coeff - Crit Val - Detected	0.8900	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.2750	NA
W-Test - Lognormal	0.6478	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	2.0000	
Average	105.2917	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	290.0000 UCL	
Average Of Positive Hits	164.0000	
Standard Deviation	41.1156	
Upper Confidence Limit - Normal	116.8760	
Upper Confidence Limit - Lognormal	114.8184	
95th Percentile - Nonparametric	290.0000	
95th Percentile - Normal	172.9268	
95th Percentile - Lognormal	164.6359	
Upper Tolerance Limit - Normal	194.0191	
Upper Tolerance Limit - Lognormal	192.2610	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.7204	
Corr Coeff - Total - Lognormal	0.7978	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.5632	NA
W-Test - Lognormal	0.6895	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : DIETHYL PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	108.2639	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	340.0000	
Positive Hits - Maximum	340.0000	
Average Of Positive Hits	340.0000	
Standard Deviation	46.4097	
Upper Confidence Limit - Normal	121.3398	
Upper Confidence Limit - Lognormal	116.1406	
95th Percentile - Nonparametric	340.0000	
95th Percentile - Normal	184.6079	
95th Percentile - Lognormal	161.4308	
Upper Tolerance Limit - Normal	208.4161	
Upper Tolerance Limit - Lognormal	185.6273	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6352	
Corr Coeff - Total - Lognormal	0.7273	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.4384	NA
W-Test - Lognormal	0.5553	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	4.0000	
Average	98.9722	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	57.0000	
Positive Hits - Maximum	88.0000	
Average Of Positive Hits	70.7500	
Standard Deviation	26.2621	
Upper Confidence Limit - Normal	106.3716	
Upper Confidence Limit - Lognormal	105.4997	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	142.1734	
95th Percentile - Lognormal	138.9344	
Upper Tolerance Limit - Normal	155.6459	
Upper Tolerance Limit - Lognormal	155.7143	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9500	
Corr Coeff - Detected - Lognormal	0.9483	
Corr Coeff - Total - Normal	0.7918	
Corr Coeff - Total - Lognormal	0.8636	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6605	NA
W-Test - Lognormal	0.7793	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : N-NITROSODIPHENYLAMINE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	107.1528	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	300.0000	
Positive Hits - Maximum	300.0000	
Average Of Positive Hits	300.0000	
Standard Deviation	40.8488	
Upper Confidence Limit - Normal	118.6619	
Upper Confidence Limit - Lognormal	114.7059	
95th Percentile - Nonparametric	300.0000	
95th Percentile - Normal	174.3491	
95th Percentile - Lognormal	156.8728	
Upper Tolerance Limit - Normal	195.3045	
Upper Tolerance Limit - Lognormal	178.9762	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6617	
Corr Coeff - Total - Lognormal	0.7408	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.4692	NA
W-Test - Lognormal	0.5716	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : PHENANTHRENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	4.0000	
Average	97.9722	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	49.0000	
Positive Hits - Maximum	88.0000	
Average Of Positive Hits	61.7500	
Standard Deviation	27.6289	
Upper Confidence Limit - Normal	105.7567	
Upper Confidence Limit - Lognormal	105.6300	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	143.4218	
95th Percentile - Lognormal	143.9736	
Upper Tolerance Limit - Normal	157.5954	
Upper Tolerance Limit - Lognormal	163.9938	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8843	
Corr Coeff - Detected - Lognormal	0.9081	
Corr Coeff - Total - Normal	0.8153	
Corr Coeff - Total - Lognormal	0.8688	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6976	NA
W-Test - Lognormal	0.7861	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	3.0000	
Average	99.8194	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	202.5000	
Positive Hits - Minimum	49.0000	
Positive Hits - Maximum	91.0000	
Average Of Positive Hits	73.6667	
Standard Deviation	25.7241	
Upper Confidence Limit - Normal	107.0672	
Upper Confidence Limit - Lognormal	106.2734	
95th Percentile - Nonparametric	202.5000	
95th Percentile - Normal	142.1356	
95th Percentile - Lognormal	139.1937	
Upper Tolerance Limit - Normal	155.3321	
Upper Tolerance Limit - Lognormal	155.6138	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9572	
Corr Coeff - Detected - Lognormal	0.9408	
Corr Coeff - Total - Normal	0.7642	
Corr Coeff - Total - Lognormal	0.8243	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.6251	NA
W-Test - Lognormal	0.7287	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 1,3,5-TRINITROBENZENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	23.6583	
Detection Limit - Minimum	10.0500	
Detection Limits - Maximum	90.0000	
Positive Hits - Minimum	420.0000	
Positive Hits - Maximum	420.0000	
Average Of Positive Hits	420.0000	
Standard Deviation	69.2375	
Upper Confidence Limit - Normal	43.1660	
Upper Confidence Limit - Lognormal	19.6519	
95th Percentile - Nonparametric	420.0000	
95th Percentile - Normal	137.5541	
95th Percentile - Lognormal	38.2474	
Upper Tolerance Limit - Normal	173.0729	
Upper Tolerance Limit - Lognormal	55.1217	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4201	
Corr Coeff - Total - Lognormal	0.4739	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.2135	NA
W-Test - Lognormal	0.2566	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	5.0000	
Average	226.8556	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	104.0000	
Positive Hits - Maximum	6570.0000	
Average Of Positive Hits	1578.1800	
Standard Deviation	1094.7383	
Upper Confidence Limit - Normal	535.2981	
Upper Confidence Limit - Lognormal	104.1123	
95th Percentile - Nonparametric	6570.0000	
95th Percentile - Normal	2027.7001	
95th Percentile - Lognormal	184.1975	
Upper Tolerance Limit - Normal	2589.3008	
Upper Tolerance Limit - Lognormal	398.8135	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7740	
Corr Coeff - Detected - Lognormal	0.9410	
Corr Coeff - Total - Normal	0.4198	
Corr Coeff - Total - Lognormal	0.6418	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.2138	NA
W-Test - Lognormal	0.4325	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : 2-AMINO-4,6-DINITROTOLUENE (μg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	4.0000	
Average	45.6000	
Detection Limit - Minimum	11.6750	
Detection Limits - Maximum	11.6750	
Positive Hits - Minimum	127.0000	
Positive Hits - Maximum	525.0000	
Average Of Positive Hits	317.0000	
Standard Deviation	110.8158	
Upper Confidence Limit - Normal	76.8223	
Upper Confidence Limit - Lognormal	42.6111	
95th Percentile - Nonparametric	525.0000	
95th Percentile - Normal	227.8920	
95th Percentile - Lognormal	89.3828	
Upper Tolerance Limit - Normal	284.7405	
Upper Tolerance Limit - Lognormal	151.1482	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9840	
Corr Coeff - Detected - Lognormal	0.9830	
Corr Coeff - Total - Normal	0.5764	
Corr Coeff - Total - Lognormal	0.6085	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.3576	NA
W-Test - Lognormal	0.3834	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : HMX (μg/kg)

	Sample Results	Background Results
Count	36.0000	No samples
Number of Detects	1.0000	
Average	26.9965	
Detection Limit - Minimum	17.6250	
Detection Limits - Maximum	17.6250	
Positive Hits - Minimum	355.0000	
Positive Hits - Maximum	355.0000	
Average Of Positive Hits	355.0000	
Standard Deviation	56.2292	
Upper Confidence Limit - Normal	42.8391	
Upper Confidence Limit - Lognormal	25.5335	
95th Percentile - Nonparametric	355.0000	
95th Percentile - Normal	119.4935	
95th Percentile - Lognormal	43.6410	
Upper Tolerance Limit - Normal	148.3391	
Upper Tolerance Limit - Lognormal	56.4151	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.3676	
Corr Coeff - Total - Lognormal	0.3676	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9680	
W-Test - Table Value	0.9350	NA
W-Test - Normal	0.1702	NA
W-Test - Lognormal	0.1702	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	34.0000	27.0000
Number of Detects	14.0000	3.0000
Average	0.3563	0.3488
Detection Limit - Minimum	0.0750	0.0850
Detection Limits - Maximum	0.3250	0.5000
Positive Hits - Minimum	0.3200	0.6800
Positive Hits - Maximum	1.3050	1.8000 UL
Average Of Positive Hits	0.6511	1.3933
Standard Deviation	0.3231	0.4251
Upper Confidence Limit - Normal	0.4501	0.4884
Upper Confidence Limit - Lognormal	0.4952 UCL	0.4564
95th Percentile - Nonparametric	1.3050	1.8000
95th Percentile - Normal	0.8878	1.0481
95th Percentile - Lognormal	1.0000	0.8644
Upper Tolerance Limit - Normal	1.0596	1.3109
Upper Tolerance Limit - Lognormal	1.5630	1.3993

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9142	0.8348
Corr Coeff - Detected - Lognormal	0.9721	0.8188
Corr Coeff - Total - Normal	0.8908	0.7348
Corr Coeff - Total - Lognormal	0.9770	0.9469
Corr Coeff - Crit Val - Detected	0.9340	**********
Corr Coeff - Crit Val - Total	0.9670	0.9600
W-Test - Table Value	0.9330	0.9230
W-Test - Normal	0.7902	0.5554
W-Test - Lognormal	0.9339	0.8948
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	27.0000
Average	4.6042	3.3546
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.6000	0.7800
Positive Hits - Maximum	9.1000	10.4000
Average Of Positive Hits	4.6042	3.4437
Standard Deviation	1.8013	2.6362
Upper Confidence Limit - Normal	5.1117	4.2031
Upper Confidence Limit - Lognormal	5.255 UCL	4.3476
95th Percentile - Nonparametric	9.1000	10.4000
95th Percentile - Normal	7.5673	7.6913
95th Percentile - Lognormal	8.3066	7.9572
Upper Tolerance Limit - Normal	8.4913	9.2830
Upper Tolerance Limit - Lognormal	10.2260	11.8849 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9816	0.8536
Corr Coeff - Detected - Lognormal	0.9935	0.9660
Corr Coeff - Total - Normal	0.9816	0.8570
Corr Coeff - Total - Lognormal	0.9935	0.9681
Corr Coeff - Crit Val - Detected	0.9680	0.9600
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.9574	0.7344
W-Test - Lognormal	0.9822	0.9321
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	46.3389	38.2393
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.1000	9.1000
Positive Hits - Maximum	119.0000	101.0000
Average Of Positive Hits	46.3389	38.2393
Standard Deviation	30.7478	22.9090
Upper Confidence Limit - Normal	55.0021	45.6122
Upper Confidence Limit - Lognormal	57.9506 UCL	49.9276
95th Percentile - Nonparametric	119.0000	101.0000
95th Percentile - Normal	96.9190	75.9245
95th Percentile - Lognormal	108.4918	89.7130
Upper Tolerance Limit - Normal	112.6927	89.7569
Upper Tolerance Limit - Lognormal	150.4694	130.9347 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9237	0.9554
Corr Coeff - Detected - Lognormal	0.9817	0.9873
Corr Coeff - Total - Normal	0.9237	0.9554
Corr Coeff - Total - Lognormal	0.9817	0.9873
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8411	0.9108
W-Test - Lognormal	0.9546	0.9660
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	33.0000	24.0000
Average	0.4029	0.3655
Detection Limit - Minimum	0.0425	0.0500
Detection Limits - Maximum	0.0800	0.0900
Positive Hits - Minimum	0.1200	0.0500
Positive Hits - Maximum	1.3000	1.1000 UTL
Average Of Positive Hits	0.4342	0.4146
Standard Deviation	0.3123	0.2488
Upper Confidence Limit - Normal	0.4909	0.4456
Upper Confidence Limit - Lognormal	0.5728 UCL	0.5771
95th Percentile - Nonparametric	1.3000	1.1000
95th Percentile - Normal	0.9166	0.7748
95th Percentile - Lognormal	1.1669	1.1206
Upper Tolerance Limit - Normal	1.0768	0.9250
Upper Tolerance Limit - Lognormal	1.7887	1.8799

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9466	0.9628
Corr Coeff - Detected - Lognormal	0.9877	0.9522
Corr Coeff - Total - Normal	0.9354	0.9589
Corr Coeff - Total - Lognormal	0.9868	0.9650
Corr Coeff - Crit Val - Detected	0.9670	0.9570
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8701	0.9210
W-Test - Lognormal	0.9656	0.9197
Type of Distribution	LOGNORMAL ✓	~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	11.0000
Average	0.4747	0.1661
Detection Limit - Minimum	NA	0.0550
Detection Limits - Maximum	NA	0.2950
Positive Hits - Minimum	0.1500	0.1500
Positive Hits - Maximum	1.4000	0.2700 UTL
Average Of Positive Hits	0.4747	0.2236
Standard Deviation	0.3126	0.0873
Upper Confidence Limit - Normal	0.5628	0.1942
Upper Confidence Limit - Lognormal	0.5824 UCL	0.2165
95th Percentile - Nonparametric	1.4000	0.2950
95th Percentile - Normal	0.9889	0.3096
95th Percentile - Lognormal	1.0703	0.3865
Upper Tolerance Limit - Normal	1.1493	0.3623
Upper Tolerance Limit - Lognormal	1.4606	0.5597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9202	0.8762
Corr Coeff - Detected - Lognormal	0.9875	0.8461
Corr Coeff - Total - Normal	0.9202	0.9421
Corr Coeff - Total - Lognormal	0.9875	0.9338
Corr Coeff - Crit Val - Detected	0.9680	0.9220
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8433	0.8601
W-Test - Lognormal	0.9584 ✓	0.8453
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	17.8319	16.9214
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.5000	3.5000
Positive Hits - Maximum	35.8000	44.7000
Average Of Positive Hits	17.8319	16.9214
Standard Deviation	7.2093	11.1359
Upper Confidence Limit - Normal	19.8632	20.5054
Upper Confidence Limit - Lognormal	20.5974 UCL	21.5942
95th Percentile - Nonparametric	35.8000	44.7000
95th Percentile - Normal	29.6912	35.2400
95th Percentile - Lognormal	33.2896	38.5060
Upper Tolerance Limit - Normal	33.3895	41.9639
Upper Tolerance Limit - Lognormal	41.5264	55.6988 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9849	0.9146
Corr Coeff - Detected - Lognormal	0.9895	0.9847
Corr Coeff - Total - Normal	0.9849	0.9146
Corr Coeff - Total - Lognormal	0.9895	0.9847
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.9642	0.8321
W-Test - Lognormal	0.9757	0.9682
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	6.6936	8.7152
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.0700	0.5800
Positive Hits - Maximum	21.6000	133.0000 UTL
Average Of Positive Hits	6.6936	8.7152
Standard Deviation	5.3991	24.6385
Upper Confidence Limit - Normal	8.2148	16.6448
Upper Confidence Limit - Lognormal	8.9611 UCL	10.5836
95th Percentile - Nonparametric	21.6000	133.0000
95th Percentile - Normal	15.5751	49.2456
95th Percentile - Lognormal	17.8826	20.3893
Upper Tolerance Limit - Normal	18.3448	64.1223
Upper Tolerance Limit - Lognormal	26.5672	39.5276

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9100	0.5142
Corr Coeff - Detected - Lognormal	0.9923	0.9453
Corr Coeff - Total - Normal	0.9100	0.5142
Corr Coeff - Total - Lognormal	0.9923	0.9453
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8219	0.3010
W-Test - Lognormal	0.9717	0.9120
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	34.0000	24.0000
Average	14.4413	6.2214
Detection Limit - Minimum	1.0500	0.7500
Detection Limits - Maximum	1.2875	2.3000
Positive Hits - Minimum	5.1000	1.8000
Positive Hits - Maximum	46.7000 UCL	22.7000
Average Of Positive Hits	15.2221	6.9438
Standard Deviation	9.7872	5.1362
Upper Confidence Limit - Normal	17.1988	7.8745
Upper Confidence Limit - Lognormal	20.0636	8.6985
95th Percentile - Nonparametric	46.7000	22.7000
95th Percentile - Normal	30.5412	14.6706
95th Percentile - Lognormal	39.6731	16.5253
Upper Tolerance Limit - Normal	35.5620	17.7718
Upper Tolerance Limit - Lognormal	58.2486	26.1939 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8760	0.8992
Corr Coeff - Detected - Lognormal	0.9736	0.9877
Corr Coeff - Total - Normal	0.8944	0.8916
Corr Coeff - Total - Lognormal	0.9248	0.9882
Corr Coeff - Crit Val - Detected	0.9670	0.9570
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8117	0.8038
W-Test - Lognormal	0.8728	0.9810
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	23.0000
Average	19.4139	13.1304
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	2.4000	3.1000
Positive Hits - Maximum	154.9500	149.0000 UTL
Average Of Positive Hits	19.4139	14.5457
Standard Deviation	25.9235	27.0633
Upper Confidence Limit - Normal	26.7178	21.8403
Upper Confidence Limit - Lognormal	24.5800 UCL	14.7332
95th Percentile - Nonparametric	154.9500	149.0000
95th Percentile - Normal	62.0580	57.6495
95th Percentile - Lognormal	49.5226	28.1071
Upper Tolerance Limit - Normal	75.3568	73.9903
Upper Tolerance Limit - Lognormal	74.5650	44.9330

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6820	0.5641
Corr Coeff - Detected - Lognormal	0.9664	0.8944
Corr Coeff - Total - Normal	0.6820	0.5386
Corr Coeff - Total - Lognormal	0.9664	0.9017
Corr Coeff - Crit Val - Detected	0.9680	0.9550
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.5057	0.3276
W-Test - Lognormal	0.9513	0.8391
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	33.0000	23.0000
Average	0.2688	0.0352
Detection Limit - Minimum	0.0025	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	3.5000	0.0800 UTL
Average Of Positive Hits	0.2929	0.0370
Standard Deviation	0.6831	0.0180
Upper Confidence Limit - Normal	0.4613	0.0410
Upper Confidence Limit - Lognormal	0.4564 UCL	0.0450
95th Percentile - Nonparametric	3.5000	0.0800
95th Percentile - Normal	1.3925	0.0648
95th Percentile - Lognormal	0.8020	0.0787
Upper Tolerance Limit - Normal	1.7429	0.0757
Upper Tolerance Limit - Lognormal	1.7447	0.1114

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5758	0.9647
Corr Coeff - Detected - Lognormal	0.9071	0.9614
Corr Coeff - Total - Normal	0.6174	0.9548
Corr Coeff - Total - Lognormal	0.9635	0.9506
Corr Coeff - Crit Val - Detected	0.9670	0.9550
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.4122	0.9072
W-Test - Lognormal	0.9369	0.8941

Type of Distribution ..... LOGNORMAL ~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	9.5681	5.6357
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.5500	1.7000
Positive Hits - Maximum	26.7000	18.2000
Average Of Positive Hits	9.5681	5.6357
Standard Deviation	6.9170	3.4333
Upper Confidence Limit - Normal	11.5169	6.7407
Upper Confidence Limit - Lognormal	12.0297 UCL	6.9635
95th Percentile - Nonparametric	26.7000	18.2000
95th Percentile - Normal	20.9465	11.2835
95th Percentile - Lognormal	22.8649	11.9795
Upper Tolerance Limit - Normal	24.4950	13.3565
Upper Tolerance Limit - Lognormal	32.1619	16.6913 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9088	0.9034
Corr Coeff - Detected - Lognormal	0.9820	0.9894
Corr Coeff - Total - Normal	0.9088	0.9034
Corr Coeff - Total - Lognormal	0.9820	0.9894
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8138	0.8342
W-Test - Lognormal	0.9450 ✓	0.9800 ✓
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		36.0000	28.0000
Number of Detects		36.0000	21.0000
Average		1.1960	0.6536
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.4500	0.1700
Positive Hits - Maximum		2.7000	2.6000
Average Of Positive Hits		1.1960	0.8160
Standard Deviation		0.6041	0.6239
Upper Confidence Limit - Normal		1.3662	0.8544
Upper Confidence Limit - Lognormal		1.4206 UCL	1.0383
95th Percentile - Nonparametric		2.7000	2.6000
95th Percentile - Normal		2.1898	1.6799
95th Percentile - Lognormal		2.4441	2.0301
Upper Tolerance Limit - Normal		2.4997	2.0566
Upper Tolerance Limit - Lognormal		3.1739	3.5352 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9605	0.8812
Corr Coeff - Detected - Lognormal		0.9866	0.9673
Corr Coeff - Total - Normal		0.9605	0.8571
Corr Coeff - Total - Lognormal		0.9866	0.9771
Corr Coeff - Crit Val - Detected		0.9680	0.9520
Corr Coeff - Crit Val - Total		0.9680	0.9620
W-Test - Table Value		0.9350	0.9240
W-Test - Normal		0.9096	0.7420
W-Test - Lognormal		0.9532	0.9479
Type of Distribution		LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	2.0000	2.0000
Average	0.0323	0.0673
Detection Limit - Minimum	0.0125	0.0300
Detection Limits - Maximum	0.0620	0.0750
Positive Hits - Minimum	0.1600	0.0625
Positive Hits - Maximum	0.2500 UCL	0.6300 UTL
Average Of Positive Hits	0.2050	0.3463
Standard Deviation	0.0451	0.1112
Upper Confidence Limit - Normal	0.0450	0.1031
Upper Confidence Limit - Lognormal	0.0356	0.0726
95th Percentile - Nonparametric	0.2500	0.6300
95th Percentile - Normal	0.1064	0.2503
95th Percentile - Lognormal	0.0669	0.1276
Upper Tolerance Limit - Normal	0.1295	0.3174
Upper Tolerance Limit - Lognormal	0.0932	0.1816

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.6229	0.5097
Corr Coeff - Total - Lognormal	0.8394	0.7946
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.4208	0.2966
W-Test - Lognormal	0.7196	0.6626
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... FAIL

PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	25.9889	25.0375
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.2000	9.8000
Positive Hits - Maximum	56.2000	61.4000
Average Of Positive Hits	25.9889	25.0375
Standard Deviation	12.0314	14.7958
Upper Confidence Limit - Normal	29.3787	29.7993
Upper Confidence Limit - Lognormal	30.6470 UCL	31.1373
95th Percentile - Nonparametric	56.2000	61.4000
95th Percentile - Normal	45.7805	49.3766
95th Percentile - Lognormal	51.6392	53.9656
Upper Tolerance Limit - Normal	51.9527	58.3103
Upper Tolerance Limit - Lognormal	66.1257	75.7429 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9637	0.9376
Corr Coeff - Detected - Lognormal	0.9861	0.9798
Corr Coeff - Total - Normal	0.9637	0.9376
Corr Coeff - Total - Lognormal	0.9861	0.9798
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.9228	0.8679
W-Test - Lognormal	0.9680	0.9395
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	36.0000	28.0000
Number of Detects	36.0000	28.0000
Average	29.0333	19.7411
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.3000	6.2000
Positive Hits - Maximum	83.7000	70.4000
Average Of Positive Hits	29.0333	19.7411
Standard Deviation	18.3139	12.2870
Upper Confidence Limit - Normal	34.1933	23.6955
Upper Confidence Limit - Lognormal	35.4600	24.0318
95th Percentile - Nonparametric	83.7000	70.4000
95th Percentile - Normal	59.1597	39.9532
95th Percentile - Lognormal	64.5127	40.7019
Upper Tolerance Limit - Normal	68.5547	47.3721
Upper Tolerance Limit - Lognormal	87.3176	55.8789

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9296	0.8549
Corr Coeff - Detected - Lognormal	0.9917	0.9802
Corr Coeff - Total - Normal	0.9296	0.8549
Corr Coeff - Total - Lognormal	0.9917	0.9802
Corr Coeff - Crit Val - Detected	0.9680	0.9620
Corr Coeff - Crit Val - Total	0.9680	0.9620
W-Test - Table Value	0.9350	0.9240
W-Test - Normal	0.8611	0.7597
W-Test - Lognormal	0.9669	0.9695
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3O_RES
Media : Indian Head Range 3 Statistics
Group : All Soil Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	36.0000	24.0000
Number of Detects	33.0000	23.0000
Average	10837.0972	3658.8854
Detection Limit - Minimum	219.5000	43.7500
Detection Limits - Maximum	327.5000	43.7500
Positive Hits - Minimum	391.0000	261.0000
Positive Hits - Maximum	104000.0000	14000.0000
Average Of Positive Hits	11796.0909	3816.0652
Standard Deviation	22044.4501	3677.5949
Upper Confidence Limit - Normal	17048.1211	4945.5611
Upper Confidence Limit - Lognormal	21844.1622 UCL	10403.0079
95th Percentile - Nonparametric	104000.0000	14000.0000
95th Percentile - Normal	47100.2177	9708.5290
95th Percentile - Lognormal	40129.6101	17251.3364
Upper Tolerance Limit - Normal	58409.0206	12150.4521
Upper Tolerance Limit - Lognormal	84423.9445	40499.7691 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6507	0.9147
Corr Coeff - Detected - Lognormal	0.9652	0.9832
Corr Coeff - Total - Normal	0.6769	0.8984
Corr Coeff - Total - Lognormal	0.9901	0.9560
Corr Coeff - Crit Val - Detected	0.9670	0.9550
Corr Coeff - Crit Val - Total	0.9680	0.9570
W-Test - Table Value	0.9350	0.9160
W-Test - Normal	0.4822	0.8027
W-Test - Lognormal	0.9752	0.9235
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	113.6667	195.2400
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	60.0000	12.9000
Positive Hits - Maximum	169.0000 UCL	688.0000
Average Of Positive Hits	113.6667	195.2400
Standard Deviation	54.5191	246.9751
Upper Confidence Limit - Normal	205.5784	338.3980
Upper Confidence Limit - Lognormal	1453.4667	918.5620
95th Percentile - Nonparametric	169.0000	688.0000
95th Percentile - Normal	203.3506	601.5140
95th Percentile - Lognormal	245.9910	756.0337
Upper Tolerance Limit - Normal	**********	914.1844
Upper Tolerance Limit - Lognormal	**********	3552.7445 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9996	0.8253
Corr Coeff - Detected - Lognormal	0.9930	0.9752
Corr Coeff - Total - Normal	0.9996	0.8253
Corr Coeff - Total - Lognormal	0.9930	0.9752
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9993	0.6808
W-Test - Lognormal	0.9861	0.9509
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CADMIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	3.0000
Average	0.6833	2.5400
Detection Limit - Minimum	0.3250	0.6500
Detection Limits - Maximum	0.3250	2.5000
Positive Hits - Minimum	1.4000	2.8000
Positive Hits - Maximum	1.4000	9.8000
Average Of Positive Hits	1.4000	6.3333
Standard Deviation	0.6207	3.1466
Upper Confidence Limit - Normal	1.7297	4.3639
Upper Confidence Limit - Lognormal	530.5378	8.1973
95th Percentile - Nonparametric	1.4000	9.8000
95th Percentile - Normal	1.7043	7.7161
95th Percentile - Lognormal	2.1167	8.3477
Upper Tolerance Limit - Normal	**********	11.6997
Upper Tolerance Limit - Lognormal	**********	32.6463

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9909
Corr Coeff - Detected - Lognormal	**********	0.9550
Corr Coeff - Total - Normal	0.8660	0.8258
Corr Coeff - Total - Lognormal	0.8660	0.8729
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.6881
W-Test - Lognormal	0.7500	0.7439
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : COBALT (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	9.0000
Average	15.7000	89.0000
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	2.7000	2.1000
Positive Hits - Maximum	40.4000	641.0000
Average Of Positive Hits	15.7000	98.8500
Standard Deviation	21.4007	200.4999
Upper Confidence Limit - Normal	51.7786	205.2189
Upper Confidence Limit - Lognormal	8301573806.341	8280.9572
95th Percentile - Nonparametric	40.4000	641.0000
95th Percentile - Normal	50.9042	418.8224
95th Percentile - Lognormal	84.0077	425.1857
Upper Tolerance Limit - Normal	**********	672.6553
Upper Tolerance Limit - Lognormal	**********	6592.9873

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8808	0.7470
Corr Coeff - Detected - Lognormal	0.9254	0.9720
Corr Coeff - Total - Normal	0.8808	0.6934
Corr Coeff - Total - Lognormal	0.9254	0.9812
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7758	0.5118
W-Test - Lognormal	0.8563	0.9719
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : MERCURY (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	2.0000
Average	0.1317	0.0765
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.1000
Positive Hits - Minimum	0.1800	0.1300
Positive Hits - Maximum	0.1900	0.1700
Average Of Positive Hits	0.1850	0.1500
Standard Deviation	0.0925	0.0428
Upper Confidence Limit - Normal	0.2876	0.1013
Upper Confidence Limit - Lognormal	42024.0004	0.1073
95th Percentile - Nonparametric	0.1900	0.1700
95th Percentile - Normal	0.2838	0.1469
95th Percentile - Lognormal	0.6352	0.1479
Upper Tolerance Limit - Normal	**********	0.2012
Upper Tolerance Limit - Lognormal	**********	0.2677

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.8918	0.8388
Corr Coeff - Total - Lognormal	0.8775	0.8582
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7953	0.7034
W-Test - Lognormal	0.7700	0.7250
Type of Distribution	NORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	7.0000
Average	10.5417	30.9550
Detection Limit - Minimum	0.4250	0.5500
Detection Limits - Maximum	0.4250	15.4500
Positive Hits - Minimum	2.9000	2.6000
Positive Hits - Maximum	28.3000 UCL	166.0000
Average Of Positive Hits	15.6000	41.8571
Standard Deviation	15.4289	52.6558
Upper Confidence Limit - Normal	36.5526	61.4767
Upper Confidence Limit - Lognormal	1.6078718E+19	1351.4538
95th Percentile - Nonparametric	28.3000	166.0000
95th Percentile - Normal	35.9222	117.5738
95th Percentile - Lognormal	103.6930	186.4911
Upper Tolerance Limit - Normal	**********	184.2360
Upper Tolerance Limit - Lognormal	**********	2093.7509 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8619
Corr Coeff - Detected - Lognormal	**********	0.9817
Corr Coeff - Total - Normal	0.9033	0.7828
Corr Coeff - Total - Lognormal	0.9988	0.9800
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8160	0.6337
W-Test - Lognormal	0.9976	0.9462
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : SILVER (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	0.3967	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	0.8400	
Positive Hits - Maximum	0.8400	
Average Of Positive Hits	0.8400	
Standard Deviation	0.3839	
Upper Confidence Limit - Normal	1.0439	
Upper Confidence Limit - Lognormal	858.7120	
95th Percentile - Nonparametric	0.8400	
95th Percentile - Normal	1.0282	
95th Percentile - Lognormal	1.3095	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	4.0000
Average	8.0000	89.7050
Detection Limit - Minimum	3.1500	3.2000
Detection Limits - Maximum	14.1500	35.0500
Positive Hits - Minimum	6.7000	45.2000
Positive Hits - Maximum	6.7000	483.0000
Average Of Positive Hits	6.7000	209.0625
Standard Deviation	5.6140	157.6455
Upper Confidence Limit - Normal	17.4645	181.0835
Upper Confidence Limit - Lognormal	1606.6582	1951.2798
95th Percentile - Nonparametric	14.1500	483.0000
95th Percentile - Normal	17.2351	349.0318
95th Percentile - Lognormal	22.9978	418.2108
Upper Tolerance Limit - Normal	**********	548.6110
Upper Tolerance Limit - Lognormal	**********	3975.8975

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9766
Corr Coeff - Detected - Lognormal	**********	0.9593
Corr Coeff - Total - Normal	0.9797	0.7794
Corr Coeff - Total - Lognormal	1.0000	0.9515
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9598	0.6249
W-Test - Lognormal	1.0000	0.8875
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ACETONE (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	2.0000	
Average	75.1667	
Detection Limit - Minimum	2.5000	
Detection Limits - Maximum	2.5000	
Positive Hits - Minimum	23.0000	
Positive Hits - Maximum	200.0000 UCL	
Average Of Positive Hits	111.5000	
Standard Deviation	108.5937	
Upper Confidence Limit - Normal	258.2407	
Upper Confidence Limit - Lognormal	4.6654338E+21	
95th Percentile - Nonparametric	200.0000	
95th Percentile - Normal	253.8032	
95th Percentile - Lognormal	829.6609	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9094	
Corr Coeff - Total - Lognormal	1.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.8269	NA
W-Test - Lognormal	0.9999	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CHLOROFORM (µg/L)

	Sample Results	Background Results
Count	3.0000	5.0000
Number of Detects	1.0000	3.0000
Average	1.5000	2.5400
Detection Limit - Minimum	1.2500	2.5000
Detection Limits - Maximum	1.2500	2.5000
Positive Hits - Minimum	2.0000	2.0000
Positive Hits - Maximum	2.0000	3.1000
Average Of Positive Hits	2.0000	2.5667
Standard Deviation	0.4330	0.3912
Upper Confidence Limit - Normal	2.2300	2.9129
Upper Confidence Limit - Lognormal	3.1909	3.0060
95th Percentile - Nonparametric	2.0000	3.1000
95th Percentile - Normal	2.2123	3.1834
95th Percentile - Lognormal	2.2846	3.2519
Upper Tolerance Limit - Normal	**********	4.1836
Upper Tolerance Limit - Lognormal	**********	4.8465

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9818
Corr Coeff - Detected - Lognormal	**********	0.9916
Corr Coeff - Total - Normal	0.8660	0.9490
Corr Coeff - Total - Lognormal	0.8660	0.9472
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8790
W-Test - Table Value	0.7670	0.7620
W-Test - Normal	0.7500	0.9319
W-Test - Lognormal	0.7500	0.9284
Type of Distribution	Undefined	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3U_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/L)

	Sample Results	Background Results
Count	3.0000	8.0000
Number of Detects	3.0000	7.0000
Average	18.5567	2.8688
Detection Limit - Minimum	NA	0.5000
Detection Limits - Maximum	NA	0.5000
Positive Hits - Minimum	6.4700	0.9400
Positive Hits - Maximum	37.8000 UCL	6.9000
Average Of Positive Hits	18.5567	3.2071
Standard Deviation	16.8465	2.1006
Upper Confidence Limit - Normal	46.9576	4.2761
Upper Confidence Limit - Lognormal	37890.0826	9.2567
95th Percentile - Nonparametric	37.8000	6.9000
95th Percentile - Normal	46.2692	6.3243
95th Percentile - Lognormal	61.9860	9.1761
Upper Tolerance Limit - Normal	**********	9.5655
Upper Tolerance Limit - Lognormal	**********	35.8981

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9299	0.9615
Corr Coeff - Detected - Lognormal	0.9793	0.9477
Corr Coeff - Total - Normal	0.9299	0.9542
Corr Coeff - Total - Lognormal	0.9793	0.9676
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9050
W-Test - Table Value	0.7670	0.8180
W-Test - Normal	0.8646	0.9135
W-Test - Lognormal	0.9590	0.9318
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ACETONE (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	2.0000	
Average	75.1667	
Detection Limit - Minimum	2.5000	
Detection Limits - Maximum	2.5000	
Positive Hits - Minimum	23.0000	
Positive Hits - Maximum	200.0000	
Average Of Positive Hits	111.5000	
Standard Deviation	108.5937	
Upper Confidence Limit - Normal	258.2407	
Upper Confidence Limit - Lognormal	4.6654338E+21	
95th Percentile - Nonparametric	200.0000	
95th Percentile - Normal	253.8032	
95th Percentile - Lognormal	829.6609	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9094	
Corr Coeff - Total - Lognormal	1.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.8269	NA
W-Test - Lognormal	0.9999	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CHLOROFORM (µg/L)

	Sample Results	Background Results
Count	3.0000	2.0000
Number of Detects	1.0000	1.0000
Average	1.5000	2.2500
Detection Limit - Minimum	1.2500	2.5000
Detection Limits - Maximum	1.2500	2.5000
Positive Hits - Minimum	2.0000	2.0000
Positive Hits - Maximum	2.0000 UCL	2.0000 UCL
Average Of Positive Hits	2.0000	2.0000
Standard Deviation	0.4330	0.3536
Upper Confidence Limit - Normal	2.2300	**********
Upper Confidence Limit - Lognormal	3.1909	3.1515
95th Percentile - Nonparametric	2.0000	2.5000
95th Percentile - Normal	2.2123	2.8316
95th Percentile - Lognormal	2.2846	2.8987
Upper Tolerance Limit - Normal	**********	**********
Upper Tolerance Limit - Lognormal	**********	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.0000
Corr Coeff - Total - Lognormal	0.8660	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	**********
W-Test - Table Value	0.7670	0.0000
W-Test - Normal	0.7500	1.0000
W-Test - Lognormal	0.7500	1.0000
Type of Distribution	Undefined ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	3.0000	6.0000
Average	113.6667	64.5167
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	60.0000	12.9000
Positive Hits - Maximum	169.0000 UCL	139.0000
Average Of Positive Hits	113.6667	64.5167
Standard Deviation	54.5191	44.7782
Upper Confidence Limit - Normal	205.5784	101.3521
Upper Confidence Limit - Lognormal	1453.4667	282.9026
95th Percentile - Nonparametric	169.0000	139.0000
95th Percentile - Normal	203.3506	138.1768
95th Percentile - Lognormal	245.9910	197.9494
Upper Tolerance Limit - Normal	**********	151.5207
Upper Tolerance Limit - Lognormal	**********	253.5200 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9996	0.9743
Corr Coeff - Detected - Lognormal	0.9930	0.9796
Corr Coeff - Total - Normal	0.9996	0.9743
Corr Coeff - Total - Lognormal	0.9930	0.9796
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9993	0.9539
W-Test - Lognormal	0.9861	0.9670
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CADMIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	1.0000	1.0000
Average	0.6833	1.0083
Detection Limit - Minimum	0.3250	0.6500
Detection Limits - Maximum	0.3250	0.6500
Positive Hits - Minimum	1.4000	2.8000
Positive Hits - Maximum	1.4000 UCL	2.8000 UTL
Average Of Positive Hits	1.4000	2.8000
Standard Deviation	0.6207	0.8777
Upper Confidence Limit - Normal	1.7297	1.7304
Upper Confidence Limit - Lognormal	530.5378	2.1861
95th Percentile - Nonparametric	1.4000	2.8000
95th Percentile - Normal	1.7043	2.4522
95th Percentile - Lognormal	2.1167	2.2109
Upper Tolerance Limit - Normal	**********	2.7138
Upper Tolerance Limit - Lognormal	**********	2.6407

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.6826
Corr Coeff - Total - Lognormal	0.8660	0.6826
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.7500	0.4963
W-Test - Lognormal	0.7500	0.4963
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	3.0000	5.0000
Average	15.7000	5.4583
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	2.7000	2.1000
Positive Hits - Maximum	40.4000	15.6000
Average Of Positive Hits	15.7000	6.4800
Standard Deviation	21.4007	5.4056
Upper Confidence Limit - Normal	51.7786	9.9051
Upper Confidence Limit - Lognormal	8301573806.341	159.3152
95th Percentile - Nonparametric	40.4000	15.6000
95th Percentile - Normal	50.9042	14.3505
95th Percentile - Lognormal	84.0077	26.9999
Upper Tolerance Limit - Normal	**********	15.9614
Upper Tolerance Limit - Lognormal	**********	39.5740

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8808	0.9183
Corr Coeff - Detected - Lognormal	0.9254	0.9835
Corr Coeff - Total - Normal	0.8808	0.9108
Corr Coeff - Total - Lognormal	0.9254	0.9572
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.7758	0.8483
W-Test - Lognormal	0.8563	0.9364
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : MERCURY (µg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	2.0000	1.0000
Average	0.1317	0.0658
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0650
Positive Hits - Minimum	0.1800	0.1300
Positive Hits - Maximum	0.1900	0.1300
Average Of Positive Hits	0.1850	0.1300
Standard Deviation	0.0925	0.0320
Upper Confidence Limit - Normal	0.2876	0.0922
Upper Confidence Limit - Lognormal	42024.0004	0.1000
95th Percentile - Nonparametric	0.1900	0.1300
95th Percentile - Normal	0.2838	0.1185
95th Percentile - Lognormal	0.6352	0.1151
Upper Tolerance Limit - Normal	**********	0.1280
Upper Tolerance Limit - Lognormal	**********	0.1290

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8918	0.7635
Corr Coeff - Total - Lognormal	0.8775	0.7923
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.7953	0.6049
W-Test - Lognormal	0.7700	0.6445
Type of Distribution	NORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	2.0000	4.0000
Average	10.5417	5.2833
Detection Limit - Minimum	0.4250	0.5500
Detection Limits - Maximum	0.4250	0.5500
Positive Hits - Minimum	2.9000	2.6000
Positive Hits - Maximum	28.3000	16.6000
Average Of Positive Hits	15.6000	7.6500
Standard Deviation	15.4289	6.2996
Upper Confidence Limit - Normal	36.5526	10.4655
Upper Confidence Limit - Lognormal	1.6078718E+19	248.6762
95th Percentile - Nonparametric	28.3000	16.6000
95th Percentile - Normal	35.9222	15.6461
95th Percentile - Lognormal	103.6930	25.7447
Upper Tolerance Limit - Normal	**********	17.5234
Upper Tolerance Limit - Lognormal	**********	39.0087

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9629
Corr Coeff - Detected - Lognormal	**********	0.9600
Corr Coeff - Total - Normal	0.9033	0.8952
Corr Coeff - Total - Lognormal	0.9988	0.9644
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.8160	0.8023
W-Test - Lognormal	0.9976	0.9068
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : SILVER (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	0.3967	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	0.8400	
Positive Hits - Maximum	0.8400	
Average Of Positive Hits	0.8400	
Standard Deviation	0.3839	
Upper Confidence Limit - Normal	1.0439	
Upper Confidence Limit - Lognormal	858.7120	
95th Percentile - Nonparametric	0.8400	
95th Percentile - Normal	1.0282	
95th Percentile - Lognormal	1.3095	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	1.0000	1.0000
Average	8.0000	11.8250
Detection Limit - Minimum	3.1500	3.2000
Detection Limits - Maximum	14.1500	6.6000
Positive Hits - Minimum	6.7000	45.2000
Positive Hits - Maximum	6.7000 UCL	45.2000 UCL
Average Of Positive Hits	6.7000	45.2000
Standard Deviation	5.6140	16.4004
Upper Confidence Limit - Normal	17.4645	25.3163
Upper Confidence Limit - Lognormal	1606.6582	62.4968
95th Percentile - Nonparametric	14.1500	45.2000
95th Percentile - Normal	17.2351	38.8036
95th Percentile - Lognormal	22.9978	33.7588
Upper Tolerance Limit - Normal	**********	43.6910
Upper Tolerance Limit - Lognormal	**********	44.6778

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9797	0.7368
Corr Coeff - Total - Lognormal	1.0000	0.8596
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9598	0.5729
W-Test - Lognormal	1.0000	0.7668
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3T_RES
Media : Indian Head Range 3 Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : TOTAL ORGANIC CARBON (mg/L)

	Sample Results	Background Results
Count	3.0000	5.0000
Number of Detects	3.0000	5.0000
Average	18.5567	3.4420
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.4700	1.1100
Positive Hits - Maximum	37.8000	6.9000
Average Of Positive Hits	18.5567	3.4420
Standard Deviation	16.8465	2.1134
Upper Confidence Limit - Normal	46.9576	5.4570
Upper Confidence Limit - Lognormal	37890.0826	11.2148
95th Percentile - Nonparametric	37.8000	6.9000
95th Percentile - Normal	46.2692	6.9185
95th Percentile - Lognormal	61.9860	8.5613
Upper Tolerance Limit - Normal	**********	12.3224
Upper Tolerance Limit - Lognormal	**********	45.0467

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9299	0.9096
Corr Coeff - Detected - Lognormal	0.9793	0.9350
Corr Coeff - Total - Normal	0.9299	0.9096
Corr Coeff - Total - Lognormal	0.9793	0.9350
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8790	0.8790
W-Test - Table Value	0.7670	0.7620
W-Test - Normal	0.8646	0.8603
W-Test - Lognormal	0.9590	0.9088
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : ANTIMONY, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	1.4167	
Detection Limit - Minimum	0.5750	
Detection Limits - Maximum	0.5750	
Positive Hits - Minimum	3.1000	
Positive Hits - Maximum	3.1000	
Average Of Positive Hits	3.1000	
Standard Deviation	1.4578	
Upper Confidence Limit - Normal	3.8743	
Upper Confidence Limit - Lognormal	10010.2618	
95th Percentile - Nonparametric	3.1000	
95th Percentile - Normal	3.8148	
95th Percentile - Lognormal	4.9944	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : BARIUM, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	9.0000
Average	120.7333	36.7400
Detection Limit - Minimum	NA	7.0000
Detection Limits - Maximum	NA	7.0000
Positive Hits - Minimum	58.2000	4.0000
Positive Hits - Maximum	182.0000 UCL	86.7000
Average Of Positive Hits	120.7333	40.0444
Standard Deviation	61.9097	26.5507
Upper Confidence Limit - Normal	225.1046	52.1300
Upper Confidence Limit - Lognormal	2795.0999	128.1767
95th Percentile - Nonparametric	182.0000	86.7000
95th Percentile - Normal	222.5748	80.4159
95th Percentile - Lognormal	282.0819	138.6789
Upper Tolerance Limit - Normal	**********	114.0290 UTL
Upper Tolerance Limit - Lognormal	**********	509.6195

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9998	0.9736
Corr Coeff - Detected - Lognormal	0.9855	0.9499
Corr Coeff - Total - Normal	0.9998	0.9774
Corr Coeff - Total - Lognormal	0.9855	0.9558
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9997	0.9468
W-Test - Lognormal	0.9712	0.9031
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : COBALT, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	7.0000
Average	16.4000	4.8500
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	7.0000
Positive Hits - Minimum	3.2000	2.3000
Positive Hits - Maximum	39.8000 UCL	8.2500
Average Of Positive Hits	16.4000	4.8786
Standard Deviation	20.3204	2.7887
Upper Confidence Limit - Normal	50.6575	6.4664
Upper Confidence Limit - Lognormal	154767590.6688	15.4892
95th Percentile - Nonparametric	39.8000	8.2500
95th Percentile - Normal	49.8271	9.4374
95th Percentile - Lognormal	79.3421	17.9622
Upper Tolerance Limit - Normal	**********	12.9678 UTL
Upper Tolerance Limit - Lognormal	**********	60.8006

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9006	0.9381
Corr Coeff - Detected - Lognormal	0.9644	0.9290
Corr Coeff - Total - Normal	0.9006	0.9530
Corr Coeff - Total - Lognormal	0.9644	0.8782
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8110	0.8898
W-Test - Lognormal	0.9300	0.7854
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : CADMIUM, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	1.0000
Average	0.6833	1.2450
Detection Limit - Minimum	0.3250	0.6500
Detection Limits - Maximum	0.3250	2.5000
Positive Hits - Minimum	1.4000	2.9000
Positive Hits - Maximum	1.4000	2.9000
Average Of Positive Hits	1.4000	2.9000
Standard Deviation	0.6207	0.9642
Upper Confidence Limit - Normal	1.7297	1.8039
Upper Confidence Limit - Lognormal	530.5378	2.1771
95th Percentile - Nonparametric	1.4000	2.9000
95th Percentile - Normal	1.7043	2.8311
95th Percentile - Lognormal	2.1167	3.0038
Upper Tolerance Limit - Normal	**********	4.0518
Upper Tolerance Limit - Lognormal	**********	7.0671

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.8028
Corr Coeff - Total - Lognormal	0.8660	0.7957
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.6301
W-Test - Lognormal	0.7500	0.6150
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : MERCURY, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	1.0000
Average	0.0800	0.0630
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0700
Positive Hits - Minimum	0.1900	0.1600
Positive Hits - Maximum	0.1900	0.1600
Average Of Positive Hits	0.1900	0.1600
Standard Deviation	0.0953	0.0347
Upper Confidence Limit - Normal	0.2406	0.0831
Upper Confidence Limit - Lognormal	30793.6547	0.0803
95th Percentile - Nonparametric	0.1900	0.1600
95th Percentile - Normal	0.2367	0.1200
95th Percentile - Lognormal	0.3374	0.1070
Upper Tolerance Limit - Normal	**********	0.1639
Upper Tolerance Limit - Lognormal	**********	0.1712

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.6450
Corr Coeff - Total - Lognormal	0.8660	0.6766
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.4495
W-Test - Lognormal	0.7500	0.4880
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : NICKEL, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	6.0000
Average	11.0250	4.0500
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	0.2750	8.5000
Positive Hits - Minimum	3.8000	1.4000
Positive Hits - Maximum	29.0000	7.5000
Average Of Positive Hits	16.4000	3.6250
Standard Deviation	15.6663	3.0245
Upper Confidence Limit - Normal	37.4362	5.8032
Upper Confidence Limit - Lognormal	3.7776282E+23	10.7551
95th Percentile - Nonparametric	29.0000	8.5000
95th Percentile - Normal	36.7960	9.0254
95th Percentile - Lognormal	145.3141	13.1365
Upper Tolerance Limit - Normal	**********	12.8544
Upper Tolerance Limit - Lognormal	**********	41.3564

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8849
Corr Coeff - Detected - Lognormal	**********	0.9392
Corr Coeff - Total - Normal	0.9168	0.9397
Corr Coeff - Total - Lognormal	0.9973	0.9694
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8405	0.8586
W-Test - Lognormal	0.9946	0.9286
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : SILVER, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	2.0000	
Average	0.8250	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	1.1000	
Positive Hits - Maximum	1.2000	
Average Of Positive Hits	1.1500	
Standard Deviation	0.5651	
Upper Confidence Limit - Normal	1.7777	
Upper Confidence Limit - Lognormal	60901.9228	
95th Percentile - Nonparametric	1.2000	
95th Percentile - Normal	1.7546	
95th Percentile - Lognormal	3.6700	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9069	
Corr Coeff - Total - Lognormal	0.8853	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.8224	NA
W-Test - Lognormal	0.7838	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHR3F_RES
Media : Indian Head Range 3 Statistics
Group : Filtered GW Comparison to Background

Parameter : ZINC, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	1.0000
Average	8.0333	4.8625
Detection Limit - Minimum	2.8500	3.0500
Detection Limits - Maximum	15.1500	6.4000
Positive Hits - Minimum	6.1000	7.3000
Positive Hits - Maximum	6.1000	7.3000
Average Of Positive Hits	6.1000	7.3000
Standard Deviation	6.3738	1.3315
Upper Confidence Limit - Normal	18.7788	5.6343
Upper Confidence Limit - Lognormal	5761.3694	5.8032
95th Percentile - Nonparametric	15.1500	7.3000
95th Percentile - Normal	18.5183	7.0529
95th Percentile - Lognormal	25.3764	7.3104
Upper Tolerance Limit - Normal	**********	8.7386
Upper Tolerance Limit - Lognormal	**********	10.2597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9649	0.9642
Corr Coeff - Total - Lognormal	0.9987	0.9776
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9310	0.9272
W-Test - Lognormal	0.9973	0.9542
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3W_RES
Media : Indian Head Range 3 Statistics
Group : Surface Water Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	1.0000	No samples
Number of Detects	1.0000	
Average	65.2000	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	65.2000	
Positive Hits - Maximum	65.2000 UCL	
Average Of Positive Hits	65.2000	
Standard Deviation	0.0000	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	0.0000	
95th Percentile - Nonparametric	65.2000	
95th Percentile - Normal	65.2000	
95th Percentile - Lognormal	65.2000	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.0000	
Corr Coeff - Total - Lognormal	0.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	**********	NA
W-Test - Lognormal	**********	NA

Type of Distribution ..... UNDEFINED ✓

Test Results:

Dataset: IHR3W_RES
Media : Indian Head Range 3 Statistics
Group : Surface Water Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/L)

	Sample Results	Background Results
Count	2.0000	No samples
Number of Detects	2.0000	
Average	8.7325	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	7.8150	
Positive Hits - Maximum	9.6500	
Average Of Positive Hits	8.7325	
Standard Deviation	1.2975	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	11.9422	
95th Percentile - Nonparametric	9.6500	
95th Percentile - Normal	10.8670	
95th Percentile - Lognormal	11.0988	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	1.0000	
Corr Coeff - Total - Lognormal	0.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	1.0000	NA
W-Test - Lognormal	1.0000	NA

Type of Distribution ..... UNDEFINED

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : 2-BUTANONE (µg/kg)

	Sample Results	Background Results
Count	1.0000	No samples
Number of Detects	1.0000	
Average	110.0000	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	0.0000	
Upper Confidence Limit - Normal	**********	
Upper Confidence Limit - Lognormal	0.0000	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	110.0000	
95th Percentile - Lognormal	110.0000	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.0000	
Corr Coeff - Total - Lognormal	0.0000	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.0000	NA
W-Test - Normal	**********	NA
W-Test - Lognormal	**********	NA

Type of Distribution ..... UNDEFINED

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	3.0000	
Average	488.5625	
Detection Limit - Minimum	2.7500	
Detection Limits - Maximum	2.7500	
Positive Hits - Minimum	51.5000	
Positive Hits - Maximum	1100.0000	
Average Of Positive Hits	650.5000	
Standard Deviation	547.0791	
Upper Confidence Limit - Normal	1132.2010	
Upper Confidence Limit - Lognormal	1.1914998E+21	
95th Percentile - Nonparametric	1100.0000	
95th Percentile - Normal	1388.5076	
95th Percentile - Lognormal	10467.3413	
Upper Tolerance Limit - Normal	3303.2843	
Upper Tolerance Limit - Lognormal	184713028.1538	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9606	
Corr Coeff - Detected - Lognormal	0.9955	
Corr Coeff - Total - Normal	0.9424	
Corr Coeff - Total - Lognormal	0.9527	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8616	NA
W-Test - Lognormal	0.8948	NA

Type of Distribution ..... LOGNORMAL ✓

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	9.4688	
Detection Limit - Minimum	1.5000	
Detection Limits - Maximum	5.2500	
Positive Hits - Minimum	29.0000	
Positive Hits - Maximum	29.0000 UCL	
Average Of Positive Hits	29.0000	
Standard Deviation	13.1238	
Upper Confidence Limit - Normal	24.9089	
Upper Confidence Limit - Lognormal	94166.5050	
95th Percentile - Nonparametric	29.0000	
95th Percentile - Normal	31.0573	
95th Percentile - Lognormal	41.4302	
Upper Tolerance Limit - Normal	76.9905	
Upper Tolerance Limit - Lognormal	4262.7597	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8485	
Corr Coeff - Total - Lognormal	0.9549	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7301	NA
W-Test - Lognormal	0.9097	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(A)PYRENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	185.0000	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	150.0000	
Positive Hits - Maximum	150.0000 UCL	
Average Of Positive Hits	150.0000	
Standard Deviation	113.1555	
Upper Confidence Limit - Normal	318.1274	
Upper Confidence Limit - Lognormal	997.7210	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	371.1408	
95th Percentile - Lognormal	407.1753	
Upper Tolerance Limit - Normal	767.1850	
Upper Tolerance Limit - Lognormal	2833.6887	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8944	
Corr Coeff - Total - Lognormal	0.9443	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8190	NA
W-Test - Lognormal	0.9128	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	213.6250	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	62.0000	
Positive Hits - Maximum	62.0000	
Average Of Positive Hits	62.0000	
Standard Deviation	157.9638	
Upper Confidence Limit - Normal	399.4694	
Upper Confidence Limit - Lognormal	16293.9634	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	473.4755	
95th Percentile - Lognormal	714.0821	
Upper Tolerance Limit - Normal	1026.3488	
Upper Tolerance Limit - Lognormal	16591.1884	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9009	
Corr Coeff - Total - Lognormal	0.9240	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7765	NA
W-Test - Lognormal	0.8234	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	345.0000	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	790.0000	
Positive Hits - Maximum	790.0000 UCL	
Average Of Positive Hits	790.0000	
Standard Deviation	316.6557	
Upper Confidence Limit - Normal	717.5454	
Upper Confidence Limit - Lognormal	41883.7792	
95th Percentile - Nonparametric	790.0000	
95th Percentile - Normal	865.8986	
95th Percentile - Lognormal	1181.3252	
Upper Tolerance Limit - Normal	1974.1936	
Upper Tolerance Limit - Lognormal	32762.2880	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9364	
Corr Coeff - Total - Lognormal	0.9895	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8758	NA
W-Test - Lognormal	0.9693	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	214.0000	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	63.5000	
Positive Hits - Maximum	63.5000 UCL	
Average Of Positive Hits	63.5000	
Standard Deviation	157.4849	
Upper Confidence Limit - Normal	399.2810	
Upper Confidence Limit - Lognormal	15052.1127	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	473.0627	
95th Percentile - Lognormal	708.3640	
Upper Tolerance Limit - Normal	1024.2599	
Upper Tolerance Limit - Lognormal	15974.7631	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8999	
Corr Coeff - Total - Lognormal	0.9223	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7746	NA
W-Test - Lognormal	0.8198	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	212.5000	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	260.0000	
Positive Hits - Maximum	260.0000	
Average Of Positive Hits	260.0000	
Standard Deviation	115.1629	
Upper Confidence Limit - Normal	347.9892	
Upper Confidence Limit - Lognormal	1461.0512	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	401.9430	
95th Percentile - Lognormal	497.5079	
Upper Tolerance Limit - Normal	805.0133	
Upper Tolerance Limit - Lognormal	3957.7785	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9880	
Corr Coeff - Total - Lognormal	0.9896	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9638	NA
W-Test - Lognormal	0.9676	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	219.6250	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	86.0000	
Positive Hits - Maximum	86.0000 UCL	
Average Of Positive Hits	86.0000	
Standard Deviation	150.5675	
Upper Confidence Limit - Normal	396.7676	
Upper Confidence Limit - Lognormal	6319.3191	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	467.3085	
95th Percentile - Lognormal	647.8899	
Upper Tolerance Limit - Normal	994.2946	
Upper Tolerance Limit - Lognormal	10283.8268	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8827	
Corr Coeff - Total - Lognormal	0.8890	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7417	NA
W-Test - Lognormal	0.7536	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : NAPHTHALENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	185.0000	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	150.0000	
Positive Hits - Maximum	150.0000 UCL	
Average Of Positive Hits	150.0000	
Standard Deviation	113.1555	
Upper Confidence Limit - Normal	318.1274	
Upper Confidence Limit - Lognormal	997.7210	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	371.1408	
95th Percentile - Lognormal	407.1753	
Upper Tolerance Limit - Normal	767.1850	
Upper Tolerance Limit - Lognormal	2833.6887	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8944	
Corr Coeff - Total - Lognormal	0.9443	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8190	NA
W-Test - Lognormal	0.9128	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : PYRENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	218.8750	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	350.0000	
Positive Hits - Minimum	83.0000	
Positive Hits - Maximum	83.0000 UCL	
Average Of Positive Hits	83.0000	
Standard Deviation	151.4598	
Upper Confidence Limit - Normal	397.0674	
Upper Confidence Limit - Lognormal	6901.1607	
95th Percentile - Nonparametric	350.0000	
95th Percentile - Normal	468.0263	
95th Percentile - Lognormal	653.7960	
Upper Tolerance Limit - Normal	998.1355	
Upper Tolerance Limit - Lognormal	10781.6029	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8852	
Corr Coeff - Total - Lognormal	0.8943	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7465	NA
W-Test - Lognormal	0.7637	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : 2,4,6-TRINITROTOLUENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	115.1750	
Detection Limit - Minimum	8.9000	
Detection Limits - Maximum	8.9000	
Positive Hits - Minimum	434.0000	
Positive Hits - Maximum	434.0000 UCL	
Average Of Positive Hits	434.0000	
Standard Deviation	212.5500	
Upper Confidence Limit - Normal	365.2401	
Upper Confidence Limit - Lognormal	40299658783.58	
95th Percentile - Nonparametric	434.0000	
95th Percentile - Normal	464.8198	
95th Percentile - Lognormal	575.2769	
Upper Tolerance Limit - Normal	1208.7448	
Upper Tolerance Limit - Lognormal	517668.1846	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	1.0475	
Detection Limit - Minimum	0.4750	
Detection Limits - Maximum	0.4750	
Positive Hits - Minimum	0.9400	
Positive Hits - Maximum	2.3000 UCL	
Average Of Positive Hits	1.6200	
Standard Deviation	0.8633	
Upper Confidence Limit - Normal	2.0632	
Upper Confidence Limit - Lognormal	20.7997	
95th Percentile - Nonparametric	2.3000	
95th Percentile - Normal	2.4676	
95th Percentile - Lognormal	2.8590	
Upper Tolerance Limit - Normal	5.4891	
Upper Tolerance Limit - Lognormal	39.1502	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8901	
Corr Coeff - Total - Lognormal	0.9312	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7937	NA
W-Test - Lognormal	0.8564	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	9.0000
Average	5.6875	3.0160
Detection Limit - Minimum	1.9500	0.4100
Detection Limits - Maximum	1.9500	0.4100
Positive Hits - Minimum	2.4000	0.2800
Positive Hits - Maximum	9.9000 UCL	9.5500
Average Of Positive Hits	6.9333	3.3056
Standard Deviation	4.1001	3.4113
Upper Confidence Limit - Normal	10.5112	4.9933
Upper Confidence Limit - Lognormal	253.3202	16.6094
95th Percentile - Nonparametric	9.9000	9.5500
95th Percentile - Normal	12.4321	8.6276
95th Percentile - Lognormal	17.7588	12.6643
Upper Tolerance Limit - Normal	26.7824	12.9463
Upper Tolerance Limit - Lognormal	336.7168	62.9604 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9845	0.8773
Corr Coeff - Detected - Lognormal	0.9952	0.9846
Corr Coeff - Total - Normal	0.9300	0.8853
Corr Coeff - Total - Lognormal	0.9294	0.9774
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8342	0.7732
W-Test - Lognormal	0.8325	0.9312
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	84.2625	41.9750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12.6000	5.8000
Positive Hits - Maximum	142.0000 UCL	175.0000
Average Of Positive Hits	84.2625	41.9750
Standard Deviation	57.1363	52.8775
Upper Confidence Limit - Normal	151.4834	72.6252
Upper Confidence Limit - Lognormal	57349.8272	145.1041
95th Percentile - Nonparametric	142.0000	175.0000
95th Percentile - Normal	178.2518	128.9586
95th Percentile - Lognormal	371.4281	143.4017
Upper Tolerance Limit - Normal	378.2290	195.9015
Upper Tolerance Limit - Lognormal	17379.1058	577.1926 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9867	0.8317
Corr Coeff - Detected - Lognormal	0.9219	0.9742
Corr Coeff - Total - Normal	0.9867	0.8317
Corr Coeff - Total - Lognormal	0.9219	0.9742
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9653	0.7090
W-Test - Lognormal	0.8532	0.9408
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	7.0000
Average	0.9900	0.3185
Detection Limit - Minimum	0.2750	0.0800
Detection Limits - Maximum	0.2750	0.4500
Positive Hits - Minimum	0.7600	0.1450
Positive Hits - Maximum	2.6500	0.8600
Average Of Positive Hits	1.7050	0.3479
Standard Deviation	1.1300	0.2283
Upper Confidence Limit - Normal	2.3195	0.4508
Upper Confidence Limit - Lognormal	445.0367	0.5699
95th Percentile - Nonparametric	2.6500	0.8600
95th Percentile - Normal	2.8489	0.6941
95th Percentile - Lognormal	3.6674	0.7866
Upper Tolerance Limit - Normal	6.8040	0.9832
Upper Tolerance Limit - Lognormal	158.4309	1.8472

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9182
Corr Coeff - Detected - Lognormal	1.0000	0.9870
Corr Coeff - Total - Normal	0.8728	0.9107
Corr Coeff - Total - Lognormal	0.9332	0.9891
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7664	0.8457
W-Test - Lognormal	0.8591	0.9882
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	25.6625	11.5800
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	10.8000	3.3000
Positive Hits - Maximum	41.2000	27.7000
Average Of Positive Hits	25.6625	11.5800
Standard Deviation	12.5432	8.1746
Upper Confidence Limit - Normal	40.4196 UCL	16.3184
Upper Confidence Limit - Lognormal	146.4147	22.9076
95th Percentile - Nonparametric	41.2000	27.7000
95th Percentile - Normal	46.2961	25.0272
95th Percentile - Lognormal	58.0279	30.9388
Upper Tolerance Limit - Normal	90.1974	35.3762
Upper Tolerance Limit - Lognormal	412.9969	79.1602 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9895	0.9502
Corr Coeff - Detected - Lognormal	0.9709	0.9777
Corr Coeff - Total - Normal	0.9895	0.9502
Corr Coeff - Total - Lognormal	0.9709	0.9777
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9903	0.8929
W-Test - Lognormal	0.9547	0.9351
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	13.3125	5.9695
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.6000	0.6700
Positive Hits - Maximum	19.7000	17.0500
Average Of Positive Hits	13.3125	5.9695
Standard Deviation	8.0127	5.9423
Upper Confidence Limit - Normal	22.7395	9.4139
Upper Confidence Limit - Lognormal	28625.5364	30.6991
95th Percentile - Nonparametric	19.7000	17.0500
95th Percentile - Normal	26.4935	15.7446
95th Percentile - Lognormal	67.0177	24.9428
Upper Tolerance Limit - Normal	54.5380	23.2675
Upper Tolerance Limit - Lognormal	4310.4930	118.3767

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8989	0.9255
Corr Coeff - Detected - Lognormal	0.8328	0.9582
Corr Coeff - Total - Normal	0.8989	0.9255
Corr Coeff - Total - Lognormal	0.8328	0.9582
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8239	0.8399
W-Test - Lognormal	0.7092	0.8895
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	134.6750	9.4985
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	13.4000	0.6350
Positive Hits - Maximum	305.0000 UCL	26.7500
Average Of Positive Hits	134.6750	9.4985
Standard Deviation	133.3320	10.6209
Upper Confidence Limit - Normal	291.5400	15.6549
Upper Confidence Limit - Lognormal	5081964.7053	91.4263
95th Percentile - Nonparametric	305.0000	26.7500
95th Percentile - Normal	354.0061	26.9699
95th Percentile - Lognormal	758.6161	46.4598
Upper Tolerance Limit - Normal	820.6679	40.4159
Upper Tolerance Limit - Lognormal	102981.6741	296.5670 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9683	0.8992
Corr Coeff - Detected - Lognormal	0.9830	0.9550
Corr Coeff - Total - Normal	0.9683	0.8992
Corr Coeff - Total - Lognormal	0.9830	0.9550
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9252	0.7832
W-Test - Lognormal	0.9544	0.8807
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	86.2500	23.0750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	34.4000	2.1000
Positive Hits - Maximum	224.0000	79.3000
Average Of Positive Hits	86.2500	23.0750
Standard Deviation	91.9617	25.6307
Upper Confidence Limit - Normal	194.4430	37.9317
Upper Confidence Limit - Lognormal	4610.4713	124.9997
95th Percentile - Nonparametric	224.0000	79.3000
95th Percentile - Normal	237.5271	65.2375
95th Percentile - Lognormal	257.3613	96.4635
Upper Tolerance Limit - Normal	559.3932	97.6859
Upper Tolerance Limit - Lognormal	5396.0453	475.5218

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8155	0.9044
Corr Coeff - Detected - Lognormal	0.8628	0.9774
Corr Coeff - Total - Normal	0.8155	0.9044
Corr Coeff - Total - Lognormal	0.8628	0.9774
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6795	0.8168
W-Test - Lognormal	0.7577	0.9353
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	10.0000
Average	1.8494	0.0670
Detection Limit - Minimum	0.0175	NA
Detection Limits - Maximum	0.0175	NA
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	6.7500	0.2300
Average Of Positive Hits	2.4600	0.0670
Standard Deviation	3.2790	0.0747
Upper Confidence Limit - Normal	5.7071	0.1103
Upper Confidence Limit - Lognormal	3.2759172E+19	0.1960
95th Percentile - Nonparametric	6.7500	0.2300
95th Percentile - Normal	7.2432	0.1899
95th Percentile - Lognormal	22.1949	0.2161
Upper Tolerance Limit - Normal	18.7196	0.2844
Upper Tolerance Limit - Lognormal	527173.0286	0.7779

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5670	0.8527
Corr Coeff - Detected - Lognormal	0.9117	0.9397
Corr Coeff - Total - Normal	0.8253	0.8527
Corr Coeff - Total - Lognormal	0.9465	0.9397
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6923	0.7311
W-Test - Lognormal	0.8756	0.8808
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	8.0000
Average	24.2625	7.4355
Detection Limit - Minimum	NA	0.2750
Detection Limits - Maximum	NA	0.2900
Positive Hits - Minimum	4.0000	0.5400
Positive Hits - Maximum	34.2000 UCL	25.2000
Average Of Positive Hits	24.2625	9.2238
Standard Deviation	14.0195	8.7626
Upper Confidence Limit - Normal	40.7564	12.5147
Upper Confidence Limit - Lognormal	7476.3877	156.6594
95th Percentile - Nonparametric	34.2000	25.2000
95th Percentile - Normal	47.3245	21.8500
95th Percentile - Lognormal	100.2623	45.7199
Upper Tolerance Limit - Normal	96.3927	32.9434
Upper Tolerance Limit - Lognormal	3662.9303	382.0099 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9042	0.9709
Corr Coeff - Detected - Lognormal	0.8460	0.9615
Corr Coeff - Total - Normal	0.9042	0.9102
Corr Coeff - Total - Lognormal	0.8460	0.9740
Corr Coeff - Crit Val - Detected	0.8680	0.9050
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8198	0.8189
W-Test - Lognormal	0.7256	0.9207
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	7.0000
Average	0.4864	0.7190
Detection Limit - Minimum	0.1375	0.1300
Detection Limits - Maximum	0.5250	0.4250
Positive Hits - Minimum	0.7830	0.4500
Positive Hits - Maximum	0.7830	1.5500
Average Of Positive Hits	0.7830	0.9257
Standard Deviation	0.2654	0.5172
Upper Confidence Limit - Normal	0.7987	1.0188
Upper Confidence Limit - Lognormal	10.9046	1.7273
95th Percentile - Nonparametric	0.7830	1.5500
95th Percentile - Normal	0.9230	1.5698
95th Percentile - Lognormal	1.4210	2.1996
Upper Tolerance Limit - Normal	1.8521	2.2245
Upper Tolerance Limit - Lognormal	20.0036	6.4546

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9436
Corr Coeff - Detected - Lognormal	**********	0.9464
Corr Coeff - Total - Normal	0.9638	0.9431
Corr Coeff - Total - Lognormal	0.9097	0.9625
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9486	0.8704
W-Test - Lognormal	0.8458	0.9122
Type of Distribution	~~Undefined~~ NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	2.0000
Average	0.1644	0.1865
Detection Limit - Minimum	0.0400	0.0400
Detection Limits - Maximum	0.1450	0.2425
Positive Hits - Minimum	0.3300	0.3100
Positive Hits - Maximum	0.3300 UCL	0.9200 UTL
Average Of Positive Hits	0.3300	0.6150
Standard Deviation	0.1208	0.2743
Upper Confidence Limit - Normal	0.3065	0.3455
Upper Confidence Limit - Lognormal	9.7888	0.5473
95th Percentile - Nonparametric	0.3300	0.9200
95th Percentile - Normal	0.3630	0.6378
95th Percentile - Lognormal	0.5387	0.5688
Upper Tolerance Limit - Normal	0.7857	0.9851
Upper Tolerance Limit - Lognormal	11.3642	2.1800

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.9435	0.7618
Corr Coeff - Total - Lognormal	0.9516	0.9100
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9115	0.6056
W-Test - Lognormal	0.9273	0.8235
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : TIN (mg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	8.7125	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	2.9000	
Positive Hits - Maximum	12.5000	
Average Of Positive Hits	8.7125	
Standard Deviation	4.5619	
Upper Confidence Limit - Normal	14.0795	
Upper Confidence Limit - Lognormal	112.0636	
95th Percentile - Nonparametric	12.5000	
95th Percentile - Normal	16.2168	
95th Percentile - Lognormal	23.1645	
Upper Tolerance Limit - Normal	32.1833	
Upper Tolerance Limit - Lognormal	253.3992	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9488	
Corr Coeff - Detected - Lognormal	0.9247	
Corr Coeff - Total - Normal	0.9488	
Corr Coeff - Total - Lognormal	0.9247	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8836	NA
W-Test - Lognormal	0.8497	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	36.9625	18.6350
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	10.4000	3.2000
Positive Hits - Maximum	56.2000	46.3000
Average Of Positive Hits	36.9625	18.6350
Standard Deviation	19.2188	15.4646
Upper Confidence Limit - Normal	59.5734	27.5990
Upper Confidence Limit - Lognormal	806.1900	50.5807
95th Percentile - Nonparametric	56.2000	46.3000
95th Percentile - Normal	68.5774	44.0743
95th Percentile - Lognormal	107.8740	60.4356
Upper Tolerance Limit - Normal	135.8432	63.6525
Upper Tolerance Limit - Lognormal	1497.9471	196.4642

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9539	0.9446
Corr Coeff - Detected - Lognormal	0.8922	0.9876
Corr Coeff - Total - Normal	0.9539	0.9446
Corr Coeff - Total - Lognormal	0.8922	0.9876
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9262	0.8744
W-Test - Lognormal	0.8120	0.9533
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	9.0000
Average	125.5250	37.1350
Detection Limit - Minimum	NA	0.5500
Detection Limits - Maximum	NA	0.5500
Positive Hits - Minimum	15.1000	4.4000
Positive Hits - Maximum	175.0000	146.5000
Average Of Positive Hits	125.5250	41.2000
Standard Deviation	75.3014	45.8496
Upper Confidence Limit - Normal	214.1171	63.7115
Upper Confidence Limit - Lognormal	268688.7759	585.3022
95th Percentile - Nonparametric	175.0000	146.5000
95th Percentile - Normal	249.3958	112.5576
95th Percentile - Lognormal	631.7878	225.7454
Upper Tolerance Limit - Normal	512.9508	170.6031
Upper Tolerance Limit - Lognormal	40583.0125	1659.5817

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8808	0.8906
Corr Coeff - Detected - Lognormal	0.8272	0.9880
Corr Coeff - Total - Normal	0.8808	0.8610
Corr Coeff - Total - Lognormal	0.8272	0.9607
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7808	0.7546
W-Test - Lognormal	0.6958	0.9388
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHR3D_RES
Media : Indian Head Range 3 Statistics
Group : Sediment Comparison to Background

Parameter : TOTAL ORGANIC CARBON (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	21580.0000	10051.8000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2260.0000	515.0000
Positive Hits - Maximum	40700.0000 UCL	41450.0000
Average Of Positive Hits	21580.0000	10051.8000
Standard Deviation	17199.4729	12588.3873
Upper Confidence Limit - Normal	41815.1798	17348.6020
Upper Confidence Limit - Lognormal	193077111.2288	136851.8461
95th Percentile - Nonparametric	40700.0000	41450.0000
95th Percentile - Normal	49873.1329	30759.6971
95th Percentile - Lognormal	117097.2975	54717.9245
Upper Tolerance Limit - Normal	110071.2879	46696.5955
Upper Tolerance Limit - Lognormal	11056035.9848	395296.8727 ?

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9905	0.8670
Corr Coeff - Detected - Lognormal	0.9460	0.9613
Corr Coeff - Total - Normal	0.9905	0.8670
Corr Coeff - Total - Lognormal	0.9460	0.9613
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9678	0.7662
W-Test - Lognormal	0.8938	0.9032
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

SWMU 1 RUM POINT LANDFILL

The minimum and maximum values present on the following statistical calculations may not be the same as the range of detection presented on the COPC selection tables. The true minimum and maximum detected values can be found in the raw data.

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ACENAPHTHENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	85.4286	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	38.0000	
Average Of Positive Hits	38.0000	
Standard Deviation	21.1452	
Upper Confidence Limit - Normal	100.9573	
Upper Confidence Limit - Lognormal	117.9660	
95th Percentile - Nonparametric	97.5000	
95th Percentile - Normal	120.2124	
95th Percentile - Lognormal	143.8013	
Upper Tolerance Limit - Normal	157.3011	
Upper Tolerance Limit - Lognormal	261.5755	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7458	
Corr Coeff - Total - Lognormal	0.7149	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.5878	NA
W-Test - Lognormal	0.5435	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ACENAPHTHYLENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	165.7143	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	600.0000	
Positive Hits - Maximum	600.0000	
Average Of Positive Hits	600.0000	
Standard Deviation	191.5274	
Upper Confidence Limit - Normal	306.3691	
Upper Confidence Limit - Lognormal	360.5695	
95th Percentile - Nonparametric	600.0000	
95th Percentile - Normal	480.7768	
95th Percentile - Lognormal	387.6593	
Upper Tolerance Limit - Normal	816.7159	
Upper Tolerance Limit - Lognormal	1333.4329	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6597	
Corr Coeff - Total - Lognormal	0.6822	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4691	NA
W-Test - Lognormal	0.4998	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	104.2857	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000 UCL	
Average Of Positive Hits	170.0000	
Standard Deviation	29.1445	
Upper Confidence Limit - Normal	125.6890	
Upper Confidence Limit - Lognormal	126.1949	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	152.2285	
95th Percentile - Lognormal	148.2116	
Upper Tolerance Limit - Normal	203.3480	
Upper Tolerance Limit - Lognormal	221.6125	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7225	
Corr Coeff - Total - Lognormal	0.7484	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.5572	NA
W-Test - Lognormal	0.5958	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	211.4286	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	920.0000	
Positive Hits - Maximum	920.0000	
Average Of Positive Hits	920.0000	
Standard Deviation	312.4662	
Upper Confidence Limit - Normal	440.8990	
Upper Confidence Limit - Lognormal	610.3111	
95th Percentile - Nonparametric	920.0000	
95th Percentile - Normal	725.4355	
95th Percentile - Lognormal	537.3798	
Upper Tolerance Limit - Normal	1273.5011	
Upper Tolerance Limit - Lognormal	2453.3221	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6551	
Corr Coeff - Total - Lognormal	0.6759	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4629	NA
W-Test - Lognormal	0.4911	NA
Type of Distribution	Undefined	

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	280.0000	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	1400.0000	
Positive Hits - Maximum	1400.0000	
Average Of Positive Hits	1400.0000	
Standard Deviation	493.8834	
Upper Confidence Limit - Normal	642.7006	
Upper Confidence Limit - Lognormal	1122.3742	
95th Percentile - Nonparametric	1400.0000	
95th Percentile - Normal	1092.4382	
95th Percentile - Lognormal	740.6741	
Upper Tolerance Limit - Normal	1958.7097	
Upper Tolerance Limit - Lognormal	4465.8573	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6525	
Corr Coeff - Total - Lognormal	0.6716	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4594	NA
W-Test - Lognormal	0.4853	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	265.7143	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	1300.0000	
Positive Hits - Maximum	1300.0000	
Average Of Positive Hits	1300.0000	
Standard Deviation	456.0878	
Upper Confidence Limit - Normal	600.6583	
Upper Confidence Limit - Lognormal	1000.5427	
95th Percentile - Nonparametric	1300.0000	
95th Percentile - Normal	1015.9787	
95th Percentile - Lognormal	699.8898	
Upper Tolerance Limit - Normal	1815.9567	
Upper Tolerance Limit - Lognormal	4017.7461	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6529	
Corr Coeff - Total - Lognormal	0.6723	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4599	NA
W-Test - Lognormal	0.4862	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(G,H,I)PERYLENE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	2.0000	
Average	286.3571	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	37.0000	
Positive Hits - Maximum	1500.0000	
Average Of Positive Hits	768.5000	
Standard Deviation	535.5892	
Upper Confidence Limit - Normal	679.6858	
Upper Confidence Limit - Lognormal	1717.7660	
95th Percentile - Nonparametric	1500.0000	
95th Percentile - Normal	1167.4014	
95th Percentile - Lognormal	821.1528	
Upper Tolerance Limit - Normal	2106.8249	
Upper Tolerance Limit - Lognormal	6288.0818	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.6718	
Corr Coeff - Total - Lognormal	0.7955	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4867	NA
W-Test - Lognormal	0.6799	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BENZO(K)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	218.5714	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	970.0000	
Positive Hits - Maximum	970.0000	
Average Of Positive Hits	970.0000	
Standard Deviation	331.3635	
Upper Confidence Limit - Normal	461.9198	
Upper Confidence Limit - Lognormal	655.4698	
95th Percentile - Nonparametric	970.0000	
95th Percentile - Normal	763.6644	
95th Percentile - Lognormal	559.5570	
Upper Tolerance Limit - Normal	1344.8761	
Upper Tolerance Limit - Lognormal	2645.7172	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6547	
Corr Coeff - Total - Lognormal	0.6753	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4624	NA
W-Test - Lognormal	0.4903	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	7.0000	3.0000
Number of Detects	1.0000	1.0000
Average	93.0000	290.4833
Detection Limit - Minimum	87.5000	36.4500
Detection Limits - Maximum	95.0000	195.0000
Positive Hits - Minimum	96.0000	640.0000
Positive Hits - Maximum	96.0000	640.0000 UPL
Average Of Positive Hits	96.0000	640.0000
Standard Deviation	2.8284	312.8993
Upper Confidence Limit - Normal	95.0772 UCL	817.9886
Upper Confidence Limit - Lognormal	99.5824	96854832671.09
95th Percentile - Nonparametric	96.0000	640.0000
95th Percentile - Normal	97.6528	805.2026
95th Percentile - Lognormal	97.8042	1769.4511
Upper Tolerance Limit - Normal	102.6138	**********
Upper Tolerance Limit - Lognormal	103.2449	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9155	0.9644
Corr Coeff - Total - Lognormal	0.9111	0.9952
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8990	**********
W-Test - Table Value	0.8030	0.7670
W-Test - Normal	0.8549	0.9301
W-Test - Lognormal	0.8476	0.9904
Type of Distribution	~~Undefined~~ NORMAL	Undefined LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : FLUORANTHENE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	222.8571	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	1000.0000	
Positive Hits - Maximum	1000.0000	
Average Of Positive Hits	1000.0000	
Standard Deviation	342.7020	
Upper Confidence Limit - Normal	474.5323	
Upper Confidence Limit - Lognormal	683.3523	
95th Percentile - Nonparametric	1000.0000	
95th Percentile - Normal	786.6019	
95th Percentile - Lognormal	572.7339	
Upper Tolerance Limit - Normal	1387.7012	
Upper Tolerance Limit - Lognormal	2763.2191	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6545	
Corr Coeff - Total - Lognormal	0.6749	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4621	NA
W-Test - Lognormal	0.4898	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : FLUORENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	93.7143	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	96.0000	
Positive Hits - Maximum	96.0000	
Average Of Positive Hits	96.0000	
Standard Deviation	3.2769	
Upper Confidence Limit - Normal	96.1208	
Upper Confidence Limit - Lognormal	101.0383	
95th Percentile - Nonparametric	97.5000	
95th Percentile - Normal	99.1048	
95th Percentile - Lognormal	99.2986	
Upper Tolerance Limit - Normal	104.8525	
Upper Tolerance Limit - Lognormal	105.6801	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9446	
Corr Coeff - Total - Lognormal	0.9396	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.9069	NA
W-Test - Lognormal	0.8983	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : INDENO(1,2,3-CD)PYRENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	251.4286	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	1200.0000	
Positive Hits - Maximum	1200.0000 JCa	
Average Of Positive Hits	1200.0000	
Standard Deviation	418.2923	
Upper Confidence Limit - Normal	558.6162	
Upper Confidence Limit - Lognormal	887.6029	
95th Percentile - Nonparametric	1200.0000	
95th Percentile - Normal	939.5194	
95th Percentile - Lognormal	658.3595	
Upper Tolerance Limit - Normal	1673.2041	
Upper Tolerance Limit - Lognormal	3584.1327	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6533	
Corr Coeff - Total - Lognormal	0.6730	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4605	NA
W-Test - Lognormal	0.4872	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : NAPHTHALENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	85.7143	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	40.0000	
Positive Hits - Maximum	40.0000	
Average Of Positive Hits	40.0000	
Standard Deviation	20.3978	
Upper Confidence Limit - Normal	100.6941	
Upper Confidence Limit - Lognormal	115.5975	
95th Percentile - Nonparametric	97.5000	
95th Percentile - Normal	119.2687	
95th Percentile - Lognormal	140.3353	
Upper Tolerance Limit - Normal	155.0465	
Upper Tolerance Limit - Lognormal	246.7802	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7491	
Corr Coeff - Total - Lognormal	0.7187	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.5926	NA
W-Test - Lognormal	0.5489	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : PHENANTHRENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	142.8571	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	440.0000	
Positive Hits - Maximum	440.0000	
Average Of Positive Hits	440.0000	
Standard Deviation	131.0648	
Upper Confidence Limit - Normal	239.1091	
Upper Confidence Limit - Lognormal	260.8990	
95th Percentile - Nonparametric	440.0000	
95th Percentile - Normal	358.4587	
95th Percentile - Lognormal	305.8964	
Upper Tolerance Limit - Normal	588.3463	
Upper Tolerance Limit - Lognormal	856.8807	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.6651
Corr Coeff - Total - Lognormal	0.6888
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.8990

W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4764	NA
W-Test - Lognormal	0.5091	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : PYRENE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	2.0000	
Average	332.3571	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	59.0000	
Positive Hits - Maximum	1800.0000 UCL	
Average Of Positive Hits	929.5000	
Standard Deviation	647.3048	
Upper Confidence Limit - Normal	807.7280	
Upper Confidence Limit - Lognormal	1882.0938	
95th Percentile - Nonparametric	1800.0000	
95th Percentile - Normal	1397.1735	
95th Percentile - Lognormal	900.4486	
Upper Tolerance Limit - Normal	2532.5461	
Upper Tolerance Limit - Lognormal	6891.4625	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.6610	
Corr Coeff - Total - Lognormal	0.7357	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4713	NA
W-Test - Lognormal	0.5813	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : TRANS-1,2-DICHLOROETHENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	1.3750	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.1909	
Upper Confidence Limit - Normal	1.5152	
Upper Confidence Limit - Lognormal	1.5557	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.6891	
95th Percentile - Lognormal	1.7515	
Upper Tolerance Limit - Normal	2.0240	
Upper Tolerance Limit - Lognormal	2.2901	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8649	
Corr Coeff - Total - Lognormal	0.8517	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.7496	NA
W-Test - Lognormal	0.7314	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : 4-METHYL-2-PENTANONE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	1.6607	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	3.0000	
Average Of Positive Hits	3.0000	
Standard Deviation	0.5982	
Upper Confidence Limit - Normal	2.1001	
Upper Confidence Limit - Lognormal	2.1269	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	2.6448	
95th Percentile - Lognormal	2.5569	
Upper Tolerance Limit - Normal	3.6941	
Upper Tolerance Limit - Lognormal	4.2329	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7453	
Corr Coeff - Total - Lognormal	0.7878	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.5932	NA
W-Test - Lognormal	0.6603	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	7.0000	3.0000
Number of Detects	3.0000	2.0000
Average	19.1429	5067.3167
Detection Limit - Minimum	2.7500	1.9500
Detection Limits - Maximum	21.2500	1.9500
Positive Hits - Minimum	23.0000	2200.0000
Positive Hits - Maximum	46.5000	13000.0000 UTL
Average Of Positive Hits	30.9167	7600.0000
Standard Deviation	14.9644	6957.2591
Upper Confidence Limit - Normal	30.1325 UCL	16796.3009
Upper Confidence Limit - Lognormal	145.8316	2.2862578E+94
95th Percentile - Nonparametric	46.5000	13000.0000
95th Percentile - Normal	43.7594	16512.0079
95th Percentile - Lognormal	79.5387	810165.5693
Upper Tolerance Limit - Normal	70.0070	**********
Upper Tolerance Limit - Lognormal	555.4043	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8706	1.0000
Corr Coeff - Detected - Lognormal	0.8726	1.0000
Corr Coeff - Total - Normal	0.9424	0.9341
Corr Coeff - Total - Lognormal	0.9188	0.9455
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8990	**********
W-Test - Table Value	0.8030	0.7670
W-Test - Normal	0.8948	0.8726
W-Test - Lognormal	0.8311	0.8940
Type of Distribution	~~Undefined~~ NORMAL	LOGNORMAL /

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : TOLUENE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	1.5357	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	2.0000	
Positive Hits - Maximum	2.0000 UCL	
Average Of Positive Hits	2.0000	
Standard Deviation	0.2249	
Upper Confidence Limit - Normal	1.7009	
Upper Confidence Limit - Lognormal	1.7137	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	1.9057	
95th Percentile - Lognormal	1.9111	
Upper Tolerance Limit - Normal	2.3003	
Upper Tolerance Limit - Lognormal	2.4349	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8165	
Corr Coeff - Total - Lognormal	0.8334	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.7199	NA
W-Test - Lognormal	0.7501	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : TRICHLOROETHENE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	1.3750	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.1909	
Upper Confidence Limit - Normal	1.5152	
Upper Confidence Limit - Lognormal	1.5557	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.6891	
95th Percentile - Lognormal	1.7515	
Upper Tolerance Limit - Normal	2.0240	
Upper Tolerance Limit - Lognormal	2.2901	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8649	
Corr Coeff - Total - Lognormal	0.8517	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.7496	NA
W-Test - Lognormal	0.7314	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	2.0000	
Average	0.2217	
Detection Limit - Minimum	0.1365	
Detection Limits - Maximum	0.3000	
Positive Hits - Minimum	0.2080	
Positive Hits - Maximum	0.3100	
Average Of Positive Hits	0.2590	
Standard Deviation	0.0629	
Upper Confidence Limit - Normal	0.2679	
Upper Confidence Limit - Lognormal	0.2854	
95th Percentile - Nonparametric	0.3100	
95th Percentile - Normal	0.3251	
95th Percentile - Lognormal	0.3429	
Upper Tolerance Limit - Normal	0.4353	
Upper Tolerance Limit - Lognormal	0.5665	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9636	
Corr Coeff - Total - Lognormal	0.9733	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.9200	NA
W-Test - Lognormal	0.9440	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	14.0000
Average	3.2796	2.1807
Detection Limit - Minimum	0.3575	NA
Detection Limits - Maximum	0.3575	NA
Positive Hits - Minimum	2.5000	0.7800
Positive Hits - Maximum	5.8500	3.3000
Average Of Positive Hits	3.7667	2.1807
Standard Deviation	1.6872	0.7934
Upper Confidence Limit - Normal	4.5187 UCL	2.5563
Upper Confidence Limit - Lognormal	14.5425	2.8641
95th Percentile - Nonparametric	5.8500	3.3000
95th Percentile - Normal	6.0551	3.4859
95th Percentile - Lognormal	11.7740	4.2001
Upper Tolerance Limit - Normal	9.0145	4.2547 UTL
Upper Tolerance Limit - Lognormal	58.8806	6.4760

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8821	0.9822
Corr Coeff - Detected - Lognormal	0.9280	0.9370
Corr Coeff - Total - Normal	0.9712	0.9822
Corr Coeff - Total - Lognormal	0.8438	0.9370
Corr Coeff - Crit Val - Detected	0.8900	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9674	0.9501
W-Test - Lognormal	0.7437	0.8719
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	26.9143	39.0643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	15.2500	12.5000
Positive Hits - Maximum	42.7000	84.8000
Average Of Positive Hits	26.9143	39.0643
Standard Deviation	11.0875	19.8123
Upper Confidence Limit - Normal	35.0568	48.4418
Upper Confidence Limit - Lognormal	39.6932 UCL	55.3528
95th Percentile - Nonparametric	42.7000	84.8000
95th Percentile - Normal	45.1532	71.6554
95th Percentile - Lognormal	48.7434	84.6340
Upper Tolerance Limit - Normal	64.6006	90.8535
Upper Tolerance Limit - Lognormal	99.0356	143.9192 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9481	0.9645
Corr Coeff - Detected - Lognormal	0.9690	0.9739
Corr Coeff - Total - Normal	0.9481	0.9645
Corr Coeff - Total - Lognormal	0.9690	0.9739
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8738	0.9348
W-Test - Lognormal	0.9139	0.9467
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	12.0000
Average		0.2764	0.3489
Detection Limit - Minimum	NA		0.0500
Detection Limits - Maximum	NA		0.0750
Positive Hits - Minimum		0.1900	0.0500
Positive Hits - Maximum		0.4000	0.6100
Average Of Positive Hits		0.2764	0.3967
Standard Deviation		0.0888	0.2127
Upper Confidence Limit - Normal		0.3417	0.4496
Upper Confidence Limit - Lognormal		0.3665 UCL	0.7858
95th Percentile - Nonparametric		0.4000	0.6100
95th Percentile - Normal		0.4225	0.6988
95th Percentile - Lognormal		0.4442	1.1822
Upper Tolerance Limit - Normal		0.5783	0.9050 UTL
Upper Tolerance Limit - Lognormal		0.7711	2.8846

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9398	0.9489
Corr Coeff - Detected - Lognormal		0.9490	0.8792
Corr Coeff - Total - Normal		0.9398	0.9566
Corr Coeff - Total - Lognormal		0.9490	0.9200
Corr Coeff - Crit Val - Detected		0.8990	0.9260
Corr Coeff - Crit Val - Total		0.8990	0.9340
W-Test - Table Value		0.8030	0.8740
W-Test - Normal		0.8523	0.8844
W-Test - Lognormal		0.8677	0.8249
Type of Distribution		LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	3.0000	6.0000
Average	0.1138	0.1689
Detection Limit - Minimum	0.0300	0.0550
Detection Limits - Maximum	0.0350	0.2850
Positive Hits - Minimum	0.1500	0.1500
Positive Hits - Maximum	0.3300 UCL	0.2600 UCL
Average Of Positive Hits	0.2217	0.2267
Standard Deviation	0.1150	0.0917
Upper Confidence Limit - Normal	0.1982	0.2123
Upper Confidence Limit - Lognormal	0.5825	0.2677
95th Percentile - Nonparametric	0.3300	0.2850
95th Percentile - Normal	0.3029	0.3197
95th Percentile - Lognormal	0.3883	0.4195
Upper Tolerance Limit - Normal	0.5046	0.4085
Upper Tolerance Limit - Lognormal	2.3217	0.7967

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9430	0.8540
Corr Coeff - Detected - Lognormal	0.9654	0.8205
Corr Coeff - Total - Normal	0.8884	0.9331
Corr Coeff - Total - Lognormal	0.9088	0.9184
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.7854	0.8388
W-Test - Lognormal	0.8010	0.8133
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	15.7786	11.9857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.0500	3.5000
Positive Hits - Maximum	23.7000	20.8000
Average Of Positive Hits	15.7786	11.9857
Standard Deviation	5.9425	4.6797
Upper Confidence Limit - Normal	20.1426 UCL	14.2007
Upper Confidence Limit - Lognormal	24.2219	15.8437
95th Percentile - Nonparametric	23.7000	20.8000
95th Percentile - Normal	25.5540	19.6839
95th Percentile - Lognormal	29.7254	23.3486
Upper Tolerance Limit - Normal	35.9771	24.2185 UTL
Upper Tolerance Limit - Lognormal	63.0451	36.3493

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9957	0.9854
Corr Coeff - Detected - Lognormal	0.9749	0.9550
Corr Coeff - Total - Normal	0.9957	0.9854
Corr Coeff - Total - Lognormal	0.9749	0.9550
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9782	0.9744
W-Test - Lognormal	0.9437	0.9259
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	3.0286	5.0586
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.6000	0.5800
Positive Hits - Maximum	4.6000	15.0000
Average Of Positive Hits	3.0286 UCL	5.0586
Standard Deviation	1.1902	4.6659
Upper Confidence Limit - Normal	3.9026	7.2670
Upper Confidence Limit - Lognormal	4.5395	10.7597
95th Percentile - Nonparametric	4.6000	15.0000
95th Percentile - Normal	4.9864	12.7339
95th Percentile - Lognormal	5.5741	16.1061
Upper Tolerance Limit - Normal	7.0740	17.2551
Upper Tolerance Limit - Lognormal	11.5179	39.7328 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9672	0.8837
Corr Coeff - Detected - Lognormal	0.9706	0.9764
Corr Coeff - Total - Normal	0.9672	0.8837
Corr Coeff - Total - Lognormal	0.9706	0.9764
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9096	0.7774
W-Test - Lognormal	0.9176	0.9513
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	4.0000	12.0000
Average	6.3179	4.7393
Detection Limit - Minimum	0.5875	2.2500
Detection Limits - Maximum	0.8625	2.3000
Positive Hits - Minimum	8.3500	1.8000
Positive Hits - Maximum	12.9000	17.3000
Average Of Positive Hits	10.4875	5.1500
Standard Deviation	5.3936	3.9231
Upper Confidence Limit - Normal	10.2788	6.5962
Upper Confidence Limit - Lognormal	157.9677	6.7231
95th Percentile - Nonparametric	12.9000	17.3000
95th Percentile - Normal	15.1903	11.1928
95th Percentile - Lognormal	34.4566	10.4300
Upper Tolerance Limit - Normal	24.6507	14.9943
Upper Tolerance Limit - Lognormal	412.9549	18.6594

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.2192	0.7737
Corr Coeff - Detected - Lognormal	0.1679	0.9438
Corr Coeff - Total - Normal	0.9304	0.7909
Corr Coeff - Total - Lognormal	0.8993	0.9500
Corr Coeff - Crit Val - Detected	0.8680	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8313	0.6551
W-Test - Lognormal	0.7750	0.9113
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	12.0000
Average		11.7786	17.8000
Detection Limit - Minimum	NA		4.7000
Detection Limits - Maximum	NA		5.0000
Positive Hits - Minimum		4.9000	3.5000
Positive Hits - Maximum		20.3000	149.0000
Average Of Positive Hits		11.7786	19.9583
Standard Deviation		6.5645	37.8694
Upper Confidence Limit - Normal		16.5995	35.7243
Upper Confidence Limit - Lognormal		22.5669	25.4296
95th Percentile - Nonparametric		20.3000	149.0000
95th Percentile - Normal		22.5772	80.0952
95th Percentile - Lognormal		26.5593	38.7106
Upper Tolerance Limit - Normal		34.0915	116.7907
Upper Tolerance Limit - Lognormal		73.4390	91.7636

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9458	0.5784
Corr Coeff - Detected - Lognormal		0.9682	0.8094
Corr Coeff - Total - Normal		0.9458	0.5719
Corr Coeff - Total - Lognormal		0.9682	0.8192
Corr Coeff - Crit Val - Detected		0.8990	0.9260
Corr Coeff - Crit Val - Total		0.8990	0.9340
W-Test - Table Value		0.8030	0.8740
W-Test - Normal		0.8612	0.3635
W-Test - Lognormal		0.9058	0.7067
Type of Distribution		LOGNORMAL	UNDEFINED

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	12.0000
Average	0.0771	0.0400
Detection Limit - Minimum	0.0050	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0200	0.0300
Positive Hits - Maximum	0.3100 UCL	0.0800
Average Of Positive Hits	0.0892	0.0425
Standard Deviation	0.1050	0.0180
Upper Confidence Limit - Normal	0.1543	0.0485
Upper Confidence Limit - Lognormal	0.8917	0.0543
95th Percentile - Nonparametric	0.3100	0.0800
95th Percentile - Normal	0.2499	0.0696
95th Percentile - Lognormal	0.3225	0.0815
Upper Tolerance Limit - Normal	0.4342	0.0870 UTL
Upper Tolerance Limit - Lognormal	2.9464	0.1314

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6577	0.9066
Corr Coeff - Detected - Lognormal	0.8537	0.9328
Corr Coeff - Total - Normal	0.7924	0.9287
Corr Coeff - Total - Lognormal	0.9700	0.9141
Corr Coeff - Crit Val - Detected	0.8900	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.6584	0.8790
W-Test - Lognormal	0.9665	0.8636
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	6.0500	4.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	3.8000	1.7000
Positive Hits - Maximum	8.7000	10.5000
Average Of Positive Hits	6.0500	4.9000
Standard Deviation	1.8223	2.6402
Upper Confidence Limit - Normal	7.3883	6.1497
Upper Confidence Limit - Lognormal	7.8982 UCL	6.9452
95th Percentile - Nonparametric	8.7000	10.5000
95th Percentile - Normal	9.0477	9.2432
95th Percentile - Lognormal	9.5339	10.6461
Upper Tolerance Limit - Normal	12.2441	11.8015
Upper Tolerance Limit - Lognormal	16.1337	8.2456 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9729	0.9667
Corr Coeff - Detected - Lognormal	0.9864	0.9889
Corr Coeff - Total - Normal	0.9729	0.9667
Corr Coeff - Total - Lognormal	0.9864	0.9889
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9308	0.9268
W-Test - Lognormal	0.9592	0.9649
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	11.0000
Average		0.6271	0.4579
Detection Limit - Minimum	NA		0.0850
Detection Limits - Maximum	NA		0.2650
Positive Hits - Minimum		0.3900	0.1700
Positive Hits - Maximum		0.9850	0.8300
Average Of Positive Hits		0.6271	0.5409
Standard Deviation		0.2057	0.2425
Upper Confidence Limit - Normal		0.7782	0.5726
Upper Confidence Limit - Lognormal		0.8442 UCL	0.7910
95th Percentile - Nonparametric		0.9850	0.8300
95th Percentile - Normal		0.9656	0.8567
95th Percentile - Lognormal		1.0261	1.2426
Upper Tolerance Limit - Normal		1.3265	1.0916 UTL
Upper Tolerance Limit - Lognormal		1.8211	2.5070

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9755	0.9769
Corr Coeff - Detected - Lognormal	0.9871	0.9122
Corr Coeff - Total - Normal	0.9755	0.9847
Corr Coeff - Total - Lognormal	0.9871	0.9417
Corr Coeff - Crit Val - Detected	0.8990	0.9220
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9491	0.9508
W-Test - Lognormal	0.9653	0.8769
Type of Distribution	LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	2.0000	
Average	0.1858	
Detection Limit - Minimum	0.0600	
Detection Limits - Maximum	0.1425	
Positive Hits - Minimum	0.2730	
Positive Hits - Maximum	0.5900	
Average Of Positive Hits	0.4315	
Standard Deviation	0.1931	
Upper Confidence Limit - Normal	0.3276	
Upper Confidence Limit - Lognormal	0.5773 UCL	
95th Percentile - Nonparametric	0.5900	
95th Percentile - Normal	0.5034	
95th Percentile - Lognormal	0.5242	
Upper Tolerance Limit - Normal	0.8420	
Upper Tolerance Limit - Lognormal	2.3079	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8413	
Corr Coeff - Total - Lognormal	0.9372	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.7215	NA
W-Test - Lognormal	0.8711	NA

Type of Distribution ..... ~~Undefined~~ Lognormal

Test Results:

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	22.5000	19.1643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	11.0000	9.8000
Positive Hits - Maximum	31.5000	38.7000
Average Of Positive Hits	22.5000	19.1643
Standard Deviation	8.0869	8.5776
Upper Confidence Limit - Normal	28.4389 UCL	23.2242
Upper Confidence Limit - Lognormal	34.1908	24.4035
95th Percentile - Nonparametric	31.5000	38.7000
95th Percentile - Normal	35.8029	33.2744
95th Percentile - Lognormal	41.9752	35.3914
Upper Tolerance Limit - Normal	49.9873	41.5861
Upper Tolerance Limit - Lognormal	87.7750	53.4527 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9580	0.9398
Corr Coeff - Detected - Lognormal	0.9324	0.9634
Corr Coeff - Total - Normal	0.9580	0.9398
Corr Coeff - Total - Lognormal	0.9324	0.9634
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8946	0.8795
W-Test - Lognormal	0.8498	0.9164
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPS_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	22.3357	18.0857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	10.9500	6.2000
Positive Hits - Maximum	32.0000	30.8000
Average Of Positive Hits	22.3357	18.0857
Standard Deviation	8.1695	7.6596
Upper Confidence Limit - Normal	28.3353	21.7111
Upper Confidence Limit - Lognormal	33.0461	24.6053
95th Percentile - Nonparametric	32.0000	30.8000
95th Percentile - Normal	35.7746	30.6857
95th Percentile - Lognormal	40.5803	36.8983
Upper Tolerance Limit - Normal	50.1040	38.1078
Upper Tolerance Limit - Lognormal	82.2027	59.6065

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9777	0.9903
Corr Coeff - Detected - Lognormal	0.9718	0.9681
Corr Coeff - Total - Normal	0.9777	0.9903
Corr Coeff - Total - Lognormal	0.9718	0.9681
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9307	0.9656
W-Test - Lognormal	0.9267	0.9265
Type of Distribution	NORMAL	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	11.0000	3.0000
Number of Detects	3.0000	1.0000
Average	868.5227	601.9000
Detection Limit - Minimum	3.0000	0.7000
Detection Limits - Maximum	52.5000	5.0000
Positive Hits - Minimum	610.0000	1800.0000
Positive Hits - Maximum	5000.0000 UCL	1800.0000 UTL
Average Of Positive Hits	3136.6667	1800.0000
Standard Deviation	1775.3734	1037.5873
Upper Confidence Limit - Normal	1838.4777	2351.1298
Upper Confidence Limit - Lognormal	813305.8601	8.6805716E+71
95th Percentile - Nonparametric	5000.0000	1800.0000
95th Percentile - Normal	3789.0120	2308.7310
95th Percentile - Lognormal	4136.5932	15328.4024
Upper Tolerance Limit - Normal	5866.1989	**********
Upper Tolerance Limit - Lognormal	103097.3300	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9674	
Corr Coeff - Detected - Lognormal	0.9198	
Corr Coeff - Total - Normal	0.7420	0.8671
Corr Coeff - Total - Lognormal	0.9390	0.9609
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9220	**********
W-Test - Table Value	0.8500	0.7670
W-Test - Normal	0.5604	0.7518
W-Test - Lognormal	0.8590	0.9233
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	11.0000	No samples
Number of Detects	1.0000	
Average	1.9091	
Detection Limit - Minimum	1.5000	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	6.0000	
Positive Hits - Maximum	6.0000	
Average Of Positive Hits	6.0000	
Standard Deviation	1.3568	
Upper Confidence Limit - Normal	2.6504	
Upper Confidence Limit - Lognormal	2.4442	
95th Percentile - Nonparametric	6.0000	
95th Percentile - Normal	4.1410	
95th Percentile - Lognormal	3.3841	
Upper Tolerance Limit - Normal	5.7285	
Upper Tolerance Limit - Lognormal	5.5186	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5557	
Corr Coeff - Total - Lognormal	0.5557	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9220	
W-Test - Table Value	0.8500	NA
W-Test - Normal	0.3451	NA
W-Test - Lognormal	0.3451	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	11.0000	No samples
Number of Detects	3.0000	
Average	120.8636	
Detection Limit - Minimum	97.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	57.0000	
Positive Hits - Maximum	270.0000	
Average Of Positive Hits	172.3333	
Standard Deviation	58.4526	
Upper Confidence Limit - Normal	152.7985	
Upper Confidence Limit - Lognormal	156.5170	
95th Percentile - Nonparametric	270.0000	
95th Percentile - Normal	217.0181	
95th Percentile - Lognormal	214.9995	
Upper Tolerance Limit - Normal	285.4077	
Upper Tolerance Limit - Lognormal	343.0727	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9898	
Corr Coeff - Detected - Lognormal	0.9534	
Corr Coeff - Total - Normal	0.8083	
Corr Coeff - Total - Lognormal	0.8682	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9220	
W-Test - Table Value	0.8500	NA
W-Test - Normal	0.6861	NA
W-Test - Lognormal	0.7907	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	8.0000	3.0000
Average	0.5173	0.4855
Detection Limit - Minimum	0.3500	0.0850
Detection Limits - Maximum	0.3750	0.5000
Positive Hits - Minimum	0.3400	0.6800
Positive Hits - Maximum	1.0000 UCL	1.8000
Average Of Positive Hits	0.5738	1.3933
Standard Deviation	0.2223	0.5598
Upper Confidence Limit - Normal	0.6387	0.7505
Upper Confidence Limit - Lognormal	0.6553	0.9701
95th Percentile - Nonparametric	1.0000	1.8000
95th Percentile - Normal	0.8830	1.4064
95th Percentile - Lognormal	0.8872	1.4449
Upper Tolerance Limit - Normal	1.1432	1.9488
Upper Tolerance Limit - Lognormal	1.3675	3.6023 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6049	0.8411
Corr Coeff - Detected - Lognormal	0.6675	0.8254
Corr Coeff - Total - Normal	0.8818	0.8188
Corr Coeff - Total - Lognormal	0.9228	0.9676
Corr Coeff - Crit Val - Detected	0.9050	**********
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.7751	0.6737
W-Test - Lognormal	0.8407	0.9262
Type of Distribution	UNDEFINED	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

		Sample Results	Background Results
Count		11.0000	14.0000
Number of Detects		11.0000	13.0000
Average		11.4455	4.5286
Detection Limit - Minimum	NA		0.9500
Detection Limits - Maximum	NA		0.9500
Positive Hits - Minimum		2.4000	1.8000
Positive Hits - Maximum		39.6000	10.4000
Average Of Positive Hits		11.4455	4.8038
Standard Deviation		9.9297	3.2919
Upper Confidence Limit - Normal		16.8704	6.0867
Upper Confidence Limit - Lognormal		20.3076 UCL	7.5976
95th Percentile - Nonparametric		39.6000	10.4000
95th Percentile - Normal		27.7798	9.9437
95th Percentile - Lognormal		28.9999	11.9283
Upper Tolerance Limit - Normal		39.3975	13.1335
Upper Tolerance Limit - Lognormal		66.7600	24.4274 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.7997	0.9274
Corr Coeff - Detected - Lognormal		0.9486	0.9595
Corr Coeff - Total - Normal		0.7997	0.9169
Corr Coeff - Total - Lognormal		0.9486	0.9701
Corr Coeff - Crit Val - Detected		0.9220	0.9310
Corr Coeff - Crit Val - Total		0.9220	0.9340
W-Test - Table Value		0.8500	0.8740
W-Test - Normal		0.6759	0.8241
W-Test - Lognormal		0.9287	0.9290
Type of Distribution		LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	19.2182	37.4143
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	8.2000	9.1000
Positive Hits - Maximum	30.8000	101.0000
Average Of Positive Hits	19.2182	37.4143
Standard Deviation	7.4175	26.3822
Upper Confidence Limit - Normal	23.2707 UCL	49.9015
Upper Confidence Limit - Lognormal	25.6409	61.0314
95th Percentile - Nonparametric	30.8000	101.0000
95th Percentile - Normal	31.4200	80.8130
95th Percentile - Lognormal	35.5107	95.8978
Upper Tolerance Limit - Normal	40.0985	106.3773
Upper Tolerance Limit - Lognormal	57.9584	190.7245 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9882	0.9398
Corr Coeff - Detected - Lognormal	0.9849	0.9926
Corr Coeff - Total - Normal	0.9882	0.9398
Corr Coeff - Total - Lognormal	0.9849	0.9926
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.9602	0.8846
W-Test - Lognormal	0.9592	0.9760
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

		Sample Results	Background Results
Count		11.0000	14.0000
Number of Detects		11.0000	12.0000
Average		1.0318	0.3821
Detection Limit - Minimum	NA		0.0700
Detection Limits - Maximum	NA		0.0900
Positive Hits - Minimum		0.3300	0.1200
Positive Hits - Maximum		1.9000	1.1000
Average Of Positive Hits		1.0318	0.4325
Standard Deviation		0.6236	0.2876
Upper Confidence Limit - Normal		1.3725	0.5183
Upper Confidence Limit - Lognormal		1.7703 UCL	0.7141
95th Percentile - Nonparametric		1.9000	1.1000
95th Percentile - Normal		2.0576	0.8553
95th Percentile - Lognormal		2.5481	1.1095
Upper Tolerance Limit - Normal		2.7872	1.1340
Upper Tolerance Limit - Lognormal		5.5404	2.4552 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9483	0.9670
Corr Coeff - Detected - Lognormal	0.9644	0.9822
Corr Coeff - Total - Normal	0.9483	0.9441
Corr Coeff - Total - Lognormal	0.9644	0.9889
Corr Coeff - Crit Val - Detected	0.9220	0.9260
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.8663	0.8950
W-Test - Lognormal	0.8991	0.9683
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	8.0000	5.0000
Average	0.6236	0.1632
Detection Limit - Minimum	0.0350	0.0600
Detection Limits - Maximum	0.0400	0.2950
Positive Hits - Minimum	0.3700	0.1550
Positive Hits - Maximum	1.5000	0.2700
Average Of Positive Hits	0.8438	0.2200
Standard Deviation	0.5161	0.0860
Upper Confidence Limit - Normal	0.9056 UCL	0.2039
Upper Confidence Limit - Lognormal	6.3863	0.2385
95th Percentile - Nonparametric	1.5000	0.2950
95th Percentile - Normal	1.4726	0.3047
95th Percentile - Lognormal	3.7540	0.3686
Upper Tolerance Limit - Normal	2.0765	0.388 UTL
Upper Tolerance Limit - Lognormal	21.1465	0.6500

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7446	0.9446
Corr Coeff - Detected - Lognormal	0.8042	0.9280
Corr Coeff - Total - Normal	0.9649	0.9562
Corr Coeff - Total - Lognormal	0.9096	0.9546
Corr Coeff - Crit Val - Detected	0.9050	0.8790
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.9097	0.8867
W-Test - Lognormal	0.8030	0.8835
Type of Distribution	NORMAL ✓	~~Undefined~~ NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	61.9727	21.8571
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	30.2000	6.2000
Positive Hits - Maximum	113.0000	44.7000
Average Of Positive Hits	61.9727	21.8571
Standard Deviation	29.5467	13.5346
Upper Confidence Limit - Normal	78.1153	28.2633
Upper Confidence Limit - Lognormal	86.2685 UCL	34.1236
95th Percentile - Nonparametric	113.0000	44.7000
95th Percentile - Normal	110.5771	44.1216
95th Percentile - Lognormal	121.8207	53.4589
Upper Tolerance Limit - Normal	145.1468	57.2366
Upper Tolerance Limit - Lognormal	211.9052	101.4624 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9476	0.9551
Corr Coeff - Detected - Lognormal	0.9634	0.9788
Corr Coeff - Total - Normal	0.9476	0.9551
Corr Coeff - Total - Lognormal	0.9634	0.9788
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.8770	0.8892
W-Test - Lognormal	0.9037	0.9361
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	1.4191	12.3718
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.2500	0.8450
Positive Hits - Maximum	3.2000 UCL	133.0000 UCL
Average Of Positive Hits	1.4191	12.3718
Standard Deviation	1.0300	34.7885
Upper Confidence Limit - Normal	1.9818	28.8379
Upper Confidence Limit - Lognormal	3.2280	23.3619
95th Percentile - Nonparametric	3.2000	133.0000
95th Percentile - Normal	3.1134	69.5989
95th Percentile - Lognormal	4.3464	26.4170
Upper Tolerance Limit - Normal	4.3186	103.3090
Upper Tolerance Limit - Lognormal	11.8900	90.8715

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9603	0.5598
Corr Coeff - Detected - Lognormal	0.9764	0.8917
Corr Coeff - Total - Normal	0.9603	0.5598
Corr Coeff - Total - Lognormal	0.9764	0.8917
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.9021	0.3490
W-Test - Lognormal	0.9351	0.8174
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	3.0000	12.0000
Average	2.3795	7.7036
Detection Limit - Minimum	0.8500	0.7500
Detection Limits - Maximum	1.1000	2.2500
Positive Hits - Minimum	5.2000	2.6000
Positive Hits - Maximum	6.9000 UCL	22.7000
Average Of Positive Hits	6.1667	8.7375
Standard Deviation	2.4647	5.8880
Upper Confidence Limit - Normal	3.7261	10.4905
Upper Confidence Limit - Lognormal	4.9983	15.7950
95th Percentile - Nonparametric	6.9000	22.7000
95th Percentile - Normal	6.4341	17.3894
95th Percentile - Lognormal	6.6762	24.1595
Upper Tolerance Limit - Normal	9.3178	23.0949
Upper Tolerance Limit - Lognormal	18.5581	56.493 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9729	0.9562
Corr Coeff - Detected - Lognormal	0.9654	0.9930
Corr Coeff - Total - Normal	0.8053	0.9398
Corr Coeff - Total - Lognormal	0.8273	0.9781
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.6372	0.8928
W-Test - Lognormal	0.6676	0.9670
Type of Distribution	Undefined ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		11.0000	14.0000
Number of Detects		11.0000	11.0000
Average		4.4273	8.4607
Detection Limit - Minimum	NA		2.6500
Detection Limits - Maximum	NA		14.4000
Positive Hits - Minimum		3.2000	3.1000
Positive Hits - Maximum		5.7000	25.5000
Average Of Positive Hits		4.4273	8.6409
Standard Deviation		0.8742	6.3344
Upper Confidence Limit - Normal		4.9049	11.4589
Upper Confidence Limit - Lognormal		4.9898	12.7607
95th Percentile - Nonparametric		5.7000	25.5000
95th Percentile - Normal		5.8653	18.8809
95th Percentile - Lognormal		6.0403	19.9646
Upper Tolerance Limit - Normal		6.8881	25.0189
Upper Tolerance Limit - Lognormal		7.6309	37.4774

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9819	0.9083
Corr Coeff - Detected - Lognormal	0.9838	0.9815
Corr Coeff - Total - Normal	0.9819	0.8887
Corr Coeff - Total - Lognormal	0.9838	0.9792
Corr Coeff - Crit Val - Detected	0.9220	0.9220
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.9407	0.8008
W-Test - Lognormal	0.9454	0.9550
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	6.0000	11.0000
Average	0.0150	0.0304
Detection Limit - Minimum	0.0050	0.0250
Detection Limits - Maximum	0.0050	0.0300
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.0300	0.0700
Average Of Positive Hits	0.0233	0.0309
Standard Deviation	0.0102	0.0174
Upper Confidence Limit - Normal	0.0206	0.0386
Upper Confidence Limit - Lognormal	0.0313	0.0458
95th Percentile - Nonparametric	0.0300	0.0700
95th Percentile - Normal	0.0319	0.0589
95th Percentile - Lognormal	0.0433	0.0713
Upper Tolerance Limit - Normal	0.0438	0.0758
Upper Tolerance Limit - Lognormal	0.1116	0.1299

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5297	0.9565
Corr Coeff - Detected - Lognormal	0.5297	0.9751
Corr Coeff - Total - Normal	0.9069	0.9561
Corr Coeff - Total - Lognormal	0.8824	0.9660
Corr Coeff - Crit Val - Detected	0.8900	0.9220
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.7936	0.9123
W-Test - Lognormal	0.7445	0.9196
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	9.6182	6.3714
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.9000	2.8000
Positive Hits - Maximum	25.8000	18.2000
Average Of Positive Hits	9.6182	6.3714
Standard Deviation	6.6944	4.0429
Upper Confidence Limit - Normal	13.2756	8.2850
Upper Confidence Limit - Lognormal	18.5092 UCL	8.6961
95th Percentile - Nonparametric	25.8000	18.2000
95th Percentile - Normal	20.6305	13.0220
95th Percentile - Lognormal	26.1936	13.2209
Upper Tolerance Limit - Normal	28.4631	16.9396
Upper Tolerance Limit - Lognormal	62.7339	22.1153 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9168	0.8705
Corr Coeff - Detected - Lognormal	0.9607	0.9675
Corr Coeff - Total - Normal	0.9168	0.8705
Corr Coeff - Total - Lognormal	0.9607	0.9675
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.8584	0.7763
W-Test - Lognormal	0.9321	0.9344
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	10.0000
Average	2.2455	0.8493
Detection Limit - Minimum	NA	0.0750
Detection Limits - Maximum	NA	0.2700
Positive Hits - Minimum	1.0000	0.2950
Positive Hits - Maximum	3.6000	2.6000
Average Of Positive Hits	2.2455	1.1185
Standard Deviation	0.8079	0.8168
Upper Confidence Limit - Normal	2.6868	1.2359
Upper Confidence Limit - Lognormal	2.9132	2.2949
95th Percentile - Nonparametric	3.6000	2.6000
95th Percentile - Normal	3.5745	2.1929
95th Percentile - Lognormal	3.9771	3.1381
Upper Tolerance Limit - Normal	4.5197	2.9844
Upper Tolerance Limit - Lognormal	6.2501	8.9313

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9885	0.9483
Corr Coeff - Detected - Lognormal	0.9840	0.9699
Corr Coeff - Total - Normal	0.9885	0.9037
Corr Coeff - Total - Lognormal	0.9840	0.9796
Corr Coeff - Crit Val - Detected	0.9220	0.9170
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.9690	0.8100
W-Test - Lognormal	0.9652	0.9494
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	3.0000	2.0000
Average	0.6820	0.5068
Detection Limit - Minimum	0.0725	0.1125
Detection Limits - Maximum	0.4750	1.1000
Positive Hits - Minimum	0.6600	0.5300
Positive Hits - Maximum	2.7000	3.1000 UCL
Average Of Positive Hits	1.8533	1.8150
Standard Deviation	0.8963	0.8022
Upper Confidence Limit - Normal	1.1717	0.8865
Upper Confidence Limit - Lognormal	2.1253 UCL	1.0265
95th Percentile - Nonparametric	2.7000	3.1000
95th Percentile - Normal	2.1565	1.8263
95th Percentile - Lognormal	2.2841	1.4531
Upper Tolerance Limit - Normal	3.2052	2.6036
Upper Tolerance Limit - Lognormal	8.4000	3.9491

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9593	1.0000
Corr Coeff - Detected - Lognormal	0.9254	1.0000
Corr Coeff - Total - Normal	0.8117	0.7262
Corr Coeff - Total - Lognormal	0.9675	0.9102
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.6648	0.5553
W-Test - Lognormal	0.9327	0.8240
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	46.9636	30.9107
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	26.1000	9.8000
Positive Hits - Maximum	84.2000	61.4000
Average Of Positive Hits	46.9636	30.9107
Standard Deviation	21.1196	17.5157
Upper Confidence Limit - Normal	58.5021	39.2013
Upper Confidence Limit - Lognormal	63.2186 UCL	46.7732
95th Percentile - Nonparametric	84.2000	61.4000
95th Percentile - Normal	81.7054	59.7241
95th Percentile - Lognormal	88.1641	72.8898
Upper Tolerance Limit - Normal	106.4154	76.6968
Upper Tolerance Limit - Lognormal	146.9347	133.3861 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9407	0.9628
Corr Coeff - Detected - Lognormal	0.9557	0.9701
Corr Coeff - Total - Normal	0.9407	0.9628
Corr Coeff - Total - Lognormal	0.9557	0.9701
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.8635	0.9066
W-Test - Lognormal	0.8860	0.9194
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHRPB_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	11.0000	14.0000
Number of Detects	11.0000	14.0000
Average	35.8455	21.3964
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	8.2000	7.9000
Positive Hits - Maximum	100.0000	70.4000
Average Of Positive Hits	35.8455	21.3964
Standard Deviation	23.8559	15.7792
Upper Confidence Limit - Normal	48.8788	28.8650
Upper Confidence Limit - Lognormal	59.3576 UCL	29.8058
95th Percentile - Nonparametric	100.0000	70.4000
95th Percentile - Normal	75.0884	47.3532
95th Percentile - Lognormal	85.6204	45.8454
Upper Tolerance Limit - Normal	102.9997	62.6432
Upper Tolerance Limit - Lognormal	180.2608	79.4529 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8643	0.8286
Corr Coeff - Detected - Lognormal	0.9509	0.9659
Corr Coeff - Total - Normal	0.8643	0.8286
Corr Coeff - Total - Lognormal	0.9509	0.9659
Corr Coeff - Crit Val - Detected	0.9220	0.9340
Corr Coeff - Crit Val - Total	0.9220	0.9340
W-Test - Table Value	0.8500	0.8740
W-Test - Normal	0.7814	0.7136
W-Test - Lognormal	0.9327	0.9428
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	18.0000	27.0000
Number of Detects	10.0000	3.0000
Average	0.4023	0.3488
Detection Limit - Minimum	0.1365	0.0850
Detection Limits - Maximum	0.3750	0.5000
Positive Hits - Minimum	0.2080	0.6800
Positive Hits - Maximum	1.0000	1.8000 UTL
Average Of Positive Hits	0.5108	1.3933
Standard Deviation	0.2290	0.4251
Upper Confidence Limit - Normal	0.4963	0.4884
Upper Confidence Limit - Lognormal	0.5249 UCL	0.4564
95th Percentile - Nonparametric	1.0000	1.8000
95th Percentile - Normal	0.7791	1.0481
95th Percentile - Lognormal	0.8350	0.8644
Upper Tolerance Limit - Normal	0.9848	1.3109
Upper Tolerance Limit - Lognormal	1.3380	1.3993

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8389	0.8348
Corr Coeff - Detected - Lognormal	0.7981	0.8188
Corr Coeff - Total - Normal	0.9211	0.7348
Corr Coeff - Total - Lognormal	0.9866	0.9469
Corr Coeff - Crit Val - Detected	0.9170	**********
Corr Coeff - Crit Val - Total	0.9450	0.9600
W-Test - Table Value	0.8970	0.9230
W-Test - Normal	0.8542	0.5554
W-Test - Lognormal	0.9726	0.8948
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	17.0000	27.0000
Average	8.2699	3.3546
Detection Limit - Minimum	0.3575	0.9500
Detection Limits - Maximum	0.3575	0.9500
Positive Hits - Minimum	2.4000	0.7800
Positive Hits - Maximum	39.6000	10.4000
Average Of Positive Hits	8.7353	3.4437
Standard Deviation	8.7053	2.6362
Upper Confidence Limit - Normal	11.8401	4.2031
Upper Confidence Limit - Lognormal	17.1000 UCL	4.3476
95th Percentile - Nonparametric	39.6000	10.4000
95th Percentile - Normal	22.5902	7.6913
95th Percentile - Lognormal	28.3165	7.9572
Upper Tolerance Limit - Normal	30.4076	9.2830
Upper Tolerance Limit - Lognormal	68.9482	11.8849 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7576	0.8536
Corr Coeff - Detected - Lognormal	0.9537	0.9660
Corr Coeff - Total - Normal	0.7976	0.8570
Corr Coeff - Total - Lognormal	0.9467	0.9681
Corr Coeff - Crit Val - Detected	0.9420	0.9600
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.6673	0.7344
W-Test - Lognormal	0.9238	0.9321
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	22.2111	38.2393
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	8.2000	9.1000
Positive Hits - Maximum	42.7000	101.0000
Average Of Positive Hits	22.2111	38.2393
Standard Deviation	9.5214	22.9090
Upper Confidence Limit - Normal	26.1160	45.6122
Upper Confidence Limit - Lognormal	27.5701	49.9276
95th Percentile - Nonparametric	42.7000	101.0000
95th Percentile - Normal	37.8738	75.9245
95th Percentile - Lognormal	41.7018	89.7130
Upper Tolerance Limit - Normal	46.4240	89.7569
Upper Tolerance Limit - Lognormal	61.6798	130.9347

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9715	0.9554
Corr Coeff - Detected - Lognormal	0.9936	0.9873
Corr Coeff - Total - Normal	0.9715	0.9554
Corr Coeff - Total - Lognormal	0.9936	0.9873
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.9401	0.9108
W-Test - Lognormal	0.9853	0.9660
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	24.0000
Average	0.7381	0.3655
Detection Limit - Minimum	NA	0.0500
Detection Limits - Maximum	NA	0.0900
Positive Hits - Minimum	0.1900	0.0500
Positive Hits - Maximum	1.9000	1.1000
Average Of Positive Hits	0.7381	0.4146
Standard Deviation	0.6125	0.2488
Upper Confidence Limit - Normal	0.9892	0.4456
Upper Confidence Limit - Lognormal	1.1831	0.5771
95th Percentile - Nonparametric	1.9000	1.1000
95th Percentile - Normal	1.7455	0.7748
95th Percentile - Lognormal	2.0205	1.1206
Upper Tolerance Limit - Normal	2.2955	0.9250
Upper Tolerance Limit - Lognormal	4.1440	1.8799

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9008	0.9628
Corr Coeff - Detected - Lognormal	0.9653	0.9522
Corr Coeff - Total - Normal	0.9008	0.9589
Corr Coeff - Total - Lognormal	0.9653	0.9650
Corr Coeff - Crit Val - Detected	0.9450	0.9570
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.7938	0.9210
W-Test - Lognormal	0.9078	0.9197
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	11.0000	11.0000
Average	0.4254	0.1661
Detection Limit - Minimum	0.0300	0.0550
Detection Limits - Maximum	0.0400	0.2950
Positive Hits - Minimum	0.1500	0.1500
Positive Hits - Maximum	1.5000 UCL	0.2700 UCL
Average Of Positive Hits	0.6741	0.2236
Standard Deviation	0.4762	0.0873
Upper Confidence Limit - Normal	0.6207	0.1942
Upper Confidence Limit - Lognormal	1.9476	0.2165
95th Percentile - Nonparametric	1.5000	0.2950
95th Percentile - Normal	1.2087	0.3096
95th Percentile - Lognormal	2.1360	0.3865
Upper Tolerance Limit - Normal	1.6363	0.3623
Upper Tolerance Limit - Lognormal	8.1629	0.5597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.3475	0.8762
Corr Coeff - Detected - Lognormal	0.2119	0.8461
Corr Coeff - Total - Normal	0.9074	0.9421
Corr Coeff - Total - Lognormal	0.9393	0.9338
Corr Coeff - Crit Val - Detected	0.9220	0.9220
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.8122	0.8601
W-Test - Lognormal	0.8538	0.8453
Type of Distribution	UNDEFINED ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	44.0083	16.9214
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.0500	3.5000
Positive Hits - Maximum	113.0000	44.7000
Average Of Positive Hits	44.0083	16.9214
Standard Deviation	32.6031	11.1359
Upper Confidence Limit - Normal	57.3796	20.5054
Upper Confidence Limit - Lognormal	73.090 UCL	21.5942
95th Percentile - Nonparametric	113.0000	44.7000
95th Percentile - Normal	97.6404	35.2400
95th Percentile - Lognormal	124.8217	38.5060
Upper Tolerance Limit - Normal	126.9180	41.9639
Upper Tolerance Limit - Lognormal	256.9729	55.6988 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9463	0.9146
Corr Coeff - Detected - Lognormal	0.9913	0.9847
Corr Coeff - Total - Normal	0.9463	0.9146
Corr Coeff - Total - Lognormal	0.9913	0.9847
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.8839	0.8321
W-Test - Lognormal	0.9712	0.9682
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	2.0450	8.7152
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.2500	0.5800
Positive Hits - Maximum	4.6000	133.0000 UTL
Average Of Positive Hits	2.0450	8.7152
Standard Deviation	1.3326	24.6385
Upper Confidence Limit - Normal	2.5915 UCL	16.6448
Upper Confidence Limit - Lognormal	3.7360	10.5836
95th Percentile - Nonparametric	4.6000	133.0000
95th Percentile - Normal	4.2372	49.2456
95th Percentile - Lognormal	6.3638	20.3893
Upper Tolerance Limit - Normal	5.4338	64.1223
Upper Tolerance Limit - Lognormal	13.7698	39.5276

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9769	0.5142
Corr Coeff - Detected - Lognormal	0.9632	0.9453
Corr Coeff - Total - Normal	0.9769	0.5142
Corr Coeff - Total - Lognormal	0.9632	0.9453
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.9398	0.3010
W-Test - Lognormal	0.9182	0.9120
Type of Distribution	NORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	7.0000	24.0000
Average	3.9111	6.2214
Detection Limit - Minimum	0.5875	0.7500
Detection Limits - Maximum	1.1000	2.3000
Positive Hits - Minimum	5.2000	1.8000
Positive Hits - Maximum	12.9000	22.7000
Average Of Positive Hits	8.6357	6.9438
Standard Deviation	4.2123	5.1362
Upper Confidence Limit - Normal	5.6387	7.8745
Upper Confidence Limit - Lognormal	8.9784	8.6985
95th Percentile - Nonparametric	12.9000	22.7000
95th Percentile - Normal	10.8404	14.6706
95th Percentile - Lognormal	13.8282	16.5253
Upper Tolerance Limit - Normal	14.6231	17.7718
Upper Tolerance Limit - Lognormal	38.4678	26.1939

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9870	0.8992
Corr Coeff - Detected - Lognormal	0.9950	0.9877
Corr Coeff - Total - Normal	0.8767	0.8916
Corr Coeff - Total - Lognormal	0.8945	0.9882
Corr Coeff - Crit Val - Detected	0.8990	0.9570
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.7562	0.8038
W-Test - Lognormal	0.7797	0.9810
Type of Distribution	Undefined	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	23.0000
Average	7.2861	13.1304
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	3.2000	3.1000
Positive Hits - Maximum	20.3000	149.0000
Average Of Positive Hits	7.2861	14.5457
Standard Deviation	5.4090	27.0633
Upper Confidence Limit - Normal	9.5045	21.8403
Upper Confidence Limit - Lognormal	9.5562	14.7332
95th Percentile - Nonparametric	20.3000	149.0000
95th Percentile - Normal	16.1840	57.6495
95th Percentile - Lognormal	15.5242	28.1071
Upper Tolerance Limit - Normal	21.0413	73.9903
Upper Tolerance Limit - Lognormal	25.9312	44.9330

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8303	0.5641
Corr Coeff - Detected - Lognormal	0.9239	0.8944
Corr Coeff - Total - Normal	0.8303	0.5386
Corr Coeff - Total - Lognormal	0.9239	0.9017
Corr Coeff - Crit Val - Detected	0.9450	0.9550
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.6893	0.3276
W-Test - Lognormal	0.8452	0.8391
Type of Distribution	UNDEFINED	UNDEFINED

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	12.0000	23.0000
Average	0.0392	0.0352
Detection Limit - Minimum	0.0050	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.3100 UCL	0.0800 UTL
Average Of Positive Hits	0.0563	0.0370
Standard Deviation	0.0702	0.0180
Upper Confidence Limit - Normal	0.0680	0.0410
Upper Confidence Limit - Lognormal	0.0831	0.0450
95th Percentile - Nonparametric	0.3100	0.0800
95th Percentile - Normal	0.1546	0.0648
95th Percentile - Lognormal	0.1263	0.0787
Upper Tolerance Limit - Normal	0.2177	0.0757
Upper Tolerance Limit - Lognormal	0.3582	0.1114

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5550	0.9647
Corr Coeff - Detected - Lognormal	0.5559	0.9614
Corr Coeff - Total - Normal	0.6661	0.9548
Corr Coeff - Total - Lognormal	0.9396	0.9506
Corr Coeff - Crit Val - Detected	0.9260	0.9550
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.4768	0.9072
W-Test - Lognormal	0.8794	0.8941
Type of Distribution	UNDEFINED ✓	~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	8.2306	5.6357
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.9000	1.7000
Positive Hits - Maximum	25.8000	18.2000
Average Of Positive Hits	8.2306	5.6357
Standard Deviation	5.5442	3.4333
Upper Confidence Limit - Normal	10.5043	6.7407
Upper Confidence Limit - Lognormal	11.4795 UCL	6.9635
95th Percentile - Nonparametric	25.8000	18.2000
95th Percentile - Normal	17.3507	11.2835
95th Percentile - Lognormal	18.9635	11.9795
Upper Tolerance Limit - Normal	22.3294	13.3565
Upper Tolerance Limit - Lognormal	32.9550	16.6913 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8799	0.9034
Corr Coeff - Detected - Lognormal	0.9773	0.9894
Corr Coeff - Total - Normal	0.8799	0.9034
Corr Coeff - Total - Lognormal	0.9773	0.9894
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.7970	0.8342
W-Test - Lognormal	0.9681	0.9800
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		18.0000	28.0000
Number of Detects		18.0000	21.0000
Average		1.6161	0.6536
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.3900	0.1700
Positive Hits - Maximum		3.6000	2.6000
Average Of Positive Hits		1.6161	0.8160
Standard Deviation		1.0285	0.6239
Upper Confidence Limit - Normal		2.0379	0.8544
Upper Confidence Limit - Lognormal		2.5028 UCL	1.0383
95th Percentile - Nonparametric		3.6000	2.6000
95th Percentile - Normal		3.3081	1.6799
95th Percentile - Lognormal		4.2464	2.0301
Upper Tolerance Limit - Normal		4.2317	2.0566
Upper Tolerance Limit - Lognormal		8.1311	3.5352 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9681	0.8812
Corr Coeff - Detected - Lognormal	0.9786	0.9673
Corr Coeff - Total - Normal	0.9681	0.8571
Corr Coeff - Total - Lognormal	0.9786	0.9771
Corr Coeff - Crit Val - Detected	0.9450	0.9520
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.9194	0.7420
W-Test - Lognormal	0.9370	0.9479
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	5.0000	2.0000
Average	0.4891	0.3377
Detection Limit - Minimum	0.0600	0.1100
Detection Limits - Maximum	0.4750	1.1000
Positive Hits - Minimum	0.2730	0.5300
Positive Hits - Maximum	2.7000	3.1000 UPL
Average Of Positive Hits	1.2846	1.8150
Standard Deviation	0.7401	0.5839
Upper Confidence Limit - Normal	0.7926	0.5256
Upper Confidence Limit - Lognormal	0.9869 UCL	0.3963
95th Percentile - Nonparametric	2.7000	3.1000
95th Percentile - Normal	1.7065	1.2983
95th Percentile - Lognormal	1.5403	0.7586
Upper Tolerance Limit - Normal	2.3711	1.6508
Upper Tolerance Limit - Lognormal	4.2006	1.2220

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9310	1.0000
Corr Coeff - Detected - Lognormal	0.9647	1.0000
Corr Coeff - Total - Normal	0.7575	0.6149
Corr Coeff - Total - Lognormal	0.9656	0.8531
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.5885	0.4124
W-Test - Lognormal	0.9233	0.7385
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : TIN (mg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	0.9472	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	1.0500	
Positive Hits - Minimum	4.1000	
Positive Hits - Maximum	4.1000	
Average Of Positive Hits	4.1000	
Standard Deviation	0.8022	
Upper Confidence Limit - Normal	1.2762	
Upper Confidence Limit - Lognormal	1.1296	
95th Percentile - Nonparametric	4.1000	
95th Percentile - Normal	2.2668	
95th Percentile - Lognormal	1.7271	
Upper Tolerance Limit - Normal	2.9872	
Upper Tolerance Limit - Lognormal	2.5944	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6273	
Corr Coeff - Total - Lognormal	0.8147	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.4301	NA
W-Test - Lognormal	0.6978	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	37.4500	25.0375
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	11.0000	9.8000
Positive Hits - Maximum	84.2000	61.4000
Average Of Positive Hits	37.4500	25.0375
Standard Deviation	20.8819	14.7958
Upper Confidence Limit - Normal	46.0141	29.7993
Upper Confidence Limit - Lognormal	50.0260 UCL	31.1373
95th Percentile - Nonparametric	84.2000	61.4000
95th Percentile - Normal	71.8007	49.3766
95th Percentile - Lognormal	80.5504	53.9656
Upper Tolerance Limit - Normal	90.5526	58.3103
Upper Tolerance Limit - Lognormal	132.1031	75.7429 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9322	0.9376
Corr Coeff - Detected - Lognormal	0.9712	0.9798
Corr Coeff - Total - Normal	0.9322	0.9376
Corr Coeff - Total - Lognormal	0.9712	0.9798
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.8669	0.8679
W-Test - Lognormal	0.9422	0.9395
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	18.0000	28.0000
Number of Detects	18.0000	28.0000
Average	30.5917	19.7411
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	8.2000	6.2000
Positive Hits - Maximum	100.0000	70.4000
Average Of Positive Hits	30.5917	19.7411
Standard Deviation	20.1059	12.2870
Upper Confidence Limit - Normal	38.8376	23.6955
Upper Confidence Limit - Lognormal	41.2265 UCL	24.0318
95th Percentile - Nonparametric	100.0000	70.4000
95th Percentile - Normal	63.6659	39.9532
95th Percentile - Lognormal	67.0194	40.7019
Upper Tolerance Limit - Normal	81.7211	47.3721
Upper Tolerance Limit - Lognormal	112.1139	55.8789 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8496	0.8549
Corr Coeff - Detected - Lognormal	0.9717	0.9802
Corr Coeff - Total - Normal	0.8496	0.8549
Corr Coeff - Total - Lognormal	0.9717	0.9802
Corr Coeff - Crit Val - Detected	0.9450	0.9620
Corr Coeff - Crit Val - Total	0.9450	0.9620
W-Test - Table Value	0.8970	0.9240
W-Test - Normal	0.7518	0.7597
W-Test - Lognormal	0.9601	0.9695
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : 4-METHYL-2-PENTANONE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	1.5625	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	3.0000 UCL	
Average Of Positive Hits	3.0000	
Standard Deviation	0.3644	
Upper Confidence Limit - Normal	1.7120	
Upper Confidence Limit - Lognormal	1.6799	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	2.1620	
95th Percentile - Lognormal	2.0427	
Upper Tolerance Limit - Normal	2.4893	
Upper Tolerance Limit - Lognormal	2.3870	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5594	
Corr Coeff - Total - Lognormal	0.5998	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.3553	NA
W-Test - Lognormal	0.4068	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	18.0000	6.0000
Number of Detects	6.0000	3.0000
Average	538.2083	2834.6083
Detection Limit - Minimum	2.7500	0.7000
Detection Limits - Maximum	52.5000	5.0000
Positive Hits - Minimum	23.0000	1800.0000
Positive Hits - Maximum	5000.0000 UL	13000.0000
Average Of Positive Hits	1583.7917	5666.6667
Standard Deviation	1426.7824	5076.8101
Upper Confidence Limit - Normal	1123.3631	7010.8954
Upper Confidence Limit - Lognormal	5922.1560	6.3619540E+19
95th Percentile - Nonparametric	5000.0000	13000.0000
95th Percentile - Normal	2885.2654	11185.9609
95th Percentile - Lognormal	1207.3312	92039.7902
Upper Tolerance Limit - Normal	4166.5161	12698.8503
Upper Tolerance Limit - Lognormal	9490.5643	327061.8421 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8765	0.9220
Corr Coeff - Detected - Lognormal	0.9355	0.9438
Corr Coeff - Total - Normal	0.6396	0.7911
Corr Coeff - Total - Lognormal	0.9168	0.9414
Corr Coeff - Crit Val - Detected	0.8900	**********
Corr Coeff - Crit Val - Total	0.9450	0.8900
W-Test - Table Value	0.8970	0.7880
W-Test - Normal	0.4292	0.6474
W-Test - Lognormal	0.8340	0.8572
Type of Distribution	Undefined ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : CARBON DISULFIDE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	1.7292	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	6.0000	
Positive Hits - Maximum	6.0000	
Average Of Positive Hits	6.0000	
Standard Deviation	1.0678	
Upper Confidence Limit - Normal	2.1671	
Upper Confidence Limit - Lognormal	1.9654	
95th Percentile - Nonparametric	6.0000	
95th Percentile - Normal	3.4857	
95th Percentile - Lognormal	2.7635	
Upper Tolerance Limit - Normal	4.4445	
Upper Tolerance Limit - Lognormal	3.7291	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5016	
Corr Coeff - Total - Lognormal	0.5414	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2877	NA
W-Test - Lognormal	0.3336	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter.: TOLUENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	1.5139	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	2.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	2.0000	
Standard Deviation	0.1348	
Upper Confidence Limit - Normal	1.5692	
Upper Confidence Limit - Lognormal	1.6597	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	1.7357	
95th Percentile - Lognormal	1.7278	
Upper Tolerance Limit - Normal	1.8568	
Upper Tolerance Limit - Lognormal	1.8605	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6151	
Corr Coeff - Total - Lognormal	0.6308	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.4345	NA
W-Test - Lognormal	0.4570	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : TRICHLOROETHENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	1.4514	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.1296	
Upper Confidence Limit - Normal	1.5045	
Upper Confidence Limit - Lognormal	1.5168	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.6646	
95th Percentile - Lognormal	1.7112	
Upper Tolerance Limit - Normal	1.7810	
Upper Tolerance Limit - Lognormal	1.8768	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6496	
Corr Coeff - Total - Lognormal	0.6381	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.4476	NA
W-Test - Lognormal	0.4346	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ACENAPHTHENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	94.8889	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	38.0000	
Positive Hits - Maximum	38.0000	
Average Of Positive Hits	38.0000	
Standard Deviation	14.9976	
Upper Confidence Limit - Normal	101.0397	
Upper Confidence Limit - Lognormal	105.6544	
95th Percentile - Nonparametric	107.5000	
95th Percentile - Normal	119.5599	
95th Percentile - Lognormal	135.6605	
Upper Tolerance Limit - Normal	133.0278	
Upper Tolerance Limit - Lognormal	166.6340	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.7221
Corr Coeff - Total - Lognormal	0.6438
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.9450

W-Test - Table Value	0.8970	NA
W-Test - Normal	0.5589	NA
W-Test - Lognormal	0.4519	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ACENAPHTHYLENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	126.1111	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	600.0000	
Positive Hits - Maximum	600.0000	
Average Of Positive Hits	600.0000	
Standard Deviation	118.3658	
Upper Confidence Limit - Normal	174.6555	
Upper Confidence Limit - Lognormal	146.0140	
95th Percentile - Nonparametric	600.0000	
95th Percentile - Normal	320.8228	
95th Percentile - Lognormal	219.9841	
Upper Tolerance Limit - Normal	427.1153	
Upper Tolerance Limit - Lognormal	323.5655	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5042	
Corr Coeff - Total - Lognormal	0.5659	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2885	NA
W-Test - Lognormal	0.3572	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	102.2222	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000 UCL	
Average Of Positive Hits	170.0000	
Standard Deviation	17.5920	
Upper Confidence Limit - Normal	109.4371	
Upper Confidence Limit - Lognormal	108.3530	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	131.1610	
95th Percentile - Lognormal	127.0847	
Upper Tolerance Limit - Normal	146.9586	
Upper Tolerance Limit - Lognormal	143.9424	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6893	
Corr Coeff - Total - Lognormal	0.7477	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.5144	NA
W-Test - Lognormal	0.5989	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	143.8889	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	920.0000	
Positive Hits - Maximum	920.0000 UCL	
Average Of Positive Hits	920.0000	
Standard Deviation	193.7521	
Upper Confidence Limit - Normal	223.3509	
Upper Confidence Limit - Lognormal	166.5972	
95th Percentile - Nonparametric	920.0000	
95th Percentile - Normal	462.6111	
95th Percentile - Lognormal	265.6392	
Upper Tolerance Limit - Normal	636.6004	
Upper Tolerance Limit - Lognormal	427.5064	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4906	
Corr Coeff - Total - Lognormal	0.5481	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2744	NA
W-Test - Lognormal	0.3366	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(A)PYRENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	170.5556	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	1400.0000	
Positive Hits - Maximum	1400.0000 UCL	
Average Of Positive Hits	1400.0000	
Standard Deviation	306.8669	
Upper Confidence Limit - Normal	296.4084	
Upper Confidence Limit - Lognormal	192.7596	
95th Percentile - Nonparametric	1400.0000	
95th Percentile - Normal	675.3517	
95th Percentile - Lognormal	319.7863	
Upper Tolerance Limit - Normal	950.9182	
Upper Tolerance Limit - Lognormal	562.2921	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4827	
Corr Coeff - Total - Lognormal	0.5360	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2664	NA
W-Test - Lognormal	0.3230	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	165.0000	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	1300.0000	
Positive Hits - Maximum	1300.0000	
Average Of Positive Hits	1300.0000	
Standard Deviation	283.2999	
Upper Confidence Limit - Normal	281.1875	
Upper Confidence Limit - Lognormal	187.6182	
95th Percentile - Nonparametric	1300.0000	
95th Percentile - Normal	631.0283	
95th Percentile - Lognormal	309.4802	
Upper Tolerance Limit - Normal	885.4316	
Upper Tolerance Limit - Lognormal	535.7282	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4839	
Corr Coeff - Total - Lognormal	0.5379	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2675	NA
W-Test - Lognormal	0.3251	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(G,H,I)PERYLENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	2.0000	
Average	173.0278	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	37.0000	
Positive Hits - Maximum	1500.0000 UCL	
Average Of Positive Hits	768.5000	
Standard Deviation	331.5177	
Upper Confidence Limit - Normal	308.9905	
Upper Confidence Limit - Lognormal	202.0020	
95th Percentile - Nonparametric	1500.0000	
95th Percentile - Normal	718.3744	
95th Percentile - Lognormal	341.1396	
Upper Tolerance Limit - Normal	1016.0773	
Upper Tolerance Limit - Lognormal	637.5564	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.4983	
Corr Coeff - Total - Lognormal	0.6380	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2838	NA
W-Test - Lognormal	0.4589	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BENZO(K)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	146.6667	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	970.0000	
Positive Hits - Maximum	970.0000	
Average Of Positive Hits	970.0000	
Standard Deviation	205.5337	
Upper Confidence Limit - Normal	230.9606	
Upper Confidence Limit - Lognormal	169.5401	
95th Percentile - Nonparametric	970.0000	
95th Percentile - Normal	484.7697	
95th Percentile - Lognormal	271.9208	
Upper Tolerance Limit - Normal	669.3390	
Upper Tolerance Limit - Lognormal	442.5240	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4894	
Corr Coeff - Total - Lognormal	0.5463	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2731	NA
W-Test - Lognormal	0.3346	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	18.0000	6.0000
Number of Detects	4.0000	1.0000
Average	110.0278	211.6417
Detection Limit - Minimum	87.5000	36.4500
Detection Limits - Maximum	107.5000	195.0000
Positive Hits - Minimum	57.0000	640.0000
Positive Hits - Maximum	270.0000	640.0000
Average Of Positive Hits	153.2500	640.0000
Standard Deviation	46.9895	222.0473
Upper Confidence Limit - Normal	129.2992	394.3023
Upper Confidence Limit - Lognormal	126.4345	2391.9141
95th Percentile - Nonparametric	270.0000	640.0000
95th Percentile - Normal	187.3255	576.9095
95th Percentile - Lognormal	175.8456	811.2748
Upper Tolerance Limit - Normal	229.5221	643.0795
Upper Tolerance Limit - Lognormal	234.4040	1124.9931

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9837	
Corr Coeff - Detected - Lognormal	0.9891	
Corr Coeff - Total - Normal	0.7338	0.8600
Corr Coeff - Total - Lognormal	0.8151	0.9414
Corr Coeff - Crit Val - Detected	0.8680	**********
Corr Coeff - Crit Val - Total	0.9450	0.8900
W-Test - Table Value	0.8970	0.7880
W-Test - Normal	0.5747	0.7604
W-Test - Lognormal	0.7048	0.8819
Type of Distribution	Undefined	~~Undefined~~ Lognormal

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : CHRYSENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	146.6667	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	970.0000	
Positive Hits - Maximum	970.0000	
Average Of Positive Hits	970.0000	
Standard Deviation	205.5337	
Upper Confidence Limit - Normal	230.9606	
Upper Confidence Limit - Lognormal	169.5401	
95th Percentile - Nonparametric	970.0000	
95th Percentile - Normal	484.7697	
95th Percentile - Lognormal	271.9208	
Upper Tolerance Limit - Normal	669.3390	
Upper Tolerance Limit - Lognormal	442.5240	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.4894
Corr Coeff - Total - Lognormal	0.5463
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.9450

W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2731	NA
W-Test - Lognormal	0.3346	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : FLUORANTHENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	148.3333	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	1000.0000	
Positive Hits - Maximum	1000.0000 UCL	
Average Of Positive Hits	1000.0000	
Standard Deviation	212.6029	
Upper Confidence Limit - Normal	235.5265	
Upper Confidence Limit - Lognormal	171.2757	
95th Percentile - Nonparametric	1000.0000	
95th Percentile - Normal	498.0651	
95th Percentile - Lognormal	275.6038	
Upper Tolerance Limit - Normal	688.9825	
Upper Tolerance Limit - Lognormal	451.4066	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4887	
Corr Coeff - Total - Lognormal	0.5454	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2725	NA
W-Test - Lognormal	0.3335	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : FLUORENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	98.1111	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	96.0000	
Positive Hits - Maximum	96.0000	
Average Of Positive Hits	96.0000	
Standard Deviation	4.8615	
Upper Confidence Limit - Normal	100.1049	
Upper Confidence Limit - Lognormal	110.5823	
95th Percentile - Nonparametric	107.5000	
95th Percentile - Normal	106.1082	
95th Percentile - Lognormal	106.3655	
Upper Tolerance Limit - Normal	110.4739	
Upper Tolerance Limit - Lognormal	111.2318	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9833	
Corr Coeff - Total - Lognormal	0.9815	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.9748	NA
W-Test - Lognormal	0.9718	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : INDENO(1,2,3-CD)PYRENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	159.4444	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	1200.0000	
Positive Hits - Maximum	1200.0000	
Average Of Positive Hits	1200.0000	
Standard Deviation	259.7334	
Upper Confidence Limit - Normal	265.9668	
Upper Confidence Limit - Lognormal	182.3390	
95th Percentile - Nonparametric	1200.0000	
95th Percentile - Normal	586.7059	
95th Percentile - Lognormal	298.7233	
Upper Tolerance Limit - Normal	819.9465	
Upper Tolerance Limit - Lognormal	508.4497	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.4852	
Corr Coeff - Total - Lognormal	0.5400	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2689	NA
W-Test - Lognormal	0.3275	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : NAPHTHALENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	95.0000	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	40.0000	
Positive Hits - Maximum	40.0000 UCL	
Average Of Positive Hits	40.0000	
Standard Deviation	14.5521	
Upper Confidence Limit - Normal	100.9682	
Upper Confidence Limit - Lognormal	105.0883	
95th Percentile - Nonparametric	107.5000	
95th Percentile - Normal	118.9383	
95th Percentile - Lognormal	133.4350	
Upper Tolerance Limit - Normal	132.0061	
Upper Tolerance Limit - Lognormal	162.1745	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7290	
Corr Coeff - Total - Lognormal	0.6527	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.5688	NA
W-Test - Lognormal	0.4634	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	117.2222	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	440.0000	
Positive Hits - Maximum	440.0000 UCL	
Average Of Positive Hits	440.0000	
Standard Deviation	80.6996	
Upper Confidence Limit - Normal	150.3189	
Upper Confidence Limit - Lognormal	134.0357	
95th Percentile - Nonparametric	440.0000	
95th Percentile - Normal	249.9730	
95th Percentile - Lognormal	191.9115	
Upper Tolerance Limit - Normal	322.4412	
Upper Tolerance Limit - Lognormal	264.4786	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5202	
Corr Coeff - Total - Lognormal	0.5848	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.3056	NA
W-Test - Lognormal	0.3795	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	2.0000	
Average	190.9167	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	59.0000	
Positive Hits - Maximum	1800.0000	
Average Of Positive Hits	929.5000	
Standard Deviation	401.7088	
Upper Confidence Limit - Normal	355.6663	
Upper Confidence Limit - Lognormal	211.7454	
95th Percentile - Nonparametric	1800.0000	
95th Percentile - Normal	851.7277	
95th Percentile - Lognormal	358.1214	
Upper Tolerance Limit - Normal	1212.4622	
Upper Tolerance Limit - Lognormal	673.8866	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.4878	
Corr Coeff - Total - Lognormal	0.5864	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.2721	NA
W-Test - Lognormal	0.3872	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPO_RES
Media : Indian Head Rum Point Landfill Statistics
Group : All Soil Comparison to Background

Parameter : TRANS-1,2-DICHLOROETHENE (µg/kg)

	Sample Results	Background Results
Count	18.0000	No samples
Number of Detects	1.0000	
Average	1.4514	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	1.0000	
Average Of Positive Hits	1.0000	
Standard Deviation	0.1296	
Upper Confidence Limit - Normal	1.5045	
Upper Confidence Limit - Lognormal	1.5168	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.6646	
95th Percentile - Lognormal	1.7112	
Upper Tolerance Limit - Normal	1.7810	
Upper Tolerance Limit - Lognormal	1.8768	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6496	
Corr Coeff - Total - Lognormal	0.6381	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9450	
W-Test - Table Value	0.8970	NA
W-Test - Normal	0.4476	NA
W-Test - Lognormal	0.4346	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : ARSENIC (mg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	3.0000
Average	1.3167	3.2525
Detection Limit - Minimum	0.4750	0.9500
Detection Limits - Maximum	0.4750	2.3000
Positive Hits - Minimum	3.0000	2.2000
Positive Hits - Maximum	3.0000 UCL	19.1000 UCL
Average Of Positive Hits	3.0000	8.1583
Standard Deviation	1.4578	5.6248
Upper Confidence Limit - Normal	3.7743	6.5129
Upper Confidence Limit - Lognormal	53520.8514	7.2917
95th Percentile - Nonparametric	3.0000	19.1000
95th Percentile - Normal	3.7148	12.5053
95th Percentile - Lognormal	5.0548	8.4449
Upper Tolerance Limit - Normal	**********	19.6263
Upper Tolerance Limit - Lognormal	**********	28.6338

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8662
Corr Coeff - Detected - Lognormal	**********	0.9149
Corr Coeff - Total - Normal	0.8660	0.6618
Corr Coeff - Total - Lognormal	0.8660	0.8258
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.4720
W-Test - Lognormal	0.7500	0.6958
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	48.8333	195.2400
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	26.4000	12.9000
Positive Hits - Maximum	64.3000	688.0000
Average Of Positive Hits	48.8333	195.2400
Standard Deviation	19.8873	246.9751
Upper Confidence Limit - Normal	82.3605	338.3980
Upper Confidence Limit - Lognormal	418.6835	918.5620
95th Percentile - Nonparametric	64.3000	688.0000
95th Percentile - Normal	81.5479	601.5140
95th Percentile - Lognormal	100.1212	756.0337
Upper Tolerance Limit - Normal	**********	914.1844
Upper Tolerance Limit - Lognormal	**********	3552.7445

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9529	0.8253
Corr Coeff - Detected - Lognormal	0.9306	0.9752
Corr Coeff - Total - Normal	0.9529	0.8253
Corr Coeff - Total - Lognormal	0.9306	0.9752
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9079	0.6808
W-Test - Lognormal	0.8659	0.9509
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	7.0000
Average	17.8667	35.8050
Detection Limit - Minimum	NA	1.0000
Detection Limits - Maximum	NA	1.0000
Positive Hits - Minimum	8.0000	2.5000
Positive Hits - Maximum	29.6000	191.0000
Average Of Positive Hits	17.8667	50.7214
Standard Deviation	10.9203	61.8552
Upper Confidence Limit - Normal	36.2768	71.6591
Upper Confidence Limit - Lognormal	997.9793	1541.0918
95th Percentile - Nonparametric	29.6000	191.0000
95th Percentile - Normal	35.8306	137.5569
95th Percentile - Lognormal	45.7569	196.8388
Upper Tolerance Limit - Normal	**********	215.8656
Upper Tolerance Limit - Lognormal	**********	2271.6834

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9890	0.9112
Corr Coeff - Detected - Lognormal	0.9994	0.9847
Corr Coeff - Total - Normal	0.9890	0.7910
Corr Coeff - Total - Lognormal	0.9994	0.9661
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9781	0.6429
W-Test - Lognormal	0.9988	0.9078
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	9.0000
Average	0.7183	89.0000
Detection Limit - Minimum	0.1750	0.3500
Detection Limits - Maximum	0.1750	0.3500
Positive Hits - Minimum	0.7800	2.1000
Positive Hits - Maximum	1.2000 UCL	641.0000
Average Of Positive Hits	0.9900	98.8500
Standard Deviation	0.5153	200.4999
Upper Confidence Limit - Normal	1.5870	205.2189
Upper Confidence Limit - Lognormal	11263.3058	8280.9572
95th Percentile - Nonparametric	1.2000	641.0000
95th Percentile - Normal	1.5660	418.8224
95th Percentile - Lognormal	2.8839	425.1857
Upper Tolerance Limit - Normal	**********	672.6553
Upper Tolerance Limit - Lognormal	**********	6592.9873 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.7470
Corr Coeff - Detected - Lognormal	**********	0.9720
Corr Coeff - Total - Normal	0.9946	0.6934
Corr Coeff - Total - Lognormal	0.9527	0.9812
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9892	0.5118
W-Test - Lognormal	0.9076	0.9719
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	6.0000
Average	3.0583	32.6500
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.9500	2.0000
Positive Hits - Minimum	7.4000	4.4000
Positive Hits - Maximum	7.4000 UCL	166.0000
Average Of Positive Hits	7.4000	53.2583
Standard Deviation	3.7605	52.5954
Upper Confidence Limit - Normal	9.3980	63.1367
Upper Confidence Limit - Lognormal	4270451.6789	697.7216
95th Percentile - Nonparametric	7.4000	166.0000
95th Percentile - Normal	9.2444	119.1695
95th Percentile - Lognormal	13.5430	167.1567
Upper Tolerance Limit - Normal	**********	185.7553
Upper Tolerance Limit - Lognormal	**********	1519.1225 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9425
Corr Coeff - Detected - Lognormal	**********	0.9740
Corr Coeff - Total - Normal	0.8742	0.8076
Corr Coeff - Total - Lognormal	0.8933	0.9509
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7642	0.6694
W-Test - Lognormal	0.7980	0.8776 ✓
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : MERCURY (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	2.0000
Average	0.0500	0.0765
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.1000
Positive Hits - Minimum	0.1000	0.1300
Positive Hits - Maximum	0.1000	0.1700
Average Of Positive Hits	0.1000	0.1500
Standard Deviation	0.0433	0.0428
Upper Confidence Limit - Normal	0.1230	0.1013
Upper Confidence Limit - Lognormal	20.0695	0.1073
95th Percentile - Nonparametric	0.1000	0.1700
95th Percentile - Normal	0.1212	0.1469
95th Percentile - Lognormal	0.1481	0.1479
Upper Tolerance Limit - Normal	**********	0.2012
Upper Tolerance Limit - Lognormal	**********	0.2677

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.8660	0.8388
Corr Coeff - Total - Lognormal	0.8660	0.8582
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.7034
W-Test - Lognormal	0.7500	0.7250
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : NICKEL (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	7.0000
Average	9.1250	30.9550
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	0.2750	15.4500
Positive Hits - Minimum	11.8000	2.6000
Positive Hits - Maximum	15.3000 UCL	166.0000
Average Of Positive Hits	13.5500	41.8571
Standard Deviation	7.8616	52.6558
Upper Confidence Limit - Normal	22.3785	61.4767
Upper Confidence Limit - Lognormal	9.3531246E+21	1351.4538
95th Percentile - Nonparametric	15.3000	166.0000
95th Percentile - Normal	22.0573	117.5738
95th Percentile - Lognormal	148.6115	186.4911
Upper Tolerance Limit - Normal	**********	184.2360
Upper Tolerance Limit - Lognormal	**********	2093.7509 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8619
Corr Coeff - Detected - Lognormal	**********	0.9817
Corr Coeff - Total - Normal	0.9556	0.7828
Corr Coeff - Total - Lognormal	0.8935	0.9800
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9131	0.6337
W-Test - Lognormal	0.7982	0.9462
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	5.0000
Average	3.1500	51.2700
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	1.7500
Positive Hits - Minimum	0.8500	20.9000
Positive Hits - Maximum	6.8000	281.0000
Average Of Positive Hits	3.1500	101.6900
Standard Deviation	3.1965	89.0264
Upper Confidence Limit - Normal	8.5388	102.8737
Upper Confidence Limit - Lognormal	105976.9087	53916.4472
95th Percentile - Nonparametric	6.8000	281.0000
95th Percentile - Normal	8.4082	197.7184
95th Percentile - Lognormal	12.3421	448.4920
Upper Tolerance Limit - Normal	**********	310.4258
Upper Tolerance Limit - Lognormal	**********	11316.5481

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9307	0.9487
Corr Coeff - Detected - Lognormal	0.9873	0.9948
Corr Coeff - Total - Normal	0.9307	0.7967
Corr Coeff - Total - Lognormal	0.9873	0.9595
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8662	0.6543
W-Test - Lognormal	0.9748	0.8915
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	4.0000
Average	7.1167	89.7050
Detection Limit - Minimum	2.7500	3.2000
Detection Limits - Maximum	2.7500	35.0500
Positive Hits - Minimum	6.0000	45.2000
Positive Hits - Maximum	12.6000	483.0000
Average Of Positive Hits	9.3000	209.0625
Standard Deviation	5.0190	157.6455
Upper Confidence Limit - Normal	15.5781	181.0835
Upper Confidence Limit - Lognormal	1649.1673	1951.2798
95th Percentile - Nonparametric	12.6000	483.0000
95th Percentile - Normal	15.3730	349.0318
95th Percentile - Lognormal	20.7195	418.2108
Upper Tolerance Limit - Normal	**********	548.6110
Upper Tolerance Limit - Lognormal	**********	3975.8975

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9766
Corr Coeff - Detected - Lognormal	**********	0.9593
Corr Coeff - Total - Normal	0.9813	0.7794
Corr Coeff - Total - Lognormal	0.9999	0.9515
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9629	0.6249
W-Test - Lognormal	0.9998	0.8875
Type of Distribution	LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : ACETONE (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	33.3333	
Detection Limit - Minimum	2.5000	
Detection Limits - Maximum	2.5000	
Positive Hits - Minimum	95.0000	
Positive Hits - Maximum	95.0000	
Average Of Positive Hits	95.0000	
Standard Deviation	53.4049	
Upper Confidence Limit - Normal	123.3667	
Upper Confidence Limit - Lognormal	3.8670138E+19	
95th Percentile - Nonparametric	95.0000	
95th Percentile - Normal	121.1844	
95th Percentile - Lognormal	266.0236	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPU_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/L)

	Sample Results	Background Results
Count	3.0000	5.0000
Number of Detects	1.0000	3.0000
Average	3.1667	3.7000
Detection Limit - Minimum	2.7500	2.7000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	4.0000	1.0000
Positive Hits - Maximum	4.0000	6.0000
Average Of Positive Hits	4.0000	3.4333
Standard Deviation	0.7217	2.0603
Upper Confidence Limit - Normal	4.3833	5.6645
Upper Confidence Limit - Lognormal	5.3885	15.4706
95th Percentile - Nonparametric	4.0000	6.0000
95th Percentile - Normal	4.3538	7.0893
95th Percentile - Lognormal	4.4476	10.1701
Upper Tolerance Limit - Normal	**********	12.3575
Upper Tolerance Limit - Lognormal	**********	63.9361

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9989
Corr Coeff - Detected - Lognormal	**********	0.9820
Corr Coeff - Total - Normal	0.8660	0.9780
Corr Coeff - Total - Lognormal	0.8660	0.9476
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8790
W-Test - Table Value	0.7670	0.7620
W-Test - Normal	0.7500	0.9416
W-Test - Lognormal	0.7500	0.8978
Type of Distribution	Undefined	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : ARSENIC (mg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	1.3167	
Detection Limit - Minimum	0.4750	
Detection Limits - Maximum	0.4750	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	3.0000 UCL	
Average Of Positive Hits	3.0000	
Standard Deviation	1.4578	
Upper Confidence Limit - Normal	3.7743	
Upper Confidence Limit - Lognormal	53520.8514	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	3.7148	
95th Percentile - Lognormal	5.0548	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	3.0000	6.0000
Average	48.8333	64.5167
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	26.4000	12.9000
Positive Hits - Maximum	64.3000	139.0000
Average Of Positive Hits	48.8333	64.5167
Standard Deviation	19.8873	44.7782
Upper Confidence Limit - Normal	82.3605	101.3521
Upper Confidence Limit - Lognormal	418.6835	282.9026
95th Percentile - Nonparametric	64.3000	139.0000
95th Percentile - Normal	81.5479	138.1768
95th Percentile - Lognormal	100.1212	197.9494
Upper Tolerance Limit - Normal	**********	151.5207
Upper Tolerance Limit - Lognormal	**********	253.5200

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9529	0.9743
Corr Coeff - Detected - Lognormal	0.9306	0.9796
Corr Coeff - Total - Normal	0.9529	0.9743
Corr Coeff - Total - Lognormal	0.9306	0.9796
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9079	0.9539
W-Test - Lognormal	0.8659	0.9670
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	3.0000	3.0000
Average	17.8667	4.3500
Detection Limit - Minimum	NA	1.0000
Detection Limits - Maximum	NA	1.0000
Positive Hits - Minimum	8.0000	2.5000
Positive Hits - Maximum	29.6000 UC	16.4000
Average Of Positive Hits	17.8667	7.7000
Standard Deviation	10.9203	6.0385
Upper Confidence Limit - Normal	36.2768	9.3174
Upper Confidence Limit - Lognormal	997.9793	48.1520
95th Percentile - Nonparametric	29.6000	16.4000
95th Percentile - Normal	35.8306	14.2833
95th Percentile - Lognormal	45.7569	14.9611
Upper Tolerance Limit - Normal	**********	16.0827
Upper Tolerance Limit - Lognormal	**********	20.9076 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9890	0.9502
Corr Coeff - Detected - Lognormal	0.9994	0.9874
Corr Coeff - Total - Normal	0.9890	0.7974
Corr Coeff - Total - Lognormal	0.9994	0.9129
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9781	0.6556
W-Test - Lognormal	0.9988	0.8257
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	2.0000	5.0000
Average	0.7183	5.4583
Detection Limit - Minimum	0.1750	0.3500
Detection Limits - Maximum	0.1750	0.3500
Positive Hits - Minimum	0.7800	2.1000
Positive Hits - Maximum	1.2000 UCL	15.6000
Average Of Positive Hits	0.9900	6.4800
Standard Deviation	0.5153	5.4056
Upper Confidence Limit - Normal	1.5870	9.9051
Upper Confidence Limit - Lognormal	11263.3058	159.3152
95th Percentile - Nonparametric	1.2000	15.6000
95th Percentile - Normal	1.5660	14.3505
95th Percentile - Lognormal	2.8839	26.9999
Upper Tolerance Limit - Normal	**********	15.9614
Upper Tolerance Limit - Lognormal	**********	39.5740 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9183
Corr Coeff - Detected - Lognormal	**********	0.9835
Corr Coeff - Total - Normal	0.9946	0.9108
Corr Coeff - Total - Lognormal	0.9527	0.9572
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9892	0.8483
W-Test - Lognormal	0.9076	0.9364
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	1.0000	2.0000
Average	3.0583	5.6250
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.9500	2.0000
Positive Hits - Minimum	7.4000	4.4000
Positive Hits - Maximum	7.4000 UCL	22.4000 UTL
Average Of Positive Hits	7.4000	13.4000
Standard Deviation	3.7605	8.2879
Upper Confidence Limit - Normal	9.3980	12.4428
Upper Confidence Limit - Lognormal	4270451.6789	42.3211
95th Percentile - Nonparametric	7.4000	22.4000
95th Percentile - Normal	9.2444	19.2585
95th Percentile - Lognormal	13.5430	17.1766
Upper Tolerance Limit - Normal	**********	21.7283
Upper Tolerance Limit - Lognormal	**********	23.4245

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.8742	0.7469
Corr Coeff - Total - Lognormal	0.8933	0.8408
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.7642	0.5827
W-Test - Lognormal	0.7980	0.7158
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : MERCURY (µg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	1.0000	1.0000
Average	0.0500	0.0658
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0650
Positive Hits - Minimum	0.1000	0.1300
Positive Hits - Maximum	0.1000 UCL	0.1300 UCL
Average Of Positive Hits	0.1000	0.1300
Standard Deviation	0.0433	0.0320
Upper Confidence Limit - Normal	0.1230	0.0922
Upper Confidence Limit - Lognormal	20.0695	0.1000
95th Percentile - Nonparametric	0.1000	0.1300
95th Percentile - Normal	0.1212	0.1185
95th Percentile - Lognormal	0.1481	0.1151
Upper Tolerance Limit - Normal	**********	0.1280
Upper Tolerance Limit - Lognormal	**********	0.1290

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.7635
Corr Coeff - Total - Lognormal	0.8660	0.7923
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.7500	0.6049
W-Test - Lognormal	0.7500	0.6445
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	2.0000	4.0000
Average	9.1250	5.2833
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	0.2750	0.5500
Positive Hits - Minimum	11.8000	2.6000
Positive Hits - Maximum	15.3000 UCL	16.6000
Average Of Positive Hits	13.5500	7.6500
Standard Deviation	7.8616	6.2996
Upper Confidence Limit - Normal	22.3785	10.4655
Upper Confidence Limit - Lognormal	9.3531246E+21	248.6762
95th Percentile - Nonparametric	15.3000	16.6000
95th Percentile - Normal	22.0573	15.6461
95th Percentile - Lognormal	148.6115	25.7447
Upper Tolerance Limit - Normal	**********	17.5234
Upper Tolerance Limit - Lognormal	**********	39.0087 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9629
Corr Coeff - Detected - Lognormal	**********	0.9600
Corr Coeff - Total - Normal	0.9556	0.8952
Corr Coeff - Total - Lognormal	0.8935	0.9644
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9131	0.8023
W-Test - Lognormal	0.7982	0.9068
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	3.0000	1.0000
Average	3.1500	4.1917
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	1.7500
Positive Hits - Minimum	0.8500	20.9000
Positive Hits - Maximum	6.8000	20.9000
Average Of Positive Hits	3.1500	20.9000
Standard Deviation	3.1965	8.2036
Upper Confidence Limit - Normal	8.5388	10.9401
Upper Confidence Limit - Lognormal	105976.9087	300.9986
95th Percentile - Nonparametric	6.8000	20.9000
95th Percentile - Normal	8.4082	17.6866
95th Percentile - Lognormal	12.3421	15.2529
Upper Tolerance Limit - Normal	**********	20.1313
Upper Tolerance Limit - Lognormal	**********	24.1193

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9307	
Corr Coeff - Detected - Lognormal	0.9873	
Corr Coeff - Total - Normal	0.9307	0.7257
Corr Coeff - Total - Lognormal	0.9873	0.9106
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.8662	0.5546
W-Test - Lognormal	0.9748	0.8351
Type of Distribution	LOGNORMAL	~~Undefined~~

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	3.0000	6.0000
Number of Detects	2.0000	1.0000
Average	7.1167	11.8250
Detection Limit - Minimum	2.7500	3.2000
Detection Limits - Maximum	2.7500	6.6000
Positive Hits - Minimum	6.0000	45.2000
Positive Hits - Maximum	12.6000 UCL	45.2000 UTL
Average Of Positive Hits	9.3000	45.2000
Standard Deviation	5.0190	16.4004
Upper Confidence Limit - Normal	15.5781	25.3163
Upper Confidence Limit - Lognormal	1649.1673	62.4968
95th Percentile - Nonparametric	12.6000	45.2000
95th Percentile - Normal	15.3730	38.8036
95th Percentile - Lognormal	20.7195	33.7588
Upper Tolerance Limit - Normal	**********	43.6910
Upper Tolerance Limit - Lognormal	**********	44.6778

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9813	0.7368
Corr Coeff - Total - Lognormal	0.9999	0.8596
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.8900
W-Test - Table Value	0.7670	0.7880
W-Test - Normal	0.9629	0.5729
W-Test - Lognormal	0.9998	0.7668
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : ACETONE (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	33.3333	
Detection Limit - Minimum	2.5000	
Detection Limits - Maximum	2.5000	
Positive Hits - Minimum	95.0000	
Positive Hits - Maximum	95.0000 UCL	
Average Of Positive Hits	95.0000	
Standard Deviation	53.4049	
Upper Confidence Limit - Normal	123.3667	
Upper Confidence Limit - Lognormal	3.8670138E+19	
95th Percentile - Nonparametric	95.0000	
95th Percentile - Normal	121.1844	
95th Percentile - Lognormal	266.0236	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPT_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Unfiltered Groundwater Comparison to Non-Turbid Background

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Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/L)

	Sample Results	Background Results
Count	3.0000	2.0000
Number of Detects	1.0000	1.0000
Average	3.1667	3.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	2.7500	5.5000
Positive Hits - Minimum	4.0000	1.0000
Positive Hits - Maximum	4.0000	1.0000
Average Of Positive Hits	4.0000	1.0000
Standard Deviation	0.7217	3.1820
Upper Confidence Limit - Normal	4.3833	**********
Upper Confidence Limit - Lognormal	5.3885	2462421.1886
95th Percentile - Nonparametric	4.0000	5.5000
95th Percentile - Normal	4.3538	8.4844
95th Percentile - Lognormal	4.4476	17.0359
Upper Tolerance Limit - Normal	**********	**********
Upper Tolerance Limit - Lognormal	**********	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.0000
Corr Coeff - Total - Lognormal	0.8660	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	**********
W-Test - Table Value	0.7670	0.0000
W-Test - Normal	0.7500	1.0000
W-Test - Lognormal	0.7500	1.0000
Type of Distribution	Undefined	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHRPF_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Filtered Groundwater Comparison to Background

Parameter : BARIUM, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	9.0000
Average	47.1333	36.7400
Detection Limit - Minimum	NA	7.0000
Detection Limits - Maximum	NA	7.0000
Positive Hits - Minimum	24.7000	4.0000
Positive Hits - Maximum	60.9000	86.7000
Average Of Positive Hits	47.1333	40.0444
Standard Deviation	19.5945	26.5507
Upper Confidence Limit - Normal	80.1669	52.1300
Upper Confidence Limit - Lognormal	482.2813	128.1767
95th Percentile - Nonparametric	60.9000	86.7000
95th Percentile - Normal	79.3662	80.4159
95th Percentile - Lognormal	99.2835	138.6789
Upper Tolerance Limit - Normal	**********	114.0290
Upper Tolerance Limit - Lognormal	**********	509.6195

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9237	0.9736
Corr Coeff - Detected - Lognormal	0.9066	0.9499
Corr Coeff - Total - Normal	0.9237	0.9774
Corr Coeff - Total - Lognormal	0.9066	0.9558
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8533	0.9468
W-Test - Lognormal	0.8219	0.9031
Type of Distribution	NORMAL	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPF_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Filtered Groundwater Comparison to Background

Parameter : COBALT, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	7.0000
Average	0.3933	4.8500
Detection Limit - Minimum	0.1750	0.3500
Detection Limits - Maximum	0.1750	7.0000
Positive Hits - Minimum	0.8300	2.3000
Positive Hits - Maximum	0.8300	8.2500
Average Of Positive Hits	0.8300	4.8786
Standard Deviation	0.3782	2.7887
Upper Confidence Limit - Normal	1.0309	6.4664
Upper Confidence Limit - Lognormal	757.3908	15.4892
95th Percentile - Nonparametric	0.8300	8.2500
95th Percentile - Normal	1.0154	9.4374
95th Percentile - Lognormal	1.2896	17.9622
Upper Tolerance Limit - Normal	**********	12.9678
Upper Tolerance Limit - Lognormal	**********	60.8006

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9381
Corr Coeff - Detected - Lognormal	**********	0.9290
Corr Coeff - Total - Normal	0.8660	0.9530
Corr Coeff - Total - Lognormal	0.8660	0.8782
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.8898
W-Test - Lognormal	0.7500	0.7854
Type of Distribution	Undefined	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPF_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Filtered Groundwater Comparison to Background

Parameter : MERCURY, FILTERED (µg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	1.0000
Average	0.0633	0.0630
Detection Limit - Minimum	0.0250	0.0500
Detection Limits - Maximum	0.0250	0.0700
Positive Hits - Minimum	0.1400	0.1600
Positive Hits - Maximum	0.1400 UCL	0.1600 UTL
Average Of Positive Hits	0.1400	0.1600
Standard Deviation	0.0664	0.0347
Upper Confidence Limit - Normal	0.1753	0.0831
Upper Confidence Limit - Lognormal	671.1042	0.0803
95th Percentile - Nonparametric	0.1400	0.1600
95th Percentile - Normal	0.1726	0.1200
95th Percentile - Lognormal	0.2280	0.1070
Upper Tolerance Limit - Normal	**********	0.1639
Upper Tolerance Limit - Lognormal	**********	0.1712

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	0.6450
Corr Coeff - Total - Lognormal	0.8660	0.6766
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7500	0.4495
W-Test - Lognormal	0.7500	0.4880
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHRPF_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Filtered Groundwater Comparison to Background

Parameter : NICKEL, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	6.0000
Average	6.4583	4.0500
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	0.2750	8.5000
Positive Hits - Minimum	6.8000	1.4000
Positive Hits - Maximum	12.3000	7.5000
Average Of Positive Hits	9.5500	3.6250
Standard Deviation	6.0198	3.0245
Upper Confidence Limit - Normal	16.6069	5.8032
Upper Confidence Limit - Lognormal	1.3937633E+18	10.7551
95th Percentile - Nonparametric	12.3000	8.5000
95th Percentile - Normal	16.3609	9.0254
95th Percentile - Lognormal	82.1722	13.1365
Upper Tolerance Limit - Normal	**********	12.8544
Upper Tolerance Limit - Lognormal	**********	41.3564

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8849
Corr Coeff - Detected - Lognormal	**********	0.9392
Corr Coeff - Total - Normal	0.9988	0.9397
Corr Coeff - Total - Lognormal	0.9293	0.9694
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9976	0.8586
W-Test - Lognormal	0.8637	0.9286
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPF_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Filtered Groundwater Comparison to Background

Parameter : ZINC, FILTERED (μg/L)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	1.0000
Average	5.4583	4.8625
Detection Limit - Minimum	1.0750	3.0500
Detection Limits - Maximum	1.0750	6.4000
Positive Hits - Minimum	6.9000	7.3000
Positive Hits - Maximum	8.4000 UCL	7.3000
Average Of Positive Hits	7.6500	7.3000
Standard Deviation	3.8695	1.3315
Upper Confidence Limit - Normal	11.9817	5.6343
Upper Confidence Limit - Lognormal	1093249.1383	5.8032
95th Percentile - Nonparametric	8.4000	7.3000
95th Percentile - Normal	11.8236	7.0529
95th Percentile - Lognormal	25.6247	7.3104
Upper Tolerance Limit - Normal	**********	8.7386
Upper Tolerance Limit - Lognormal	**********	10.2597 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9465	0.9642
Corr Coeff - Total - Lognormal	0.9061	0.9776
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8959	0.9272
W-Test - Lognormal	0.8210	0.9542
Type of Distribution	NORMAL ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPW_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Water

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	3.0000	
Average	28.9333	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	22.9000	
Positive Hits - Maximum	32.7000 UCL	
Average Of Positive Hits	28.9333	
Standard Deviation	5.2786	
Upper Confidence Limit - Normal	37.8323	
Upper Confidence Limit - Lognormal	45.5061	
95th Percentile - Nonparametric	32.7000	
95th Percentile - Normal	37.6166	
95th Percentile - Lognormal	39.3055	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9283	
Corr Coeff - Detected - Lognormal	0.9203	
Corr Coeff - Total - Normal	0.9283	
Corr Coeff - Total - Lognormal	0.9203	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.8617	NA
W-Test - Lognormal	0.8469	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: IHRPW_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Water

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	2.0000	
Average	0.7150	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	0.8700	
Positive Hits - Maximum	1.1000	
Average Of Positive Hits	0.9850	
Standard Deviation	0.4816	
Upper Confidence Limit - Normal	1.5269	
Upper Confidence Limit - Lognormal	9340.6955	
95th Percentile - Nonparametric	1.1000	
95th Percentile - Normal	1.5072	
95th Percentile - Lognormal	2.8582	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9604	
Corr Coeff - Total - Lognormal	0.9187	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.9223	NA
W-Test - Lognormal	0.8439	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHRPW_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Water

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	3.0000	
Average	6.6250	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	2.5750	
Positive Hits - Maximum	9.9000	
Average Of Positive Hits	6.6250	
Standard Deviation	3.7235	
Upper Confidence Limit - Normal	12.9023	
Upper Confidence Limit - Lognormal	752.7017	
95th Percentile - Nonparametric	9.9000	
95th Percentile - Normal	12.7501	
95th Percentile - Lognormal	18.3983	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9836	
Corr Coeff - Detected - Lognormal	0.9503	
Corr Coeff - Total - Normal	0.9836	
Corr Coeff - Total - Lognormal	0.9503	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.9675	NA
W-Test - Lognormal	0.9030	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHRPW_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Water

Parameter : CARBON DISULFIDE (μg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	3.1667	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.2500	
Positive Hits - Minimum	7.0000	
Positive Hits - Maximum	7.0000	
Average Of Positive Hits	7.0000	
Standard Deviation	3.3198	
Upper Confidence Limit - Normal	8.7633	
Upper Confidence Limit - Lognormal	33555.2120	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	8.6277	
95th Percentile - Lognormal	11.3996	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8660	
Corr Coeff - Total - Lognormal	0.8660	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.7500	NA
W-Test - Lognormal	0.7500	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHRPW_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Surface Water

Parameter : DI-N-BUTYL PHTHALATE (µg/L)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	3.0000	
Detection Limit - Minimum	2.7500	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	3.2500	
Positive Hits - Maximum	3.2500 UCL	
Average Of Positive Hits	3.2500	
Standard Deviation	0.2500	
Upper Confidence Limit - Normal	3.4215	
Upper Confidence Limit - Lognormal	3.5420	
95th Percentile - Nonparametric	3.2500	
95th Percentile - Normal	3.4113	
95th Percentile - Lognormal	3.4340	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	1.0000	
Corr Coeff - Total - Lognormal	0.9997	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	1.0000	NA
W-Test - Lognormal	0.9994	NA

Type of Distribution ..... ~~Undefined~~ Normal

Test Results:

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	9.0000
Average	1.3967	3.0160
Detection Limit - Minimum	NA	0.4100
Detection Limits - Maximum	NA	0.4100
Positive Hits - Minimum	0.6800	0.2800
Positive Hits - Maximum	2.6000 UCL	9.5500
Average Of Positive Hits	1.3967	3.3056
Standard Deviation	1.0484	3.4113
Upper Confidence Limit - Normal	3.1642	4.9933
Upper Confidence Limit - Lognormal	147.2233	16.6094
95th Percentile - Nonparametric	2.6000	9.5500
95th Percentile - Normal	3.1214	8.6276
95th Percentile - Lognormal	3.7395	12.6643
Upper Tolerance Limit - Normal	**********	12.9463
Upper Tolerance Limit - Lognormal	**********	62.9604 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9156	0.8773
Corr Coeff - Detected - Lognormal	0.9506	0.9846
Corr Coeff - Total - Normal	0.9156	0.8853
Corr Coeff - Total - Lognormal	0.9506	0.9774
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8384	0.7732
W-Test - Lognormal	0.9036	0.9312
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	7.6333	41.9750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.1000	5.8000
Positive Hits - Maximum	13.0000 UCL	175.0000
Average Of Positive Hits	7.6333	41.9750
Standard Deviation	4.7248	52.8775
Upper Confidence Limit - Normal	15.5986	72.6252
Upper Confidence Limit - Lognormal	202.6615	145.1041
95th Percentile - Nonparametric	13.0000	175.0000
95th Percentile - Normal	15.4056	128.9586
95th Percentile - Lognormal	17.9078	143.4017
Upper Tolerance Limit - Normal	**********	195.9015
Upper Tolerance Limit - Lognormal	**********	577.1926 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9418	0.8317
Corr Coeff - Detected - Lognormal	0.9745	0.9742
Corr Coeff - Total - Normal	0.9418	0.8317
Corr Coeff - Total - Lognormal	0.9745	0.9742
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8871	0.7090
W-Test - Lognormal	0.9496	0.9408
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	7.0000
Average	0.1317	0.5070
Detection Limit - Minimum	0.0250	0.0450
Detection Limits - Maximum	0.0250	1.3750
Positive Hits - Minimum	0.1600	0.1350
Positive Hits - Maximum	0.2100	1.0000
Average Of Positive Hits	0.1850	0.5150
Standard Deviation	0.0957	0.4502
Upper Confidence Limit - Normal	0.2930	0.7679
Upper Confidence Limit - Lognormal	44284.8140	2.8364
95th Percentile - Nonparametric	0.2100	1.3750
95th Percentile - Normal	0.2891	1.2475
95th Percentile - Lognormal	0.6342	2.2863
Upper Tolerance Limit - Normal	**********	1.8175
Upper Tolerance Limit - Lognormal	**********	10.9163

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9735
Corr Coeff - Detected - Lognormal	**********	0.9592
Corr Coeff - Total - Normal	0.9666	0.9559
Corr Coeff - Total - Lognormal	0.9187	0.9635
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9342	0.9015
W-Test - Lognormal	0.8441	0.9063
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	7.0000
Average	0.3383	0.3185
Detection Limit - Minimum	NA	0.0800
Detection Limits - Maximum	NA	0.4500
Positive Hits - Minimum	0.1950	0.1450
Positive Hits - Maximum	0.5400	0.8600
Average Of Positive Hits	0.3383	0.3479
Standard Deviation	0.1797	0.2283
Upper Confidence Limit - Normal	0.6414	0.4508
Upper Confidence Limit - Lognormal	4.0897	0.5699
95th Percentile - Nonparametric	0.5400	0.8600
95th Percentile - Normal	0.6340	0.6941
95th Percentile - Lognormal	0.7224	0.7866
Upper Tolerance Limit - Normal	**********	0.9832
Upper Tolerance Limit - Lognormal	**********	1.8472

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9597	0.9182
Corr Coeff - Detected - Lognormal	0.9863	0.9870
Corr Coeff - Total - Normal	0.9597	0.9107
Corr Coeff - Total - Lognormal	0.9863	0.9891
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9210	0.8457
W-Test - Lognormal	0.9728	0.9882

Type of Distribution ..... LOGNORMAL / LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	9.7333	11.5800
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.5000	3.3000
Positive Hits - Maximum	15.4000	27.7000
Average Of Positive Hits	9.7333	11.5800
Standard Deviation	5.1033	8.1746
Upper Confidence Limit - Normal	18.3367	16.3184
Upper Confidence Limit - Lognormal	119.9812	22.9076
95th Percentile - Nonparametric	15.4000	27.7000
95th Percentile - Normal	18.1282	25.0272
95th Percentile - Lognormal	20.8562	30.9388
Upper Tolerance Limit - Normal	**********	35.3762
Upper Tolerance Limit - Lognormal	**********	79.1602

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9700	0.9502
Corr Coeff - Detected - Lognormal	0.9934	0.9777
Corr Coeff - Total - Normal	0.9700	0.9502
Corr Coeff - Total - Lognormal	0.9934	0.9777
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9408	0.8929
W-Test - Lognormal	0.9867	0.9351
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	0.5717	5.9695
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.4050	0.6700
Positive Hits - Maximum	0.8700 UCL	17.0500
Average Of Positive Hits	0.5717	5.9695
Standard Deviation	0.2590	5.9423
Upper Confidence Limit - Normal	1.0082	9.4139
Upper Confidence Limit - Lognormal	2.9723	30.6991
95th Percentile - Nonparametric	0.8700	17.0500
95th Percentile - Normal	0.9976	15.7446
95th Percentile - Lognormal	1.0712	24.9428
Upper Tolerance Limit - Normal	**********	23.2675
Upper Tolerance Limit - Lognormal	**********	118.3767 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8978	0.9255
Corr Coeff - Detected - Lognormal	0.9112	0.9582
Corr Coeff - Total - Normal	0.8978	0.9255
Corr Coeff - Total - Lognormal	0.9112	0.9582
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8061	0.8399
W-Test - Lognormal	0.8302	0.8895
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	1.4467	9.4985
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.6900	0.6350
Positive Hits - Maximum	2.9000 UCL	26.7500
Average Of Positive Hits	1.4467	9.4985
Standard Deviation	1.2590	10.6209
Upper Confidence Limit - Normal	3.5691	15.6549
Upper Confidence Limit - Lognormal	631.7898	91.4263
95th Percentile - Nonparametric	2.9000	26.7500
95th Percentile - Normal	3.5177	26.9699
95th Percentile - Lognormal	4.3108	46.4598
Upper Tolerance Limit - Normal	**********	40.4159
Upper Tolerance Limit - Lognormal	**********	296.5670 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8777	0.8992
Corr Coeff - Detected - Lognormal	0.8907	0.9550
Corr Coeff - Total - Normal	0.8777	0.8992
Corr Coeff - Total - Lognormal	0.8907	0.9550
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7703	0.7832
W-Test - Lognormal	0.7934	0.8807
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	3.3500	23.0750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.8500	2.1000
Positive Hits - Maximum	5.4000 UCL	79.3000
Average Of Positive Hits	3.3500	23.0750
Standard Deviation	1.8378	25.6307
Upper Confidence Limit - Normal	6.4483	37.9317
Upper Confidence Limit - Lognormal	51.3296	124.9997
95th Percentile - Nonparametric	5.4000	79.3000
95th Percentile - Normal	6.3732	65.2375
95th Percentile - Lognormal	7.3814	96.4635
Upper Tolerance Limit - Normal	**********	97.6859
Upper Tolerance Limit - Lognormal	**********	475.5218 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9658	0.9044
Corr Coeff - Detected - Lognormal	0.9916	0.9774
Corr Coeff - Total - Normal	0.9658	0.9044
Corr Coeff - Total - Lognormal	0.9916	0.9774
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9328	0.8168
W-Test - Lognormal	0.9832	0.9353
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	2.0000	10.0000
Average	0.0183	0.0670
Detection Limit - Minimum	0.0050	NA
Detection Limits - Maximum	0.0050	NA
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.0300	0.2300
Average Of Positive Hits	0.0250	0.0670
Standard Deviation	0.0126	0.0747
Upper Confidence Limit - Normal	0.0395	0.1103
Upper Confidence Limit - Lognormal	77.1985	0.1960
95th Percentile - Nonparametric	0.0300	0.2300
95th Percentile - Normal	0.0390	0.1899
95th Percentile - Lognormal	0.0677	0.2161
Upper Tolerance Limit - Normal	**********	0.2844
Upper Tolerance Limit - Lognormal	**********	0.7779

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8527
Corr Coeff - Detected - Lognormal	**********	0.9397
Corr Coeff - Total - Normal	0.9934	0.8527
Corr Coeff - Total - Lognormal	0.9535	0.9397
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9868	0.7311
W-Test - Lognormal	0.9092	0.8808
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	8.0000
Average	1.3233	7.4355
Detection Limit - Minimum	NA	0.2750
Detection Limits - Maximum	NA	0.2900
Positive Hits - Minimum	0.6500	0.5400
Positive Hits - Maximum	2.6000 UCL	25.2000
Average Of Positive Hits	1.3233	9.2238
Standard Deviation	1.1062	8.7626
Upper Confidence Limit - Normal	3.1882	12.5147
Upper Confidence Limit - Lognormal	352.4775	156.6594
95th Percentile - Nonparametric	2.6000	25.2000
95th Percentile - Normal	3.1430	21.8500
95th Percentile - Lognormal	3.8047	45.7199
Upper Tolerance Limit - Normal	**********	32.9434
Upper Tolerance Limit - Lognormal	**********	382.0099 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8814	0.9709
Corr Coeff - Detected - Lognormal	0.8972	0.9615
Corr Coeff - Total - Normal	0.8814	0.9102
Corr Coeff - Total - Lognormal	0.8972	0.9740
Corr Coeff - Crit Val - Detected	0.8790	0.9050
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.7769	0.8189
W-Test - Lognormal	0.8050	0.9207
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	7.0000
Average	0.5283	0.7190
Detection Limit - Minimum	NA	0.1300
Detection Limits - Maximum	NA	0.4250
Positive Hits - Minimum	0.2750	0.4500
Positive Hits - Maximum	0.9600 UCL	1.5500
Average Of Positive Hits	0.5283	0.9257
Standard Deviation	0.3757	0.5172
Upper Confidence Limit - Normal	1.1617	1.0188
Upper Confidence Limit - Lognormal	32.3473	1.7273
95th Percentile - Nonparametric	0.9600	1.5500
95th Percentile - Normal	1.1464	1.5698
95th Percentile - Lognormal	1.3460	2.1996
Upper Tolerance Limit - Normal	**********	2.2245
Upper Tolerance Limit - Lognormal	**********	6.4546 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9116	0.9436
Corr Coeff - Detected - Lognormal	0.9425	0.9464
Corr Coeff - Total - Normal	0.9116	0.9431
Corr Coeff - Total - Lognormal	0.9425	0.9625
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8310	0.8704
W-Test - Lognormal	0.8883	0.9122
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	10.0000
Average	9.1833	18.6350
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.6500	3.2000
Positive Hits - Maximum	15.7000	46.3000
Average Of Positive Hits	9.1833	18.6350
Standard Deviation	5.7858	15.4646
Upper Confidence Limit - Normal	18.9374	27.5990
Upper Confidence Limit - Lognormal	321.9705	50.5807
95th Percentile - Nonparametric	15.7000	46.3000
95th Percentile - Normal	18.7010	44.0743
95th Percentile - Lognormal	22.2454	60.4356
Upper Tolerance Limit - Normal	**********	63.6525
Upper Tolerance Limit - Lognormal	**********	196.4642

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9549	0.9446
Corr Coeff - Detected - Lognormal	0.9871	0.9876
Corr Coeff - Total - Normal	0.9549	0.9446
Corr Coeff - Total - Lognormal	0.9871	0.9876
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9119	0.8744
W-Test - Lognormal	0.9743	0.9533
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	3.0000	9.0000
Average	7.6667	37.1350
Detection Limit - Minimum	NA	0.5500
Detection Limits - Maximum	NA	0.5500
Positive Hits - Minimum	4.6000	4.4000
Positive Hits - Maximum	11.4000	146.5000
Average Of Positive Hits	7.6667	41.2000
Standard Deviation	3.4487	45.8496
Upper Confidence Limit - Normal	13.4807	63.7115
Upper Confidence Limit - Lognormal	52.9911	585.3022
95th Percentile - Nonparametric	11.4000	146.5000
95th Percentile - Normal	13.3397	112.5576
95th Percentile - Lognormal	15.1150	225.7454
Upper Tolerance Limit - Normal	**********	170.6031
Upper Tolerance Limit - Lognormal	**********	1659.5817

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9859	0.8906
Corr Coeff - Detected - Lognormal	0.9991	0.9880
Corr Coeff - Total - Normal	0.9859	0.8610
Corr Coeff - Total - Lognormal	0.9991	0.9607
Corr Coeff - Crit Val - Detected	0.8790	0.9120
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.9720	0.7546
W-Test - Lognormal	0.9981	0.9388
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : DI-N-OCTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	3.0000	No samples
Number of Detects	1.0000	
Average	83.0000	
Detection Limit - Minimum	97.5000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	44.0000	
Positive Hits - Maximum	44.0000	
Average Of Positive Hits	44.0000	
Standard Deviation	34.1431	
Upper Confidence Limit - Normal	140.5606	
Upper Confidence Limit - Lognormal	791.1227	
95th Percentile - Nonparametric	107.5000	
95th Percentile - Normal	139.1654	
95th Percentile - Lognormal	172.9889	
Upper Tolerance Limit - Normal	**********	
Upper Tolerance Limit - Lognormal	**********	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9299	
Corr Coeff - Total - Lognormal	0.9115	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8790	
W-Test - Table Value	0.7670	NA
W-Test - Normal	0.8647	NA
W-Test - Lognormal	0.8309	NA

Type of Distribution ..... ~~Undefined~~ Normal

Test Results:

Dataset: IHRPD_RES
Media : Indian Head Rum Point Landfill Statistics
Group : Sediment Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	3.0000	10.0000
Number of Detects	1.0000	2.0000
Average	0.0343	0.1865
Detection Limit - Minimum	0.0175	0.0400
Detection Limits - Maximum	0.0225	0.2425
Positive Hits - Minimum	0.0630	0.3100
Positive Hits - Maximum	0.0630 UCL	0.9200 UTL
Average Of Positive Hits	0.0630	0.6150
Standard Deviation	0.0250	0.2743
Upper Confidence Limit - Normal	0.0764	0.3455
Upper Confidence Limit - Lognormal	2.5562	0.5473
95th Percentile - Nonparametric	0.0630	0.9200
95th Percentile - Normal	0.0754	0.6378
95th Percentile - Lognormal	0.0891	0.5688
Upper Tolerance Limit - Normal	**********	0.9851
Upper Tolerance Limit - Lognormal	**********	2.1800

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.9118	0.7618
Corr Coeff - Total - Lognormal	0.9436	0.9100
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8790	0.9170
W-Test - Table Value	0.7670	0.8420
W-Test - Normal	0.8313	0.6056
W-Test - Lognormal	0.8904	0.8235
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B

The minimum and maximum values present on the following statistical calculations may not be the same as the range of detection presented on the COPC selection tables. The true minimum and maximum detected values can be found in the raw data.

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	10.0000	No samples
Number of Detects	2.0000	
Average	0.2644	
Detection Limit - Minimum	0.0600	
Detection Limits - Maximum	0.3000	
Positive Hits - Minimum	0.5200	
Positive Hits - Maximum	0.6900	
Average Of Positive Hits	0.6050	
Standard Deviation	0.1946	
Upper Confidence Limit - Normal	0.3772	
Upper Confidence Limit - Lognormal	0.4867 UCL	
95th Percentile - Nonparametric	0.6900	
95th Percentile - Normal	0.5845	
95th Percentile - Lognormal	0.6681	
Upper Tolerance Limit - Normal	0.8308	
Upper Tolerance Limit - Lognormal	1.6124	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9038	
Corr Coeff - Total - Lognormal	0.9757	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9170	
W-Test - Table Value	0.8420	NA
W-Test - Normal	0.8268	NA
W-Test - Lognormal	0.9639	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	3.4700	2.1807
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	2.5000	0.7800
Positive Hits - Maximum	5.1000	3.3000
Average Of Positive Hits	3.4700	2.1807
Standard Deviation	0.8667	0.7934
Upper Confidence Limit - Normal	3.9724	2.5563
Upper Confidence Limit - Lognormal	4.0603 UCL	2.8641
95th Percentile - Nonparametric	5.1000	3.3000
95th Percentile - Normal	4.8958	3.4859
95th Percentile - Lognormal	5.0269	4.2001
Upper Tolerance Limit - Normal	5.9931	4.2547 UTL
Upper Tolerance Limit - Lognormal	6.8256	6.4760

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9649	0.9822
Corr Coeff - Detected - Lognormal	0.9785	0.9370
Corr Coeff - Total - Normal	0.9649	0.9822
Corr Coeff - Total - Lognormal	0.9785	0.9370
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9199	0.9501
W-Test - Lognormal	0.9413	0.8719
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	52.2350	39.0643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	31.0000	12.5000
Positive Hits - Maximum	76.6000	84.8000
Average Of Positive Hits	52.2350	39.0643
Standard Deviation	12.9335	19.8123
Upper Confidence Limit - Normal	59.7318	48.4418
Upper Confidence Limit - Lognormal	61.6258 UCL	55.3528
95th Percentile - Nonparametric	76.6000	84.8000
95th Percentile - Normal	73.5105	71.6554
95th Percentile - Lognormal	76.7981	84.6340
Upper Tolerance Limit - Normal	89.8843	90.8535
Upper Tolerance Limit - Lognormal	105.5603	143.9192 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9679	0.9645
Corr Coeff - Detected - Lognormal	0.9677	0.9739
Corr Coeff - Total - Normal	0.9679	0.9645
Corr Coeff - Total - Lognormal	0.9677	0.9739
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9505	0.9348
W-Test - Lognormal	0.9536	0.9467
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

		Sample Results	Background Results
Count		10.0000	14.0000
Number of Detects		10.0000	12.0000
Average		0.5815	0.3489
Detection Limit - Minimum	NA		0.0500
Detection Limits - Maximum	NA		0.0750
Positive Hits - Minimum		0.3700	0.0500
Positive Hits - Maximum		1.1000	0.6100
Average Of Positive Hits		0.5815	0.3967
Standard Deviation		0.2181	0.2127
Upper Confidence Limit - Normal		0.7079	0.4496
Upper Confidence Limit - Lognormal		0.7238 UCL	0.7858
95th Percentile - Nonparametric		1.1000	0.6100
95th Percentile - Normal		0.9402	0.6988
95th Percentile - Lognormal		0.9435	1.1822
Upper Tolerance Limit - Normal		1.2163	0.9050 UTL
Upper Tolerance Limit - Lognormal		1.4255	2.8846

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9045	0.9489
Corr Coeff - Detected - Lognormal		0.9605	0.8792
Corr Coeff - Total - Normal		0.9045	0.9566
Corr Coeff - Total - Lognormal		0.9605	0.9200
Corr Coeff - Crit Val - Detected		0.9170	0.9260
Corr Coeff - Crit Val - Total		0.9170	0.9340
W-Test - Table Value		0.8420	0.8740
W-Test - Normal		0.8325	0.8844
W-Test - Lognormal		0.9285	0.8249
Type of Distribution		LOGNORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	2.0000	6.0000
Average	0.0809	0.1689
Detection Limit - Minimum	0.0300	0.0550
Detection Limits - Maximum	0.0375	0.2850
Positive Hits - Minimum	0.1200	0.1500
Positive Hits - Maximum	0.4200 UCL	0.2600 UCL
Average Of Positive Hits	0.2700	0.2267
Standard Deviation	0.1222	0.0917
Upper Confidence Limit - Normal	0.1517	0.2123
Upper Confidence Limit - Lognormal	0.1582	0.2677
95th Percentile - Nonparametric	0.4200	0.2850
95th Percentile - Normal	0.2819	0.3197
95th Percentile - Lognormal	0.2006	0.4195
Upper Tolerance Limit - Normal	0.4367	0.4085
Upper Tolerance Limit - Lognormal	0.5933	0.7967

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.8540
Corr Coeff - Detected - Lognormal	1.0000	0.8205
Corr Coeff - Total - Normal	0.6689	0.9331
Corr Coeff - Total - Lognormal	0.7589	0.9184
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.4800	0.8388
W-Test - Lognormal	0.5973	0.8133
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	17.1950	11.9857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	13.7000	3.5000
Positive Hits - Maximum	21.0000 UCL	20.8000
Average Of Positive Hits	17.1950	11.9857
Standard Deviation	3.2322	4.6797
Upper Confidence Limit - Normal	19.0685	14.2007
Upper Confidence Limit - Lognormal	19.3407	15.8437
95th Percentile - Nonparametric	21.0000	20.8000
95th Percentile - Normal	22.5119	19.6839
95th Percentile - Lognormal	22.9886	23.3486
Upper Tolerance Limit - Normal	26.6038	24.2185 UTL
Upper Tolerance Limit - Lognormal	29.0949	36.3493

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9120	0.9854
Corr Coeff - Detected - Lognormal	0.9205	0.9550
Corr Coeff - Total - Normal	0.9120	0.9854
Corr Coeff - Total - Lognormal	0.9205	0.9550
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.7945	0.9744
W-Test - Lognormal	0.8102	0.9259
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	9.7550	5.0586
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.1000	0.5800
Positive Hits - Maximum	22.4000	15.0000
Average Of Positive Hits	9.7550	5.0586
Standard Deviation	5.2396	4.6659
Upper Confidence Limit - Normal	12.7921	7.2670
Upper Confidence Limit - Lognormal	14.0608 UCL	10.7597
95th Percentile - Nonparametric	22.4000	15.0000
95th Percentile - Normal	18.3742	12.7339
95th Percentile - Lognormal	19.4612	16.1061
Upper Tolerance Limit - Normal	25.0075	17.2551
Upper Tolerance Limit - Lognormal	36.0770	39.7328 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9157	0.8837
Corr Coeff - Detected - Lognormal	0.9866	0.9764
Corr Coeff - Total - Normal	0.9157	0.8837
Corr Coeff - Total - Lognormal	0.9866	0.9764
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.8578	0.7774
W-Test - Lognormal	0.9820	0.9513
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : COPPER (mg/kg)

		Sample Results	Background Results
Count		10.0000	14.0000
Number of Detects		10.0000	12.0000
Average		14.1350	4.7393
Detection Limit - Minimum	NA		2.2500
Detection Limits - Maximum	NA		2.3000
Positive Hits - Minimum		7.5000	1.8000
Positive Hits - Maximum		26.1000	17.3000
Average Of Positive Hits		14.1350	5.1500
Standard Deviation		7.0315	3.9231
Upper Confidence Limit - Normal		18.2108	6.5962
Upper Confidence Limit - Lognormal		20.1260	6.7231
95th Percentile - Nonparametric		26.1000	17.3000
95th Percentile - Normal		25.7018	11.1928
95th Percentile - Lognormal		27.7723	10.4300
Upper Tolerance Limit - Normal		34.6037	14.9943
Upper Tolerance Limit - Lognormal		50.6114	18.6594

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9330	0.7737
Corr Coeff - Detected - Lognormal	0.9621	0.9438
Corr Coeff - Total - Normal	0.9330	0.7909
Corr Coeff - Total - Lognormal	0.9621	0.9500
Corr Coeff - Crit Val - Detected	0.9170	0.9260
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.8481	0.6551
W-Test - Lognormal	0.8969	0.9113
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		10.0000	14.0000
Number of Detects		10.0000	12.0000
Average		11.4750	17.8000
Detection Limit - Minimum	NA		4.7000
Detection Limits - Maximum	NA		5.0000
Positive Hits - Minimum		8.9000	3.5000
Positive Hits - Maximum		17.1500	149.0000 UTL
Average Of Positive Hits		11.4750	19.9583
Standard Deviation		2.5980	37.8694
Upper Confidence Limit - Normal		12.9809	35.7243
Upper Confidence Limit - Lognormal		13.1198 UCL	25.4296
95th Percentile - Nonparametric		17.1500	149.0000
95th Percentile - Normal		15.7487	80.0952
95th Percentile - Lognormal		15.8875	38.7106
Upper Tolerance Limit - Normal		19.0378	116.7907
Upper Tolerance Limit - Lognormal		20.7387	91.7636

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9362	0.5784
Corr Coeff - Detected - Lognormal	0.9622	0.8094
Corr Coeff - Total - Normal	0.9362	0.5719
Corr Coeff - Total - Lognormal	0.9622	0.8192
Corr Coeff - Crit Val - Detected	0.9170	0.9260
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.8785	0.3635
W-Test - Lognormal	0.9208	0.7067
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	8.0000	12.0000
Average	0.0385	0.0400
Detection Limit - Minimum	0.0050	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0200	0.0300
Positive Hits - Maximum	0.0700	0.0800
Average Of Positive Hits	0.0469	0.0425
Standard Deviation	0.0242	0.0180
Upper Confidence Limit - Normal	0.0525 UL	0.0485
Upper Confidence Limit - Lognormal	0.1271	0.0543
95th Percentile - Nonparametric	0.0700	0.0800
95th Percentile - Normal	0.0782	0.0696
95th Percentile - Lognormal	0.1434	0.0815
Upper Tolerance Limit - Normal	0.1088	0.0870 UL
Upper Tolerance Limit - Lognormal	0.5023	0.1314

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9226	0.9066
Corr Coeff - Detected - Lognormal	0.9410	0.9328
Corr Coeff - Total - Normal	0.9794	0.9287
Corr Coeff - Total - Lognormal	0.9137	0.9141
Corr Coeff - Crit Val - Detected	0.9050	0.9260
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9304	0.8790
W-Test - Lognormal	0.8174	0.8636
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	9.0000	4.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.6000	1.7000
Positive Hits - Maximum	13.5000	10.5000
Average Of Positive Hits	9.0000	4.9000
Standard Deviation	2.3772	2.6402
Upper Confidence Limit - Normal	10.3779	6.1497
Upper Confidence Limit - Lognormal	10.7250	6.9452
95th Percentile - Nonparametric	13.5000	10.5000
95th Percentile - Normal	12.9105	9.2432
95th Percentile - Lognormal	13.4858	10.6461
Upper Tolerance Limit - Normal	15.9200	11.8015
Upper Tolerance Limit - Lognormal	18.8584	18.2456

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9681	0.9667
Corr Coeff - Detected - Lognormal	0.9767	0.9889
Corr Coeff - Total - Normal	0.9681	0.9667
Corr Coeff - Total - Lognormal	0.9767	0.9889
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9420	0.9268
W-Test - Lognormal	0.9573	0.9649
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		10.0000	14.0000
Number of Detects		10.0000	11.0000
Average		0.8895	0.4579
Detection Limit - Minimum	NA		0.0850
Detection Limits - Maximum	NA		0.2650
Positive Hits - Minimum		0.4950	0.1700
Positive Hits - Maximum		1.5000	0.8300
Average Of Positive Hits		0.8895	0.5409
Standard Deviation		0.3850	0.2425
Upper Confidence Limit - Normal		1.1127	0.5726
Upper Confidence Limit - Lognormal		1.2029 UCL	0.7910
95th Percentile - Nonparametric		1.5000	0.8300
95th Percentile - Normal		1.5229	0.8567
95th Percentile - Lognormal		1.6335	1.2426
Upper Tolerance Limit - Normal		2.0104	1.0916 UTL
Upper Tolerance Limit - Lognormal		2.7746	2.5070

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9410	0.9769
Corr Coeff - Detected - Lognormal		0.9663	0.9122
Corr Coeff - Total - Normal		0.9410	0.9847
Corr Coeff - Total - Lognormal		0.9663	0.9417
Corr Coeff - Crit Val - Detected		0.9170	0.9220
Corr Coeff - Crit Val - Total		0.9170	0.9340
W-Test - Table Value		0.8420	0.8740
W-Test - Normal		0.8601	0.9508 /
W-Test - Lognormal		0.9053 /	0.8769 /
Type of Distribution		LOGNORMAL /	NORMAL /

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	27.7250	19.1643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	20.2000	9.8000
Positive Hits - Maximum	39.1000	38.7000
Average Of Positive Hits	27.7250	19.1643
Standard Deviation	6.2068	8.5776
Upper Confidence Limit - Normal	31.3227	23.2242
Upper Confidence Limit - Lognormal	31.8296 UCL	24.4035
95th Percentile - Nonparametric	39.1000	38.7000
95th Percentile - Normal	37.9351	33.2744
95th Percentile - Lognormal	38.6886	35.3914
Upper Tolerance Limit - Normal	45.7929	41.5861
Upper Tolerance Limit - Lognormal	50.8292	53.4527 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9662	0.9398
Corr Coeff - Detected - Lognormal	0.9813	0.9634
Corr Coeff - Total - Normal	0.9662	0.9398
Corr Coeff - Total - Lognormal	0.9813	0.9634
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9239	0.8795
W-Test - Lognormal	0.9515	0.9164
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	10.0000	14.0000
Number of Detects	10.0000	14.0000
Average	32.8700	18.0857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	22.0000	6.2000
Positive Hits - Maximum	45.2000	30.8000
Average Of Positive Hits	32.8700	18.0857
Standard Deviation	7.0410	7.6596
Upper Confidence Limit - Normal	36.9513 UCL	21.7111
Upper Confidence Limit - Lognormal	37.8960	24.6053
95th Percentile - Nonparametric	45.2000	30.8000
95th Percentile - Normal	44.4524	30.6857
95th Percentile - Lognormal	46.2127	36.8983
Upper Tolerance Limit - Normal	53.3663	38.1078 UTL
Upper Tolerance Limit - Lognormal	61.0614	59.6065

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9897	0.9903
Corr Coeff - Detected - Lognormal	0.9876	0.9681
Corr Coeff - Total - Normal	0.9897	0.9903
Corr Coeff - Total - Lognormal	0.9876	0.9681
Corr Coeff - Crit Val - Detected	0.9170	0.9340
Corr Coeff - Crit Val - Total	0.9170	0.9340
W-Test - Table Value	0.8420	0.8740
W-Test - Normal	0.9781	0.9656
W-Test - Lognormal	0.9732	0.9265
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	10.0000	3.0000
Number of Detects	1.0000	2.0000
Average	512.8500	5067.3167
Detection Limit - Minimum	2.7500	1.9500
Detection Limits - Maximum	22.7500	1.9500
Positive Hits - Minimum	5000.0000	2200.0000
Positive Hits - Maximum	5000.0000	13000.0000
Average Of Positive Hits	5000.0000	7600.0000
Standard Deviation	1576.6380	6957.2591
Upper Confidence Limit - Normal	1426.7411	16796.3009
Upper Confidence Limit - Lognormal	6376.1190	2.2862578E+94
95th Percentile - Nonparametric	5000.0000	13000.0000
95th Percentile - Normal	3106.4196	16512.0079
95th Percentile - Lognormal	605.7900	810165.5693
Upper Tolerance Limit - Normal	5102.4434	**********
Upper Tolerance Limit - Lognormal	7738.7497	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.5774	0.9341
Corr Coeff - Total - Lognormal	0.7928	0.9455
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9170	**********
W-Test - Table Value	0.8420	0.7670
W-Test - Normal	0.3700	0.8726
W-Test - Lognormal	0.6717	0.8940
Type of Distribution	Undefined	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	10.0000	3.0000
Number of Detects	3.0000	1.0000
Average	250.0000	290.4833
Detection Limit - Minimum	87.5000	36.4500
Detection Limits - Maximum	100.0000	195.0000
Positive Hits - Minimum	160.0000	640.0000
Positive Hits - Maximum	1400.0000 UCL	640.0000 UCL
Average Of Positive Hits	613.3333	640.0000
Standard Deviation	408.4286	312.8993
Upper Confidence Limit - Normal	486.7438	817.9886
Upper Confidence Limit - Lognormal	489.5337	96854832671.09
95th Percentile - Nonparametric	1400.0000	640.0000
95th Percentile - Normal	921.8650	805.2026
95th Percentile - Lognormal	612.3553	1769.4511
Upper Tolerance Limit - Normal	1438.9355	**********
Upper Tolerance Limit - Lognormal	1854.8361	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9066	
Corr Coeff - Detected - Lognormal	0.9631	
Corr Coeff - Total - Normal	0.6517	0.9644
Corr Coeff - Total - Lognormal	0.7780	0.9952
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9170	**********
W-Test - Table Value	0.8420	0.7670
W-Test - Normal	0.4590	0.9301
W-Test - Lognormal	0.6275	0.9904
Type of Distribution	Undefined	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	10.0000	No samples
Number of Detects	5.0000	
Average	125.8000	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	97.5000	
Positive Hits - Minimum	53.0000	
Positive Hits - Maximum	250.0000	
Average Of Positive Hits	160.6000	
Standard Deviation	60.3256	
Upper Confidence Limit - Normal	160.7675	
Upper Confidence Limit - Lognormal	177.4052	
95th Percentile - Nonparametric	250.0000	
95th Percentile - Normal	225.0356	
95th Percentile - Lognormal	244.0868	
Upper Tolerance Limit - Normal	301.4078	
Upper Tolerance Limit - Lognormal	438.1572	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9707	
Corr Coeff - Detected - Lognormal	0.9097	
Corr Coeff - Total - Normal	0.9368	
Corr Coeff - Total - Lognormal	0.9650	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9170	
W-Test - Table Value	0.8420	NA
W-Test - Normal	0.8830	NA
W-Test - Lognormal	0.9365	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: IHDSS_RES
Media : Indian Head Dump Site B Statistics
Group : Surface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	10.0000	No samples
Number of Detects	1.0000	
Average	0.0215	
Detection Limit - Minimum	0.0150	
Detection Limits - Maximum	0.0200	
Positive Hits - Minimum	0.0600	
Positive Hits - Maximum	0.0600	
Average Of Positive Hits	0.0600	
Standard Deviation	0.0136	
Upper Confidence Limit - Normal	0.0294	
Upper Confidence Limit - Lognormal	0.0280	
95th Percentile - Nonparametric	0.0600	
95th Percentile - Normal	0.0439	
95th Percentile - Lognormal	0.0378	
Upper Tolerance Limit - Normal	0.0611	
Upper Tolerance Limit - Lognormal	0.0631	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6444	
Corr Coeff - Total - Lognormal	0.7071	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9170	
W-Test - Table Value	0.8420	NA
W-Test - Normal	0.4532	NA
W-Test - Lognormal	0.5385	NA
Type of Distribution	Undefined	

Test Results:

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	4.0000	3.0000
Average	0.2847	0.4855
Detection Limit - Minimum	0.1075	0.0850
Detection Limits - Maximum	0.2500	0.5000
Positive Hits - Minimum	0.4000	0.6800
Positive Hits - Maximum	0.6600	1.8000
Average Of Positive Hits	0.4850	1.3933
Standard Deviation	0.1656	0.5598
Upper Confidence Limit - Normal	0.3706	0.7505
Upper Confidence Limit - Lognormal	0.4148 UCL	0.9701
95th Percentile - Nonparametric	0.6600	1.8000
95th Percentile - Normal	0.5572	1.4064
95th Percentile - Lognormal	0.6114	1.4449
Upper Tolerance Limit - Normal	0.7379	1.9488
Upper Tolerance Limit - Lognormal	1.1158	3.6023 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8795	0.8411
Corr Coeff - Detected - Lognormal	0.8993	0.8254
Corr Coeff - Total - Normal	0.9340	0.8188
Corr Coeff - Total - Lognormal	0.9820	0.9676
Corr Coeff - Crit Val - Detected	0.8680	**********
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.8732	0.6737
W-Test - Lognormal	0.9564	0.9262
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	13.0000
Average	3.2958	4.5286
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.7000	1.8000
Positive Hits - Maximum	7.4000	10.4000
Average Of Positive Hits	3.2958	4.8038
Standard Deviation	1.4620	3.2919
Upper Confidence Limit - Normal	4.0538	6.0867
Upper Confidence Limit - Lognormal	4.1311 UCL	7.5976
95th Percentile - Nonparametric	7.4000	10.4000
95th Percentile - Normal	5.7008	9.9437
95th Percentile - Lognormal	5.6895	11.9283
Upper Tolerance Limit - Normal	7.2959	13.1335
Upper Tolerance Limit - Lognormal	8.5622	24.4274 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8618	0.9274
Corr Coeff - Detected - Lognormal	0.9476	0.9595
Corr Coeff - Total - Normal	0.8618	0.9169
Corr Coeff - Total - Lognormal	0.9476	0.9701
Corr Coeff - Crit Val - Detected	0.9260	0.9310
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.7740	0.8241
W-Test - Lognormal	0.9216	0.9290
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	49.8000	37.4143
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	27.0000	9.1000
Positive Hits - Maximum	131.0000	101.0000
Average Of Positive Hits	49.8000	37.4143
Standard Deviation	27.8500	26.3822
Upper Confidence Limit - Normal	64.2391	49.9015
Upper Confidence Limit - Lognormal	64.0864 UCL	61.0314
95th Percentile - Nonparametric	131.0000	101.0000
95th Percentile - Normal	95.6133	80.8130
95th Percentile - Lognormal	90.3681	95.8978
Upper Tolerance Limit - Normal	125.9977	106.3773
Upper Tolerance Limit - Lognormal	143.0419	190.7245 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8154	0.9398
Corr Coeff - Detected - Lognormal	0.9294	0.9926
Corr Coeff - Total - Normal	0.8154	0.9398
Corr Coeff - Total - Lognormal	0.9294	0.9926
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.6940	0.8846
W-Test - Lognormal	0.8817	0.9760
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

		Sample Results	Background Results
Count		12.0000	14.0000
Number of Detects		12.0000	12.0000
Average		0.6833	0.3821
Detection Limit - Minimum	NA		0.0700
Detection Limits - Maximum	NA		0.0900
Positive Hits - Minimum		0.4600	0.1200
Positive Hits - Maximum		1.2000	1.1000
Average Of Positive Hits		0.6833	0.4325
Standard Deviation		0.2047	0.2876
Upper Confidence Limit - Normal		0.7895	0.5183
Upper Confidence Limit - Lognormal		0.8009 UCL	0.7141
95th Percentile - Nonparametric		1.2000	1.1000
95th Percentile - Normal		1.0200	0.8553
95th Percentile - Lognormal		1.0344	1.1095
Upper Tolerance Limit - Normal		1.2434	1.1340
Upper Tolerance Limit - Lognormal		1.3949	2.4552 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9260	0.9670
Corr Coeff - Detected - Lognormal	0.9679	0.9822
Corr Coeff - Total - Normal	0.9260	0.9441
Corr Coeff - Total - Lognormal	0.9679	0.9889
Corr Coeff - Crit Val - Detected	0.9260	0.9260
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.8710	0.8950
W-Test - Lognormal	0.9403	0.9683
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	2.0000	5.0000
Average	0.0731	0.1632
Detection Limit - Minimum	0.0275	0.0600
Detection Limits - Maximum	0.0400	0.2950
Positive Hits - Minimum	0.1400	0.1550
Positive Hits - Maximum	0.4000 UCL	0.2700
Average Of Positive Hits	0.2700	0.2200
Standard Deviation	0.1074	0.0860
Upper Confidence Limit - Normal	0.1288	0.2039
Upper Confidence Limit - Lognormal	0.1186	0.2385
95th Percentile - Nonparametric	0.4000	0.2950
95th Percentile - Normal	0.2498	0.3047
95th Percentile - Lognormal	0.1729	0.3686
Upper Tolerance Limit - Normal	0.3670	0.3881 UTL
Upper Tolerance Limit - Lognormal	0.4130	0.6500

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9446
Corr Coeff - Detected - Lognormal	1.0000	0.9280
Corr Coeff - Total - Normal	0.6587	0.9562
Corr Coeff - Total - Lognormal	0.7621	0.9546
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.4663	0.8867
W-Test - Lognormal	0.6032	0.8835
Type of Distribution	Undefined	~~Undefined~~ NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	16.3333	21.8571
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	14.3000	6.2000
Positive Hits - Maximum	20.6000	44.7000
Average Of Positive Hits	16.3333	21.8571
Standard Deviation	1.7809	13.5346
Upper Confidence Limit - Normal	17.2566	28.2633
Upper Confidence Limit - Lognormal	17.2738 UCL	34.1236
95th Percentile - Nonparametric	20.6000	44.7000
95th Percentile - Normal	19.2629	44.1216
95th Percentile - Lognormal	19.2790	53.4589
Upper Tolerance Limit - Normal	21.2058	57.2366
Upper Tolerance Limit - Lognormal	21.5931	101.4624 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9286	0.9551
Corr Coeff - Detected - Lognormal	0.9440	0.9788
Corr Coeff - Total - Normal	0.9286	0.9551
Corr Coeff - Total - Lognormal	0.9440	0.9788
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.8716	0.8892
W-Test - Lognormal	0.8975	0.9361
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	8.3833	12.3718
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.5000	0.8450
Positive Hits - Maximum	19.4000	133.0000 UTL
Average Of Positive Hits	8.3833	12.3718
Standard Deviation	4.1978	34.7885
Upper Confidence Limit - Normal	10.5597	28.8379
Upper Confidence Limit - Lognormal	11.0084 UCL	23.3619
95th Percentile - Nonparametric	19.4000	133.0000
95th Percentile - Normal	15.2887	69.5989
95th Percentile - Lognormal	15.6256	26.4170
Upper Tolerance Limit - Normal	19.8685	103.3090
Upper Tolerance Limit - Lognormal	25.1344	90.8715

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8931	0.5598
Corr Coeff - Detected - Lognormal	0.9593	0.8917
Corr Coeff - Total - Normal	0.8931	0.5598
Corr Coeff - Total - Lognormal	0.9593	0.8917
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.8115	0.3490
W-Test - Lognormal	0.9177	0.8174
Type of Distribution	LOGNORMAL ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	12.0000
Average	12.1542	7.7036
Detection Limit - Minimum	NA	0.7500
Detection Limits - Maximum	NA	2.2500
Positive Hits - Minimum	6.7500	2.6000
Positive Hits - Maximum	16.5000	22.7000
Average Of Positive Hits	12.1542	8.7375
Standard Deviation	3.2920	5.8880
Upper Confidence Limit - Normal	13.8609 UCL	10.4905
Upper Confidence Limit - Lognormal	14.5786	15.7950
95th Percentile - Nonparametric	16.5000	22.7000
95th Percentile - Normal	17.5694	17.3894
95th Percentile - Lognormal	19.1929	24.1595
Upper Tolerance Limit - Normal	21.1610	23.0949
Upper Tolerance Limit - Lognormal	26.6591	56.4931 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9758	0.9562
Corr Coeff - Detected - Lognormal	0.9532	0.9930
Corr Coeff - Total - Normal	0.9758	0.9398
Corr Coeff - Total - Lognormal	0.9532	0.9781
Corr Coeff - Crit Val - Detected	0.9260	0.9260
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9327	0.8928
W-Test - Lognormal	0.8932	0.9670
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	11.0000
Average	9.2042	8.4607
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	6.7000	3.1000
Positive Hits - Maximum	11.2000	25.5000
Average Of Positive Hits	9.2042	8.6409
Standard Deviation	1.3883	6.3344
Upper Confidence Limit - Normal	9.9240 UCL	11.4589
Upper Confidence Limit - Lognormal	10.0599	12.7607
95th Percentile - Nonparametric	11.2000	25.5000
95th Percentile - Normal	11.4880	18.8809
95th Percentile - Lognormal	11.8349	19.9646
Upper Tolerance Limit - Normal	13.0027	25.0189
Upper Tolerance Limit - Lognormal	14.0867	37.4774 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9703	0.9083
Corr Coeff - Detected - Lognormal	0.9557	0.9815
Corr Coeff - Total - Normal	0.9703	0.8887
Corr Coeff - Total - Lognormal	0.9557	0.9792
Corr Coeff - Crit Val - Detected	0.9260	0.9220
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9345	0.8008
W-Test - Lognormal	0.9076	0.9550
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	10.0000	11.0000
Average	0.0242	0.0304
Detection Limit - Minimum	0.0050	0.0250
Detection Limits - Maximum	0.0050	0.0300
Positive Hits - Minimum	0.0100	0.0100
Positive Hits - Maximum	0.0700	0.0700
Average Of Positive Hits	0.0280	0.0309
Standard Deviation	0.0196	0.0174
Upper Confidence Limit - Normal	0.0343	0.0386
Upper Confidence Limit - Lognormal	0.0487 UCL	0.0458
95th Percentile - Nonparametric	0.0700	0.0700
95th Percentile - Normal	0.0565	0.0589
95th Percentile - Lognormal	0.0702	0.0713
Upper Tolerance Limit - Normal	0.0779	0.0758
Upper Tolerance Limit - Lognormal	0.1733	0.1299 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8008	0.9565
Corr Coeff - Detected - Lognormal	0.8803	0.9751
Corr Coeff - Total - Normal	0.9059	0.9561
Corr Coeff - Total - Lognormal	0.9670	0.9660
Corr Coeff - Crit Val - Detected	0.9170	0.9220
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.8256	0.9123
W-Test - Lognormal	0.9267	0.9196
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	9.7250	6.3714
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.6000	2.8000
Positive Hits - Maximum	12.1000	18.2000
Average Of Positive Hits	9.7250	6.3714
Standard Deviation	1.5112	4.0429
Upper Confidence Limit - Normal	10.5085	8.2850
Upper Confidence Limit - Lognormal	10.6028 UCL	8.6961
95th Percentile - Nonparametric	12.1000	18.2000
95th Percentile - Normal	12.2110	13.0220
95th Percentile - Lognormal	12.4336	13.2209
Upper Tolerance Limit - Normal	13.8598	16.9396
Upper Tolerance Limit - Lognormal	14.7425	22.1153 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9853	0.8705
Corr Coeff - Detected - Lognormal	0.9868	0.9675
Corr Coeff - Total - Normal	0.9853	0.8705
Corr Coeff - Total - Lognormal	0.9868	0.9675
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9506	0.7763
W-Test - Lognormal	0.9533	0.9344
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		12.0000	14.0000
Number of Detects		12.0000	10.0000
Average		0.8742	0.8493
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.5400	0.2950
Positive Hits - Maximum		1.4000	2.6000
Average Of Positive Hits		0.8742	1.1185
Standard Deviation		0.2442	0.8168
Upper Confidence Limit - Normal		1.0008	1.2359
Upper Confidence Limit - Lognormal		1.0309 UCL	2.2949
95th Percentile - Nonparametric		1.4000	2.6000
95th Percentile - Normal		1.2759	2.1929
95th Percentile - Lognormal		1.3372	3.1381
Upper Tolerance Limit - Normal		1.5423	2.9844
Upper Tolerance Limit - Lognormal		1.8150	8.9313 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9685	0.9483
Corr Coeff - Detected - Lognormal	0.9782	0.9699
Corr Coeff - Total - Normal	0.9685	0.9037
Corr Coeff - Total - Lognormal	0.9782	0.9796
Corr Coeff - Crit Val - Detected	0.9260	0.9170
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9420	0.8100
W-Test - Lognormal	0.9549	0.9494
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	29.1583	30.9107
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	22.5000	9.8000
Positive Hits - Maximum	36.1000	61.4000
Average Of Positive Hits	29.1583	30.9107
Standard Deviation	3.8703	17.5157
Upper Confidence Limit - Normal	31.1649 UCL	39.2013
Upper Confidence Limit - Lognormal	31.4063	46.7732
95th Percentile - Nonparametric	36.1000	61.4000
95th Percentile - Normal	35.5249	59.7241
95th Percentile - Lognormal	36.1266	72.8898
Upper Tolerance Limit - Normal	39.7474	76.6968
Upper Tolerance Limit - Lognormal	41.8729	133.3861 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9868	0.9628
Corr Coeff - Detected - Lognormal	0.9836	0.9701
Corr Coeff - Total - Normal	0.9868	0.9628
Corr Coeff - Total - Lognormal	0.9836	0.9701
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9743	0.9066
W-Test - Lognormal	0.9679	0.9194
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	12.0000	14.0000
Number of Detects	12.0000	14.0000
Average	32.6708	21.3964
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	27.4000	7.9000
Positive Hits - Maximum	37.6000	70.4000
Average Of Positive Hits	32.6708	21.3964
Standard Deviation	3.4677	15.7792
Upper Confidence Limit - Normal	34.4687 UCL	28.8650
Upper Confidence Limit - Lognormal	34.6291	29.8058
95th Percentile - Nonparametric	37.6000	70.4000
95th Percentile - Normal	38.3752	47.3532
95th Percentile - Lognormal	38.7850	45.8454
Upper Tolerance Limit - Normal	42.1584	62.6432
Upper Tolerance Limit - Lognormal	43.6101	79.4529 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9723	0.8286
Corr Coeff - Detected - Lognormal	0.9699	0.9659
Corr Coeff - Total - Normal	0.9723	0.8286
Corr Coeff - Total - Lognormal	0.9699	0.9659
Corr Coeff - Crit Val - Detected	0.9260	0.9340
Corr Coeff - Crit Val - Total	0.9260	0.9340
W-Test - Table Value	0.8590	0.8740
W-Test - Normal	0.9256	0.7136
W-Test - Lognormal	0.9216	0.9428
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	12.0000	3.0000
Number of Detects	2.0000	1.0000
Average	128.9167	601.9000
Detection Limit - Minimum	2.7500	0.7000
Detection Limits - Maximum	37.5000	5.0000
Positive Hits - Minimum	220.0000	1800.0000
Positive Hits - Maximum	1200.0000	1800.0000 UTL
Average Of Positive Hits	710.0000	1800.0000
Standard Deviation	342.6757	1037.5873
Upper Confidence Limit - Normal	306.5805	2351.1298
Upper Confidence Limit - Lognormal	1183.0902 UCL	8.6805716E+71
95th Percentile - Nonparametric	1200.0000	1800.0000
95th Percentile - Normal	692.6183	2308.7310
95th Percentile - Lognormal	352.8725	15328.4024
Upper Tolerance Limit - Normal	1066.4775	**********
Upper Tolerance Limit - Lognormal	2609.0671	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.6235	0.8671
Corr Coeff - Total - Lognormal	0.9312	0.9609
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9260	**********
W-Test - Table Value	0.8590	0.7670
W-Test - Normal	0.4233	0.7518
W-Test - Lognormal	0.8686	0.9233
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	12.0000	No samples
Number of Detects	1.0000	
Average	94.1667	
Detection Limit - Minimum	67.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	110.0000	
Positive Hits - Maximum	110.0000	
Average Of Positive Hits	110.0000	
Standard Deviation	10.0189	
Upper Confidence Limit - Normal	99.3611	
Upper Confidence Limit - Lognormal	100.3879	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	110.6478	
95th Percentile - Lognormal	113.4777	
Upper Tolerance Limit - Normal	121.5784	
Upper Tolerance Limit - Lognormal	128.9234	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8858	
Corr Coeff - Total - Lognormal	0.8543	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9260	
W-Test - Table Value	0.8590	NA
W-Test - Normal	0.8265	NA
W-Test - Lognormal	0.7718	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHDSB_RES
Media : Indian Head Dump Site B Statistics
Group : Subsurface Soil Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	12.0000	No samples
Number of Detects	4.0000	
Average	117.9167	
Detection Limit - Minimum	92.5000	
Detection Limits - Maximum	100.0000	
Positive Hits - Minimum	100.0000	
Positive Hits - Maximum	200.0000	
Average Of Positive Hits	160.0000	
Standard Deviation	38.4772	
Upper Confidence Limit - Normal	137.8656	
Upper Confidence Limit - Lognormal	138.6685	
95th Percentile - Nonparametric	200.0000	
95th Percentile - Normal	181.2116	
95th Percentile - Lognormal	180.1411	
Upper Tolerance Limit - Normal	223.1902	
Upper Tolerance Limit - Lognormal	245.0677	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9600	
Corr Coeff - Detected - Lognormal	0.9326	
Corr Coeff - Total - Normal	0.8113	
Corr Coeff - Total - Lognormal	0.8235	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.9260	
W-Test - Table Value	0.8590	NA
W-Test - Normal	0.6565	NA
W-Test - Lognormal	0.6728	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	22.0000	27.0000
Number of Detects	6.0000	3.0000
Average	0.2755	0.3488
Detection Limit - Minimum	0.0600	0.0850
Detection Limits - Maximum	0.3000	0.5000
Positive Hits - Minimum	0.4000	0.6800
Positive Hits - Maximum	0.6900	1.8000 UL
Average Of Positive Hits	0.5250	1.3933
Standard Deviation	0.1752	0.4251
Upper Confidence Limit - Normal	0.3398	0.4884
Upper Confidence Limit - Lognormal	0.3670 UCL	0.4564
95th Percentile - Nonparametric	0.6900	1.8000
95th Percentile - Normal	0.5637	1.0481
95th Percentile - Lognormal	0.6296	0.8644
Upper Tolerance Limit - Normal	0.6873	1.3109
Upper Tolerance Limit - Lognormal	0.9681	1.3993

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9485	0.8348
Corr Coeff - Detected - Lognormal	0.9594	0.8188
Corr Coeff - Total - Normal	0.9271	0.7348
Corr Coeff - Total - Lognormal	0.9836	0.9469
Corr Coeff - Crit Val - Detected	0.8900	**********
Corr Coeff - Crit Val - Total	0.9540	0.9600
W-Test - Table Value	0.9110	0.9230
W-Test - Normal	0.8561	0.5554
W-Test - Lognormal	0.9674	0.8948
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	27.0000
Average	3.3750	3.3546
Detection Limit - Minimum	NA	0.9500
Detection Limits - Maximum	NA	0.9500
Positive Hits - Minimum	1.7000	0.7800
Positive Hits - Maximum	7.4000	10.4000
Average Of Positive Hits	3.3750	3.4437
Standard Deviation	1.2039	2.6362
Upper Confidence Limit - Normal	3.8167	4.2031
Upper Confidence Limit - Lognormal	3.8329 UCL	4.3476
95th Percentile - Nonparametric	7.4000	10.4000
95th Percentile - Normal	5.3555	7.6913
95th Percentile - Lognormal	5.4087	7.9572
Upper Tolerance Limit - Normal	6.2043	9.2830
Upper Tolerance Limit - Lognormal	6.7662	11.8849 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9086	0.8536
Corr Coeff - Detected - Lognormal	0.9726	0.9660
Corr Coeff - Total - Normal	0.9086	0.8570
Corr Coeff - Total - Lognormal	0.9726	0.9681
Corr Coeff - Crit Val - Detected	0.9540	0.9600
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8470	0.7344
W-Test - Lognormal	0.9610	0.9321
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	50.9068	38.2393
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	27.0000	9.1000
Positive Hits - Maximum	131.0000	101.0000
Average Of Positive Hits	50.9068	38.2393
Standard Deviation	21.8977	22.9090
Upper Confidence Limit - Normal	58.9415	45.6122
Upper Confidence Limit - Lognormal	58.5010 UCL	49.9276
95th Percentile - Nonparametric	131.0000	101.0000
95th Percentile - Normal	86.9285	75.9245
95th Percentile - Lognormal	84.9613	89.7130
Upper Tolerance Limit - Normal	102.3664	89.7569
Upper Tolerance Limit - Lognormal	108.8360	130.9347 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8641	0.9554
Corr Coeff - Detected - Lognormal	0.9658	0.9873
Corr Coeff - Total - Normal	0.8641	0.9554
Corr Coeff - Total - Lognormal	0.9658	0.9873
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.7707	0.9108
W-Test - Lognormal	0.9451	0.9660
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	24.0000
Average	0.6370	0.3655
Detection Limit - Minimum	NA	0.0500
Detection Limits - Maximum	NA	0.0900
Positive Hits - Minimum	0.3700	0.0500
Positive Hits - Maximum	1.2000	1.1000 UTL
Average Of Positive Hits	0.6370	0.4146
Standard Deviation	0.2122	0.2488
Upper Confidence Limit - Normal	0.7149	0.4456
Upper Confidence Limit - Lognormal	0.7196 UCL	0.5771
95th Percentile - Nonparametric	1.2000	1.1000
95th Percentile - Normal	0.9861	0.7748
95th Percentile - Lognormal	1.0042	1.1206
Upper Tolerance Limit - Normal	1.1357	0.9250
Upper Tolerance Limit - Lognormal	1.2451	1.8799

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9402	0.9628
Corr Coeff - Detected - Lognormal	0.9818	0.9522
Corr Coeff - Total - Normal	0.9402	0.9589
Corr Coeff - Total - Lognormal	0.9818	0.9650
Corr Coeff - Crit Val - Detected	0.9540	0.9570
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8860	0.9210
W-Test - Lognormal	0.9610	0.9197

Type of Distribution ..... LOGNORMAL ~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	4.0000	11.0000
Average	0.0767	0.1661
Detection Limit - Minimum	0.0275	0.0550
Detection Limits - Maximum	0.0400	0.2950
Positive Hits - Minimum	0.1200	0.1500
Positive Hits - Maximum	0.4200 UCL	0.2700 UTL
Average Of Positive Hits	0.2700	0.2236
Standard Deviation	0.1116	0.0873
Upper Confidence Limit - Normal	0.1176	0.1942
Upper Confidence Limit - Lognormal	0.0988	0.2165
95th Percentile - Nonparametric	0.4200	0.2950
95th Percentile - Normal	0.2603	0.3096
95th Percentile - Lognormal	0.1792	0.3865
Upper Tolerance Limit - Normal	0.3390	0.3623
Upper Tolerance Limit - Lognormal	0.3163	0.5597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9088	0.8762
Corr Coeff - Detected - Lognormal	0.9147	0.8461
Corr Coeff - Total - Normal	0.6685	0.9421
Corr Coeff - Total - Lognormal	0.7628	0.9338
Corr Coeff - Crit Val - Detected	0.8680	0.9220
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.4598	0.8601
W-Test - Lognormal	0.5875	0.8453
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	16.7250	16.9214
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	13.7000	3.5000
Positive Hits - Maximum	21.0000	44.7000
Average Of Positive Hits	16.7250	16.9214
Standard Deviation	2.5162	11.1359
Upper Confidence Limit - Normal	17.6482	20.5054
Upper Confidence Limit - Lognormal	17.6739	21.5942
95th Percentile - Nonparametric	21.0000	44.7000
95th Percentile - Normal	20.8642	35.2400
95th Percentile - Lognormal	21.0019	38.5060
Upper Tolerance Limit - Normal	22.6381	41.9639
Upper Tolerance Limit - Lognormal	23.2567	55.6988

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9326	0.9146
Corr Coeff - Detected - Lognormal	0.9463	0.9847
Corr Coeff - Total - Normal	0.9326	0.9146
Corr Coeff - Total - Lognormal	0.9463	0.9847
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8513	0.8321
W-Test - Lognormal	0.8766	0.9682
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	9.0068	8.7152
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.1000	0.5800
Positive Hits - Maximum	22.4000	133.0000
Average Of Positive Hits	9.0068	8.7152
Standard Deviation	4.6352	24.6385
Upper Confidence Limit - Normal	10.7075	16.6448
Upper Confidence Limit - Lognormal	10.9004	10.5836
95th Percentile - Nonparametric	22.4000	133.0000
95th Percentile - Normal	16.6317	49.2456
95th Percentile - Lognormal	17.1122	20.3893
Upper Tolerance Limit - Normal	19.8995	64.1223
Upper Tolerance Limit - Lognormal	23.5648	39.5276

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9085	0.5142
Corr Coeff - Detected - Lognormal	0.9774	0.9453
Corr Coeff - Total - Normal	0.9085	0.5142
Corr Coeff - Total - Lognormal	0.9774	0.9453
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8308	0.3010
W-Test - Lognormal	0.9502	0.9120

Type of Distribution ..... LOGNORMAL / UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	24.0000
Average	13.0545	6.2214
Detection Limit - Minimum	NA	0.7500
Detection Limits - Maximum	NA	2.3000
Positive Hits - Minimum	6.7500	1.8000
Positive Hits - Maximum	26.1000	22.7000
Average Of Positive Hits	13.0545	6.9438
Standard Deviation	5.2806	5.1362
Upper Confidence Limit - Normal	14.9921	7.8745
Upper Confidence Limit - Lognormal	15.2998 UCL	8.6985
95th Percentile - Nonparametric	26.1000	22.7000
95th Percentile - Normal	21.7412	14.6706
95th Percentile - Lognormal	22.7762	16.5253
Upper Tolerance Limit - Normal	25.4641	17.7718
Upper Tolerance Limit - Lognormal	29.8094	26.1939 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9470	0.8992
Corr Coeff - Detected - Lognormal	0.9859	0.9877
Corr Coeff - Total - Normal	0.9470	0.8916
Corr Coeff - Total - Lognormal	0.9859	0.9882
Corr Coeff - Crit Val - Detected	0.9540	0.9570
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8932	0.8038
W-Test - Lognormal	0.9620	0.9810
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		22.0000	28.0000
Number of Detects		22.0000	23.0000
Average		10.2364	13.1304
Detection Limit - Minimum	NA		2.6500
Detection Limits - Maximum	NA		14.4000
Positive Hits - Minimum		6.7000	3.1000
Positive Hits - Maximum		17.1500	149.0000 UTL
Average Of Positive Hits		10.2364	14.5457
Standard Deviation		2.2895	27.0633
Upper Confidence Limit - Normal		11.0764	21.8403
Upper Confidence Limit - Lognormal		11.1041 UCL	14.7332
95th Percentile - Nonparametric		17.1500	149.0000
95th Percentile - Normal		14.0026	57.6495
95th Percentile - Lognormal		14.1384	28.1071
Upper Tolerance Limit - Normal		15.6166	73.9903
Upper Tolerance Limit - Lognormal		16.3886	44.9330

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9365	0.5641
Corr Coeff - Detected - Lognormal	0.9705	0.8944
Corr Coeff - Total - Normal	0.9365	0.5386
Corr Coeff - Total - Lognormal	0.9705	0.9017
Corr Coeff - Crit Val - Detected	0.9540	0.9550
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8934	0.3276
W-Test - Lognormal	0.9540	0.8391
Type of Distribution	LOGNORMAL	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	18.0000	23.0000
Average	0.0307	0.0352
Detection Limit - Minimum	0.0050	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0100	0.0100
Positive Hits - Maximum	0.0700 UCL	0.0800 UTL
Average Of Positive Hits	0.0364	0.0370
Standard Deviation	0.0225	0.0180
Upper Confidence Limit - Normal	0.0389	0.0410
Upper Confidence Limit - Lognormal	0.0542	0.0450
95th Percentile - Nonparametric	0.0700	0.0800
95th Percentile - Normal	0.0677	0.0648
95th Percentile - Lognormal	0.0987	0.0787
Upper Tolerance Limit - Normal	0.0835	0.0757
Upper Tolerance Limit - Lognormal	0.1878	0.1114

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8819	0.9647
Corr Coeff - Detected - Lognormal	0.9204	0.9614
Corr Coeff - Total - Normal	0.9521	0.9548
Corr Coeff - Total - Lognormal	0.9580	0.9506
Corr Coeff - Crit Val - Detected	0.9450	0.9550
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.8857	0.9072
W-Test - Lognormal	0.8965	0.8941
Type of Distribution	UNDEFINED ✓	~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	9.3955	5.6357
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.6000	1.7000
Positive Hits - Maximum	13.5000	18.2000
Average Of Positive Hits	9.3955	5.6357
Standard Deviation	1.9377	3.4333
Upper Confidence Limit - Normal	10.1064	6.7407
Upper Confidence Limit - Lognormal	10.2199	6.9635
95th Percentile - Nonparametric	13.5000	18.2000
95th Percentile - Normal	12.5830	11.2835
95th Percentile - Lognormal	13.0573	11.9795
Upper Tolerance Limit - Normal	13.9491	13.3565
Upper Tolerance Limit - Lognormal	15.1715	16.6913

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9882	0.9034
Corr Coeff - Detected - Lognormal	0.9832	0.9894
Corr Coeff - Total - Normal	0.9882	0.9034
Corr Coeff - Total - Lognormal	0.9832	0.9894
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.9781	0.8342
W-Test - Lognormal	0.9700	0.9800
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		22.0000	28.0000
Number of Detects		22.0000	21.0000
Average		0.8811	0.6536
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.4950	0.1700
Positive Hits - Maximum		1.5000	2.6000
Average Of Positive Hits		0.8811	0.8160
Standard Deviation		0.3079	0.6239
Upper Confidence Limit - Normal		0.9941	0.8544
Upper Confidence Limit - Lognormal		1.0139 UCL	1.0383
95th Percentile - Nonparametric		1.5000	2.6000
95th Percentile - Normal		1.3877	1.6799
95th Percentile - Lognormal		1.4600	2.0301
Upper Tolerance Limit - Normal		1.6048	2.0566
Upper Tolerance Limit - Lognormal		1.8568	3.5352 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9639	0.8812
Corr Coeff - Detected - Lognormal		0.9844	0.9673
Corr Coeff - Total - Normal		0.9639	0.8571
Corr Coeff - Total - Lognormal		0.9844	0.9771
Corr Coeff - Crit Val - Detected		0.9540	0.9520
Corr Coeff - Crit Val - Total		0.9540	0.9620
W-Test - Table Value		0.9110	0.9240
W-Test - Normal		0.9153	0.7420
W-Test - Lognormal		0.9527	0.9479
Type of Distribution		LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	28.5068	25.0375
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	20.2000	9.8000
Positive Hits - Maximum	39.1000	61.4000
Average Of Positive Hits	28.5068	25.0375
Standard Deviation	4.9890	14.7958
Upper Confidence Limit - Normal	30.3374	29.7993
Upper Confidence Limit - Lognormal	30.5034 UCL	31.1373
95th Percentile - Nonparametric	39.1000	61.4000
95th Percentile - Normal	36.7137	49.3766
95th Percentile - Lognormal	37.4546	53.9656
Upper Tolerance Limit - Normal	40.2310	58.3103
Upper Tolerance Limit - Lognormal	42.3667	75.7429 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9871	0.9376
Corr Coeff - Detected - Lognormal	0.9913	0.9798
Corr Coeff - Total - Normal	0.9871	0.9376
Corr Coeff - Total - Lognormal	0.9913	0.9798
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.9692	0.8679
W-Test - Lognormal	0.9768	0.9395
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	22.0000	28.0000
Average	32.7614	19.7411
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	22.0000	6.2000
Positive Hits - Maximum	45.2000	70.4000
Average Of Positive Hits	32.7614	19.7411
Standard Deviation	5.2494	12.2870
Upper Confidence Limit - Normal	34.6874 UCL	23.6955
Upper Confidence Limit - Lognormal	34.9068	24.0318
95th Percentile - Nonparametric	45.2000	70.4000
95th Percentile - Normal	41.3965	39.9532
95th Percentile - Lognormal	42.3580	40.7019
Upper Tolerance Limit - Normal	45.0973	47.3721
Upper Tolerance Limit - Lognormal	47.5435	55.8789 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9869	0.8549
Corr Coeff - Detected - Lognormal	0.9843	0.9802
Corr Coeff - Total - Normal	0.9869	0.8549
Corr Coeff - Total - Lognormal	0.9843	0.9802
Corr Coeff - Crit Val - Detected	0.9540	0.9620
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.9828	0.7597
W-Test - Lognormal	0.9773	0.9695
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : ACETONE (μg/kg)

	Sample Results	Background Results
Count	22.0000	6.0000
Number of Detects	3.0000	3.0000
Average	303.4318	2834.6083
Detection Limit - Minimum	2.7500	0.7000
Detection Limits - Maximum	37.5000	5.0000
Positive Hits - Minimum	220.0000	1800.0000
Positive Hits - Maximum	5000.0000	13000.0000
Average Of Positive Hits	2140.0000	5666.6667
Standard Deviation	1079.4136	5076.8101
Upper Confidence Limit - Normal	699.4886	7010.8954
Upper Confidence Limit - Lognormal	552.4192	6.3619540E+19
95th Percentile - Nonparametric	5000.0000	13000.0000
95th Percentile - Normal	2079.0672	11185.9609
95th Percentile - Lognormal	421.9125	92039.7902
Upper Tolerance Limit - Normal	2840.0537	12698.8503
Upper Tolerance Limit - Lognormal	1581.4414	327061.8421

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9466	0.9220
Corr Coeff - Detected - Lognormal	0.9988	0.9438
Corr Coeff - Total - Normal	0.5267	0.7911
Corr Coeff - Total - Lognormal	0.8884	0.9414
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9540	0.8900
W-Test - Table Value	0.9110	0.7880
W-Test - Normal	0.3076	0.6474
W-Test - Lognormal	0.7977	0.8572
Type of Distribution	Undefined	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSO_RES
Media : Indian Head Dump Site B Statistics
Group : AllSoil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	22.0000	28.0000
Number of Detects	1.0000	2.0000
Average	0.0197	0.0673
Detection Limit - Minimum	0.0150	0.0300
Detection Limits - Maximum	0.0200	0.0750
Positive Hits - Minimum	0.0600	0.0625
Positive Hits - Maximum	0.0600	0.6300
Average Of Positive Hits	0.0600	0.3463
Standard Deviation	0.0092	0.1112
Upper Confidence Limit - Normal	0.0230	0.1031
Upper Confidence Limit - Lognormal	0.0217	0.0726
95th Percentile - Nonparametric	0.0600	0.6300
95th Percentile - Normal	0.0348	0.2503
95th Percentile - Lognormal	0.0297	0.1276
Upper Tolerance Limit - Normal	0.0413	0.3174
Upper Tolerance Limit - Lognormal	0.0362	0.1816

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.5971	0.5097
Corr Coeff - Total - Lognormal	0.7198	0.7946
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9540	0.9620
W-Test - Table Value	0.9110	0.9240
W-Test - Normal	0.3899	0.2966
W-Test - Lognormal	0.5502	0.6626
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	10.0000
Average	20.7313	195.2400
Detection Limit - Minimum	3.1250	NA
Detection Limits - Maximum	3.1250	NA
Positive Hits - Minimum	7.7000	12.9000
Positive Hits - Maximum	59.6000 UCL	688.0000
Average Of Positive Hits	26.6000	195.2400
Standard Deviation	26.1937	246.9751
Upper Confidence Limit - Normal	51.5481	338.3980
Upper Confidence Limit - Lognormal	64380.4831	918.5620
95th Percentile - Nonparametric	59.6000	688.0000
95th Percentile - Normal	63.8199	601.5140
95th Percentile - Lognormal	88.1765	756.0337
Upper Tolerance Limit - Normal	155.4977	914.1844
Upper Tolerance Limit - Lognormal	6635.9578	3552.7445 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5707	0.8253
Corr Coeff - Detected - Lognormal	0.6832	0.9752
Corr Coeff - Total - Normal	0.8659	0.8253
Corr Coeff - Total - Lognormal	0.9808	0.9752
Corr Coeff - Crit Val - Detected	0.8790	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7624	0.6808
W-Test - Lognormal	0.9712	0.9509
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BERYLLIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	2.0000
Average	0.1794	2.5025
Detection Limit - Minimum	0.0500	0.4500
Detection Limits - Maximum	0.3500	1.4250
Positive Hits - Minimum	0.2350	7.8000
Positive Hits - Maximum	0.2350 LCL	11.0000 UTL
Average Of Positive Hits	0.2350	9.4000
Standard Deviation	0.1394	3.7231
Upper Confidence Limit - Normal	0.3434	4.6606
Upper Confidence Limit - Lognormal	14.1139	7.9832
95th Percentile - Nonparametric	0.3500	11.0000
95th Percentile - Normal	0.4088	8.6269
95th Percentile - Lognormal	0.5990	7.6742
Upper Tolerance Limit - Normal	0.8968	13.3403
Upper Tolerance Limit - Lognormal	14.1038	31.6879

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.9682	0.7680
Corr Coeff - Total - Lognormal	0.9776	0.8755
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9206	0.6008
W-Test - Lognormal	0.9365	0.7637
Type of Distribution	~~Undefined~~ LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CADMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	3.0000
Average	1.0750	2.5400
Detection Limit - Minimum	0.3250	0.6500
Detection Limits - Maximum	0.3250	2.5000
Positive Hits - Minimum	1.7500	2.8000
Positive Hits - Maximum	1.9000 UCL	9.8000 UCL
Average Of Positive Hits	1.8250	6.3333
Standard Deviation	0.8682	3.1466
Upper Confidence Limit - Normal	2.0964	4.3639
Upper Confidence Limit - Lognormal	217.0716	8.1973
95th Percentile - Nonparametric	1.9000	9.8000
95th Percentile - Normal	2.5032	7.7161
95th Percentile - Lognormal	3.9643	8.3477
Upper Tolerance Limit - Normal	5.5418	11.6997
Upper Tolerance Limit - Lognormal	129.5898	32.6463

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9909
Corr Coeff - Detected - Lognormal	1.0000	0.9550
Corr Coeff - Total - Normal	0.8986	0.8258
Corr Coeff - Total - Lognormal	0.8878	0.8729
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7721	0.6881
W-Test - Lognormal	0.7513	0.7439
Type of Distribution	NORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	7.0000
Average	1.9250	35.8050
Detection Limit - Minimum	0.5000	1.0000
Detection Limits - Maximum	0.5000	1.0000
Positive Hits - Minimum	2.1000	2.5000
Positive Hits - Maximum	4.6000 UCL	191.0000
Average Of Positive Hits	3.3500	50.7214
Standard Deviation	1.9363	61.8552
Upper Confidence Limit - Normal	4.2030	71.6591
Upper Confidence Limit - Lognormal	1227.1256	1541.0918
95th Percentile - Nonparametric	4.6000	191.0000
95th Percentile - Normal	5.1102	137.5569
95th Percentile - Lognormal	7.6437	196.8388
Upper Tolerance Limit - Normal	11.8871	215.8656
Upper Tolerance Limit - Lognormal	362.2330	2271.6834 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9112
Corr Coeff - Detected - Lognormal	1.0000	0.9847
Corr Coeff - Total - Normal	0.9243	0.7910
Corr Coeff - Total - Lognormal	0.9378	0.9661
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8466	0.6429
W-Test - Lognormal	0.8551	0.9078
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	9.0000
Average	24.4250	89.0000
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	6.6000	2.1000
Positive Hits - Maximum	32.7000 UCL	641.0000
Average Of Positive Hits	24.4250	98.8500
Standard Deviation	12.0043	200.4999
Upper Confidence Limit - Normal	38.5480	205.2189
Upper Confidence Limit - Lognormal	593.4851	8280.9572
95th Percentile - Nonparametric	32.7000	641.0000
95th Percentile - Normal	44.1720	418.8224
95th Percentile - Lognormal	72.8211	425.1857
Upper Tolerance Limit - Normal	86.1870	672.6553
Upper Tolerance Limit - Lognormal	1057.1043	6592.9873 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8616	0.7470
Corr Coeff - Detected - Lognormal	0.8257	0.9720
Corr Coeff - Total - Normal	0.8616	0.6934
Corr Coeff - Total - Lognormal	0.8257	0.9812
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7581	0.5118
W-Test - Lognormal	0.6972	0.9719
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	6.0000
Average	2.6875	32.6500
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.8250	2.0000
Positive Hits - Minimum	4.2000	4.4000
Positive Hits - Maximum	4.9000 UCL	166.0000
Average Of Positive Hits	4.5500	53.2583
Standard Deviation	2.1695	52.5954
Upper Confidence Limit - Normal	5.2400	63.1367
Upper Confidence Limit - Lognormal	487.2219	697.7216
95th Percentile - Nonparametric	4.9000	166.0000
95th Percentile - Normal	6.2564	119.1695
95th Percentile - Lognormal	9.7969	167.1567
Upper Tolerance Limit - Normal	13.8497	185.7553
Upper Tolerance Limit - Lognormal	309.0465	1519.1228 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9425
Corr Coeff - Detected - Lognormal	1.0000	0.9740
Corr Coeff - Total - Normal	0.9140	0.8076
Corr Coeff - Total - Lognormal	0.8967	0.9509
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8025	0.6694
W-Test - Lognormal	0.7684	0.8776
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : LEAD (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	2.0000
Average	0.8688	12.1825
Detection Limit - Minimum	0.3250	1.1000
Detection Limits - Maximum	0.3500	6.2000
Positive Hits - Minimum	1.3000	46.0000
Positive Hits - Maximum	1.5000 UCL	51.0000
Average Of Positive Hits	1.4000	48.5000
Standard Deviation	0.6189	19.2725
Upper Confidence Limit - Normal	1.5969	23.3537
Upper Confidence Limit - Lognormal	33.0770	79.9856
95th Percentile - Nonparametric	1.5000	51.0000
95th Percentile - Normal	1.8869	43.8858
95th Percentile - Lognormal	2.6571	45.6478
Upper Tolerance Limit - Normal	4.0531	68.2848
Upper Tolerance Limit - Lognormal	47.3461	272.8699 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.9195	0.7781
Corr Coeff - Total - Lognormal	0.9106	0.9315
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8133	0.6058
W-Test - Lognormal	0.7952	0.8492
Type of Distribution	NORMAL ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : MERCURY (μg/L)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	2.0000
Average		0.1425	0.0765
Detection Limit - Minimum	NA		0.0500
Detection Limits - Maximum	NA		0.1000
Positive Hits - Minimum		0.1000	0.1300
Positive Hits - Maximum		0.1900 UCL	0.1700 UTL
Average Of Positive Hits		0.1425	0.1500
Standard Deviation		0.0377	0.0428
Upper Confidence Limit - Normal		0.1869	0.1013
Upper Confidence Limit - Lognormal		0.2324	0.1073
95th Percentile - Nonparametric		0.1900	0.1700
95th Percentile - Normal		0.2046	0.1469
95th Percentile - Lognormal		0.2158	0.1479
Upper Tolerance Limit - Normal		0.3367	0.2012
Upper Tolerance Limit - Lognormal		0.5525	0.2677

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9950	1.0000
Corr Coeff - Detected - Lognormal		0.9975	1.0000
Corr Coeff - Total - Normal		0.9950	0.8388
Corr Coeff - Total - Lognormal		0.9975	0.8582
Corr Coeff - Crit Val - Detected		0.8680	**********
Corr Coeff - Crit Val - Total		0.8680	0.9170
W-Test - Table Value		0.7480	0.8420
W-Test - Normal		0.9945	0.7034
W-Test - Lognormal		0.9996	0.7250
Type of Distribution		LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	7.0000
Average	3.1875	30.9550
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	1.0250	15.4500
Positive Hits - Minimum	10.8500	2.6000
Positive Hits - Maximum	10.8500 UCL	166.0000
Average Of Positive Hits	10.8500	41.8571
Standard Deviation	5.1176	52.6558
Upper Confidence Limit - Normal	9.2083	61.4767
Upper Confidence Limit - Lognormal	1603187.3584	1351.4538
95th Percentile - Nonparametric	10.8500	166.0000
95th Percentile - Normal	11.6059	117.5738
95th Percentile - Lognormal	15.7408	186.4911
Upper Tolerance Limit - Normal	29.5173	184.2360
Upper Tolerance Limit - Lognormal	4014.7406	2093.7509 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.8619
Corr Coeff - Detected - Lognormal	**********	0.9817
Corr Coeff - Total - Normal	0.8194	0.7828
Corr Coeff - Total - Lognormal	0.9484	0.9800
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6854	0.6337
W-Test - Lognormal	0.9096	0.9462
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : SILVER (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.4810	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.2000	
Positive Hits - Maximum	1.2000	
Average Of Positive Hits	1.2000	
Standard Deviation	0.4834	
Upper Confidence Limit - Normal	1.0497	
Upper Confidence Limit - Lognormal	23.3461	
95th Percentile - Nonparametric	1.2000	
95th Percentile - Normal	1.2762	
95th Percentile - Lognormal	1.4399	
Upper Tolerance Limit - Normal	2.9680	
Upper Tolerance Limit - Lognormal	28.9033	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8549	
Corr Coeff - Total - Lognormal	0.9301	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7422	NA
W-Test - Lognormal	0.8712	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	1.0000	5.0000
Average	1.2750	51.2700
Detection Limit - Minimum	0.1750	0.3500
Detection Limits - Maximum	0.5000	1.7500
Positive Hits - Minimum	4.0000	20.9000
Positive Hits - Maximum	4.0000 UCL	281.0000
Average Of Positive Hits	4.0000	101.6900
Standard Deviation	1.8220	89.0264
Upper Confidence Limit - Normal	3.4186	102.8737
Upper Confidence Limit - Lognormal	12611.9052	53916.4472
95th Percentile - Nonparametric	4.0000	281.0000
95th Percentile - Normal	4.2721	197.7184
95th Percentile - Lognormal	5.4893	448.4920
Upper Tolerance Limit - Normal	10.6490	310.4258
Upper Tolerance Limit - Lognormal	566.4070	11316.5481 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9487
Corr Coeff - Detected - Lognormal	**********	0.9948
Corr Coeff - Total - Normal	0.8275	0.7967
Corr Coeff - Total - Lognormal	0.9398	0.9595
Corr Coeff - Crit Val - Detected	0.8790	0.8790
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7004	0.6543
W-Test - Lognormal	0.9008	0.8915
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	3.0000	4.0000
Average	11.0125	89.7050
Detection Limit - Minimum	1.1500	3.2000
Detection Limits - Maximum	1.1500	35.0500
Positive Hits - Minimum	5.5000	45.2000
Positive Hits - Maximum	29.9000 UCL	483.0000
Average Of Positive Hits	14.3000	209.0625
Standard Deviation	12.8677	157.6455
Upper Confidence Limit - Normal	26.1513	181.0835
Upper Confidence Limit - Lognormal	150065.1545	1951.2798
95th Percentile - Nonparametric	29.9000	483.0000
95th Percentile - Normal	32.1798	349.0318
95th Percentile - Lognormal	55.3648	418.2108
Upper Tolerance Limit - Normal	77.2167	548.6110
Upper Tolerance Limit - Lognormal	5966.9921	3975.8975 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5626	0.9766
Corr Coeff - Detected - Lognormal	0.6415	0.9593
Corr Coeff - Total - Normal	0.8934	0.7794
Corr Coeff - Total - Lognormal	0.9815	0.9515
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8127	0.6249
W-Test - Lognormal	0.9785	0.8875
Type of Distribution	LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : 1,1,1-TRICHLOROETHANE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.4375	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.2500	
Positive Hits - Minimum	2.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	2.0000	
Standard Deviation	0.3750	
Upper Confidence Limit - Normal	1.8787	
Upper Confidence Limit - Lognormal	2.1491	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	2.0544	
95th Percentile - Lognormal	2.0693	
Upper Tolerance Limit - Normal	3.3669	
Upper Tolerance Limit - Lognormal	4.7102	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.7838
Corr Coeff - Total - Lognormal	0.7838
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.8680

W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : CHLOROFORM (μg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	1.0000	3.0000
Average	1.6875	2.5400
Detection Limit - Minimum	1.2500	2.5000
Detection Limits - Maximum	1.2500	2.5000
Positive Hits - Minimum	3.0000	2.0000
Positive Hits - Maximum	3.0000 UCL	3.1000
Average Of Positive Hits	3.0000	2.5667
Standard Deviation	0.8750	0.3912
Upper Confidence Limit - Normal	2.7169	2.9129
Upper Confidence Limit - Lognormal	4.9895	3.0060
95th Percentile - Nonparametric	3.0000	3.1000
95th Percentile - Normal	3.1269	3.1834
95th Percentile - Lognormal	3.1966	3.2519
Upper Tolerance Limit - Normal	6.1894	4.1836 UTL
Upper Tolerance Limit - Lognormal	14.7930	4.8465

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9818
Corr Coeff - Detected - Lognormal	**********	0.9916
Corr Coeff - Total - Normal	0.7838	0.9490
Corr Coeff - Total - Lognormal	0.7838	0.9472
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.6297	0.9319
W-Test - Lognormal	0.6297	0.9284
Type of Distribution	Undefined ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	1.0000	3.0000
Average	2.4375	3.7000
Detection Limit - Minimum	2.7500	2.7000
Detection Limits - Maximum	3.0000	5.5000
Positive Hits - Minimum	1.0000	1.0000
Positive Hits - Maximum	1.0000	6.0000
Average Of Positive Hits	1.0000	3.4333
Standard Deviation	0.9656	2.0603
Upper Confidence Limit - Normal	3.5735	5.6645
Upper Confidence Limit - Lognormal	12.1957	15.4706
95th Percentile - Nonparametric	3.0000	6.0000
95th Percentile - Normal	4.0258	7.0893
95th Percentile - Lognormal	5.3900	10.1701
Upper Tolerance Limit - Normal	7.4053	12.3575
Upper Tolerance Limit - Lognormal	35.2285	63.9361

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9989
Corr Coeff - Detected - Lognormal	**********	0.9820
Corr Coeff - Total - Normal	0.8414	0.9780
Corr Coeff - Total - Lognormal	0.8213	0.9476
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.7172	0.9416
W-Test - Lognormal	0.6862	0.8978
Type of Distribution	Undefined	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	1.0000	2.0000
Average	2.6875	1.9400
Detection Limit - Minimum	2.7500	1.0000
Detection Limits - Maximum	3.0000	5.5000
Positive Hits - Minimum	2.0000	1.0000
Positive Hits - Maximum	2.0000 UCL	1.0000 UTL
Average Of Positive Hits	2.0000	1.0000
Standard Deviation	0.4732	1.9920
Upper Confidence Limit - Normal	3.2443	3.8393
Upper Confidence Limit - Lognormal	3.6570	8.0932
95th Percentile - Nonparametric	3.0000	5.5000
95th Percentile - Normal	3.4660	5.2168
95th Percentile - Lognormal	3.6415	4.9773
Upper Tolerance Limit - Normal	5.1223	10.3103
Upper Tolerance Limit - Lognormal	7.1468	33.5456

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	**********
Corr Coeff - Detected - Lognormal	**********	**********
Corr Coeff - Total - Normal	0.8885	0.7477
Corr Coeff - Total - Lognormal	0.8765	0.7761
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.7913	0.5819
W-Test - Lognormal	0.7723	0.6220
Type of Distribution	~~Undefined~~ NORMAL	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : DIETHYL PHTHALATE (μg/L)

	Sample Results	Background Results
Count	4.0000	5.0000
Number of Detects	1.0000	1.0000
Average	2.6875	3.0430
Detection Limit - Minimum	2.7500	0.3250
Detection Limits - Maximum	3.0000	6.0000
Positive Hits - Minimum	2.0000	3.0000
Positive Hits - Maximum	2.0000	3.0000
Average Of Positive Hits	2.0000	3.0000
Standard Deviation	0.4732	2.7022
Upper Confidence Limit - Normal	3.2443	5.6195
Upper Confidence Limit - Lognormal	3.6570	604.8486
95th Percentile - Nonparametric	3.0000	6.0000
95th Percentile - Normal	3.4660	7.4882
95th Percentile - Lognormal	3.6415	17.4664
Upper Tolerance Limit - Normal	5.1223	14.3978
Upper Tolerance Limit - Lognormal	7.1468	678.5232

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8885	0.9463
Corr Coeff - Total - Lognormal	0.8765	0.9200
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8790
W-Test - Table Value	0.7480	0.7620
W-Test - Normal	0.7913	0.8575
W-Test - Lognormal	0.7723	0.8101
Type of Distribution	~~Undefined~~ Normal	~~Undefined~~ Normal

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : PHENANTHRENE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	2.2500	
Detection Limit - Minimum	3.0000	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	2.0000 UCL	
Average Of Positive Hits	1.5000	
Standard Deviation	0.9574	
Upper Confidence Limit - Normal	3.3764	
Upper Confidence Limit - Lognormal	10.1213	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	3.8250	
95th Percentile - Lognormal	4.8314	
Upper Tolerance Limit - Normal	7.1760	
Upper Tolerance Limit - Lognormal	29.6379	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9381	
Corr Coeff - Total - Lognormal	0.9202	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8648	NA
W-Test - Lognormal	0.8405	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: IHDSU_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Background

Parameter : RDX (μg/L)

	Sample Results	Background Results
Count	4.0000	4.0000
Number of Detects	2.0000	1.0000
Average	2.9625	0.6538
Detection Limit - Minimum	0.3250	0.3700
Detection Limits - Maximum	0.3250	0.6500
Positive Hits - Minimum	3.8000	1.2000
Positive Hits - Maximum	7.4000	1.2000
Average Of Positive Hits	5.6000	1.2000
Standard Deviation	3.3816	0.3855
Upper Confidence Limit - Normal	6.9410	1.1073
Upper Confidence Limit - Lognormal	4588505.4731	3.3478
95th Percentile - Nonparametric	7.4000	1.2000
95th Percentile - Normal	8.5252	1.2879
95th Percentile - Lognormal	19.3270	1.4243
Upper Tolerance Limit - Normal	20.3608	2.6372
Upper Tolerance Limit - Lognormal	5904.7734	9.5959

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9374	0.9194
Corr Coeff - Total - Lognormal	0.9212	0.9505
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8680
W-Test - Table Value	0.7480	0.7480
W-Test - Normal	0.8641	0.8432
W-Test - Lognormal	0.8174	0.8929
Type of Distribution	NORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	6.0000
Average	20.7313	64.5167
Detection Limit - Minimum	3.1250	NA
Detection Limits - Maximum	3.1250	NA
Positive Hits - Minimum	7.7000	12.9000
Positive Hits - Maximum	59.6000	139.0000
Average Of Positive Hits	26.6000	64.5167
Standard Deviation	26.1937	44.7782
Upper Confidence Limit - Normal	51.5481	101.3521
Upper Confidence Limit - Lognormal	64380.4831	282.9026
95th Percentile - Nonparametric	59.6000	139.0000
95th Percentile - Normal	63.8199	138.1768
95th Percentile - Lognormal	88.1765	197.9494
Upper Tolerance Limit - Normal	155.4977	151.5207
Upper Tolerance Limit - Lognormal	6635.9578	253.5200

UCL

UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5707	0.9743
Corr Coeff - Detected - Lognormal	0.6832	0.9796
Corr Coeff - Total - Normal	0.8659	0.9743
Corr Coeff - Total - Lognormal	0.9808	0.9796
Corr Coeff - Crit Val - Detected	0.8790	0.8900
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7624	0.9539
W-Test - Lognormal	0.9712	0.9670
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CADMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	2.0000	1.0000
Average	1.0750	1.0083
Detection Limit - Minimum	0.3250	0.6500
Detection Limits - Maximum	0.3250	0.6500
Positive Hits - Minimum	1.7500	2.8000
Positive Hits - Maximum	1.9000 UCL	2.8000 UTL
Average Of Positive Hits	1.8250	2.8000
Standard Deviation	0.8682	0.8777
Upper Confidence Limit - Normal	2.0964	1.7304
Upper Confidence Limit - Lognormal	217.0716	2.1861
95th Percentile - Nonparametric	1.9000	2.8000
95th Percentile - Normal	2.5032	2.4522
95th Percentile - Lognormal	3.9643	2.2109
Upper Tolerance Limit - Normal	5.5418	2.7138
Upper Tolerance Limit - Lognormal	129.5898	2.6407

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8986	0.6826
Corr Coeff - Total - Lognormal	0.8878	0.6826
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7721	0.4963
W-Test - Lognormal	0.7513	0.4963
Type of Distribution	NORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	2.0000	3.0000
Average	1.9250	4.3500
Detection Limit - Minimum	0.5000	1.0000
Detection Limits - Maximum	0.5000	1.0000
Positive Hits - Minimum	2.1000	2.5000
Positive Hits - Maximum	4.6000	16.4000
Average Of Positive Hits	3.3500	7.7000
Standard Deviation	1.9363	6.0385
Upper Confidence Limit - Normal	4.2030	9.3174
Upper Confidence Limit - Lognormal	1227.1256	48.1520
95th Percentile - Nonparametric	4.6000	16.4000
95th Percentile - Normal	5.1102	14.2833
95th Percentile - Lognormal	7.6437	14.9611
Upper Tolerance Limit - Normal	11.8871	16.0827
Upper Tolerance Limit - Lognormal	362.2330	20.9076

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9502
Corr Coeff - Detected - Lognormal	1.0000	0.9874
Corr Coeff - Total - Normal	0.9243	0.7974
Corr Coeff - Total - Lognormal	0.9378	0.9129
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8466	0.6556
W-Test - Lognormal	0.8551	0.8257
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : COBALT (µg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	4.0000	5.0000
Average	24.4250	5.4583
Detection Limit - Minimum	NA	0.3500
Detection Limits - Maximum	NA	0.3500
Positive Hits - Minimum	6.6000	2.1000
Positive Hits - Maximum	32.7000	15.6000
Average Of Positive Hits	24.4250	6.4800
Standard Deviation	12.0043	5.4056
Upper Confidence Limit - Normal	38.5480	9.9051
Upper Confidence Limit - Lognormal	593.4851	159.3152
95th Percentile - Nonparametric	32.7000	15.6000
95th Percentile - Normal	44.1720	14.3505
95th Percentile - Lognormal	72.8211	26.9999
Upper Tolerance Limit - Normal	86.1870	15.9614
Upper Tolerance Limit - Lognormal	1057.1043	39.5740

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8616	0.9183
Corr Coeff - Detected - Lognormal	0.8257	0.9835
Corr Coeff - Total - Normal	0.8616	0.9108
Corr Coeff - Total - Lognormal	0.8257	0.9572
Corr Coeff - Crit Val - Detected	0.8680	0.8790
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7581	0.8483
W-Test - Lognormal	0.6972	0.9364
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	2.0000	2.0000
Average	2.6875	5.6250
Detection Limit - Minimum	0.8250	1.6500
Detection Limits - Maximum	0.8250	2.0000
Positive Hits - Minimum	4.2000	4.4000
Positive Hits - Maximum	4.9000 UCL	22.4000 UTL
Average Of Positive Hits	4.5500	13.4000
Standard Deviation	2.1695	8.2879
Upper Confidence Limit - Normal	5.2400	12.4428
Upper Confidence Limit - Lognormal	487.2219	42.3211
95th Percentile - Nonparametric	4.9000	22.4000
95th Percentile - Normal	6.2564	19.2585
95th Percentile - Lognormal	9.7969	17.1766
Upper Tolerance Limit - Normal	13.8497	21.7283
Upper Tolerance Limit - Lognormal	309.0465	23.4245

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.9140	0.7469
Corr Coeff - Total - Lognormal	0.8967	0.8408
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8025	0.5827
W-Test - Lognormal	0.7684	0.7158
Type of Distribution	NORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : LEAD (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	0.8688	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3500	
Positive Hits - Minimum	1.3000	
Positive Hits - Maximum	1.5000 UCL	
Average Of Positive Hits	1.4000	
Standard Deviation	0.6189	
Upper Confidence Limit - Normal	1.5969	
Upper Confidence Limit - Lognormal	33.0770	
95th Percentile - Nonparametric	1.5000	
95th Percentile - Normal	1.8869	
95th Percentile - Lognormal	2.6571	
Upper Tolerance Limit - Normal	4.0531	
Upper Tolerance Limit - Lognormal	47.3461	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9195	
Corr Coeff - Total - Lognormal	0.9106	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8133	NA
W-Test - Lognormal	0.7952	NA

Type of Distribution ..... NORMAL /

Test Results:

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : MERCURY (μg/L)

		Sample Results	Background Results
Count		4.0000	6.0000
Number of Detects		4.0000	1.0000
Average		0.1425	0.0658
Detection Limit - Minimum	NA		0.0500
Detection Limits - Maximum	NA		0.0650
Positive Hits - Minimum		0.1000	0.1300
Positive Hits - Maximum		0.1900 UCL	0.1300 UTL
Average Of Positive Hits		0.1425	0.1300
Standard Deviation		0.0377	0.0320
Upper Confidence Limit - Normal		0.1869	0.0922
Upper Confidence Limit - Lognormal		0.2324	0.1000
95th Percentile - Nonparametric		0.1900	0.1300
95th Percentile - Normal		0.2046	0.1185
95th Percentile - Lognormal		0.2158	0.1151
Upper Tolerance Limit - Normal		0.3367	0.1280
Upper Tolerance Limit - Lognormal		0.5525	0.1290

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9950	
Corr Coeff - Detected - Lognormal		0.9975	
Corr Coeff - Total - Normal		0.9950	0.7635
Corr Coeff - Total - Lognormal		0.9975	0.7923
Corr Coeff - Crit Val - Detected		0.8680	**********
Corr Coeff - Crit Val - Total		0.8680	0.8900
W-Test - Table Value		0.7480	0.7880
W-Test - Normal		0.9945	0.6049
W-Test - Lognormal		0.9996	0.6445
Type of Distribution		LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	1.0000	4.0000
Average	3.1875	5.2833
Detection Limit - Minimum	0.2750	0.5500
Detection Limits - Maximum	1.0250	0.5500
Positive Hits - Minimum	10.8500	2.6000
Positive Hits - Maximum	10.8500	16.6000
Average Of Positive Hits	10.8500	7.6500
Standard Deviation	5.1176	6.2996
Upper Confidence Limit - Normal	9.2083	10.4655
Upper Confidence Limit - Lognormal	1603187.3584	248.6762
95th Percentile - Nonparametric	10.8500	16.6000
95th Percentile - Normal	11.6059	15.6461
95th Percentile - Lognormal	15.7408	25.7447
Upper Tolerance Limit - Normal	29.5173	17.5234
Upper Tolerance Limit - Lognormal	4014.7406	39.0087

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	0.9629
Corr Coeff - Detected - Lognormal	**********	0.9600
Corr Coeff - Total - Normal	0.8194	0.8952
Corr Coeff - Total - Lognormal	0.9484	0.9644
Corr Coeff - Crit Val - Detected	0.8790	0.8680
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.6854	0.8023
W-Test - Lognormal	0.9096	0.9068
Type of Distribution	~~Undefined~~ LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	1.0000	1.0000
Average	1.2750	4.1917
Detection Limit - Minimum	0.1750	0.3500
Detection Limits - Maximum	0.5000	1.7500
Positive Hits - Minimum	4.0000	20.9000
Positive Hits - Maximum	4.0000 UCL	20.9000
Average Of Positive Hits	4.0000	20.9000
Standard Deviation	1.8220	8.2036
Upper Confidence Limit - Normal	3.4186	10.9401
Upper Confidence Limit - Lognormal	12611.9052	300.9986
95th Percentile - Nonparametric	4.0000	20.9000
95th Percentile - Normal	4.2721	17.6866
95th Percentile - Lognormal	5.4893	15.2529
Upper Tolerance Limit - Normal	10.6490	20.1313
Upper Tolerance Limit - Lognormal	566.4070	24.1193 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8275	0.7257
Corr Coeff - Total - Lognormal	0.9398	0.9106
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.7004	0.5546
W-Test - Lognormal	0.9008	0.8351
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	4.0000	6.0000
Number of Detects	3.0000	1.0000
Average	11.0125	11.8250
Detection Limit - Minimum	1.1500	3.2000
Detection Limits - Maximum	1.1500	6.6000
Positive Hits - Minimum	5.5000	45.2000
Positive Hits - Maximum	29.9000 UCL	45.2000 UTL
Average Of Positive Hits	14.3000	45.2000
Standard Deviation	12.8677	16.4004
Upper Confidence Limit - Normal	26.1513	25.3163
Upper Confidence Limit - Lognormal	150065.1545	62.4968
95th Percentile - Nonparametric	29.9000	45.2000
95th Percentile - Normal	32.1798	38.8036
95th Percentile - Lognormal	55.3648	33.7588
Upper Tolerance Limit - Normal	77.2167	43.6910
Upper Tolerance Limit - Lognormal	5966.9921	44.6778

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5626	
Corr Coeff - Detected - Lognormal	0.6415	
Corr Coeff - Total - Normal	0.8934	0.7368
Corr Coeff - Total - Lognormal	0.9815	0.8596
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	0.8900
W-Test - Table Value	0.7480	0.7880
W-Test - Normal	0.8127	0.5729
W-Test - Lognormal	0.9785	0.7668
Type of Distribution	LOGNORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : 1,1,1-TRICHLOROETHANE (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.4375	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.2500	
Positive Hits - Minimum	2.0000	
Positive Hits - Maximum	2.0000	
Average Of Positive Hits	2.0000	
Standard Deviation	0.3750	
Upper Confidence Limit - Normal	1.8787	
Upper Confidence Limit - Lognormal	2.1491	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	2.0544	
95th Percentile - Lognormal	2.0693	
Upper Tolerance Limit - Normal	3.3669	
Upper Tolerance Limit - Lognormal	4.7102	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : CHLOROFORM (µg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	1.0000	1.0000
Average	1.6875	2.2500
Detection Limit - Minimum	1.2500	2.5000
Detection Limits - Maximum	1.2500	2.5000
Positive Hits - Minimum	3.0000	2.0000
Positive Hits - Maximum	3.0000 UCL	2.0000 UTL
Average Of Positive Hits	3.0000	2.0000
Standard Deviation	0.8750	0.3536
Upper Confidence Limit - Normal	2.7169	**********
Upper Confidence Limit - Lognormal	4.9895	3.1515
95th Percentile - Nonparametric	3.0000	2.5000
95th Percentile - Normal	3.1269	2.8316
95th Percentile - Lognormal	3.1966	2.8987
Upper Tolerance Limit - Normal	6.1894	**********
Upper Tolerance Limit - Lognormal	14.7930	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	0.0000
Corr Coeff - Total - Lognormal	0.7838	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.6297	1.0000
W-Test - Lognormal	0.6297	1.0000
Type of Distribution	Undefined ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	1.0000	1.0000
Average	2.4375	3.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	3.0000	5.5000
Positive Hits - Minimum	1.0000	1.0000
Positive Hits - Maximum	1.0000 UCL	1.0000 UTL
Average Of Positive Hits	1.0000	1.0000
Standard Deviation	0.9656	3.1820
Upper Confidence Limit - Normal	3.5735	**********
Upper Confidence Limit - Lognormal	12.1957	2462421.1886
95th Percentile - Nonparametric	3.0000	5.5000
95th Percentile - Normal	4.0258	8.4844
95th Percentile - Lognormal	5.3900	17.0359
Upper Tolerance Limit - Normal	7.4053	**********
Upper Tolerance Limit - Lognormal	35.2285	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8414	0.0000
Corr Coeff - Total - Lognormal	0.8213	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.7172	1.0000
W-Test - Lognormal	0.6862	1.0000
Type of Distribution	Undefined ✓	UNDEFINED ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : DI-N-BUTYL PHTHALATE (μg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	1.0000	1.0000
Average	2.6875	3.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	3.0000	5.5000
Positive Hits - Minimum	2.0000	1.0000
Positive Hits - Maximum	2.0000 UCL	1.0000 UCL
Average Of Positive Hits	2.0000	1.0000
Standard Deviation	0.4732	3.1820
Upper Confidence Limit - Normal	3.2443	**********
Upper Confidence Limit - Lognormal	3.6570	2462421.1886
95th Percentile - Nonparametric	3.0000	5.5000
95th Percentile - Normal	3.4660	8.4844
95th Percentile - Lognormal	3.6415	17.0359
Upper Tolerance Limit - Normal	5.1223	**********
Upper Tolerance Limit - Lognormal	7.1468	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8885	0.0000
Corr Coeff - Total - Lognormal	0.8765	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.7913	1.0000
W-Test - Lognormal	0.7723	1.0000
Type of Distribution	~~Undefined~~ Normal	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : DIETHYL PHTHALATE (µg/L)

	Sample Results	Background Results
Count	4.0000	2.0000
Number of Detects	1.0000	1.0000
Average	2.6875	4.2500
Detection Limit - Minimum	2.7500	5.5000
Detection Limits - Maximum	3.0000	5.5000
Positive Hits - Minimum	2.0000	3.0000
Positive Hits - Maximum	2.0000 XL	3.0000 AR
Average Of Positive Hits	2.0000	3.0000
Standard Deviation	0.4732	1.7678
Upper Confidence Limit - Normal	3.2443	**********
Upper Confidence Limit - Lognormal	3.6570	23.3478
95th Percentile - Nonparametric	3.0000	5.5000
95th Percentile - Normal	3.4660	7.1580
95th Percentile - Lognormal	3.6415	8.2213
Upper Tolerance Limit - Normal	5.1223	**********
Upper Tolerance Limit - Lognormal	7.1468	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8885	1.0000
Corr Coeff - Total - Lognormal	0.8765	0.0000
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.7913	1.0000
W-Test - Lognormal	0.7723	1.0000
Type of Distribution	~~Undefined~~ Normal	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : PHENANTHRENE (µg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	2.2500	
Detection Limit - Minimum	3.0000	
Detection Limits - Maximum	3.0000	
Positive Hits - Minimum	1.0000	
Positive Hits - Maximum	2.0000 UCL	
Average Of Positive Hits	1.5000	
Standard Deviation	0.9574	
Upper Confidence Limit - Normal	3.3764	
Upper Confidence Limit - Lognormal	10.1213	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	3.8250	
95th Percentile - Lognormal	4.8314	
Upper Tolerance Limit - Normal	7.1760	
Upper Tolerance Limit - Lognormal	29.6379	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9381	
Corr Coeff - Total - Lognormal	0.9202	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8648	NA
W-Test - Lognormal	0.8405	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : RDX (μg/L)

	Sample Results	Background Results
Count	4.0000	1.0000
Number of Detects	2.0000	1.0000
Average	2.9625	1.2000
Detection Limit - Minimum	0.3250	NA
Detection Limits - Maximum	0.3250	NA
Positive Hits - Minimum	3.8000	1.2000
Positive Hits - Maximum	7.4000	1.2000 UTL
Average Of Positive Hits	5.6000	1.2000
Standard Deviation	3.3816	0.0000
Upper Confidence Limit - Normal	6.9410 UCL	**********
Upper Confidence Limit - Lognormal	4588505.4731	0.0000
95th Percentile - Nonparametric	7.4000	1.2000
95th Percentile - Normal	8.5252	1.2000
95th Percentile - Lognormal	19.3270	2.4287
Upper Tolerance Limit - Normal	20.3608	**********
Upper Tolerance Limit - Lognormal	5904.7734	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9374	
Corr Coeff - Total - Lognormal	0.9212	
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8680	**********
W-Test - Table Value	0.7480	0.0000
W-Test - Normal	0.8641	**********
W-Test - Lognormal	0.8174	**********
Type of Distribution	NORMAL ✓	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : BERYLLIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.1794	
Detection Limit - Minimum	0.0500	
Detection Limits - Maximum	0.3500	
Positive Hits - Minimum	0.2350	
Positive Hits - Maximum	0.2350 UCL	
Average Of Positive Hits	0.2350	
Standard Deviation	0.1394	
Upper Confidence Limit - Normal	0.3434	
Upper Confidence Limit - Lognormal	14.1139	
95th Percentile - Nonparametric	0.3500	
95th Percentile - Normal	0.4088	
95th Percentile - Lognormal	0.5990	
Upper Tolerance Limit - Normal	0.8968	
Upper Tolerance Limit - Lognormal	14.1038	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9682	
Corr Coeff - Total - Lognormal	0.9776	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9206	NA
W-Test - Lognormal	0.9365	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHDST_RES
Media : Indian Head Dump Site B Statistics
Group : Unfiltered GW Comparison to Non-Turbid Background

Parameter : SILVER (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.4810	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.2000	
Positive Hits - Maximum	1.2000 UCL	
Average Of Positive Hits	1.2000	
Standard Deviation	0.4834	
Upper Confidence Limit - Normal	1.0497	
Upper Confidence Limit - Lognormal	23.3461	
95th Percentile - Nonparametric	1.2000	
95th Percentile - Normal	1.2762	
95th Percentile - Lognormal	1.4399	
Upper Tolerance Limit - Normal	2.9680	
Upper Tolerance Limit - Lognormal	28.9033	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8549	
Corr Coeff - Total - Lognormal	0.9301	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7422	NA
W-Test - Lognormal	0.8712	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : BARIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	3.0000	
Average	18.5750	
Detection Limit - Minimum	3.1500	
Detection Limits - Maximum	3.1500	
Positive Hits - Minimum	7.0000	
Positive Hits - Maximum	52.8500 UCL	
Average Of Positive Hits	23.7167	
Standard Deviation	23.0912	
Upper Confidence Limit - Normal	45.7418	
Upper Confidence Limit - Lognormal	31403.4432	
95th Percentile - Nonparametric	52.8500	
95th Percentile - Normal	56.5600	
95th Percentile - Lognormal	75.5352	
Upper Tolerance Limit - Normal	137.3793	
Upper Tolerance Limit - Lognormal	4819.1602	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5717	
Corr Coeff - Detected - Lognormal	0.6833	
Corr Coeff - Total - Normal	0.8648	
Corr Coeff - Total - Lognormal	0.9769	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7603	NA
W-Test - Lognormal	0.9631	NA

Type of Distribution ..... LOGNORMAL ✓

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : CADMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	1.0125	
Detection Limit - Minimum	0.3250	
Detection Limits - Maximum	0.3250	
Positive Hits - Minimum	1.6000	
Positive Hits - Maximum	1.8000 UCL	
Average Of Positive Hits	1.7000	
Standard Deviation	0.7980	
Upper Confidence Limit - Normal	1.9514	
Upper Confidence Limit - Lognormal	134.0154	
95th Percentile - Nonparametric	1.8000	
95th Percentile - Normal	2.3253	
95th Percentile - Lognormal	3.5759	
Upper Tolerance Limit - Normal	5.1184	
Upper Tolerance Limit - Lognormal	101.3292	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9070	
Corr Coeff - Total - Lognormal	0.8928	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7885	NA
W-Test - Lognormal	0.7609	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : CHROMIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.9250	
Detection Limit - Minimum	0.5000	
Detection Limits - Maximum	0.5000	
Positive Hits - Minimum	2.2000	
Positive Hits - Maximum	2.2000	
Average Of Positive Hits	2.2000	
Standard Deviation	0.8500	
Upper Confidence Limit - Normal	1.9250	
Upper Confidence Limit - Lognormal	17.0185	
95th Percentile - Nonparametric	2.2000	
95th Percentile - Normal	2.3233	
95th Percentile - Lognormal	2.4495	
Upper Tolerance Limit - Normal	5.2983	
Upper Tolerance Limit - Lognormal	32.7428	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : COBALT (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	23.0250	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	6.2000	
Positive Hits - Maximum	31.9000 UCL	
Average Of Positive Hits	23.0250	
Standard Deviation	11.5358	
Upper Confidence Limit - Normal	36.5969	
Upper Confidence Limit - Lognormal	578.6598	
95th Percentile - Nonparametric	31.9000	
95th Percentile - Normal	42.0015	
95th Percentile - Lognormal	68.9324	
Upper Tolerance Limit - Normal	82.3769	
Upper Tolerance Limit - Lognormal	1015.7312	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9068	
Corr Coeff - Detected - Lognormal	0.8540	
Corr Coeff - Total - Normal	0.9068	
Corr Coeff - Total - Lognormal	0.8540	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8326	NA
W-Test - Lognormal	0.7420	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : COPPER (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	2.3250	
Detection Limit - Minimum	0.8250	
Detection Limits - Maximum	0.8250	
Positive Hits - Minimum	3.6000	
Positive Hits - Maximum	4.0500 UCL	
Average Of Positive Hits	3.8250	
Standard Deviation	1.7418	
Upper Confidence Limit - Normal	4.3742	
Upper Confidence Limit - Lognormal	156.2798	
95th Percentile - Nonparametric	4.0500	
95th Percentile - Normal	5.1902	
95th Percentile - Lognormal	7.6222	
Upper Tolerance Limit - Normal	11.2864	
Upper Tolerance Limit - Lognormal	169.3195	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9078	
Corr Coeff - Total - Lognormal	0.8940	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7901	NA
W-Test - Lognormal	0.7631	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : MERCURY (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	4.0000	
Average	0.1325	
Detection Limit - Minimum	NA	
Detection Limits - Maximum	NA	
Positive Hits - Minimum	0.1000	
Positive Hits - Maximum	0.1800	
Average Of Positive Hits	0.1325	
Standard Deviation	0.0340	
Upper Confidence Limit - Normal	0.1725	
Upper Confidence Limit - Lognormal	0.2036	
95th Percentile - Nonparametric	0.1800	
95th Percentile - Normal	0.1885	
95th Percentile - Lognormal	0.1939	
Upper Tolerance Limit - Normal	0.3076	
Upper Tolerance Limit - Lognormal	0.4582	

UCL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9548	
Corr Coeff - Detected - Lognormal	0.9749	
Corr Coeff - Total - Normal	0.9548	
Corr Coeff - Total - Lognormal	0.9749	
Corr Coeff - Crit Val - Detected	0.8680	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9236	NA
W-Test - Lognormal	0.9620	NA

Type of Distribution ..... LOGNORMAL ✓

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : NICKEL (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	3.0250	
Detection Limit - Minimum	0.2750	
Detection Limits - Maximum	0.9500	
Positive Hits - Minimum	10.2500	
Positive Hits - Maximum	10.2500 UCL	
Average Of Positive Hits	10.2500	
Standard Deviation	4.8245	
Upper Confidence Limit - Normal	8.7011	
Upper Confidence Limit - Lognormal	927706.6992	
95th Percentile - Nonparametric	10.2500	
95th Percentile - Normal	10.9614	
95th Percentile - Lognormal	14.6473	
Upper Tolerance Limit - Normal	27.8473	
Upper Tolerance Limit - Lognormal	3366.0958	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8180	
Corr Coeff - Total - Lognormal	0.9436	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6837	NA
W-Test - Lognormal	0.9028	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : VANADIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.2913	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.1750	
Positive Hits - Minimum	0.6400	
Positive Hits - Maximum	0.6400 UCL	
Average Of Positive Hits	0.6400	
Standard Deviation	0.2325	
Upper Confidence Limit - Normal	0.5648	
Upper Confidence Limit - Lognormal	2.7744	
95th Percentile - Nonparametric	0.6400	
95th Percentile - Normal	0.6737	
95th Percentile - Lognormal	0.7031	
Upper Tolerance Limit - Normal	1.4875	
Upper Tolerance Limit - Lognormal	6.8000	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7838	
Corr Coeff - Total - Lognormal	0.7838	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6297	NA
W-Test - Lognormal	0.6297	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : ZINC (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	3.0000	
Average	10.1188	
Detection Limit - Minimum	1.2250	
Detection Limits - Maximum	1.2250	
Positive Hits - Minimum	5.9000	
Positive Hits - Maximum	26.4500	
Average Of Positive Hits	13.0833	
Standard Deviation	11.1649	
Upper Confidence Limit - Normal	23.2543	
Upper Confidence Limit - Lognormal	46291.0977	
95th Percentile - Nonparametric	26.4500	
95th Percentile - Normal	28.4851	
95th Percentile - Lognormal	47.7012	
Upper Tolerance Limit - Normal	67.5623	
Upper Tolerance Limit - Lognormal	3891.8384	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.5369	
Corr Coeff - Detected - Lognormal	0.5799	
Corr Coeff - Total - Normal	0.8957	
Corr Coeff - Total - Lognormal	0.9717	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8191	NA
W-Test - Lognormal	0.9630	NA

Type of Distribution ..... LOGNORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : BERYLLIUM (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	0.1863	
Detection Limit - Minimum	0.0500	
Detection Limits - Maximum	0.2750	
Positive Hits - Minimum	0.3700	
Positive Hits - Maximum	0.3700 UCL	
Average Of Positive Hits	0.3700	
Standard Deviation	0.1620	
Upper Confidence Limit - Normal	0.3769	
Upper Confidence Limit - Lognormal	90.8177	
95th Percentile - Nonparametric	0.3700	
95th Percentile - Normal	0.4528	
95th Percentile - Lognormal	0.7423	
Upper Tolerance Limit - Normal	1.0199	
Upper Tolerance Limit - Lognormal	32.1564	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9327	
Corr Coeff - Total - Lognormal	0.9095	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8427	NA
W-Test - Lognormal	0.7935	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: IHDSF_RES
Media : Indian Head Dump Site B Statistics
Group : Filtered GW Comparison to Background

Parameter : SILVER (μg/L)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	0.5513	
Detection Limit - Minimum	0.1750	
Detection Limits - Maximum	0.2400	
Positive Hits - Minimum	0.8100	
Positive Hits - Maximum	0.9800 UCL	
Average Of Positive Hits	0.8950	
Standard Deviation	0.4038	
Upper Confidence Limit - Normal	1.0263	
Upper Confidence Limit - Lognormal	29.6969	
95th Percentile - Nonparametric	0.9800	
95th Percentile - Normal	1.2155	
95th Percentile - Lognormal	1.7635	
Upper Tolerance Limit - Normal	2.6289	
Upper Tolerance Limit - Lognormal	35.9925	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9426	
Corr Coeff - Total - Lognormal	0.9449	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8604	NA
W-Test - Lognormal	0.8647	NA

Type of Distribution ..... LOGNORMAL

Test Results:

SWMU 6 AIR BLAST POND

The minimum and maximum values present on the following statistical calculations may not be the same as the range of detection presented on the COPC selection tables. The true minimum and maximum detected values can be found in the raw data.

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	6.0000	
Average	0.3004	
Detection Limit - Minimum	0.0650	
Detection Limits - Maximum	0.0650	
Positive Hits - Minimum	0.1975	
Positive Hits - Maximum	0.5800	
Average Of Positive Hits	0.3396	
Standard Deviation	0.1719	
Upper Confidence Limit - Normal	0.4266 UCL	
Upper Confidence Limit - Lognormal	0.7531	
95th Percentile - Nonparametric	0.5800	
95th Percentile - Normal	0.5832	
95th Percentile - Lognormal	0.8061	
Upper Tolerance Limit - Normal	0.8847	
Upper Tolerance Limit - Lognormal	2.7947	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9131	
Corr Coeff - Detected - Lognormal	0.9541	
Corr Coeff - Total - Normal	0.9752	
Corr Coeff - Total - Lognormal	0.9476	
Corr Coeff - Crit Val - Detected	0.8900	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.9562	NA
W-Test - Lognormal	0.9150	NA

Type of Distribution ..... NORMAL ✓

Test Results:

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	14.0000
Average	3.0482	2.1807
Detection Limit - Minimum	0.1375	NA
Detection Limits - Maximum	0.1375	NA
Positive Hits - Minimum	1.7000	0.7800
Positive Hits - Maximum	9.6000	3.3000
Average Of Positive Hits	3.5333	2.1807
Standard Deviation	3.0395	0.7934
Upper Confidence Limit - Normal	5.2804	2.5563
Upper Confidence Limit - Lognormal	46.3682	2.8641
95th Percentile - Nonparametric	9.6000	3.3000
95th Percentile - Normal	8.0482	3.4859
95th Percentile - Lognormal	15.4762	4.2001
Upper Tolerance Limit - Normal	13.3796	4.2547
Upper Tolerance Limit - Lognormal	148.0764	6.4760

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6595	0.9822
Corr Coeff - Detected - Lognormal	0.7831	0.9370
Corr Coeff - Total - Normal	0.8416	0.9822
Corr Coeff - Total - Lognormal	0.8909	0.9370
Corr Coeff - Crit Val - Detected	0.8900	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.7445	0.9501
W-Test - Lognormal	0.8344	0.8719
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	24.9643	39.0643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.2000	12.5000
Positive Hits - Maximum	47.0000 UCL	84.8000
Average Of Positive Hits	24.9643	39.0643
Standard Deviation	16.7725	19.8123
Upper Confidence Limit - Normal	37.2817	48.4418
Upper Confidence Limit - Lognormal	75.9127	55.3528
95th Percentile - Nonparametric	47.0000	84.8000
95th Percentile - Normal	52.5550	71.6554
95th Percentile - Lognormal	73.1791	84.6340
Upper Tolerance Limit - Normal	81.9739	90.8535
Upper Tolerance Limit - Lognormal	298.6068	143.9192

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9650	0.9645
Corr Coeff - Detected - Lognormal	0.9728	0.9739
Corr Coeff - Total - Normal	0.9650	0.9645
Corr Coeff - Total - Lognormal	0.9728	0.9739
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8994	0.9348
W-Test - Lognormal	0.9191	0.9467
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	5.0000	12.0000
Average	0.2596	0.3489
Detection Limit - Minimum	0.0075	0.0500
Detection Limits - Maximum	0.0100	0.0750
Positive Hits - Minimum	0.2200	0.0500
Positive Hits - Maximum	0.4900	0.6100
Average Of Positive Hits	0.3600	0.3967
Standard Deviation	0.1983	0.2127
Upper Confidence Limit - Normal	0.4053 UCL	0.4496
Upper Confidence Limit - Lognormal	62.0860	0.7858
95th Percentile - Nonparametric	0.4900	0.6100
95th Percentile - Normal	0.5859	0.6988
95th Percentile - Lognormal	2.3899	1.1822
Upper Tolerance Limit - Normal	0.9338	0.9050 UTL
Upper Tolerance Limit - Lognormal	58.2377	2.8846

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7772	0.9489
Corr Coeff - Detected - Lognormal	0.7876	0.8792
Corr Coeff - Total - Normal	0.9579	0.9566
Corr Coeff - Total - Lognormal	0.8722	0.9200
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8874	0.8844
W-Test - Lognormal	0.7412	0.8249
Type of Distribution	NORMAL	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	4.0000	6.0000
Average	0.2429	0.1689
Detection Limit - Minimum	0.0300	0.0550
Detection Limits - Maximum	0.0325	0.2850
Positive Hits - Minimum	0.1075	0.1500
Positive Hits - Maximum	0.6900	0.2600
Average Of Positive Hits	0.4019	0.2267
Standard Deviation	0.2811	0.0917
Upper Confidence Limit - Normal	0.4493	0.2123
Upper Confidence Limit - Lognormal	4.6687	0.2677
95th Percentile - Nonparametric	0.6900	0.2850
95th Percentile - Normal	0.7053	0.3197
95th Percentile - Lognormal	1.1325	0.4195
Upper Tolerance Limit - Normal	1.1984	0.4085
Upper Tolerance Limit - Lognormal	12.8657	0.7967

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.1926	0.8540
Corr Coeff - Detected - Lognormal	0.0049	0.8205
Corr Coeff - Total - Normal	0.8940	0.9331
Corr Coeff - Total - Lognormal	0.9413	0.9184
Corr Coeff - Crit Val - Detected	0.8680	0.8900
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.7780	0.8388
W-Test - Lognormal	0.8480	0.8133
Type of Distribution	LOGNORMAL	Undefined

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	12.8143	11.9857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.3000	3.5000
Positive Hits - Maximum	24.2000	20.8000
Average Of Positive Hits	12.8143	11.9857
Standard Deviation	7.7217	4.6797
Upper Confidence Limit - Normal	18.4850	14.2007
Upper Confidence Limit - Lognormal	27.2922	15.8437
95th Percentile - Nonparametric	24.2000	20.8000
95th Percentile - Normal	25.5165	19.6839
95th Percentile - Lognormal	30.9892	23.3486
Upper Tolerance Limit - Normal	39.0604	24.2185
Upper Tolerance Limit - Lognormal	94.8576	36.3493

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9530	0.9854
Corr Coeff - Detected - Lognormal	0.9809	0.9550
Corr Coeff - Total - Normal	0.9530	0.9854
Corr Coeff - Total - Lognormal	0.9809	0.9550
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8895	0.9744
W-Test - Lognormal	0.9463	0.9259
Type of Distribution	LOGNORMAL	NORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	2.3057	5.0586
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.5900	0.5800
Positive Hits - Maximum	4.0000	15.0000
Average Of Positive Hits	2.3057	5.0586
Standard Deviation	1.1716	4.6659
Upper Confidence Limit - Normal	3.166 UCL	7.2670
Upper Confidence Limit - Lognormal	5.3285	10.7597
95th Percentile - Nonparametric	4.0000	15.0000
95th Percentile - Normal	4.2331	12.7339
95th Percentile - Lognormal	5.9137	16.1061
Upper Tolerance Limit - Normal	6.2881	17.2551
Upper Tolerance Limit - Lognormal	19.0757	39.7328 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9882	0.8837
Corr Coeff - Detected - Lognormal	0.9435	0.9764
Corr Coeff - Total - Normal	0.9882	0.8837
Corr Coeff - Total - Lognormal	0.9435	0.9764
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9730	0.7774
W-Test - Lognormal	0.8931	0.9513
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	12.0000
Average	19.0214	4.7393
Detection Limit - Minimum	NA	2.2500
Detection Limits - Maximum	NA	2.3000
Positive Hits - Minimum	7.6000	1.8000
Positive Hits - Maximum	33.8000 UCL	17.3000
Average Of Positive Hits	19.0214	5.1500
Standard Deviation	10.8822	3.9231
Upper Confidence Limit - Normal	27.0132	6.5962
Upper Confidence Limit - Lognormal	37.8115	6.7231
95th Percentile - Nonparametric	33.8000	17.3000
95th Percentile - Normal	36.9227	11.1928
95th Percentile - Lognormal	44.0081	10.4300
Upper Tolerance Limit - Normal	56.0102	14.9943
Upper Tolerance Limit - Lognormal	126.2389	18.6594 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9527	0.7737
Corr Coeff - Detected - Lognormal	0.9752	0.9438
Corr Coeff - Total - Normal	0.9527	0.7909
Corr Coeff - Total - Lognormal	0.9752	0.9500
Corr Coeff - Crit Val - Detected	0.8990	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8771	0.6551
W-Test - Lognormal	0.9202	0.9113
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	12.0000
Average		15.2143	17.8000
Detection Limit - Minimum	NA		4.7000
Detection Limits - Maximum	NA		5.0000
Positive Hits - Minimum		8.2000	3.5000
Positive Hits - Maximum		47.0000 UCL	149.0000 UTL
Average Of Positive Hits		15.2143	19.9583
Standard Deviation		14.2042	37.8694
Upper Confidence Limit - Normal		25.6457	35.7243
Upper Confidence Limit - Lognormal		29.9279	25.4296
95th Percentile - Nonparametric		47.0000	149.0000
95th Percentile - Normal		38.5803	80.0952
95th Percentile - Lognormal		34.1971	38.7106
Upper Tolerance Limit - Normal		63.4945	116.7907
Upper Tolerance Limit - Lognormal		103.0534	91.7636

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7314	0.5784
Corr Coeff - Detected - Lognormal	0.8022	0.8094
Corr Coeff - Total - Normal	0.7314	0.5719
Corr Coeff - Total - Lognormal	0.8022	0.8192
Corr Coeff - Crit Val - Detected	0.8990	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.5638	0.3635
W-Test - Lognormal	0.6654	0.7067
Type of Distribution	UNDEFINED	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	12.0000
Average		0.0350	0.0400
Detection Limit - Minimum	NA		0.0100
Detection Limits - Maximum	NA		0.0400
Positive Hits - Minimum		0.0200	0.0300
Positive Hits - Maximum		0.0500	0.0800
Average Of Positive Hits		0.0350	0.0425
Standard Deviation		0.0126	0.0180
Upper Confidence Limit - Normal		0.0442 UCL	0.0485
Upper Confidence Limit - Lognormal		0.0507	0.0543
95th Percentile - Nonparametric		0.0500	0.0800
95th Percentile - Normal		0.0557	0.0696
95th Percentile - Lognormal		0.0622	0.0815
Upper Tolerance Limit - Normal		0.0778	0.0870 UTL
Upper Tolerance Limit - Lognormal		0.1225	0.1314

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9655	0.9066
Corr Coeff - Detected - Lognormal		0.9570	0.9328
Corr Coeff - Total - Normal		0.9655	0.9287
Corr Coeff - Total - Lognormal		0.9570	0.9141
Corr Coeff - Crit Val - Detected		0.8990	0.9260
Corr Coeff - Crit Val - Total		0.8990	0.9340
W-Test - Table Value		0.8030	0.8740
W-Test - Normal		0.8971	0.8790
W-Test - Lognormal		0.8820	0.8636
Type of Distribution		NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	4.3786	4.9000
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.2000	1.7000
Positive Hits - Maximum	7.6000	10.5000
Average Of Positive Hits	4.3786	4.9000
Standard Deviation	2.0579	2.6402
Upper Confidence Limit - Normal	5.8898 UCL	6.1497
Upper Confidence Limit - Lognormal	8.8860	6.9452
95th Percentile - Nonparametric	7.6000	10.5000
95th Percentile - Normal	7.7638	9.2432
95th Percentile - Lognormal	10.3462	10.6461
Upper Tolerance Limit - Normal	11.3733	11.8015
Upper Tolerance Limit - Lognormal	29.6463	18.2456 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9844	0.9667
Corr Coeff - Detected - Lognormal	0.9363	0.9889
Corr Coeff - Total - Normal	0.9844	0.9667
Corr Coeff - Total - Lognormal	0.9363	0.9889
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9807	0.9268
W-Test - Lognormal	0.8952	0.9649
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	11.0000
Average	0.7579	0.4579
Detection Limit - Minimum	NA	0.0850
Detection Limits - Maximum	NA	0.2650
Positive Hits - Minimum	0.2900	0.1700
Positive Hits - Maximum	1.1000	0.8300
Average Of Positive Hits	0.7579	0.5409
Standard Deviation	0.3065	0.2425
Upper Confidence Limit - Normal	0.9830 UCL	0.5726
Upper Confidence Limit - Lognormal	1.2463	0.7910
95th Percentile - Nonparametric	1.1000	0.8300
95th Percentile - Normal	1.2621	0.8567
95th Percentile - Lognormal	1.5212	1.2426
Upper Tolerance Limit - Normal	1.7998	1.0916 UTL
Upper Tolerance Limit - Lognormal	3.5050	2.5070

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9633	0.9769
Corr Coeff - Detected - Lognormal	0.9415	0.9122
Corr Coeff - Total - Normal	0.9633	0.9847
Corr Coeff - Total - Lognormal	0.9415	0.9417
Corr Coeff - Crit Val - Detected	0.8990	0.9220
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9104	0.9508
W-Test - Lognormal	0.8845	0.8769
Type of Distribution	NORMAL ✓	NORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	0.0484	
Detection Limit - Minimum	0.0163	
Detection Limits - Maximum	0.1025	
Positive Hits - Minimum	0.0575	
Positive Hits - Maximum	0.0575	
Average Of Positive Hits	0.0575	
Standard Deviation	0.0355	
Upper Confidence Limit - Normal	0.0744	
Upper Confidence Limit - Lognormal	0.1415	
95th Percentile - Nonparametric	0.1025	
95th Percentile - Normal	0.1067	
95th Percentile - Lognormal	0.1379	
Upper Tolerance Limit - Normal	0.1690	
Upper Tolerance Limit - Lognormal	0.5542	

UCL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9415	
Corr Coeff - Total - Lognormal	0.9464	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.8595	NA
W-Test - Lognormal	0.8595	NA

Type of Distribution ~~Undefined~~ Lognormal

Test Results:

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	17.1929	19.1643
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.0000	9.8000
Positive Hits - Maximum	31.5000	38.7000
Average Of Positive Hits	17.1929	19.1643
Standard Deviation	9.9774	8.5776
Upper Confidence Limit - Normal	24.5201 UCL	23.2242
Upper Confidence Limit - Lognormal	41.3298	24.4035
95th Percentile - Nonparametric	31.5000	38.7000
95th Percentile - Normal	33.6057	33.2744
95th Percentile - Lognormal	44.8953	35.3914
Upper Tolerance Limit - Normal	51.1061	41.5861
Upper Tolerance Limit - Lognormal	151.4188	53.4527 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9715	0.9398
Corr Coeff - Detected - Lognormal	0.9605	0.9634
Corr Coeff - Total - Normal	0.9715	0.9398
Corr Coeff - Total - Lognormal	0.9605	0.9634
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9265	0.8795
W-Test - Lognormal	0.9076	0.9164
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	34.2571	18.0857
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	19.2000	6.2000
Positive Hits - Maximum	80.8000	30.8000
Average Of Positive Hits	34.2571	18.0857
Standard Deviation	25.1089	7.6596
Upper Confidence Limit - Normal	52.6967	21.7111
Upper Confidence Limit - Lognormal	67.3891	24.6053
95th Percentile - Nonparametric	80.8000	30.8000
95th Percentile - Normal	75.5613	30.6857
95th Percentile - Lognormal	77.9167	36.8983
Upper Tolerance Limit - Normal	119.6023	38.1078
Upper Tolerance Limit - Lognormal	227.6572	59.6065

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8226	0.9903
Corr Coeff - Detected - Lognormal	0.8359	0.9681
Corr Coeff - Total - Normal	0.8226	0.9903
Corr Coeff - Total - Lognormal	0.8359	0.9681
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.6764	0.9656
W-Test - Lognormal	0.6898	0.9265
Type of Distribution	UNDEFINED	NORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	7.0000	3.0000
Number of Detects	2.0000	2.0000
Average	388.1429	5067.3167
Detection Limit - Minimum	8.0000	1.9500
Detection Limits - Maximum	17.2500	1.9500
Positive Hits - Minimum	660.0000	2200.0000
Positive Hits - Maximum	2000.0000	13000.0000
Average Of Positive Hits	1330.0000	7600.0000
Standard Deviation	750.7459	6957.2591
Upper Confidence Limit - Normal	939.4793	16796.3009
Upper Confidence Limit - Lognormal	827820.0423	2.2862578E+94
95th Percentile - Nonparametric	2000.0000	13000.0000
95th Percentile - Normal	1623.1198	16512.0079
95th Percentile - Lognormal	1834.3364	810165.5693
Upper Tolerance Limit - Normal	2939.9281	**********
Upper Tolerance Limit - Lognormal	104131.1518	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	1.0000
Corr Coeff - Detected - Lognormal	1.0000	1.0000
Corr Coeff - Total - Normal	0.7703	0.9341
Corr Coeff - Total - Lognormal	0.8565	0.9455
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8990	**********
W-Test - Table Value	0.8030	0.7670
W-Test - Normal	0.6130	0.8726
W-Test - Lognormal	0.7236	0.8940
Type of Distribution	Undefined	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : STYRENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	14.3393	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.7500	
Positive Hits - Minimum	92.0000	
Positive Hits - Maximum	92.0000	
Average Of Positive Hits	92.0000	
Standard Deviation	34.2456	
Upper Confidence Limit - Normal	39.4888	
Upper Confidence Limit - Lognormal	311.2788	
95th Percentile - Nonparametric	92.0000	
95th Percentile - Normal	70.6734	
95th Percentile - Lognormal	34.5365	
Upper Tolerance Limit - Normal	130.7402	
Upper Tolerance Limit - Lognormal	562.5480	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.6514	
Corr Coeff - Total - Lognormal	0.6983	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.4577	NA
W-Test - Lognormal	0.5188	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	7.0000	3.0000
Number of Detects	3.0000	1.0000
Average	246.4643	290.4833
Detection Limit - Minimum	13.2500	36.4500
Detection Limits - Maximum	110.0000	195.0000
Positive Hits - Minimum	51.0000	640.0000
Positive Hits - Maximum	1332.5000	640.0000
Average Of Positive Hits	497.8333	640.0000
Standard Deviation	480.5834	312.8993
Upper Confidence Limit - Normal	599.3975	817.9886
Upper Confidence Limit - Lognormal	6146.8979	96854832671.09
95th Percentile - Nonparametric	1332.5000	640.0000
95th Percentile - Normal	1037.0240	805.2026
95th Percentile - Lognormal	941.5085	1769.4511
Upper Tolerance Limit - Normal	1879.9673	**********
Upper Tolerance Limit - Lognormal	13338.2762	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.4643	
Corr Coeff - Detected - Lognormal	0.2920	
Corr Coeff - Total - Normal	0.7065	0.9644
Corr Coeff - Total - Lognormal	0.9433	0.9952
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8990	**********
W-Test - Table Value	0.8030	0.7670
W-Test - Normal	0.5316	0.9301
W-Test - Lognormal	0.9051	0.9904
Type of Distribution	~~Undefined~~ LOGNORMAL	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

FAIL

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	90.8214	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	67.0000	
Positive Hits - Maximum	67.0000	
Average Of Positive Hits	67.0000	
Standard Deviation	12.8750	
Upper Confidence Limit - Normal	100.2766	
Upper Confidence Limit - Lognormal	102.5021	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	112.0008	
95th Percentile - Lognormal	115.2176	
Upper Tolerance Limit - Normal	134.5835	
Upper Tolerance Limit - Lognormal	149.9666	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9380	
Corr Coeff - Total - Lognormal	0.9194	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.9160	NA
W-Test - Lognormal	0.8818	NA

Type of Distribution ..... ~~Undefined~~ Normal

Test Results:

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : PHENANTHRENE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	90.2500	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	63.0000	
Positive Hits - Maximum	63.0000	
Average Of Positive Hits	63.0000	
Standard Deviation	14.1355	
Upper Confidence Limit - Normal	100.6309	
Upper Confidence Limit - Lognormal	103.7681	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	113.5029	
95th Percentile - Lognormal	118.1322	
Upper Tolerance Limit - Normal	138.2966	
Upper Tolerance Limit - Lognormal	159.3988	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9236	
Corr Coeff - Total - Lognormal	0.8971	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.8906	NA
W-Test - Lognormal	0.8425	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: IHABS_RES
Media : Indian Head Air Blast Pond Statistics
Group : Surface Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	0.0916	
Detection Limit - Minimum	0.0588	
Detection Limits - Maximum	0.0750	
Positive Hits - Minimum	0.2475	
Positive Hits - Maximum	0.2475	
Average Of Positive Hits	0.2475	
Standard Deviation	0.0690	
Upper Confidence Limit - Normal	0.1423	
Upper Confidence Limit - Lognormal	0.1517	
95th Percentile - Nonparametric	0.2475	
95th Percentile - Normal	0.2052	
95th Percentile - Lognormal	0.1836	
Upper Tolerance Limit - Normal	0.3262	
Upper Tolerance Limit - Lognormal	0.4508	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7090	
Corr Coeff - Total - Lognormal	0.7671	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.5341	NA
W-Test - Lognormal	0.6163	NA
Type of Distribution	Undefined	

Test Results:

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	7.0000	3.0000
Number of Detects	5.0000	1.0000
Average	580.2500	601.9000
Detection Limit - Minimum	10.2500	0.7000
Detection Limits - Maximum	21.5000	5.0000
Positive Hits - Minimum	530.0000	1800.0000
Positive Hits - Maximum	1100.0000	1800.0000 UL
Average Of Positive Hits	806.0000	1800.0000
Standard Deviation	432.9043	1037.5873
Upper Confidence Limit - Normal	898.1684 UCL	2351.1298
Upper Confidence Limit - Lognormal	339602.5044	8.6805716E+71
95th Percentile - Nonparametric	1100.0000	1800.0000
95th Percentile - Normal	1292.3776	2308.7310
95th Percentile - Lognormal	6288.1596	15328.4024
Upper Tolerance Limit - Normal	2051.6918	**********
Upper Tolerance Limit - Lognormal	195347.1563	**********

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7261	
Corr Coeff - Detected - Lognormal	0.7520	
Corr Coeff - Total - Normal	0.9647	0.8671
Corr Coeff - Total - Lognormal	0.8686	0.9609
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.8990	**********
W-Test - Table Value	0.8030	0.7670
W-Test - Normal	0.9050	0.7518
W-Test - Lognormal	0.7414	0.9233
Type of Distribution	NORMAL ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (µg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	1.0000	
Average	2.1071	
Detection Limit - Minimum	0.7500	
Detection Limits - Maximum	2.5000	
Positive Hits - Minimum	7.0000	
Positive Hits - Maximum	7.0000	
Average Of Positive Hits	7.0000	
Standard Deviation	2.2493	
Upper Confidence Limit - Normal	3.7590	
Upper Confidence Limit - Lognormal	6.1969 UCL	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	5.8073	
95th Percentile - Lognormal	5.7958	
Upper Tolerance Limit - Normal	9.7526	
Upper Tolerance Limit - Lognormal	24.5980	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8097	
Corr Coeff - Total - Lognormal	0.9204	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.6763	NA
W-Test - Lognormal	0.8437	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (μg/kg)

	Sample Results	Background Results
Count	7.0000	No samples
Number of Detects	2.0000	
Average	536.4286	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	95.0000	
Positive Hits - Minimum	1200.0000	
Positive Hits - Maximum	2100.0000	
Average Of Positive Hits	1650.0000	
Standard Deviation	803.8603	
Upper Confidence Limit - Normal	1126.7715	
Upper Confidence Limit - Lognormal	9151.9329	
95th Percentile - Nonparametric	2100.0000	
95th Percentile - Normal	1858.7788	
95th Percentile - Lognormal	2076.3115	
Upper Tolerance Limit - Normal	3268.7497	
Upper Tolerance Limit - Lognormal	24400.9057	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.8047	
Corr Coeff - Total - Lognormal	0.8119	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8990	
W-Test - Table Value	0.8030	NA
W-Test - Normal	0.6533	NA
W-Test - Lognormal	0.6497	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	4.0000	3.0000
Average	0.2604	0.4855
Detection Limit - Minimum	0.0575	0.0850
Detection Limits - Maximum	0.2750	0.5000
Positive Hits - Minimum	0.2400	0.6800
Positive Hits - Maximum	0.4800	1.8000
Average Of Positive Hits	0.3575	1.3933
Standard Deviation	0.1573	0.5598
Upper Confidence Limit - Normal	0.3759 UCL	0.7505
Upper Confidence Limit - Lognormal	0.9729	0.9701
95th Percentile - Nonparametric	0.4800	1.8000
95th Percentile - Normal	0.5192	1.4064
95th Percentile - Lognormal	0.8483	1.4449
Upper Tolerance Limit - Normal	0.7951	1.9488
Upper Tolerance Limit - Lognormal	3.9165	3.6023 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6191	0.8411
Corr Coeff - Detected - Lognormal	0.5326	0.8254
Corr Coeff - Total - Normal	0.9716	0.8188
Corr Coeff - Total - Lognormal	0.9106	0.9676
Corr Coeff - Crit Val - Detected	0.8680	**********
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9283	0.6737
W-Test - Lognormal	0.8101	0.9262
Type of Distribution	NORMAL ✓	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	13.0000
Average	2.1821	4.5286
Detection Limit - Minimum	0.3750	0.9500
Detection Limits - Maximum	0.3750	0.9500
Positive Hits - Minimum	1.4000	1.8000
Positive Hits - Maximum	3.5000	10.4000
Average Of Positive Hits	2.4833	4.8038
Standard Deviation	1.0645	3.2919
Upper Confidence Limit - Normal	2.9639 UCL	6.0867
Upper Confidence Limit - Lognormal	6.3412	7.5976
95th Percentile - Nonparametric	3.5000	10.4000
95th Percentile - Normal	3.9332	9.9437
95th Percentile - Lognormal	6.4023	11.9283
Upper Tolerance Limit - Normal	5.8002	13.1335
Upper Tolerance Limit - Lognormal	24.4325	24.4274 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9677	0.9274
Corr Coeff - Detected - Lognormal	0.9616	0.9595
Corr Coeff - Total - Normal	0.9818	0.9169
Corr Coeff - Total - Lognormal	0.8889	0.9701
Corr Coeff - Crit Val - Detected	0.8900	0.9310
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9631	0.8241
W-Test - Lognormal	0.8069	0.9290
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	36.9286	37.4143
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	21.1000	9.1000
Positive Hits - Maximum	70.8000	101.0000
Average Of Positive Hits	36.9286	37.4143
Standard Deviation	16.8044	26.3822
Upper Confidence Limit - Normal	49.2695	49.9015
Upper Confidence Limit - Lognormal	54.8070	61.0314
95th Percentile - Nonparametric	70.8000	101.0000
95th Percentile - Normal	64.5719	80.8130
95th Percentile - Lognormal	67.3007	95.8978
Upper Tolerance Limit - Normal	94.0468	106.3773
Upper Tolerance Limit - Lognormal	138.5302	190.7245

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9100	0.9398
Corr Coeff - Detected - Lognormal	0.9630	0.9926
Corr Coeff - Total - Normal	0.9100	0.9398
Corr Coeff - Total - Lognormal	0.9630	0.9926
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8431	0.8846
W-Test - Lognormal	0.9310	0.9760
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	12.0000
Average	0.3786	0.3821
Detection Limit - Minimum	0.0300	0.0700
Detection Limits - Maximum	0.0300	0.0900
Positive Hits - Minimum	0.4000	0.1200
Positive Hits - Maximum	0.5000 UCL	1.1000
Average Of Positive Hits	0.4367	0.4325
Standard Deviation	0.1587	0.2876
Upper Confidence Limit - Normal	0.4951	0.5183
Upper Confidence Limit - Lognormal	2.3383	0.7141
95th Percentile - Nonparametric	0.5000	1.1000
95th Percentile - Normal	0.6396	0.8553
95th Percentile - Lognormal	1.5752	1.1095
Upper Tolerance Limit - Normal	0.9179	1.1340
Upper Tolerance Limit - Lognormal	9.3370	2.4552 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9159	0.9670
Corr Coeff - Detected - Lognormal	0.9195	0.9822
Corr Coeff - Total - Normal	0.8067	0.9441
Corr Coeff - Total - Lognormal	0.7085	0.9889
Corr Coeff - Crit Val - Detected	0.8900	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.6827	0.8950
W-Test - Lognormal	0.5357	0.9683
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	20.1571	21.8571
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	13.8000	6.2000
Positive Hits - Maximum	28.2000	44.7000
Average Of Positive Hits	20.1571	21.8571
Standard Deviation	5.2526	13.5346
Upper Confidence Limit - Normal	24.0146 UCL	28.2633
Upper Confidence Limit - Lognormal	25.4023	34.1236
95th Percentile - Nonparametric	28.2000	44.7000
95th Percentile - Normal	28.7976	44.1216
95th Percentile - Lognormal	30.3000	53.4589
Upper Tolerance Limit - Normal	38.0106	57.2366
Upper Tolerance Limit - Lognormal	48.3065	101.4624 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9841	0.9551
Corr Coeff - Detected - Lognormal	0.9819	0.9788
Corr Coeff - Total - Normal	0.9841	0.9551
Corr Coeff - Total - Lognormal	0.9819	0.9788
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9537	0.8892
W-Test - Lognormal	0.9461	0.9361
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	2.5714	12.3718
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.1000	0.8450
Positive Hits - Maximum	3.9000	133.0000
Average Of Positive Hits	2.5714	12.3718
Standard Deviation	0.9690	34.7885
Upper Confidence Limit - Normal	3.2831	28.8379
Upper Confidence Limit - Lognormal	4.0741	23.3619
95th Percentile - Nonparametric	3.9000	133.0000
95th Percentile - Normal	4.1655	69.5989
95th Percentile - Lognormal	4.9910	26.4170
Upper Tolerance Limit - Normal	5.8652	103.3090
Upper Tolerance Limit - Lognormal	10.9846	90.8715

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9706	0.5598
Corr Coeff - Detected - Lognormal	0.9382	0.8917
Corr Coeff - Total - Normal	0.9706	0.5598
Corr Coeff - Total - Lognormal	0.9382	0.8917
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9410	0.3490
W-Test - Lognormal	0.8807	0.8174
Type of Distribution	NORMAL	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	5.0000	12.0000
Average	6.2964	7.7036
Detection Limit - Minimum	1.0250	0.7500
Detection Limits - Maximum	1.0500	2.2500
Positive Hits - Minimum	6.5000	2.6000
Positive Hits - Maximum	11.9000	22.7000
Average Of Positive Hits	8.4000	8.7375
Standard Deviation	4.0451	5.8880
Upper Confidence Limit - Normal	9.2671 UCL	10.4905
Upper Confidence Limit - Lognormal	37.6693	15.7950
95th Percentile - Nonparametric	11.9000	22.7000
95th Percentile - Normal	12.9507	17.3894
95th Percentile - Lognormal	24.6194	24.1595
Upper Tolerance Limit - Normal	20.0458	23.0949
Upper Tolerance Limit - Lognormal	149.6207	56.4931 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6039	0.9562
Corr Coeff - Detected - Lognormal	0.6160	0.9930
Corr Coeff - Total - Normal	0.9619	0.9398
Corr Coeff - Total - Lognormal	0.8885	0.9781
Corr Coeff - Crit Val - Detected	0.8790	0.9260
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9122	0.8928
W-Test - Lognormal	0.7722	0.9670
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	11.0000
Average	9.0429	8.4607
Detection Limit - Minimum	NA	2.6500
Detection Limits - Maximum	NA	14.4000
Positive Hits - Minimum	5.6000	3.1000
Positive Hits - Maximum	14.7000	25.5000
Average Of Positive Hits	9.0429	8.6409
Standard Deviation	3.4856	6.3344
Upper Confidence Limit - Normal	11.6026	11.4589
Upper Confidence Limit - Lognormal	12.7386 UCL	12.7607
95th Percentile - Nonparametric	14.7000	25.5000
95th Percentile - Normal	14.7767	18.8809
95th Percentile - Lognormal	15.5950	19.9646
Upper Tolerance Limit - Normal	20.8905	25.0189
Upper Tolerance Limit - Lognormal	29.7193	37.4774 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9496	0.9083
Corr Coeff - Detected - Lognormal	0.9721	0.9815
Corr Coeff - Total - Normal	0.9496	0.8887
Corr Coeff - Total - Lognormal	0.9721	0.9792
Corr Coeff - Crit Val - Detected	0.8990	0.9220
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8855	0.8008
W-Test - Lognormal	0.9247	0.9550
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	4.0000	11.0000
Average	0.0221	0.0304
Detection Limit - Minimum	0.0050	0.0250
Detection Limits - Maximum	0.0050	0.0300
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.0500	0.0700
Average Of Positive Hits	0.0350	0.0309
Standard Deviation	0.0185	0.0174
Upper Confidence Limit - Normal	0.0357 UCL	0.0386
Upper Confidence Limit - Lognormal	0.1318	0.0458
95th Percentile - Nonparametric	0.0500	0.0700
95th Percentile - Normal	0.0525	0.0589
95th Percentile - Lognormal	0.0826	0.0713
Upper Tolerance Limit - Normal	0.0849	0.0758
Upper Tolerance Limit - Lognormal	0.5193	0.1299 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.1206	0.9565
Corr Coeff - Detected - Lognormal	-0.0098	0.9751
Corr Coeff - Total - Normal	0.9476	0.9561
Corr Coeff - Total - Lognormal	0.9232	0.9660
Corr Coeff - Crit Val - Detected	0.8680	0.9220
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8701	0.9123
W-Test - Lognormal	0.8139	0.9196
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	6.0000	14.0000
Average	3.9393	6.3714
Detection Limit - Minimum	1.3750	NA
Detection Limits - Maximum	1.3750	NA
Positive Hits - Minimum	3.0000	2.8000
Positive Hits - Maximum	5.9000	18.2000
Average Of Positive Hits	4.3667	6.3714
Standard Deviation	1.7042	4.0429
Upper Confidence Limit - Normal	5.1908 UL	8.2850
Upper Confidence Limit - Lognormal	6.8933	8.6961
95th Percentile - Nonparametric	5.9000	18.2000
95th Percentile - Normal	6.7426	13.0220
95th Percentile - Lognormal	8.3305	13.2209
Upper Tolerance Limit - Normal	9.7317	16.9396
Upper Tolerance Limit - Lognormal	20.5989	22.1153 UL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9182	0.8705
Corr Coeff - Detected - Lognormal	0.9216	0.9675
Corr Coeff - Total - Normal	0.9445	0.8705
Corr Coeff - Total - Lognormal	0.9255	0.9675
Corr Coeff - Crit Val - Detected	0.8900	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8794	0.7763
W-Test - Lognormal	0.8592	0.9344
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		7.0000	14.0000
Number of Detects		7.0000	10.0000
Average		0.9471	0.8493
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.6500	0.2950
Positive Hits - Maximum		1.8000	2.6000
Average Of Positive Hits		0.9471	1.1185
Standard Deviation		0.4207	0.8168
Upper Confidence Limit - Normal		1.2561	1.2359
Upper Confidence Limit - Lognormal		1.3410	2.2949
95th Percentile - Nonparametric		1.8000	2.6000
95th Percentile - Normal		1.6392	2.1929
95th Percentile - Lognormal		1.6434	3.1381
Upper Tolerance Limit - Normal		2.3771	2.9844
Upper Tolerance Limit - Lognormal		3.1793	8.9313

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8669	0.9483
Corr Coeff - Detected - Lognormal	0.9109	0.9699
Corr Coeff - Total - Normal	0.8669	0.9037
Corr Coeff - Total - Lognormal	0.9109	0.9796
Corr Coeff - Crit Val - Detected	0.8990	0.9170
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.7601	0.8100
W-Test - Lognormal	0.8283	0.9494
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	24.4429	30.9107
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	19.0000	9.8000
Positive Hits - Maximum	30.3000	61.4000
Average Of Positive Hits	24.4429	30.9107
Standard Deviation	4.1888	17.5157
Upper Confidence Limit - Normal	27.5191	39.2013
Upper Confidence Limit - Lognormal	28.1013 UCL	46.7732
95th Percentile - Nonparametric	30.3000	61.4000
95th Percentile - Normal	31.3335	59.7241
95th Percentile - Lognormal	32.0046	72.8898
Upper Tolerance Limit - Normal	38.6806	76.6968
Upper Tolerance Limit - Lognormal	43.2376	133.3861 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9836	0.9628
Corr Coeff - Detected - Lognormal	0.9870	0.9701
Corr Coeff - Total - Normal	0.9836	0.9628
Corr Coeff - Total - Lognormal	0.9870	0.9701
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.9495	0.9066
W-Test - Lognormal	0.9571	0.9194
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABB_RES
Media : Indian Head Air Blast Pond Statistics
Group : Subsurface Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	7.0000	14.0000
Number of Detects	7.0000	14.0000
Average	17.6857	21.3964
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12.8000	7.9000
Positive Hits - Maximum	22.8000	70.4000
Average Of Positive Hits	17.6857	21.3964
Standard Deviation	4.2967	15.7792
Upper Confidence Limit - Normal	20.841 UCL	28.8650
Upper Confidence Limit - Lognormal	21.9806	29.8058
95th Percentile - Nonparametric	22.8000	70.4000
95th Percentile - Normal	24.7537	47.3532
95th Percentile - Lognormal	26.0750	45.8454
Upper Tolerance Limit - Normal	32.2901	62.6432
Upper Tolerance Limit - Lognormal	40.5819	79.4529 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9355	0.8286
Corr Coeff - Detected - Lognormal	0.9281	0.9659
Corr Coeff - Total - Normal	0.9355	0.8286
Corr Coeff - Total - Lognormal	0.9281	0.9659
Corr Coeff - Crit Val - Detected	0.8990	0.9340
Corr Coeff - Crit Val - Total	0.8990	0.9340
W-Test - Table Value	0.8030	0.8740
W-Test - Normal	0.8427	0.7136
W-Test - Lognormal	0.8280	0.9428
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : ANTIMONY (mg/kg)

	Sample Results	Background Results
Count	14.0000	27.0000
Number of Detects	10.0000	3.0000
Average	0.2804	0.3488
Detection Limit - Minimum	0.0575	0.0850
Detection Limits - Maximum	0.2750	0.5000
Positive Hits - Minimum	0.1975	0.6800
Positive Hits - Maximum	0.5800	1.8000 UCL
Average Of Positive Hits	0.3468	1.3933
Standard Deviation	0.1597	0.4251
Upper Confidence Limit - Normal	0.355 UCL	0.4884
Upper Confidence Limit - Lognormal	0.5122	0.4564
95th Percentile - Nonparametric	0.5800	1.8000
95th Percentile - Normal	0.5430	1.0481
95th Percentile - Lognormal	0.8019	0.8644
Upper Tolerance Limit - Normal	0.6978	1.3109
Upper Tolerance Limit - Lognormal	1.6941	1.3993

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7447	0.8348
Corr Coeff - Detected - Lognormal	0.7786	0.8188
Corr Coeff - Total - Normal	0.9802	0.7348
Corr Coeff - Total - Lognormal	0.9290	0.9469
Corr Coeff - Crit Val - Detected	0.9170	**********
Corr Coeff - Crit Val - Total	0.9340	0.9600
W-Test - Table Value	0.8740	0.9230
W-Test - Normal	0.9496	0.5554
W-Test - Lognormal	0.8499	0.8948
Type of Distribution	NORMAL ✓	Undefined ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : ARSENIC (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	12.0000	27.0000
Average	2.6152	3.3546
Detection Limit - Minimum	0.1375	0.9500
Detection Limits - Maximum	0.3750	0.9500
Positive Hits - Minimum	1.4000	0.7800
Positive Hits - Maximum	9.6000 UCL	10.4000
Average Of Positive Hits	3.0083	3.4437
Standard Deviation	2.2336	2.6362
Upper Confidence Limit - Normal	3.6724	4.2031
Upper Confidence Limit - Lognormal	6.8662	4.3476
95th Percentile - Nonparametric	9.6000	10.4000
95th Percentile - Normal	6.2894	7.6913
95th Percentile - Lognormal	9.8154	7.9572
Upper Tolerance Limit - Normal	8.4538	9.2830
Upper Tolerance Limit - Lognormal	26.2971	11.8849 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.6714	0.8536
Corr Coeff - Detected - Lognormal	0.8384	0.9660
Corr Coeff - Total - Normal	0.8253	0.8570
Corr Coeff - Total - Lognormal	0.8963	0.9681
Corr Coeff - Crit Val - Detected	0.9260	0.9600
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.7172	0.7344
W-Test - Lognormal	0.8329	0.9321
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	14.0000	28.0000
Average	30.9464	38.2393
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.2000	9.1000
Positive Hits - Maximum	70.8000	101.0000
Average Of Positive Hits	30.9464	38.2393
Standard Deviation	17.2832	22.9090
Upper Confidence Limit - Normal	39.1269 UCL	45.6122
Upper Confidence Limit - Lognormal	50.2374	49.9276
95th Percentile - Nonparametric	70.8000	101.0000
95th Percentile - Normal	59.3773	75.9245
95th Percentile - Lognormal	78.8218	89.7130
Upper Tolerance Limit - Normal	76.1248	89.7569
Upper Tolerance Limit - Lognormal	151.9354	130.9347 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9757	0.9554
Corr Coeff - Detected - Lognormal	0.9646	0.9873
Corr Coeff - Total - Normal	0.9757	0.9554
Corr Coeff - Total - Lognormal	0.9646	0.9873
Corr Coeff - Crit Val - Detected	0.9340	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9572	0.9108
W-Test - Lognormal	0.9327	0.9660
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	11.0000	24.0000
Average	0.3191	0.3655
Detection Limit - Minimum	0.0075	0.0500
Detection Limits - Maximum	0.0300	0.0900
Positive Hits - Minimum	0.2200	0.0500
Positive Hits - Maximum	0.5000 UCL	1.1000 UTL
Average Of Positive Hits	0.4018	0.4146
Standard Deviation	0.1833	0.2488
Upper Confidence Limit - Normal	0.4059	0.4456
Upper Confidence Limit - Lognormal	2.6458	0.5771
95th Percentile - Nonparametric	0.5000	1.1000
95th Percentile - Normal	0.6206	0.7748
95th Percentile - Lognormal	2.1945	1.1206
Upper Tolerance Limit - Normal	0.7982	0.9250
Upper Tolerance Limit - Lognormal	9.3195	1.8799

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8549	0.9628
Corr Coeff - Detected - Lognormal	0.8290	0.9522
Corr Coeff - Total - Normal	0.9091	0.9589
Corr Coeff - Total - Lognormal	0.8165	0.9650
Corr Coeff - Crit Val - Detected	0.9220	0.9570
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.8056	0.9210
W-Test - Lognormal	0.6624	0.9197
Type of Distribution	UNDEFINED	~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	4.0000	11.0000
Average	0.1470	0.1661
Detection Limit - Minimum	0.0300	0.0550
Detection Limits - Maximum	0.1600	0.2950
Positive Hits - Minimum	0.1075	0.1500
Positive Hits - Maximum	0.6900 UCL	0.2700 UCL
Average Of Positive Hits	0.4019	0.2236
Standard Deviation	0.2178	0.0873
Upper Confidence Limit - Normal	0.2501	0.1942
Upper Confidence Limit - Lognormal	0.3629	0.2165
95th Percentile - Nonparametric	0.6900	0.2950
95th Percentile - Normal	0.5053	0.3096
95th Percentile - Lognormal	0.4642	0.3865
Upper Tolerance Limit - Normal	0.7163	0.3623
Upper Tolerance Limit - Lognormal	1.4255	0.5597

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9604	0.8762
Corr Coeff - Detected - Lognormal	0.9624	0.8461
Corr Coeff - Total - Normal	0.7747	0.9421
Corr Coeff - Total - Lognormal	0.8627	0.9338
Corr Coeff - Crit Val - Detected	0.8680	0.9220
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.6066	0.8601
W-Test - Lognormal	0.7305	0.8453
Type of Distribution	Undefined ✓	Undefined ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

FAIL

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	14.0000	28.0000
Average	16.4857	16.9214
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	4.3000	3.5000
Positive Hits - Maximum	28.2000	44.7000
Average Of Positive Hits	16.4857	16.9214
Standard Deviation	7.4006	11.1359
Upper Confidence Limit - Normal	19.9886 UCL	20.5054
Upper Confidence Limit - Lognormal	23.8611	21.5942
95th Percentile - Nonparametric	28.2000	44.7000
95th Percentile - Normal	28.6597	35.2400
95th Percentile - Lognormal	36.6238	38.5060
Upper Tolerance Limit - Normal	35.8309	41.9639
Upper Tolerance Limit - Lognormal	63.0286	55.6988 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9855	0.9146
Corr Coeff - Detected - Lognormal	0.9540	0.9847
Corr Coeff - Total - Normal	0.9855	0.9146
Corr Coeff - Total - Lognormal	0.9540	0.9847
Corr Coeff - Crit Val - Detected	0.9340	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9570	0.8321
W-Test - Lognormal	0.9051	0.9682
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	14.0000	28.0000
Average	2.4386	8.7152
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.5900	0.5800
Positive Hits - Maximum	4.0000	133.0000
Average Of Positive Hits	2.4386	8.7152
Standard Deviation	1.0421	24.6385
Upper Confidence Limit - Normal	2.931	16.6448
Upper Confidence Limit - Lognormal	3.5266	10.5836
95th Percentile - Nonparametric	4.0000	133.0000
95th Percentile - Normal	4.1528	49.2456
95th Percentile - Lognormal	5.4053	20.3893
Upper Tolerance Limit - Normal	5.1626	64.1223
Upper Tolerance Limit - Lognormal	9.2607	39.5276

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9802	0.5142
Corr Coeff - Detected - Lognormal	0.9339	0.9453
Corr Coeff - Total - Normal	0.9802	0.5142
Corr Coeff - Total - Lognormal	0.9339	0.9453
Corr Coeff - Crit Val - Detected	0.9340	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9496	0.3010
W-Test - Lognormal	0.8729	0.9120
Type of Distribution	NORMAL	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	12.0000	24.0000
Average	12.6589	6.2214
Detection Limit - Minimum	1.0250	0.7500
Detection Limits - Maximum	1.0500	2.3000
Positive Hits - Minimum	6.5000	1.8000
Positive Hits - Maximum	33.8000	22.7000
Average Of Positive Hits	14.5958	6.9438
Standard Deviation	10.2861	5.1362
Upper Confidence Limit - Normal	17.5276	7.8745
Upper Confidence Limit - Lognormal	34.5639	8.6985
95th Percentile - Nonparametric	33.8000	22.7000
95th Percentile - Normal	29.5796	14.6706
95th Percentile - Lognormal	48.3567	16.5253
Upper Tolerance Limit - Normal	39.5469	17.7718
Upper Tolerance Limit - Lognormal	133.5858	26.1939

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8244	0.8992
Corr Coeff - Detected - Lognormal	0.9184	0.9877
Corr Coeff - Total - Normal	0.9234	0.8916
Corr Coeff - Total - Lognormal	0.9342	0.9882
Corr Coeff - Crit Val - Detected	0.9260	0.9570
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.8474	0.8038
W-Test - Lognormal	0.8713	0.9810
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal	FAIL
UTL Test - Lognormal	FAIL

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : LEAD (mg/kg)

		Sample Results	Background Results
Count		14.0000	28.0000
Number of Detects		14.0000	23.0000
Average		12.1286	13.1304
Detection Limit - Minimum	NA		2.6500
Detection Limits - Maximum	NA		14.4000
Positive Hits - Minimum		5.6000	3.1000
Positive Hits - Maximum		47.0000	149.0000
Average Of Positive Hits		12.1286	14.5457
Standard Deviation		10.4394	27.0633
Upper Confidence Limit - Normal		17.0698	21.8403
Upper Confidence Limit - Lognormal		15.9703	14.7332
95th Percentile - Nonparametric		47.0000	149.0000
95th Percentile - Normal		29.3014	57.6495
95th Percentile - Lognormal		24.2565	28.1071
Upper Tolerance Limit - Normal		39.4173	73.9903
Upper Tolerance Limit - Lognormal		40.4659	44.9330

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.7119	0.5641
Corr Coeff - Detected - Lognormal		0.8848	0.8944
Corr Coeff - Total - Normal		0.7119	0.5386
Corr Coeff - Total - Lognormal		0.8848	0.9017
Corr Coeff - Crit Val - Detected		0.9340	0.9550
Corr Coeff - Crit Val - Total		0.9340	0.9620
W-Test - Table Value		0.8740	0.9240
W-Test - Normal		0.5416	0.3276
W-Test - Lognormal		0.8077	0.8391
Type of Distribution		UNDEFINED	UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... FAIL

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	11.0000	23.0000
Average	0.0286	0.0352
Detection Limit - Minimum	0.0050	0.0100
Detection Limits - Maximum	0.0050	0.0400
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.0500	0.0800 UTL
Average Of Positive Hits	0.0350	0.0370
Standard Deviation	0.0166	0.0180
Upper Confidence Limit - Normal	0.0364 UCL	0.0410
Upper Confidence Limit - Lognormal	0.0597	0.0450
95th Percentile - Nonparametric	0.0500	0.0800
95th Percentile - Normal	0.0558	0.0648
95th Percentile - Lognormal	0.0916	0.0787
Upper Tolerance Limit - Normal	0.0719	0.0757
Upper Tolerance Limit - Lognormal	0.2120	0.1114

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8563	0.9647
Corr Coeff - Detected - Lognormal	0.8817	0.9614
Corr Coeff - Total - Normal	0.9655	0.9548
Corr Coeff - Total - Lognormal	0.9052	0.9506
Corr Coeff - Crit Val - Detected	0.9220	0.9550
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9035	0.9072
W-Test - Lognormal	0.7984	0.8941
Type of Distribution	NORMAL ✓	~~NORMAL~~ UNDEFINED

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : NICKEL (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	13.0000	28.0000
Average	4.1589	5.6357
Detection Limit - Minimum	1.3750	NA
Detection Limits - Maximum	1.3750	NA
Positive Hits - Minimum	1.2000	1.7000
Positive Hits - Maximum	7.6000	18.2000
Average Of Positive Hits	4.3731	5.6357
Standard Deviation	1.8294	3.4333
Upper Confidence Limit - Normal	5.0248 UCL	6.7407
Upper Confidence Limit - Lognormal	5.9031	6.9635
95th Percentile - Nonparametric	7.6000	18.2000
95th Percentile - Normal	7.1684	11.2835
95th Percentile - Lognormal	9.0005	11.9795
Upper Tolerance Limit - Normal	8.9411	13.3565
Upper Tolerance Limit - Lognormal	15.1785	16.6913 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9700	0.9034
Corr Coeff - Detected - Lognormal	0.9476	0.9894
Corr Coeff - Total - Normal	0.9847	0.9034
Corr Coeff - Total - Lognormal	0.9492	0.9894
Corr Coeff - Crit Val - Detected	0.9310	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9652	0.8342
W-Test - Lognormal	0.8993	0.9800
Type of Distribution	NORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		14.0000	28.0000
Number of Detects		14.0000	21.0000
Average		0.8525	0.6536
Detection Limit - Minimum	NA		0.0750
Detection Limits - Maximum	NA		0.2700
Positive Hits - Minimum		0.2900	0.1700
Positive Hits - Maximum		1.8000	2.6000
Average Of Positive Hits		0.8525	0.8160
Standard Deviation		0.3670	0.6239
Upper Confidence Limit - Normal		1.0262	0.8544
Upper Confidence Limit - Lognormal		1.0956 UCL	1.0383
95th Percentile - Nonparametric		1.8000	2.6000
95th Percentile - Normal		1.4562	1.6799
95th Percentile - Lognormal		1.5933	2.0301
Upper Tolerance Limit - Normal		1.8119	2.0566
Upper Tolerance Limit - Lognormal		2.4185	3.5352 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9384	0.8812
Corr Coeff - Detected - Lognormal		0.9630	0.9673
Corr Coeff - Total - Normal		0.9384	0.8571
Corr Coeff - Total - Lognormal		0.9630	0.9771
Corr Coeff - Crit Val - Detected		0.9340	0.9520
Corr Coeff - Crit Val - Total		0.9340	0.9620
W-Test - Table Value		0.8740	0.9240
W-Test - Normal		0.9027	0.7420
W-Test - Lognormal		0.9511	0.9479
Type of Distribution		LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : SILVER (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	1.0000	2.0000
Average	0.0380	0.0673
Detection Limit - Minimum	0.0163	0.0300
Detection Limits - Maximum	0.1025	0.0750
Positive Hits - Minimum	0.0575	0.0625
Positive Hits - Maximum	0.0575	0.6300
Average Of Positive Hits	0.0575	0.3463
Standard Deviation	0.0320	0.1112
Upper Confidence Limit - Normal	0.0531	0.1031
Upper Confidence Limit - Lognormal	0.0610	0.0726
95th Percentile - Nonparametric	0.1025	0.6300
95th Percentile - Normal	0.0905	0.2503
95th Percentile - Lognormal	0.0958	0.1276
Upper Tolerance Limit - Normal	0.1215	0.3174
Upper Tolerance Limit - Lognormal	0.1949	0.1816

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.8375	0.5097
Corr Coeff - Total - Lognormal	0.8490	0.7946
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.6899	0.2966
W-Test - Lognormal	0.7015	0.6626
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	14.0000	28.0000
Average	20.8179	25.0375
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.0000	9.8000
Positive Hits - Maximum	31.5000	61.4000
Average Of Positive Hits	20.8179	25.0375
Standard Deviation	8.2580	14.7958
Upper Confidence Limit - Normal	24.7266 UCL	29.7993
Upper Confidence Limit - Lognormal	30.2663	31.1373
95th Percentile - Nonparametric	31.5000	61.4000
95th Percentile - Normal	34.4023	49.3766
95th Percentile - Lognormal	46.3799	53.9656
Upper Tolerance Limit - Normal	42.4044	58.3103
Upper Tolerance Limit - Lognormal	79.4101	75.7429 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9735	0.9376
Corr Coeff - Detected - Lognormal	0.9005	0.9798
Corr Coeff - Total - Normal	0.9735	0.9376
Corr Coeff - Total - Lognormal	0.9005	0.9798
Corr Coeff - Crit Val - Detected	0.9340	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.9354	0.8679
W-Test - Lognormal	0.8121	0.9395
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	14.0000	28.0000
Average	25.9714	19.7411
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	12.8000	6.2000
Positive Hits - Maximum	80.8000	70.4000
Average Of Positive Hits	25.9714	19.7411
Standard Deviation	19.3245	12.2870
Upper Confidence Limit - Normal	35.1181 UCL	23.6955
Upper Confidence Limit - Lognormal	34.4058	24.0318
95th Percentile - Nonparametric	80.8000	70.4000
95th Percentile - Normal	57.7602	39.9532
95th Percentile - Lognormal	52.1003	40.7019
Upper Tolerance Limit - Normal	76.4856	47.3721
Upper Tolerance Limit - Lognormal	86.2162	55.8789 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.7583	0.8549
Corr Coeff - Detected - Lognormal	0.8589	0.9802
Corr Coeff - Total - Normal	0.7583	0.8549
Corr Coeff - Total - Lognormal	0.8589	0.9802
Corr Coeff - Crit Val - Detected	0.9340	0.9620
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.5966	0.7597
W-Test - Lognormal	0.7518	0.9695
Type of Distribution	UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : ACETONE (µg/kg)

	Sample Results	Background Results
Count	14.0000	6.0000
Number of Detects	7.0000	3.0000
Average	484.1964	2834.6083
Detection Limit - Minimum	8.0000	0.7000
Detection Limits - Maximum	21.5000	5.0000
Positive Hits - Minimum	530.0000	1800.0000
Positive Hits - Maximum	2000.0000 UCL	13000.0000
Average Of Positive Hits	955.7143	5666.6667
Standard Deviation	597.1291	5076.8101
Upper Confidence Limit - Normal	766.8294	7010.8954
Upper Confidence Limit - Lognormal	34111.7403	6.3619540E+19
95th Percentile - Nonparametric	2000.0000	13000.0000
95th Percentile - Normal	1466.4738	11185.9609
95th Percentile - Lognormal	4170.7132	92039.7902
Upper Tolerance Limit - Normal	2045.0919	12698.8503
Upper Tolerance Limit - Lognormal	37110.3351	327061.8421 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8919	0.9220
Corr Coeff - Detected - Lognormal	0.9618	0.9438
Corr Coeff - Total - Normal	0.8944	0.7911
Corr Coeff - Total - Lognormal	0.9043	0.9414
Corr Coeff - Crit Val - Detected	0.8990	**********
Corr Coeff - Crit Val - Total	0.9340	0.8900
W-Test - Table Value	0.8740	0.7880
W-Test - Normal	0.8007	0.6474
W-Test - Lognormal	0.7881	0.8572
Type of Distribution	~~LOGNORMAL~~ UNDEFINED	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : METHYLENE CHLORIDE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	1.9107	
Detection Limit - Minimum	0.7500	
Detection Limits - Maximum	3.7500	
Positive Hits - Minimum	7.0000	
Positive Hits - Maximum	7.0000	
Average Of Positive Hits	7.0000	
Standard Deviation	1.6831	
Upper Confidence Limit - Normal	2.7073	
Upper Confidence Limit - Lognormal	2.8552	
95th Percentile - Nonparametric	7.0000	
95th Percentile - Normal	4.6794	
95th Percentile - Lognormal	4.4735	
Upper Tolerance Limit - Normal	6.3103	
Upper Tolerance Limit - Lognormal	8.4974	

UCL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8183	
Corr Coeff - Total - Lognormal	0.9497	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.6909	NA
W-Test - Lognormal	0.8981	NA

Type of Distribution ..... ~~Undefined~~

Test Results: LOGNORMAL

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : STYRENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	7.8304	
Detection Limit - Minimum	1.2500	
Detection Limits - Maximum	1.7500	
Positive Hits - Minimum	92.0000	
Positive Hits - Maximum	92.0000	
Average Of Positive Hits	92.0000	
Standard Deviation	24.2262	
Upper Confidence Limit - Normal	19.2971	
Upper Confidence Limit - Lognormal	8.9999	
95th Percentile - Nonparametric	92.0000	
95th Percentile - Normal	47.6824	
95th Percentile - Lognormal	11.7655	
Upper Tolerance Limit - Normal	71.1576	
Upper Tolerance Limit - Lognormal	35.2974	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.5162	
Corr Coeff - Total - Lognormal	0.5759	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.3015	NA
W-Test - Lognormal	0.3669	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	14.0000	6.0000
Number of Detects	5.0000	1.0000
Average	391.4464	211.6417
Detection Limit - Minimum	13.2500	36.4500
Detection Limits - Maximum	110.0000	195.0000
Positive Hits - Minimum	51.0000	640.0000
Positive Hits - Maximum	2100.0000	640.0000
Average Of Positive Hits	958.7000	640.0000
Standard Deviation	653.8165	222.0473
Upper Confidence Limit - Normal	700.9106	394.3023
Upper Confidence Limit - Lognormal	1762.2830 UCL	2391.9141
95th Percentile - Nonparametric	2100.0000	640.0000
95th Percentile - Normal	1466.9746	576.9095
95th Percentile - Lognormal	1470.5205	811.2748
Upper Tolerance Limit - Normal	2100.5228	643.0795
Upper Tolerance Limit - Lognormal	6222.7706	1124.9931 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8833	
Corr Coeff - Detected - Lognormal	0.7195	
Corr Coeff - Total - Normal	0.7652	0.8600
Corr Coeff - Total - Lognormal	0.9162	0.9414
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9340	0.8900
W-Test - Table Value	0.8740	0.7880
W-Test - Normal	0.5969	0.7604
W-Test - Lognormal	0.8424	0.8819
Type of Distribution	Undefined	~~Undefined~~ LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... FAIL

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	90.5893	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	67.0000	
Positive Hits - Maximum	67.0000	
Average Of Positive Hits	67.0000	
Standard Deviation	8.9365	
Upper Confidence Limit - Normal	94.8191	
Upper Confidence Limit - Lognormal	95.3650	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	105.2899	
95th Percentile - Lognormal	106.9816	
Upper Tolerance Limit - Normal	113.9494	
Upper Tolerance Limit - Lognormal	118.3297	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8727	
Corr Coeff - Total - Lognormal	0.8529	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.8125	NA
W-Test - Lognormal	0.7780	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	14.0000	No samples
Number of Detects	1.0000	
Average	90.3036	
Detection Limit - Minimum	87.5000	
Detection Limits - Maximum	110.0000	
Positive Hits - Minimum	63.0000	
Positive Hits - Maximum	63.0000 UCL	
Average Of Positive Hits	63.0000	
Standard Deviation	9.7735	
Upper Confidence Limit - Normal	94.9296	
Upper Confidence Limit - Lognormal	95.7669	
95th Percentile - Nonparametric	110.0000	
95th Percentile - Normal	106.3809	
95th Percentile - Lognormal	108.9727	
Upper Tolerance Limit - Normal	115.8515	
Upper Tolerance Limit - Lognormal	122.1644	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8540	
Corr Coeff - Total - Lognormal	0.8239	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.9340	
W-Test - Table Value	0.8740	NA
W-Test - Normal	0.7811	NA
W-Test - Lognormal	0.7297	NA

Type of Distribution ..... Undefined /

Test Results:

Dataset: IHABO_RES
Media : Indian Head Air Blast Pond Statistics
Group : All Soil Comparison to Background

Parameter : THALLIUM (mg/kg)

	Sample Results	Background Results
Count	14.0000	28.0000
Number of Detects	1.0000	2.0000
Average	0.0944	0.3377
Detection Limit - Minimum	0.0588	0.1100
Detection Limits - Maximum	0.3000	1.1000
Positive Hits - Minimum	0.2475	0.5300
Positive Hits - Maximum	0.2475	3.1000
Average Of Positive Hits	0.2475	1.8150
Standard Deviation	0.0768	0.5839
Upper Confidence Limit - Normal	0.1307	0.5256
Upper Confidence Limit - Lognormal	0.1245	0.3963
95th Percentile - Nonparametric	0.3000	3.1000
95th Percentile - Normal	0.2208	1.2983
95th Percentile - Lognormal	0.1892	0.7586
Upper Tolerance Limit - Normal	0.2952	1.6508
Upper Tolerance Limit - Lognormal	0.3165	1.2220

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	1.0000
Corr Coeff - Detected - Lognormal	**********	1.0000
Corr Coeff - Total - Normal	0.6959	0.6149
Corr Coeff - Total - Lognormal	0.7419	0.8531
Corr Coeff - Crit Val - Detected	0.8790	**********
Corr Coeff - Crit Val - Total	0.9340	0.9620
W-Test - Table Value	0.8740	0.9240
W-Test - Normal	0.5003	0.4124
W-Test - Lognormal	0.5610	0.7385
Type of Distribution	Undefined	Undefined

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : ARSENIC (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	9.0000
Average		2.8500	3.0160
Detection Limit - Minimum	NA		0.4100
Detection Limits - Maximum	NA		0.4100
Positive Hits - Minimum		1.2000	0.2800
Positive Hits - Maximum		5.8000	9.5500
Average Of Positive Hits		2.8500	3.3056
Standard Deviation		2.1016	3.4113
Upper Confidence Limit - Normal		5.3225	4.9933
Upper Confidence Limit - Lognormal		43.0372	16.6094
95th Percentile - Nonparametric		5.8000	9.5500
95th Percentile - Normal		6.3071	8.6276
95th Percentile - Lognormal		7.5464	12.6643
Upper Tolerance Limit - Normal		13.6627	12.9463
Upper Tolerance Limit - Lognormal		90.6687	62.9604

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9340	0.8773
Corr Coeff - Detected - Lognormal	0.9754	0.9846
Corr Coeff - Total - Normal	0.9340	0.8853
Corr Coeff - Total - Lognormal	0.9754	0.9774
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8703	0.7732
W-Test - Lognormal	0.9407	0.9312
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BARIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	35.3500	41.9750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	18.3000	5.8000
Positive Hits - Maximum	80.6000	175.0000
Average Of Positive Hits	35.3500	41.9750
Standard Deviation	30.2545	52.8775
Upper Confidence Limit - Normal	70.9445	72.6252
Upper Confidence Limit - Lognormal	489.5347	145.1041
95th Percentile - Nonparametric	80.6000	175.0000
95th Percentile - Normal	85.1187	128.9586
95th Percentile - Lognormal	90.4079	143.4017
Upper Tolerance Limit - Normal	191.0096	195.9015
Upper Tolerance Limit - Lognormal	1055.2212	577.1926

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8240	0.8317
Corr Coeff - Detected - Lognormal	0.8623	0.9742
Corr Coeff - Total - Normal	0.8240	0.8317
Corr Coeff - Total - Lognormal	0.8623	0.9742
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6912	0.7090
W-Test - Lognormal	0.7520	0.9408
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BERYLLIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	7.0000
Average	0.2400	0.5070
Detection Limit - Minimum	0.0350	0.0450
Detection Limits - Maximum	0.0350	1.3750
Positive Hits - Minimum	0.3700	0.1350
Positive Hits - Maximum	0.5200	1.0000
Average Of Positive Hits	0.4450	0.5150
Standard Deviation	0.2445	0.4502
Upper Confidence Limit - Normal	0.5277	0.7679
Upper Confidence Limit - Lognormal	23083.2102	2.8364
95th Percentile - Nonparametric	0.5200	1.3750
95th Percentile - Normal	0.6422	1.2475
95th Percentile - Lognormal	1.3824	2.2863
Upper Tolerance Limit - Normal	1.4980	1.8175
Upper Tolerance Limit - Lognormal	234.1540	10.9163

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9735
Corr Coeff - Detected - Lognormal	1.0000	0.9592
Corr Coeff - Total - Normal	0.9340	0.9559
Corr Coeff - Total - Lognormal	0.9051	0.9635
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8458	0.9015
W-Test - Lognormal	0.7847	0.9063
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : CADMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	2.0000	7.0000
Average	0.1606	0.3185
Detection Limit - Minimum	0.0350	0.0800
Detection Limits - Maximum	0.0375	0.4500
Positive Hits - Minimum	0.1800	0.1450
Positive Hits - Maximum	0.3900	0.8600
Average Of Positive Hits	0.2850	0.3479
Standard Deviation	0.1673	0.2283
Upper Confidence Limit - Normal	0.3574	0.4508
Upper Confidence Limit - Lognormal	304.2121	0.5699
95th Percentile - Nonparametric	0.3900	0.8600
95th Percentile - Normal	0.4358	0.6941
95th Percentile - Lognormal	0.6958	0.7866
Upper Tolerance Limit - Normal	1.0212	0.9832
Upper Tolerance Limit - Lognormal	45.0639	1.8472

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	0.9182
Corr Coeff - Detected - Lognormal	1.0000	0.9870
Corr Coeff - Total - Normal	0.9292	0.9107
Corr Coeff - Total - Lognormal	0.9433	0.9891
Corr Coeff - Crit Val - Detected	0.8790	0.8990
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8548	0.8457
W-Test - Lognormal	0.8651	0.9882
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : CHROMIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	13.9500	11.5800
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	6.4000	3.3000
Positive Hits - Maximum	20.0000	27.7000
Average Of Positive Hits	13.9500	11.5800
Standard Deviation	6.4995	8.1746
Upper Confidence Limit - Normal	21.5966	16.3184
Upper Confidence Limit - Lognormal	68.1211	22.9076
95th Percentile - Nonparametric	20.0000	27.7000
95th Percentile - Normal	24.6417	25.0272
95th Percentile - Lognormal	30.4422	30.9388
Upper Tolerance Limit - Normal	47.3899	35.3762
Upper Tolerance Limit - Lognormal	197.1956	79.1602

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9608	0.9502
Corr Coeff - Detected - Lognormal	0.9561	0.9777
Corr Coeff - Total - Normal	0.9608	0.9502
Corr Coeff - Total - Lognormal	0.9561	0.9777
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9013	0.8929
W-Test - Lognormal	0.8990	0.9351
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : COBALT (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	2.3750	5.9695
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	1.1000	0.6700
Positive Hits - Maximum	4.4000	17.0500
Average Of Positive Hits	2.3750	5.9695
Standard Deviation	1.4175	5.9423
Upper Confidence Limit - Normal	4.0426	9.4139
Upper Confidence Limit - Lognormal	14.1192	30.6991
95th Percentile - Nonparametric	4.4000	17.0500
95th Percentile - Normal	4.7067	15.7446
95th Percentile - Lognormal	5.3553	24.9428
Upper Tolerance Limit - Normal	9.6678	23.2675
Upper Tolerance Limit - Lognormal	39.3949	118.3767

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9286	0.9255
Corr Coeff - Detected - Lognormal	0.9730	0.9582
Corr Coeff - Total - Normal	0.9286	0.9255
Corr Coeff - Total - Lognormal	0.9730	0.9582
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8786	0.8399
W-Test - Lognormal	0.9637	0.8895
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : COPPER (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	29.9500	9.4985
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	5.7000	0.6350
Positive Hits - Maximum	90.0000 UCL	26.7500
Average Of Positive Hits	29.9500	9.4985
Standard Deviation	40.2438	10.6209
Upper Confidence Limit - Normal	77.2968	15.6549
Upper Confidence Limit - Lognormal	69551.0667	91.4263
95th Percentile - Nonparametric	90.0000	26.7500
95th Percentile - Normal	96.1510	26.9699
95th Percentile - Lognormal	119.4885	46.4598
Upper Tolerance Limit - Normal	237.0043	40.4159
Upper Tolerance Limit - Lognormal	8421.4723	296.5670 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8406	0.8992
Corr Coeff - Detected - Lognormal	0.9449	0.9550
Corr Coeff - Total - Normal	0.8406	0.8992
Corr Coeff - Total - Lognormal	0.9449	0.9550
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7186	0.7832
W-Test - Lognormal	0.8975	0.8807
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : LEAD (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	43.1000	23.0750
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	7.9000	2.1000
Positive Hits - Maximum	141.0000	79.3000
Average Of Positive Hits	43.1000	23.0750
Standard Deviation	65.3225	25.6307
Upper Confidence Limit - Normal	119.9520	37.9317
Upper Confidence Limit - Lognormal	492507.2382	124.9997
95th Percentile - Nonparametric	141.0000	79.3000
95th Percentile - Normal	150.5556	65.2375
95th Percentile - Lognormal	177.2246	96.4635
Upper Tolerance Limit - Normal	379.1844	97.6859
Upper Tolerance Limit - Lognormal	19225.8137	475.5218

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8071	0.9044
Corr Coeff - Detected - Lognormal	0.8796	0.9774
Corr Coeff - Total - Normal	0.8071	0.9044
Corr Coeff - Total - Lognormal	0.8796	0.9774
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6653	0.8168
W-Test - Lognormal	0.7824	0.9353
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : MERCURY (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	0.0500	0.0670
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	0.0200	0.0100
Positive Hits - Maximum	0.1200	0.2300
Average Of Positive Hits	0.0500	0.0670
Standard Deviation	0.0469	0.0747
Upper Confidence Limit - Normal	0.1052	0.1103
Upper Confidence Limit - Lognormal	1.3062	0.1960
95th Percentile - Nonparametric	0.1200	0.2300
95th Percentile - Normal	0.1272	0.1899
95th Percentile - Lognormal	0.1393	0.2161
Upper Tolerance Limit - Normal	0.2913	0.2844
Upper Tolerance Limit - Lognormal	2.1689	0.7779

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8356	0.8527
Corr Coeff - Detected - Lognormal	0.8953	0.9397
Corr Coeff - Total - Normal	0.8356	0.8527
Corr Coeff - Total - Lognormal	0.8953	0.9397
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.7155	0.7311
W-Test - Lognormal	0.8214	0.8808
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : NICKEL (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	8.0000
Average		5.5500	7.4355
Detection Limit - Minimum	NA		0.2750
Detection Limits - Maximum	NA		0.2900
Positive Hits - Minimum		2.3000	0.5400
Positive Hits - Maximum		11.5000	25.2000
Average Of Positive Hits		5.5500	9.2238
Standard Deviation		4.0673	8.7626
Upper Confidence Limit - Normal		10.3352	12.5147
Upper Confidence Limit - Lognormal		61.4147	156.6594
95th Percentile - Nonparametric		11.5000	25.2000
95th Percentile - Normal		12.2408	21.8500
95th Percentile - Lognormal		13.9372	45.7199
Upper Tolerance Limit - Normal		26.4765	32.9434
Upper Tolerance Limit - Lognormal		144.2380	382.0099

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8921	0.9709
Corr Coeff - Detected - Lognormal	0.9529	0.9615
Corr Coeff - Total - Normal	0.8921	0.9102
Corr Coeff - Total - Lognormal	0.9529	0.9740
Corr Coeff - Crit Val - Detected	0.8680	0.9050
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.8139	0.8189
W-Test - Lognormal	0.9279	0.9207
Type of Distribution	LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : SELENIUM (mg/kg)

		Sample Results	Background Results
Count		4.0000	10.0000
Number of Detects		4.0000	7.0000
Average		0.7125	0.7190
Detection Limit - Minimum	NA		0.1300
Detection Limits - Maximum	NA		0.4250
Positive Hits - Minimum		0.3500	0.4500
Positive Hits - Maximum		1.1000 BCL	1.5500
Average Of Positive Hits		0.7125	0.9257
Standard Deviation		0.3435	0.5172
Upper Confidence Limit - Normal		1.1167	1.0188
Upper Confidence Limit - Lognormal		3.2470	1.7273
95th Percentile - Nonparametric		1.1000	1.5500
95th Percentile - Normal		1.2776	1.5698
95th Percentile - Lognormal		1.5259	2.1996
Upper Tolerance Limit - Normal		2.4801	2.2245
Upper Tolerance Limit - Lognormal		9.4840	6.4546 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal		0.9820	0.9436
Corr Coeff - Detected - Lognormal		0.9817	0.9464
Corr Coeff - Total - Normal		0.9820	0.9431
Corr Coeff - Total - Lognormal		0.9817	0.9625
Corr Coeff - Crit Val - Detected		0.8680	0.8990
Corr Coeff - Crit Val - Total		0.8680	0.9170
W-Test - Table Value		0.7480	0.8420
W-Test - Normal		0.9472	0.8704
W-Test - Lognormal		0.9480	0.9122
Type of Distribution		LOGNORMAL	LOGNORMAL

Test Results:

UTL Test - Normal	PASS
UTL Test - Lognormal	PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : TIN (mg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	3.1750	
Detection Limit - Minimum	0.8500	
Detection Limits - Maximum	0.9500	
Positive Hits - Minimum	10.0000	
Positive Hits - Maximum	10.0000	
Average Of Positive Hits	10.0000	
Standard Deviation	4.5502	
Upper Confidence Limit - Normal	8.5283	
Upper Confidence Limit - Lognormal	6126.8276	
95th Percentile - Nonparametric	10.0000	
95th Percentile - Normal	10.6601	
95th Percentile - Lognormal	11.9251	
Upper Tolerance Limit - Normal	26.5857	
Upper Tolerance Limit - Lognormal	810.2534	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7894	
Corr Coeff - Total - Lognormal	0.8067	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6382	NA
W-Test - Lognormal	0.6655	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : VANADIUM (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	10.0000
Average	24.6750	18.6350
Detection Limit - Minimum	NA	NA
Detection Limits - Maximum	NA	NA
Positive Hits - Minimum	9.1000	3.2000
Positive Hits - Maximum	40.5000	46.3000
Average Of Positive Hits	24.6750	18.6350
Standard Deviation	13.8286	15.4646
Upper Confidence Limit - Normal	40.9443	27.5990
Upper Confidence Limit - Lognormal	262.6845	50.5807
95th Percentile - Nonparametric	40.5000	46.3000
95th Percentile - Normal	47.4230	44.0743
95th Percentile - Lognormal	62.9930	60.4356
Upper Tolerance Limit - Normal	95.8230	63.6525
Upper Tolerance Limit - Lognormal	630.4254	196.4642

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.9949	0.9446
Corr Coeff - Detected - Lognormal	0.9811	0.9876
Corr Coeff - Total - Normal	0.9949	0.9446
Corr Coeff - Total - Lognormal	0.9811	0.9876
Corr Coeff - Crit Val - Detected	0.8680	0.9170
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.9797	0.8744
W-Test - Lognormal	0.9565	0.9533
Type of Distribution	NORMAL	LOGNORMAL

Test Results:

UTL Test - Normal..... PASS
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : ZINC (mg/kg)

	Sample Results	Background Results
Count	4.0000	10.0000
Number of Detects	4.0000	9.0000
Average	101.0250	37.1350
Detection Limit - Minimum	NA	0.5500
Detection Limits - Maximum	NA	0.5500
Positive Hits - Minimum	15.9000	4.4000
Positive Hits - Maximum	337.0000 UCL	146.5000
Average Of Positive Hits	101.0250	41.2000
Standard Deviation	157.4959	45.8496
Upper Confidence Limit - Normal	286.3190	63.7115
Upper Confidence Limit - Lognormal	3595825.0799	585.3022
95th Percentile - Nonparametric	337.0000	146.5000
95th Percentile - Normal	360.1058	112.5576
95th Percentile - Lognormal	436.4953	225.7454
Upper Tolerance Limit - Normal	911.3416	170.6031
Upper Tolerance Limit - Lognormal	62358.6441	1659.5817 UTL

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	0.8096	0.8906
Corr Coeff - Detected - Lognormal	0.8915	0.9880
Corr Coeff - Total - Normal	0.8096	0.8610
Corr Coeff - Total - Lognormal	0.8915	0.9607
Corr Coeff - Crit Val - Detected	0.8680	0.9120
Corr Coeff - Crit Val - Total	0.8680	0.9170
W-Test - Table Value	0.7480	0.8420
W-Test - Normal	0.6689	0.7546
W-Test - Lognormal	0.8005	0.9388
Type of Distribution	LOGNORMAL ✓	LOGNORMAL ✓

Test Results:

UTL Test - Normal..... FAIL
UTL Test - Lognormal..... PASS

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : 1,1,1-TRICHLOROETHANE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	1.7500	
Detection Limit - Minimum	1.5000	
Detection Limits - Maximum	1.5000	
Positive Hits - Minimum	2.0000	
Positive Hits - Maximum	2.0000 UCL	
Average Of Positive Hits	2.0000	
Standard Deviation	0.2887	
Upper Confidence Limit - Normal	2.0896	
Upper Confidence Limit - Lognormal	2.2591	
95th Percentile - Nonparametric	2.0000	
95th Percentile - Normal	2.2249	
95th Percentile - Lognormal	2.2763	
Upper Tolerance Limit - Normal	3.2352	
Upper Tolerance Limit - Lognormal	4.0709	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8768	
Corr Coeff - Total - Lognormal	0.8768	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7309	NA
W-Test - Lognormal	0.7309	NA

Type of Distribution ..... UNDEFINED ✓

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : CARBON DISULFIDE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	1.9375	
Detection Limit - Minimum	1.5000	
Detection Limits - Maximum	1.7500	
Positive Hits - Minimum	3.0000	
Positive Hits - Maximum	3.0000	
Average Of Positive Hits	3.0000	
Standard Deviation	0.7181	
Upper Confidence Limit - Normal	2.7823	
Upper Confidence Limit - Lognormal	3.7707	
95th Percentile - Nonparametric	3.0000	
95th Percentile - Normal	3.1187	
95th Percentile - Lognormal	3.1852	
Upper Tolerance Limit - Normal	5.6320	
Upper Tolerance Limit - Lognormal	10.0747	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8585	
Corr Coeff - Total - Lognormal	0.8792	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7439	NA
W-Test - Lognormal	0.7766	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : ACENAPHTHYLENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	118.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	170.0000	
Positive Hits - Maximum	170.0000	
Average Of Positive Hits	170.0000	
Standard Deviation	34.9628	
Upper Confidence Limit - Normal	159.2587	
Upper Confidence Limit - Lognormal	191.2838	
95th Percentile - Nonparametric	170.0000	
95th Percentile - Normal	175.6388	
95th Percentile - Lognormal	177.9966	
Upper Tolerance Limit - Normal	298.0085	
Upper Tolerance Limit - Lognormal	452.6535	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8652	
Corr Coeff - Total - Lognormal	0.8862	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7601	NA
W-Test - Lognormal	0.7957	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	115.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	160.0000	
Positive Hits - Maximum	160.0000	
Average Of Positive Hits	160.0000	
Standard Deviation	30.0260	
Upper Confidence Limit - Normal	150.9506	
Upper Confidence Limit - Lognormal	173.7389	
95th Percentile - Nonparametric	160.0000	
95th Percentile - Normal	165.0178	
95th Percentile - Lognormal	166.9626	
Upper Tolerance Limit - Normal	270.1089	
Upper Tolerance Limit - Lognormal	382.6880	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8770	
Corr Coeff - Total - Lognormal	0.8970	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.7798	NA
W-Test - Lognormal	0.8141	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(A)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	220.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	580.0000	
Positive Hits - Maximum	580.0000	
Average Of Positive Hits	580.0000	
Standard Deviation	239.6384	
Upper Confidence Limit - Normal	502.5596	
Upper Confidence Limit - Lognormal	12566.2682	
95th Percentile - Nonparametric	580.0000	
95th Percentile - Normal	614.8302	
95th Percentile - Lognormal	660.0915	
Upper Tolerance Limit - Normal	1453.5646	
Upper Tolerance Limit - Lognormal	14207.1361	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7968	
Corr Coeff - Total - Lognormal	0.8180	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6497	NA
W-Test - Lognormal	0.6832	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(A)PYRENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	203.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	510.0000	
Positive Hits - Maximum	510.0000	
Average Of Positive Hits	510.0000	
Standard Deviation	204.6478	
Upper Confidence Limit - Normal	443.8932	
Upper Confidence Limit - Lognormal	6629.6742	
95th Percentile - Nonparametric	510.0000	
95th Percentile - Normal	539.7707	
95th Percentile - Lognormal	575.1480	
Upper Tolerance Limit - Normal	1256.0380	
Upper Tolerance Limit - Lognormal	9887.9740	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7990	
Corr Coeff - Total - Lognormal	0.8206	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6531	NA
W-Test - Lognormal	0.6873	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(B)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	313.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	950.0000	
Positive Hits - Maximum	950.0000	
Average Of Positive Hits	950.0000	
Standard Deviation	424.6144	
Upper Confidence Limit - Normal	812.6839	
Upper Confidence Limit - Lognormal	225500.4901	
95th Percentile - Nonparametric	950.0000	
95th Percentile - Normal	1011.6157	
95th Percentile - Lognormal	1119.9689	
Upper Tolerance Limit - Normal	2497.7661	
Upper Tolerance Limit - Lognormal	57099.9682	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7912	
Corr Coeff - Total - Lognormal	0.8107	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6410	NA
W-Test - Lognormal	0.6716	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(G,H,I)PERYLENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	155.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	320.0000	
Positive Hits - Maximum	320.0000	
Average Of Positive Hits	320.0000	
Standard Deviation	109.7037	
Upper Confidence Limit - Normal	284.6914	
Upper Confidence Limit - Lognormal	966.2833	
95th Percentile - Nonparametric	320.0000	
95th Percentile - Normal	336.0875	
95th Percentile - Lognormal	349.2517	
Upper Tolerance Limit - Normal	720.0504	
Upper Tolerance Limit - Lognormal	2661.9386	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.8116	
Corr Coeff - Total - Lognormal	0.8345	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6730	NA
W-Test - Lognormal	0.7096	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BENZO(K)FLUORANTHENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	255.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	720.0000	
Positive Hits - Maximum	720.0000	
Average Of Positive Hits	720.0000	
Standard Deviation	309.6260	
Upper Confidence Limit - Normal	619.8999	
Upper Confidence Limit - Lognormal	40890.3019	
95th Percentile - Nonparametric	720.0000	
95th Percentile - Normal	764.9597	
95th Percentile - Lognormal	832.1501	
Upper Tolerance Limit - Normal	1848.6505	
Upper Tolerance Limit - Lognormal	26133.1705	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7939	
Corr Coeff - Total - Lognormal	0.8144	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6452	NA
W-Test - Lognormal	0.6774	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : BIS(2-ETHYLHEXYL)PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	2.0000	
Average	102.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	58.0000	
Positive Hits - Maximum	150.0000	
Average Of Positive Hits	104.0000	
Standard Deviation	37.9372	
Upper Confidence Limit - Normal	147.2581	
Upper Confidence Limit - Lognormal	254.3738	
95th Percentile - Nonparametric	150.0000	
95th Percentile - Normal	165.0317	
95th Percentile - Lognormal	185.6000	
Upper Tolerance Limit - Normal	297.8118	
Upper Tolerance Limit - Lognormal	736.7733	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	1.0000	
Corr Coeff - Detected - Lognormal	1.0000	
Corr Coeff - Total - Normal	0.9881	
Corr Coeff - Total - Lognormal	0.9813	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9882	NA
W-Test - Lognormal	0.9750	NA

Type of Distribution ..... NORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : CHRYSENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	278.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	810.0000	
Positive Hits - Maximum	810.0000	
Average Of Positive Hits	810.0000	
Standard Deviation	354.6205	
Upper Confidence Limit - Normal	695.3361	
Upper Confidence Limit - Lognormal	82265.7699	
95th Percentile - Nonparametric	810.0000	
95th Percentile - Normal	861.4758	
95th Percentile - Lognormal	944.0828	
Upper Tolerance Limit - Normal	2102.6477	
Upper Tolerance Limit - Lognormal	36425.4895	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7926	
Corr Coeff - Total - Lognormal	0.8127	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6432	NA
W-Test - Lognormal	0.6748	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : DI-N-BUTYL PHTHALATE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	91.2500	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	122.5000	
Positive Hits - Minimum	40.0000	
Positive Hits - Maximum	40.0000	
Average Of Positive Hits	40.0000	
Standard Deviation	35.9687	
Upper Confidence Limit - Normal	133.5672	
Upper Confidence Limit - Lognormal	385.7086	
95th Percentile - Nonparametric	122.5000	
95th Percentile - Normal	150.4186	
95th Percentile - Lognormal	193.4151	
Upper Tolerance Limit - Normal	276.3091	
Upper Tolerance Limit - Lognormal	1137.5640	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9387	
Corr Coeff - Total - Lognormal	0.8944	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8905	NA
W-Test - Lognormal	0.8115	NA

Type of Distribution ..... ~~Undefined~~ NORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : DIBENZO(A,H)ANTHRACENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	108.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	130.0000	
Positive Hits - Maximum	130.0000 UCL	
Average Of Positive Hits	130.0000	
Standard Deviation	15.4616	
Upper Confidence Limit - Normal	126.3156	
Upper Confidence Limit - Lognormal	132.3847	
95th Percentile - Nonparametric	130.0000	
95th Percentile - Normal	133.5594	
95th Percentile - Lognormal	134.5594	
Upper Tolerance Limit - Normal	187.6752	
Upper Tolerance Limit - Lognormal	217.6375	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9426	
Corr Coeff - Total - Lognormal	0.9550	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.8932	NA
W-Test - Lognormal	0.9155	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : FLUORANTHENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	290.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	860.0000	
Positive Hits - Maximum	860.0000	
Average Of Positive Hits	860.0000	
Standard Deviation	379.6181	
Upper Confidence Limit - Normal	737.2457	
Upper Confidence Limit - Lognormal	119167.4313	
95th Percentile - Nonparametric	860.0000	
95th Percentile - Normal	915.0968	
95th Percentile - Lognormal	1006.6649	
Upper Tolerance Limit - Normal	2243.7601	
Upper Tolerance Limit - Lognormal	43127.2215	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7920	
Corr Coeff - Total - Lognormal	0.8119	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6423	NA
W-Test - Lognormal	0.6735	NA

Type of Distribution ..... Undefined ✓

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : INDENO(1,2,3-CD)PYRENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	160.6250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	340.0000	
Positive Hits - Maximum	340.0000	
Average Of Positive Hits	340.0000	
Standard Deviation	119.6936	
Upper Confidence Limit - Normal	301.4445	
Upper Confidence Limit - Lognormal	1198.8001	
95th Percentile - Nonparametric	340.0000	
95th Percentile - Normal	357.5210	
95th Percentile - Lognormal	372.6469	
Upper Tolerance Limit - Normal	776.4487	
Upper Tolerance Limit - Lognormal	3156.9319	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********
Corr Coeff - Detected - Lognormal	**********
Corr Coeff - Total - Normal	0.8094
Corr Coeff - Total - Lognormal	0.8321
Corr Coeff - Crit Val - Detected	0.8790
Corr Coeff - Crit Val - Total	0.8680

W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6694	NA
W-Test - Lognormal	0.7058	NA

Type of Distribution ..... Undefined

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : PHENANTHRENE (μg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	100.3750	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	99.0000	
Positive Hits - Maximum	99.0000	
Average Of Positive Hits	99.0000	
Standard Deviation	5.2182	
Upper Confidence Limit - Normal	106.5142	
Upper Confidence Limit - Lognormal	110.3269	
95th Percentile - Nonparametric	107.5000	
95th Percentile - Normal	108.9589	
95th Percentile - Lognormal	109.1258	
Upper Tolerance Limit - Normal	127.2224	
Upper Tolerance Limit - Lognormal	130.6435	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.9607	
Corr Coeff - Total - Lognormal	0.9645	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.9389	NA
W-Test - Lognormal	0.9462	NA

Type of Distribution ..... ~~Undefined~~ LOGNORMAL

Test Results:

Dataset: IHABD_RES
Media : Indian Head Air Blast Pond Statistics
Group : Sediment Comparison to Background

Parameter : PYRENE (µg/kg)

	Sample Results	Background Results
Count	4.0000	No samples
Number of Detects	1.0000	
Average	318.1250	
Detection Limit - Minimum	95.0000	
Detection Limits - Maximum	107.5000	
Positive Hits - Minimum	970.0000	
Positive Hits - Maximum	970.0000	
Average Of Positive Hits	970.0000	
Standard Deviation	434.6137	
Upper Confidence Limit - Normal	829.4480	
Upper Confidence Limit - Lognormal	258607.1188	
95th Percentile - Nonparametric	970.0000	
95th Percentile - Normal	1033.0645	
95th Percentile - Lognormal	1145.2560	
Upper Tolerance Limit - Normal	2554.2125	
Upper Tolerance Limit - Lognormal	60555.0963	

Shapiro-Wilk and Probabilty Plot Results:

Corr Coeff - Detected - Normal	**********	
Corr Coeff - Detected - Lognormal	**********	
Corr Coeff - Total - Normal	0.7910	
Corr Coeff - Total - Lognormal	0.8105	
Corr Coeff - Crit Val - Detected	0.8790	
Corr Coeff - Crit Val - Total	0.8680	
W-Test - Table Value	0.7480	NA
W-Test - Normal	0.6407	NA
W-Test - Lognormal	0.6712	NA

Type of Distribution ..... Undefined

Test Results:

APPENDIX P

SUPPORTING INFORMATION FOR HUMAN HEALTH RISK ASSESSMENT

P.1 HUMAN HEALTH RISK ASSESSMENT SPREADSHEETS

P.2 HUMAN HEALTH RISK ASSESSMENT SAMPLE CALCULATIONS

P.3 HUMAN HEALTH RISK ASSESSMENT
TOXICOLOGICAL PROFILES FOR CHEMICALS OF CONCERN

APPENDIX P.1

HUMAN HEALTH RISK ASSESSMENT SPREADSHEETS

SWMU 5 RANGE 6

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	30	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	1.0E-05	2.9E-05	3.00E-02	5.00E-04	3.1E-07	13.3%	5.8E-02	54.8%
2-Amino-4,6-dinitrotoluene	16	6.7E-07	1.9E-06	NA	6.00E-05	NA	NA	3.1E-02	29.5%
RDX	397	1.7E-05	4.7E-05	1.10E-01	3.00E-03	1.8E-06	78.3%	1.6E-02	14.6%
Arsenic	3.1	1.3E-07	3.6E-07	1.50E+00	3.00E-04	1.9E-07	8.3%	1.2E-03	1.1%
					Total	**2.3E-06**	**100.0%**	**1.1E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	30	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.7E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	4.16E-05	1.16E-04	5.00E-02	3.00E-04	2.1E-06	21.5%	3.9E-01	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	2.68E-06	7.51E-06	NA	3.00E-05	NA	NA	2.5E-01	35.7%
RDX	397	0.1	6.66E-05	1.86E-04	1.10E-01	3.00E-03	7.3E-06	75.8%	6.2E-02	8.8%
Arsenic	3.1	0.032	1.66E-07	4.66E-07	1.58E+00	2.85E-04	2.6E-07	2.7%	1.6E-03	0.2%
						Total	**9.7E-06**	**100.0%**	**7.0E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	3.1E-07	2.1E-06	2.4E-06	19.9%	5.8E-02	3.9E-01	4.5E-01	55.2%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	3.1E-02	2.5E-01	2.8E-01	34.8%
RDX	1.8E-06	7.3E-06	9.2E-06	76.3%	1.6E-02	6.2E-02	7.8E-02	9.6%
Arsenic	1.9E-07	2.6E-07	4.6E-07	3.8%	1.2E-03	1.6E-03	2.8E-03	0.4%
Total	**2.3E-06**	**9.7E-06**	**1.2E-05**	**100.0%**	**1.1E-01**	**7.0E-01**	**8.1E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	15	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	9.4E-07	7.3E-06	3.00E-02	5.00E-04	2.8E-08	13.3%	1.5E-02	54.8%
2-Amino-4,6-dinitrotoluene	16	6.0E-08	4.7E-07	NA	6.00E-05	NA	NA	7.8E-03	29.5%
RDX	397	1.5E-06	1.2E-05	1.10E-01	3.00E-03	1.6E-07	78.3%	3.9E-03	14.6%
Arsenic	3.1	1.2E-08	9.1E-08	1.50E+00	3.00E-04	1.8E-08	8.3%	3.0E-04	1.1%
					Total	**2.1E-07**	**100.0%**	**2.7E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	15	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	7.49E-06	1.16E-05	5.00E-02	3.00E-04	3.7E-07	21.5%	3.9E-02	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	4.83E-07	7.51E-07	NA	3.00E-05	NA	NA	2.5E-02	35.7%
RDX	397	0.1	1.20E-05	1.86E-05	1.10E-01	3.00E-03	1.3E-06	75.8%	6.2E-03	8.8%
Arsenic	3.1	0.032	3.00E-08	4.66E-08	1.58E+00	2.85E-04	4.7E-08	2.7%	1.6E-04	0.2%
						Total	**1.7E-06**	**100.0%**	**7.0E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	2.8E-08	3.7E-07	4.0E-07	20.6%	1.5E-02	3.9E-02	5.3E-02	55.1%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	7.8E-03	2.5E-02	3.3E-02	34.0%
RDX	1.6E-07	1.3E-06	1.5E-06	76.0%	3.9E-03	6.2E-03	1.0E-02	10.4%
Arsenic	1.8E-08	4.7E-08	6.5E-08	3.3%	3.0E-04	1.6E-04	4.7E-04	0.5%
Total	**2.1E-07**	**1.7E-06**	**2.0E-06**	**100.0%**	**2.7E-02**	**7.0E-02**	**9.7E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.1E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	5.2E-05	1.5E-04	3.00E-02	5.00E-04	1.6E-06	13.3%	2.9E-01	54.8%
2-Amino-4,6-dinitrotoluene	16	3.4E-06	9.4E-06	NA	6.00E-05	NA	NA	1.6E-01	29.5%
RDX	397	8.3E-05	2.3E-04	1.10E-01	3.00E-03	9.2E-06	78.3%	7.8E-02	14.6%
Arsenic	3.1	6.5E-07	1.8E-06	1.50E+00	3.00E-04	9.7E-07	8.3%	6.1E-03	1.1%
					Total	**1.2E-05**	**100.0%**	**5.3E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	2.08E-04	5.82E-04	5.00E-02	3.00E-04	1.0E-05	21.5%	1.9E+00	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	1.34E-05	3.76E-05	NA	3.00E-05	NA	NA	1.3E+00	35.7%
RDX	397	0.1	3.33E-04	9.32E-04	1.10E-01	3.00E-03	3.7E-05	75.8%	3.1E-01	8.8%
Arsenic	3.1	0.032	8.32E-07	2.33E-06	1.58E+00	2.85E-04	1.3E-06	2.7%	8.2E-03	0.2%
						Total	**4.8E-05**	**100.0%**	**3.5E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	1.6E-06	1.0E-05	1.2E-05	19.9%	2.9E-01	1.9E+00	2.2E+00	55.2%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	1.6E-01	1.3E+00	1.4E+00	34.8%
RDX	9.2E-06	3.7E-05	4.6E-05	76.3%	7.8E-02	3.1E-01	3.9E-01	9.6%
Arsenic	9.7E-07	1.3E-06	2.3E-06	3.8%	6.1E-03	8.2E-03	1.4E-02	0.4%
Total	**1.2E-05**	**4.8E-05**	**6.0E-05**	**100.0%**	**5.3E-01**	**3.5E+00**	**4.0E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	9.4E-06	7.3E-05	3.00E-02	5.00E-04	2.8E-07	13.3%	1.5E-01	54.8%
2-Amino-4,6-dinitrotoluene	16	6.0E-07	4.7E-06	NA	6.00E-05	NA	NA	7.8E-02	29.5%
RDX	397	1.5E-05	1.2E-04	1.10E-01	3.00E-03	1.6E-06	78.3%	3.9E-02	14.6%
Arsenic	3.1	1.2E-07	9.1E-07	1.50E+00	3.00E-04	1.8E-07	8.3%	3.0E-03	1.1%
					Total	**2.1E-06**	**100.0%**	**2.7E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	7.49E-05	1.16E-04	5.00E-02	3.00E-04	3.7E-06	21.5%	3.9E-01	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	4.83E-06	7.51E-06	NA	3.00E-05	NA	NA	2.5E-01	35.7%
RDX	397	0.1	1.20E-04	1.86E-04	1.10E-01	3.00E-03	1.3E-05	75.8%	6.2E-02	8.8%
Arsenic	3.1	0.032	3.00E-07	4.66E-07	1.58E+00	2.85E-04	4.7E-07	2.7%	1.6E-03	0.2%
						Total	**1.7E-05**	**100.0%**	**7.0E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	2.8E-07	3.7E-06	4.0E-06	20.6%	1.5E-01	3.9E-01	5.3E-01	55.1%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	7.8E-02	2.5E-01	3.3E-01	34.0%
RDX	1.6E-06	1.3E-05	1.5E-05	76.0%	3.9E-02	6.2E-02	1.0E-01	10.4%
Arsenic	1.8E-07	4.7E-07	6.5E-07	3.3%	3.0E-03	1.6E-03	4.7E-03	0.5%
Total	**2.1E-06**	**1.7E-05**	**2.0E-05**	**100.0%**	**2.7E-01**	**7.0E-01**	**9.7E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	240	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.0E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.4E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	5.0E-06	3.5E-04	3.00E-02	5.00E-04	1.5E-07	13.3%	7.0E-01	54.8%
2-Amino-4,6-dinitrotoluene	16	3.2E-07	2.3E-05	NA	6.00E-05	NA	NA	3.8E-01	29.4%
RDX	397	8.0E-06	5.6E-04	1.10E-01	3.00E-03	8.8E-07	78.0%	1.9E-01	14.6%
Arsenic	3.25	6.5E-08	4.6E-06	1.50E+00	3.00E-04	9.8E-08	8.7%	1.5E-02	1.2%
					Total	**1.1E-06**	**100.0%**	**1.3E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	150	Exposure frequency (events/year)
	ED =	1	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	8.32E-06	5.82E-04	5.00E-02	3.00E-04	4.2E-07	21.5%	1.9E+00	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	5.37E-07	3.76E-05	NA	3.00E-05	NA	NA	1.3E+00	35.7%
RDX	397	0.1	1.33E-05	9.32E-04	1.10E-01	3.00E-03	1.5E-06	75.7%	3.1E-01	8.8%
Arsenic	3.25	0.032	3.49E-08	2.44E-06	1.58E+00	2.85E-04	5.5E-08	2.8%	8.6E-03	0.2%
						Total	**1.9E-06**	**100.0%**	**3.5E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	1.5E-07	4.2E-07	5.7E-07	18.5%	7.0E-01	1.9E+00	2.6E+00	55.1%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	3.8E-01	1.3E+00	1.6E+00	34.0%
RDX	8.8E-07	1.5E-06	2.3E-06	76.5%	1.9E-01	3.1E-01	5.0E-01	10.4%
Arsenic	9.8E-08	5.5E-08	1.5E-07	5.0%	1.5E-02	8.6E-03	2.4E-02	0.5%
Total	**1.1E-06**	**1.9E-06**	**3.1E-06**	**100.0%**	**1.3E+00**	**3.5E+00**	**4.8E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: RANGE 6
LOCATION: NSWC, INDIAN HEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	2.1E-06	1.5E-04	3.00E-02	5.00E-04	6.2E-08	13.3%	2.9E-01	54.8%
2-Amino-4,6-dinitrotoluene	16	1.3E-07	9.4E-06	NA	6.00E-05	NA	NA	1.6E-01	29.4%
RDX	397	3.3E-06	2.3E-04	1.10E-01	3.00E-03	3.7E-07	78.0%	7.8E-02	14.6%
Arsenic	3.25	2.7E-08	1.9E-06	1.50E+00	3.00E-04	4.1E-08	8.7%	6.4E-03	1.2%
					Total	**4.7E-07**	**100.0%**	**5.3E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
	ABS = :	Chemical Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	248	0.1	8.32E-06	1.16E-04	5.00E-02	3.00E-04	4.2E-07	21.5%	3.9E-01	55.3%
2-Amino-4,6-dinitrotoluene	16	0.1	5.37E-07	7.51E-06	NA	3.00E-05	NA	NA	2.5E-01	35.7%
RDX	397	0.1	1.33E-05	1.86E-04	1.10E-01	3.00E-03	1.5E-06	75.7%	6.2E-02	8.8%
Arsenic	3.25	0.032	3.49E-08	4.88E-07	1.58E+00	2.85E-04	5.5E-08	2.8%	1.7E-03	0.2%
						Total	**1.9E-06**	**100.0%**	**7.0E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	6.2E-08	4.2E-07	4.8E-07	13.3%	2.9E-01	3.9E-01	6.8E-01	55.0%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	1.6E-01	2.5E-01	4.1E-01	33.0%
RDX	3.7E-07	1.5E-06	1.8E-06	78.0%	7.8E-02	6.2E-02	1.4E-01	11.3%
Arsenic	4.1E-08	5.5E-08	9.6E-08	8.7%	6.4E-03	1.7E-03	8.1E-03	0.7%
Total	**4.7E-07**	**1.9E-06**	**2.4E-06**	**100.0%**	**5.3E-01**	**7.0E-01**	**1.2E+00**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw = :		Mean concentration in water (mg/L)
	SA = :	4,000	Skin surface available for contact (cm^2)
	DAevent = :		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV = :	1	Event frequency (events/days)
	EF = :	150	Exposure frequency (days/year)
	ED = :	1	Exposure duration (years)
	CF = :	1.0E-03	Conversion factor (L/cm^3)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose

Lifetime Chronic Daily Intake =	3.4E-04	(L-event)/(kg-day-cm)
Chronic Daily Intake = :	2.3E-02	(L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	0.0438	6.305E-03	9.26E-08	6.48E-06	5.00E-02	3.00E-04	4.6E-09	10.0%	2.2E-02	15.4%
2-Amino-4,6-dinitrotoluene	0.0582	1.705E-03	3.33E-08	2.33E-06	NA	3.00E-05	NA	NA	7.8E-02	55.3%
RDX	0.344	1.92E-03	2.22E-07	1.55E-05	1.10E-01	3.00E-03	2.4E-08	52.5%	5.2E-03	3.7%
Antimony	0.00178	2.00E-03	1.19E-09	8.36E-08	NA	4.00E-05	NA	NA	2.1E-03	1.5%
Arsenic	0.0164	2.00E-03	1.10E-08	7.70E-07	1.58E+00	2.85E-04	1.7E-08	37.5%	2.7E-03	1.9%
Barium	0.307	2.00E-03	2.06E-07	1.44E-05	NA	7.00E-02	NA	NA	2.1E-04	0.1%
Chromium III	0.0501	2.00E-03	3.36E-08	2.35E-06	NA	1.00E-02	NA	NA	2.4E-04	0.2%
Chromium VI	0.0056	2.00E-03	3.76E-09	2.63E-07	NA	5.00E-05	NA	NA	5.3E-03	3.7%
Lead	0.033	2.00E-03	2.21E-08	1.55E-06	NA	NA	NA	NA	NA	NA
Vanadium	0.0757	2.00E-03	5.08E-08	3.56E-06	NA	1.40E-04	NA	NA	2.5E-02	18.1%
						Total	**4.6E-08**	**100.0%**	**1.4E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	4.6E-09	4.6E-09	10.0%	2.2E-02	2.2E-02	15.4%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	7.8E-02	7.8E-02	55.3%
RDX	2.4E-08	2.4E-08	52.5%	5.2E-03	5.2E-03	3.7%
Antimony	NA	NA	NA	2.1E-03	2.1E-03	1.5%
Arsenic	1.7E-08	1.7E-08	37.5%	2.7E-03	2.7E-03	1.9%
Barium	NA	NA	NA	2.1E-04	2.1E-04	0.1%
Chromium III	NA	NA	NA	2.4E-04	2.4E-04	0.2%
Chromium VI	NA	NA	NA	5.3E-03	5.3E-03	3.7%
Lead	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	2.5E-02	2.5E-02	18.1%
Total	**4.6E-08**	**4.6E-08**	**100.0%**	**1.4E-01**	**1.4E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw =		Mean concentration in water (mg/L)
	SA =	4,000	Skin surface available for contact (cm^2)
	DAevent =		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV =	1	Event frequency (events/days)
	EF =	150	Exposure frequency (days/year)
	ED =	1	Exposure duration (years)
	CF =	1.0E-03	Conversion factor (L/cm^3)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose

Lifetime Chronic Daily Intake =	3.4E-04	(L-event)/(kg-day-cm)
Chronic Daily Intake =	2.3E-02	(L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
2,4,6-Trinitrotoluene	0.0438	4.458E-03	6.55E-08	4.59E-06	5.00E-02	3.00E-04	3.3E-09	12.8%	1.5E-02	26.6%
2-Amino-4,6-dinitrotoluene	0.0305	1.210E-03	1.24E-08	8.67E-07	NA	3.00E-05	NA	NA	2.9E-02	50.3%
RDX	0.344	1.36E-03	1.57E-07	1.10E-05	1.10E-01	3.00E-03	1.7E-08	67.2%	3.7E-03	6.4%
Antimony	0.00178	1.00E-03	5.97E-10	4.18E-08	NA	4.00E-05	NA	NA	1.0E-03	1.8%
Arsenic	0.0097	1.00E-03	3.25E-09	2.28E-07	1.58E+00	2.85E-04	5.1E-09	20.0%	8.0E-04	1.4%
Barium	0.11	1.00E-03	3.69E-08	2.58E-06	NA	7.00E-02	NA	NA	3.7E-05	0.1%
Chromium III	0.0246	1.00E-03	8.25E-09	5.78E-07	NA	1.00E-02	NA	NA	5.8E-05	0.1%
Chromium VI	0.00273	1.00E-03	9.16E-10	6.41E-08	NA	5.00E-05	NA	NA	1.3E-03	2.2%
Lead	0.0147	1.00E-03	4.93E-09	3.45E-07	NA	NA	NA	NA	NA	NA
Vanadium	0.0379	1.00E-03	1.27E-08	8.90E-07	NA	1.40E-04	NA	NA	6.4E-03	11.1%
						Total	**2.6E-08**	**100.0%**	**5.7E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 5 RANGE 6
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 15, 1997

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
2,4,6-Trinitrotoluene	3.3E-09	3.3E-09	12.8%	1.5E-02	1.5E-02	26.6%
2-Amino-4,6-dinitrotoluene	NA	NA	NA	2.9E-02	2.9E-02	50.3%
RDX	1.7E-08	1.7E-08	67.2%	3.7E-03	3.7E-03	6.4%
Antimony	NA	NA	NA	1.0E-03	1.0E-03	1.8%
Arsenic	5.1E-09	5.1E-09	20.0%	8.0E-04	8.0E-04	1.4%
Barium	NA	NA	NA	3.7E-05	3.7E-05	0.1%
Chromium III	NA	NA	NA	5.8E-05	5.8E-05	0.1%
Chromium VI	NA	NA	NA	1.3E-03	1.3E-03	2.2%
Lead	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	6.4E-03	6.4E-03	11.1%
Total	**2.6E-08**	**2.6E-08**	**100.0%**	**5.7E-02**	**5.7E-02**	**100.0%**

SWMU 2/3 RANGE 3/CHICAMUXEN CREEK'S EDGE DUMP SITE A

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	30	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	2.1E-07	5.8E-07	1.50E+00	3.00E-04	3.1E-07	100.0%	1.9E-03	100.0%
					Total	**3.1E-07**	**100.0%**	**1.9E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	30	Exposure frequency (events/year)
	ED =	25	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.7E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	0.032	2.66E-07	7.44E-07	1.58E+00	2.85E-04	4.2E-07	100.0%	2.6E-03	100.0%
						Total	**4.2E-07**	**100.0%**	**2.6E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	3.1E-07	4.2E-07	7.3E-07	100.0%	1.9E-03	2.6E-03	4.5E-03	100.0%
Total	**3.1E-07**	**4.2E-07**	**7.3E-07**	**100.0%**	**1.9E-03**	**2.6E-03**	**4.5E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	15	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	1.9E-08	1.5E-07	1.50E+00	3.00E-04	2.8E-08	100.0%	4.8E-04	100.0%
					Total	**2.8E-08**	**100.0%**	**4.8E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	15	Exposure frequency (events/year)
	ED =	9	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose		
Lifetime Chronic Daily Int	3.0E-07	kg-soil/kg-wt/day
Chronic Daily Intake = :	4.7E-07	kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	0.032	4.78E-08	7.44E-08	1.58E+00	2.85E-04	7.6E-08	100.0%	2.6E-04	100.0%
						Total	**7.6E-08**	**100.0%**	**2.6E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 23, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.8E-08	7.6E-08	1.0E-07	100.0%	4.8E-04	2.6E-04	7.5E-04	100.0%
Total	**2.8E-08**	**7.6E-08**	**1.0E-07**	**100.0%**	**4.8E-04**	**2.6E-04**	**7.5E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.1E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	1.0E-06	2.9E-06	1.50E+00	3.00E-04	1.6E-06	100.0%	9.7E-03	100.0%
					Total	**1.6E-06**	**100.0%**	**9.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	0.032	1.33E-06	3.72E-06	1.58E+00	2.85E-04	2.1E-06	100.0%	1.3E-02	100.0%
						Total	**2.1E-06**	**100.0%**	**1.3E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	1.6E-06	2.1E-06	3.7E-06	100.0%	9.7E-03	1.3E-02	2.3E-02	100.0%
Total	**1.6E-06**	**2.1E-06**	**3.7E-06**	**100.0%**	**9.7E-03**	**1.3E-02**	**2.3E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	1.9E-07	1.5E-06	1.50E+00	3.00E-04	2.8E-07	100.0%	4.8E-03	100.0%
					Total	**2.8E-07**	**100.0%**	**4.8E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.95	0.032	4.78E-07	7.44E-07	1.58E+00	2.85E-04	7.6E-07	100.0%	2.6E-03	100.0%
						Total	**7.6E-07**	**100.0%**	**2.6E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.8E-07	7.6E-07	1.0E-06	100.0%	4.8E-03	2.6E-03	7.5E-03	100.0%
Total	**2.8E-07**	**7.6E-07**	**1.0E-06**	**100.0%**	**4.8E-03**	**2.6E-03**	**7.5E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	240	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.0E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.4E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	5.26	1.1E-07	7.4E-06	1.50E+00	3.00E-04	1.6E-07	100.0%	2.5E-02	100.0%
					Total	**1.6E-07**	**100.0%**	**2.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	150	Exposure frequency (events/year)
	ED =	1	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	5.26	0.032	5.65E-08	3.95E-06	1.58E+00	2.85E-04	8.9E-08	100.0%	1.4E-02	100.0%
						Total	**8.9E-08**	**100.0%**	**1.4E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	1.6E-07	8.9E-08	2.5E-07	100.0%	2.5E-02	1.4E-02	3.9E-02	100.0%
Total	**1.6E-07**	**8.9E-08**	**2.5E-07**	**100.0%**	**2.5E-02**	**1.4E-02**	**3.9E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	5.26	4.4E-08	3.1E-06	1.50E+00	3.00E-04	6.6E-08	100.0%	1.0E-02	100.0%
					Total	**6.6E-08**	**100.0%**	**1.0E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	5.26	0.032	5.65E-08	7.91E-07	1.58E+00	2.85E-04	8.9E-08	100.0%	2.8E-03	100.0%
						Total	**8.9E-08**	**100.0%**	**2.8E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 2/3 CHICAMUXEN CREEK'S EDGE DUMP SITE A/ RANGE 3 BURN POINT
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	6.6E-08	8.9E-08	1.6E-07	100.0%	1.0E-02	2.8E-03	1.3E-02	100.0%
Total	**6.6E-08**	**8.9E-08**	**1.6E-07**	**100.0%**	**1.0E-02**	**2.8E-03**	**1.3E-02**	**100.0%**

SWMU 1 RUM POINT LANDFILL

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	52	Exposure Frequency (days/year)
	ED = :	10	Exposure Duration (years)
	BW = :	43	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,650	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.7E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 3.3E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	6.6E-08	4.6E-07	7.30E+00	NA	4.8E-07	53.8%	NA	NA
Arsenic	5.85	2.8E-07	1.9E-06	1.50E+00	3.00E-04	4.2E-07	46.2%	6.5E-03	100.0%
					Total	**9.0E-07**	**100.0%**	**6.5E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	3,720	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	52	Exposure frequency (events/year)
	ED = :	10	Exposure duration (years)
	BW = :	43	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,650	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.8E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	2.46E-07	1.73E-06	2.35E+01	NA	5.8E-06	91.8%	NA	NA
Arsenic	5.85	0.032	3.30E-07	2.31E-06	1.58E+00	2.85E-04	5.2E-07	8.2%	8.1E-03	100.0%
						Total	**6.3E-06**	**100.0%**	**8.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	4.8E-07	5.8E-06	6.3E-06	87.0%	NA	NA	NA	NA
Arsenic	4.2E-07	5.2E-07	9.4E-07	13.0%	6.5E-03	8.1E-03	1.5E-02	100.0%
Total	**9.0E-07**	**6.3E-06**	**7.2E-06**	**100.0%**	**6.5E-03**	**8.1E-03**	**1.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	26	Exposure Frequency (days/year)
	ED = :	10	Exposure Duration (years)
	BW = :	43	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,650	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 8.3E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	1.7E-08	1.2E-07	7.30E+00	NA	1.2E-07	64.4%	NA	NA
Arsenic	3.77	4.5E-08	3.1E-07	1.50E+00	3.00E-04	6.7E-08	35.6%	1.0E-03	100.0%
					Total	**1.9E-07**	**100.0%**	**1.0E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	3,720	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	26	Exposure frequency (events/year)
	ED = :	10	Exposure duration (years)
	BW = :	43	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,650	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.8E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	1.23E-07	1.73E-07	2.35E+01	NA	2.9E-06	94.5%	NA	NA
Arsenic	3.77	0.032	1.06E-07	1.49E-07	1.58E+00	2.85E-04	1.7E-07	5.5%	5.2E-04	100.0%
						Total	**3.1E-06**	**100.0%**	**5.2E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: ADOLESCENT TRESPASSER (7-16 YEARS) - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	1.2E-07	2.9E-06	3.0E-06	92.8%	NA	NA	NA	NA
Arsenic	6.7E-08	1.7E-07	2.3E-07	7.2%	1.0E-03	5.2E-04	1.6E-03	100.0%
Total	**1.9E-07**	**3.1E-06**	**3.3E-06**	**100.0%**	**1.0E-03**	**5.2E-04**	**1.6E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	30	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	5.9E-08	1.6E-07	7.30E+00	NA	4.3E-07	53.8%	NA	NA
Arsenic	5.85	2.5E-07	6.9E-07	1.50E+00	3.00E-04	3.7E-07	46.2%	2.3E-03	100.0%
					Total	**8.0E-07**	**100.0%**	**2.3E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	30	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.7E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	2.35E-07	6.58E-07	2.35E+01	NA	5.5E-06	91.8%	NA	NA
Arsenic	5.85	0.032	3.14E-07	8.79E-07	1.58E+00	2.85E-04	5.0E-07	8.2%	3.1E-03	100.0%
						Total	**6.0E-06**	**100.0%**	**3.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	4.3E-07	5.5E-06	5.9E-06	87.3%	NA	NA	NA	NA
Arsenic	3.7E-07	5.0E-07	8.6E-07	12.7%	2.3E-03	3.1E-03	5.4E-03	100.0%
Total	**8.0E-07**	**6.0E-06**	**6.8E-06**	**100.0%**	**2.3E-03**	**3.1E-03**	**5.4E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	15	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	5.3E-09	4.1E-08	7.30E+00	NA	3.9E-08	64.4%	NA	NA
Arsenic	3.77	1.4E-08	1.1E-07	1.50E+00	3.00E-04	2.1E-08	35.6%	3.7E-04	100.0%
					Total	**6.0E-08**	**100.0%**	**3.7E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	15	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	4.23E-08	6.58E-08	2.35E+01	NA	9.9E-07	94.5%	NA	NA
Arsenic	3.77	0.032	3.64E-08	5.67E-08	1.58E+00	2.85E-04	5.8E-08	5.5%	2.0E-04	100.0%
						Total	**1.1E-06**	**100.0%**	**2.0E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	3.9E-08	9.9E-07	1.0E-06	92.9%	NA	NA	NA	NA
Arsenic	2.1E-08	5.8E-08	7.9E-08	7.1%	3.7E-04	2.0E-04	5.7E-04	100.0%
Total	**6.0E-08**	**1.1E-06**	**1.1E-06**	**100.0%**	**3.7E-04**	**2.0E-04**	**5.7E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.1E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	2.9E-07	8.2E-07	7.30E+00	NA	2.1E-06	53.8%	NA	NA
Arsenic	5.85	1.2E-06	3.4E-06	1.50E+00	3.00E-04	1.8E-06	46.2%	1.1E-02	100.0%
					Total	**4.0E-06**	**100.0%**	**1.1E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	1.17E-06	3.29E-06	2.35E+01	NA	2.8E-05	91.8%	NA	NA
Arsenic	5.85	0.032	1.57E-06	4.40E-06	1.58E+00	2.85E-04	2.5E-06	8.2%	1.5E-02	100.0%
						Total	**3.0E-05**	**100.0%**	**1.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	2.1E-06	2.8E-05	3.0E-05	87.3%	NA	NA	NA	NA
Arsenic	1.8E-06	2.5E-06	4.3E-06	12.7%	1.1E-02	1.5E-02	2.7E-02	100.0%
Total	**4.0E-06**	**3.0E-05**	**3.4E-05**	**100.0%**	**1.1E-02**	**1.5E-02**	**2.7E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	5.3E-08	4.1E-07	7.30E+00	NA	3.9E-07	64.4%	NA	NA
Arsenic	3.77	1.4E-07	1.1E-06	1.50E+00	3.00E-04	2.1E-07	35.6%	3.7E-03	100.0%
					Total	**6.0E-07**	**100.0%**	**3.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	4.23E-07	6.58E-07	2.35E+01	NA	9.9E-06	94.5%	NA	NA
Arsenic	3.77	0.032	3.64E-07	5.67E-07	1.58E+00	2.85E-04	5.8E-07	5.5%	2.0E-03	100.0%
						Total	**1.1E-05**	**100.0%**	**2.0E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	3.9E-07	9.9E-06	1.0E-05	92.9%	NA	NA	NA	NA
Arsenic	2.1E-07	5.8E-07	7.9E-07	7.1%	3.7E-03	2.0E-03	5.7E-03	100.0%
Total	**6.0E-07**	**1.1E-05**	**1.1E-05**	**100.0%**	**3.7E-03**	**2.0E-03**	**5.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	240	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.0E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.4E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	2.8E-08	2.0E-06	7.30E+00	NA	2.1E-07	28.5%	NA	NA
Arsenic	17.1	3.4E-07	2.4E-05	1.50E+00	3.00E-04	5.2E-07	71.5%	8.0E-02	100.0%
					Total	**7.2E-07**	**100.0%**	**8.0E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	4.70E-08	3.29E-06	2.35E+01	NA	1.1E-06	79.2%	NA	NA
Arsenic	17.1	0.032	1.84E-07	1.29E-05	1.58E+00	2.85E-04	2.9E-07	20.8%	4.5E-02	100.0%
						Total	**1.4E-06**	**100.0%**	**4.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	2.1E-07	1.1E-06	1.3E-06	61.9%	NA	NA	NA	NA
Arsenic	5.2E-07	2.9E-07	8.1E-07	38.1%	8.0E-02	4.5E-02	1.3E-01	100.0%
Total	**7.2E-07**	**1.4E-06**	**2.1E-06**	**100.0%**	**8.0E-02**	**4.5E-02**	**1.3E-01**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NWSC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NWSC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	1.2E-08	8.2E-07	7.30E+00	NA	8.6E-08	28.5%	NA	NA
Arsenic	17.1	1.4E-07	1.0E-05	1.50E+00	3.00E-04	2.2E-07	71.5%	3.3E-02	100.0%
					Total	**3.0E-07**	**100.0%**	**3.3E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NWSC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NWSC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Benzo(a)pyrene	1.4	0.1	4.70E-08	6.58E-07	2.35E+01	NA	1.1E-06	79.2%	NA	NA
Arsenic	17.1	0.032	1.84E-07	2.57E-06	1.58E+00	2.85E-04	2.9E-07	20.8%	9.0E-03	100.0%
						Total	**1.4E-06**	**100.0%**	**9.0E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NWSC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Benzo(a)pyrene	8.6E-08	1.1E-06	1.2E-06	70.2%	NA	NA	NA	NA
Arsenic	2.2E-07	2.9E-07	5.1E-07	29.8%	3.3E-02	9.0E-03	4.2E-02	100.0%
Total	**3.0E-07**	**1.4E-06**	**1.7E-06**	**100.0%**	**3.3E-02**	**9.0E-03**	**4.2E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw = :		Mean concentration in water (mg/L)
	SA = :	4,000	Skin surface available for contact (cm^2)
	DAevent = :		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV = :	1	Event frequency (events/days)
	EF = :	150	Exposure frequency (days/year)
	ED = :	1	Exposure duration (years)
	CF = :	1.0E-03	Conversion factor (L/cm^3)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose

Lifetime Chronic Daily Intake =	3.4E-04	(L-event)/(kg-day-cm)
Chronic Daily Intake = :	2.3E-02	(L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.003	2.00E-03	2.01E-09	1.41E-07	1.58E+00	2.85E-04	3.2E-09	100.0%	4.9E-04	14.4%
Chromium (III)	0.0266	2.00E-03	1.78E-08	1.25E-06	NA	1.00E-02	NA	NA	1.2E-04	3.6%
Chromium (VI)	0.003	2.00E-03	2.01E-09	1.41E-07	NA	5.00E-05	NA	NA	2.8E-03	82.0%
						Total	**3.2E-09**	**100.0%**	**3.4E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
Arsenic	3.2E-09	3.2E-09	100.0%	4.9E-04	4.9E-04	14.4%
Chromium (III)	NA	NA	NA	1.2E-04	1.2E-04	3.6%
Chromium (VI)	NA	NA	NA	2.8E-03	2.8E-03	82.0%
Total	**3.2E-09**	**3.2E-09**	**100.0%**	**3.4E-03**	**3.4E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw = :		Mean concentration in water (mg/L)
	SA = :	4,000	Skin surface available for contact (cm^2)
	DAevent = :		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV = :	1	Event frequency (events/days)
	EF = :	150	Exposure frequency (days/year)
	ED = :	1	Exposure duration (years)
	CF = :	1.0E-03	Conversion factor (L/cm^3)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-04 (L-event)/(kg-day-cm)
Chronic Daily Intake = : 2.3E-02 (L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.003	1.00E-03	1.01E-09	7.05E-08	1.58E+00	2.85E-04	1.6E-09	100.0%	2.5E-04	21.9%
Chromium (III)	0.0161	1.00E-03	5.40E-09	3.78E-07	NA	1.00E-02	NA	NA	3.8E-05	3.3%
Chromium (VI)	0.0018	1.00E-03	6.04E-10	4.23E-08	NA	5.00E-05	NA	NA	8.5E-04	74.8%
						Total	**1.6E-09**	**100.0%**	**1.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 1 RUM POINT LANDFILL
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
Arsenic	1.6E-09	1.6E-09	100.0%	2.5E-04	2.5E-04	21.9%
Chromium (III)	NA	NA	NA	3.8E-05	3.8E-05	3.3%
Chromium (VI)	NA	NA	NA	8.5E-04	8.5E-04	74.8%
Total	**1.6E-09**	**1.6E-09**	**100.0%**	**1.1E-03**	**1.1E-03**	**100.0%**

SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	30	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	1.7E-07	4.8E-07	1.50E+00	3.00E-04	2.6E-07	100.0%	1.6E-03	100.0%
					Total	**2.6E-07**	**100.0%**	**1.6E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	30	Exposure frequency (events/year)
	ED =	25	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.7E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	0.032	2.18E-07	6.10E-07	1.58E+00	2.85E-04	3.4E-07	100.0%	2.1E-03	100.0%
						Total	**3.4E-07**	**100.0%**	**2.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.6E-07	3.4E-07	6.0E-07	100.0%	1.6E-03	2.1E-03	3.7E-03	100.0%
Total	**2.6E-07**	**3.4E-07**	**6.0E-07**	**100.0%**	**1.6E-03**	**2.1E-03**	**3.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	15	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	1.5E-08	1.2E-07	1.50E+00	3.00E-04	2.3E-08	100.0%	4.0E-04	100.0%
					Total	**2.3E-08**	**100.0%**	**4.0E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	15	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	0.032	3.92E-08	6.10E-08	1.58E+00	2.85E-04	6.2E-08	100.0%	2.1E-04	100.0%
						Total	**6.2E-08**	**100.0%**	**2.1E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.3E-08	6.2E-08	8.5E-08	100.0%	4.0E-04	2.1E-04	6.1E-04	100.0%
Total	**2.3E-08**	**6.2E-08**	**8.5E-08**	**100.0%**	**4.0E-04**	**2.1E-04**	**6.1E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.1E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	8.5E-07	2.4E-06	1.50E+00	3.00E-04	1.3E-06	100.0%	7.9E-03	100.0%
					Total	**1.3E-06**	**100.0%**	**7.9E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	0.032	1.09E-06	3.05E-06	1.58E+00	2.85E-04	1.7E-06	100.0%	1.1E-02	100.0%
						Total	**1.7E-06**	**100.0%**	**1.1E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	1.3E-06	1.7E-06	3.0E-06	100.0%	7.9E-03	1.1E-02	1.9E-02	100.0%
Total	**1.3E-06**	**1.7E-06**	**3.0E-06**	**100.0%**	**7.9E-03**	**1.1E-02**	**1.9E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	1.5E-07	1.2E-06	1.50E+00	3.00E-04	2.3E-07	100.0%	4.0E-03	100.0%
					Total	**2.3E-07**	**100.0%**	**4.0E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	4.06	0.032	3.92E-07	6.10E-07	1.58E+00	2.85E-04	6.2E-07	100.0%	2.1E-03	100.0%
						Total	**6.2E-07**	**100.0%**	**2.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - CURRENT/FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.3E-07	6.2E-07	8.5E-07	100.0%	4.0E-03	2.1E-03	6.1E-03	100.0%
Total	**2.3E-07**	**6.2E-07**	**8.5E-07**	**100.0%**	**4.0E-03**	**2.1E-03**	**6.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	240	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.0E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.4E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.37	7.4E-09	5.2E-07	1.50E+00	3.00E-04	1.1E-08	100.0%	1.7E-03	100.0%
					Total	**1.1E-08**	**100.0%**	**1.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.37	0.032	3.97E-09	2.78E-07	1.58E+00	2.85E-04	6.3E-09	100.0%	9.8E-04	100.0%
						Total	**6.3E-09**	**100.0%**	**9.8E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	1.1E-08	6.3E-09	1.7E-08	100.0%	1.7E-03	9.8E-04	2.7E-03	100.0%
Total	**1.1E-08**	**6.3E-09**	**1.7E-08**	**100.0%**	**1.7E-03**	**9.8E-04**	**2.7E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.37	3.1E-09	2.2E-07	1.50E+00	3.00E-04	4.7E-09	100.0%	7.2E-04	100.0%
					Total	**4.7E-09**	**100.0%**	**7.2E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs =		Mean concentration in soil (mg/kg)
	CF =	1.0E-06	Conversion factor (kg/mg)
	SA =	4,000	Skin surface available for contact (cm^2/event)
	AF =	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS =	Specific	Absorption factor (unitless)
	EF =	150	Exposure frequency (events/year)
	ED =	1	Exposure duration (years)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	0.37	0.032	3.97E-09	5.56E-08	1.58E+00	2.85E-04	6.3E-09	100.0%	2.0E-04	100.0%
						Total	**6.3E-09**	**100.0%**	**2.0E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: DECEMBER 31, 1997

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	4.7E-09	6.3E-09	1.1E-08	100.0%	7.2E-04	2.0E-04	9.2E-04	100.0%
Total	**4.7E-09**	**6.3E-09**	**1.1E-08**	**100.0%**	**7.2E-04**	**2.0E-04**	**9.2E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw =		Mean concentration in water (mg/L)
	SA =	4,000	Skin surface available for contact (cm^2)
	DAevent =		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV =	1	Event frequency (events/days)
	EF =	150	Exposure frequency (days/year)
	ED =	1	Exposure duration (years)
	CF =	1.0E-03	Conversion factor (L/cm^3)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose

Lifetime Chronic Daily Intake =	3.4E-04	(L-event)/(kg-day-cm)
Chronic Daily Intake = :	2.3E-02	(L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Chloroform	0.003	0.0262	2.64E-08	1.85E-06	6.10E-03	1.00E-02	1.6E-10	23.5%	1.8E-04	62.4%
RDX	0.0074	0.00192	4.77E-09	3.34E-07	1.10E-01	3.00E-03	5.2E-10	76.5%	1.1E-04	37.6%
						Total	**6.9E-10**	**100.0%**	**3.0E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
Chloroform	1.6E-10	1.6E-10	23.5%	1.8E-04	1.8E-04	62.4%
RDX	5.2E-10	5.2E-10	76.5%	1.1E-04	1.1E-04	37.6%
Total	**6.9E-10**	**6.9E-10**	**100.0%**	**3.0E-04**	**3.0E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH WATER ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cw x SA x DAevent x EF x ED x CF)/(BW x AT)

Where:	Cw =		Mean concentration in water (mg/L)
	SA =	4,000	Skin surface available for contact (cm^2)
	DAevent =		Chemical specific absorbed dose per event (mg/cm^2-event)
	EV =	1	Event frequency (events/days)
	EF =	150	Exposure frequency (days/year)
	ED =	1	Exposure duration (years)
	CF =	1.0E-03	Conversion factor (L/cm^3)
	BW =	70	Body weight (kg)
	ATc =	25,550	Averaging time for carcinogenic exposures (days)
	ATn =	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose

Lifetime Chronic Daily Intake =	3.4E-04	(L-event)/(kg-day-cm)
Chronic Daily Intake = :	2.3E-02	(L-event)/(kg-day-cm)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH WATER (PAGE TWO)

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

CHEMICAL	Cw (mg/L)	DAevent (cm/event)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Chloroform	0.003	0.0169	1.70E-08	1.19E-06	6.10E-03	1.00E-02	1.0E-10	27.0%	1.2E-04	66.7%
RDX	0.0056	0.001357	2.55E-09	1.78E-07	1.10E-01	3.00E-03	2.8E-10	73.0%	5.9E-05	33.3%
						Total	**3.8E-10**	**100.0%**	**1.8E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY OF CANCER RISKS AND HAZARD INDICES

SITE NAME: SWMU 4 CHICAMUXEN CREEK'S EDGE DUMP SITE B
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: GROUNDWATER
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk			Hazard Index		
Chemical	Dermal Contact	Total Risk	Percent Risk	Dermal Contact	Total HI	Percent HI
Chloroform	1.0E-10	1.0E-10	27.0%	1.2E-04	1.2E-04	66.7%
RDX	2.8E-10	2.8E-10	73.0%	5.9E-05	5.9E-05	33.3%
Total	**3.8E-10**	**3.8E-10**	**100.0%**	**1.8E-04**	**1.8E-04**	**100.0%**

SWMU 6 AIR BLAST POND

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	30	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 4.2E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.2E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	4.0E-07	1.1E-06	1.50E+00	3.00E-04	6.0E-07	100.0%	3.8E-03	100.0%
					Total	**6.0E-07**	**100.0%**	**3.8E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	30	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 1.7E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	0.032	5.15E-07	1.44E-06	1.58E+00	2.85E-04	8.1E-07	100.0%	5.1E-03	100.0%
						Total	**8.1E-07**	**100.0%**	**5.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - REASONABLE MAXIMUM EXPOSURE - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	6.0E-07	8.1E-07	1.4E-06	100.0%	3.8E-03	5.1E-03	8.8E-03	100.0%
Total	**6.0E-07**	**8.1E-07**	**1.4E-06**	**100.0%**	**3.8E-03**	**5.1E-03**	**8.8E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	15	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-08 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	3.53	1.3E-08	1.0E-07	1.50E+00	3.00E-04	2.0E-08	100.0%	3.5E-04	100.0%
					Total	**2.0E-08**	**100.0%**	**3.5E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	15	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	3.53	0.032	3.41E-08	5.31E-08	1.58E+00	2.85E-04	5.4E-08	100.0%	1.9E-04	100.0%
						Total	**5.4E-08**	**100.0%**	**1.9E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: MAINTENANCE WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.0E-08	5.4E-08	7.4E-08	100.0%	3.5E-04	1.9E-04	5.3E-04	100.0%
Total	**2.0E-08**	**5.4E-08**	**7.4E-08**	**100.0%**	**3.5E-04**	**1.9E-04**	**5.3E-04**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	25	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.1E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	2.0E-06	5.6E-06	1.50E+00	3.00E-04	3.0E-06	100.0%	1.9E-02	100.0%
					Total	**3.0E-06**	**100.0%**	**1.9E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	25	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	0.032	2.58E-06	7.21E-06	1.58E+00	2.85E-04	4.1E-06	100.0%	2.5E-02	100.0%
						Total	**4.1E-06**	**100.0%**	**2.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	3.0E-06	4.1E-06	7.1E-06	100.0%	1.9E-02	2.5E-02	4.4E-02	100.0%
Total	**3.0E-06**	**4.1E-06**	**7.1E-06**	**100.0%**	**1.9E-02**	**2.5E-02**	**4.4E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	50	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	9	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.8E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	3.53	1.3E-07	1.0E-06	1.50E+00	3.00E-04	2.0E-07	100.0%	3.5E-03	100.0%
					Total	**2.0E-07**	**100.0%**	**3.5E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	9	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	3,285	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.0E-06 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	3.53	0.032	3.41E-07	5.31E-07	1.58E+00	2.85E-04	5.4E-07	100.0%	1.9E-03	100.0%
						Total	**5.4E-07**	**100.0%**	**1.9E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: FULL TIME EMPLOYEE - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.0E-07	5.4E-07	7.4E-07	100.0%	3.5E-03	1.9E-03	5.3E-03	100.0%
Total	**2.0E-07**	**5.4E-07**	**7.4E-07**	**100.0%**	**3.5E-03**	**1.9E-03**	**5.3E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	240	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 2.0E-08 kg-soil/kg-wt/day
Chronic Daily Intake = : 1.4E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	1.9E-07	1.4E-05	1.50E+00	3.00E-04	2.9E-07	100.0%	4.5E-02	100.0%
					Total	**2.9E-07**	**100.0%**	**4.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	1.0	Soil to skin adherence factor (mg/cm^2)
	ABS = :	Chemical Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 2.3E-05 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	0.032	1.03E-07	7.21E-06	1.58E+00	2.85E-04	1.6E-07	100.0%	2.5E-02	100.0%
						Total	**1.6E-07**	**100.0%**	**2.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - REASONABLE MAXIMUM EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	2.9E-07	1.6E-07	4.5E-07	100.0%	4.5E-02	2.5E-02	7.0E-02	100.0%
Total	**2.9E-07**	**1.6E-07**	**4.5E-07**	**100.0%**	**4.5E-02**	**2.5E-02**	**7.0E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INCIDENTAL INGESTION OF SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Intake = (C x IR x CF x FI x EF x ED)/(BW x AT)

WHERE:	Cs = :		Mean concentration in soil (mg/kg)
	IR = :	100	Soil Ingestion Rate (mg/day)
	CF = :	1.0E-06	Conversion Factor (kg/mg)
	FI = :	1	Fraction from contaminated source (unitless)
	EF = :	150	Exposure Frequency (days/year)
	ED = :	1	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 8.4E-09 kg-soil/kg-wt/day
Chronic Daily Intake = : 5.9E-07 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	8.1E-08	5.6E-06	1.50E+00	3.00E-04	1.2E-07	100.0%	1.9E-02	100.0%
					Total	**1.2E-07**	**100.0%**	**1.9E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH DERMAL CONTACT WITH SOIL ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: Absorbed Dose = (Cs x CF x SA x AF x ABS x EF x ED)/(BW x AT)

Where:	Cs = :		Mean concentration in soil (mg/kg)
	CF = :	1.0E-06	Conversion factor (kg/mg)
	SA = :	4,000	Skin surface available for contact (cm^2/event)
	AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
		Chemical	
	ABS = :	Specific	Absorption factor (unitless)
	EF = :	150	Exposure frequency (events/year)
	ED = :	1	Exposure duration (years)
	BW = :	70	Body weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	ATn = :	365	Averaging time for noncarcinogenic exposures (days)

Unit Dose
Lifetime Chronic Daily Intake = 3.4E-07 kg-soil/kg-wt/day
Chronic Daily Intake = : 4.7E-06 kg-soil/kg-wt/day

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

CHEMICAL	Cs (mg/kg)	ABS (unitless)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
Arsenic	9.6	0.032	1.03E-07	1.44E-06	1.58E+00	2.85E-04	1.6E-07	100.0%	5.1E-03	100.0%
						Total	**1.6E-07**	**100.0%**	**5.1E-03**	**100.0%**

RISK ASSESSMENT SPREADSHEET - SUMMARY

SITE NAME: SWMU 6 AIR BLAST POND
LOCATION: NSWC, INDIANHEAD, MARYLAND
EXPOSURE SCENARIO: CONSTRUCTION WORKER - CENTRAL TENDENCY EXPOSURES - FUTURE
MEDIA: SURFACE AND SUBSURFACE SOIL
DATE: JANUARY 2, 1998

	Lifetime Cancer Risk				Hazard Index			
Chemical	Incidental Ingestion	Dermal Contact	Total Risk	Percent Risk	Incidental Ingestion	Dermal Contact	Total HI	Percent HI
Arsenic	1.2E-07	1.6E-07	2.8E-07	100.0%	1.9E-02	5.1E-03	2.4E-02	100.0%
Total	**1.2E-07**	**1.6E-07**	**2.8E-07**	**100.0%**	**1.9E-02**	**5.1E-03**	**2.4E-02**	**100.0%**

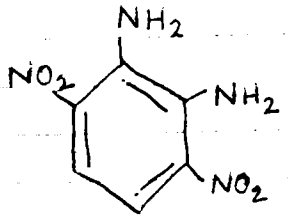
APPENDIX P.2

HUMAN HEALTH RISK ASSESSMENT SAMPLE CALCULATIONS

CLIENT	JOB NUMBER
NSWC INDIAN HEAD	7581-0303

SUBJECT: Calculation of Kow to use in the DA event formula for 2-amino-4,6-dinitrotoluene

BASED ON	DRAWING NUMBER		
Lyman, 1990 Chapter 1			
BY: PAK	CHECKED BY: RJ	APPROVED BY:	DATE:



2-amino-4,6-dinitrotoluene

$+ f_{C_6H_5} = 1.90$

$3\ (-f_H^{\varnothing} = -0.23) = -0.69$

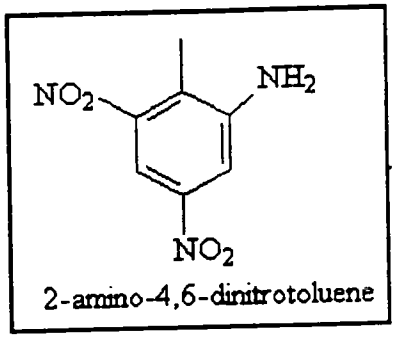
$2\ (+f_{NO_2}^{\varnothing} = -0.03) = -0.06$

$2\ (+\overset{X_1}{N}H_2 = -0.23) = -0.46$

$\log K_{ow} = .69$

$K_{ow} = 4.9$

2-amino-4,6-dinitrotoluene



2-amino-4,6-dinitrotoluene

- Formula: $C_7H_7N_3O_4$
- MW: 197.15
- CAS Reg. 35572-78-2
- ChemFinder Entry

[Compounds] [Pathway Map] [BBD Main Menu]

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http://dragon.labmed.umn.edu/~lynda/dce/comp/tnt_compVIII.html

CLIENT	JOB NUMBER		
NSWC Indian Head	7581-0303		
SUBJECT			
Dermal Contact with Soil: Intake and Risk Calculations			
BASED ON	DRAWING NUMBER		
USEPA December 1989; January 1992			
BY	CHECKED BY	APPROVED BY	DATE
PAK	RW		1/18/98

Purpose: To estimate exposure intakes and noncarcinogenic / carcinogenic risks associated with dermal contact with soil. Values are calculated for the Reasonable Maximum Exposure (RME).

Relevant Equations:

$$\text{Intake (mg/kg·day)} = \frac{C_S \times SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT}$$

where: C_S = chemical concentration in soil (mg/Kg)
SA = skin surface area available for contact (cm^2/day)
AF = adherence factor (mg/cm^2)
ABS = absorption factor (unitless)
EF = exposure frequency (days/yr)
ED = exposure duration (years)
CF = conversion factor (10^{-6} Kg/mg)
BW = body weight (Kg)
AT = averaging time (days)

$$HQ = Intake_{nc} / RfD_{dermal}$$

$$ICR = Intake_c \times CSF_{dermal}$$

where: HQ = Hazard Quotient (unitless)
$Intake_{nc}$ = intake for noncarcinogenic effects (mg/Kg-day)
RfD_{dermal} = dermal Reference Dose (mg/Kg-day)
ICR = incremental cancer risk (unitless)
$Intake_c$ = intake for carcinogenic effects (mg/Kg-day)
CSF_{dermal} = dermal cancer slope factor (Kg·day/mg)

CLIENT	JOB NUMBER
NSWC INDIAN HEAD	7581-0303
SUBJECT	
DERMAL CONTACT WITH SOIL: INTAKE AND RISK CALCULATIONS	
BASED ON	**DRAWING NUMBER**
USEPA DECEMBER 1989; JANUARY 1992	
BY PAK	**CHECKED BY** RJQ
APPROVED BY	**DATE** 1/16/98

Sample Calculations:

For the full-time employee scenario, the following assumptions are made:

C_s = 95% UCL (max if 95% UCL > max)
SA = 4000 cm^2
AF = 1.0 mg/cm^2 (upper-bound value)
ABS = chemical-specific
EF = 150 days/year
ED = 25 years
BW = 70 Kg
AT = 365 days/yr × ED – noncarcinogens = 9125 days
365 days/yr × 70 yrs – carcinogens = 25550 days

For 2,4,6-trinitrotoluene at a 95% UCL of 248 mg/Kg at SWMU 5 Range 6, intakes are calculated as follows:

$$Intake_{nc} = \frac{(248\ \frac{mg}{Kg})(4000\ cm^2)(1.0\ \frac{mg}{cm^2})(0.1)(150\ \frac{days}{year})(25\ years)(1E\text{-}6\ \frac{Kg}{mg})}{(70\ Kg)(9125\ days)}$$

$$= \boxed{5.82E\text{-}4\ mg/Kg\cdot day}$$

$$Intake_c = \frac{(248\ \frac{mg}{Kg})(4000\ cm^2)(1.0\ \frac{mg}{cm^2})(0.1)(150\ \frac{days}{year})(25\ years)(1E\text{-}6\ \frac{Kg}{mg})}{(70\ Kg)(25550\ days)}$$

$$= \boxed{2.08E\text{-}4\ mg/Kg\cdot day}$$

Risks are calculated as follows:

RfD_o = 5E-4 RfD_{dermal} = 5E-4 × 0.6 = 3E-4
HQ = (5.82E-4 mg/Kg·day) / (3E-4 mg/Kg·day) = **1.94E+0**
CSF_o = 3E-2 CSF_{dermal} = 3E-2 / 0.6 = 5E-2
ICR = (2.08E-4 mg/Kg·day)(5E-2 Kg·day/mg) = **1.04E-5**

CLIENT	JOB NUMBER		
NSWC INDIAN HEAD	7581-0303		
SUBJECT	INGESTION OF SOIL: INTAKE AND RISK CALCULATIONS		
BASED ON	DRAWING NUMBER		
USEPA DECEMBER 1989			
BY	CHECKED BY	APPROVED BY	DATE
PAK	RJJ		1/16/98

Purpose: To estimate exposure intakes and noncarcinogenic/carcinogenic risks associated with the incidental ingestion of soil. Values are calculated for the Reasonable Maximum Exposure (RME).

Relevant Equations:

$$\text{Intake (mg/Kg·day)} = \frac{Cs \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$$

where: Cs = chemical concentration in soil (mg/Kg)
IR = ingestion rate (mg/day)
FI = fraction ingested from contaminated source (unitless)
EF = exposure frequency (days/year)
ED = exposure duration (years)
CF = conversion factor (1E-6 Kg/mg)
BW = body weight (Kg)
AT = averaging time (days)

$$HQ = Intake_{nc} / RfD_{ing}$$
$$ICR = Intake_{c} \times CSF_{ing}$$

where: HQ = Hazard Quotient (unitless)
$Intake_{nc}$ = intake for noncarcinogenic effects (mg/kg-day)
RfD_{ing} = Reference Dose for ingestion - oral exposure
ICR = incremental cancer risk (unitless)
$Intake_{c}$ = intake for carcinogenic effects (mg/Kg·day)
CSF_{ing} = cancer slope factor for ingestion - oral exposure

CLIENT	JOB NUMBER		
NSWC INDIAN HEAD	7581-C3C3		
SUBJECT	INGESTION OF SOIL: INTAKE AND RISK CALCULATIONS		
BASED ON	USEPA DECEMBER 1989	DRAWING NUMBER	
BY	PAK	CHECKED BY	RJJ
APPROVED BY		DATE	1/16/98

Sample Calculations:

For a construction worker scenario, the following assumptions are made:

C_S = 95% UCL (max if 95% UCL > max)
IR = 240 mg/day
FI = 1.0 (unitless)
EF = 150 days/year
ED = 1 year
BW = 70 Kg
AT = 365 days/yr × ED – noncarcinogens = $365 \frac{days}{year} \times 1 yr = 365 days$
365 days/yr × 70 years – carcinogens = 25550 days

For RDX at a 95% UCL of 397 mg/Kg at SWMU5 Range 6, intakes are calculated as follows:

$$Intake_{nc} = \frac{(397 \frac{mg}{Kg})(240 \frac{mg}{day})(1.0)(150 \frac{days}{year})(1E-6 \frac{Kg}{mg})(1 year)}{(70 Kg)(365 days)}$$

$$= \boxed{5.59E-4 mg/Kg \cdot day}$$

$$Intake_c = \frac{(397 \frac{mg}{Kg})(240 \frac{mg}{day})(1.0)(150 \frac{days}{year})(1E-6 \frac{Kg}{mg})(1 year)}{(70 Kg)(25550 days)}$$

$$= \boxed{7.99E-6 mg/Kg \cdot day}$$

Risks are then calculated as follows:

HQ = (5.59E-4 mg/Kg·day) / (3E-3 mg/Kg·day) = **1.86E-1**

ICR = (7.99E-6 mg/Kg·day)(1.1E-1 Kg·day/mg) = **8.79E-7**

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT: NSWC INDIAN HEAD	JOB NUMBER: 7581-0303
SUBJECT: DERMAL CONTACT WITH GROUNDWATER: INTAKE AND RISK CALCULATIONS	
BASED ON: USEPA DECEMBER 1992	DRAWING NUMBER:
BY: PAK / CHECKED BY: RJJ	APPROVED BY: / DATE:

Purpose: To calculate estimated exposure intakes and carcinogenic / noncarcinogenic risks associated with dermal contact with groundwater.
For SWMU3 Chicamuxen Creek's Edge Dump Site B, the concentration of chloroform in groundwater = 0.003 mg/L:

Relevant Equations:

$$\text{Intake (mg/Kg·day)} = \frac{DA_{event} \times EV \times EF \times SA \times ED \times CF \times C_w}{AT \times BW}$$

$$DA_{event} \text{ for organics where } ET > t^* = PC^{K_p}\left[\frac{ET}{1+B} + 2T\left(\frac{1+3B}{1+B}\right)\right]$$

where: DA_{event} = absorbed dose per event (cm/event)

C_w = chemical concentration in groundwater (mg/L)
EV = event frequency (events/day)
EF = exposure frequency (days/year)
SA = surface area (cm^2)
ED = exposure duration (years)
BW = body weight (Kg)
ET = exposure time (hr/event)
CF = conversion factor (1L/1000 cm^3)
AT = 365 days × ED_n ; 365 d × ED_c averaging time (days)
B = octanol-water partition coefficient / 10^4 unitless
T = Stratum corneum diffusion factor (hr)

CLIENT	JOB NUMBER		
NSWC INDIAN HEAD	7581-0303		
SUBJECT	DERMAL CONTACT WITH GROUNDWATER: INTAKE AND RISK CALCULATIONS		
BASED ON	USEPA DECEMBER 1992	DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE
PAK	RJJ		

Sample Calculations:

For a construction worker, the following assumptions are made:

C = chemical concentration in groundwater
EV = 1 event/day
EF = 150 days/year
SA = 4000 cm^2
ED = 1 year
BW = 70 Kg
PC = K_p = chemical specific
ET = 2 hr/event
B = chemical specific
τ = chemical specific
AT = 365 days/yr x ED - noncarcinogens = $\frac{365 \text{ days}}{\text{year}} \times 1 \text{ yr} = 365 \text{ days}$

365 days/yr x 70 years - carcinogens = 25550 days

$ET > t^*$ (2 hr > 1.1 hr) $\therefore DA_{event} = PC\left[\frac{ET}{1+B} + 2\tau\left(\frac{1+3B}{1+B}\right)\right]$

For chloroform: (Table 5-8 in Dermal Exposure Assessment, Dec 1992)
PC = $K_{P\,estimated}$ = 8.9 E-3 cm/hr

τ = 4.7E-1 hr
t^* = 1.1E+0 hr
B = 9.3E-3

$$DA_{event} = \left(8.9E\text{-}3 \frac{cm}{hr}\right)\left[\frac{2 hr/event}{1+(9.3E\text{-}3)} + 2(4.7E\text{-}1 hr)\left(\frac{1+3[9.3E\text{-}3]}{1+(9.3E\text{-}3)}\right)\right]$$

= 2.61 E-2 cm/event

CLIENT	JOB NUMBER
NSWC INDIAN HEAD	7581- 0303
SUBJECT	
DERMAL CONTACT WITH GROUNDWATER : INTAKE AND RISK CALCULATIONS	
BASED ON	**DRAWING NUMBER**
USEPA DECEMBER 1992	

BY	CHECKED BY	APPROVED BY	DATE
PAK	RJJ		

$$Intake_c = \frac{(2.61E-2\ \frac{cm}{event})(1\ event/d)(150\ d/y)(4000\ cm^2)(1\ year)(1\ L/1000\ cm^3)(0.003\ mg}{(25550\ days)(70\ Kg)}$$

$$= \boxed{2.64E-8\ mg/Kg\cdot d}$$

$$Intake_{nc} = \frac{(2.61E-2\ \frac{cm}{event})(1\ event/d)(150\ d/y)(4000\ cm^2)(1\ year)(1\ L/1000\ cm^3)(0.003\ mg}{(365\ days)(70\ Kg)}$$

$$= \boxed{1.84E-6\ mg/Kg\cdot day}$$

$$ICR = Intake_c \times CSF_{dermal}$$

$CSF_o = 6.1E-3\ Kg\text{-}day/mg$
$GI\ AE = 1$
$CSF_{dermal} = CSF_{oral}/AE = (6.1E-3\ Kg\text{-}d/mg)/1 = 6.1E-3\ Kg\cdot d/mg$

$$ICR = (2.64E-8\ mg/Kg\cdot d)(6.1E-3\ Kg\text{-}d/mg) = \boxed{1.61E-10}$$

$$HQ = Intake_{nc} / RfD_{dermal}$$

$RfD_o = 1E-2\ mg/Kg\cdot day$
$GI\ AE = 1$
$RfD_{dermal} = RfD_o \times AE = (1E-2\ mg/Kg\cdot d) \times 1 = 1E-2\ mg/Kg\cdot d$

$$HQ = (1.84E-6\ mg/Kg\cdot day)/(1E-2\ mg/Kg\cdot day) = \boxed{1.84E-4}$$

APPENDIX P.3

HUMAN HEALTH RISK ASSESSMENT
TOXICOLOGICAL PROFILES FOR CHEMICALS OF POTENTIAL CONCERN

2-AMINO-4,6-DINITROTOLUENE

Noncancer Toxicity

Little is known about the toxicity of 2-amino-4,6-dinitrotoluene. The EPA (Region III, 1997) presented an oral RfD of 6e-6E-5 mg/kg/day for aminodinitrotoluenes.

Carcinogenicity

Data regarding the carcinogenicity of 2-amino-4,6-dinitrotoluene were not located.

ANTIMONY

Pharmacokinetics

Ingested antimony is absorbed slowly and incompletely from the gastrointestinal (GI) tract (Iffland 1988). Within a few days of acute exposure, highest tissue concentrations are found in the liver, kidney, and thyroid. Organs of storage include skin, bone, and teeth. Highest concentrations in deceased smelter workers (inhalation exposure) occurred in the lungs and skeleton. Excretion is largely via the urine or feces, although some is incorporated into the hair.

Noncancer Toxicity

Acute intoxication from ingestion of large doses of antimony induces GI disturbances, dehydration, and cardiac effects in humans (Iffland 1988). Chronic effects from occupational exposure include irritation of the respiratory tract, pneumoconiosis, pustular eruptions of the skin called "antimony spots," allergic contact dermatitis, and cardiac effects, including abnormalities of the electrocardiograph (ECG) and myocardial changes. Cardiac effects were also observed in rats and rabbits exposed by inhalation for six weeks and in animals (dogs, and possibly other species) treated by intravenous injection (Elinder and Friberg 1986).

Chronic oral exposure studies in laboratory animals include two briefly reported lifetime drinking water studies in rats and mice (Kanisawa and Schroeder 1969; Schroeder et al. 1970). The only dose tested, 5 ppm potassium antimony tartrate, resulted in reduced longevity in both species and in reduced mean heart weight in the rats. The EPA (1997) verified an RfD of 0.0004 mg/kg/day for chronic oral exposure to antimony from the LOAEL of 5 ppm potassium antimony tartrate (0.35 mg antimony/kg body weight-day) in the lifetime study in rats (Schroeder et al. 1970). An uncertainty factor of 1000 was applied; factors of 10 each for inter- and intraspecies variation and to estimate an NOAEL from an LOAEL (U.S.EPA 1997). The heart is considered a likely target organ for chronic oral exposure of humans.

Carcinogenicity

Data were not located regarding the carcinogenicity of antimony to humans. Antimony fed to rats did not produce an excess of tumors (Goyer 1991), but a high frequency of lung tumors was observed in rats exposed by inhalation to antimony trioxide for one year (Elinder and Friberg 1986). Antimony is classified in EPA cancer weight-of-evidence Group D (not classifiable as to carcinogenicity to humans).

ARSENIC

Pharmacokinetics

Several studies confirm that soluble inorganic arsenic compounds and organic arsenic compounds are almost completely (>90 percent) absorbed from the GI tract in both animals and humans (Ishinishi et al. 1986). The absorption efficiency of insoluble inorganic arsenic compounds depends on particle size and stomach pH. Initial distribution of absorbed arsenic is to the liver, kidneys, and lungs, followed by redistribution to hair, nails, teeth, bone, and skin, which are considered tissues of accumulation. Arsenic has a longer half-life in the blood of rats, compared with other animals and humans, because of firm binding to the hemoglobin in erythrocytes.

Metabolism of inorganic arsenic includes reversible oxidation-reduction so that both arsenite (valence of 3) and arsenate (valence of 5) are present in the urine of animals treated with arsenic of either valence (Ishinishi et al. 1986). Arsenite is subsequently oxidized and methylated by a saturable mechanism to form mono- or dimethylarsenate; the latter is the predominant metabolite in the urine of animals or humans. Organic arsenic compounds (arsenilic acid, cacodylic acid) are not readily converted to inorganic arsenic. Excretion of organic or inorganic arsenic is largely via the urine, but considerable species variation exists. Continuously exposed humans appear to excrete 60 to 70 percent of their daily intake of arsenate or arsenite via the urine.

Noncancer Toxicity

A lethal dose of arsenic trioxide in humans is 70 to 180 mg (approximately 50 to 140 mg arsenic; Ishinishi et al. 1986). Acute oral exposure of humans to high doses of arsenic produce liver swelling, skin lesions, disturbed heart function, and neurological effects. The only noncancer effects in humans clearly attributable to chronic oral exposure to arsenic are dermal hyperpigmentation and keratosis, as revealed by studies of several hundred Chinese exposed to naturally occurring arsenic in well water (Tseng 1977; Tseng et al. 1968; EPA 1994). Similar effects were observed in persons exposed to high levels of arsenic in water in Utah and the northern part of Mexico (Cebrian et al. 1983; Southwick et al. 1983). Occupational (predominantly inhalation) exposure is also associated with neurological deficits, anemia, and cardiovascular effects (Ishinishi et al. 1986), but concomitant exposure to other chemicals cannot be ruled out. The EPA (1998) derived an RfD of 0.3 ug/kg/day for chronic oral exposure, based on an NOAEL of 0.8 ug/kg/day for skin lesions from the Chinese data. The principal target organ for arsenic appears to be the skin. The nervous system and cardiovascular systems appear to be less significant target organs. Inorganic arsenic may be an essential nutrient, exerting beneficial effects on growth, health, and feed conversion efficiency (Underwood 1977).

Carcinogenicity

Inorganic arsenic is clearly a carcinogen in humans. Inhalation exposure is associated with increased risk of lung cancer in persons employed as smelter workers, in arsenical pesticide applicators, and in a population residing near a pesticide manufacturing plant (EPA 1994). Oral exposure to high levels in well water is associated with increased risk of skin cancer (Tseng 1977; EPA 1994). Extensive animal testing with various forms of arsenic given by many routes of exposure to several species, however, has not demonstrated the carcinogenicity of arsenic (International Agency for Research on Cancer [IARC] 1980). The EPA classifies inorganic arsenic in cancer weight-of-evidence Group A (human carcinogen), and recommends an oral unit risk of 0.00005 ug/L in drinking water, based on the incidence of skin cancer in the Tseng (1977) study. The EPA presents an oral slope factor of 1.5 per mg/kg/day (1997). The EPA notes that the uncertainties associated with the oral unit risk are considerably less than those for most carcinogens, so that the unit risk might be reduced an order of magnitude. An inhalation unit risk of 0.0043 per ug/m^3 was derived for inorganic arsenic from the incidence of lung cancer in occupationally exposed men (EPA 1998). The EPA presents an inhalation slope factor of 15 per mg/kg/day (1997), assuming an inhalation rate of 20m^3/day and a body weight of 70 kg.

BARIUM

Noncancer Toxicity

Barium is a naturally occurring alkaline earth metal that comprises approximately 0.04 percent of the earth's crust (Reeves 1986). Acute oral toxicity was manifested by GI upset, altered cardiac performance, and transient hypertension, convulsions, and muscular paralysis. Repeated oral exposures were associated with hypertension. Occupational exposure to insoluble barium sulfate induced benign pneumoconiosis (ACGIH 1991). The EPA (1997) presented a verified chronic oral RfD of 0.07 mg/kg/day, based on an NOAEL of 0.21 mg/kg/day in a ten-week study in humans exposed to barium in drinking water and an uncertainty factor of 3. The EPA (1993b) presented the same value as a provisional RfD for subchronic oral exposure. A provisional chronic inhalation RfC of 0.0005 mg/m^3 and a provisional subchronic inhalation RfC of 0.005 were based on an NOEL for fetotoxicity in a four-month intermittent-exposure inhalation study in rats (EPA 1997). Uncertainty factors of 1000 and 100 were used for the chronic and subchronic RfC values, respectively. The chronic and subchronic inhalation RfC values are equivalent to 0.000143 and 0.00143 mg/kg/day, assuming a human inhalation rate of 20 m^3/day and body weight of 70 kg. Barium is principally a muscle toxin. Its targets are the GI system, skeletal muscle, the cardiovascular system, and the fetus.

Carcinogenicity

The EPA classifies barium as a cancer weight-of-evidence Group D substance (not classifiable as to carcinogenicity in humans). Cancer risk is not estimated for Group D substances.

CHLOROFORM

Noncancer Toxicity

Oral or inhalation exposure of animals to chloroform was associated with liver and kidney damage (ACGIH 1991; EPA 1997). In humans, acute inhalation exposure to high levels induced narcosis, ventricular fibrillation, and death (ACGIH 1991). Limited occupational data associated chronic exposure to chloroform with CNS depression, digestive disturbances, and enlarged livers. The EPA (1997) presented a verified chronic oral RfD of 0.01 mg/kg/day based on an LOAEL for fatty cyst formation in the livers of dogs treated orally for 7.5 years and an uncertainty factor of 1000. The same value was presented as a provisional subchronic oral RfD (EPA 1997). Target organs for the toxicity of chloroform include the liver and kidney for oral and inhalation exposure, and the heart and CNS for inhalation exposure.

Carcinogenicity

Chloroform is classified as a cancer weight-of-evidence Group B2 compound (probable human carcinogen), based on increased incidence of several tumor types in rats and liver tumors in mice (EPA 1998). Human carcinogenicity data are inadequate. An oral slope factor of 0.0061 per mg/kg/day was derived from the incidence of kidney tumors in rats treated with chloroform in drinking water for two years. An inhalation unit risk of 2.3E-05 per ug/m^3 was based on the incidence of hepatocellular carcinomas in mice treated by gavage for 78 weeks. The inhalation unit risk is equivalent to 0.081 per mg/kg/day, assuming an inhalation rate of 20 m^3/day and a body weight of 70 kg for humans (EPA 1997).

CHROMIUM

Noncancer Toxicity

In nature, chromium (III) predominates over chromium (VI) (Langård and Norseth 1986). Little chromium (VI) exists in biological materials, except shortly after exposure, because reduction to chromium (III) occurs rapidly. Chromium (III) is considered a nutritionally essential trace element and is considerably less toxic than chromium (VI). No effects were observed in rats consuming 1800 mg chromium (III)/kg/day in the diet for over two years (EPA 1994). The NOEL of 1800 mg/kg/day and an uncertainty factor of 1000 was the basis for a verified chronic oral RfD of 1 mg/kg/day (EPA 1997). The same NOEL and an uncertainty factor of 100 was the basis for a provisional subchronic oral RfD of 10 mg/kg/day.

Acute oral exposure of humans to high doses of chromium (VI) induced neurological effects, GI hemorrhage and fluid loss, and kidney and liver effects. Parenteral dosing of animals with chromium (VI) is selectively toxic to the kidney tubules. An NOAEL of 2.4 mg chromium (VI)/kg/day in a one-year drinking water study in rats and an uncertainty factor of 500 was the basis of a verified RfD of 0.005 mg/kg/day for chronic oral exposure (EPA 1998). The same NOAEL and an uncertainty factor of 100 was the basis of a provisional subchronic oral RfD of 0.02 mg/kg/day (EPA 1997).

Occupational (inhalation and dermal) exposure to chromium (III) compounds induced dermatitis (ACGIH 1991). Similar exposure to chromium (VI) induced ulcerative and allergic contact dermatitis, irritation of the upper respiratory tract including ulceration of the mucosa and perforation of the nasal septum, and possibly kidney effects. Inhalation RfC values were not located.

A target organ was not identified for chromium (III). The kidney appears to be the principal target organ for repeated oral dosing with chromium (VI). Additional target organs for dermal and inhalation exposure include the skin and respiratory tract.

Carcinogenicity

Data were not located regarding the carcinogenicity of chromium (III). The EPA classifies chromium (VI) in cancer weight-of-evidence Group A (human carcinogen), based on the consistent observation of increased risk of lung cancer in occupational studies of workers in chromate production or the chrome pigment industry. Parenteral dosing of animals with chromium (VI) compounds consistently induced injection-site tumors. There is no evidence that oral exposure to chromium (VI) induces cancer. An inhalation unit risk of 0.012 per mg/m^3, equivalent to 41 per mg/kg/day, assuming humans inhale 20 m^3/day and weigh 70 kg, was based on increased risk of lung cancer deaths in chromate production workers (EPA 1997).

LEAD

Pharmacokinetics

Studies in humans indicate that an average of 10 percent of ingested lead is absorbed, but estimates as high as 40 percent were obtained in some individuals (Tsuchiya 1986). Nutritional factors have a profound effect on GI absorption efficiency. Children absorb ingested lead more efficiently than adults; absorption efficiencies up to 53 percent were recorded for children three months to eight years of age. Similar results were obtained for laboratory animals; absorption efficiencies of 5 to 10 percent were obtained for adults and ³50 percent were obtained for young animals. The deposition rate of inhaled lead averages approximately 30 to 50 percent, depending on particle size, with as much as 60 percent deposition of very small particles (0.03 mm) near highways. All lead deposited in the lungs is eventually absorbed.

Approximately 95 percent of the lead in the blood is located in the erythrocytes (EPA 1990c). Lead in the plasma exchanges with several body compartments, including the internal organs, bone, and several excretory pathways. In humans, lead concentrations in bone increase with age (Tsuchiya, 1986). About 90 percent of the body burden of lead is located in the skeleton. Neonatal blood concentrations are about 85 percent of maternal concentrations (EPA 1990c). Excretion of absorbed lead is principally through the urine, although GI secretion, biliary excretion, and loss through hair, nails, and sweat are also significant.

Noncancer Toxicity

The noncancer toxicity of lead to humans has been well characterized through decades of medical observation and scientific research. The principal effects of acute oral exposure are colic with diffuse paroxysmal abdominal pain (probably due to vagal irritation), anemia, and, in severe cases, acute encephalopathy, particularly in children (Tsuchiya 1986). The primary effects of long-term exposure are neurological and hematological. Limited occupational data indicate that long-term exposure to lead may induce kidney damage. The principal target organs of lead toxicity are the erythrocyte and the nervous system. Some of the effects on the blood, particularly changes in levels of certain blood enzymes, and subtle neurobehavioral changes in children, appear to occur at levels so low as to be considered nonthreshold effects.

EPA (1992b) presents no inhalation RfC for lead, but referred to the National Ambient Air Quality Standard (NAAQS) for lead, which could be used in lieu of an inhalation RfC. The NAAQSs are based solely on human health considerations and are designed to protect the most sensitive subgroup of the human population. The NAAQS for lead is 1.5 mg/m^3, averaged quarterly (EPA 1992b). The NAAQS is equivalent to 0.00043 mg/kg/day, assuming a body weight of 70 kg and an inhalation rate of 20 m^3/day.

The EPA (1990) determined that it is inappropriate to derive an RfD for oral exposure to lead for several reasons. First, the use of an RfD assumes that a threshold for toxicity exists, below which adverse effects are not expected to occur; however, the most sensitive effects of lead exposure, impaired neurobehavioral development in children and altered blood enzyme levels associated with anemia, may occur at blood lead concentrations so low as to be considered practically nonthreshold in nature. Second, RfD values are specific for the route of exposure for which they are derived. Lead, however, is ubiquitous, so that exposure occurs from virtually all media and by all pathways simultaneously, making it practically impossible to quantify the contribution to blood lead from any one route of exposure. Finally, the dose-response relationships common to many toxicants, and upon which derivation of an RfD is based, do not hold true for lead. This is because the fate of lead within the body depends, in part, on the amount and rate of previous exposures, the age of the recipient, and the rate of exposure. There is, however, a reasonably good correlation between blood lead concentration and effect. Therefore, blood lead concentration is the appropriate parameter on which to base the regulation of lead.

The EPA UBK lead model is an iterated set of equations that estimate blood lead concentration in children aged 0 to 7 years (EPA 1990; 1991). The biokinetic part of the model describes the movement of lead between the plasma and several body compartments and estimates the resultant blood lead concentration. The rate of the movement of lead between the plasma and each compartment is a function of the transition or residence time (i.e., the mean time for lead to leave the plasma and enter a given compartment, or the mean residence time for lead in that compartment). Compartments modeled include the erythrocytes, liver, kidneys, all the other soft tissue of the body, cortical bone, and trabecular bone. Excretory pathways and their rates are also modeled. These include the mean time for excretion from the plasma to the urine, from the liver to the bile, and from the other soft tissues to the hair, skin, sweat, etc. The model permits the user to adjust the transition and residence times.

EPA guidance establishes an interim soil cleanup level for lead of 400 parts per million (ppm) to be applied at Superfund sites. This range is considered by EPA to be protective for direct contact with lead-contaminated soils by children. The guidance adopts recommendations of the Centers for Disease Control and is to be followed when current or predicted land use is residential.

In more recent guidance (EPA 1991) EPA states that they are seeking resolution of specific technical concerns before issuing a directive recommending the UBK model as the preferred method for setting lead cleanup levels at CERCLA sites. The model is under review by the Science Advisory Board, and a guidance manual is under development.

Carcinogenicity

The EPA classifies lead in cancer weight-of-evidence Group B2 (probable human carcinogen), based on inadequate evidence of cancer in humans and sufficient animal evidence. The human data consist of several epidemiologic occupational studies that yielded confusing results. All of the studies lacked quantitative exposure data and failed to control for smoking and concomitant exposure to other possibly carcinogenic metals. Rat and mouse bioassays showed statistically significant increases in renal tumors following dietary and subcutaneous exposure to several soluble lead salts. Various lead compounds were observed to induce chromosomal alterations in vivo and in vitro, sister chromatid exchange in exposed workers, and cell transformation in Syrian hamster embryo cells; to enhance simian adenovirus induction; and to alter molecular processes that regulate gene expression. The EPA declined to estimate risk for oral exposure to lead because many factors (e.g., age, general health, nutritional status, existing body burden and duration of exposure) influence the bioavailability of ingested lead, introducing a great deal of uncertainty into any estimate of risk.

POLYCYCLIC AROMATIC HYDROCARBONS

PAHs are a large class of ubiquitous natural and anthropogenic chemicals, all with similar chemical structures (ATSDR 1990).

Pharmacokinetics

Although quantitative absorption data for the PAHs were not located, benzo(a)pyrene was readily absorbed across the GI and respiratory epithelia (EPA 1980).

Benzo(a)pyrene was distributed widely in the tissues of treated rats and mice, but primarily to tissues high in fat, such as adipose tissue and mammary gland (EPA 1980).

Metabolism involves microsomal mixed function oxidase hydroxylation of one or more of the phenyl rings with the formation of phenols and dihydrodiols, probably via formation of arene oxide intermediates (EPA 1980). The dihydrodiols may be further oxidized to diol epoxides, which, for certain members of the class, are known to be the ultimate carcinogens (EPA 1980). Conjugation with glutathione or glucuronic acid, and reduction to tetrahydrotetrols are important detoxification pathways.

Excretion of benzo(a)pyrene residues was reported to be rapid, although quantitative data were not located (EPA 1980). Excretion occurred mainly via the feces, probably largely due to biliary secretion. The EPA (1980) concluded that accumulation in the body tissues of PAHs from chronic low level exposure would be unlikely.

Noncancer Toxicity

Oral noncancer toxicity data are available for anthracene, fluoranthene, fluorene, naphthalene and pyrene. Newborn infants, children, and adults exposed to naphthalene by ingestion, inhalation, or possibly by skin contact developed hemolytic anemia with associated jaundice and occasionally renal disease (EPA 1980). In a 13-week gavage study in rats, treatment with 50 mg naphthalene/kg, 5 days/week for 13 weeks (35.7 mg/kg/day) induced no effects; higher doses presumably reduced the growth rate. Application of an uncertainty factor of 1000 yielded a provisional RfD for chronic oral exposure of 0.04 mg/kg/day (EPA 1997). The very mild effect (decreased growth rate) apparently observed at higher doses suggests that the RfD is very conservatively protective.

The toxic potency of anthracene appears to be very low. In a chronic study in rats, doses of 5 to 15 mg/rat (16 to 48 mg/kg/day) via the diet had no effect on longevity or gross or histopathologic appearance of unspecified tissues (EPA 1997). Gavage treatment of mice with 1000 mg/kg/day for at least 90 days had no effects on a comprehensive range of toxicologic parameters (EPA 1997). The NOEL of 1000 mg/kg/day in mice and an uncertainty factor of 3000 (10 each for inter- and intraspecies variation, and 30 for the use of a subchronic study and an incomplete database) yielded a verified RfD for chronic oral exposure of 0.3 mg/kg/day (EPA 1997). The EPA (1997) presented a provisional subchronic oral RfD of 3 mg/kg/day based on the same NOEL and an uncertainty factor of 300. The data were inadequate to define target organs for the toxicity of anthracene.

Fluoranthene appears to be toxic to the liver, kidney, and blood. In a comprehensive 13-week gavage study in mice, 125 mg/kg/day was an NOAEL and 250 mg/kg/day was a LOAEL (EPA 1997). The verified chronic oral RfD for fluoranthene is 0.04 mg/kg/day, based on the NOAEL in a comprehensive 13-week gavage study of 125 mg/kg/day in mice and an uncertainty factor of 3000 (EPA 1997). The uncertainty factor of 3000 includes factors of 10 each for inter- and intraspecies variation, and a factor of 30 to expand from subchronic to chronic exposure and to reflect an incomplete database. A provisional subchronic oral RfD of 0.4 mg/kg/day was derived from the same NOAEL and an uncertainty factor of 300. The liver, kidney, and blood appear to be the target organs for the toxicity of fluoranthene.

The critical effects of oral exposure to fluorene appear to be hemolytic anemia and CNS effects. In mice treated by gavage for 13 weeks, 125 mg/kg/day was a NOAEL and 250 mg/kg/day was a LOAEL (EPA 1997). A verified chronic oral RfD for fluorene of 0.04 mg/kg/day was based on the NOAEL of 125 mg/kg/day for hemolytic anemia in mice (EPA 1997). An uncertainty factor of 3000 was used with factors of 10 each for inter- and intraspecies variation and to expand from subchronic to chronic exposure, and a factor of 3 to reflect gaps in the database. The EPA (1997) presented a provisional subchronic oral RfD of 0.4 mg/kg/day based on the same NOAEL and an uncertainty factor of 300. The target organs of fluorene toxicity are the erythrocyte and the CNS.

Mild kidney lesions appear to be the critical effects of pyrene. In mice treated by gavage for 13 weeks, 75 mg/kg/day was an NOAEL and 125 mg/kg/day was an LOAEL (EPA 1997). Even in mice treated with 250 mg/kg/day the lesions were considered minimal to mild. The EPA (1997) verified a chronic oral RfD for pyrene of 0.03 mg/kg/day based on the NOAEL in mice and an uncertainty factor of 3000 (10 each for inter- and intraspecies variation and to expand from subchronic to chronic exposure, and a factor of 3 to reflect gaps in the database). The U.S. EPA (March 1993) presented a provisional subchronic oral RfD of 0.3 mg/kg/day based on the same NOAEL and an uncertainty factor of 300. The kidney is the target organ for the toxicity of pyrene.

Carcinogenicity

The PAHs are ubiquitous, being released to the environment from anthropogenic as well as from natural sources (ATSDR 1987). Benzo(a)pyrene is the most extensively studied member of the class, inducing tumors in multiple tissues of virtually all laboratory species tested by all routes of exposure. Although epidemiology studies suggested that complex mixtures that contain PAHs (coal tar, soots, coke oven emissions, cigarette smoke) are carcinogenic to humans (EPA1997), the carcinogenicity cannot be attributed to PAHs alone because of the presence of other potentially carcinogenic substances in these mixtures (ATSDR 1987). In addition, recent investigations showed that the PAH fraction of roofing tar, cigarette smoke, and coke oven emissions accounted for only 0.1 to 8 percent of the total mutagenic activity of the unfractionated complex mixture in Salmonella (Lewtas, 1988). Aromatic amines, nitrogen heterocyclic compounds, highly oxygenated quinones, diones, and nitrooxygenated compounds, none of which would be expected to arise from in vivo metabolism of PAHs, probably accounted for the majority of the mutagenicity of coke oven emissions and cigarette smoke. Furthermore, coal tar, which contains a mixture of many PAHs, has a long history of use in the clinical treatment of a variety of skin disorders in humans (ATSDR 1987).

Because of the lack of human cancer data, assignment of individual PAHs to U.S. EPA cancer weight-of-evidence groups was based largely on the results of animal studies with large doses of purified compound (EPA 1997). Frequently, unnatural routes of exposure, including implants of the test chemical in beeswax and trioctanoin in the lungs of female Osborne-Mendel rats, intratracheal instillation, and subcutaneous or intraperitoneal injection, were used. Benzo(a)pyrene was classified in Group B2 (probable human carcinogens).

The EPA (1997) verified a slope factor for oral exposure to benzo(a)pyrene of 7.3 per mg/kg/day. The U.S. EPA (1980) promulgated an ambient water quality criterion for "total carcinogenic PAHs," based on an oral slope factor derived from a study with benzo(a)pyrene, as being sufficiently protective for the class. Largely because of this precedent, the quantitative risk estimates for benzo(a)pyrene were adopted for the other carcinogenic PAHs when quantitative estimates were needed.

Recent reevaluations of the carcinogenity and mutagenicity of the Group B2 PAHs suggest that there are large differences between individual PAHs in cancer potency (Krewski et al., 1989). Based on the available cancer and mutagenicity data, and assuming that there is a constant relative potency between different carcinogens across different bioassay systems and that the PAHs under consideration have similar dose-response curves, relative potency values were derived for several PAHs (Krewski et al., 1989). A more recent Relative Potency Factor (RPF) scheme for the Group B2 PAHs was based only on the induction of lung epidermoid carcinomas in female Osborne-Mendel rats in the lung-implantation experiments (Clement International, 1990; EPA, July 1993). The EPA indicates (1997) that there is an inhalation cancer slope factor of 3.1 per mg/kg/day.

RDX (ROYAL DEMOLITION EXPLOSIVE; HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)

Pharmacokinetics

Although RDX is not readily absorbed through the skin (EPA 1997), oral exposure studies indicate that RDX is rapidly absorbed (EPA 1988). According to observed ingestion and inhalation exposures, evidence exists that this man-made compound is absorbed in the GI tract and may be absorbed in the lungs. However, GI absorption of RDX is regarded as poor (EPA 1988).

Limited studies are available concerning the distribution, metabolites, and excretion of RDX. RDX is metabolized by the liver and excreted in the urine. According to one study (EPA 1988), RDX was detected in the urine 48 hours after oral exposure and in the feces 96 hours after exposure.

Noncancer Toxicity

RDX has been found to cause nausea, irritability, convulsions, unconsciousness, and amnesia in humans following oral and inhalation occupational exposure. The EPA (1998) derived a chronic oral RfD of 0.003 mg/kg/day for RDX from a NOEL of 0.3 mg/kg/day and an uncertainty factor of 100 (for extrapolation of animal doses to humans and uncertainty in the threshold for sensitive humans). This value is based on a 2-year rat feeding study performed by the U.S. DOD where notable critical effects were inflammation of the prostate and increased pigment in the spleen of male rats. Several chronic effects were observed for rats exposed to high doses of RDX. They included increased mortality, hepatoxicity, increased incidences of cataracts in female rats, and behavioral hypersensitivity and renal toxicity in male rats. At a dose of 8 mg/kg/day, increased kidney weights were noted for both male and female rats. Embryonic and maternal toxicity was observed in rats exposed to RDX in developmental toxicity studies (EPA 1988).

Carcinogenicity

The EPA has classified RDX in the cancer weight-of-evidence Group C (possible human carcinogen). Although no epidemiological studies have been conducted on humans, data does exists which indicates that RDX is carcinogenic in animals. Hepatocellular adenomas and carcinomas were observed in female rats exposed to RDX in their diet. A drinking water unit risk of 0.0000031 per µg/L and an slope factor of 0.11 kg/day/mg was developed based on a U.S. DOD study (EPA 1998). It should be noted that this slope factor may not be applicable at water concentrations exceeding 3,000 mg/L.

2,4,6-TRINITROTOLUENE (TNT)

Pharmacokinetics

TNT, which is rapidly biotransformed following exposure, is mainly excreted in the urine and to a lesser extent distributed to the organs. More than 50 percent of administered doses were absorbed in several oral and dermal studies, indicating that the compound is well absorbed (ATSDR, 1993). Observed absorption in the GI tract ranged from 1.7 percent in dogs to 22.7 percent in rabbits. All studies indicate that TNT is extensively metabolized.

Noncancer Toxicity

The TLV for inhalation of TNT is 0.5 mg/m^3. Several adverse health effects including anemia, liver function abnormalities, respiratory complications, and cataracts have been noted in workers exposed to levels above the TLV (ATSDR, 1993a). These effects may also be attributed to dermal exposure, as well as inhalation occupational exposure, since these exposures occurred simultaneously in the cited studies. No studies are available regarding the developmental or reproductive effects.

Based on a subchronic dog study, the U.S. EPA (1998) derived an oral RfD of 0.0005 mg/kg/day for TNT from a LOAEL of 0.5 mg/kg/day for liver effects and an uncertainty factor of 1,000. Dogs from all doses groups experienced varying degrees of hepatic swelling and hepatocyomegaly. The uncertainty factor used accounts for extrapolation of animal to humans doses, LOAEL to NOAEL, and subchronic to chronic.

Carcinogenicity

TNT is classified as a cancer weight-of-evidence Group C carcinogenic (possible human carcinogen). The U.S. DOD conducted a study to determine the carcinogenic effects of this chemical in rats. A drinking water unit risk of 0.0000009 per µg/L was identified in this study. Urinary bladder papillomas and carcinomas were observed in rats. It should be noted that the unit risk factor should not be used if the water concentration exceeds 0.0001 µg/L, as the slope factor (0.03 kg/mg/day) may vary at this level.

VANADIUM

Noncancer Toxicity

The oral toxicity of vanadium compounds to humans is very low (Lagerkvist et al. 1986), probably because little vanadium is absorbed from the GI tract. Effects in humans exposed by inhalation include upper and lower respiratory tract irritation. A provisional subchronic and chronic oral RfD of 0.007 mg/kg/day was derived from an NOEL in rats in a lifetime drinking water study with vanadyl sulfate and an uncertainty factor of 100 (EPA 1997). A target organ could not be identified for oral exposure. The respiratory tract is the target organ for inhalation exposure.

Carcinogenicity

No information was located regarding the carcinogenicity of vanadium.

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