STATISTICAL EVALUATION OF ALLUVIAL GROUNDWATER QUALITY UPGRADIENT OF THE HOMESTAKE SITE NEAR GRANTS, NM

MOLYBDENUM
SELENIUM
URANIUM

Prepared for:

Homestake Mining Company of California
Grants Project
P. O. Box 98
Grants, NM 87020

Prepared by:

Environmental Restoration Group, Inc.
12809 Arroyo de Vista NE
Albuquerque, NM 87111

90041758

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Table of Contents

ES.0 Executive Summary 1

1.0 Introduction 2

1.1 Monitor well network 2

1.2 Data preparation 2

2.0 Methods 4

2.1 Distribution Analyses 4

2.1.1 Rejection of Outliers: A Priori Test 4

2.1.2 Determination of Percent Non-detects 4

2.1.3 Coefficient of Variation 4

2.1.4 Studentized Range Test 5

2.1.5 Geary's Test 5

2.1.6 Coefficient of Skewness 6

2.1.7 Shapiro-Wilk (n<50) or Shapiro-Francia (n≥50) Test of Normality 7

2.1.8 Filliben's Statistic 8

2.1.9 Histograms 9

2.1.10 Probability Plots 9

2.1.11 Determination of Distribution 10

2.1.12 The T_n Statistic Test 10

2.1.13 Determination of Upper Tolerance Limit 10

2.1.13.1 Parametric Upper Tolerance Limit 10

2.1.13.2 95th Percentile 11

2.2 Comparison Test 11

2.2.1 Introduction 11

2.2.2 Wilcoxon Rank Sum Test 11

3.0 Molybdenum 12

3.1 Introduction 12

3.2 Molybdenum Near Upgradient 12

3.2.1 Distribution Analysis Results 12

3.2.1.1 Rejection of Outliers: A Priori Test 12

3.2.1.2 Determination of Percent Non-detects 12

3.2.2 Determination of Upper Tolerance Limit 12

3.2.2.1 95th Percentile 12

3.3 Molybdenum Far Upgradient Distribution Analysis Results 12

3.3.1 Distribution Analysis Results 12

3.3.1.1 Rejection of Outliers: A Priori Test 12

3.3.1.2 Determination of Percent Non-detects 13

3.3.2 Determination of Upper Tolerance Limit 13
3.3.2.1 95th Percentile 13
3.4 Molybdenum Near and Far Upgradient Comparison Statistics Results 13
3.5 Molybdenum Combined Distribution Analysis 13
3.5.1 Distribution Analysis Results 13
3.5.1.1 Rejection of Outliers: A Priori Test 13
3.5.1.2 Determination of Percent Non-detects 13
3.5.2 Determination of Upper Tolerance Limit 13
3.5.2.1 95th Percentile 13
4.0 Selenium 14
4.1 Introduction 14
4.2 Selenium Near Upgradient 14
4.2.1 Distribution Analysis Results 14
4.2.1.1 Rejection of Outliers: A Priori Test 14
4.2.1.2 Determination of Percent Non-detects 14
4.2.1.3 Coefficient of Variation 14
4.2.1.4 Studentized Range Test 14
4.2.1.5 Geary's Test 14
4.2.1.6 Coefficient of Skewness 15
4.2.1.7 Shapiro-Francia (n≥50) Test of Normality 15
4.2.1.8 Filliben's Statistic 15
4.2.1.9 Histograms 15
4.2.1.10 Probability Plots 15
4.2.1.11 Determination of Distribution 15
4.2.1.12 The T_n Statistic Test 15
4.2.2 Determination of Upper Tolerance Limit 16
4.2.2.1 95th Percentile 16
4.3 Selenium Far Upgradient Distribution Analysis Results 16
4.3.1 Distribution Analysis Results 16
4.3.1.1 Rejection of Outliers: A Priori Test 16
4.3.1.2 Determination of Percent Non-detects 16
4.3.1.3 Coefficient of Variation 16
4.3.1.4 Studentized Range Test 16
4.3.1.5 Geary's Test 16
4.3.1.6 Coefficient of Skewness 16
4.3.1.7 Shapiro-Wilk (n<50) 17
4.3.1.8 Filliben's Statistic 17

4.3.1.9 Histograms 17
4.3.1.10 Probability Plots 17
4.3.1.11 Determination of Distribution 17
4.3.1.12 The T_n Statistic Test 17
4.3.2 Determination of Upper Tolerance Limit 17
4.3.2.1 95th Percentile 17
4.4 Selenium Near and Far Upgradient Comparison Statistics Results 17
5.0 Uranium 18
5.1 Introduction 18
5.2 Uranium Near Upgradient 18
5.2.1 Distribution Analysis Results 18
5.2.1.1 Rejection of Outliers: A Priori Test 18
5.2.1.2 Determination of Percent Non-detects 18
5.2.1.3 Coefficient of Variation 18
5.2.1.4 Studentized Range Test 18
5.2.1.5 Geary's Test 19
5.2.1.6 Coefficient of Skewness 19
5.2.1.7 Shapiro-Francia (n≥50) Test of Normality 19
5.2.1.8 Filliben's Statistic 19
5.2.1.9 Histograms 19
5.2.1.10 Probability Plots 19
5.2.1.11 Determination of Distribution 19
5.2.1.12 The T_n Statistic Test 20
5.2.2 Determination of Upper Tolerance Limit 20
5.2.2.1 95th Percentile 20
5.3 Uranium Far Upgradient Distribution Analysis Results 20
5.3.1 Distribution Analysis Results 20
5.3.1.1 Rejection of Outliers: A Priori Test 20
5.3.1.2 Determination of Percent Non-detects 20
5.3.1.3 Coefficient of Variation 20
5.3.1.4 Studentized Range Test 20
5.3.1.5 Geary's Test 20
5.3.1.6 Coefficient of Skewness 21
5.3.1.7 Shapiro-Wilk (n<50) Test of Normality 21
5.3.1.8 Filliben's Statistic 21
5.3.1.9 Histograms 21
5.3.1.10 Probability Plots 21

5.3.1.11 Determination of Distribution 21
5.3.1.12 The T_n Statistic Test 21
5.3.2 Determination of Upper Tolerance Limit 21
5.3.2.1 95th Percentile 21
5.4 Uranium Near and Far Upgradient Comparison Statistics Results 22
5.5 Uranium Combined 22
5.5.1 Distribution Analysis Results 22
5.5.1.1 Rejection of Outliers: A Priori Test 22
5.5.1.2 Determination of Percent Non-detects 22
5.5.1.3 Coefficient of Variation 22
5.5.1.4 Studentized Range Test 22
5.5.1.5 Geary's Test 22
5.5.1.6 Coefficient of Skewness 22
5.5.1.7 Shapiro-Francia ($n \geq 50$) Test of Normality 23
5.5.1.8 Filliben's Statistic 23
5.5.1.9 Histograms 23
5.5.1.10 Probability Plots 23
5.5.1.11 Determination of Distribution 23
5.5.1.12 The T_n Statistic Test 23
5.5.2 Determination of Upper Tolerance Limit 23
5.5.2.1 95th Percentile 23
6.0 Summary 24
7.0 References 25

List of Tables

Table ES-1.	Summary Table for Upgradient Wells, Statistical Analysis	1
Table 1.	Molybdenum concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, NM from January 1976 to November 1998.	27
Table 2.	Molybdenum Near Upgradient Background Data Set	28
Table 3.	Molybdenum Near Upgradient Background Data Set for Well DD	39
Table 4.	Molybdenum Near Upgradient Background Data Set for Well ND	40
Table 5.	Molybdenum Near Upgradient Background Data Set for Well P	41
Table 6.	Molybdenum Near Upgradient Background Data Set for Well P1	43
Table 7.	Molybdenum Near Upgradient Background Data Set for Well P2	44
Table 8.	Molybdenum Near Upgradient Background Data Set for Wells P3 and P4	44
Table 9.	Molybdenum Near Upgradient Background Data Set for Well Q	45
Table 10.	Molybdenum Near Upgradient Background Data Set for Well R	47
Table 11.	Molybdenum Near Upgradient Background Groundwater Data Set Used in Statistical Analysis	49
Table 12.	Molybdenum Near Upgradient Background Data Set, A Priori Screening	52
Table 13.	Molybdenum Near Upgradient Background Data Set, 95th Percentile Calculation	52
Table 14.	Molybdenum Near Upgradient Background Data Set, Summary Table	52
Table 15.	Molybdenum Far Upgradient Background Data Set	53
Table 16.	Molybdenum Far Upgradient Background Data Set for Well 914	54
Table 17.	Molybdenum Far Upgradient Background Data Set for Well 916	54
Table 18.	Molybdenum Far Upgradient Background Data Set for Well 920	54
Table 19.	Molybdenum Far Upgradient Background Data Set for Well 921	55
Table 20.	Molybdenum Far Upgradient Background Data Set for Well 922	55
Table 21.	Molybdenum Far Upgradient Background Data Set for Well 950	55
Table 22.	Molybdenum Far Upgradient Background Groundwater Data Set Used in Statistical Analysis	56
Table 23.	Molybdenum Far Upgradient Background Data Set, A Priori Screening	57
Table 24.	Molybdenum Far Upgradient Background Data Set, 95th Percentile Calculation	57
Table 25.	Molybdenum Near Upgradient Background Data Set, Summary Table	57
Table 26.	Molybdenum Upgradient Background Data, Comparison Statistics Results	58
Table 27.	Molybdenum Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis	59
Table 28.	Molybdenum Combined Upgradient Background Data Set, A Priori Screening	62
Table 29.	Molybdenum Combined Upgradient Background Data Set, 95th Percentile Calculation	62
Table 30.	Molybdenum Combined Upgradient Background Data Set, Summary Table	62

Table 31. Selenium concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, NM from January 1976 to November 1998. 63
Table 32. Selenium Near Upgradient Background Data Set 64
Table 33. Selenium Near Upgradient Background Data Set for Well DD 74
Table 34. Selenium Near Upgradient Background Data Set for Well ND 75
Table 35. Selenium Near Upgradient Background Data Set for Well P 76
Table 36. Selenium Near Upgradient Background Data Set for Well P1 78
Table 37. Selenium Near Upgradient Background Data Set for Well P2 79
Table 38. Selenium Near Upgradient Background Data Set for Wells P3 and P4 79
Table 39. Selenium Near Upgradient Background Data Set for Well Q 80
Table 40. Selenium Near Upgradient Background Data Set for Well R 82
Table 41. Selenium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis 84
Table 42. Selenium Near Upgradient Background Data Set, A Priori Screening 86
Table 43. Selenium Near Upgradient Background Data Set, Coefficient of Variation Analysis 86
Table 44. Selenium Near Upgradient Background Data Set, Studentized Range Test Analysis 86
Table 45. Selenium Near Upgradient Background Data Set, Gearys Test Analysis 87
Table 46. Selenium Near Upgradient Background Data Set, Coeeficient of Skewness Analysis 103
Table 47. Selenium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis 117
Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis 129
Table 49. Selenium Near Upgradient Background Data Set, Distribution Summary 141
Table 50. Selenium Near Upgradient Background Data Set, T_n Statistic Analysis 141
Table 51. Selenium Near Upgradient Background Data Set, 95th Percentile Calculation 141
Table 52. Selenium Near Upgradient Background Data Set, Summary Table 141
Table 53. Selenium Far Upgradient Background Data Set 142
Table 54. Selenium Far Upgradient Background Data Set for Well 914 143
Table 55. Selenium Far Upgradient Background Data Set for Well 916 143
Table 56. Selenium Far Upgradient Background Data Set for Well 920 143
Table 57. Selenium Far Upgradient Background Data Set for Well 921 144
Table 58. Selenium Far Upgradient Background Data Set for Well 922 144
Table 59. Selenium Far Upgradient Background Data Set for Well 950 144
Table 60. Selenium Far Upgradient Background Groundwater Data Set Used in Statistical Analysis 145
Table 61. Selenium Far Upgradient Background Data Set, A Priori Screening 146

Table 62. Selenium Far Upgradient Background Data Set, Coefficient of Variation Analysis 146
Table 63. Selenium Far Upgradient Background Data Set, Studentized Range Test Analysis 146
Table 64. Selenium Far Upgradient Background Data, Geary's Test Analysis 147
Table 65. Selenium Far Upgradient Background Data Set, Coeeficient of Skewness Analysis 149
Table 66. Selenium Far Upgradient Background Data Set, Shapiro-Wilk Test of Normality Analysis 151
Table 67. Selenium Far Upgradient Background Data Set, Filliben's Statistic Analysis 153
Table 68. Selenium Far Upgradient Background Data Set, Distribution Summary 158
Table 69. Selenium Far Upgradient Background Data Set, T_n Statistic Analysis 158
Table 70. Selenium Far Upgradient Background Data Set, 95th Percentile Calculation 158
Table 71. Selenium Far Upgradient Background Data Set, Summary Table 158
Table 72. Seleninum Upgradient Background Data, Comparison Statistics Results 159
Table 73. Uranium concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, NM from January 1976 to November 1998. 160
Table 74. Uranium Near Upgradient Background Data Set 161
Table 75. Uranium Near Upgradient Background Data Set for Well DD 172
Table 76. Uranium Near Upgradient Background Data Set for Well ND 173
Table 77. Uranium Near Upgradient Background Data Set for Well P 174
Table 78. Uranium Near Upgradient Background Data Set for Well P1 176
Table 79. Uranium Near Upgradient Background Data Set for Well P2 176
Table 80. Uranium Near Upgradient Background Data Set for Wells P3 and P4 176
Table 81. Uranium Near Upgradient Background Data Set for Well Q 177
Table 82. Uranium Near Upgradient Background Data Set for Well R 177
Table 83. Uranium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis 177
Table 84. Uranium Near Upgradient Background Data Set, A Priori Screening 184
Table 85. Uranium Near Upgradient Background Data Set, Coefficient of Variation Analysis 184
Table 86. Uranium Near Upgradient Background Data Set, Studentized Range Test Analysis 184
Table 87. Uranium Near Upgradient Background Data Set, Gearys Test Analysis 185
Table 88. Uranium Near Upgradient Background Data Set, Coeeficient of Skewness Analysis 201
Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis 217
Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis 238
Table 91. Uranium Near Upgradient Background Data Set, Distribution Summary 253
Table 92. Uranium Near Upgradient Background Data Set, T_n Statistic Analysis 253

Table 93. Uranium Near Upgradient Background Data Set, 95th Percentile Calculation 253
Table 94. Uranium Near Upgradient Background Data Set, Summary Table 253
Table 95. Uranium Far Upgradient Background Data Set 254
Table 96. Uranium Far Upgradient Background Data Set for Well 914 255
Table 97. Uranium Far Upgradient Background Data Set for Well 916 255
Table 98. Uranium Far Upgradient Background Data Set for Well 920 255
Table 99. Uranium Far Upgradient Background Data Set for Well 921 256
Table 100. Uranium Far Upgradient Background Data Set for Well 922 256
Table 101. Uranium Far Upgradient Background Data Set for Well 950 256
Table 102. Uranium Far Upgradient Background Groundwater Data Set Used in Statistical Analysis 257
Table 103. Uranium Far Upgradient Background Data Set, A Priori Screening 258
Table 104. Uranium Far Upgradient Background Data Set, Coefficient of Variation Analysis 258
Table 105. Uranium Far Upgradient Background Data Set, Studentized Range Test Analysis 258
Table 106. Uranium Far Upgradient Background Data Set, Gearys Test Analysis 259
Table 107. Uranium Far Upgradient Background Data Set, Coeeficient of Skewness Analysis 261
Table 108 Uranium Far Upgradient Background Data Set, Shapiro-Wilk Test of Normality Analysis 263
Table 109. Uranium Far Upgradient Background Data Set, Filliben's Statistic Analysis 265
Table 110. Uranium Far Upgradient Background Data Set, Distribution Summary 270
Table 111. Uranium Far Upgradient Background Data Set, T_n Statistic Analysis 270
Table 112. Uranium Far Upgradient Background Data Set, 95th Percentile Calculation 270
Table 113. Uranium Far Upgradient Background Data Set, Summary Table 270
Table 114. Uranium Upgradient Backgrund Data, Comparison Statistics Results 271
Table 115. Uranium Combined Upgradient Background Data Set 272
Table 116.Uranium Combined Upgradient Background Data Set, A Priori Screening 276
Table 117. Uranium Combined Upgradient Background Data Set, Coefficient of Variation Analysis 276
Table 118. Uranium Combined Upgradient Background Data Set, Studentized Range Test Analysis 276
Table 119. Uranium Combined Upgradient Background Data Set, Gearys Test Analysis 277
Table 120. Uranium Combined Upgradient Background Data Set, Coeeficient of Skewness Analysis 295
Table 121 Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis 311

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis 325
Table 123. Uranium Combined Upgradient Background Data Set, Distribution Summary 337
Table 124. Uranium Combined Upgradient Background Data Set, T_n Statistic Analysis 337
Table 125. Uranium Combined Upgradient Background Data Set, 95th Percentile Calculation 337
Table 126. Uranium Combined Upgradient Background Data Set, Summary Table 337
Table 127. Summary Table for Upgradient Wells, Statistical Analysis 338

List of Figures

Figure 1.	Location of Upgradient Wells	26
Figure 2.	Selenium Near Upgradient Background Data Set, Histogram (normal)	137
Figure 3.	Selenium Near Upgradient Data Set, Histogram (lognormal)	138
Figure 4.	Selenium Near Upgradient Data Set, Probability Plot (normal)	139
Figure 5.	Selenium Near Upgradient Data Set, Probability Plot (lognormal)	140
Figure 6.	Selenium Far Upgradient Data Set, Histogram (normal)	154
Figure 7.	Selenium Far Upgradient Data Set, Histogram (lognormal)	155
Figure 8.	Selenium Far Upgradient Data Set, Probability Plot (normal)	156
Figure 9.	Selenium Far Upgradient Data Set, Probability Plot (lognormal)	157
Figure 10.	Uranium Near Upgradient Data Set, Histogram (normal)	249
Figure 11.	Uranium Near Upgradient Data Set, Histogram (lognormal)	250
Figure 12.	Uranium Near Upgradient Data Set, Probability Plot (normal)	251
Figure 13.	Uranium Near Upgradient Data Set, Probability Plot (lognormal)	252
Figure 14.	Uranium Far Upgradient Data Set, Histogram (normal)	266
Figure 15.	Uranium Far Upgradient Data Set, Histogram (lognormal)	267
Figure 16.	Uranium Far Upgradient Data Set, Probability Plot (normal)	268
Figure 17.	Uranium Far Upgradient Data Set, Probability Plot (lognormal)	269
Figure 18.	Uranium Combined Background Data Set, Histogram (normal)	333
Figure 19.	Uranium Combined Background Data Set, Histogram (lognormal)	334
Figure 20.	Uranium Combined Background Data Set, Probability Plot (normal)	335
Figure 21.	Uranium Combined Background Data Set, Probability Plot (lognormal)	336

EXCUTIVE SUMMARY

Molybdenum, selenium, and uranium are key contaminants introduced into the shallow groundwater as a result of the processing of uranium ore at the Homestake site, located near Grants, New Mexico. However, a natural source of these same constituents exists upgradient which influences natural background groundwater quality. The purpose of this report is to statistically characterize upgradient concentrations of molybdenum, selenium, and uranium in the alluvial aquifer and to propose statistical methods for determining whether alluvial wells located downgradient of the site have been impacted by contamination originating at the site.

Samples were collected at near and far upgradient wells from 1976 to 1998. Fifteen wells provided the upgradient well data while data from six far upgradient wells were used to construct that data set. Close examination of the groundwater database provided justification for elimination of select samples. Samples were eliminated based upon high detection limits, reported zero concentrations, and extreme maximum concentrations. Only a minor percentage of samples were eliminated; the completeness of the data set was not compromised.

Statistical analyses were preformed on the individual data sets (constituent and location specific) to determine distribution, statistical similarities between near and far upgradient data, and upper tolerance limits. Results of the distribution analysis indicated that all data sets were nonparametrically distributed. The molybdenum and uranium near and far upgradient background data sets were shown to be statistically similar and so analyses on the combined data set was performed.

The 95th percentile was calculated as the non-parametric upper tolerance limit for all analyzed data sets. The 95th percentile should be used to compare to downgradient well concentrations to determine if "above expected background concentrations" exist. If the downgradient concentration is greater than the 95th percentile, contamination may be indicated. However, it should be noted that since the 95th percentile was calculated as the upper tolerance limit, statistically 5% of the time one would expect the upper tolerance limit to be exceeded. Because the molybdenum and uranium near and far upgradient data sets were statistically similar, the combined data set 95th percentile should be representative of upgradient background concentrations. Because the selenium near and far upgradient data sets were not statistically similar, it is advised to use the near upgradient 95th percentile for downgradient well concentration comparisons. A summary table of the parameter, data set, distribution, 95th percentile, range, arithmetic mean and sample number is provided as Table ES-1.

Table ES-1. Summary Table for Upgradient Wells, Statistical Analysis

Parameter	Data Set	Distribution	95th Percentile	Range	Arithmetic Mean	Samples
Molybdenum	Near Upgradient	Nonparametric	0.054	<0.001 to 0.2	0.019	366
	Far Upgradient	Nonparametric	0.04	<0.01 to 0.07	0.018	42
	Combined	Nonparametric	0.05	<0.001 to 0.2	0.019	408
Selenium	Near Upgradient	Nonparametric	0.27	0.009 to 0.755	0.13	365
	Far Upgradient	Nonparametric	0.72	<0.005 to 0.79	0.3	42
Uranium	Near Upgradient	Nonparametric	0.147	0.003392 to 0.7208	0.05	366
	Far Upgradient	Nonparametric	0.18	0.001 to 0.192	0.07	42
	Combined	Nonparametric	0.16	0.001 to 0.7208	0.05	408

REPORT

1.0 INTRODUCTION

Molybdenum, selenium, and uranium are key contaminants introduced into the shallow groundwater as a result of the processing of uranium ore at the Homestake site, located near Grants, New Mexico. Because of their mobility, these constituents are used to track contaminant plume migration downgradient of the site. However, extensive mineralized areas upgradient of the site serve as a natural source of these same constituents in the alluvial groundwater. The purpose of this report is to statistically characterize upgradient concentrations of molybdenum, selenium, and uranium in the alluvial aquifer and to propose statistical methods for determining whether alluvial wells located downgradient of the site have been impacted by contamination originating at the site.

This report was prepared at the request of Homestake Mining Company. Homestake Mining Company provided the chemical analysis data, and George Hoffman from Hydro-Engineering, a contractor for the Homestake site, provided the well location map presented in this report as well as other valuable information, both printed and verbal, used in this assessment.

1.1 Monitor well network

Figure 1 shows the location of the fifteen upgradient monitor wells for which ground water quality data were provided. Alluvial wells DD, ND, P, P1, P2, P3, P4, Q, and R are located within approximately one mile of the site and are referred to in this report as near upgradient background wells, four of these wells (DD, P, Q, and R) have been sampled since 1976, data from well ND extends back to 1983, wells P1 and P2 have been sampled since 1992 and wells P3 and P4 were sampled for the first time in 1998. The sampling frequency varies by well and over time, but generally most of the near upgradient wells were sampled at least twice per year through 1998. These data were combined into a statistical set of data based upon geochemical similarities and knowledge of completion interval (Hoffman 1999).

Data from six additional wells farther upgradient of the site were also provided for this analysis. Wells 914, 916, 920, 921, 922, and 950 are located approximately two to three miles upgradient of the Homestake site and are collectively referred to in this report as far upgradient background wells. In addition to being located farther from the site, these wells were not installed by Homestake. Because completion logs are not available (personal communication, G. Hoffman) it cannot be determined whether these wells access alluvial groundwater, water from a deeper water bearing unit, or some combination from both groundwater sources. These wells have been sampled less frequently than the near upgradient wells. These data were combined into a statistical data set based upon upgradient placement in relation to the Homestake site and lack of completion interval knowledge.

A statistical comparison analyses between well sets was performed and the two data sets were combined into a single data set when statistically defensible.

1.2 Data preparation

The database provided for analysis consisted of six fields describing, well identification number, sample date, measured parameter, laboratory identification where the sample was processed, remark code (qualifiers) and concentration (mg/L).

Examination of the database revealed isolated problems with individual data values. For example, two molybdenum values reported as <0.1 mg/L were omitted as uninformative because typically molybdenum analyses were performed using a detection limit of 0.01 or 0.03 mg/L, and most upgradient molybdenum levels lie well below 0.1 mg/L. This data was from well P in November 1982 and from Well R in September 1992. A reported selenium concentration of 12 mg/L for well P on 2/27/91 was determined to be an error and was removed from the database. This concentration was determined to be the result of laboratory error. Two uranium measurements of exactly 0.00 mg/L were omitted (one was from Well P the other from Well R in September 1979). None of the removed data appears on any table in this report.

The laboratory code field entries in the database indicate that the majority of water samples were analyzed on-site (lab code Homestake), with frequent verification analyses provided by independent laboratories. When the dates reported for the on-site and verification results differed by only one or two days, the data were assumed to represent the same sampling round and one of the dates was changed to agree with the other. The database also includes rare cases of what appear to be replicate analyses of a water sample by the same laboratory. Replicate measurements were removed and replaced by a single data value equal to their arithmetic average. Master data tables and corrected data tables are provided for each constituent so all changes to the original set of data can be tracked.

Multiple measurements of constituent concentrations made by different laboratories on split or replicate samples of a well can be expected to be correlated, which violates the assumption of independence required by most statistical procedures. Therefore, as a last step before processing, the on-site and any verification lab results for a sampling round were averaged together to produce one value for the concentration of a constituent in each well on that date. This process equates the number of data to the number of sampling rounds for a well, and should produce more stable data with less noise.

The data used for statistical evaluation are presented for each constituent in tabular form in the back of this report.

2.0 METHODS

2.1 Distribution Analyses

A distribution analysis was performed to determine if a particular data set was parametric or non-parametric. The data first were subjected to an *a priori* screen (Section 2.1.1). The number of non-detects was then evaluated for the data set (Section 2.1.2). If greater than 15% non-detects existed, the data set was considered non-parametric and the distribution analysis was concluded. If fewer than 15% non-detects existed, the data were subjected to six numerical and two graphical procedures to determine the distribution type. The numerical procedures included the coefficient of variation (Section 2.1.3), the Studentized range test (Section 2.1.4), Geary's test (Section 2.1.5), the coefficient of skewness (Section 2.1.6), the Shapiro-Wilk Test of Normality if the sample size was less than or equal to 50 or the Shapiro-Francia test if the sample size was greater than 50 (Section 2.1.7), and Filliben's statistic (Section 2.1.8). The graphical procedures used were the histogram (Section 2.1.9) and the probability plot (Section 2.1.10). The results of the procedures were compared and the distribution was determined (Section 2.1.11). The T_n statistic was then calculated for the parametric data sets as a second screening mechanism for outliers (Section 2.1.12). If a data set contained fewer than 15% non-detects but failed the numerical and graphical procedures for a parametric distribution, the data set was often carried through to the T_n statistic procedure to determine if outliers were present. In some instances, outliers are identified and removed during the T_n statistic procedure causing a data set that had initially failed to pass the parametric numerical and graphical tests. If outliers were identified during the T_n statistical test, the outliers were removed and the mean and standard deviation were recalculated for the data set, and the distribution analysis was performed again.

2.1.1 Rejection of Outliers: *A Priori* Test

The *a priori* test is a screening test used to eliminate outliers before the distribution analysis is performed. This test is applied to all data whether parametric or non-parametric. An observation that is 4 or 5 times as large as the rest of the data is generally considered suspect (EPA 1989). Conservatively, for this *a priori* test, outliers are defined as maximum values greater than three times the next highest value. Non-transformed data are used for this screening test. If a data value fails the *a priori* test, it is removed from the data set for all following statistical analyses. The data point, however, must be explained as either potential sampling error, laboratory error, an anomalously high value, or some other factor contributing to an unexpectedly "high concentration".

2.1.2 Determination of Percent Non-detects

If the percentage of non-detects was less than 15%, the non-detect was replaced by the detection limit divided by two. A parametric distribution analyses was then performed on the modified data set. If the percentage of non-detects was greater than 15%, the distribution was considered non-parametric and a distribution analysis was not performed (EPA 1989, 1992).

2.1.3 Coefficient of Variation

The coefficient of variation (CV) is a unitless measure that determines dispersion for a set of data. The CV is commonly used in environmental statistical analyses because variability (expressed as a standard deviation) is often proportional to the mean. The CV may be used to determine whether or not the data follow a normal curve by comparing the sample CV to 1. EPA guidance (EPA 1998) suggests that the use of the CV is most valid if the data is non-negative. If the CV was greater than 1, the normality of the data was considered suspect. However, this method cannot be used to conclude the opposite, i.e. the distribution is normal if the CV is less than 1 (EPA 1998). This test was used as a preliminary screening test in conjunction with other more powerful distribution determining tests. The CV was calculated by dividing the standard deviation by the mean. Further information is provided in Guidance for Data Quality Assessment, Practical Methods for Data Analysis (EPA 1998).

The following formula is used to calculate CV:

$$CV = \frac{s}{\bar{X}}$$

where,

CV = coefficient of variation
s = standard deviation, and

$\bar{X}$ = sample mean

2.1.4 Studentized Range Test

Almost 100% of the area of a normal curve lies within +/-5 standard deviations from the mean. The Studentized range test for normality was developed based on this fact. This test compares the range of the sample (w) divided by the sample standard deviation (s) to a critical value range. If (w/s) exists outside of the critical value range, the data set fails the test. The Studentized range test does not perform well if the data are asymmetric. If the data appear to be lognormally distributed the test should not be applied (EPA 1998).

The following formula is used to perform the Studentized Range Test:

$$\frac{w}{s} = \frac{X_n - X_1}{s}$$

where,

w/s = sample range divided by the sample standard deviation
X_n = the maximum value of the data set
X_1 = the minimum value of the data set, and
s = the sample standard deviation

2.1.5 Geary's Test

Another numerical test utilized for normality testing was Geary's test. Geary's test uses the ratio of the mean deviation of the sample to the sample standard deviation. This ratio is then adjusted to approximate a standard normal distribution (EPA 1998). A "Z" value is calculated from the sample mean, the sample sum of squares, and the sum of absolute deviations. The "Z" value is then compared to a critical value such that if the absolute value of "Z" is greater than the critical value, the test indicates that the data do not follow a normal distribution.

The following formulas are used in Geary's Test. The first procedure is to calculate the sample mean:

$$\bar{X} = \frac{1}{n}\sum_{i=1}^{n} X_i$$

where,

$\bar{X}$ = the sample mean
X_i = the individual sample within the data set, and
n = the number of samples within the data set

The second procedure is to calculate the sample sum of squares:

$$SSS = \sum_{i=1}^{n} X_i^2 - \frac{\left(\sum_{i=1}^{n} X_i\right)^2}{n}$$

where,

SSS = sample sum of squares
X_i = the individual sample within the data set, and
n = the number of samples within the data set

The third procedure is to calculate the sum of absolute deviations:

$$SAD = \sum_{i=1}^{n} \left| X_i - \bar{X} \right|$$

where,

SAD = sum of the absolute deviations
$\bar{X}$ = the sample mean
X_i = the individual sample within the data set, and
n = the number of samples within the data set

The fourth procedure is to calculate Geary's test statistic:

$$a = \frac{SAD}{\sqrt{n(SSS)}}$$

where,

a = Geary's test statistic
SAD = sum of the absolute deviations
SSS = sample sum of squares, and
n = the number of samples within the data set

The final step in performing Geary's test is to test "a" for significance by computing:

$$Z = \frac{a - 0.7979}{0.2123/\sqrt{n}}$$

where,

Z = test of "a" for significance
a = Geary's test statistic, and
n = the number of samples within the data set

2.1.6 Coefficient of Skewness

The coefficient of skewness indicates to what degree a data set is skewed or asymmetric with respect to the mean. Data from a perfectly shaped normal distribution have a coefficient of skewness of zero, while asymmetric data have either positive or negative skewness depending on whether the right- or left-hand tail of the distribution is longer and "skinnier" than the opposite tail. A small degree of skewness (between -1 and +1) is not likely to affect the results of statistical tests based on an assumption of normality. However, if the coefficient of skewness is larger than 1 (in absolute value) and the sample size is small (e.g., n<25), statistical research has shown that standard normal theory-based tests are much less powerful than when the absolute skewness is less than 1 (Gayen, 1949). Therefore, it is considered a failure of the test for normality if the coefficient of skewness exceeds 1. The formula

for the coefficient of skewness γ_i is shown below, where n is the number of data points, x_i is an individual sample observation, $\bar{x}$ is the mean of the data set, and σ is the standard deviation.

$$\gamma_i = \frac{\frac{1}{n}\sum_{i=1}^{n}(x_i - \bar{x})^3}{\left(\frac{n-1}{n}\right)^{\frac{3}{2}}(\sigma)^3}$$

The Coefficient of Skewness can also be used to evaluate whether the distribution of a data set is more normal or lognormal, based on the closeness of γ_i to zero.

2.1.7 Shapiro-Wilk (n<50) or Shapiro-Francia (n≥50) Test of Normality

The Shapiro-Wilk Test of Normality is based on the premise that, if a set of data is normally distributed, the ordered values should be highly correlative with corresponding quantiles taken from a normal distribution (Shapiro and Wilk, 1965). In particular, the Shapiro-Wilk Test of Normality gives substantial weight to evidence of non-normality in the tails of a distribution, where the robustness of statistical tests based on the normality assumption is the most severely affected (EPA, 1992).

The Shapiro-Wilk test statistic (W) will tend to be large (close to 1) when the data is normally distributed. Only when the plotted data show significant bends or curves will the test statistic be small. The Shapiro-Wilk Test of Normality is considered to be one of the best available tests of normality (Miller, 1986; Madansky, 1988).

The following formula is used to calculate W:

$$W = \left[\frac{b}{\sigma\sqrt{n-1}}\right]^2$$

where,

$$b = \sum_{i=1}^{k} b_i = \sum_{i=1}^{k} a_{n-i+1}\left(x_{(n-i+1)} - x_i\right)$$

and σ = standard deviation,
n = number of data points,
a_{n-i+1} = coefficients determined from Table A-1 in EPA (1992) for $3 \leq n \leq 50$
K = greatest integer less than or equal to n/2

Normality of the data should be rejected if the Shapiro-Wilk statistic is too low when compared to the critical values provided in Table A-2 (EPA, 1992). Otherwise, the data are assumed to be approximately normal for purposes of further statistical analysis.

The Shapiro-Francia Test of Normality is also based on the premise that, if a set of data is normally distributed, the ordered values should be highly correlative with corresponding quantiles taken from a normal distribution (Shapiro and Francia 1972).

The Shapiro-Francia test statistic (W') will tend to be large (close to 1) when the data is normally distributed. Only when the plotted data show significant bends or curves will the test statistic be small. Normality of the data should be rejected if the Shapiro-Francia statistic is below calculated critical values (EPA 1992). Otherwise, the data are assumed to be approximately normal for purposes of further statistical analysis.

The following formula is used to calculate W':

$$W' = \frac{\left[\Sigma_i m_i x_i\right]^2}{(n-1)SD^2 \Sigma_i m_i^2}$$

where,

W' = test statistic
x_i = represents the ith ordered value of the sample
n = the number of samples within the data set
SD = the sample standard deviation
m_i = the approximated expected value of the ith ordered Normal quantile.

The values for m_i can be approximately computed as

$$m_i = \Phi^{-1}\left(\frac{i}{n+1}\right)$$

where,

m_i = the approximated expected value of the ith ordered Normal quantile
Φ^{-1} = the inverse of the standard Normal distribution with zero mean and unit variance
n = the number of samples within the data set

2.1.8 Filliben's Statistic

Filliben's statistic is approximately equivalent to the Shapiro-Wilk and Shapiro-Francia tests as described by Filliben (1975). This test correlates well with the use of probability plots, because the essence of the test is to compute the common correlation coefficient for points on a probability plot (EPA 1992). Since the correlation coefficient is a measure of the linearity of the points on a scatterplot, Filliben's statistic will be high when the plotted points fall along a straight line and low when there are significant bends and curves in the probability plot. Comparison of the Shapiro-Wilk and Filliben's statistic has indicated very similar statistical power for detecting non-normality (Ryan and Joiner, 1976). Critical values for the correlation coefficient have been derived in EPA 1992. If the calculated value is less than the critical value, there is significant evidence of non-normality.

Filliben's statistic may be computed as:

$$r = \frac{\Sigma_{i=1}^{n} X_i M_i}{\left(\sqrt{\Sigma_i M_i^2}\right)(SD)\left(\sqrt{n-1}\right)}$$

where,

r = Filliben's statistic
X_i = represents the ith smallest ordered concentration value
n = the number of samples within the data set
SD = the sample standard deviation
M_i = the median of the ith order statistic from a standard Normal distribution.

The ith Normal order statistic median may be approximated as $M_i = \Phi^{-1}(m_i)$, where as before Φ^{-1} is the inverse of the standard Normal cumulative distribution and m_i can be can be computed as follows (given sample size n):

$$m_i = 1 - \left(0.5^{1/n}\right) \text{ for } i = 1$$

$$m_i = (i - 0.3175)/(n + 0.365) \text{ for } 1<i<n$$

$$m_i = 0.5^{1/n} \text{ for } i = n$$

2.1.9 Histograms

Histograms are useful for visually determining whether the data sets are skewed, and if so, in what direction. Histograms are created by determining the range of sample concentrations, then dividing the concentration range into equal intervals. Samples are then placed into the appropriate concentration intervals. The concentration range forms the x-axis. Calculating the percentage of samples per concentration interval compared to the total number of samples, or simply plotting the number of data values that fall within an interval, provides the y-axis in terms of percent frequency or frequency, respectively, of a particular concentration interval.

2.1.10 Probability Plots

Another simple and useful graphical test for determining normality is to plot the data on probability paper. The y-axis is scaled to represent probabilities according to the normal distribution, and the data are arranged in increasing order. An observed value is plotted on the x-axis, and the proportion of observations less than or equal to each observed value is plotted as the y-coordinate. The scale is constructed so that, if the data are normal, the points when plotted will approximate a straight line. Visually apparent curves or bends indicate that the data do not follow a normal distribution (EPA, 1992).

Probability plots are particularly useful for spotting irregularities within the data when compared to a specific distributional model such as the normal distribution. It is easy to determine whether departures from normality are occurring more or less in the middle ranges of the data or in the extreme tails. Probability plots can also indicate the presence of possible outlier values that do not follow the basic pattern of the data and can show the presence of significant positive or negative skewness.

The probability for a particular data value x is calculated as

$$\text{Probability} = 100*((i-3/8)/(n+1/4))$$

where,

i = ranked order of x_i from i to n
n = number of samples

2.1.11 Determination of Distribution

Upon completion of the *a priori* screen, percent non-detect determination, and graphical and numerical distribution analysis, a determination of the distribution was made (EPA, 1992).

2.1.12 The T_n Statistic Test

The T_n Statistic test was performed on the near and far upgradient background data after the *a priori* screen and initial distribution analysis had been completed. The test was run iteratively until the largest remaining value in the

data set passed. If a particular data set had fewer than 15% non-detects but failed the parametric distribution tests, it was often carried over to the T_n Statistic and analyzed using the parametric distribution that it most closely resembled. In some instances, identification and removal of outliers during the T_n Statistic procedure allows for the previously failed data set to pass the parametric numerical and graphical tests. If failures were reported during the T_n statistical test, the values were removed and the mean and standard deviation were recalculated on the censored data set. Failures of the T_n Statistic are defined as T_n calculated values that exceed the critical value (EPA, 1989). The censored data set was then used for all additional statistical tests. (Removed data points are considered either potential sampling error, laboratory error, an anomalously high value, or some other factor contributing to an unexpectedly large concentration).

To calculate the T_n statistic, the following formula is used:

$$T_n = \frac{(x_n - \bar{x})}{\sigma}$$

where

T_n = T_n statistic,
x_n = individual sample,
$\bar{x}$ = mean of sample set, and
σ = standard deviation.

2.1.13 Determination of Upper Tolerance Limit

This section describes two methods, one for parametric data and the other for non-parametric data that establish the maximum expected background concentration using a 95 percent confidence limit. A parametric upper tolerance limit (Section 2.1.13.1) is calculated for parametric data sets, while a 95th percentile (considered a non-parametric upper tolerance limit)(Section 2.1.13.2) is calculated for non-parametric data sets.

2.1.13.1 Parametric Upper Tolerance Limit

A tolerance interval establishes a concentration range that is constructed to contain a specified proportion (P%) of the population with a specified confidence coefficient, Y. The proportion of the population included, P, is referred to as the coverage. The probability with which the tolerance interval includes the proportion P% of the population is referred to as the tolerance coefficient.

A coverage of 95% was used as recommended by EPA (1989). By using this coverage, random observations from the same distribution would exceed the upper tolerance limit less than 5% of the time. Similarly, a tolerance coefficient of 95% was used. This means that there is a confidence level of 95% that the upper 95% tolerance limit would contain at least 95% of the distribution of observations from background groundwater data. These values were chosen to be consistent with the performance standards described in Section 2 of EPA 1989.

Tolerance intervals were constructed assuming that the data or the transformed data were normally distributed.

The formula for the UTL is as follows:

$$UTL = \bar{x} + t_{.05(n-1)} \cdot \sigma$$

where

$\bar{x}$ = the mean of the population,
$t_{.05(n-1)}$ is one-sided tolerance factor for n (Table 5, Appendix B, EPA 1989), and
σ = the standard deviation

2.1.13.2 95th Percentile

For non-parametric data sets, the 95th percentile value was used for expressing the upper range of background. The 95th percentile indicated that 95 percent of the data would be expected to be below that value, while 5 percent would be above the value. The calculated background was therefore insensitive to the magnitude of the largest 5 percent of the data points.

Percentiles can be calculated in several similar manners. EPA 1998 provides one method of calculating percentiles. The 95th percentile presented in this report was calculated electronically by the Microsoft Excel software program (Microsoft 1992).

2.2 Comparison Test

2.2.1 Introduction

A comparison test was performed between near upgradient and far upgradient data sets to determine if the two data sets were statistically similar. If the data sets were similar, then the data sets were combined to determine the upper tolerance limit for the larger data set. If the near and far upgradient data sets did not compare statistically, the data sets were not combined.

Comparison tests are of two basic types: parametric and non-parametric. Only a non-parametric test was applied to the Homestake background data. This test was the Wilcoxon Rank-sum test.

2.2.2. Wilcoxon Rank Sum Test

The Wilcoxon-Rank Sum (WRS) Test is a powerful nonparametric test to determine if data sets are statistically similar (EPA 1992). As a general rule, the WRS test should be used with caution if more than about 40% of the measurements are non-detects. All data were subjected to the WRS test in this analysis with the knowledge that the test power was greatly reduced when the non-detect percent was greater than 40.

In general the WRS test is performed by combining two data sets and ranking that set from highest to lowest. The ranked sum of each set is compared to determine if one set is statistically different than the other. A statistical software package (STATGRAPHICS) (Manugistics 1998) was used to perform this two-way procedure.

3.0 MOLYBDENUM

3.1 Introduction

Molybdenum concentration data for near upgradient wells are characterized by a high frequency of nondetects at laboratory detection limits of 0.03, 0.01, and 0.001 mg/L. Approximately 16 percent of measurements from these wells exceed the NRC site standard of 0.03 mg/L, with exceedences ranging from 0.03 to 0.2 mg/L. Only two of 408 (0.5 percent) measurements exceed 0.10 mg/L.

Molybdenum concentration data for far upgradient wells are also characterized by a high percentage of nondetects at laboratory detection limits of 0.03 and 0.01 mg/L. Approximately 14 percent of measurements from these wells exceed the NRC site standard of 0.03 mg/L, with exceedences ranging from 0.03 to 0.07 mg/L. No measurements from the far upgradient wells exceeded 0.10 mg/L.

Table 1 summarizes data for both near upgradient and far upgradient background wells.

3.2 Molybdenum Near Upgradient

Table 2 presents the molybdenum near upgradient background data set with the data not corrected for non-detects or duplicates. Tables 3 through 10 present the sampling date and the final data set (corrected for non-detects and duplicates for the near upgradient background wells. Finally, Table 11 is a summary table of all the final data sets for the near upgradient wells used in the statistical analyses. A distribution analysis was first performed for the molybdenum data. Then the 95th upper tolerance limit was calculated.

3.2.1 Distribution Analysis Results

3.2.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 12. No outliers were determined or eliminated from the molybdenum near upgradient background data set.

3.2.1.2 Determination of Percent Non-detects

Because the near upgradient molybdenum data had 40% non-detects, the data were considered to be nonparametric (EPA 1989)(Table 1). Thus, no more distribution tests were applied to the data.

3.2.2. Determination of Upper Tolerance Limit

3.2.2.1 95th Percentile

Because the data was determined to be nonparametrically distributed (due to greater than 15% non-detects), the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.054 mg/L (Table 13). The molybdenum near upgradient background data set summary table is presented as Table 14.

3.3 Molybdenum Far Upgradient Distribution Analysis Results

Table 15 presents the molybdenum far upgradient background data set with the data not corrected for non-detects or duplicates. Tables 16 through 21 present the sampling date and the final data set (corrected for non-detects and duplicates for the far upgradient background wells. Finally, Table 22 is a summary table of all the final data sets for the far upgradient wells used in the statistical analyses. A distribution analysis was first performed for the molybdenum data. Then the 95th upper tolerance limit was calculated.

3.3.1 Distribution Analysis Results

3.3.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 23. No outliers were determined or eliminated from the molybdenum far upgradient background data set.

3.3.1.2 Determination of Percent Non-detects

Because the far upgradient molybdenum data had 86% non-detects, the data were considered to be nonparametric (EPA 1989) (Table 1). Thus, no more distribution tests were applied to the data.

3.3.2 Determination of Upper Tolerance Limit

3.3.2.1 95th Percentile

Because the data was determined to be nonparametrically distributed (due to greater than 15% non-detects), the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.040 mg/L (Table 24). The molybdenum far upgradient background data set summary table is presented as Table 25.

3.4 Molybdenum Near and Far Upgradient Comparison Statistics Results

The molybdenum near upgradient background data set was statistically similar to the molybdenum far upgradient background data set (Table 26). Thus, distribution fitting and an upper tolerance limit calculation was performed on the combined data set.

3.5 Molybdenum Combined Distribution Analysis Results

Table 27 is a summary table of all the final data sets for the combined upgradient wells used in the statistical analyses. A distribution analysis was first performed for the molybdenum data. Then the 95th upper tolerance limit was calculated.

3.5.1 Distribution Analysis Results

3.5.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 28. No outliers were determined or eliminated from the molybdenum combined upgradient background data set.

3.5.1.2 Determination of Percent Non-detects

Because the combined upgradient molybdenum data had over 40% non-detects, the data were considered to be nonparametric (EPA 1989) (Table 1). Thus, no more distribution tests were applied to the data.

3.5.2 Determination of Upper Tolerance Limit

3.5.2.1 95th Percentile

Because the data was determined to be nonparametrically distributed (due to greater than 15% non-detects), the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.05 mg/L (Table 29). The molybdenum combined upgradient background data set summary table is presented as Table 30.

4.0 SELENIUM

4.1 Introduction

Selenium concentrations measured in near upgradient wells range from 0.009 mg/L to 0.755 mg/L. Less than five percent of measurements are below detection, and slightly above half of all measurements from the near upgradient wells lie above the NRC site standard of 0.10 mg/L with exceedances ranging from 0.1 to 0.755. Table 31 provides a statistical summary of the data by well for both near upgradient and far upgradient wells.

Selenium concentrations measured in far upgradient wells range from <0.005 to 0.79 mg/L. Approximately 16% of the data for the far upgradient wells are nondetect. Approximately 60 percent of measurements from these wells exceed the NRC site standard of 0.10 mg/L, with exceedences ranging from 0.276 to 0.79 mg/L. Though typically when non-detects exceed 15% of the data set only non-parametric statistics are applied, because the percent non-detect was so close to 15, parametric distribution analyses were still performed.

4.2 Selenium Near Upgradient

Table 32 presents the selenium near upgradient background data set with the data not corrected for non-detects or duplicates. Tables 33 through 40 present the sampling date and the final data set (corrected for non-detects and duplicates for the near upgradient background wells. Finally, Table 41 is a summary table of all the final data sets for the near upgradient wells used in the statistical analyses. A distribution analysis was first performed for the molybdenum data. Then the 95th upper tolerance limit was calculated.

4.2.1 Distribution Analysis Results

4.2.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 42. No outliers were determined or eliminated from the selenium near upgradient background data set.

4.2.1.2 Determination of Percent Non-detects

Because the near upgradient selenium data set had less than 15% non-detects, distribution tests were applied to the data (Table 31).

4.2.1.3 Coefficient of Variation

Both the normal and log-transformed data sets passed the CV screen (Table 43). The CV value was 0.73 for the normal data and –0.41 for the log-transformed data compared to the critical value of 1. According to EPA 1998, if the CV is less than 1, the data may be, but does not necessarily have to be normal.

4.2.1.4 Studentized Range Test

The normal data set failed the Studentized range test (Table 44). The range (w) divided by the standard deviation (s) produced a result of 8.05. The critical value range was 5.47 to 6.94. When (w/s) falls outside the critical range, it implies that the data are not well modeled by a normal curve (EPA 1998).

4.2.1.5 Geary's Test

Both the normal and log-transformed data sets failed Geary's test (Table 45). The calculated "Z" values were –2.0 and –2.9 respectively, while the critical value is 1.645. Because the absolute value of "Z" was

4.2.1.6 Coefficient of Skewness

Both the normal and log-transformed data sets failed the coefficient of skewness test (Table 46). The calculated coefficient of skewness was 1.7 for the normal set and –1.1 for the log-transformed data set compared to an acceptable range of –1 to 1. Because the coefficient of skewness is greater than 1, the normal distribution may provide a poor approximation to the data set (EPA 1992).

4.2.1.7 Shapiro-Francia (n≥50) Test of Normality

Both data sets failed the Shapiro-Francia test (Table 47). Though the critical value for the test could not be precisely determined, it is evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=99 is 0.975 for 95% confidence. The calculated W' for the normal data was 0.88, for the log-transformed data it was 0.90. Therefore, normality of the data was rejected (EPA 1992).

4.2.1.8 Filliben's Statistic

Both data sets failed Filliben's Statistic (Table 48). Though the critical value for the test could not be precisely determined, it is also evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=100 is 0.987 for 95% confidence. The calculated test statistic for the normal data was 0.937, for the log-transformed data it was 0.950. Therefore, normality of the data was rejected (EPA 1992).

4.2.1.9 Histograms

Figure 2 depicts the histogram for the normal data set. The figure depicts a fair distribution "fit" with right skewness implying that the normal distribution could provide a poor approximation to the data set. Figure 3 depic the histogram for the log-transformed data set. This figure also depicts a fair distribution "fit" with left skewness implying that the normal distribution could provide a poor approximation to the data set

4.2.1.10 Probability Plots

Figure 4 shows the probability plot for the normal data set. There are two sharp breaks in the plot, one near the detection limit, the other near 0.4 mg/l. This probability plot depicts a poor normal distribution "fit", implying the normal distribution will provide a poor approximation to the data set. Figure 5 is the probability plot for the log-transformed data set. There are at least four breaks in the plot. This probability plot also depicts a poor normal distribution "fit", with the same implication as above.

4.2.1.11 Determination of Distribution

Based on the distribution analysis results, the selenium near upgradient background data set is non-parametric (Table 49).

4.2.1.12 The T_n Statistic Test

Though the data set was determined to be nonparametric, the T_n statistic outlier test was applied to the log-transformed data set. The log-transformed data set was selected because it approximated normality better than the non-transformed data set. No outliers were detected using the T_n statistic (Table 50).

4.2.2. Determination of Upper Tolerance Limit

4.2.2.1 95th Percentile

Because the data was determined to be non-parametrically distributed, the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.27 mg/L (Table 51). The selenium near upgradient background data set summary table is presented as Table 52.

4.3 Selenium Far Upgradient Distribution Analysis Results

Table 53 presents the selenium far upgradient background data set with the data not corrected for non-detects or duplicates. Tables 54 through 59 present the sampling date and the final data set (corrected for non-detects and duplicates for the far upgradient background wells. Finally, Table 60 is a summary table of all the final data sets for the far upgradient wells used in the statistical analyses. A distribution analysis was first performed for the selenium data. Then the 95th upper tolerance limit was calculated.

4.3.1 Distribution Analysis Results

4.3.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 61. No outliers were determined or eliminated from the selenium far upgradient background data set.

4.3.1.2 Determination of Percent Non-detects

Because the far upgradient selenium data set had only slightly more than 15% non-detects, distribution tests were applied to the data (Table 31).

4.3.1.3 Coefficient of Variation

Both the normal and log-transformed data sets passed the CV screen (Table 62). The CV value was 0.88 for the normal data and –0.88 for the log-transformed data compared to the critical value of 1. According to EPA 1998, if the CV is less than 1, the data may be, but does not necessarily have to be normal.

4.3.1.4 Studentized Range Test

The normal data set failed the Studentized range test (Table 63). The range (w) divided by the standard deviation (s) produced a result of 3.03. The critical value range was 3.75 to 5.26. When (w/s) falls outside the critical range, it implies that the data are not well modeled by a normal curve (EPA 1998).

4.3.1.5 Geary's Test

Both the normal and log-transformed data sets failed Geary's test (Table 64). The calculated "Z" values were 3.2 and 4.5 respectively, while the critical value is 1.645. Because the absolute value of "Z" was greater than the associated critical value, it implies that the data are not well modeled by a normal curve (EPA 1998).

4.3.1.6 Coefficient of Skewness

Both the normal and log-transformed data sets passed the coefficient of skewness test (Table 65). The calculated coefficient of skewness was 0.1 for the normal set and –0.5 for the log-transformed data set compared to an acceptable range of –1 to 1. Because the coefficient of skewness was less than 1, the normal distribution may accurately approximate the data set (EPA 1992).

4.3.1.7 Shapiro-Wilk (n<50)

Both data sets failed the Shapiro-Wilk test (Table 66). The calculated W for the normal data was 0.85, for the log-transformed data it was 0.77 compared to a critical value of 0.942. Therefore, normality of the data was rejected (EPA 1992).

4.3.1.8 Filliben's Statistic

Both data sets failed Filliben's Statistic (Table 67). The calculated test statistic for the normal data was 0.934, for the log-transformed data it was 0.893 compared to a critical value of 0.973. Therefore, normality of the data was rejected (EPA 1992).

4.3.1.9 Histograms

Figure 6 depicts the histogram for the normal data set. The figure depicts a poor distribution "fit" implying that the normal distribution could provide a poor approximation to the data set. Figure 7 depicts the histogram for the log-transformed data set. This figure also depicts a poor distribution "fit" also implying that the normal distribution could provide a poor approximation to the data set

4.3.1.10 Probability Plots

Figure 8 shows the probability plot for the normal data set. There is at least two sharp breaks in the plot. This probability plot depicts a poor normal distribution "fit", implying the normal distribution will provide a poor approximation to the data set. Figure 9 is the probability plot for the log-transformed data set. There are at least four breaks in the plot. This probability plot also depicts a poor normal distribution "fit", with the same implica as above.

4.3.1.11 Determination of Distribution

Based on the distribution analysis results, the selenium far upgradient background data set is non-parametric (Table 68).

4.3.1.12 The T_n Statistic Test

Though the data set was determined to be nonparametric, the T_n statistic outlier test was applied to the normal data set. The normal data set was selected because it approximated normality better than the log-transformed data set. No outliers were detected using the T_n statistic (Table 69).

4.3.2 Determination of Upper Tolerance Limit

4.3.2.1 95th Percentile

Because the data was determined to be non-parametrically distributed, the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.72 mg/L (Table 70). The selenium far upgradient background data set summary table is presented as Table 71.

4.4 Selenium Near and Far Upgradient Comparison Statistics Results

The selenium near upgradient background data set was not statistically similar to the selenium far upgradient background data set (Table 72). Thus, distribution fitting and an upper tolerance limit calculation was not performed on the combined data set.

5.0 URANIUM

5.1 Introduction

Uranium concentrations measured in the near upgradient wells range from 0.003392 to 0.7208 mg/L. The highest uranium concentrations are found in samples from well DD, where 96 percent of measurements exceed the NRC site standard of 0.04 mg/L. Other wells also show exceedences of the standard, and overall 46 percent of measurements in near upgradient wells are above the 0.04 mg/L NRC standard.

Uranium concentrations measured in the far upgradient wells range from 0.001 to 0.192 mg/L. The highest uranium concentrations are found in samples from wells 920 , 921 and 950, where over 80 percent of measurements exceed the NRC site standard of 0.04 mg/L. No other wells show exceedences of the standard, and overall approximately 53 percent of measurements in the far upgradient wells are above the 0.04 mg/L NRC standard.

Table 73 provides a statistical summary of the uranium data by well for both near upgradient and far upgradient wells.

5.2 Uranium Near Upgradient

Table 74 presents the uranium near upgradient background data set with the data not corrected for non-detects or duplicates. Tables 75 through 82 present the sampling date and the final data set (corrected for non-detects and duplicates for the near upgradient background wells. Finally, Table 83 is a summary table of all the final data sets for the near upgradient wells used in the statistical analyses. A distribution analysis was first performed for the uranium data. Then the 95th upper tolerance limit was calculated.

5.2.1 Distribution Analysis Results

5.2.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 84. No outliers were determined or eliminated from the uranium near upgradient background data set.

5.2.1.2 Determination of Percent Non-detects

Because the near upgradient uranium data less than 15% non-detects, distribution tests were applied to the data (Table 73).

5.2.1.3 Coefficient of Variation

The log-transformed data set passed the CV screen (Table 85). The normal data set failed the CV test. The CV value was 1.09 for the normal data and –0.29 for the log-transformed data compared to the critical value of 1. According to EPA 1998, if the CV is less than 1, the data may be, but does not necessarily have to be normal.

5.2.1.4 Studentized Range Test

The normal data set failed the Studentized range test (Table 86). The range (w) divided by the standard deviation (s) produced a result of 12.72. The critical value range was 5.47 to 6.94. When (w/s) falls outside the critical range, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.2.1.5 Geary's Test

Both the normal and log-transformed data sets failed Geary's test (Table 87). The calculated "Z" values were –16.6 and –3.9 respectively, while the critical value is 1.645. Because the absolute value of "Z" was greater than the associated critical value, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.2.1.6 Coefficient of Skewness

The normal data set failed the coefficient or skewness test while the log-transformed data set passed (Table 88). The calculated coefficient of skewness was 5.4 for the normal set and –0.4 for the log-transformed data set compared to an acceptable range of –1 to 1. Because the coefficient of skewness was less than 1 for the log-transformed data set, the normal distribution may accurately approximate the data set (EPA 1992).

5.2.1.7 Shapiro-Francia ($n \geq 50$) Test of Normality

Both data sets failed the Shapiro-Francia test (Table 89). Though the critical value for the test could not be precisely determined, it is evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=99 is 0.975 for 95% confidence. The calculated W' for the normal data was 0.62, for the log-transformed data it was 0.96. Therefore, normality of the data was rejected (EPA 1992).

5.2.1.8 Filliben's Statistic

Both data sets failed Filliben's Statistic (Table 90). Though the critical value for the test could not be precisely determined, it is also evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=100 is 0.987 for 95% confidence. The calculated test statistic for the normal data was 0.790, for the log-transformed data it was 0.982. Therefore, normality of the data was rejected (EPA 1992).

5.2.1.9 Histograms

Figure 10 depicts the histogram for the normal data set. The figure depicts a poor distribution "fit" implying that the normal distribution could provide a poor approximation to the data set. Figure 11 depicts the histogram for the log-transformed data set. This figure depicts a good distribution "fit" implying that the normal distribution could provide a representative approximation to the data set

5.2.1.10 Probability Plots

Figure 12 shows the probability plot for the normal data set. There is at least three sharp breaks in the plot. This probability plot depicts a poor normal distribution "fit", implying the normal distribution will provide a poor approximation to the data set. Figure 13 is the probability plot for the log-transformed data set. There are at least two breaks in the plot. This probability plot depicts a fair to poor normal distribution "fit", with the same implication as above.

5.2.1.11 Determination of Distribution

Based on the distribution analysis results, the uranium near upgradient background data set is non-parametric (Table 91).

5.2.1.12 The T_n Statistic Test

Though the data set was determined to be nonparametric, the T_n statistic outlier test was applied to the log-transformed data set. The log-transformed data set was selected because it approximated normality better than the normal data set. No outliers were detected using the T_n statistic (Table 92).

5.2.2 Determination of Upper Tolerance Limit

5.2.2.1 95th Percentile

Because the data was determined to be non-parametrically distributed, the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.147 mg/L (Table 93). The uranium near upgradient background data set summary table is presented as Table 94.

5.3 Uranium Far Upgradient Distribution Analysis Results

Table 95 presents the uranium far upgradient background data set with the data not corrected for non-detects or duplicates. Tables 96 through 101 present the sampling date and the final data set (corrected for non-detects and duplicates for the near upgradient background wells. Finally, Table 102 is a summary table of all the final data sets for the near upgradient wells used in the statistical analyses. A distribution analysis was first performed for the uranium data. Then the 95th upper tolerance limit was calculated.

5.3.1 Distribution Analysis Results

5.3.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 103. No outliers were determined or eliminated from the uranium far upgradient background data set.

5.3.1.2 Determination of Percent Non-detects

Because the far upgradient uranium data set had only slightly more than 15% non-detects, distribution tests were applied to the data (Table 73).

5.3.1.3 Coefficient of Variation

Both the normal and log-transformed data sets passed the CV screen (Table 104). The CV value was 0.99 for the normal data and –0.45 for the log-transformed data compared to the critical value of 1. According to EPA 1998, if the CV is less than 1, the data may be, but does not necessarily have to be normal.

5.3.1.4 Studentized Range Test

The normal data set failed the Studentized range test (Table 105). The range (w) divided by the standard deviation (s) produced a result of 2.83. The critical value range was 3.75 to 5.26. When (w/s) falls outside the critical range, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.3.1.5 Geary's Test

Both the normal and log-transformed data sets failed Geary's test (Table 106). The calculated "Z" values were 3.1 and 3.6 respectively, while the critical value is 1.645. Because the absolute value of "Z" was greater than the associated critical value, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.3.1.6 Coefficient of Skewness

Both the normal and log-transformed data sets passed the coefficient of skewness test (Table 107). The calculated coefficient of skewness was 0.5 for the normal set and –0.3 for the log-transformed data set compared to an acceptable range of –1 to 1. Because the coefficient of skewness was less than 1, the normal distribution may accurately approximate the data set (EPA 1992).

5.3.1.7 Shapiro-Wilk (n<50) Test of Normality

Both data sets failed the Shapiro-Wilk test (Table 108). The calculated W for the normal data was 0.83, for the log-transformed data it was 0.88 compared to a critical value of 0.942. Therefore, normality of the data was rejected (EPA 1992).

5.3.1.8 Filliben's Statistic

Both data sets failed Filliben's Statistic (Table 109). The calculated test statistic for the normal data was 0.924, for the log-transformed data it was 0.951 compared to a critical value of 0.973. Therefore, normality of the data was rejected (EPA 1992).

5.3.1.9 Histograms

Figure 14 depicts the histogram for the normal data set. The figure depicts a poor distribution "fit" implying that the normal distribution could provide a poor approximation to the data set. Figure 15 depicts the histogram for the log-transformed data set. This figure also depicts a poor distribution "fit" also implying that the normal distribution could provide a poor approximation to the data set

5.3.1.10 Probability Plots

Figure 16 shows the probability plot for the normal data set. There is at least two sharp breaks in the plot. This probability plot depicts a fair to poor normal distribution "fit", implying the normal distribution will provide a poor approximation to the data set. Figure 17 is the probability plot for the log-transformed data set. There are at least two breaks in the plot. This probability plot also depicts a poor normal distribution "fit", with the same implication as above.

5.3.1.11 Determination of Distribution

Based on the distribution analysis results, the uranium far upgradient background data set is non-parametric (Table 110).

5.3.1.12 The T_n Statistic Test

Though the data set was determined to be nonparametric, the T_n statistic outlier test was applied to the log-transformed data set. The log-transformed data set was selected because it approximated normality better than the normal data set. No outliers were detected using the T_n statistic (Table 111).

5.3.2 Determination of Upper Tolerance Limit

5.3.2.1 95th Percentile

Because the data was determined to be non-parametrically distributed, the 95th percentile of the data was calculat The 95th percentile was determined to be 0.18 mg/L (Table 112). The uranium far upgradient background data se summary table is presented as Table 113.

5.4 Uranium Near and Far Upgradient Comparison Statistics Results

The uranium near upgradient background data set was statistically similar to the uranium far upgradient background data set (Table 114). Thus, distribution fitting and an upper tolerance limit calculation was performed on the combined data set.

5.5 Uranium Combined

Table 115 is a summary table of all the final data sets for the near upgradient wells used in the statistical analyses. A distribution analysis was first performed for the uranium data. Then the 95th upper tolerance limit was calculated.

5.5.1 Distribution Analysis Results

5.5.1.1 Rejection of Outliers: *A Priori* Test

Results of the *a priori* test are presented in Table 116. No outliers were determined or eliminated from the uranium combined upgradient background data set.

5.5.1.2 Determination of Percent Non-detects

Because the combined upgradient uranium data had less than 15% non-detects, distribution tests were applied to the data (Table 73).

5.5.1.3 Coefficient of Variation

The normal data set failed the CV screen while the log-transformed data set passed (Table 117). The CV value was 1.08 for the normal data and –0.31 for the log-transformed data compared to the critical value of 1. According to EPA 1998, if the CV is less than 1, the data may be, but does not necessarily have to be normal.

5.5.1.4 Studentized Range Test

The data set failed the Studentized range test (Table 118). The range (w) divided by the standard deviation (s) produced a result of 12.46. The critical value range was 5.47 to 6.94. When (w/s) falls outside the critical range, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.5.1.5 Geary's Test

Both the normal and log-transformed data sets failed Geary's test (Table 119). The calculated "Z" values were -13.8 and –2.9 respectively, while the critical value is 1.645. Because the absolute value of "Z" was greater than the associated critical value, it implies that the data are not well modeled by a normal curve (EPA 1998).

5.5.1.6 Coefficient of Skewness

The normal data set failed the coefficient of skewness test while the log-transformed data set passed (Table 120). The calculated coefficient of skewness was 4.6 for the normal set and –0.5 for the log-transformed data set compared to an acceptable range of –1 to 1. Because the coefficient of skewness was less than 1 for the log-transformed data set, the normal distribution may accurately approximate that data set (EPA 1992).

5.5.1.7 Shapiro-Francia (n≥50) Test of Normality

Both data sets failed the Shapiro-Francia test (Table 121). Though the critical value for the test could not be precisely determined, it is evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=99 is 0.975 for 95% confidence. The calculated W' for the normal data was 0.67, for the log-transformed data it was 0.966. Therefore, normality of the data was rejected (EPA 1992).

5.5.1.8 Filliben's Statistic

Both data sets failed Filliben's Statistic (Table 122). Though the critical value for the test could not be precisely determined, it is also evident from comparison of tabulated critical values to n that the critical value approaches 1 as n increases. The critical value for n=100 is 0.987 for 95% confidence. The calculated test statistic for the normal data was 0.818, for the log-transformed data it was 0.983. Therefore, normality of the data was rejected (EPA 1992).

5.5.1.9 Histograms

Figure 18 depicts the histogram for the normal data set. The figure depicts a poor distribution "fit" implying that the normal distribution could provide a poor approximation to the data set. Figure 19 depicts the histogram for the log-transformed data set. This figure also depicts a good distribution "fit" implying that the normal distribution could provide a good approximation to the data set.

5.5.1.10 Probability Plots

Figure 20 shows the probability plot for the normal data set. There is at least four breaks in the plot. This probability plot depicts a poor normal distribution "fit", implying the normal distribution will provide a poor approximation to the data set. Figure 21 is the probability plot for the log-transformed data set. There are also at least four breaks in this plot. This probability plot also depicts a poor normal distribution "fit", with the same implication as above.

5.5.1.11 Determination of Distribution

Based on the distribution analysis results, the uranium combined upgradient background data set is non-parametric (Table 123).

5.5.1.12 The T_n Statistic Test

Though the data set was determined to be nonparametric, the T_n statistic outlier test was applied to the log-transformed data set. The log-transformed data set was selected because it approximated normality better than the normal data set. No outliers were detected using the T_n statistic (Table 124).

5.5.2 Determination of Upper Tolerance Limit

5.5.2.1 95th Percentile

Because the data was determined to be non-parametrically distributed, the 95th percentile of the data was calculated. The 95th percentile was determined to be 0.16 mg/L (Table 125). The uranium combined upgradient background data set summary table is presented as Table 126.

6.0 SUMMARY

Samples were collected at near and far upgradient wells from 1976 to 1998. Fifteen wells provided the upgradient well data while data from six far upgradient wells were used to construct that data set. Close examination of the groundwater database provided justification for elimination of select samples. Samples were eliminated based upon high detection limits, reported zero concentrations, and extreme maximum concentrations.

Statistical analyses were preformed on the individual data sets to determine distribution, statistical similarities between near and far upgradient data, and upper tolerance limits. Results of the distribution analysis indicated that all data sets were nonparametrically distributed. The molybdenum and uranium near and far upgradient background data sets were shown to be statistically similar and so analyses on the combined data set was performed.

The 95th percentile was calculated as the non-parametric upper tolerance limit for all analyzed data sets. The 95th percentile should be used to compare to downgradient well concentrations to determine if "above expected background concentrations" exist. If the downgradient concentration is greater than the 95th percentile, contamination may be indicated. However, it should be noted that since the 95th percentile was calculated as the upper tolerance limit, statistically 5% of the time one would expect the upper tolerance limit to be exceeded. Because the molybdenum and uranium near and far upgradient data sets were statistically similar, the combined data set 95th percentile should be representative of upgradient background concentrations. Because the selenium near and far upgradient data sets were not statistically similar, it is advised to use the near upgradient 95th percentile for downgradient well concentration comparisons. A summary table of the parameter, data set, distribution, 95th percentile, range, and sample number is provided as Table 127.

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MOLYBDENUM

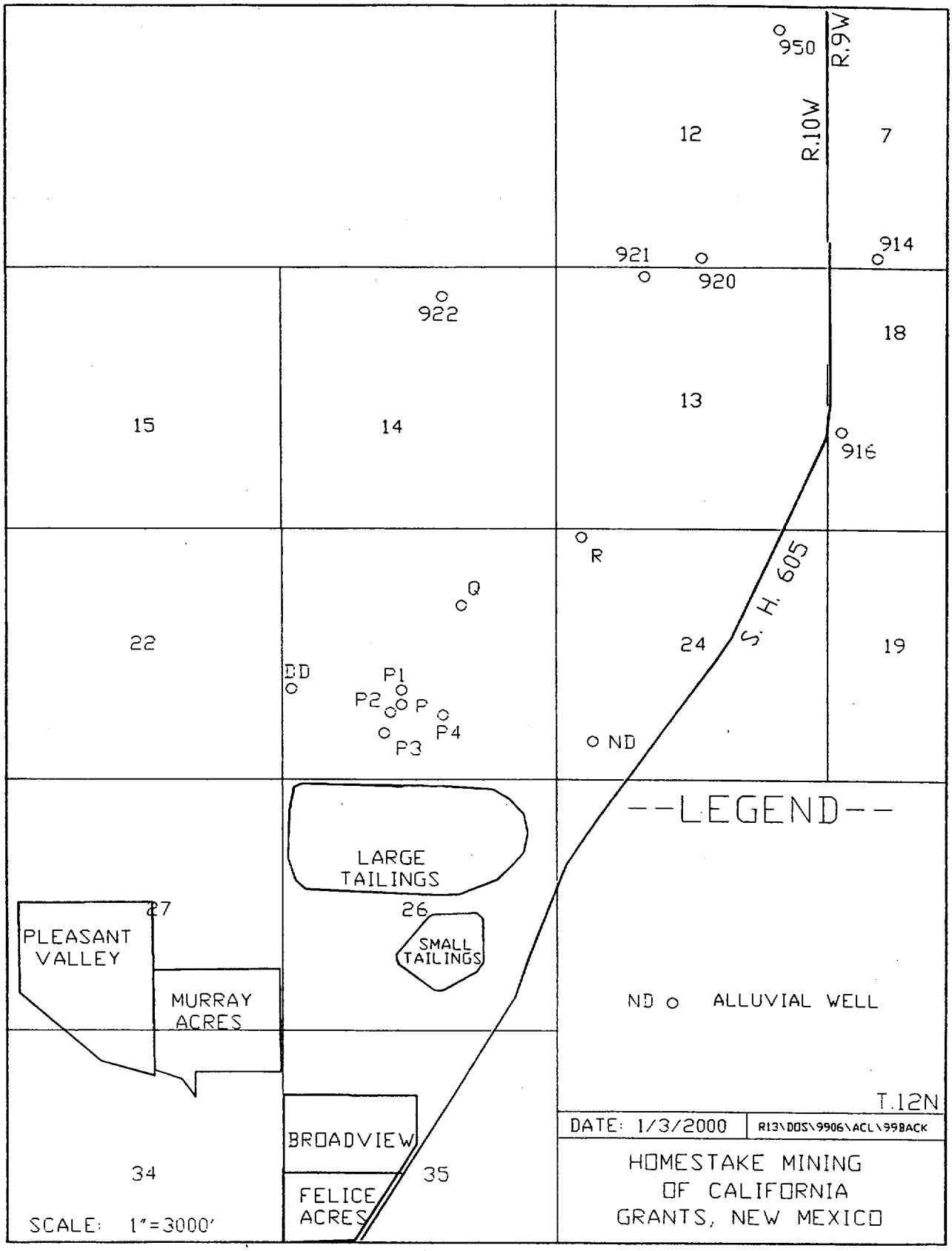

FIGURE 1. LOCATION OF UPGRADIENT WELLS

Table 1. Molybdenum concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, New Mexico from January 1976 to November 1998

Well ID	DD	ND	P	P1	P2	P3	P4	Q	R	All wells	914	916	920	921	922	950	All Wells
1st sampling date	03-Jun-76	12-Jan-83	07-Jan-76	21-Sep-92	21-Sep-92	23-Apr-98	24-Apr-98	07-Jan-76	07-Jan-76	07-Jan-76	10-Jan-83	21-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81
Most recent sampling date	01-Apr-98	05-Aug-98	12-Nov-98	28-Oct-98	28-Oct-98	23-Apr-98	24-Apr-98	04-Mar-98	06-May-98	12-Nov-98	12-May-98	12-May-98	12-May-98	12-May-98	12-May-98	25-Jan-96	12-May-98
Total number of measurments	56	13	132	32	29	1	1	98	107	469	6	5	18	5	6	3	43
Number of independent measurements	50	13	97	26	24	1	1	77	77	366	6	5	17	5	6	3	42
Percent nondect of total number of measurements	28.57%	46.15%	32.58%	90.63%	72.41%	100.00%	100.00%	34.69%	34.58%	40.10%	83.33%	100.00%	77.78%	100.00%	83.33%	100.00%	86%
Minimum	0.0075	<0.01	0.007	<0.01	<0.01	<0.03	<0.03	<0.001	0.0045	<0.001	<0.03	<0.03	<0.01	<0.03	<0.03	<0.03	<0.01
Median	0.01	0.015	0.015	0.015	0.015	<0.03	<0.03	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Mean	0.02	0.031538462	0.020405498	0.015961538	0.019375	<0.03	<0.03	0.0183636	0.0206039	0.0194	0.02416667	0.015	0.01794118	0.015	0.0175	0.015	0.016585
Maximum	0.05	0.16	0.1	0.05	0.05	<0.03	<0.03	0.07	0.2	0.2	0.07	0.015	0.05	0.015	0.03	0.015	0.07
Percent greater than or equal to the NRC site standard (0.03mg/L)	18.00%	38.46%	16.49%	7.69%	20.83%	0.00%	0.00%	12.99%	14.29%	15.85%	16.67%	0.00%	23.53%	0.00%	16.67%	0.00%	14.29%

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
DD	03-Jun-76	Molybdenum	Homestake	None	0.01
DD	27-Aug-76	Molybdenum	Homestake	None	0.04
DD	15-Sep-81	Molybdenum	Homestake	None	0.05
DD	24-Mar-82	Molybdenum	Homestake	None	0.03
DD	26-May-82	Molybdenum	Homestake	None	0.01
DD	18-Nov-82	Molybdenum	Homestake	None	0.03
DD	04-Mar-83	Molybdenum	Homestake	None	0.03
DD	28-Jun-83	Molybdenum	Homestake	None	0.01
DD	28-Jun-83	Molybdenum	NM EID	Less Than	0.01
DD	14-Sep-83	Molybdenum	Homestake	None	0.01
DD	19-Dec-83	Molybdenum	Homestake	None	0.02
DD	07-Mar-84	Molybdenum	Homestake	None	0.01
DD	09-May-84	Molybdenum	Homestake	None	0.01
DD	09-May-84	Molybdenum	Controls for Env	None	0.007
DD	12-Sep-84	Molybdenum	Homestake	None	0.04
DD	12-Dec-84	Molybdenum	Homestake	None	0.04
DD	13-Mar-85	Molybdenum	Homestake	None	0.02
DD	06-Jun-85	Molybdenum	Homestake	None	0.01
DD	04-Sep-85	Molybdenum	Homestake	None	0.01
DD	16-Dec-85	Molybdenum	Homestake	None	0.01
DD	20-Mar-86	Molybdenum	Homestake	None	0.01
DD	30-Jun-86	Molybdenum	Homestake	None	0.01
DD	15-Sep-86	Molybdenum	Homestake	None	0.01
DD	09-Dec-86	Molybdenum	Homestake	None	0.01
DD	19-Mar-87	Molybdenum	Homestake	None	0.01
DD	24-Jun-87	Molybdenum	Homestake	None	0.01
DD	15-Sep-87	Molybdenum	Homestake	None	0.01
DD	08-Dec-87	Molybdenum	Homestake	None	0.01
DD	24-Feb-88	Molybdenum	Homestake	None	0.02
DD	09-Jun-88	Molybdenum	Homestake	None	0.02
DD	11-Oct-88	Molybdenum	Homestake	None	0.01
DD	08-Dec-88	Molybdenum	Homestake	None	0.01
DD	13-Dec-88	Molybdenum	Homestake	None	0.01
DD	13-Dec-88	Molybdenum	Barringer Lab	None	0.05
DD	11-Jan-89	Molybdenum	Homestake	None	0.01
DD	11-Jan-89	Molybdenum	Barringer Lab	None	0.01
DD	15-Feb-89	Molybdenum	Homestake	None	0.01
DD	15-Feb-89	Molybdenum	Barringer Lab	None	0.02
DD	29-Mar-89	Molybdenum	Homestake	None	0.01
DD	13-Jun-89	Molybdenum	Homestake	Less Than	0.01
DD	15-Nov-89	Molybdenum	Homestake	Less Than	0.01
DD	13-Mar-90	Molybdenum	Homestake	Less Than	0.01
DD	13-Mar-90	Molybdenum	Barringer Lab	None	0.03
DD	12-Sep-90	Molybdenum	Homestake	Less Than	0.01
DD	27-Feb-91	Molybdenum	Homestake	Less Than	0.01
DD	16-Sep-91	Molybdenum	Homestake	Less Than	0.01
DD	09-Mar-92	Molybdenum	Homestake	Less Than	0.01
DD	22-Sep-92	Molybdenum	Homestake	Less Than	0.01
DD	21-Oct-93	Molybdenum	Energy Lab	Less Than	0.03
DD	09-Mar-94	Molybdenum	Energy Lab	Less Than	0.03
DD	21-Oct-94	Molybdenum	Energy Lab	Less Than	0.03
DD	10-Oct-95	Molybdenum	Energy Lab	Less Than	0.03

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
DD	10-Oct-96	Molybdenum	Energy Lab	Less Than	0.03
DD	14-Apr-97	Molybdenum	Energy Lab	Less Than	0.03
DD	09-Sep-97	Molybdenum	Energy Lab	Less Than	0.03
DD	01-Apr-98	Molybdenum	Energy Lab	None	0.04
ND	12-Jan-83	Molybdenum	Homestake	None	0.06
ND	06-Jan-84	Molybdenum	Homestake	None	0.03
ND	18-Dec-89	Molybdenum	Homestake	None	0.01
ND	17-Oct-90	Molybdenum	Homestake	None	0.03
ND	16-Sep-91	Molybdenum	Homestake	Less than	0.01
ND	18-Aug-92	Molybdenum	Homestake	None	0.01
ND	25-Aug-93	Molybdenum	Energy	None	0.16
ND	14-Mar-94	Molybdenum	Energy	Less than	0.03
ND	22-Aug-94	Molybdenum	Energy	Less than	0.03
ND	22-Aug-95	Molybdenum	Energy	Less than	0.03
ND	29-Jul-96	Molybdenum	Energy	None	0.03
ND	11-Aug-97	Molybdenum	Energy	Less than	0.03
ND	05-Aug-98	Molybdenum	Energy	Less than	0.03
P	07-Jan-76	Molybdenum	Homestake	Less than	0.05
P	30-Mar-76	Molybdenum	Homestake	None	0.07
P	09-Apr-76	Molybdenum	Homestake	None	0.07
P	03-Jun-76	Molybdenum	Homestake	None	0.01
P	27-Aug-76	Molybdenum	Homestake	None	0.1
P	13-Jun-77	Molybdenum	Eberline	None	0.01
P	13-Jun-77	Molybdenum	Homestake	None	0.02
P	13-Jun-77	Molybdenum	NM EID	None	0.01
P	24-Aug-77	Molybdenum	Eberline	Less than	0.01
P	24-Aug-77	Molybdenum	Homestake	None	0.03
P	24-Aug-77	Molybdenum	NM EID	None	0.01
P	11-Oct-77	Molybdenum	NM EID	None	0.01
P	11-Oct-77	Molybdenum	Homestake	None	0.01
P	01-Feb-78	Molybdenum	NM EID	None	0.01
P	01-Feb-78	Molybdenum	Homestake	None	0.04
P	17-Apr-78	Molybdenum	Homestake	None	0.04
P	11-Jul-78	Molybdenum	NM EID	None	0.014
P	11-Jul-78	Molybdenum	Homestake	None	0.03
P	23-Oct-78	Molybdenum	Homestake	None	0.03
P	23-Oct-78	Molybdenum	NM EID	None	0.01
P	30-Jan-79	Molybdenum	Homestake	None	0.05
P	30-Jan-79	Molybdenum	NM EID	None	0.001
P	30-Apr-79	Molybdenum	Homestake	None	0.03
P	30-Apr-79	Molybdenum	NM EID	None	0.005
P	12-Jul-79	Molybdenum	Homestake	None	0.06
P	10-Sep-79	Molybdenum	Homestake	None	0.1
P	06-Nov-79	Molybdenum	Homestake	None	0.05
P	09-Jan-80	Molybdenum	Homestake	None	0.08
P	16-Apr-80	Molybdenum	Homestake	None	0.04
P	17-Apr-80	Molybdenum	NM EID	None	0.005
P	16-Jul-80	Molybdenum	Homestake	None	0.01
P	16-Jul-80	Molybdenum	NM EID	None	0.005
P	13-Oct-80	Molybdenum	Homestake	None	0.02
P	07-Jan-81	Molybdenum	Homestake	None	0.01
P	07-Jan-81	Molybdenum	NM EID	None	0.005

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
P	15-Apr-81	Molybdenum	Homestake	None	0.05
P	15-Apr-81	Molybdenum	NM EID	None	0.005
P	07-Jul-81	Molybdenum	Homestake	None	0.04
P	07-Oct-81	Molybdenum	Homestake	None	0.02
P	28-Dec-81	Molybdenum	NM EID	None	0.01
P	28-Dec-81	Molybdenum	Homestake	None	0.05
P	24-Mar-82	Molybdenum	Homestake	None	0.02
P	24-Mar-82	Molybdenum	NM EID	None	0.01
P	22-May-82	Molybdenum	Homestake	None	0.02
P	25-Aug-82	Molybdenum	Homestake	None	0.02
P	18-Nov-82	Molybdenum	Controls for	None	0.009
P	18-Nov-82	Molybdenum	Homestake	None	0.04
P	18-Nov-82	Molybdenum	Controls for	None	0.008
P	23-Feb-83	Molybdenum	Homestake	None	0.03
P	26-May-83	Molybdenum	Homestake	None	0.02
P	27-Jun-83	Molybdenum	Homestake	None	0.01
P	27-Jun-83	Molybdenum	NM EID	Less than	0.01
P	12-Sep-83	Molybdenum	Homestake	None	0.01
P	19-Dec-83	Molybdenum	Homestake	None	0.02
P	07-Mar-84	Molybdenum	Homestake	None	0.02
P	09-May-84	Molybdenum	Controls for	None	0.004
P	09-May-84	Molybdenum	Homestake	None	0.01
P	12-Sep-84	Molybdenum	Homestake	None	0.02
P	13-Dec-84	Molybdenum	Homestake	None	0.01
P	11-Mar-85	Molybdenum	Controls for	Less than	0.01
P	11-Mar-85	Molybdenum	Homestake	None	0.02
P	29-May-85	Molybdenum	Homestake	None	0.01
P	04-Sep-85	Molybdenum	Controls for	Less than	0.01
P	04-Sep-85	Molybdenum	Homestake	None	0.02
P	16-Dec-85	Molybdenum	Homestake	None	0.02
P	10-Mar-86	Molybdenum	Controls for	Less than	0.01
P	10-Mar-86	Molybdenum	Homestake	None	0.01
P	30-Jun-86	Molybdenum	Homestake	None	0.01
P	15-Sep-86	Molybdenum	Controls for	Less than	0.01
P	15-Sep-86	Molybdenum	Homestake	Less than	0.01
P	16-Dec-86	Molybdenum	Homestake	Less than	0.01
P	19-Mar-87	Molybdenum	Controls for	Less than	0.01
P	19-Mar-87	Molybdenum	Homestake	None	0.01
P	24-Jun-87	Molybdenum	Homestake	None	0.01
P	16-Sep-87	Molybdenum	Controls for	Less than	0.01
P	16-Sep-87	Molybdenum	Homestake	None	0.01
P	08-Dec-87	Molybdenum	Homestake	None	0.01
P	24-Feb-88	Molybdenum	Homestake	None	0.02
P	24-Feb-88	Molybdenum	Barringer	None	0.03
P	12-May-88	Molybdenum	Homestake	None	0.03
P	23-Aug-88	Molybdenum	Homestake	None	0.01
P	23-Aug-88	Molybdenum	Barringer	None	0.01
P	12-Oct-88	Molybdenum	Homestake	None	0.01
P	13-Dec-88	Molybdenum	Homestake	None	0.02
P	13-Dec-88	Molybdenum	Barringer	None	0.04
P	11-Jan-89	Molybdenum	Homestake	None	0.01
P	11-Jan-89	Molybdenum	Barringer	None	0.02

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
P	15-Feb-89	Molybdenum	Homestake	None	0.01
P	15-Feb-89	Molybdenum	Barringer	None	0.06
P	16-May-89	Molybdenum	Homestake	None	0.01
P	10-Aug-89	Molybdenum	Homestake	None	0.02
P	15-Nov-89	Molybdenum	Homestake	None	0.01
P	13-Mar-90	Molybdenum	Homestake	None	0.01
P	13-Mar-90	Molybdenum	Barringer	None	0.1
P	04-Jun-90	Molybdenum	Homestake	None	0.01
P	12-Sep-90	Molybdenum	Homestake	None	0.01
P	03-Dec-90	Molybdenum	Homestake	None	0.01
P	03-Dec-90	Molybdenum	Barringer	None	0.02
P	27-Feb-91	Molybdenum	Homestake	Less than	0.01
P	03-Jun-91	Molybdenum	Homestake	Less than	0.01
P	16-Sep-91	Molybdenum	Homestake	Less than	0.01
P	18-Nov-91	Molybdenum	Homestake	Less than	0.01
P	09-Mar-92	Molybdenum	Homestake	None	0.01
P	04-Jun-92	Molybdenum	Homestake	Less than	0.01
P	21-Sep-92	Molybdenum	Homestake	Less than	0.01
P	03-Dec-92	Molybdenum	Homestake	Less than	0.01
P	03-Mar-93	Molybdenum	Homestake	Less than	0.01
P	01-Jun-93	Molybdenum	Homestake	Less than	0.01
P	08-Sep-93	Molybdenum	Energy	Less than	0.05
P	24-Nov-93	Molybdenum	Energy	Less than	0.03
P	01-Mar-94	Molybdenum	Energy	Less than	0.03
P	31-May-94	Molybdenum	Energy	Less than	0.03
P	01-Sep-94	Molybdenum	Energy	Less than	0.03
P	28-Nov-94	Molybdenum	Energy	Less than	0.03
P	16-Mar-95	Molybdenum	Energy	Less than	0.03
P	16-Mar-95	Molybdenum	Energy	Less than	0.03
P	06-Jun-95	Molybdenum	Energy	Less than	0.03
P	05-Sep-95	Molybdenum	Energy	Less than	0.03
P	05-Dec-95	Molybdenum	Energy	Less than	0.03
P	05-Dec-95	Molybdenum	Energy	Less than	0.03
P	11-Mar-96	Molybdenum	Energy	Less than	0.03
P	03-Jun-96	Molybdenum	Energy	Less than	0.03
P	17-Sep-96	Molybdenum	Energy	Less than	0.03
P	10-Oct-96	Molybdenum	Energy	Less than	0.03
P	06-Mar-97	Molybdenum	Energy	Less than	0.03
P	27-May-97	Molybdenum	Energy	Less than	0.03
P	09-Sep-97	Molybdenum	Energy	Less than	0.03
P	09-Sep-97	Molybdenum	Energy	Quality Control	0.03
P	03-Nov-97	Molybdenum	Energy	Less than	0.03
P	04-Mar-98	Molybdenum	Energy	Less than	0.03
P	04-Mar-98	Molybdenum	Energy	Quality Control	0.03
P	05-May-98	Molybdenum	Energy	None	0.05
P	16-Sep-98	Molybdenum	Energy	Less than	0.03
P	12-Nov-98	Molybdenum	Energy	Less than	0.03
P	12-Nov-98	Molybdenum	ACZ Laboratories	Quality Control	0.01
P	12-Nov-98	Molybdenum	Energy	Quality Control	0.03
P1	21-Sep-92	Molybdenum	Homestake	Less than	0.01
P1	21-Jan-93	Molybdenum	Energy	Less than	0.01
P1	21-Jan-93	Molybdenum	Homestake	Less than	0.01

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
P1	13-Apr-93	Molybdenum	Homestake	Less than	0.01
P1	13-Jul-93	Molybdenum	Homestake	None	0.01
P1	21-Oct-93	Molybdenum	Energy	Less than	0.03
P1	04-Jan-94	Molybdenum	Energy	Less than	0.03
P1	07-Mar-94	Molybdenum	Energy	Less than	0.03
P1	12-Apr-94	Molybdenum	Energy	Less than	0.03
P1	06-Jul-94	Molybdenum	Energy	Less than	0.03
P1	21-Oct-94	Molybdenum	Energy	Less than	0.03
P1	04-Jan-95	Molybdenum	Energy	Less than	0.03
P1	04-Jan-95	Molybdenum	Energy	Less than	0.03
P1	12-Apr-95	Molybdenum	Energy	Less than	0.03
P1	06-Jul-95	Molybdenum	Energy	Less than	0.03
P1	03-Oct-95	Molybdenum	Energy	Less than	0.03
P1	10-Jan-96	Molybdenum	Energy	Less than	0.03
P1	10-Jan-96	Molybdenum	Energy	Less than	0.03
P1	09-Apr-96	Molybdenum	Energy	Less than	0.03
P1	09-Apr-96	Molybdenum	Energy	Less than	0.03
P1	19-Jul-96	Molybdenum	Energy	Less than	0.03
P1	19-Jul-96	Molybdenum	Energy	Less than	0.03
P1	04-Nov-96	Molybdenum	Energy	Less than	0.03
P1	04-Nov-96	Molybdenum	Energy	Less than	0.03
P1	13-Jan-97	Molybdenum	Energy	Quality Control	0.03
P1	13-Jan-97	Molybdenum	Energy	Less than	0.03
P1	14-Apr-97	Molybdenum	Energy	Less than	0.03
P1	14-Apr-97	Molybdenum	Energy	Quality Control	0.03
P1	08-Jul-97	Molybdenum	Energy	Less than	0.03
P1	03-Nov-97	Molybdenum	Energy	Less than	0.03
P1	19-Jan-98	Molybdenum	Energy	Less than	0.03
P1	19-Jan-98	Molybdenum	Energy	Quality Control	0.03
P1	01-Apr-98	Molybdenum	Energy	None	0.04
P1	01-Apr-98	Molybdenum	Energy	Quality Control	0.03
P1	14-Jul-98	Molybdenum	Energy	None	0.05
P1	28-Oct-98	Molybdenum	Energy	Less than	0.03
P2	21-Sep-92	Molybdenum	Homestake	Less than	0.01
P2	08-Feb-93	Molybdenum	Energy	None	0.01
P2	08-Feb-93	Molybdenum	Homestake	Less than	0.01
P2	04-May-93	Molybdenum	Energy	None	0.01
P2	04-May-93	Molybdenum	Homestake	Less than	0.01
P2	12-Aug-93	Molybdenum	Homestake	None	0.01
P2	01-Nov-93	Molybdenum	Energy	Less than	0.03
P2	02-Feb-94	Molybdenum	Energy	Less than	0.03
P2	07-Mar-94	Molybdenum	Energy	Less than	0.03
P2	29-Apr-94	Molybdenum	Energy	Less than	0.03
P2	29-Apr-94	Molybdenum	Energy	Less than	0.03
P2	01-Aug-94	Molybdenum	Energy	None	0.04
P2	01-Nov-94	Molybdenum	Energy	Less than	0.03
P2	03-Feb-95	Molybdenum	Energy	Less than	0.03
P2	05-May-95	Molybdenum	Energy	Less than	0.03
P2	02-Aug-95	Molybdenum	Energy	Less than	0.03
P2	02-Aug-95	Molybdenum	Energy	Less than	0.03
P2	06-Nov-95	Molybdenum	Energy	None	0.04
P2	12-Feb-96	Molybdenum	Energy	Less than	0.03

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
P2	14-May-96	Molybdenum	Energy	Less than	0.03
P2	14-May-96	Molybdenum	Energy	Less than	0.03
P2	29-Jul-96	Molybdenum	Energy	None	0.04
P2	03-Feb-97	Molybdenum	Energy	Less than	0.03
P2	03-Feb-97	Molybdenum	Energy	Quality Control	0.03
P2	29-Apr-97	Molybdenum	Energy	Less than	0.03
P2	29-Apr-97	Molybdenum	Energy	Quality Control	0.03
P2	13-Oct-97	Molybdenum	Energy	Less than	0.03
P2	10-Feb-98	Molybdenum	Energy	Quality Control	0.03
P2	10-Feb-98	Molybdenum	Energy	Less than	0.03
P2	05-May-98	Molybdenum	Energy	None	0.04
P2	04-Aug-98	Molybdenum	Energy	None	0.05
P2	28-Oct-98	Molybdenum	Energy	Less than	0.03
P3	23-Apr-98	Molybdenum	Energy	Less than	0.03
P4	24-Apr-98	Molybdenum	Energy	Less than	0.03
Q	07-Jan-76	Molybdenum	Homestake	Less than	0.05
Q	30-Mar-76	Molybdenum	Homestake	None	0.06
Q	09-Apr-76	Molybdenum	Homestake	None	0.02
Q	03-Jun-76	Molybdenum	Homestake	None	0.01
Q	27-Aug-76	Molybdenum	Homestake	None	0.02
Q	13-Jun-77	Molybdenum	Homestake	None	0.02
Q	24-Aug-77	Molybdenum	Eberline	Less than	0.01
Q	24-Aug-77	Molybdenum	Homestake	None	0.03
Q	11-Oct-77	Molybdenum	Eberline	Less than	0.01
Q	11-Oct-77	Molybdenum	Homestake	None	0.01
Q	01-Feb-78	Molybdenum	Eberline	Less than	0.01
Q	01-Feb-78	Molybdenum	Homestake	None	0.03
Q	17-Apr-78	Molybdenum	Homestake	None	0.04
Q	10-Jul-78	Molybdenum	NM EID	None	0.01
Q	10-Jul-78	Molybdenum	Homestake	None	0.02
Q	23-Oct-78	Molybdenum	Homestake	None	0.03
Q	23-Oct-78	Molybdenum	NM EID	Less than	0.01
Q	23-Oct-78	Molybdenum	NM EID	None	0.01
Q	30-Jan-79	Molybdenum	Homestake	None	0.02
Q	30-Jan-79	Molybdenum	NM EID	Less than	0.001
Q	30-Apr-79	Molybdenum	Homestake	None	0.03
Q	30-Apr-79	Molybdenum	NM EID	Less than	0.005
Q	12-Jul-79	Molybdenum	Homestake	None	0.07
Q	10-Sep-79	Molybdenum	Homestake	None	0.07
Q	06-Nov-79	Molybdenum	Homestake	None	0.03
Q	09-Jan-80	Molybdenum	Homestake	None	0.07
Q	16-Apr-80	Molybdenum	Homestake	None	0.03
Q	17-Apr-80	Molybdenum	NM EID	Less than	0.005
Q	16-Jul-80	Molybdenum	Homestake	None	0.01
Q	16-Jul-80	Molybdenum	NM EID	Less than	0.005
Q	13-Oct-80	Molybdenum	Homestake	None	0.02
Q	07-Jan-81	Molybdenum	Homestake	Less than	0.01
Q	07-Jan-81	Molybdenum	NM EID	None	0.005
Q	15-Apr-81	Molybdenum	Homestake	None	0.03
Q	15-Apr-81	Molybdenum	NM EID	None	0.005
Q	07-Jul-81	Molybdenum	Homestake	None	0.03
Q	07-Oct-81	Molybdenum	Homestake	None	0.01

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
Q	28-Dec-81	Molybdenum	Homestake	None	0.04
Q	28-Dec-81	Molybdenum	NM EID	None	0.01
Q	24-Mar-82	Molybdenum	Homestake	None	0.02
Q	24-Mar-82	Molybdenum	NM EID	None	0.01
Q	22-May-82	Molybdenum	Homestake	None	0.02
Q	25-Aug-82	Molybdenum	Homestake	None	0.05
Q	18-Nov-82	Molybdenum	Homestake	None	0.02
Q	23-Feb-83	Molybdenum	Homestake	None	0.02
Q	26-May-83	Molybdenum	Homestake	None	0.02
Q	28-Jun-83	Molybdenum	NM EID	Less than	0.01
Q	28-Jun-83	Molybdenum	Homestake	None	0.01
Q	21-Sep-83	Molybdenum	Homestake	None	0.03
Q	19-Dec-83	Molybdenum	Homestake	None	0.01
Q	07-Mar-84	Molybdenum	Homestake	None	0.01
Q	09-May-84	Molybdenum	Controls for	None	0.005
Q	09-May-84	Molybdenum	Homestake	Less than	0.01
Q	12-Sep-84	Molybdenum	Homestake	None	0.01
Q	12-Dec-84	Molybdenum	Homestake	None	0.02
Q	11-Mar-85	Molybdenum	Homestake	None	0.02
Q	29-May-85	Molybdenum	Homestake	None	0.01
Q	06-Sep-85	Molybdenum	Homestake	None	0.02
Q	16-Dec-85	Molybdenum	Homestake	None	0.02
Q	10-Mar-86	Molybdenum	Homestake	Less than	0.01
Q	30-Jun-86	Molybdenum	Homestake	None	0.01
Q	15-Sep-86	Molybdenum	Homestake	Less than	0.01
Q	15-Dec-86	Molybdenum	Homestake	Less than	0.01
Q	19-Mar-87	Molybdenum	Homestake	None	0.01
Q	19-Jun-87	Molybdenum	Homestake	None	0.01
Q	15-Sep-87	Molybdenum	Homestake	None	0.01
Q	08-Dec-87	Molybdenum	Homestake	None	0.01
Q	24-Feb-88	Molybdenum	Homestake	None	0.02
Q	12-May-88	Molybdenum	Homestake	None	0.02
Q	23-Aug-88	Molybdenum	Homestake	None	0.01
Q	03-Nov-88	Molybdenum	Homestake	None	0.01
Q	13-Dec-88	Molybdenum	Homestake	None	0.02
Q	13-Dec-88	Molybdenum	Barringer	None	0.03
Q	11-Jan-89	Molybdenum	Homestake	None	0.01
Q	11-Jan-89	Molybdenum	Barringer	None	0.01
Q	15-Feb-89	Molybdenum	Homestake	None	0.01
Q	15-Feb-89	Molybdenum	Barringer	None	0.1
Q	16-May-89	Molybdenum	Homestake	Less than	0.01
Q	15-Nov-89	Molybdenum	Homestake	None	0.01
Q	13-Mar-90	Molybdenum	Homestake	Less than	0.01
Q	13-Mar-90	Molybdenum	Barringer	None	0.04
Q	12-Sep-90	Molybdenum	Homestake	Less than	0.01
Q	27-Feb-91	Molybdenum	Homestake	Less than	0.01
Q	16-Sep-91	Molybdenum	Homestake	Less than	0.01
Q	09-Mar-92	Molybdenum	Homestake	Less than	0.01
Q	16-Sep-92	Molybdenum	Homestake	Less than	0.01
Q	03-Mar-93	Molybdenum	Homestake	Less than	0.01
Q	08-Sep-93	Molybdenum	Energy	Less than	0.05
Q	01-Mar-94	Molybdenum	Energy	Less than	0.03

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
Q	01-Mar-94	Molybdenum	Energy	Less than	0.03
Q	01-Sep-94	Molybdenum	Energy	Less than	0.03
Q	16-Mar-95	Molybdenum	Energy	Less than	0.03
Q	05-Sep-95	Molybdenum	Energy	Less than	0.03
Q	11-Mar-96	Molybdenum	Energy	Less than	0.03
Q	17-Sep-96	Molybdenum	Energy	Less than	0.03
Q	06-Mar-97	Molybdenum	Energy	Less than	0.03
Q	09-Sep-97	Molybdenum	Energy	Less than	0.03
Q	04-Mar-98	Molybdenum	Energy	Less than	0.03
R	07-Jan-76	Molybdenum	Homestake	None	0.1
R	30-Mar-76	Molybdenum	Homestake	None	0.05
R	09-Apr-76	Molybdenum	Homestake	None	0.02
R	03-Jun-76	Molybdenum	Homestake	None	0.01
R	01-Sep-76	Molybdenum	Homestake	None	0.2
R	13-Jun-77	Molybdenum	Eberline	None	0.03
R	13-Jun-77	Molybdenum	Homestake	None	0.01
R	24-Aug-77	Molybdenum	Eberline	Less than	0.01
R	24-Aug-77	Molybdenum	Homestake	None	0.02
R	11-Oct-77	Molybdenum	Eberline	Less than	0.01
R	11-Oct-77	Molybdenum	Homestake	None	0.01
R	01-Feb-78	Molybdenum	Eberline	Less than	0.01
R	01-Feb-78	Molybdenum	Homestake	None	0.03
R	17-Apr-78	Molybdenum	Homestake	None	0.02
R	10-Jul-78	Molybdenum	Homestake	None	0.02
R	10-Jul-78	Molybdenum	NM EID	None	0.012
R	23-Oct-78	Molybdenum	Homestake	None	0.03
R	23-Oct-78	Molybdenum	NM EID	Less than	0.01
R	31-Jan-79	Molybdenum	Homestake	None	0.01
R	31-Jan-79	Molybdenum	NM EID	Less than	0.001
R	30-Apr-79	Molybdenum	Homestake	None	0.03
R	30-Apr-79	Molybdenum	NM EID	Less than	0.005
R	12-Jul-79	Molybdenum	Homestake	None	0.05
R	10-Sep-79	Molybdenum	Homestake	None	0.09
R	06-Nov-79	Molybdenum	Homestake	None	0.03
R	07-Jan-80	Molybdenum	NM EID	None	0.005
R	09-Jan-80	Molybdenum	Homestake	None	0.04
R	16-Apr-80	Molybdenum	Homestake	None	0.02
R	17-Apr-80	Molybdenum	NM EID	Less than	0.005
R	16-Jul-80	Molybdenum	Homestake	None	0.01
R	16-Jul-80	Molybdenum	NM EID	Less than	0.005
R	13-Oct-80	Molybdenum	Homestake	None	0.02
R	07-Jan-81	Molybdenum	Homestake	None	0.01
R	15-Apr-81	Molybdenum	Homestake	None	0.09
R	15-Apr-81	Molybdenum	NM EID	None	0.034
R	07-Jul-81	Molybdenum	Homestake	None	0.03
R	28-Dec-81	Molybdenum	Homestake	None	0.04
R	28-Dec-81	Molybdenum	NM EID	None	0.01
R	24-Mar-82	Molybdenum	Homestake	None	0.01
R	24-Mar-82	Molybdenum	NM EID	None	0.01
R	22-May-82	Molybdenum	Homestake	None	0.01
R	25-Aug-82	Molybdenum	Homestake	Less than	0.01
R	18-Nov-82	Molybdenum	Homestake	None	0.01

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
R	23-Feb-83	Molybdenum	Homestake	None	0.01
R	26-May-83	Molybdenum	Homestake	None	0.01
R	28-Jun-83	Molybdenum	Homestake	None	0.01
R	28-Jun-83	Molybdenum	NM EID	Less than	0.01
R	12-Sep-83	Molybdenum	Homestake	None	0.01
R	20-Dec-83	Molybdenum	Homestake	None	0.06
R	07-Mar-84	Molybdenum	Homestake	None	0.01
R	09-May-84	Molybdenum	Controls for	None	0.004
R	09-May-84	Molybdenum	Homestake	Less than	0.01
R	12-Sep-84	Molybdenum	Homestake	None	0.02
R	12-Dec-84	Molybdenum	Homestake	None	0.02
R	11-Mar-85	Molybdenum	Controls for	Less than	0.01
R	11-Mar-85	Molybdenum	Homestake	None	0.02
R	29-May-85	Molybdenum	Homestake	None	0.01
R	05-Sep-85	Molybdenum	Controls for	None	0.06
R	05-Sep-85	Molybdenum	Homestake	None	0.01
R	16-Dec-85	Molybdenum	Homestake	None	0.01
R	10-Mar-86	Molybdenum	Controls for	Less than	0.01
R	10-Mar-86	Molybdenum	Homestake	Less than	0.01
R	30-Jun-86	Molybdenum	Homestake	None	0.01
R	15-Sep-86	Molybdenum	Controls for	Less than	0.01
R	15-Sep-86	Molybdenum	Homestake	None	0.01
R	15-Dec-86	Molybdenum	Homestake	None	0.01
R	19-Mar-87	Molybdenum	Controls for	Less than	0.01
R	19-Mar-87	Molybdenum	Homestake	None	0.01
R	19-Jun-87	Molybdenum	Homestake	None	0.01
R	15-Sep-87	Molybdenum	Controls for	Less than	0.01
R	15-Sep-87	Molybdenum	Homestake	None	0.01
R	08-Dec-87	Molybdenum	Homestake	None	0.02
R	24-Feb-88	Molybdenum	Homestake	None	0.02
R	24-Feb-88	Molybdenum	Barringer	None	0.03
R	12-May-88	Molybdenum	Homestake	None	0.02
R	22-Aug-88	Molybdenum	Homestake	None	0.02
R	22-Aug-88	Molybdenum	Barringer	Less than	0.01
R	03-Nov-88	Molybdenum	Homestake	None	0.03
R	13-Dec-88	Molybdenum	Homestake	None	0.02
R	13-Dec-88	Molybdenum	Barringer	None	0.02
R	11-Jan-89	Molybdenum	Homestake	None	0.01
R	11-Jan-89	Molybdenum	Barringer	None	0.01
R	15-Feb-89	Molybdenum	Homestake	None	0.01
R	15-Feb-89	Molybdenum	Barringer	None	0.01
R	16-May-89	Molybdenum	Homestake	None	0.01
R	15-Nov-89	Molybdenum	Homestake	None	0.01
R	13-Mar-90	Molybdenum	Homestake	Less than	0.01
R	13-Mar-90	Molybdenum	Barringer	None	0.05
R	12-Sep-90	Molybdenum	Homestake	Less than	0.01
R	27-Feb-91	Molybdenum	Homestake	Less than	0.01
R	16-Sep-91	Molybdenum	Homestake	Less than	0.01
R	09-Mar-92	Molybdenum	Homestake	Less than	0.01
R	16-Sep-92	Molybdenum	Homestake	None	0.01
R	01-Jun-93	Molybdenum	Homestake	Less than	0.01
R	08-Sep-93	Molybdenum	Energy	Less than	0.05

Table 2. Molybdenum Near Upgradient Background Data Set (data not corrected for non-detects or duplicates) (continue

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/L)
R	07-Mar-94	Molybdenum	Energy	Less than	0.03
R	31-May-94	Molybdenum	Energy	Less than	0.03
R	01-Sep-94	Molybdenum	Energy	Less than	0.03
R	06-Jun-95	Molybdenum	Energy	Less than	0.03
R	06-Jun-95	Molybdenum	Energy	Less than	0.03
R	05-Sep-95	Molybdenum	Energy	Less than	0.03
R	05-Sep-95	Molybdenum	Energy	Less than	0.03
R	03-Jun-96	Molybdenum	Energy	Less than	0.03
R	17-Sep-96	Molybdenum	Energy	Less than	0.03
R	10-Oct-96	Molybdenum	Energy	Less than	0.03
R	27-May-97	Molybdenum	Energy	Less than	0.03
R	06-May-98	Molybdenum	Energy	Less than	0.03

Table 3. Molybdenum Near Upgradient Background Data Set for Well DD
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Jun-76	Molybdenum	0.01
27-Aug-76	Molybdenum	0.04
15-Sep-81	Molybdenum	0.05
24-Mar-82	Molybdenum	0.03
26-May-82	Molybdenum	0.01
18-Nov-82	Molybdenum	0.03
04-Mar-83	Molybdenum	0.03
28-Jun-83	Molybdenum	0.0075
14-Sep-83	Molybdenum	0.01
19-Dec-83	Molybdenum	0.02
07-Mar-84	Molybdenum	0.01
09-May-84	Molybdenum	0.0085
12-Sep-84	Molybdenum	0.04
12-Dec-84	Molybdenum	0.04
13-Mar-85	Molybdenum	0.02
06-Jun-85	Molybdenum	0.01
04-Sep-85	Molybdenum	0.01
16-Dec-85	Molybdenum	0.01
20-Mar-86	Molybdenum	0.01
30-Jun-86	Molybdenum	0.01
15-Sep-86	Molybdenum	0.01
09-Dec-86	Molybdenum	0.01
19-Mar-87	Molybdenum	0.01
24-Jun-87	Molybdenum	0.01
15-Sep-87	Molybdenum	0.01
08-Dec-87	Molybdenum	0.01
24-Feb-88	Molybdenum	0.02
09-Jun-88	Molybdenum	0.02
11-Oct-88	Molybdenum	0.01
08-Dec-88	Molybdenum	0.01
13-Dec-88	Molybdenum	0.03
11-Jan-89	Molybdenum	0.01
15-Feb-89	Molybdenum	0.015
29-Mar-89	Molybdenum	0.01
13-Jun-89	Molybdenum	0.005
15-Nov-89	Molybdenum	0.005
13-Mar-90	Molybdenum	0.0175
12-Sep-90	Molybdenum	0.005
27-Feb-91	Molybdenum	0.005
16-Sep-91	Molybdenum	0.005
09-Mar-92	Molybdenum	0.005
22-Sep-92	Molybdenum	0.005
21-Oct-93	Molybdenum	0.015
09-Mar-94	Molybdenum	0.015

Table 3. Molybdenum Near Upgradient Background Data Set for Well DD (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Oct-94	Molybdenum	0.015
10-Oct-95	Molybdenum	0.015
10-Oct-96	Molybdenum	0.015
14-Apr-97	Molybdenum	0.015
09-Sep-97	Molybdenum	0.015
01-Apr-98	Molybdenum	0.04

Table 4. Molybdenum Near Upgradient Background Data Set for Well ND
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
12-Jan-83	Molybdenum	0.06
06-Jan-84	Molybdenum	0.03
18-Dec-89	Molybdenum	0.01
17-Oct-90	Molybdenum	0.03
16-Sep-91	Molybdenum	0.005
18-Aug-92	Molybdenum	0.01
25-Aug-93	Molybdenum	0.16
14-Mar-94	Molybdenum	0.015
22-Aug-94	Molybdenum	0.015
22-Aug-95	Molybdenum	0.015
29-Jul-96	Molybdenum	0.03
11-Aug-97	Molybdenum	0.015
05-Aug-98	Molybdenum	0.015

Table 5. Molybdenum Near Upgradient Background Data Set for Well P
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
07-Jan-76	Molybdenum	0.025
30-Mar-76	Molybdenum	0.07
09-Apr-76	Molybdenum	0.07
03-Jun-76	Molybdenum	0.01
27-Aug-76	Molybdenum	0.1
13-Jun-77	Molybdenum	0.0133333
24-Aug-77	Molybdenum	0.015
11-Oct-77	Molybdenum	0.01
01-Feb-78	Molybdenum	0.025
17-Apr-78	Molybdenum	0.04
11-Jul-78	Molybdenum	0.022
23-Oct-78	Molybdenum	0.02
30-Jan-79	Molybdenum	0.0255
30-Apr-79	Molybdenum	0.0175
12-Jul-79	Molybdenum	0.06
10-Sep-79	Molybdenum	0.1
06-Nov-79	Molybdenum	0.05
09-Jan-80	Molybdenum	0.08
16-Apr-80	Molybdenum	0.0225
16-Jul-80	Molybdenum	0.0075
13-Oct-80	Molybdenum	0.02
07-Jan-81	Molybdenum	0.0075
15-Apr-81	Molybdenum	0.0275
07-Jul-81	Molybdenum	0.04
07-Oct-81	Molybdenum	0.02
28-Dec-81	Molybdenum	0.03
24-Mar-82	Molybdenum	0.015
22-May-82	Molybdenum	0.02
25-Aug-82	Molybdenum	0.02
18-Nov-82	Molybdenum	0.019
23-Feb-83	Molybdenum	0.03
26-May-83	Molybdenum	0.02
27-Jun-83	Molybdenum	0.0075
12-Sep-83	Molybdenum	0.01
19-Dec-83	Molybdenum	0.02
07-Mar-84	Molybdenum	0.02
09-May-84	Molybdenum	0.007
12-Sep-84	Molybdenum	0.02
13-Dec-84	Molybdenum	0.01
11-Mar-85	Molybdenum	0.0125
29-May-85	Molybdenum	0.01
04-Sep-85	Molybdenum	0.0125
16-Dec-85	Molybdenum	0.02
10-Mar-86	Molybdenum	0.0075
30-Jun-86	Molybdenum	0.01

Table 5. Molybdenum Near Upgradient Background Data Set for Well P (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
15-Sep-86	Molybdenum	0.005
16-Dec-86	Molybdenum	0.005
19-Mar-87	Molybdenum	0.0075
24-Jun-87	Molybdenum	0.01
16-Sep-87	Molybdenum	0.0075
08-Dec-87	Molybdenum	0.01
24-Feb-88	Molybdenum	0.025
12-May-88	Molybdenum	0.03
23-Aug-88	Molybdenum	0.01
12-Oct-88	Molybdenum	0.01
13-Dec-88	Molybdenum	0.03
11-Jan-89	Molybdenum	0.015
15-Feb-89	Molybdenum	0.035
16-May-89	Molybdenum	0.01
10-Aug-89	Molybdenum	0.02
15-Nov-89	Molybdenum	0.01
13-Mar-90	Molybdenum	0.055
04-Jun-90	Molybdenum	0.01
12-Sep-90	Molybdenum	0.01
03-Dec-90	Molybdenum	0.015
27-Feb-91	Molybdenum	0.005
03-Jun-91	Molybdenum	0.005
16-Sep-91	Molybdenum	0.005
18-Nov-91	Molybdenum	0.005
09-Mar-92	Molybdenum	0.01
04-Jun-92	Molybdenum	0.005
21-Sep-92	Molybdenum	0.005
03-Dec-92	Molybdenum	0.005
03-Mar-93	Molybdenum	0.005
01-Jun-93	Molybdenum	0.005
08-Sep-93	Molybdenum	0.025
24-Nov-93	Molybdenum	0.015
01-Mar-94	Molybdenum	0.015
31-May-94	Molybdenum	0.015
01-Sep-94	Molybdenum	0.015
28-Nov-94	Molybdenum	0.015
16-Mar-95	Molybdenum	0.015
06-Jun-95	Molybdenum	0.015
05-Sep-95	Molybdenum	0.015
05-Dec-95	Molybdenum	0.015
11-Mar-96	Molybdenum	0.015
03-Jun-96	Molybdenum	0.015
17-Sep-96	Molybdenum	0.015
10-Oct-96	Molybdenum	0.015
06-Mar-97	Molybdenum	0.015
27-May-97	Molybdenum	0.015
09-Sep-97	Molybdenum	0.015
03-Nov-97	Molybdenum	0.015
04-Mar-98	Molybdenum	0.015
05-May-98	Molybdenum	0.05
16-Sep-98	Molybdenum	0.015
12-Nov-98	Molybdenum	0.015

Table 6. Molybdenum Near Upgradient Background Data Set for Well P1
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Molybdenum	0.005
21-Jan-93	Molybdenum	0.005
13-Apr-93	Molybdenum	0.005
13-Jul-93	Molybdenum	0.01
21-Oct-93	Molybdenum	0.015
04-Jan-94	Molybdenum	0.015
07-Mar-94	Molybdenum	0.015
12-Apr-94	Molybdenum	0.015
06-Jul-94	Molybdenum	0.015
21-Oct-94	Molybdenum	0.015
04-Jan-95	Molybdenum	0.015
12-Apr-95	Molybdenum	0.015
06-Jul-95	Molybdenum	0.015
03-Oct-95	Molybdenum	0.015
10-Jan-96	Molybdenum	0.015
09-Apr-96	Molybdenum	0.015
19-Jul-96	Molybdenum	0.015
04-Nov-96	Molybdenum	0.015
13-Jan-97	Molybdenum	0.015
14-Apr-97	Molybdenum	0.015
08-Jul-97	Molybdenum	0.015
03-Nov-97	Molybdenum	0.015
19-Jan-98	Molybdenum	0.015
01-Apr-98	Molybdenum	0.04
14-Jul-98	Molybdenum	0.05
28-Oct-98	Molybdenum	0.015

Table 7. Molybdenum Near Upgradient Background Data Set for Well P2
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Molybdenum	0.005
08-Feb-93	Molybdenum	0.0075
04-May-93	Molybdenum	0.0075
12-Aug-93	Molybdenum	0.01
01-Nov-93	Molybdenum	0.015
02-Feb-94	Molybdenum	0.015
07-Mar-94	Molybdenum	0.015
29-Apr-94	Molybdenum	0.015
01-Aug-94	Molybdenum	0.04
01-Nov-94	Molybdenum	0.015
03-Feb-95	Molybdenum	0.015
05-May-95	Molybdenum	0.015
02-Aug-95	Molybdenum	0.015
06-Nov-95	Molybdenum	0.04
12-Feb-96	Molybdenum	0.015
14-May-96	Molybdenum	0.015
29-Jul-96	Molybdenum	0.04
03-Feb-97	Molybdenum	0.015
29-Apr-97	Molybdenum	0.015
13-Oct-97	Molybdenum	0.015
10-Feb-98	Molybdenum	0.015
05-May-98	Molybdenum	0.04
04-Aug-98	Molybdenum	0.05
28-Oct-98	Molybdenum	0.015

Table 8. Molybdenum Near Upgradient Background Data Set for Wells P3 and P4
(corrected for non-detects and duplicates)

Well	Sample Date	Parameter	Final Data
P3	23-Apr-98	Molybdenum	0.015
P4	24-Apr-98	Molybdenum	0.015

Table 9. Molybdenum Near Upgradient Background Data Set for Well Q
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
07-Jan-76	Molybdenum	0.025
30-Mar-76	Molybdenum	0.06
09-Apr-76	Molybdenum	0.02
03-Jun-76	Molybdenum	0.01
27-Aug-76	Molybdenum	0.02
13-Jun-77	Molybdenum	0.02
24-Aug-77	Molybdenum	0.0175
11-Oct-77	Molybdenum	0.0075
01-Feb-78	Molybdenum	0.0175
17-Apr-78	Molybdenum	0.04
10-Jul-78	Molybdenum	0.015
23-Oct-78	Molybdenum	0.015
30-Jan-79	Molybdenum	0.01025
30-Apr-79	Molybdenum	0.01625
12-Jul-79	Molybdenum	0.07
10-Sep-79	Molybdenum	0.07
06-Nov-79	Molybdenum	0.03
09-Jan-80	Molybdenum	0.07
16-Apr-80	Molybdenum	0.01625
16-Jul-80	Molybdenum	0.00625
13-Oct-80	Molybdenum	0.02
07-Jan-81	Molybdenum	0.005
15-Apr-81	Molybdenum	0.0175
07-Jul-81	Molybdenum	0.03
07-Oct-81	Molybdenum	0.01
28-Dec-81	Molybdenum	0.025
24-Mar-82	Molybdenum	0.015
22-May-82	Molybdenum	0.02
25-Aug-82	Molybdenum	0.05
18-Nov-82	Molybdenum	0.02
23-Feb-83	Molybdenum	0.02
26-May-83	Molybdenum	0.02
28-Jun-83	Molybdenum	0.0075
21-Sep-83	Molybdenum	0.03
19-Dec-83	Molybdenum	0.01
07-Mar-84	Molybdenum	0.01
09-May-84	Molybdenum	0.005
12-Sep-84	Molybdenum	0.01
12-Dec-84	Molybdenum	0.02
11-Mar-85	Molybdenum	0.02
29-May-85	Molybdenum	0.01
06-Sep-85	Molybdenum	0.02
16-Dec-85	Molybdenum	0.02
10-Mar-86	Molybdenum	0.005
30-Jun-86	Molybdenum	0.01

Table 9. Molybdenum Near Upgradient Background Data Set for Well Q (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
15-Sep-86	Molybdenum	0.005
15-Dec-86	Molybdenum	0.005
19-Mar-87	Molybdenum	0.01
19-Jun-87	Molybdenum	0.01
15-Sep-87	Molybdenum	0.01
08-Dec-87	Molybdenum	0.01
24-Feb-88	Molybdenum	0.02
12-May-88	Molybdenum	0.02
23-Aug-88	Molybdenum	0.01
03-Nov-88	Molybdenum	0.01
13-Dec-88	Molybdenum	0.025
11-Jan-89	Molybdenum	0.01
15-Feb-89	Molybdenum	0.055
16-May-89	Molybdenum	0.005
15-Nov-89	Molybdenum	0.01
13-Mar-90	Molybdenum	0.0225
12-Sep-90	Molybdenum	0.005
27-Feb-91	Molybdenum	0.005
16-Sep-91	Molybdenum	0.005
09-Mar-92	Molybdenum	0.005
16-Sep-92	Molybdenum	0.005
03-Mar-93	Molybdenum	0.005
08-Sep-93	Molybdenum	0.025
01-Mar-94	Molybdenum	0.015
01-Sep-94	Molybdenum	0.015
16-Mar-95	Molybdenum	0.015
05-Sep-95	Molybdenum	0.015
11-Mar-96	Molybdenum	0.015
17-Sep-96	Molybdenum	0.015
06-Mar-97	Molybdenum	0.015
09-Sep-97	Molybdenum	0.015
04-Mar-98	Molybdenum	0.015

Table 10. Molybdenum Near Upgradient Background Data Set for Well R
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
07-Jan-76	Molybdenum	0.1
30-Mar-76	Molybdenum	0.05
09-Apr-76	Molybdenum	0.02
03-Jun-76	Molybdenum	0.01
01-Sep-76	Molybdenum	0.2
13-Jun-77	Molybdenum	0.02
24-Aug-77	Molybdenum	0.0125
11-Oct-77	Molybdenum	0.0075
01-Feb-78	Molybdenum	0.0175
17-Apr-78	Molybdenum	0.02
10-Jul-78	Molybdenum	0.016
23-Oct-78	Molybdenum	0.0175
31-Jan-79	Molybdenum	0.00525
30-Apr-79	Molybdenum	0.01625
12-Jul-79	Molybdenum	0.05
10-Sep-79	Molybdenum	0.09
06-Nov-79	Molybdenum	0.03
07-Jan-80	Molybdenum	0.0225
16-Apr-80	Molybdenum	0.01125
16-Jul-80	Molybdenum	0.00625
13-Oct-80	Molybdenum	0.02
07-Jan-81	Molybdenum	0.01
15-Apr-81	Molybdenum	0.062
07-Jul-81	Molybdenum	0.03
28-Dec-81	Molybdenum	0.025
24-Mar-82	Molybdenum	0.01
22-May-82	Molybdenum	0.01
25-Aug-82	Molybdenum	0.005
18-Nov-82	Molybdenum	0.01
23-Feb-83	Molybdenum	0.01
26-May-83	Molybdenum	0.01
28-Jun-83	Molybdenum	0.0075
12-Sep-83	Molybdenum	0.01
20-Dec-83	Molybdenum	0.06
07-Mar-84	Molybdenum	0.01
09-May-84	Molybdenum	0.0045
12-Sep-84	Molybdenum	0.02
12-Dec-84	Molybdenum	0.02
11-Mar-85	Molybdenum	0.0125
29-May-85	Molybdenum	0.01
05-Sep-85	Molybdenum	0.035
16-Dec-85	Molybdenum	0.01
10-Mar-86	Molybdenum	0.005
30-Jun-86	Molybdenum	0.01
15-Sep-86	Molybdenum	0.0075

Table 10. Molybdenum Near Upgradient Background Data Set for Well R (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
15-Dec-86	Molybdenum	0.01
19-Mar-87	Molybdenum	0.0075
19-Jun-87	Molybdenum	0.01
15-Sep-87	Molybdenum	0.0075
08-Dec-87	Molybdenum	0.02
24-Feb-88	Molybdenum	0.025
12-May-88	Molybdenum	0.02
22-Aug-88	Molybdenum	0.0125
03-Nov-88	Molybdenum	0.03
13-Dec-88	Molybdenum	0.02
11-Jan-89	Molybdenum	0.01
15-Feb-89	Molybdenum	0.01
16-May-89	Molybdenum	0.01
15-Nov-89	Molybdenum	0.01
13-Mar-90	Molybdenum	0.0275
12-Sep-90	Molybdenum	0.005
27-Feb-91	Molybdenum	0.005
16-Sep-91	Molybdenum	0.005
09-Mar-92	Molybdenum	0.005
16-Sep-92	Molybdenum	0.01
01-Jun-93	Molybdenum	0.005
08-Sep-93	Molybdenum	0.025
07-Mar-94	Molybdenum	0.015
31-May-94	Molybdenum	0.015
01-Sep-94	Molybdenum	0.015
06-Jun-95	Molybdenum	0.015
05-Sep-95	Molybdenum	0.015
03-Jun-96	Molybdenum	0.015
17-Sep-96	Molybdenum	0.015
10-Oct-96	Molybdenum	0.015
27-May-97	Molybdenum	0.015
06-May-98	Molybdenum	0.015

Table 11. Molybdenum Near Upgradient Background Groundwater Data Set Used in Statistical Analysis
(all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.05	0.16	0.1	0.05	0.05	0.015	0.015	0.07	0.2
0.04	0.06	0.1	0.04	0.04			0.07	0.1
0.04	0.03	0.08	0.015	0.04			0.07	0.09
0.04	0.03	0.07	0.015	0.04			0.06	0.062
0.04	0.03	0.07	0.015	0.04			0.055	0.06
0.03	0.015	0.06	0.015	0.015			0.05	0.05
0.03	0.015	0.055	0.015	0.015			0.04	0.05
0.03	0.015	0.05	0.015	0.015			0.03	0.035
0.03	0.015	0.05	0.015	0.015			0.03	0.03
0.02	0.015	0.04	0.015	0.015			0.03	0.03
0.02	0.01	0.04	0.015	0.015			0.025	0.03
0.02	0.01	0.035	0.015	0.015			0.025	0.0275
0.02	0.005	0.03	0.015	0.015			0.025	0.025
0.0175		0.03	0.015	0.015			0.025	0.025
0.015		0.03	0.015	0.015			0.0225	0.025
0.015		0.03	0.015	0.015			0.02	0.0225
0.015		0.0275	0.015	0.015			0.02	0.02
0.015		0.0255	0.015	0.015			0.02	0.02
0.015		0.025	0.015	0.015			0.02	0.02
0.015		0.025	0.015	0.015			0.02	0.02
0.015		0.025	0.015	0.01			0.02	0.02
0.015		0.025	0.015	0.0075			0.02	0.02
0.01		0.0225	0.01	0.0075			0.02	0.02
0.01		0.022	0.005	0.005			0.02	0.02
0.01		0.02	0.005				0.02	0.02
0.01		0.02	0.005				0.02	0.02
0.01		0.02					0.02	0.0175
0.01		0.02					0.02	0.0175
0.01		0.02					0.02	0.01625
0.01		0.02					0.02	0.016
0.01		0.02					0.0175	0.015
0.01		0.02					0.0175	0.015
0.01		0.02					0.0175	0.015
0.01		0.02					0.01625	0.015
0.01		0.02					0.01625	0.015
0.01		0.02					0.015	0.015
0.01		0.019					0.015	0.015
0.01		0.0175					0.015	0.015
0.01		0.015					0.015	0.015
0.01		0.015					0.015	0.015
0.01		0.015					0.015	0.0125
0.01		0.015					0.015	0.0125
0.0085		0.015					0.015	0.0125
0.0075		0.015					0.015	0.01125
0.005		0.015					0.015	0.01
0.005		0.015					0.015	0.01
0.005		0.015					0.015	0.01
0.005		0.015					0.01025	0.01

Table 11. Molybdenum Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued) (all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.005		0.015					0.01	0.01
0.005		0.015					0.01	0.01
0.005		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.0133333					0.01	0.01
		0.0125					0.0075	0.0075
		0.0125					0.0075	0.0075
		0.01					0.00625	0.0075
		0.01					0.005	0.0075
		0.01					0.005	0.0075
		0.01					0.005	0.00625
		0.01					0.005	0.00525
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.0045
		0.01						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.007						
		0.005						
		0.005						
		0.005						

Table 11. Molybdenum Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued)
(all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						

Table 12. Molybdenum Near Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Molybdenum	0.2	0.16	1.3	**PASS**

Table 13. Molybdenum Near Upgradient Background Data Set, 95th Percentile Calculation

Parameter	**Distribution**	**95th Percentile (mg/L)**	**Sample #**
Molybdenum	Nonparametric	0.054	366

Table 14. Molybdenum Near Upgradient Background Data Set, Summary Table

Parameter	**Distribution**	**95th Percentile (mg/L)**	**Range**	**Sample #**
Molybdenum	Nonparametric	0.054	<0.001 to 0.2	366

Table 15. Molybdenum Far Upgradient Background Data Set (data not corrected for non-detects or duplicates)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value
0914	10-Jan-83	Molybdenum	Homestake	None	0.07
0914	14-Mar-94	Molybdenum	Energy Laboratories	Less Than	0.03
0914	12-May-94	Molybdenum	Energy Laboratories	Less Than	0.03
0914	24-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03
0914	22-May-97	Molybdenum	Energy Laboratories	Less Than	0.03
0914	12-May-98	Molybdenum	Energy Laboratories	Less Than	0.03
0916	21-Feb-94	Molybdenum	Energy Laboratories	Less Than	0.03
0916	26-Apr-94	Molybdenum	Energy Laboratories	Less Than	0.03
0916	29-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03
0916	28-May-97	Molybdenum	Energy Laboratories	Less Than	0.03
0916	12-May-98	Molybdenum	Energy Laboratories	Less Than	0.03
0920	03-Nov-81	Molybdenum	Homestake	None	0.03
0920	30-Aug-82	Molybdenum	Homestake	None	0.04
0920	05-Jan-83	Molybdenum	Homestake	None	0.04
0920	31-Aug-83	Molybdenum	Homestake	None	0.05
0920	14-Dec-89	Molybdenum	Homestake	Less Than	0.01
0920	09-May-90	Molybdenum	Homestake	Less Than	0.01
0920	21-May-91	Molybdenum	Homestake	Less Than	0.01
0920	06-May-92	Molybdenum	Homestake	Less Than	0.01
0920	06-May-93	Molybdenum	Homestake	Less Than	0.01
0920	28-Feb-94	Molybdenum	Energy Laboratories	Less Than	0.03
0920	29-Apr-94	Molybdenum	Energy Laboratories	Less Than	0.03
0920	29-Apr-94	Molybdenum	Energy Laboratories	Less Than	0.03
0920	11-May-94	Molybdenum	Energy Laboratories	Less Than	0.03
0920	10-May-95	Molybdenum	Energy Laboratories	Less Than	0.03
0920	24-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03
0920	20-May-96	Molybdenum	Energy Laboratories	Less Than	0.03
0920	23-May-97	Molybdenum	Energy Laboratories	Less Than	0.03
0920	12-May-98	Molybdenum	Energy Laboratories	Less Than	0.03
0921	28-Feb-94	Molybdenum	Energy Laboratories	Less Than	0.03
0921	16-May-94	Molybdenum	Energy Laboratories	Less Than	0.03
0921	24-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03
0921	23-May-97	Molybdenum	Energy Laboratories	Less Than	0.03
0921	12-May-98	Molybdenum	Energy Laboratories	Less Than	0.03
0922	03-Nov-81	Molybdenum	Homestake	None	0.03
0922	04-Mar-94	Molybdenum	Energy Laboratories	Less Than	0.03
0922	16-May-94	Molybdenum	Energy Laboratories	Less Than	0.03
0922	24-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03
0922	23-May-97	Molybdenum	Energy Laboratories	Less Than	0.03
0922	12-May-98	Molybdenum	Energy Laboratories	Less Than (QC)	0.03
0922	12-May-98	Molybdenum	Energy Laboratories	Less Than	0.03
0950	28-Feb-94	Molybdenum	Energy Laboratories	Less Than	0.03
0950	11-May-94	Molybdenum	Energy Laboratories	Less Than	0.03
0950	25-Jan-96	Molybdenum	Energy Laboratories	Less Than	0.03

Table 16. Molybdenum Far Upgradient Background Data Set for Well 914
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
10-Jan-83	Molybdenum	0.07
14-Mar-94	Molybdenum	0.015
12-May-94	Molybdenum	0.015
24-Jan-96	Molybdenum	0.015
22-May-97	Molybdenum	0.015
12-May-98	Molybdenum	0.015

Table 17. Molybdenum Far Upgradient Background Data Set for Well 916
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Feb-94	Molybdenum	0.015
26-Apr-94	Molybdenum	0.015
29-Jan-96	Molybdenum	0.015
28-May-97	Molybdenum	0.015
12-May-98	Molybdenum	0.015

Table 18. Molybdenum Far Upgradient Background Data Set for Well 920
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Molybdenum	0.03
30-Aug-82	Molybdenum	0.04
05-Jan-83	Molybdenum	0.04
31-Aug-83	Molybdenum	0.05
14-Dec-89	Molybdenum	0.005
09-May-90	Molybdenum	0.005
21-May-91	Molybdenum	0.005
06-May-92	Molybdenum	0.005
06-May-93	Molybdenum	0.005
28-Feb-94	Molybdenum	0.015
29-Apr-94	Molybdenum	0.015
11-May-94	Molybdenum	0.015
10-May-95	Molybdenum	0.015
24-Jan-96	Molybdenum	0.015
20-May-96	Molybdenum	0.015
23-May-97	Molybdenum	0.015
12-May-98	Molybdenum	0.015

Table 19. Molybdenum Far Upgradient Background Data Set for Well 921
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Molybdenum	0.015
16-May-94	Molybdenum	0.015
24-Jan-96	Molybdenum	0.015
23-May-97	Molybdenum	0.015
12-May-98	Molybdenum	0.015

Table 20. Molybdenum Far Upgradient Background Data Set for Well 922
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Molybdenum	0.03
04-Mar-94	Molybdenum	0.015
16-May-94	Molybdenum	0.015
24-Jan-96	Molybdenum	0.015
23-May-97	Molybdenum	0.015
12-May-98	Molybdenum	0.015

Table 21. Molybdenum Far Upgradient Background Data Set for Well 950
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Molybdenum	0.015
11-May-94	Molybdenum	0.015
25-Jan-96	Molybdenum	0.015

Table 22. Molybdenum Far Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L)

Well ID					
914	**916**	**920**	**921**	**922**	**950**
0.07	0.015	0.05	0.015	0.03	0.015
0.015	0.015	0.04	0.015	0.015	0.015
0.015	0.015	0.04	0.015	0.015	0.015
0.015	0.015	0.03	0.015	0.015	
0.015	0.015	0.015	0.015	0.015	
0.015		0.015		0.015	
		0.015			
		0.015			
		0.015			
		0.015			
		0.015			
		0.015			
		0.005			
		0.005			
		0.005			
		0.005			

Table 23. Molybdenum Far Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Molybdenum	0.07	0.05	1.4	**PASS**

Table 24. Molybdenum Far Upgradient Background Data Set, 95th Percentile Calculation

Parameter	**Distribution**	**95th Percentile (mg/L)**	**Sample #**
Molybdenum	Nonparametric	0.040	42

Table 25. Molybdenum Far Upgradient Background Data Set, Summary Table

Parameter	**Distribution**	**95th Percentile (mg/L)**	**Range**	**Sample #**
Molybdenum	Nonparametric	0.040	<0.01 to 0.07	42

Table 26. Molybdenum Upgradient Background Data, Comparison Statistics Results

Comparison of Medians

Median of sample 1: 0.015
Median of sample 2: 0.015

Mann-Whitney (Wilcoxon) W test to compare medians

Null hypothesis: median1 = median2
Alt. hypothesis: median1 NE median2

Average rank of sample 1: 213.417
Average rank of sample 2: 203.477

W = 7311.5
P-value = 0.598284

The StatAdvisor

This option runs a Mann-Whitney W test option to compare the medians of the two samples. This test is constructed by combining the two samples, sorting the data from smallest to largest, and comparing the average ranks of the two samples in the combined data. Since the P-value is greater than or equal to 0.05, there is not a statistically significant difference between the medians at the 95.0% confidence level.

Table 27. Molybdenum Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis
(all concentrations in mg/L)

Well ID														
DD	ND	P	P1	P2	P3	P4	Q	R	914	916	920	921	922	950
0.05	0.16	0.1	0.05	0.05	0.015	0.015	0.07	0.2	0.07	0.015	0.05	0.015	0.03	0.015
0.04	0.06	0.1	0.04	0.04			0.07	0.1	0.015	0.015	0.04	0.015	0.015	0.015
0.04	0.03	0.08	0.015	0.04			0.07	0.09	0.015	0.015	0.04	0.015	0.015	0.015
0.04	0.03	0.07	0.015	0.04			0.06	0.062	0.015	0.015	0.03	0.015	0.015	
0.04	0.03	0.07	0.015	0.04			0.055	0.06	0.015	0.015	0.015	0.015	0.015	
0.03	0.015	0.06	0.015	0.015			0.05	0.05	0.015		0.015		0.015	
0.03	0.015	0.055	0.015	0.015			0.04	0.05			0.015			
0.03	0.015	0.05	0.015	0.015			0.03	0.035			0.015			
0.03	0.015	0.05	0.015	0.015			0.03	0.03			0.015			
0.02	0.015	0.04	0.015	0.015			0.03	0.03			0.015			
0.02	0.01	0.04	0.015	0.015			0.025	0.03			0.015			
0.02	0.01	0.035	0.015	0.015			0.025	0.0275			0.015			
0.02	0.005	0.03	0.015	0.015			0.025	0.025			0.005			
0.0175		0.03	0.015	0.015			0.025	0.025			0.005			
0.015		0.03	0.015	0.015			0.0225	0.025			0.005			
0.015		0.03	0.015	0.015			0.02	0.0225			0.005			
0.015		0.0275	0.015	0.015			0.02	0.02			0.005			
0.015		0.0255	0.015	0.015			0.02	0.02						
0.015		0.025	0.015	0.015			0.02	0.02						
0.015		0.025	0.015	0.015			0.02	0.02						
0.015		0.025	0.015	0.01			0.02	0.02						
0.015		0.025	0.015	0.0075			0.02	0.02						
0.01		0.0225	0.01	0.0075			0.02	0.02						
0.01		0.022	0.005	0.005			0.02	0.02						
0.01		0.02	0.005				0.02	0.02						
0.01		0.02	0.005				0.02	0.0175						
0.01		0.02					0.02	0.0175						
0.01		0.02					0.02	0.01625						
0.01		0.02					0.02	0.016						
0.01		0.02					0.0175	0.015						
0.01		0.02					0.0175	0.015						
0.01		0.02					0.0175	0.015						
0.01		0.02					0.01625	0.015						
0.01		0.02					0.01625	0.015						
0.01		0.02					0.015	0.015						
0.01		0.019					0.015	0.015						
0.01		0.0175					0.015	0.015						
0.01		0.015					0.015	0.015						
0.01		0.015					0.015	0.015						
0.01		0.015					0.015	0.0125						
0.01		0.015					0.015	0.0125						
0.0085		0.015					0.015	0.0125						
0.0075		0.015					0.015	0.01125						
0.005		0.015					0.015	0.01						
0.005		0.015					0.015	0.01						
0.005		0.015					0.015	0.01						
0.005		0.015					0.01025	0.01						

Table 27. Molybdenum Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued)
(all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.005		0.015					0.01	0.01
0.005		0.015					0.01	0.01
0.005		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.015					0.01	0.01
		0.013333					0.01	0.01
		0.0125					0.0075	0.0075
		0.0125					0.0075	0.0075
		0.01					0.00625	0.0075
		0.01					0.005	0.0075
		0.01					0.005	0.0075
		0.01					0.005	0.00625
		0.01					0.005	0.00525
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.005
		0.01					0.005	0.0045
		0.01						
		0.01						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.0075						
		0.007						
		0.005						
		0.005						
		0.005						

Table 27. Molybdenum Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued) (all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						
		0.005						

Table 28. Molybdenum Combined Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Molybdenum	0.2	0.16	1.3	**PASS**

Table 29. Molybdenum Combined Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (mg/L)	Sample #
Molybdenum	Nonparametric	0.05	408

Table 30. Molybdenum Combined Upgradient Background Data Set, Summary Table

Parameter	Distribution	95th Percentile (mg/L)	Range	Sample #
Molybdenum	Nonparametric	0.05	<0.001 to 0.2	408

Table 31. Selenium concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, New Mexico, March 1976 to November 1998

Well ID	DD	ND	P	P1	P2	P3	P4	Q	R	All wells	914	916	920	921	922	950	All Wells
1st sampling date	03-Jun-76	12-Jan-83	30-Mar-76	21-Sep-92	21-Sep-92	23-Apr-98	24-Apr-98	07-Jan-76	07-Jan-76	30-Mar-76	10-Jan-83	21-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81
Most recent sampling date	01-Apr-98	05-Aug-98	12-Nov-98	28-Oct-98	28-Oct-98	23-Apr-98	24-Apr-98	04-Mar-98	06-May-98	12-Nov-98	12-May-98	12-May-98	12-May-98	12-May-98	12-May-98	25-Jan-96	12-May-98
Total number of measurments	56	13	131	32	31	1	1	98	108	471	6	5	18	5	6	3	43
Number of independent measurements	50	13	95	26	25	1	1	77	77	365	6	5	17	5	6	3	42
Percent nondect of total number of measurements	12.50%	7.69%	0.00%	0.00%	0.00%	0.00%	0.00%	1.02%	1.85%	2.34%	50.00%	20.00%	0.00%	0.00%	50.00%	0.00%	16.3%
Minimum	<0.01	<0.01	0.009	0.144	0.096	0.173	0.104	0.04	0.03	0.009	<0.005	0.007	0.32	0.415	<0.005	0.276	<0.005
Median	0.01	0.04	0.1	0.2385	0.233	0.173	0.104	0.179	0.09	0.104	0.006	0.008	0.495	0.534	0.0055	0.288	0.34125
Mean	0.02	0.0314615	0.11377368	0.2314615	0.2275	0.173	0.104	0.1751074	0.11028617	0.127	0.01708333	0.1064	0.51126471	0.5246	0.00766667	0.3	0.295
Maximum	0.11	0.059	0.755	0.322	0.31	0.173	0.104	0.7	0.406	0.755	0.052	0.009	0.79	0.605	0.019	0.336	0.79
Percent greater than or equal to the NRC site standard (0.10mg/L)	8.00%	0.00%	54.74%	100.00%	96.00%	100.00%	100.00%	84.42%	41.56%	56.20%	0.00%	0.00%	100.00%	100.00%	0.00%	100.00%	59.50%

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
DD	03-Jun-76	Selenium	Homestake	None	0.1
DD	27-Aug-76	Selenium	Homestake	None	0.11
DD	15-Sep-81	Selenium	Homestake	None	0.02
DD	24-Mar-82	Selenium	Homestake	Less Than	0.01
DD	26-May-82	Selenium	Homestake	None	0.1
DD	18-Nov-82	Selenium	Homestake	None	0.04
DD	18-Nov-82	Selenium	Homestake	None	0.04
DD	04-Mar-83	Selenium	Homestake	None	0.04
DD	28-Jun-83	Selenium	Homestake	None	0.01
DD	28-Jun-83	Selenium	NM EID	None	0.04
DD	14-Sep-83	Selenium	Homestake	None	0.01
DD	19-Dec-83	Selenium	Homestake	None	0.01
DD	07-Mar-84	Selenium	Homestake	None	0.01
DD	09-May-84	Selenium	Homestake	None	0.01
DD	09-May-84	Selenium	Controls for Env	None	0.03
DD	12-Sep-84	Selenium	Homestake	None	0.01
DD	12-Dec-84	Selenium	Homestake	None	0.01
DD	13-Mar-85	Selenium	Homestake	None	0.02
DD	06-Jun-85	Selenium	Homestake	None	0.1
DD	04-Sep-85	Selenium	Homestake	None	0.01
DD	16-Dec-85	Selenium	Homestake	None	0.01
DD	20-Mar-86	Selenium	Homestake	None	0.01
DD	30-Jun-86	Selenium	Homestake	None	0.01
DD	15-Sep-86	Selenium	Homestake	Less Than	0.01
DD	09-Dec-86	Selenium	Homestake	None	0.01
DD	19-Mar-87	Selenium	Homestake	None	0.01
DD	24-Jun-87	Selenium	Homestake	None	0.01
DD	15-Sep-87	Selenium	Homestake	None	0.01
DD	08-Dec-87	Selenium	Homestake	None	0.01
DD	24-Feb-88	Selenium	Homestake	None	0.01
DD	09-Jun-88	Selenium	Homestake	None	0.01
DD	11-Oct-88	Selenium	Homestake	None	0.02
DD	08-Dec-88	Selenium	Homestake	Less Than	0.01
DD	13-Dec-88	Selenium	Homestake	None	0.02
DD	13-Dec-88	Selenium	Barringer Lab	None	0.029
DD	11-Jan-89	Selenium	Homestake	None	0.01
DD	11-Jan-89	Selenium	Barringer Lab	None	0.031
DD	15-Feb-89	Selenium	Homestake	None	0.01
DD	15-Feb-89	Selenium	Barringer Lab	None	0.037
DD	29-Mar-89	Selenium	Homestake	Less Than	0.01
DD	13-Jun-89	Selenium	Homestake	Less Than	0.01
DD	15-Nov-89	Selenium	Homestake	Less Than	0.01
DD	13-Mar-90	Selenium	Homestake	Less Than	0.01
DD	12-Sep-90	Selenium	Homestake	None	0.01
DD	27-Feb-91	Selenium	Homestake	None	0.02

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
DD	16-Sep-91	Selenium	Homestake	None	0.01
DD	09-Mar-92	Selenium	Homestake	None	0.01
DD	22-Sep-92	Selenium	Homestake	None	0.01
DD	21-Oct-93	Selenium	Energy Lab	None	0.02
DD	09-Mar-94	Selenium	Energy Lab	None	0.015
DD	21-Oct-94	Selenium	Energy Lab	None	0.016
DD	10-Oct-95	Selenium	Energy Lab	None	0.017
DD	10-Oct-96	Selenium	Energy Lab	None	0.021
DD	14-Apr-97	Selenium	Energy Lab	None	0.018
DD	09-Sep-97	Selenium	Energy Lab	None	0.023
DD	01-Apr-98	Selenium	Energy Lab	None	0.031
ND	12-Jan-83	Selenium	Homestake	None	0.04
ND	06-Jan-84	Selenium	Homestake	None	0.02
ND	18-Dec-89	Selenium	Homestake	Less than	0.01
ND	17-Oct-90	Selenium	Homestake	None	0.01
ND	16-Sep-91	Selenium	Homestake	None	0.01
ND	18-Aug-92	Selenium	Homestake	None	0.02
ND	25-Aug-93	Selenium	Energy Laboratories	None	0.045
ND	14-Mar-94	Selenium	Energy Laboratories	None	0.024
ND	22-Aug-94	Selenium	Energy Laboratories	None	0.059
ND	22-Aug-95	Selenium	Energy Laboratories	None	0.042
ND	29-Jul-96	Selenium	Energy Laboratories	None	0.05
ND	11-Aug-97	Selenium	Energy Laboratories	None	0.04
ND	05-Aug-98	Selenium	Energy Laboratories	None	0.044
P	30-Mar-76	Selenium	Homestake	None	0.16
P	09-Apr-76	Selenium	Homestake	None	0.18
P	03-Jun-76	Selenium	Homestake	None	0.14
P	27-Aug-76	Selenium	Homestake	None	0.17
P	13-Jun-77	Selenium	Eberline	None	0.5
P	13-Jun-77	Selenium	Homestake	None	0.08
P	13-Jun-77	Selenium	NM EID	None	0.5
P	24-Aug-77	Selenium	Eberline	None	1.085
P	24-Aug-77	Selenium	Homestake	None	0.09
P	24-Aug-77	Selenium	NM EID	None	1.09
P	11-Oct-77	Selenium	NM EID	None	0.22
P	11-Oct-77	Selenium	Homestake	None	0.11
P	01-Feb-78	Selenium	NM Bureau of Mines	None	0.088
P	01-Feb-78	Selenium	NM EID	None	0.12
P	01-Feb-78	Selenium	Homestake	None	0.08
P	17-Apr-78	Selenium	Homestake	None	0.22
P	11-Jul-78	Selenium	NM EID	None	0.06
P	11-Jul-78	Selenium	Homestake	None	0.07
P	23-Oct-78	Selenium	Homestake	None	0.11
P	23-Oct-78	Selenium	NM EID	None	0.18
P	30-Jan-79	Selenium	Homestake	None	0.09
P	30-Jan-79	Selenium	NM EID	None	0.136
P	30-Apr-79	Selenium	Homestake	None	0.08
P	30-Apr-79	Selenium	NM EID	None	0.2
P	12-Jul-79	Selenium	Homestake	None	0.13
P	10-Sep-79	Selenium	Homestake	None	0.12
P	06-Nov-79	Selenium	Homestake	None	0.08
P	09-Jan-80	Selenium	Homestake	None	0.12

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
P	16-Apr-80	Selenium	Homestake	None	0.12
P	17-Apr-80	Selenium	NM EID	None	0.12
P	16-Jul-80	Selenium	Homestake	None	0.16
P	16-Jul-80	Selenium	NM EID	None	0.13
P	13-Oct-80	Selenium	Homestake	None	0.16
P	07-Jan-81	Selenium	Homestake	None	0.16
P	07-Jan-81	Selenium	NM EID	None	0.025
P	15-Apr-81	Selenium	Homestake	None	0.15
P	15-Apr-81	Selenium	NM EID	None	0.096
P	07-Jul-81	Selenium	Homestake	None	0.15
P	07-Oct-81	Selenium	Homestake	None	0.17
P	28-Dec-81	Selenium	NM EID	None	0.083
P	28-Dec-81	Selenium	Homestake	None	0.12
P	24-Mar-82	Selenium	Homestake	None	0.12
P	24-Mar-82	Selenium	NM EID	None	0.085
P	22-May-82	Selenium	Homestake	None	0.17
P	25-Aug-82	Selenium	Homestake	None	0.05
P	18-Nov-82	Selenium	Assaigai Lab	None	0.6
P	18-Nov-82	Selenium	Controls for	None	0.06
P	18-Nov-82	Selenium	Homestake	None	0.08
P	18-Nov-82	Selenium	Controls for	None	0.06
P	23-Feb-83	Selenium	Homestake	None	0.1
P	26-May-83	Selenium	Homestake	None	0.06
P	27-Jun-83	Selenium	Homestake	None	0.06
P	27-Jun-83	Selenium	NM EID	None	0.092
P	12-Sep-83	Selenium	Homestake	None	0.06
P	19-Dec-83	Selenium	Homestake	None	0.05
P	07-Mar-84	Selenium	Homestake	None	0.09
P	09-May-84	Selenium	Controls for	None	0.05
P	09-May-84	Selenium	Homestake	None	0.11
P	12-Sep-84	Selenium	Homestake	None	0.17
P	13-Dec-84	Selenium	Homestake	None	0.14
P	11-Mar-85	Selenium	Controls for	None	0.04
P	11-Mar-85	Selenium	Homestake	None	0.14
P	29-May-85	Selenium	Homestake	None	0.12
P	04-Sep-85	Selenium	Controls for	None	0.04
P	04-Sep-85	Selenium	Homestake	None	0.12
P	16-Dec-85	Selenium	Homestake	None	0.12
P	10-Mar-86	Selenium	Controls for	None	0.04
P	10-Mar-86	Selenium	Homestake	None	0.14
P	30-Jun-86	Selenium	Homestake	None	0.13
P	15-Sep-86	Selenium	Controls for	None	0.07
P	15-Sep-86	Selenium	Homestake	None	0.13
P	16-Dec-86	Selenium	Homestake	None	0.13
P	19-Mar-87	Selenium	Controls for	None	0.05
P	19-Mar-87	Selenium	Homestake	None	0.08
P	24-Jun-87	Selenium	Homestake	None	0.1
P	16-Sep-87	Selenium	Controls for	None	0.06
P	16-Sep-87	Selenium	Homestake	None	0.1
P	08-Dec-87	Selenium	Homestake	None	0.12
P	24-Feb-88	Selenium	Homestake	None	0.11
P	24-Feb-88	Selenium	Barringer	None	0.072

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value
P	12-May-88	Selenium	Homestake	None	0.08
P	23-Aug-88	Selenium	Homestake	None	0.11
P	23-Aug-88	Selenium	Barringer	None	0.132
P	12-Oct-88	Selenium	Homestake	None	0.11
P	13-Dec-88	Selenium	Homestake	None	0.11
P	13-Dec-88	Selenium	Barringer	None	0.094
P	11-Jan-89	Selenium	Homestake	None	0.11
P	11-Jan-89	Selenium	Barringer	None	0.09
P	15-Feb-89	Selenium	Homestake	None	0.09
P	15-Feb-89	Selenium	Barringer	None	0.119
P	16-May-89	Selenium	Homestake	None	0.08
P	10-Aug-89	Selenium	Homestake	None	0.1
P	15-Nov-89	Selenium	Homestake	None	0.05
P	13-Mar-90	Selenium	Homestake	None	0.1
P	04-Jun-90	Selenium	Homestake	None	0.07
P	12-Sep-90	Selenium	Homestake	None	0.09
P	03-Dec-90	Selenium	Homestake	None	0.13
P	03-Dec-90	Selenium	Barringer	None	0.074
P	03-Jun-91	Selenium	Homestake	None	0.1
P	16-Sep-91	Selenium	Homestake	None	0.11
P	18-Nov-91	Selenium	Homestake	None	0.11
P	09-Mar-92	Selenium	Homestake	None	0.13
P	04-Jun-92	Selenium	Homestake	None	0.13
P	21-Sep-92	Selenium	Homestake	None	0.13
P	03-Dec-92	Selenium	Homestake	None	0.13
P	03-Mar-93	Selenium	Homestake	None	0.09
P	01-Jun-93	Selenium	Homestake	None	0.07
P	08-Sep-93	Selenium	Energy Laboratories	None	0.085
P	24-Nov-93	Selenium	Energy Laboratories	None	0.073
P	01-Mar-94	Selenium	Energy Laboratories	None	0.009
P	31-May-94	Selenium	Energy Laboratories	None	0.081
P	01-Sep-94	Selenium	Energy Laboratories	None	0.057
P	28-Nov-94	Selenium	Energy Laboratories	None	0.089
P	16-Mar-95	Selenium	Energy Laboratories	None	0.03
P	16-Mar-95	Selenium	Energy Laboratories	None	0.03
P	06-Jun-95	Selenium	Energy Laboratories	None	0.085
P	05-Sep-95	Selenium	Energy Laboratories	None	0.062
P	05-Dec-95	Selenium	Energy Laboratories	None	0.063
P	05-Dec-95	Selenium	Energy Laboratories	None	0.06
P	11-Mar-96	Selenium	Energy Laboratories	None	0.051
P	03-Jun-96	Selenium	Energy Laboratories	None	0.055
P	17-Sep-96	Selenium	Energy Laboratories	None	0.077
P	10-Oct-96	Selenium	Energy Laboratories	None	0.065
P	06-Mar-97	Selenium	Energy Laboratories	None	0.063
P	27-May-97	Selenium	Energy Laboratories	None	0.059
P	09-Sep-97	Selenium	Energy Laboratories	None	0.026
P	09-Sep-97	Selenium	Energy Laboratories	Quality Control	0.009
P	03-Nov-97	Selenium	Energy Laboratories	None	0.061
P	04-Mar-98	Selenium	Energy Laboratories	None	0.082
P	04-Mar-98	Selenium	Energy Laboratories	Quality Control	0.1
P	05-May-98	Selenium	Energy Laboratories	None	0.182
P	16-Sep-98	Selenium	Energy Laboratories	None	0.196

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
P	12-Nov-98	Selenium	Energy Laboratories	None	0.164
P	12-Nov-98	Selenium	ACZ Laboratories	Quality Control	0.15
P	12-Nov-98	Selenium	Energy Laboratories	Quality Control	0.152
P1	21-Sep-92	Selenium	Homestake	None	0.24
P1	21-Jan-93	Selenium	Energy Laboratories	None	0.216
P1	21-Jan-93	Selenium	Homestake	None	0.22
P1	13-Apr-93	Selenium	Homestake	None	0.24
P1	13-Jul-93	Selenium	Homestake	None	0.27
P1	21-Oct-93	Selenium	Energy Laboratories	None	0.144
P1	04-Jan-94	Selenium	Energy Laboratories	None	0.225
P1	07-Mar-94	Selenium	Energy Laboratories	None	0.171
P1	12-Apr-94	Selenium	Energy Laboratories	None	0.162
P1	06-Jul-94	Selenium	Energy Laboratories	None	0.292
P1	21-Oct-94	Selenium	Energy Laboratories	None	0.322
P1	04-Jan-95	Selenium	Energy Laboratories	None	0.238
P1	04-Jan-95	Selenium	Energy Laboratories	None	0.246
P1	12-Apr-95	Selenium	Energy Laboratories	None	0.167
P1	06-Jul-95	Selenium	Energy Laboratories	None	0.294
P1	03-Oct-95	Selenium	Energy Laboratories	None	0.214
P1	10-Jan-96	Selenium	Energy Laboratories	None	0.224
P1	10-Jan-96	Selenium	Energy Laboratories	None	0.22
P1	09-Apr-96	Selenium	Energy Laboratories	None	0.246
P1	09-Apr-96	Selenium	Energy Laboratories	None	0.267
P1	19-Jul-96	Selenium	Energy Laboratories	None	0.194
P1	19-Jul-96	Selenium	Energy Laboratories	None	0.204
P1	04-Nov-96	Selenium	Energy Laboratories	None	0.241
P1	04-Nov-96	Selenium	Energy Laboratories	None	0.266
P1	13-Jan-97	Selenium	Energy Laboratories	Quality Control	0.245
P1	13-Jan-97	Selenium	Energy Laboratories	None	0.237
P1	14-Apr-97	Selenium	Energy Laboratories	None	0.215
P1	14-Apr-97	Selenium	Energy Laboratories	Quality Control	0.209
P1	08-Jul-97	Selenium	Energy Laboratories	None	0.232
P1	03-Nov-97	Selenium	Energy Laboratories	None	0.225
P1	19-Jan-98	Selenium	Energy Laboratories	None	0.243
P1	19-Jan-98	Selenium	Energy Laboratories	Quality Control	0.239
P1	01-Apr-98	Selenium	Energy Laboratories	None	0.242
P1	01-Apr-98	Selenium	Energy Laboratories	Quality Control	0.253
P1	14-Jul-98	Selenium	Energy Laboratories	None	0.252
P1	28-Oct-98	Selenium	Energy Laboratories	None	0.24
P2	21-Sep-92	Selenium	Homestake	None	0.24
P2	08-Feb-93	Selenium	Energy Laboratories	None	0.11
P2	08-Feb-93	Selenium	Homestake	None	0.24
P2	04-May-93	Selenium	Energy Laboratories	None	0.245
P2	04-May-93	Selenium	Homestake	None	0.22
P2	12-Aug-93	Selenium	Homestake	None	0.22
P2	01-Nov-93	Selenium	Energy Laboratories	None	0.183
P2	01-Nov-93	Selenium	Energy Laboratories	None	0.169
P2	02-Feb-94	Selenium	Energy Laboratories	None	0.096
P2	07-Mar-94	Selenium	Energy Laboratories	None	0.194
P2	29-Apr-94	Selenium	Energy Laboratories	None	0.128
P2	29-Apr-94	Selenium	Energy Laboratories	None	0.132
P2	01-Aug-94	Selenium	Energy Laboratories	None	0.31

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
P2	01-Nov-94	Selenium	Energy Laboratories	None	0.299
P2	03-Feb-95	Selenium	Energy Laboratories	None	0.294
P2	05-May-95	Selenium	Energy Laboratories	None	0.244
P2	02-Aug-95	Selenium	Energy Laboratories	None	0.244
P2	02-Aug-95	Selenium	Energy Laboratories	None	0.252
P2	06-Nov-95	Selenium	Energy Laboratories	None	0.264
P2	12-Feb-96	Selenium	Energy Laboratories	None	0.221
P2	14-May-96	Selenium	Energy Laboratories	None	0.234
P2	14-May-96	Selenium	Energy Laboratories	None	0.232
P2	29-Jul-96	Selenium	Energy Laboratories	None	0.236
P2	03-Feb-97	Selenium	Energy Laboratories	None	0.194
P2	03-Feb-97	Selenium	Energy Laboratories	Quality Control	0.212
P2	29-Apr-97	Selenium	Energy Laboratories	None	0.233
P2	29-Apr-97	Selenium	Energy Laboratories	Quality Control	0.296
P2	28-Jul-97	Selenium	Energy Laboratories	None	0.276
P2	28-Jul-97	Selenium	Energy Laboratories	Quality Control	0.224
P2	13-Oct-97	Selenium	Energy Laboratories	None	0.217
P2	10-Feb-98	Selenium	Energy Laboratories	Quality Control	0.23
P2	10-Feb-98	Selenium	Energy Laboratories	None	0.3
P2	05-May-98	Selenium	Energy Laboratories	None	0.21
P2	04-Aug-98	Selenium	Energy Laboratories	None	0.209
P2	28-Oct-98	Selenium	Energy Laboratories	None	0.236
P3	23-Apr-98	Selenium	Energy Laboratories	None	0.173
P4	24-Apr-98	Selenium	Energy Laboratories	None	0.104
Q	07-Jan-76	Selenium	Homestake	Less than	0.05
Q	30-Mar-76	Selenium	Homestake	None	0.19
Q	09-Apr-76	Selenium	Homestake	None	0.3
Q	03-Jun-76	Selenium	Homestake	None	0.18
Q	27-Aug-76	Selenium	Homestake	None	0.23
Q	13-Jun-77	Selenium	Eberline	None	0.5
Q	13-Jun-77	Selenium	Homestake	None	0.09
Q	24-Aug-77	Selenium	Eberline	None	1.28
Q	24-Aug-77	Selenium	Homestake	None	0.12
Q	11-Oct-77	Selenium	Eberline	None	0.35
Q	11-Oct-77	Selenium	Homestake	None	0.12
Q	01-Feb-78	Selenium	Eberline	None	0.15
Q	01-Feb-78	Selenium	NM Bureau of Mines	None	0.16
Q	01-Feb-78	Selenium	Homestake	None	0.1
Q	17-Apr-78	Selenium	Homestake	None	0.22
Q	10-Jul-78	Selenium	NM EID	None	0.05
Q	10-Jul-78	Selenium	Homestake	None	0.11
Q	23-Oct-78	Selenium	Homestake	None	0.19
Q	23-Oct-78	Selenium	NM EID	None	0.24
Q	30-Jan-79	Selenium	Homestake	None	0.14
Q	30-Jan-79	Selenium	NM EID	None	0.194
Q	30-Apr-79	Selenium	Homestake	None	0.1
Q	30-Apr-79	Selenium	NM EID	None	0.2732
Q	12-Jul-79	Selenium	Homestake	None	0.18
Q	10-Sep-79	Selenium	Homestake	None	0.15
Q	06-Nov-79	Selenium	Homestake	None	0.14
Q	09-Jan-80	Selenium	Homestake	None	0.14
Q	16-Apr-80	Selenium	Homestake	None	0.16

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
Q	17-Apr-80	Selenium	NM EID	None	0.139
Q	16-Jul-80	Selenium	Homestake	None	0.18
Q	16-Jul-80	Selenium	NM EID	None	0.115
Q	13-Oct-80	Selenium	Homestake	None	0.2
Q	07-Jan-81	Selenium	Homestake	None	0.24
Q	07-Jan-81	Selenium	NM EID	None	0.08
Q	15-Apr-81	Selenium	Homestake	None	0.22
Q	15-Apr-81	Selenium	NM EID	None	0.106
Q	07-Jul-81	Selenium	Homestake	None	0.23
Q	07-Oct-81	Selenium	Homestake	None	0.2
Q	28-Dec-81	Selenium	Homestake	None	0.15
Q	28-Dec-81	Selenium	NM EID	None	0.074
Q	24-Mar-82	Selenium	Homestake	None	0.14
Q	24-Mar-82	Selenium	NM EID	None	0.116
Q	22-May-82	Selenium	Homestake	None	0.15
Q	25-Aug-82	Selenium	Homestake	None	0.04
Q	18-Nov-82	Selenium	Homestake	None	0.08
Q	23-Feb-83	Selenium	Homestake	None	0.09
Q	26-May-83	Selenium	Homestake	None	0.07
Q	28-Jun-83	Selenium	NM EID	None	0.078
Q	28-Jun-83	Selenium	Homestake	None	0.07
Q	21-Sep-83	Selenium	Homestake	None	0.1
Q	19-Dec-83	Selenium	Homestake	None	0.09
Q	07-Mar-84	Selenium	Homestake	None	0.07
Q	09-May-84	Selenium	Controls for	None	0.07
Q	09-May-84	Selenium	Homestake	None	0.16
Q	12-Sep-84	Selenium	Homestake	None	0.2
Q	12-Dec-84	Selenium	Homestake	None	0.14
Q	11-Mar-85	Selenium	Homestake	None	0.15
Q	29-May-85	Selenium	Homestake	None	0.15
Q	06-Sep-85	Selenium	Homestake	None	0.15
Q	16-Dec-85	Selenium	Homestake	None	0.16
Q	10-Mar-86	Selenium	Homestake	None	0.19
Q	30-Jun-86	Selenium	Homestake	None	0.2
Q	15-Sep-86	Selenium	Homestake	None	0.21
Q	15-Dec-86	Selenium	Homestake	None	0.2
Q	19-Mar-87	Selenium	Homestake	None	0.2
Q	19-Jun-87	Selenium	Homestake	None	0.16
Q	15-Sep-87	Selenium	Homestake	None	0.19
Q	08-Dec-87	Selenium	Homestake	None	0.22
Q	24-Feb-88	Selenium	Homestake	None	0.21
Q	12-May-88	Selenium	Homestake	None	0.17
Q	23-Aug-88	Selenium	Homestake	None	0.21
Q	03-Nov-88	Selenium	Homestake	None	0.23
Q	13-Dec-88	Selenium	Homestake	None	0.2
Q	13-Dec-88	Selenium	Barringer	None	0.215
Q	11-Jan-89	Selenium	Homestake	None	0.2
Q	11-Jan-89	Selenium	Barringer	None	0.158
Q	15-Feb-89	Selenium	Homestake	None	0.17
Q	15-Feb-89	Selenium	Barringer	None	0.19
Q	16-May-89	Selenium	Homestake	None	0.14
Q	15-Nov-89	Selenium	Homestake	None	0.15

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
Q	13-Mar-90	Selenium	Homestake	None	0.2
Q	12-Sep-90	Selenium	Homestake	None	0.23
Q	27-Feb-91	Selenium	Homestake	None	0.23
Q	16-Sep-91	Selenium	Homestake	None	0.17
Q	09-Mar-92	Selenium	Homestake	None	0.25
Q	16-Sep-92	Selenium	Homestake	None	0.21
Q	03-Mar-93	Selenium	Homestake	None	0.2
Q	08-Sep-93	Selenium	Energy Laboratories	None	0.07
Q	01-Mar-94	Selenium	Energy Laboratories	None	0.081
Q	01-Mar-94	Selenium	Energy Laboratories	None	0.118
Q	01-Sep-94	Selenium	Energy Laboratories	None	0.138
Q	16-Mar-95	Selenium	Energy Laboratories	None	0.096
Q	05-Sep-95	Selenium	Energy Laboratories	None	0.155
Q	11-Mar-96	Selenium	Energy Laboratories	None	0.201
Q	17-Sep-96	Selenium	Energy Laboratories	None	0.294
Q	06-Mar-97	Selenium	Energy Laboratories	None	0.197
Q	09-Sep-97	Selenium	Energy Laboratories	None	0.207
Q	04-Mar-98	Selenium	Energy Laboratories	None	0.2
R	07-Jan-76	Selenium	Homestake	Less than	0.05
R	30-Mar-76	Selenium	Homestake	None	0.11
R	09-Apr-76	Selenium	Homestake	None	0.08
R	03-Jun-76	Selenium	Homestake	None	0.09
R	01-Sep-76	Selenium	Homestake	None	0.08
R	13-Jun-77	Selenium	Eberline	None	0.4
R	13-Jun-77	Selenium	Homestake	None	0.05
R	24-Aug-77	Selenium	Eberline	None	0.091
R	24-Aug-77	Selenium	Homestake	None	0.06
R	11-Oct-77	Selenium	Eberline	None	0.13
R	11-Oct-77	Selenium	Homestake	None	0.06
R	01-Feb-78	Selenium	Eberline	None	0.043
R	01-Feb-78	Selenium	NM Bureau of Mines	None	0.072
R	01-Feb-78	Selenium	Homestake	None	0.05
R	17-Apr-78	Selenium	Homestake	None	0.16
R	10-Jul-78	Selenium	Homestake	None	0.07
R	10-Jul-78	Selenium	NM EID	None	0.03097
R	23-Oct-78	Selenium	Homestake	None	0.08
R	23-Oct-78	Selenium	NM EID	Less than	0.096
R	31-Jan-79	Selenium	Homestake	None	0.05
R	31-Jan-79	Selenium	NM EID	None	0.067
R	30-Apr-79	Selenium	Homestake	None	0.03
R	30-Apr-79	Selenium	NM EID	None	0.0891
R	12-Jul-79	Selenium	Homestake	None	0.05
R	10-Sep-79	Selenium	Homestake	None	0.05
R	06-Nov-79	Selenium	Homestake	None	0.03
R	07-Jan-80	Selenium	NM EID	None	0.037
R	09-Jan-80	Selenium	Homestake	None	0.06
R	16-Apr-80	Selenium	Homestake	None	0.05
R	17-Apr-80	Selenium	NM EID	None	0.044
R	16-Jul-80	Selenium	Homestake	None	0.06
R	16-Jul-80	Selenium	NM EID	None	0.053
R	13-Oct-80	Selenium	Homestake	None	0.09
R	07-Jan-81	Selenium	Homestake	None	0.06

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
R	15-Apr-81	Selenium	Homestake	None	0.1
R	15-Apr-81	Selenium	NM EID	None	0.047
R	07-Jul-81	Selenium	Homestake	None	0.11
R	28-Dec-81	Selenium	Homestake	None	0.08
R	28-Dec-81	Selenium	NM EID	None	0.048
R	24-Mar-82	Selenium	Homestake	None	0.07
R	24-Mar-82	Selenium	NM EID	None	0.04
R	22-May-82	Selenium	Homestake	None	0.04
R	25-Aug-82	Selenium	Homestake	None	0.06
R	18-Nov-82	Selenium	Homestake	None	0.07
R	23-Feb-83	Selenium	Homestake	None	0.07
R	26-May-83	Selenium	Homestake	None	0.05
R	28-Jun-83	Selenium	Homestake	None	0.04
R	28-Jun-83	Selenium	NM EID	None	0.045
R	12-Sep-83	Selenium	Homestake	None	0.03
R	20-Dec-83	Selenium	Homestake	None	0.05
R	07-Mar-84	Selenium	Homestake	None	0.09
R	09-May-84	Selenium	Controls for	None	0.03
R	09-May-84	Selenium	Homestake	None	0.06
R	12-Sep-84	Selenium	Homestake	None	0.1
R	12-Dec-84	Selenium	Homestake	None	0.1
R	11-Mar-85	Selenium	Controls for	None	0.02
R	11-Mar-85	Selenium	Homestake	None	0.1
R	29-May-85	Selenium	Homestake	None	0.1
R	05-Sep-85	Selenium	Controls for	None	0.03
R	05-Sep-85	Selenium	Homestake	None	0.1
R	16-Dec-85	Selenium	Homestake	None	0.09
R	10-Mar-86	Selenium	Controls for	None	0.02
R	10-Mar-86	Selenium	Homestake	None	0.1
R	30-Jun-86	Selenium	Homestake	None	0.1
R	15-Sep-86	Selenium	Controls for	None	0.05
R	15-Sep-86	Selenium	Homestake	None	0.09
R	15-Dec-86	Selenium	Homestake	None	0.1
R	19-Mar-87	Selenium	Controls for	None	0.04
R	19-Mar-87	Selenium	Homestake	None	0.09
R	19-Jun-87	Selenium	Homestake	None	0.09
R	15-Sep-87	Selenium	Controls for	None	0.04
R	15-Sep-87	Selenium	Homestake	None	0.09
R	08-Dec-87	Selenium	Homestake	None	0.11
R	24-Feb-88	Selenium	Homestake	None	0.09
R	24-Feb-88	Selenium	Barringer	None	0.066
R	12-May-88	Selenium	Homestake	None	0.09
R	22-Aug-88	Selenium	Homestake	None	0.1
R	22-Aug-88	Selenium	Barringer	None	0.142
R	03-Nov-88	Selenium	Homestake	None	0.12
R	13-Dec-88	Selenium	Homestake	None	0.1
R	13-Dec-88	Selenium	Barringer	None	0.074
R	11-Jan-89	Selenium	Homestake	None	0.09
R	11-Jan-89	Selenium	Barringer	None	0.091
R	15-Feb-89	Selenium	Homestake	None	0.09
R	15-Feb-89	Selenium	Barringer	None	0.099
R	16-May-89	Selenium	Homestake	None	0.11

Table 32. Selenium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample_Date	Parameter Code	Lab_Code	Remark Code	Value
R	15-Nov-89	Selenium	Homestake	None	0.1
R	13-Mar-90	Selenium	Homestake	None	0.13
R	12-Sep-90	Selenium	Homestake	None	0.15
R	27-Feb-91	Selenium	Homestake	None	0.17
R	16-Sep-91	Selenium	Homestake	None	0.15
R	09-Mar-92	Selenium	Homestake	None	0.23
R	16-Sep-92	Selenium	Energy Laboratories	None	0.27
R	16-Sep-92	Selenium	Homestake	None	0.19
R	01-Jun-93	Selenium	Homestake	None	0.17
R	08-Sep-93	Selenium	Energy Laboratories	None	0.101
R	07-Mar-94	Selenium	Energy Laboratories	None	0.191
R	31-May-94	Selenium	Energy Laboratories	None	0.18
R	01-Sep-94	Selenium	Energy Laboratories	None	0.182
R	06-Jun-95	Selenium	Energy Laboratories	None	0.22
R	06-Jun-95	Selenium	Energy Laboratories	None	0.258
R	05-Sep-95	Selenium	Energy Laboratories	None	0.214
R	05-Sep-95	Selenium	Energy Laboratories	None	0.232
R	03-Jun-96	Selenium	Energy Laboratories	None	0.269
R	17-Sep-96	Selenium	Energy Laboratories	None	0.406
R	10-Oct-96	Selenium	Energy Laboratories	None	0.281
R	27-May-97	Selenium	Energy Laboratories	None	0.288
R	06-May-98	Selenium	Energy Laboratories	None	0.326

Table 33. Selenium Near Upgradient Background Data Set for Well DD
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Jun-76	Selenium	0.1
27-Aug-76	Selenium	0.11
15-Sep-81	Selenium	0.02
24-Mar-82	Selenium	0.005
26-May-82	Selenium	0.1
18-Nov-82	Selenium	0.04
04-Mar-83	Selenium	0.04
28-Jun-83	Selenium	0.025
14-Sep-83	Selenium	0.01
19-Dec-83	Selenium	0.01
07-Mar-84	Selenium	0.01
09-May-84	Selenium	0.02
12-Sep-84	Selenium	0.01
12-Dec-84	Selenium	0.01
13-Mar-85	Selenium	0.02
06-Jun-85	Selenium	0.1
04-Sep-85	Selenium	0.01
16-Dec-85	Selenium	0.01
20-Mar-86	Selenium	0.01
30-Jun-86	Selenium	0.01
15-Sep-86	Selenium	0.005
09-Dec-86	Selenium	0.01
19-Mar-87	Selenium	0.01
24-Jun-87	Selenium	0.01
15-Sep-87	Selenium	0.01
08-Dec-87	Selenium	0.01
24-Feb-88	Selenium	0.01
09-Jun-88	Selenium	0.01
11-Oct-88	Selenium	0.02
08-Dec-88	Selenium	0.005
13-Dec-88	Selenium	0.0245
11-Jan-89	Selenium	0.0205
15-Feb-89	Selenium	0.0235
29-Mar-89	Selenium	0.005
13-Jun-89	Selenium	0.005
15-Nov-89	Selenium	0.005
13-Mar-90	Selenium	0.005
12-Sep-90	Selenium	0.01
27-Feb-91	Selenium	0.02
16-Sep-91	Selenium	0.01
09-Mar-92	Selenium	0.01
22-Sep-92	Selenium	0.01
21-Oct-93	Selenium	0.02
09-Mar-94	Selenium	0.015
21-Oct-94	Selenium	0.016
10-Oct-95	Selenium	0.017
10-Oct-96	Selenium	0.021
14-Apr-97	Selenium	0.018
09-Sep-97	Selenium	0.023
01-Apr-98	Selenium	0.031

Table 34. Selenium Near Upgradient Background Data Set for Well ND
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
12-Jan-83	Selenium	0.04
06-Jan-84	Selenium	0.02
18-Dec-89	Selenium	0.005
17-Oct-90	Selenium	0.01
16-Sep-91	Selenium	0.01
18-Aug-92	Selenium	0.02
25-Aug-93	Selenium	0.045
14-Mar-94	Selenium	0.024
22-Aug-94	Selenium	0.059
22-Aug-95	Selenium	0.042
29-Jul-96	Selenium	0.05
11-Aug-97	Selenium	0.04
05-Aug-98	Selenium	0.044

Table 35. Selenium Near Upgradient Background Data Set for Well P
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
30-Mar-76	Selenium	0.16
09-Apr-76	Selenium	0.18
03-Jun-76	Selenium	0.14
27-Aug-76	Selenium	0.17
13-Jun-77	Selenium	0.36
24-Aug-77	Selenium	0.755
11-Oct-77	Selenium	0.165
01-Feb-78	Selenium	0.096
17-Apr-78	Selenium	0.22
11-Jul-78	Selenium	0.065
23-Oct-78	Selenium	0.145
30-Jan-79	Selenium	0.113
30-Apr-79	Selenium	0.14
12-Jul-79	Selenium	0.13
10-Sep-79	Selenium	0.12
06-Nov-79	Selenium	0.08
09-Jan-80	Selenium	0.12
16-Apr-80	Selenium	0.12
16-Jul-80	Selenium	0.145
13-Oct-80	Selenium	0.16
07-Jan-81	Selenium	0.0925
15-Apr-81	Selenium	0.123
07-Jul-81	Selenium	0.15
07-Oct-81	Selenium	0.17
28-Dec-81	Selenium	0.1015
24-Mar-82	Selenium	0.1025
22-May-82	Selenium	0.17
25-Aug-82	Selenium	0.05
18-Nov-82	Selenium	0.2
23-Feb-83	Selenium	0.1
26-May-83	Selenium	0.06
27-Jun-83	Selenium	0.076
12-Sep-83	Selenium	0.06
19-Dec-83	Selenium	0.05
07-Mar-84	Selenium	0.09
09-May-84	Selenium	0.08
12-Sep-84	Selenium	0.17
13-Dec-84	Selenium	0.14
11-Mar-85	Selenium	0.09
29-May-85	Selenium	0.12
04-Sep-85	Selenium	0.08
16-Dec-85	Selenium	0.12
10-Mar-86	Selenium	0.09
30-Jun-86	Selenium	0.13

Table 35. Selenium Near Upgradient Background Data Set for Well P (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter	Final Data Set
15-Sep-86	Selenium	0.1
16-Dec-86	Selenium	0.13
19-Mar-87	Selenium	0.065
24-Jun-87	Selenium	0.1
16-Sep-87	Selenium	0.08
08-Dec-87	Selenium	0.12
24-Feb-88	Selenium	0.091
12-May-88	Selenium	0.08
23-Aug-88	Selenium	0.121
12-Oct-88	Selenium	0.11
13-Dec-88	Selenium	0.102
11-Jan-89	Selenium	0.1
15-Feb-89	Selenium	0.1045
16-May-89	Selenium	0.08
10-Aug-89	Selenium	0.1
15-Nov-89	Selenium	0.05
13-Mar-90	Selenium	0.1
04-Jun-90	Selenium	0.07
12-Sep-90	Selenium	0.09
03-Dec-90	Selenium	0.102
03-Jun-91	Selenium	0.1
16-Sep-91	Selenium	0.11
18-Nov-91	Selenium	0.11
09-Mar-92	Selenium	0.13
04-Jun-92	Selenium	0.13
21-Sep-92	Selenium	0.13
03-Dec-92	Selenium	0.13
03-Mar-93	Selenium	0.09
01-Jun-93	Selenium	0.07
08-Sep-93	Selenium	0.085
24-Nov-93	Selenium	0.073
01-Mar-94	Selenium	0.009
31-May-94	Selenium	0.081
01-Sep-94	Selenium	0.057
28-Nov-94	Selenium	0.089
16-Mar-95	Selenium	0.03
06-Jun-95	Selenium	0.085
05-Sep-95	Selenium	0.062
05-Dec-95	Selenium	0.0615
11-Mar-96	Selenium	0.051
03-Jun-96	Selenium	0.055
17-Sep-96	Selenium	0.077
10-Oct-96	Selenium	0.065
06-Mar-97	Selenium	0.063
27-May-97	Selenium	0.059
09-Sep-97	Selenium	0.026
03-Nov-97	Selenium	0.061
04-Mar-98	Selenium	0.082
05-May-98	Selenium	0.182
16-Sep-98	Selenium	0.196
12-Nov-98	Selenium	0.164

Table 36. Selenium Near Upgradient Background Data Set for Well P1
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Selenium	0.24
21-Jan-93	Selenium	0.218
13-Apr-93	Selenium	0.24
13-Jul-93	Selenium	0.27
21-Oct-93	Selenium	0.144
04-Jan-94	Selenium	0.225
07-Mar-94	Selenium	0.171
12-Apr-94	Selenium	0.162
06-Jul-94	Selenium	0.292
21-Oct-94	Selenium	0.322
04-Jan-95	Selenium	0.242
12-Apr-95	Selenium	0.167
06-Jul-95	Selenium	0.294
03-Oct-95	Selenium	0.214
10-Jan-96	Selenium	0.222
09-Apr-96	Selenium	0.2565
19-Jul-96	Selenium	0.199
04-Nov-96	Selenium	0.2535
13-Jan-97	Selenium	0.237
14-Apr-97	Selenium	0.215
08-Jul-97	Selenium	0.232
03-Nov-97	Selenium	0.225
19-Jan-98	Selenium	0.243
01-Apr-98	Selenium	0.242
14-Jul-98	Selenium	0.252
28-Oct-98	Selenium	0.24

Table 37. Selenium Near Upgradient Background Data Set for Well P2
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Selenium	0.24
08-Feb-93	Selenium	0.175
04-May-93	Selenium	0.2325
12-Aug-93	Selenium	0.22
01-Nov-93	Selenium	0.176
02-Feb-94	Selenium	0.096
07-Mar-94	Selenium	0.194
29-Apr-94	Selenium	0.13
01-Aug-94	Selenium	0.31
01-Nov-94	Selenium	0.299
03-Feb-95	Selenium	0.294
05-May-95	Selenium	0.244
02-Aug-95	Selenium	0.248
06-Nov-95	Selenium	0.264
12-Feb-96	Selenium	0.221
14-May-96	Selenium	0.233
29-Jul-96	Selenium	0.236
03-Feb-97	Selenium	0.194
29-Apr-97	Selenium	0.233
28-Jul-97	Selenium	0.276
13-Oct-97	Selenium	0.217
10-Feb-98	Selenium	0.3
05-May-98	Selenium	0.21
04-Aug-98	Selenium	0.209
28-Oct-98	Selenium	0.236

Table 38. Selenium Near Upgradient Background Data Set for Wells P3 and P4
(corrected for non-detects and duplicates)

Name	Sample Date	Code	Final Data Set
P3	23-Apr-98	Selenium	0.173
P4	24-Apr-98	Selenium	0.104

Table 39. Selenium Near Upgradient Background Data Set for Well Q
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
07-Jan-76	Selenium	0.025
30-Mar-76	Selenium	0.19
09-Apr-76	Selenium	0.3
03-Jun-76	Selenium	0.18
27-Aug-76	Selenium	0.23
13-Jun-77	Selenium	0.295
24-Aug-77	Selenium	0.7
11-Oct-77	Selenium	0.235
01-Feb-78	Selenium	0.136666667
17-Apr-78	Selenium	0.22
10-Jul-78	Selenium	0.08
23-Oct-78	Selenium	0.215
30-Jan-79	Selenium	0.167
30-Apr-79	Selenium	0.1866
12-Jul-79	Selenium	0.18
10-Sep-79	Selenium	0.15
06-Nov-79	Selenium	0.14
09-Jan-80	Selenium	0.14
16-Apr-80	Selenium	0.1495
16-Jul-80	Selenium	0.1475
13-Oct-80	Selenium	0.2
07-Jan-81	Selenium	0.16
15-Apr-81	Selenium	0.163
07-Jul-81	Selenium	0.23
07-Oct-81	Selenium	0.2
28-Dec-81	Selenium	0.112
24-Mar-82	Selenium	0.128
22-May-82	Selenium	0.15
25-Aug-82	Selenium	0.04
18-Nov-82	Selenium	0.08
23-Feb-83	Selenium	0.09
26-May-83	Selenium	0.07
28-Jun-83	Selenium	0.074
21-Sep-83	Selenium	0.1
19-Dec-83	Selenium	0.09
07-Mar-84	Selenium	0.07
09-May-84	Selenium	0.115

Table 39. Selenium Near Upgradient Background Data Set for Well Q (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
12-Sep-84	Selenium	0.2
12-Dec-84	Selenium	0.14
11-Mar-85	Selenium	0.15
29-May-85	Selenium	0.15
06-Sep-85	Selenium	0.15
16-Dec-85	Selenium	0.16
10-Mar-86	Selenium	0.19
30-Jun-86	Selenium	0.2
15-Sep-86	Selenium	0.21
15-Dec-86	Selenium	0.2
19-Mar-87	Selenium	0.2
19-Jun-87	Selenium	0.16
15-Sep-87	Selenium	0.19
08-Dec-87	Selenium	0.22
24-Feb-88	Selenium	0.21
12-May-88	Selenium	0.17
23-Aug-88	Selenium	0.21
03-Nov-88	Selenium	0.23
13-Dec-88	Selenium	0.2075
11-Jan-89	Selenium	0.179
15-Feb-89	Selenium	0.18
16-May-89	Selenium	0.14
15-Nov-89	Selenium	0.15
13-Mar-90	Selenium	0.2
12-Sep-90	Selenium	0.23
27-Feb-91	Selenium	0.23
16-Sep-91	Selenium	0.17
09-Mar-92	Selenium	0.25
16-Sep-92	Selenium	0.21
03-Mar-93	Selenium	0.2
08-Sep-93	Selenium	0.07
01-Mar-94	Selenium	0.0995
01-Sep-94	Selenium	0.138
16-Mar-95	Selenium	0.096
05-Sep-95	Selenium	0.155
11-Mar-96	Selenium	0.201
17-Sep-96	Selenium	0.294
06-Mar-97	Selenium	0.197
09-Sep-97	Selenium	0.207
04-Mar-98	Selenium	0.2

Table 40. Selenium Near Upgradient Background Data Set for Well R
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
07-Jan-76	Selenium	0.025
30-Mar-76	Selenium	0.11
09-Apr-76	Selenium	0.08
03-Jun-76	Selenium	0.09
01-Sep-76	Selenium	0.08
13-Jun-77	Selenium	0.225
24-Aug-77	Selenium	0.0755
11-Oct-77	Selenium	0.095
01-Feb-78	Selenium	0.055
17-Apr-78	Selenium	0.16
10-Jul-78	Selenium	0.050485
23-Oct-78	Selenium	0.064
31-Jan-79	Selenium	0.0585
30-Apr-79	Selenium	0.05955
12-Jul-79	Selenium	0.05
10-Sep-79	Selenium	0.05
06-Nov-79	Selenium	0.03
07-Jan-80	Selenium	0.0485
16-Apr-80	Selenium	0.047
16-Jul-80	Selenium	0.0565
13-Oct-80	Selenium	0.09
07-Jan-81	Selenium	0.06
15-Apr-81	Selenium	0.0735
07-Jul-81	Selenium	0.11
28-Dec-81	Selenium	0.064
24-Mar-82	Selenium	0.055
22-May-82	Selenium	0.04
25-Aug-82	Selenium	0.06
18-Nov-82	Selenium	0.07
23-Feb-83	Selenium	0.07
26-May-83	Selenium	0.05
28-Jun-83	Selenium	0.0425
12-Sep-83	Selenium	0.03
20-Dec-83	Selenium	0.05
07-Mar-84	Selenium	0.09
09-May-84	Selenium	0.045

Table 40. Selenium Near Upgradient Background Data Set for Well R (continued)
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
12-Sep-84	Selenium	0.1
12-Dec-84	Selenium	0.1
11-Mar-85	Selenium	0.06
29-May-85	Selenium	0.1
05-Sep-85	Selenium	0.065
16-Dec-85	Selenium	0.09
10-Mar-86	Selenium	0.06
30-Jun-86	Selenium	0.1
15-Sep-86	Selenium	0.07
15-Dec-86	Selenium	0.1
19-Mar-87	Selenium	0.065
19-Jun-87	Selenium	0.09
15-Sep-87	Selenium	0.065
08-Dec-87	Selenium	0.11
24-Feb-88	Selenium	0.078
12-May-88	Selenium	0.09
22-Aug-88	Selenium	0.121
03-Nov-88	Selenium	0.12
13-Dec-88	Selenium	0.087
11-Jan-89	Selenium	0.0905
15-Feb-89	Selenium	0.0945
16-May-89	Selenium	0.11
15-Nov-89	Selenium	0.1
13-Mar-90	Selenium	0.13
12-Sep-90	Selenium	0.15
27-Feb-91	Selenium	0.17
16-Sep-91	Selenium	0.15
09-Mar-92	Selenium	0.23
16-Sep-92	Selenium	0.23
01-Jun-93	Selenium	0.17
08-Sep-93	Selenium	0.101
07-Mar-94	Selenium	0.191
31-May-94	Selenium	0.18
01-Sep-94	Selenium	0.182
06-Jun-95	Selenium	0.239
05-Sep-95	Selenium	0.223
03-Jun-96	Selenium	0.269
17-Sep-96	Selenium	0.406
10-Oct-96	Selenium	0.281
27-May-97	Selenium	0.288
06-May-98	Selenium	0.326

Table 41. Selenium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.11	0.059	0.755	0.322	0.31	0.173	0.104	0.7	0.406
0.1	0.05	0.36	0.294	0.3			0.3	0.326
0.1	0.045	0.22	0.292	0.299			0.295	0.288
0.1	0.044	0.2	0.27	0.294			0.294	0.281
0.04	0.042	0.196	0.2565	0.276			0.25	0.269
0.04	0.04	0.182	0.2535	0.264			0.235	0.239
0.031	0.04	0.18	0.252	0.248			0.23	0.23
0.025	0.024	0.17	0.243	0.244			0.23	0.23
0.0245	0.02	0.17	0.242	0.24			0.23	0.225
0.0235	0.02	0.17	0.242	0.236			0.23	0.223
0.023	0.01	0.17	0.24	0.236			0.23	0.191
0.021	0.01	0.165	0.24	0.233			0.22	0.182
0.0205	0.005	0.164	0.24	0.233			0.22	0.18
0.02		0.16	0.237	0.2325			0.215	0.17
0.02		0.16	0.232	0.221			0.21	0.17
0.02		0.15	0.225	0.22			0.21	0.16
0.02		0.145	0.225	0.217			0.21	0.15
0.02		0.145	0.222	0.21			0.21	0.15
0.02		0.14	0.218	0.209			0.2075	0.13
0.018		0.14	0.215	0.194			0.207	0.121
0.017		0.14	0.214	0.194			0.201	0.12
0.016		0.13	0.199	0.176			0.2	0.11
0.015		0.13	0.171	0.175			0.2	0.11
0.01		0.13	0.167	0.13			0.2	0.11
0.01		0.13	0.162	0.096			0.2	0.11
0.01		0.13	0.144				0.2	0.101
0.01		0.13					0.2	0.1
0.01		0.13					0.2	0.1
0.01		0.123					0.2	0.1
0.01		0.121					0.2	0.1
0.01		0.12					0.197	0.1
0.01		0.12					0.19	0.1
0.01		0.12					0.19	0.095
0.01		0.12					0.19	0.0945
0.01		0.12					0.1866	0.0905
0.01		0.12					0.18	0.09
0.01		0.113					0.18	0.09
0.01		0.11					0.18	0.09
0.01		0.11					0.179	0.09
0.01		0.11					0.17	0.09
0.01		0.1045					0.17	0.09
0.01		0.1025					0.167	0.087
0.01		0.102					0.163	0.08
0.005		0.102					0.16	0.08
0.005		0.1015					0.16	0.078
0.005		0.1					0.16	0.0755

Table 41. Selenium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued) (all concentrations in mg/L)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.005		0.1					0.155	0.0735
0.005		0.1					0.15	0.07
0.005		0.1					0.15	0.07
0.005		0.1					0.15	0.07
		0.1					0.15	0.065
		0.1					0.15	0.065
		0.096					0.15	0.065
		0.0925					0.1495	0.064
		0.091					0.1475	0.064
		0.09					0.14	0.06
		0.09					0.14	0.06
		0.09					0.14	0.06
		0.09					0.14	0.06
		0.09					0.138	0.05955
		0.089					0.136666667	0.0585
		0.085					0.128	0.0565
		0.085					0.115	0.055
		0.082					0.112	0.055
		0.081					0.1	0.050485
		0.08					0.0995	0.05
		0.08					0.096	0.05
		0.08					0.09	0.05
		0.08					0.09	0.05
		0.08					0.08	0.0485
		0.08					0.08	0.047
		0.077					0.074	0.045
		0.076					0.07	0.0425
		0.073					0.07	0.04
		0.07					0.07	0.03
		0.07					0.04	0.03
		0.065					0.025	0.025
		0.065						
		0.065						
		0.063						
		0.062						
		0.0615						
		0.061						
		0.06						
		0.06						
		0.059						
		0.057						
		0.055						
		0.051						
		0.05						
		0.05						
		0.05						
		0.03						
		0.026						
		0.009						

Table 42. Selenium Near Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Selenium	0.755	0.7	1.1	**PASS**

Table 43. Selenium Near Upgradient Background Data Set, Coefficient of Variation Analysis

Parameter	Mean	Standard Deviation	Coefficient of Variation	Results
Selenium, normal	0.1267255	0.093143	0.73	**Pass**
Selenium, lognormal	-2.42326	0.998153	-0.41	**Pass**

Table 44. Selenium Near Upgradient Background Data Set, Studentized Range Test Analysis

Parameter	Range		Standard Deviation	Critical Values		W/S	Results
	Maximum	Minimum		Maximum	Minimum		
Selenium, normal	0.755	0.005[a]	0.09	6.94	5.47	8.05	**FAIL**

w = range of values
s = standard deviation
[a]Minimum value based on 0.5 of detection limit of 0.01

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis

Selenium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.755	0.570025	0.628274516	0.628274516
0.7	0.49	0.573274516	0.573274516
0.406	0.164836	0.279274516	0.279274516
0.36	0.1296	0.233274516	0.233274516
0.326	0.106276	0.199274516	0.199274516
0.322	0.103684	0.195274516	0.195274516
0.31	0.0961	0.183274516	0.183274516
0.3	0.09	0.173274516	0.173274516
0.3	0.09	0.173274516	0.173274516
0.299	0.089401	0.172274516	0.172274516
0.295	0.087025	0.168274516	0.168274516
0.294	0.086436	0.167274516	0.167274516
0.294	0.086436	0.167274516	0.167274516
0.294	0.086436	0.167274516	0.167274516
0.292	0.085264	0.165274516	0.165274516
0.288	0.082944	0.161274516	0.161274516
0.281	0.078961	0.154274516	0.154274516
0.276	0.076176	0.149274516	0.149274516
0.27	0.0729	0.143274516	0.143274516
0.269	0.072361	0.142274516	0.142274516
0.264	0.069696	0.137274516	0.137274516
0.2565	0.0657923	0.129774516	0.129774516
0.2535	0.0642623	0.126774516	0.126774516
0.252	0.063504	0.125274516	0.125274516
0.25	0.0625	0.123274516	0.123274516
0.248	0.061504	0.121274516	0.121274516
0.244	0.059536	0.117274516	0.117274516
0.243	0.059049	0.116274516	0.116274516
0.242	0.058564	0.115274516	0.115274516
0.242	0.058564	0.115274516	0.115274516
0.24	0.0576	0.113274516	0.113274516
0.24	0.0576	0.113274516	0.113274516
0.24	0.0576	0.113274516	0.113274516
0.24	0.0576	0.113274516	0.113274516
0.239	0.057121	0.112274516	0.112274516
0.237	0.056169	0.110274516	0.110274516
0.236	0.055696	0.109274516	0.109274516
0.236	0.055696	0.109274516	0.109274516
0.235	0.055225	0.108274516	0.108274516
0.233	0.054289	0.106274516	0.106274516
0.233	0.054289	0.106274516	0.106274516
0.2325	0.0540563	0.105774516	0.105774516
0.232	0.053824	0.105274516	0.105274516
0.23	0.0529	0.103274516	0.103274516
0.23	0.0529	0.103274516	0.103274516
0.23	0.0529	0.103274516	0.103274516
0.23	0.0529	0.103274516	0.103274516

0.1267255 =mean
46.254802 = sum of Xi
9.0196 = sum of Xi^2
365 = count

3.1579379 = SSS
26.340378 = SAD

0.7758429 = alpha

-2.0 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.23	0.0529	0.103274516	0.103274516
0.23	0.0529	0.103274516	0.103274516
0.23	0.0529	0.103274516	0.103274516
0.225	0.050625	0.098274516	0.098274516
0.225	0.050625	0.098274516	0.098274516
0.225	0.050625	0.098274516	0.098274516
0.223	0.049729	0.096274516	0.096274516
0.222	0.049284	0.095274516	0.095274516
0.221	0.048841	0.094274516	0.094274516
0.22	0.0484	0.093274516	0.093274516
0.22	0.0484	0.093274516	0.093274516
0.22	0.0484	0.093274516	0.093274516
0.22	0.0484	0.093274516	0.093274516
0.218	0.047524	0.091274516	0.091274516
0.217	0.047089	0.090274516	0.090274516
0.215	0.046225	0.088274516	0.088274516
0.215	0.046225	0.088274516	0.088274516
0.214	0.045796	0.087274516	0.087274516
0.21	0.0441	0.083274516	0.083274516
0.21	0.0441	0.083274516	0.083274516
0.21	0.0441	0.083274516	0.083274516
0.21	0.0441	0.083274516	0.083274516
0.21	0.0441	0.083274516	0.083274516
0.209	0.043681	0.082274516	0.082274516
0.2075	0.0430563	0.080774516	0.080774516
0.207	0.042849	0.080274516	0.080274516
0.201	0.040401	0.074274516	0.074274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.2	0.04	0.073274516	0.073274516
0.199	0.039601	0.072274516	0.072274516
0.197	0.038809	0.070274516	0.070274516
0.196	0.038416	0.069274516	0.069274516
0.194	0.037636	0.067274516	0.067274516
0.194	0.037636	0.067274516	0.067274516
0.191	0.036481	0.064274516	0.064274516
0.19	0.0361	0.063274516	0.063274516
0.19	0.0361	0.063274516	0.063274516
0.19	0.0361	0.063274516	0.063274516
0.1866	0.0348196	0.059874516	0.059874516
0.182	0.033124	0.055274516	0.055274516

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.182	0.033124	0.055274516	0.055274516
0.18	0.0324	0.053274516	0.053274516
0.18	0.0324	0.053274516	0.053274516
0.18	0.0324	0.053274516	0.053274516
0.18	0.0324	0.053274516	0.053274516
0.18	0.0324	0.053274516	0.053274516
0.179	0.032041	0.052274516	0.052274516
0.176	0.030976	0.049274516	0.049274516
0.175	0.030625	0.048274516	0.048274516
0.173	0.029929	0.046274516	0.046274516
0.171	0.029241	0.044274516	0.044274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.17	0.0289	0.043274516	0.043274516
0.167	0.027889	0.040274516	0.040274516
0.167	0.027889	0.040274516	0.040274516
0.165	0.027225	0.038274516	0.038274516
0.164	0.026896	0.037274516	0.037274516
0.163	0.026569	0.036274516	0.036274516
0.162	0.026244	0.035274516	0.035274516
0.16	0.0256	0.033274516	0.033274516
0.16	0.0256	0.033274516	0.033274516
0.16	0.0256	0.033274516	0.033274516
0.16	0.0256	0.033274516	0.033274516
0.16	0.0256	0.033274516	0.033274516
0.16	0.0256	0.033274516	0.033274516
0.155	0.024025	0.028274516	0.028274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.15	0.0225	0.023274516	0.023274516
0.1495	0.0223503	0.022774516	0.022774516
0.1475	0.0217563	0.020774516	0.020774516
0.145	0.021025	0.018274516	0.018274516
0.145	0.021025	0.018274516	0.018274516
0.144	0.020736	0.017274516	0.017274516
0.14	0.0196	0.013274516	0.013274516
0.14	0.0196	0.013274516	0.013274516

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.14	0.0196	0.013274516	0.013274516
0.14	0.0196	0.013274516	0.013274516
0.14	0.0196	0.013274516	0.013274516
0.14	0.0196	0.013274516	0.013274516
0.14	0.0196	0.013274516	0.013274516
0.138	0.019044	0.011274516	0.011274516
0.1366667	0.0186778	0.009941183	0.009941183
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.13	0.0169	0.003274516	0.003274516
0.128	0.016384	0.001274516	0.001274516
0.123	0.015129	-0.00372548	0.003725484
0.121	0.014641	-0.00572548	0.005725484
0.121	0.014641	-0.00572548	0.005725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.12	0.0144	-0.00672548	0.006725484
0.115	0.013225	-0.01172548	0.011725484
0.113	0.012769	-0.01372548	0.013725484
0.112	0.012544	-0.01472548	0.014725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.11	0.0121	-0.01672548	0.016725484
0.1045	0.0109203	-0.02222548	0.022225484
0.104	0.010816	-0.02272548	0.022725484
0.1025	0.0105063	-0.02422548	0.024225484
0.102	0.010404	-0.02472548	0.024725484
0.102	0.010404	-0.02472548	0.024725484
0.1015	0.0103023	-0.02522548	0.025225484
0.101	0.010201	-0.02572548	0.025725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.1	0.01	-0.02672548	0.026725484
0.0995	0.0099003	-0.02722548	0.027225484
0.096	0.009216	-0.03072548	0.030725484
0.096	0.009216	-0.03072548	0.030725484
0.096	0.009216	-0.03072548	0.030725484
0.095	0.009025	-0.03172548	0.031725484
0.0945	0.0089303	-0.03222548	0.032225484
0.0925	0.0085563	-0.03422548	0.034225484
0.091	0.008281	-0.03572548	0.035725484
0.0905	0.0081903	-0.03622548	0.036225484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.09	0.0081	-0.03672548	0.036725484
0.089	0.007921	-0.03772548	0.037725484
0.087	0.007569	-0.03972548	0.039725484
0.085	0.007225	-0.04172548	0.041725484
0.085	0.007225	-0.04172548	0.041725484
0.082	0.006724	-0.04472548	0.044725484
0.081	0.006561	-0.04572548	0.045725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.08	0.0064	-0.04672548	0.046725484
0.078	0.006084	-0.04872548	0.048725484
0.077	0.005929	-0.04972548	0.049725484
0.076	0.005776	-0.05072548	0.050725484
0.0755	0.0057003	-0.05122548	0.051225484
0.074	0.005476	-0.05272548	0.052725484
0.0735	0.0054023	-0.05322548	0.053225484
0.073	0.005329	-0.05372548	0.053725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.07	0.0049	-0.05672548	0.056725484
0.065	0.004225	-0.06172548	0.061725484
0.065	0.004225	-0.06172548	0.061725484
0.065	0.004225	-0.06172548	0.061725484
0.065	0.004225	-0.06172548	0.061725484
0.065	0.004225	-0.06172548	0.061725484
0.065	0.004225	-0.06172548	0.061725484
0.064	0.004096	-0.06272548	0.062725484
0.064	0.004096	-0.06272548	0.062725484
0.063	0.003969	-0.06372548	0.063725484
0.062	0.003844	-0.06472548	0.064725484
0.0615	0.0037823	-0.06522548	0.065225484
0.061	0.003721	-0.06572548	0.065725484
0.06	0.0036	-0.06672548	0.066725484
0.06	0.0036	-0.06672548	0.066725484
0.06	0.0036	-0.06672548	0.066725484
0.06	0.0036	-0.06672548	0.066725484
0.06	0.0036	-0.06672548	0.066725484
0.06	0.0036	-0.06672548	0.066725484
0.05955	0.0035462	-0.06717548	0.067175484
0.059	0.003481	-0.06772548	0.067725484
0.059	0.003481	-0.06772548	0.067725484
0.0585	0.0034223	-0.06822548	0.068225484
0.057	0.003249	-0.06972548	0.069725484
0.0565	0.0031923	-0.07022548	0.070225484
0.055	0.003025	-0.07172548	0.071725484
0.055	0.003025	-0.07172548	0.071725484
0.055	0.003025	-0.07172548	0.071725484
0.051	0.002601	-0.07572548	0.075725484
0.050485	0.0025487	-0.07624048	0.076240484

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.05	0.0025	-0.07672548	0.076725484
0.0485	0.0023523	-0.07822548	0.078225484
0.047	0.002209	-0.07972548	0.079725484
0.045	0.002025	-0.08172548	0.081725484
0.045	0.002025	-0.08172548	0.081725484
0.044	0.001936	-0.08272548	0.082725484
0.0425	0.0018063	-0.08422548	0.084225484
0.042	0.001764	-0.08472548	0.084725484
0.04	0.0016	-0.08672548	0.086725484
0.04	0.0016	-0.08672548	0.086725484
0.04	0.0016	-0.08672548	0.086725484
0.04	0.0016	-0.08672548	0.086725484
0.04	0.0016	-0.08672548	0.086725484
0.04	0.0016	-0.08672548	0.086725484
0.031	0.000961	-0.09572548	0.095725484
0.03	0.0009	-0.09672548	0.096725484
0.03	0.0009	-0.09672548	0.096725484
0.03	0.0009	-0.09672548	0.096725484
0.026	0.000676	-0.10072548	0.100725484
0.025	0.000625	-0.10172548	0.101725484
0.025	0.000625	-0.10172548	0.101725484
0.025	0.000625	-0.10172548	0.101725484
0.0245	0.0006003	-0.10222548	0.102225484
0.024	0.000576	-0.10272548	0.102725484
0.0235	0.0005523	-0.10322548	0.103225484
0.023	0.000529	-0.10372548	0.103725484
0.021	0.000441	-0.10572548	0.105725484
0.0205	0.0004203	-0.10622548	0.106225484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.02	0.0004	-0.10672548	0.106725484
0.018	0.000324	-0.10872548	0.108725484
0.017	0.000289	-0.10972548	0.109725484
0.016	0.000256	-0.11072548	0.110725484
0.015	0.000225	-0.11172548	0.111725484
0.01	0.0001	-0.11672548	0.116725484

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.01	0.0001	-0.11672548	0.116725484
0.009	0.000081	-0.11772548	0.117725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484
0.005	0.000025	-0.12172548	0.121725484

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-0.281038	0.0789821	2.142225983	2.142225983
-0.356675	0.127217	2.066588569	2.066588569
-0.901402	0.8125258	1.521861394	1.521861394
-1.021651	1.0437713	1.401612266	1.401612266
-1.120858	1.2563224	1.302405616	1.302405616
-1.133204	1.2841507	1.29005978	1.29005978
-1.171183	1.3716696	1.252080532	1.252080532
-1.203973	1.4495505	1.219290709	1.219290709
-1.203973	1.4495505	1.219290709	1.219290709
-1.207312	1.4576016	1.215951808	1.215951808
-1.22078	1.4903036	1.202483591	1.202483591
-1.224176	1.4986057	1.199088002	1.199088002
-1.224176	1.4986057	1.199088002	1.199088002
-1.224176	1.4986057	1.199088002	1.199088002
-1.231001	1.5153646	1.192262036	1.192262036
-1.244795	1.5495141	1.178468714	1.178468714
-1.269401	1.6113779	1.153862904	1.153862904
-1.287354	1.6572814	1.1359091	1.1359091
-1.309333	1.7143537	1.113930193	1.113930193
-1.313044	1.7240843	1.110219614	1.110219614
-1.331806	1.7737077	1.091457337	1.091457337
-1.360627	1.8513048	1.062636899	1.062636899
-1.372391	1.8834583	1.050872057	1.050872057
-1.378326	1.8997831	1.044937322	1.044937322
-1.386294	1.9218121	1.036969152	1.036969152
-1.394327	1.9441465	1.02893698	1.02893698
-1.410587	1.9897558	1.012676459	1.012676459
-1.414694	2.0013586	1.008569678	1.008569678
-1.418818	2.0130432	1.00444596	1.00444596
-1.418818	2.0130432	1.00444596	1.00444596
-1.427116	2.0366611	0.996147158	0.996147158
-1.427116	2.0366611	0.996147158	0.996147158
-1.427116	2.0366611	0.996147158	0.996147158
-1.427116	2.0366611	0.996147158	0.996147158
-1.431292	2.048596	0.991971786	0.991971786
-1.439695	2.0727221	0.983568375	0.983568375
-1.443923	2.084915	0.979340039	0.979340039
-1.443923	2.084915	0.979340039	0.979340039
-1.44817	2.0971957	0.975093748	0.975093748
-1.456717	2.1220239	0.966546688	0.966546688
-1.456717	2.1220239	0.966546688	0.966546688
-1.458865	2.1282872	0.964398459	0.964398459
-1.461018	2.1345733	0.962245606	0.962245606
-1.469676	2.1599475	0.953587543	0.953587543
-1.469676	2.1599475	0.953587543	0.953587543
-1.469676	2.1599475	0.953587543	0.953587543
-1.469676	2.1599475	0.953587543	0.953587543

-2.423264 =mean
-884.4912 = sum of Xi
2506.0121 = sum of Xi^2
365 = count

362.65693 = SSS
278.48302 = SAD

0.7654279 = alpha

-2.9 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-1.469676	2.1599475	0.953587543	0.953587543
-1.469676	2.1599475	0.953587543	0.953587543
-1.469676	2.1599475	0.953587543	0.953587543
-1.491655	2.2250343	0.931608636	0.931608636
-1.491655	2.2250343	0.931608636	0.931608636
-1.491655	2.2250343	0.931608636	0.931608636
-1.500584	2.2517509	0.922680006	0.922680006
-1.505078	2.2652595	0.918185616	0.918185616
-1.509593	2.2788697	0.913670936	0.913670936
-1.514128	2.2925828	0.909135781	0.909135781
-1.514128	2.2925828	0.909135781	0.909135781
-1.514128	2.2925828	0.909135781	0.909135781
-1.514128	2.2925828	0.909135781	0.909135781
-1.52326	2.3203217	0.900003297	0.900003297
-1.527858	2.3343498	0.895405588	0.895405588
-1.537117	2.3627294	0.886146262	0.886146262
-1.537117	2.3627294	0.886146262	0.886146262
-1.541779	2.3770833	0.881484249	0.881484249
-1.560648	2.4356214	0.862615765	0.862615765
-1.560648	2.4356214	0.862615765	0.862615765
-1.560648	2.4356214	0.862615765	0.862615765
-1.560648	2.4356214	0.862615765	0.862615765
-1.560648	2.4356214	0.862615765	0.862615765
-1.565421	2.450543	0.857842486	0.857842486
-1.572624	2.4731461	0.850639574	0.850639574
-1.575036	2.4807399	0.848227027	0.848227027
-1.60445	2.574261	0.818813142	0.818813142
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.609438	2.5902904	0.813825601	0.813825601
-1.61445	2.6064503	0.808813059	0.808813059
-1.624552	2.6391677	0.798711963	0.798711963
-1.629641	2.6557285	0.793622893	0.793622893
-1.639897	2.6892626	0.783366393	0.783366393
-1.639897	2.6892626	0.783366393	0.783366393
-1.655482	2.7406202	0.767781662	0.767781662
-1.660731	2.7580281	0.762532306	0.762532306
-1.660731	2.7580281	0.762532306	0.762532306
-1.660731	2.7580281	0.762532306	0.762532306
-1.678788	2.8183291	0.744475523	0.744475523
-1.703749	2.9027593	0.719514921	0.719514921

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-1.703749	2.9027593	0.719514921	0.719514921
-1.714798	2.9405336	0.708465085	0.708465085
-1.714798	2.9405336	0.708465085	0.708465085
-1.714798	2.9405336	0.708465085	0.708465085
-1.714798	2.9405336	0.708465085	0.708465085
-1.714798	2.9405336	0.708465085	0.708465085
-1.720369	2.9596711	0.70289404	0.70289404
-1.737271	3.0181115	0.685992229	0.685992229
-1.742969	3.037942	0.680294208	0.680294208
-1.754464	3.0781428	0.668799829	0.668799829
-1.766092	3.11908	0.657171791	0.657171791
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.771957	3.139831	0.651306671	0.651306671
-1.789761	3.2032461	0.633502047	0.633502047
-1.789761	3.2032461	0.633502047	0.633502047
-1.80181	3.2465186	0.621453708	0.621453708
-1.807889	3.2684621	0.615374662	0.615374662
-1.814005	3.2906144	0.609258435	0.609258435
-1.820159	3.3129786	0.603104569	0.603104569
-1.832581	3.3583548	0.590682049	0.590682049
-1.832581	3.3583548	0.590682049	0.590682049
-1.832581	3.3583548	0.590682049	0.590682049
-1.832581	3.3583548	0.590682049	0.590682049
-1.832581	3.3583548	0.590682049	0.590682049
-1.832581	3.3583548	0.590682049	0.590682049
-1.86433	3.475727	0.558933351	0.558933351
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.89712	3.5990642	0.526143528	0.526143528
-1.900459	3.611744	0.522804627	0.522804627
-1.913927	3.663117	0.50933641	0.50933641
-1.931022	3.7288442	0.492241977	0.492241977
-1.931022	3.7288442	0.492241977	0.492241977
-1.937942	3.7556191	0.485321534	0.485321534
-1.966113	3.8655998	0.457150657	0.457150657
-1.966113	3.8655998	0.457150657	0.457150657

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-1.966113	3.8655998	0.457150657	0.457150657
-1.966113	3.8655998	0.457150657	0.457150657
-1.966113	3.8655998	0.457150657	0.457150657
-1.966113	3.8655998	0.457150657	0.457150657
-1.966113	3.8655998	0.457150657	0.457150657
-1.980502	3.9223866	0.442761919	0.442761919
-1.99021	3.9609375	0.433053105	0.433053105
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.040221	4.162501	0.383042685	0.383042685
-2.055725	4.2260053	0.367538498	0.367538498
-2.095571	4.3914175	0.32769259	0.32769259
-2.111965	4.460395	0.31129878	0.31129878
-2.111965	4.460395	0.31129878	0.31129878
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.120264	4.4955175	0.302999977	0.302999977
-2.162823	4.677804	0.260440363	0.260440363
-2.180367	4.7540023	0.242896053	0.242896053
-2.189256	4.7928436	0.234007105	0.234007105
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.207275	4.8720625	0.2159886	0.2159886
-2.258568	5.1011303	0.164695306	0.164695306
-2.263364	5.1228183	0.159899133	0.159899133
-2.277892	5.1887942	0.145371033	0.145371033
-2.282782	5.2110958	0.140481047	0.140481047
-2.282782	5.2110958	0.140481047	0.140481047
-2.287696	5.2335552	0.135567033	0.135567033
-2.292635	5.2561742	0.130628751	0.130628751
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.302585	5.3018981	0.12067842	0.12067842
-2.307598	5.3250068	0.115665878	0.115665878
-2.343407	5.4915568	0.079856426	0.079856426
-2.343407	5.4915568	0.079856426	0.079856426
-2.343407	5.4915568	0.079856426	0.079856426
-2.353878	5.5407435	0.069385126	0.069385126
-2.359155	5.5656144	0.064108069	0.064108069
-2.380547	5.6670023	0.042716879	0.042716879
-2.396896	5.7451093	0.026367741	0.026367741
-2.402405	5.7715518	0.020858085	0.020858085
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.407946	5.7982021	0.015317905	0.015317905
-2.419119	5.8521363	0.004144604	0.004144604
-2.441847	5.9626176	-0.01858365	0.018583647
-2.465104	6.0767378	-0.04184051	0.041840509
-2.465104	6.0767378	-0.04184051	0.041840509
-2.501036	6.2551812	-0.07777252	0.077772519
-2.513306	6.3167077	-0.09004261	0.090042611
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.525729	6.3793052	-0.10246513	0.102465131
-2.551046	6.507838	-0.12778294	0.127782939
-2.56395	6.5738389	-0.14068634	0.140686344
-2.577022	6.6410421	-0.15375843	0.153758426
-2.583623	6.6751059	-0.16035911	0.16035911
-2.60369	6.7792026	-0.18042667	0.180426673
-2.61047	6.814553	-0.18720636	0.18720636
-2.617296	6.8502375	-0.19403232	0.194032325
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.65926	7.0716639	-0.23599652	0.235996524
-2.733368	7.4713007	-0.3101045	0.310104496
-2.733368	7.4713007	-0.3101045	0.310104496
-2.733368	7.4713007	-0.3101045	0.310104496
-2.733368	7.4713007	-0.3101045	0.310104496
-2.733368	7.4713007	-0.3101045	0.310104496
-2.733368	7.4713007	-0.3101045	0.310104496
-2.748872	7.5562983	-0.32560868	0.325608682
-2.748872	7.5562983	-0.32560868	0.325608682
-2.764621	7.6431268	-0.34135704	0.341357039
-2.780621	7.7318526	-0.35735738	0.357357381
-2.788718	7.7769487	-0.36545459	0.365454591
-2.796881	7.8225456	-0.3736179	0.373617902
-2.813411	7.9152799	-0.3901472	0.390147204
-2.813411	7.9152799	-0.3901472	0.390147204
-2.813411	7.9152799	-0.3901472	0.390147204
-2.813411	7.9152799	-0.3901472	0.390147204
-2.813411	7.9152799	-0.3901472	0.390147204
-2.813411	7.9152799	-0.3901472	0.390147204
-2.820939	7.9576967	-0.39767547	0.39767547
-2.830218	8.010133	-0.40695432	0.406954322
-2.830218	8.010133	-0.40695432	0.406954322
-2.838729	8.0583796	-0.41546501	0.415465012
-2.864704	8.2065291	-0.4414405	0.441440498
-2.873515	8.2570864	-0.45025113	0.450251128
-2.900422	8.4124483	-0.47715858	0.477158581
-2.900422	8.4124483	-0.47715858	0.477158581
-2.900422	8.4124483	-0.47715858	0.477158581
-2.97593	8.8561573	-0.55266613	0.552666133
-2.986079	8.9166679	-0.5628155	0.562815503

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-2.995732	8.9744119	-0.57246876	0.57246876
-3.026191	9.1578349	-0.60292797	0.602927968
-3.057608	9.3489647	-0.63434416	0.634344164
-3.101093	9.6167765	-0.67782928	0.677829276
-3.101093	9.6167765	-0.67782928	0.677829276
-3.123566	9.7566623	-0.70030213	0.700302132
-3.158251	9.9745507	-0.73498769	0.73498769
-3.170086	10.049443	-0.74682215	0.746822148
-3.218876	10.361162	-0.79561231	0.795612312
-3.218876	10.361162	-0.79561231	0.795612312
-3.218876	10.361162	-0.79561231	0.795612312
-3.218876	10.361162	-0.79561231	0.795612312
-3.218876	10.361162	-0.79561231	0.795612312
-3.218876	10.361162	-0.79561231	0.795612312
-3.473768	12.067065	-1.05050456	1.050504561
-3.506558	12.295948	-1.08329438	1.083294384
-3.506558	12.295948	-1.08329438	1.083294384
-3.506558	12.295948	-1.08329438	1.083294384
-3.649659	13.320009	-1.22639523	1.226395228
-3.688879	13.607832	-1.26561594	1.265615941
-3.688879	13.607832	-1.26561594	1.265615941
-3.688879	13.607832	-1.26561594	1.265615941
-3.709082	13.75729	-1.28581865	1.285818648
-3.729701	13.910673	-1.30643794	1.306437935
-3.750755	14.068162	-1.32749134	1.327491345
-3.772261	14.229954	-1.34899755	1.34899755
-3.863233	14.924568	-1.43996933	1.439969328
-3.88733	15.111338	-1.46406688	1.46406688
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-3.912023	15.303924	-1.48875949	1.488759492
-4.017384	16.13937	-1.59412001	1.594120008
-4.074542	16.601892	-1.65127842	1.651278422
-4.135167	17.099602	-1.71190304	1.711903044
-4.199705	17.637523	-1.77644156	1.776441565
-4.60517	21.207592	-2.18190667	2.181906673

Table 45. Selenium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.60517	21.207592	-2.18190667	2.181906673
-4.710531	22.189099	-2.28726719	2.287267188
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853
-5.298317	28.072167	-2.87505385	2.875053853

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis

Selenium	Normal (xi-avg)^3
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.005	-0.001803618
0.009	-0.001631592
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.01	-0.001590366
0.015	-0.001394623
0.016	-0.001357509
0.017	-0.00132106
0.018	-0.001285269
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.02	-0.001215638
0.0205	-0.001198633
0.021	-0.001181787
0.023	-0.00111598
0.0235	-0.001099919

	Normal
standard deviation =	0.0931432
mean =	0.127
count =	365
sum of (xi-avg)^3 =	0.512824
1/n =	0.0027397
standard deviation cubed =	0.0008081
((n-1)/n)^(3/2) =	0.9958932
coef. of skewness =	1.7
acceptable range -1 to 1	**Fail**

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.024	-0.001084013
0.0245	-0.001068261
0.025	-0.001052663
0.025	-0.001052663
0.025	-0.001052663
0.026	-0.001021923
0.03	-0.000904946
0.03	-0.000904946
0.03	-0.000904946
0.031	-0.000877168
0.04	-0.000652289
0.04	-0.000652289
0.04	-0.000652289
0.04	-0.000652289
0.04	-0.000652289
0.04	-0.000652289
0.042	-0.000608194
0.0425	-0.00059749
0.044	-0.000566132
0.045	-0.000545849
0.045	-0.000545849
0.047	-0.000506747
0.0485	-0.000478679
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.05	-0.000451668
0.050485	-0.000443156
0.051	-0.000434236
0.055	-0.000368995
0.055	-0.000368995
0.055	-0.000368995
0.0565	-0.000346325
0.057	-0.00033898
0.0585	-0.00031757
0.059	-0.000310639
0.059	-0.000310639
0.05955	-0.000303132
0.06	-0.000297081
0.06	-0.000297081
0.06	-0.000297081
0.06	-0.000297081
0.06	-0.000297081
0.06	-0.000297081
0.061	-0.000283924
0.0615	-0.000277493
0.062	-0.00027116
0.063	-0.000258785
0.064	-0.000246793
0.064	-0.000246793
0.065	-0.000235176
0.065	-0.000235176
0.065	-0.000235176
0.065	-0.000235176

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.065	-0.000235176
0.065	-0.000235176
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.07	-0.00018253
0.073	-0.000155075
0.0735	-0.000150785
0.074	-0.000146576
0.0755	-0.000134418
0.076	-0.00013052
0.077	-0.000122952
0.078	-0.000115683
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.08	-0.000102014
0.081	-9.56038E-05
0.082	-8.94675E-05
0.085	-7.26447E-05
0.085	-7.26447E-05
0.087	-6.26913E-05
0.089	-5.36914E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.09	-4.95339E-05
0.0905	-4.75382E-05
0.091	-4.55968E-05
0.0925	-4.00912E-05
0.0945	-3.34656E-05
0.095	-3.19319E-05
0.096	-2.90066E-05
0.096	-2.90066E-05
0.096	-2.90066E-05
0.0995	-2.01803E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.1	-1.90887E-05
0.101	-1.70251E-05
0.1015	-1.60516E-05
0.102	-1.51159E-05
0.102	-1.51159E-05
0.1025	-1.42173E-05
0.104	-1.17365E-05
0.1045	-1.09788E-05
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.11	-4.67882E-06
0.112	-3.19307E-06
0.113	-2.58573E-06
0.115	-1.6121E-06
0.12	-3.04208E-07
0.12	-3.04208E-07
0.12	-3.04208E-07
0.12	-3.04208E-07
0.12	-3.04208E-07
0.12	-3.04208E-07
0.12	-3.04208E-07
0.121	-1.87688E-07
0.121	-1.87688E-07
0.123	-5.17069E-08
0.128	2.07031E-09
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.13	3.51108E-08
0.1366667	9.82458E-07
0.138	1.43316E-06
0.14	2.33914E-06
0.14	2.33914E-06
0.14	2.33914E-06
0.14	2.33914E-06

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.14	2.33914E-06
0.14	2.33914E-06
0.14	2.33914E-06
0.144	5.15487E-06
0.145	6.10292E-06
0.145	6.10292E-06
0.1475	8.96588E-06
0.1495	1.18127E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.15	1.26079E-05
0.155	2.2604E-05
0.16	3.68413E-05
0.16	3.68413E-05
0.16	3.68413E-05
0.16	3.68413E-05
0.16	3.68413E-05
0.16	3.68413E-05
0.162	4.38918E-05
0.163	4.77315E-05
0.164	5.17888E-05
0.165	5.60698E-05
0.167	6.53267E-05
0.167	6.53267E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.17	8.10395E-05
0.171	8.67884E-05
0.173	9.9089E-05
0.175	0.0001125
0.176	0.000119637
0.179	0.000142847
0.18	0.000151202
0.18	0.000151202
0.18	0.000151202
0.18	0.000151202
0.18	0.000151202
0.182	0.000168879
0.182	0.000168879
0.1866	0.000214648
0.19	0.00025333
0.19	0.00025333
0.19	0.00025333
0.191	0.000265532
0.194	0.000304475
0.194	0.000304475
0.196	0.000332446

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.197	0.000347051
0.199	0.000377534
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.2	0.000393422
0.201	0.00040975
0.207	0.000517289
0.2075	0.000527015
0.209	0.000556924
0.21	0.000577479
0.21	0.000577479
0.21	0.000577479
0.21	0.000577479
0.21	0.000577479
0.214	0.000664756
0.215	0.000687869
0.215	0.000687869
0.217	0.000735691
0.218	0.000760411
0.22	0.000811501
0.22	0.000811501
0.22	0.000811501
0.22	0.000811501
0.221	0.000837882
0.222	0.000864829
0.223	0.000892348
0.225	0.000949124
0.225	0.000949124
0.225	0.000949124
0.23	0.001101487
0.23	0.001101487
0.23	0.001101487
0.23	0.001101487
0.23	0.001101487
0.23	0.001101487
0.23	0.001101487
0.232	0.001166728
0.2325	0.001183432
0.233	0.001200293
0.233	0.001200293
0.235	0.001269342
0.236	0.001304838
0.236	0.001304838
0.237	0.00134099
0.239	0.001415284
0.24	0.001453438
0.24	0.001453438
0.24	0.001453438
0.24	0.001453438
0.242	0.001531792
0.242	0.001531792

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Normal (xi-avg)^3
0.243	0.001572004
0.244	0.001612913
0.248	0.001783646
0.25	0.001873354
0.252	0.001966021
0.2535	0.002037492
0.2565	0.002185588
0.264	0.002586841
0.269	0.002879926
0.27	0.00294108
0.276	0.003326266
0.281	0.00367183
0.288	0.004194665
0.292	0.004514583
0.294	0.004680469
0.294	0.004680469
0.294	0.004680469
0.295	0.004764914
0.299	0.005112851
0.3	0.005202404
0.3	0.005202404
0.31	0.006156108
0.322	0.007446235
0.326	0.007913257
0.36	0.012694099
0.406	0.021781808
0.7	0.188403041
0.755	0.247998088

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-5.298317	-23.7650073
-4.710531	-11.96604688
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.60517	-10.3874396
-4.199705	-5.605995933
-4.135167	-5.016923655
-4.074542	-4.502574602
-4.017384	-4.051007414
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.912023	-3.299693723
-3.88733	-3.138215392
-3.863233	-2.9857932
-3.772261	-2.454898173
-3.750755	-2.339349413

Lognormal	
standard deviation =	0.9981534
mean =	-2.423
count =	365
sum of (xi-avg)^3 =	-391.1539
1/n =	0.0027397
standard deviation cubed =	0.9944705
((n-1)/n)^(3/2) =	0.9958932
coef. of skewness =	-1.1
acceptable range -1 to 1	**Fail**

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-3.729701	-2.229802243
-3.709082	-2.125882027
-3.688879	-2.027242997
-3.688879	-2.027242997
-3.688879	-2.027242997
-3.649659	-1.844553923
-3.506558	-1.271274908
-3.506558	-1.271274908
-3.506558	-1.271274908
-3.473768	-1.159294639
-3.218876	-0.503621758
-3.218876	-0.503621758
-3.218876	-0.503621758
-3.218876	-0.503621758
-3.218876	-0.503621758
-3.218876	-0.503621758
-3.170086	-0.416535064
-3.158251	-0.397045425
-3.123566	-0.343444326
-3.101093	-0.311430374
-3.101093	-0.311430374
-3.057608	-0.255255346
-3.026191	-0.219177662
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.995732	-0.187609738
-2.986079	-0.178278165
-2.97593	-0.168806263
-2.900422	-0.108639614
-2.900422	-0.108639614
-2.900422	-0.108639614
-2.873515	-0.091277645
-2.864704	-0.086023383
-2.838729	-0.071713904
-2.830218	-0.067396446
-2.830218	-0.067396446
-2.820939	-0.062890697
-2.813411	-0.059386194
-2.813411	-0.059386194
-2.813411	-0.059386194
-2.813411	-0.059386194
-2.813411	-0.059386194
-2.813411	-0.059386194
-2.796881	-0.052153449
-2.788718	-0.04880904
-2.780621	-0.045636073
-2.764621	-0.039776502
-2.748872	-0.034521363

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-2.748872	-0.034521363
-2.733368	-0.029821136
-2.733368	-0.029821136
-2.733368	-0.029821136
-2.733368	-0.029821136
-2.733368	-0.029821136
-2.733368	-0.029821136
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.65926	-0.013143675
-2.617296	-0.007305034
-2.61047	-0.006560875
-2.60369	-0.005873571
-2.583623	-0.004123642
-2.577022	-0.003635103
-2.56395	-0.002784555
-2.551046	-0.002086501
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.525729	-0.001075792
-2.513306	-0.000730036
-2.501036	-0.000470412
-2.465104	-7.32472E-05
-2.465104	-7.32472E-05
-2.441847	-6.4179E-06
-2.419119	7.11949E-08
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.407946	3.59417E-06
-2.402405	9.07451E-06
-2.396896	1.83324E-05

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-2.380547	7.79468E-05
-2.359155	0.000263474
-2.353878	0.000334041
-2.343407	0.000509248
-2.343407	0.000509248
-2.343407	0.000509248
-2.307598	0.001547447
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.302585	0.001757474
-2.292635	0.002229032
-2.287696	0.002491508
-2.282782	0.002772383
-2.282782	0.002772383
-2.277892	0.003072088
-2.263364	0.004088258
-2.258568	0.004467285
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.207275	0.0100761
-2.189256	0.012814071
-2.180367	0.014330501
-2.162823	0.017665457
-2.120264	0.027818121
-2.120264	0.027818121
-2.120264	0.027818121
-2.120264	0.027818121
-2.120264	0.027818121
-2.120264	0.027818121
-2.120264	0.027818121
-2.111965	0.030167009
-2.111965	0.030167009
-2.095571	0.035188428
-2.055725	0.049648772

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-2.040221	0.056200673
-1.99021	0.081212611
-1.980502	0.086798213
-1.966113	0.095538418
-1.966113	0.095538418
-1.966113	0.095538418
-1.966113	0.095538418
-1.966113	0.095538418
-1.966113	0.095538418
-1.966113	0.095538418
-1.937942	0.114311174
-1.931022	0.119271296
-1.931022	0.119271296
-1.913927	0.132133874
-1.900459	0.142895406
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.89712	0.145650741
-1.86433	0.174614407
-1.832581	0.206092088
-1.832581	0.206092088
-1.832581	0.206092088
-1.832581	0.206092088
-1.832581	0.206092088
-1.832581	0.206092088
-1.820159	0.219370314
-1.814005	0.226154197
-1.807889	0.233033754
-1.80181	0.24000835
-1.789761	0.254240109
-1.789761	0.254240109
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537
-1.771957	0.276284537

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-1.766092	0.283815911
-1.754464	0.299149623
-1.742969	0.314840302
-1.737271	0.322817885
-1.720369	0.347271852
-1.714798	0.355594763
-1.714798	0.355594763
-1.714798	0.355594763
-1.714798	0.355594763
-1.714798	0.355594763
-1.703749	0.372494114
-1.703749	0.372494114
-1.678788	0.412620945
-1.660731	0.443378617
-1.660731	0.443378617
-1.660731	0.443378617
-1.655482	0.452598599
-1.639897	0.480722897
-1.639897	0.480722897
-1.629641	0.499853298
-1.624552	0.509530948
-1.61445	0.529108166
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.609438	0.539006549
-1.60445	0.548977334
-1.575036	0.610290092
-1.572624	0.61551232
-1.565421	0.631280908
-1.560648	0.64187753
-1.560648	0.64187753
-1.560648	0.64187753
-1.560648	0.64187753
-1.560648	0.64187753
-1.541779	0.684926027
-1.537117	0.695850959
-1.537117	0.695850959
-1.527858	0.717892474
-1.52326	0.729008012
-1.514128	0.751426058
-1.514128	0.751426058
-1.514128	0.751426058
-1.514128	0.751426058
-1.509593	0.762727544
-1.505078	0.774089996
-1.500584	0.785512913

Table 46. Selenium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Selenium	Lognormal (xi-avg)^3
-1.491655	0.808538153
-1.491655	0.808538153
-1.491655	0.808538153
-1.469676	0.867125
-1.469676	0.867125
-1.469676	0.867125
-1.469676	0.867125
-1.469676	0.867125
-1.469676	0.867125
-1.469676	0.867125
-1.461018	0.890959185
-1.458865	0.896952663
-1.456717	0.902959997
-1.456717	0.902959997
-1.44817	0.927126759
-1.443923	0.939291801
-1.443923	0.939291801
-1.439695	0.951510684
-1.431292	0.976108198
-1.427116	0.988485949
-1.427116	0.988485949
-1.427116	0.988485949
-1.427116	0.988485949
-1.418818	1.013397269
-1.418818	1.013397269
-1.414694	1.02592998
-1.410587	1.038513493
-1.394327	1.089347218
-1.386294	1.115058137
-1.378326	1.140960798
-1.372391	1.160511725
-1.360627	1.199926588
-1.331806	1.300230335
-1.313044	1.368442919
-1.309333	1.38220967
-1.287354	1.465651565
-1.269401	1.536252608
-1.244795	1.636643811
-1.231001	1.694787088
-1.224176	1.72406316
-1.224176	1.72406316
-1.224176	1.72406316
-1.22078	1.738751332
-1.207312	1.797831924
-1.203973	1.812682714
-1.203973	1.812682714
-1.171183	1.962893733
-1.133204	2.146987452
-1.120858	2.209219054
-1.021651	2.753491044
-0.901402	3.524725498
-0.356675	8.825962312
-0.281038	9.830958163

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.005	1	0.00273224	-2.778324	-0.013891622	7.7190866
0.005	2	0.00546448	-2.544948	-0.01272474	6.4767607
0.005	3	0.00819672	-2.400047	-0.012000237	5.7602274
0.005	4	0.01092896	-2.292836	-0.011464181	5.2570976
0.005	5	0.0136612	-2.206871	-0.011034354	4.8702783
0.005	6	0.01639344	-2.134675	-0.010673375	4.5568374
0.005	7	0.01912568	-2.072147	-0.010360736	4.2937942
0.005	8	0.02185792	-2.016805	-0.010084023	4.0675004
0.009	9	0.02459016	-1.967019	-0.017703169	3.8691628
0.01	10	0.0273224	-1.92169	-0.019216895	3.6928907
0.01	11	0.03005464	-1.879989	-0.018799892	3.5343594
0.01	12	0.03278689	-1.841327	-0.018413266	3.3904836
0.01	13	0.03551913	-1.805229	-0.018052287	3.2588508
0.01	14	0.03825137	-1.77135	-0.017713501	3.1376811
0.01	15	0.04098361	-1.739381	-0.017393813	3.0254474
0.01	16	0.04371585	-1.709104	-0.017091043	2.9210373
0.01	17	0.04644809	-1.680314	-0.016803142	2.8234558
0.01	18	0.04918033	-1.652852	-0.01652852	2.7319198
0.01	19	0.05191257	-1.626586	-0.016265858	2.6457814
0.01	20	0.05464481	-1.601393	-0.016013928	2.5644589
0.01	21	0.05737705	-1.577182	-0.01577182	2.4875032
0.01	22	0.06010929	-1.553858	-0.015538581	2.4144749
0.01	23	0.06284153	-1.531348	-0.015313481	2.3450269
0.01	24	0.06557377	-1.509593	-0.015095929	2.2788709
0.01	25	0.06830601	-1.488529	-0.014885291	2.2157187
0.01	26	0.07103825	-1.468102	-0.014681018	2.1553229
0.01	27	0.07377049	-1.44827	-0.014482703	2.0974868
0.01	28	0.07650273	-1.428998	-0.014289981	2.0420355
0.01	29	0.07923497	-1.410235	-0.014102352	1.9887633
0.01	30	0.08196721	-1.391959	-0.013919589	1.9375496
0.01	31	0.08469945	-1.374137	-0.013741374	1.8882535
0.015	32	0.08743169	-1.356743	-0.020351149	1.8407523
0.016	33	0.09016393	-1.339745	-0.021435917	1.7949162
0.017	34	0.09289617	-1.323128	-0.022493182	1.7506686
0.018	35	0.09562842	-1.306871	-0.02352368	1.7079121
0.02	36	0.09836066	-1.29095	-0.025819008	1.666553
0.02	37	0.1010929	-1.275348	-0.025506961	1.6265126
0.02	38	0.10382514	-1.260055	-0.025201098	1.5877383
0.02	39	0.10655738	-1.245048	-0.024900964	1.5501451
0.02	40	0.10928962	-1.230314	-0.024606288	1.5136735
0.02	41	0.11202186	-1.215847	-0.024316932	1.478283
0.02	42	0.1147541	-1.201627	-0.024032533	1.4439067
0.02	43	0.11748634	-1.187645	-0.023752909	1.4105018
0.0205	44	0.12021858	-1.173894	-0.024064825	1.3780269
0.021	45	0.12295082	-1.160361	-0.024367573	1.3464368
0.023	46	0.12568306	-1.147037	-0.02638184	1.3156928
0.0235	47	0.1284153	-1.133915	-0.026646998	1.2857628
0.024	48	0.13114754	-1.120984	-0.026903617	1.2566052
0.0245	49	0.13387978	-1.108237	-0.027151818	1.2281903
0.025	50	0.13661202	-1.095668	-0.027391707	1.200489
0.025	51	0.13934426	-1.08327	-0.02708174	1.173473
0.025	52	0.1420765	-1.071037	-0.026775922	1.14712
0.026	53	0.14480874	-1.058961	-0.027532988	1.1213985
0.03	54	0.14754098	-1.047038	-0.031411128	1.0962877
0.03	55	0.15027322	-1.035262	-0.031057857	1.0717672
0.03	56	0.15300546	-1.023627	-0.030708816	1.0478126
0.031	57	0.1557377	-1.012131	-0.031376067	1.0244095

Selenium - normal
982.92282 = (sum of Mi*Xi)^2
364 = count -1
0.0086757 = standard deviation ^2
354.90912 = sum of Mi^2

0.88 = W statistic

FAIL

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.04	58	0.15846995	-1.000767	-0.040030682	1.0015347
0.04	59	0.16120219	-0.98953	-0.039581209	0.9791701
0.04	60	0.16393443	-0.978416	-0.039136648	0.9572983
0.04	61	0.16666667	-0.96742	-0.038696817	0.9359023
0.04	62	0.16939891	-0.956543	-0.038261715	0.9149742
0.04	63	0.17213115	-0.945777	-0.037831069	0.8944936
0.042	64	0.17486339	-0.93512	-0.039275028	0.8744489
0.0425	65	0.17759563	-0.924567	-0.03929411	0.8548247
0.044	66	0.18032787	-0.914117	-0.040221157	0.8356103
0.045	67	0.18306011	-0.903765	-0.04066942	0.816791
0.045	68	0.18579235	-0.893508	-0.040207863	0.7983567
0.047	69	0.18852459	-0.883347	-0.041517296	0.7803014
0.0485	70	0.19125683	-0.873274	-0.042353793	0.7626076
0.05	71	0.19398907	-0.86329	-0.043164505	0.7452698
0.05	72	0.19672131	-0.85339	-0.042669512	0.7282749
0.05	73	0.19945355	-0.843575	-0.042178726	0.711618
0.05	74	0.20218579	-0.833838	-0.041691919	0.6952865
0.05	75	0.20491803	-0.824182	-0.041209091	0.6792757
0.05	76	0.20765027	-0.8146	-0.040730015	0.6635736
0.05	77	0.21038251	-0.805094	-0.04025469	0.648176
0.05	78	0.21311475	-0.79566	-0.039783004	0.6330749
0.050485	79	0.21584699	-0.786297	-0.039696195	0.6182627
0.051	80	0.21857923	-0.777	-0.039626975	0.6037282
0.055	81	0.22131148	-0.76777	-0.042227373	0.5894714
0.055	82	0.22404372	-0.758607	-0.041723399	0.575485
0.055	83	0.22677596	-0.749505	-0.041222802	0.5617585
0.0565	84	0.2295082	-0.740467	-0.041836407	0.5482919
0.057	85	0.23224044	-0.731488	-0.041694839	0.5350753
0.0585	86	0.23497268	-0.722569	-0.042270259	0.5221053
0.059	87	0.23770492	-0.713704	-0.042108558	0.5093739
0.059	88	0.24043716	-0.704897	-0.041588926	0.4968798
0.05955	89	0.2431694	-0.696143	-0.041455325	0.4846153
0.06	90	0.24590164	-0.687444	-0.041246631	0.472579
0.06	91	0.24863388	-0.678795	-0.040727673	0.460762
0.06	92	0.25136612	-0.670198	-0.040211853	0.4491648
0.06	93	0.25409836	-0.661648	-0.039698898	0.4377785
0.06	94	0.2568306	-0.653147	-0.039188808	0.4266007
0.06	95	0.25956284	-0.644693	-0.038681583	0.4156291
0.061	96	0.26229508	-0.636285	-0.038813371	0.4048583
0.0615	97	0.26502732	-0.627922	-0.038617201	0.394286
0.062	98	0.26775956	-0.619602	-0.038415346	0.3839071
0.063	99	0.2704918	-0.611326	-0.038513535	0.3737194
0.064	100	0.27322404	-0.60309	-0.038597791	0.3637181
0.064	101	0.27595628	-0.594896	-0.03807334	0.3539012
0.065	102	0.27868852	-0.586742	-0.038138251	0.3442665
0.065	103	0.28142077	-0.578625	-0.03761063	0.334807
0.065	104	0.28415301	-0.570549	-0.03708567	0.3255259
0.065	105	0.28688525	-0.562507	-0.036562926	0.3164136
0.065	106	0.28961749	-0.554503	-0.036042695	0.3074736
0.065	107	0.29234973	-0.546534	-0.035524681	0.2986989
0.07	108	0.29508197	-0.538598	-0.037701875	0.290088
0.07	109	0.29781421	-0.530697	-0.037148789	0.2816393
0.07	110	0.30054645	-0.52283	-0.03659809	0.2733511
0.07	111	0.30327869	-0.514995	-0.036049619	0.2652194
0.07	112	0.30601093	-0.507189	-0.035503217	0.2572405
0.07	113	0.30874317	-0.499416	-0.034959123	0.2494164
0.07	114	0.31147541	-0.491673	-0.034417099	0.2417422
0.07	115	0.31420765	-0.483958	-0.033877063	0.2342154
0.073	116	0.31693989	-0.476273	-0.034767916	0.2268358
0.0735	117	0.31967213	-0.468616	-0.034443277	0.219601
0.074	118	0.32240437	-0.460986	-0.034113	0.2125085
0.0755	119	0.32513661	-0.453383	-0.034230425	0.2055562
0.076	120	0.32786885	-0.445806	-0.033881247	0.1987429
0.077	121	0.33060109	-0.438254	-0.033745532	0.1920663
0.078	122	0.33333333	-0.430728	-0.033596752	0.1855263

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.08	123	0.33606557	-0.423224	-0.033857941	0.1791188
0.08	124	0.33879781	-0.415746	-0.033259676	0.1728447
0.08	125	0.34153005	-0.40829	-0.032663229	0.166701
0.08	126	0.3442623	-0.400858	-0.032068601	0.1606867
0.08	127	0.34699454	-0.393447	-0.031475793	0.1548009
0.08	128	0.34972678	-0.386058	-0.030884621	0.1490406
0.08	129	0.35245902	-0.378691	-0.030295269	0.1434068
0.08	130	0.35519126	-0.371342	-0.029707371	0.137895
0.08	131	0.3579235	-0.364015	-0.029121202	0.1325069
0.08	132	0.36065574	-0.356706	-0.028536488	0.1272392
0.081	133	0.36338798	-0.349418	-0.028302828	0.1220927
0.082	134	0.36612022	-0.342147	-0.028056083	0.1170648
0.085	135	0.36885246	-0.334894	-0.028466002	0.1121541
0.085	136	0.3715847	-0.327659	-0.027851024	0.1073605
0.087	137	0.37431694	-0.320441	-0.027878378	0.1026825
0.089	138	0.37704918	-0.31324	-0.027878378	0.0981194
0.09	139	0.37978142	-0.306055	-0.027544968	0.0936698
0.09	140	0.38251366	-0.298886	-0.02689975	0.0893329
0.09	141	0.3852459	-0.291732	-0.026255861	0.0851074
0.09	142	0.38797814	-0.284592	-0.025613303	0.0809928
0.09	143	0.39071038	-0.277469	-0.024972178	0.0769888
0.09	144	0.39344262	-0.270358	-0.024332178	0.0730932
0.09	145	0.39617486	-0.26326	-0.023693406	0.0693059
0.09	146	0.3989071	-0.256177	-0.023055964	0.0656268
0.09	147	0.40163934	-0.249106	-0.022419545	0.0620538
0.09	148	0.40437158	-0.242048	-0.021784354	0.0585874
0.09	149	0.40710383	-0.235002	-0.021150186	0.055226
0.09	150	0.40983607	-0.227967	-0.020517041	0.051969
0.09	151	0.41256831	-0.220944	-0.019884919	0.0488161
0.0905	152	0.41530055	-0.213931	-0.019360787	0.0457666
0.091	153	0.41803279	-0.206928	-0.018830469	0.0428193
0.0925	154	0.42076503	-0.199936	-0.018494126	0.0399746
0.0945	155	0.42349727	-0.192955	-0.018234246	0.0372316
0.095	156	0.42622951	-0.185983	-0.017668344	0.0345895
0.096	157	0.42896175	-0.179018	-0.017185739	0.0320475
0.096	158	0.43169399	-0.172063	-0.016518024	0.0296056
0.096	159	0.43442623	-0.165116	-0.015851183	0.0272635
0.0995	160	0.43715847	-0.158177	-0.015738616	0.02502
0.1	161	0.43989071	-0.151247	-0.01512467	0.0228756
0.1	162	0.44262295	-0.144322	-0.014432203	0.0208288
0.1	163	0.44535519	-0.137405	-0.013740532	0.0188802
0.1	164	0.44808743	-0.130494	-0.01304943	0.0170288
0.1	165	0.45081967	-0.123591	-0.012359124	0.0152748
0.1	166	0.45355191	-0.116693	-0.011669272	0.0136172
0.1	167	0.45628415	-0.109799	-0.010979875	0.0120558
0.1	168	0.45901639	-0.102912	-0.01029116	0.0105908
0.1	169	0.46174863	-0.096029	-0.0096029	0.0092216
0.1	170	0.46448087	-0.089151	-0.008915094	0.0079479
0.1	171	0.46721311	-0.082277	-0.008227744	0.0067696
0.1	172	0.46994536	-0.075407	-0.007540734	0.0056863
0.1	173	0.4726776	-0.068541	-0.006854066	0.0046978
0.1	174	0.47540984	-0.061677	-0.006167738	0.0038041
0.1	175	0.47814208	-0.054818	-0.005481752	0.003005
0.1	176	0.48087432	-0.04796	-0.004795993	0.0023002
0.1	177	0.48360656	-0.041103	-0.004110348	0.0016895
0.101	178	0.4863388	-0.03425	-0.003459294	0.0011731
0.1015	179	0.48907104	-0.027399	-0.002780951	0.0007507
0.102	180	0.49180328	-0.020548	-0.002095871	0.0004222
0.102	181	0.49453552	-0.013698	-0.001397209	0.0001876
0.1025	182	0.49726776	-0.006848	-0.000701971	4.69E-05
0.104	183	0.5	0	0	0
0.1045	184	0.50273224	0.0068485	0.000715668	4.69E-05
0.11	185	0.50546448	0.0136981	0.001506794	0.0001876
0.11	186	0.50819672	0.0205478	0.002260253	0.0004222
0.11	187	0.51092896	0.0273985	0.003013838	0.0007507

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.11	188	0.5136612	0.0342504	0.003767548	0.0011731
0.11	189	0.51639344	0.0411035	0.004521382	0.0016895
0.11	190	0.51912568	0.0479599	0.005275592	0.0023002
0.11	191	0.52185792	0.0548175	0.006029927	0.003005
0.11	192	0.52459016	0.0616774	0.006784512	0.0038041
0.112	193	0.5273224	0.0685407	0.007676554	0.0046978
0.113	194	0.53005464	0.0754073	0.00852103	0.0056863
0.115	195	0.53278689	0.0822774	0.009461905	0.0067696
0.12	196	0.53551913	0.0891509	0.010698113	0.0079479
0.12	197	0.53825137	0.096029	0.01152348	0.0092216
0.12	198	0.54098361	0.1029116	0.012349392	0.0105908
0.12	199	0.54371585	0.1097987	0.01317585	0.0120558
0.12	200	0.54644809	0.1166927	0.014003126	0.0136172
0.12	201	0.54918033	0.1235912	0.014830948	0.0152748
0.12	202	0.55191257	0.1304943	0.015659316	0.0170288
0.121	203	0.55464481	0.1374053	0.016626044	0.0188802
0.121	204	0.55737705	0.144322	0.017462966	0.0208288
0.123	205	0.56010929	0.1512467	0.018603344	0.0228756
0.128	206	0.56284153	0.158177	0.020246662	0.02502
0.13	207	0.56557377	0.1651165	0.021465144	0.0272635
0.13	208	0.56830601	0.1720628	0.022368158	0.0296056
0.13	209	0.57103825	0.1790181	0.023272355	0.0320475
0.13	210	0.57377049	0.1859826	0.024177734	0.0345895
0.13	211	0.57650273	0.192955	0.025084148	0.0372316
0.13	212	0.57923497	0.1999365	0.025991744	0.0399746
0.13	213	0.58196721	0.2069282	0.02690067	0.0428193
0.13	214	0.58469945	0.2139313	0.027811075	0.0457666
0.13	215	0.58743169	0.2209435	0.028722661	0.0488161
0.1366667	216	0.59016393	0.2279671	0.031155507	0.051969
0.138	217	0.59289617	0.2350021	0.032430285	0.055226
0.14	218	0.59562842	0.2420484	0.033886772	0.0585874
0.14	219	0.59836066	0.2491061	0.034874847	0.0620538
0.14	220	0.6010929	0.2561774	0.035864832	0.0656268
0.14	221	0.60382514	0.2632601	0.036856409	0.0693059
0.14	222	0.60655738	0.2703575	0.037850054	0.0730932
0.14	223	0.60928962	0.2774686	0.03884561	0.0769888
0.14	224	0.61202186	0.2845923	0.039842917	0.0809928
0.144	225	0.6147541	0.2917318	0.042009378	0.0851074
0.145	226	0.61748634	0.2988861	0.043338486	0.0893329
0.145	227	0.62021858	0.3060552	0.044378004	0.0936698
0.1475	228	0.62295082	0.3132402	0.046202931	0.0981194
0.1495	229	0.62568306	0.3204411	0.047905949	0.1026825
0.15	230	0.6284153	0.3276591	0.049148866	0.1073605
0.15	231	0.63114754	0.3348941	0.050234121	0.1121541
0.15	232	0.63387978	0.3421474	0.051322104	0.1170648
0.15	233	0.63661202	0.3494176	0.052412645	0.1220927
0.15	234	0.63934426	0.3567061	0.053505914	0.1272392
0.15	235	0.6420765	0.364015	0.054602253	0.1325069
0.15	236	0.64480874	0.3713421	0.055701321	0.137895
0.15	237	0.64754098	0.3786909	0.056803628	0.1434068
0.15	238	0.65027322	0.3860578	0.057908665	0.1490406
0.155	239	0.65300546	0.3934474	0.060984348	0.1548009
0.16	240	0.6557377	0.4008575	0.064137203	0.1606867
0.16	241	0.65846995	0.4082904	0.065326458	0.166701
0.16	242	0.66120219	0.4157459	0.066519351	0.1728447
0.16	243	0.66393443	0.4232243	0.067715882	0.1791188
0.16	244	0.66666667	0.4307276	0.068916415	0.1855263
0.16	245	0.66939891	0.4382537	0.070120586	0.1920663
0.162	246	0.67213115	0.4458059	0.072220553	0.1987429
0.163	247	0.67486339	0.4533831	0.073901447	0.2055562
0.164	248	0.67759563	0.4609865	0.075601783	0.2125085
0.165	249	0.68032787	0.468616	0.077321641	0.219601
0.167	250	0.68306011	0.4762728	0.07953756	0.2268358
0.167	251	0.68579235	0.483958	0.080820994	0.2342154
0.17	252	0.68852459	0.4916728	0.083584382	0.2417422

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.17	253	0.69125683	0.499416	0.084900728	0.2494164
0.17	254	0.69398907	0.5071888	0.086222099	0.2572405
0.17	255	0.69672131	0.5149946	0.087549074	0.2652194
0.17	256	0.69945355	0.5228299	0.088881075	0.2733511
0.17	257	0.70218579	0.530697	0.090218487	0.2816393
0.17	258	0.70491803	0.5385982	0.091561697	0.290088
0.17	259	0.70765027	0.5465336	0.092910705	0.2986989
0.171	260	0.71038251	0.554503	0.094820014	0.3074736
0.173	261	0.71311475	0.5625066	0.097313634	0.3164136
0.175	262	0.71584699	0.5705488	0.099846034	0.3255259
0.176	263	0.71857923	0.5786251	0.101838014	0.334807
0.179	264	0.72131148	0.5867423	0.105026875	0.3442665
0.18	265	0.72404372	0.5948959	0.107081269	0.3539012
0.18	266	0.72677596	0.6030905	0.108556287	0.3637181
0.18	267	0.7295082	0.611326	0.110038673	0.3737194
0.18	268	0.73224044	0.6196024	0.111528425	0.3839071
0.18	269	0.73497268	0.627922	0.113025953	0.394286
0.182	270	0.73770492	0.6362848	0.115803828	0.4048583
0.182	271	0.74043716	0.644693	0.117334134	0.4156291
0.1866	272	0.7431694	0.6531468	0.121877193	0.4266007
0.19	273	0.74590164	0.6616483	0.125713177	0.4377785
0.19	274	0.74863388	0.6701976	0.127337535	0.4491648
0.19	275	0.75136612	0.6787945	0.128970964	0.460762
0.191	276	0.75409836	0.6874438	0.131301774	0.472579
0.194	277	0.7568306	0.6961432	0.135051773	0.4846153
0.194	278	0.75956284	0.704897	0.136750027	0.4968798
0.196	279	0.76229508	0.7137044	0.139886056	0.5093739
0.197	280	0.76502732	0.7225685	0.142346	0.5221053
0.199	281	0.76775956	0.7314884	0.145566191	0.5350753
0.2	282	0.7704918	0.7404674	0.148093477	0.5482919
0.2	283	0.77322404	0.7495055	0.149901098	0.5617585
0.2	284	0.77595628	0.7586073	0.151721451	0.575485
0.2	285	0.77868852	0.7677704	0.153554083	0.5894714
0.2	286	0.78142077	0.7769995	0.155399903	0.6037282
0.2	287	0.78415301	0.7862968	0.157259365	0.6182627
0.2	288	0.78688525	0.7956601	0.159132014	0.6330749
0.2	289	0.78961749	0.8050938	0.161018761	0.648176
0.2	290	0.79234973	0.8146003	0.16292006	0.6635736
0.2	291	0.79508197	0.8241818	0.164836365	0.6792757
0.201	292	0.79781421	0.8338384	0.167601515	0.6952865
0.207	293	0.80054645	0.8435745	0.174619927	0.711618
0.2075	294	0.80327869	0.8533902	0.177078476	0.7282749
0.209	295	0.80601093	0.8632901	0.18042763	0.7452698
0.21	296	0.80874317	0.8732741	0.183387556	0.7626076
0.21	297	0.81147541	0.8833467	0.185502813	0.7803014
0.21	298	0.81420765	0.8935081	0.187636692	0.7983567
0.21	299	0.81693989	0.9037649	0.189790626	0.816791
0.21	300	0.81967213	0.9141172	0.191964614	0.8356103
0.214	301	0.82240437	0.9245673	0.197857403	0.8548247
0.215	302	0.82513661	0.9351197	0.201050739	0.8744489
0.215	303	0.82786885	0.9457767	0.203341995	0.8944936
0.217	304	0.83060109	0.9565429	0.207569801	0.9149742
0.218	305	0.83333333	0.9674204	0.210897651	0.9359023
0.22	306	0.83606557	0.9784162	0.215251566	0.9572983
0.22	307	0.83879781	0.9895302	0.217696652	0.9791701
0.22	308	0.84153005	1.000767	0.220168749	1.0015347
0.22	309	0.8442623	1.0121312	0.222668859	1.0244095
0.221	310	0.84699454	1.0236272	0.226221609	1.0478126
0.222	311	0.84972678	1.0352619	0.229828142	1.0717672
0.223	312	0.85245902	1.0470376	0.233489382	1.0962877
0.225	313	0.85519126	1.0589611	0.238266239	1.1213985
0.225	314	0.8579235	1.0710369	0.240983297	1.14712
0.225	315	0.86065574	1.0832696	0.243735656	1.173473
0.23	316	0.86338798	1.0956683	0.252003701	1.200489
0.23	317	0.86612022	1.1082375	0.254894621	1.2281903

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - raw data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.23	318	0.86885246	1.1209841	0.257826332	1.2566052
0.23	319	0.8715847	1.1339148	0.260800402	1.2857628
0.23	320	0.87431694	1.1470365	0.263818401	1.3156928
0.23	321	0.87704918	1.1603606	0.266882944	1.3464368
0.23	322	0.87978142	1.1738939	0.269995599	1.3780269
0.232	323	0.88251366	1.1876455	0.275533748	1.4105018
0.2325	324	0.8852459	1.2016267	0.279378202	1.4439067
0.233	325	0.88797814	1.2158466	0.283292263	1.478283
0.233	326	0.89071038	1.2303144	0.286663258	1.5136735
0.235	327	0.89344262	1.2450482	0.292586333	1.5501451
0.236	328	0.89617486	1.2600549	0.297372953	1.5877383
0.236	329	0.8989071	1.275348	0.300982138	1.6265126
0.237	330	0.90163934	1.2909504	0.30595525	1.666553
0.239	331	0.90437158	1.3068711	0.312342199	1.7079121
0.24	332	0.90710383	1.3231283	0.317550803	1.7506686
0.24	333	0.90983607	1.3397448	0.321538755	1.7949162
0.24	334	0.91256831	1.3567433	0.325618385	1.8407523
0.24	335	0.91530055	1.3741374	0.329792965	1.8882535
0.242	336	0.91803279	1.3919589	0.336854055	1.9375496
0.242	337	0.92076503	1.4102352	0.341276918	1.9887633
0.243	338	0.92349727	1.4289981	0.347246532	2.0420355
0.244	339	0.92622951	1.4482703	0.353377945	2.0974868
0.248	340	0.92896175	1.4681018	0.364089246	2.1553229
0.25	341	0.93169399	1.4885291	0.372132263	2.2157187
0.252	342	0.93442623	1.5095929	0.380417423	2.2788709
0.2535	343	0.93715847	1.5313481	0.388196734	2.3450269
0.2565	344	0.93989071	1.5538581	0.398564591	2.4144749
0.264	345	0.94262295	1.577182	0.41637606	2.4875032
0.269	346	0.94535519	1.6013928	0.430774662	2.5644589
0.27	347	0.94808743	1.6265858	0.439178166	2.6457814
0.276	348	0.95081967	1.652852	0.456187154	2.7319198
0.281	349	0.95355191	1.6803142	0.47216829	2.8234558
0.288	350	0.95628415	1.7091043	0.492222025	2.9210373
0.292	351	0.95901639	1.7393813	0.507899349	3.0254474
0.294	352	0.96174863	1.7713501	0.520776921	3.1376811
0.294	353	0.96448087	1.8052287	0.530737252	3.2588508
0.294	354	0.96721311	1.8413266	0.541350018	3.3904836
0.295	355	0.96994536	1.8799892	0.554596818	3.5343594
0.299	356	0.9726776	1.9216895	0.574585174	3.6928907
0.3	357	0.97540984	1.9670188	0.590105628	3.8691628
0.3	358	0.97814208	2.0168045	0.60504135	4.0675004
0.31	359	0.98087432	2.0721473	0.642365649	4.2937942
0.322	360	0.98360656	2.134675	0.687365355	4.5568374
0.326	361	0.9863388	2.2068707	0.719439849	4.8702783
0.36	362	0.98907104	2.2928361	0.825421012	5.2570976
0.406	363	0.99180328	2.4000474	0.974419236	5.7602274
0.7	364	0.99453552	2.5449481	1.781463652	6.4767607
0.755	365	0.99726776	2.7783244	2.097634933	7.7190866

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-5.298317	1	0.00273224	-2.778324	14.7204445	7.7190866
-5.298317	2	0.00546448	-2.544948	13.48394258	6.4767607
-5.298317	3	0.00819672	-2.400047	12.71621271	5.7602274
-5.298317	4	0.01092896	-2.292836	12.14817356	5.2570976
-5.298317	5	0.0136612	-2.206871	11.69270138	4.8702783
-5.298317	6	0.01639344	-2.134675	11.3101857	4.5568374
-5.298317	7	0.01912568	-2.072147	10.97889378	4.2937942
-5.298317	8	0.02185792	-2.016805	10.68567031	4.0675004
-4.710531	9	0.02459016	-1.967019	9.265702265	3.8691628
-4.60517	10	0.0273224	-1.92169	8.849707401	3.6928907
-4.60517	11	0.03005464	-1.879989	8.657670275	3.5343594
-4.60517	12	0.03278689	-1.841327	8.479622331	3.3904836
-4.60517	13	0.03551913	-1.805229	8.313385612	3.2588508
-4.60517	14	0.03825137	-1.77135	8.157368536	3.1376811
-4.60517	15	0.04098361	-1.739381	8.010147054	3.0254474
-4.60517	16	0.04371585	-1.709104	7.870715954	2.9210373
-4.60517	17	0.04644809	-1.680314	7.738132852	2.8234558
-4.60517	18	0.04918033	-1.652852	7.611664782	2.7319198
-4.60517	19	0.05191257	-1.626586	7.490704428	2.6457814
-4.60517	20	0.05464481	-1.601393	7.374686361	2.5644589
-4.60517	21	0.05737705	-1.577182	7.263191742	2.4875032
-4.60517	22	0.06010929	-1.553858	7.155780791	2.4144749
-4.60517	23	0.06284153	-1.531348	7.052118438	2.3450269
-4.60517	24	0.06557377	-1.509593	6.951932439	2.2788709
-4.60517	25	0.06830601	-1.488529	6.854929607	2.2157187
-4.60517	26	0.07103825	-1.468102	6.76085864	2.1553229
-4.60517	27	0.07377049	-1.44827	6.66953106	2.0974868
-4.60517	28	0.07650273	-1.428998	6.580779333	2.0420355
-4.60517	29	0.07923497	-1.410235	6.494373097	1.9887633
-4.60517	30	0.08196721	-1.391959	6.410207643	1.9375496
-4.60517	31	0.08469945	-1.374137	6.328136379	1.8882535
-4.199705	32	0.08743169	-1.356743	5.697921596	1.8407523
-4.135167	33	0.09016393	-1.339745	5.540067945	1.7949162
-4.074542	34	0.09289617	-1.323128	5.391141926	1.7506686
-4.017384	35	0.09562842	-1.306871	5.250202529	1.7079121
-3.912023	36	0.09836066	-1.29095	5.05022775	1.666553
-3.912023	37	0.1010929	-1.275348	4.989190874	1.6265126
-3.912023	38	0.10382514	-1.260055	4.929363706	1.5877383
-3.912023	39	0.10655738	-1.245048	4.870657297	1.5501451
-3.912023	40	0.10928962	-1.230314	4.813018277	1.5136735
-3.912023	41	0.11202186	-1.215847	4.756419962	1.478283
-3.912023	42	0.1147541	-1.201627	4.700791192	1.4439067
-3.912023	43	0.11748634	-1.187645	4.646096387	1.4105018
-3.88733	44	0.12021858	-1.173894	4.563313461	1.3780269
-3.863233	45	0.12295082	-1.160361	4.482743276	1.3464368
-3.772261	46	0.12568306	-1.147037	4.326921232	1.3156928
-3.750755	47	0.1284153	-1.133915	4.253036419	1.2857628
-3.729701	48	0.13114754	-1.120984	4.180935844	1.2566052
-3.709082	49	0.13387978	-1.108237	4.110543883	1.2281903
-3.688879	50	0.13661202	-1.095668	4.041788159	1.200489
-3.688879	51	0.13934426	-1.08327	3.9960509	1.173473
-3.688879	52	0.1420765	-1.071037	3.95092593	1.14712
-3.649659	53	0.14480874	-1.058961	3.864846493	1.1213985
-3.506558	54	0.14754098	-1.047038	3.671497914	1.0962877
-3.506558	55	0.15027322	-1.035262	3.630205801	1.0717672
-3.506558	56	0.15300546	-1.023627	3.589408014	1.0478126
-3.473768	57	0.1557377	-1.012131	3.515908976	1.0244095

Selenium - lognormal
116081.62 = (sum of Mi*Xi)^2
364 = count -1
0.9963102 = standard deviation ^2
354.90912 = sum of Mi^2

0.90 = W statistic

FAIL

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-3.218876	58	0.15846995	-1.000767	3.22134484	1.0015347
-3.218876	59	0.16120219	-0.98953	3.185174953	0.9791701
-3.218876	60	0.16393443	-0.978416	3.149400286	0.9572983
-3.218876	61	0.16666667	-0.96742	3.1140062	0.9359023
-3.218876	62	0.16939891	-0.956543	3.078992696	0.9149742
-3.218876	63	0.17213115	-0.945777	3.044337817	0.8944936
-3.170086	64	0.17486339	-0.93512	2.9644096	0.8744489
-3.158251	65	0.17759563	-0.924567	2.920015796	0.8548247
-3.123566	66	0.18032787	-0.914117	2.855305108	0.8356103
-3.101093	67	0.18306011	-0.903765	2.802658768	0.816791
-3.101093	68	0.18579235	-0.893508	2.770851398	0.7983567
-3.057608	69	0.18852459	-0.883347	2.700927741	0.7803014
-3.026191	70	0.19125683	-0.873274	2.642694567	0.7626076
-2.995732	71	0.19398907	-0.86329	2.586186006	0.7452698
-2.995732	72	0.19672131	-0.85339	2.556528706	0.7282749
-2.995732	73	0.19945355	-0.843575	2.527123432	0.711618
-2.995732	74	0.20218579	-0.833838	2.497956561	0.6952865
-2.995732	75	0.20491803	-0.824182	2.469028092	0.6792757
-2.995732	76	0.20765027	-0.8146	2.440324404	0.6635736
-2.995732	77	0.21038251	-0.805094	2.411845495	0.648176
-2.995732	78	0.21311475	-0.79566	2.383584554	0.6330749
-2.986079	79	0.21584699	-0.786297	2.347944445	0.6182627
-2.97593	80	0.21857923	-0.777	2.312295888	0.6037282
-2.900422	81	0.22131148	-0.76777	2.226858278	0.5894714
-2.900422	82	0.22404372	-0.758607	2.200281249	0.575485
-2.900422	83	0.22677596	-0.749505	2.173882279	0.5617585
-2.873515	84	0.2295082	-0.740467	2.127743872	0.5482919
-2.864704	85	0.23224044	-0.731488	2.09549775	0.5350753
-2.838729	86	0.23497268	-0.722569	2.051175896	0.5221053
-2.830218	87	0.23770492	-0.713704	2.019938828	0.5093739
-2.830218	88	0.24043716	-0.704897	1.995012195	0.4968798
-2.820939	89	0.2431694	-0.696143	1.96377738	0.4846153
-2.813411	90	0.24590164	-0.687444	1.934061878	0.472579
-2.813411	91	0.24863388	-0.678795	1.90972786	0.460762
-2.813411	92	0.25136612	-0.670198	1.885540972	0.4491648
-2.813411	93	0.25409836	-0.661648	1.86148842	0.4377785
-2.813411	94	0.2568306	-0.653147	1.837570204	0.4266007
-2.813411	95	0.25956284	-0.644693	1.813786324	0.4156291
-2.796881	96	0.26229508	-0.636285	1.77961304	0.4048583
-2.788718	97	0.26502732	-0.627922	1.751097347	0.394286
-2.780621	98	0.26775956	-0.619602	1.72287927	0.3839071
-2.764621	99	0.2704918	-0.611326	1.69008431	0.3737194
-2.748872	100	0.27322404	-0.60309	1.657818664	0.3637181
-2.748872	101	0.27595628	-0.594896	1.6352929	0.3539012
-2.733368	102	0.27868852	-0.586742	1.603782679	0.3442665
-2.733368	103	0.28142077	-0.578625	1.581595274	0.334807
-2.733368	104	0.28415301	-0.570549	1.559519739	0.3255259
-2.733368	105	0.28688525	-0.562507	1.537537428	0.3164136
-2.733368	106	0.28961749	-0.554503	1.515660771	0.3074736
-2.733368	107	0.29234973	-0.546534	1.493877338	0.2986989
-2.65926	108	0.29508197	-0.538598	1.432272709	0.290088
-2.65926	109	0.29781421	-0.530697	1.41126127	0.2816393
-2.65926	110	0.30054645	-0.52283	1.390340528	0.2733511
-2.65926	111	0.30327869	-0.514995	1.369504436	0.2652194
-2.65926	112	0.30601093	-0.507189	1.348746948	0.2572405
-2.65926	113	0.30874317	-0.499416	1.328077134	0.2494164
-2.65926	114	0.31147541	-0.491673	1.307485923	0.2417422
-2.65926	115	0.31420765	-0.483958	1.286970294	0.2342154
-2.617296	116	0.31693989	-0.476273	1.246546861	0.2268358
-2.61047	117	0.31967213	-0.468616	1.223307971	0.219601
-2.60369	118	0.32240437	-0.460986	1.200265986	0.2125085
-2.583623	119	0.32513661	-0.453383	1.171370857	0.2055562
-2.577022	120	0.32786885	-0.445806	1.148851536	0.1987429
-2.56395	121	0.33060109	-0.438254	1.12366042	0.1920663
-2.551046	122	0.33333333	-0.430728	1.098806105	0.1855263

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-2.525729	123	0.33606557	-0.423224	1.068949648	0.1791188
-2.525729	124	0.33879781	-0.415746	1.05006144	0.1728447
-2.525729	125	0.34153005	-0.40829	1.031230661	0.166701
-2.525729	126	0.3442623	-0.400858	1.012457311	0.1606867
-2.525729	127	0.34699454	-0.393447	0.993741388	0.1548009
-2.525729	128	0.34972678	-0.386058	0.975077152	0.1490406
-2.525729	129	0.35245902	-0.378691	0.956470343	0.1434068
-2.525729	130	0.35519126	-0.371342	0.937909478	0.137895
-2.525729	131	0.3579235	-0.364015	0.919403169	0.1325069
-2.525729	132	0.36065574	-0.356706	0.900942804	0.1272392
-2.513306	133	0.36338798	-0.349418	0.878193476	0.1220927
-2.501036	134	0.36612022	-0.342147	0.855722874	0.1170648
-2.465104	135	0.36885246	-0.334894	0.825548889	0.1121541
-2.465104	136	0.3715847	-0.327659	0.807713787	0.1073605
-2.441847	137	0.37431694	-0.320441	0.782468267	0.1026825
-2.419119	138	0.37704918	-0.31324	0.757765308	0.0981194
-2.407946	139	0.37978142	-0.306055	0.736964272	0.0936698
-2.407946	140	0.38251366	-0.298886	0.719701489	0.0893329
-2.407946	141	0.3852459	-0.291732	0.702474293	0.0851074
-2.407946	142	0.38797814	-0.284592	0.685282685	0.0809928
-2.407946	143	0.39071038	-0.277469	0.668129402	0.0769888
-2.407946	144	0.39344262	-0.270358	0.651006232	0.0730932
-2.407946	145	0.39617486	-0.26326	0.633915912	0.0693059
-2.407946	146	0.3989071	-0.256177	0.61686118	0.0656268
-2.407946	147	0.40163934	-0.249106	0.599833822	0.0620538
-2.407946	148	0.40437158	-0.242048	0.582839316	0.0585874
-2.407946	149	0.40710383	-0.235002	0.565872184	0.055226
-2.407946	150	0.40983607	-0.227967	0.548932427	0.051969
-2.407946	151	0.41256831	-0.220944	0.532020046	0.0488161
-2.402405	152	0.41530055	-0.213931	0.513949822	0.0457666
-2.396896	153	0.41803279	-0.206928	0.495985411	0.0428193
-2.380547	154	0.42076503	-0.199936	0.475958148	0.0399746
-2.359155	155	0.42349727	-0.192955	0.455210804	0.0372316
-2.353878	156	0.42622951	-0.185983	0.437780356	0.0345895
-2.343407	157	0.42896175	-0.179018	0.419512322	0.0320475
-2.343407	158	0.43169399	-0.172063	0.40321308	0.0296056
-2.343407	159	0.43442623	-0.165116	0.386935151	0.0272635
-2.307598	160	0.43715847	-0.158177	0.365008974	0.02502
-2.302585	161	0.43989071	-0.151247	0.348258386	0.0228756
-2.302585	162	0.44262295	-0.144322	0.332313755	0.0208288
-2.302585	163	0.44535519	-0.137405	0.316387448	0.0188802
-2.302585	164	0.44808743	-0.130494	0.300474229	0.0170288
-2.302585	165	0.45081967	-0.123591	0.284579335	0.0152748
-2.302585	166	0.45355191	-0.116693	0.268694912	0.0136172
-2.302585	167	0.45628415	-0.109799	0.25282096	0.0120558
-2.302585	168	0.45901639	-0.102912	0.236962714	0.0105908
-2.302585	169	0.46174863	-0.096029	0.221114939	0.0092216
-2.302585	170	0.46448087	-0.089151	0.205277636	0.0079479
-2.302585	171	0.46721311	-0.082277	0.189450803	0.0067696
-2.302585	172	0.46994536	-0.075407	0.173631823	0.0056863
-2.302585	173	0.4726776	-0.068541	0.157820696	0.0046978
-2.302585	174	0.47540984	-0.061677	0.142017423	0.0038041
-2.302585	175	0.47814208	-0.054818	0.126222003	0.003005
-2.302585	176	0.48087432	-0.04796	0.110431818	0.0023002
-2.302585	177	0.48360656	-0.041103	0.094644252	0.0016895
-2.292635	178	0.4863388	-0.03425	0.078523735	0.0011731
-2.287696	179	0.48907104	-0.027399	0.062679516	0.0007507
-2.282782	180	0.49180328	-0.020548	0.046906064	0.0004222
-2.282782	181	0.49453552	-0.013698	0.031269844	0.0001876
-2.277892	182	0.49726776	-0.006848	0.015600136	4.69E-05
-2.263364	183	0.5	0	0	0
-2.258568	184	0.50273224	0.0068485	-0.015467793	4.69E-05
-2.207275	185	0.50546448	0.0136981	-0.030235532	0.0001876
-2.207275	186	0.50819672	0.0205478	-0.045354553	0.0004222
-2.207275	187	0.51092896	0.0273985	-0.060476083	0.0007507

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-2.207275	188	0.5136612	0.0342504	-0.075600123	0.0011731
-2.207275	189	0.51639344	0.0411035	-0.090726672	0.0016895
-2.207275	190	0.51912568	0.0479599	-0.105860749	0.0023002
-2.207275	191	0.52185792	0.0548175	-0.120997335	0.003005
-2.207275	192	0.52459016	0.0616774	-0.136138941	0.0038041
-2.189256	193	0.5273224	0.0685407	-0.150053074	0.0046978
-2.180367	194	0.53005464	0.0754073	-0.164415716	0.0056863
-2.162823	195	0.53278689	0.0822774	-0.177951548	0.0067696
-2.120264	196	0.53551913	0.0891509	-0.189023497	0.0079479
-2.120264	197	0.53825137	0.096029	-0.203606783	0.0092216
-2.120264	198	0.54098361	0.1029116	-0.218199711	0.0105908
-2.120264	199	0.54371585	0.1097987	-0.232802281	0.0120558
-2.120264	200	0.54644809	0.1166927	-0.247419314	0.0136172
-2.120264	201	0.54918033	0.1235912	-0.262045989	0.0152748
-2.120264	202	0.55191257	0.1304943	-0.276682306	0.0170288
-2.111965	203	0.55464481	0.1374053	-0.290195196	0.0188802
-2.111965	204	0.55737705	0.144322	-0.304803037	0.0208288
-2.095571	205	0.56010929	0.1512467	-0.316948177	0.0228756
-2.055725	206	0.56284153	0.158177	-0.325168508	0.02502
-2.040221	207	0.56557377	0.1651165	-0.336874101	0.0272635
-2.040221	208	0.56830601	0.1720628	-0.351046017	0.0296056
-2.040221	209	0.57103825	0.1790181	-0.365236489	0.0320475
-2.040221	210	0.57377049	0.1859826	-0.379445516	0.0345895
-2.040221	211	0.57650273	0.192955	-0.39367078	0.0372316
-2.040221	212	0.57923497	0.1999365	-0.407914599	0.0399746
-2.040221	213	0.58196721	0.2069282	-0.422179294	0.0428193
-2.040221	214	0.58469945	0.2139313	-0.436467183	0.0457666
-2.040221	215	0.58743169	0.2209435	-0.450773628	0.0488161
-1.99021	216	0.59016393	0.2279671	-0.453702536	0.051969
-1.980502	217	0.59289617	0.2350021	-0.465421959	0.055226
-1.966113	218	0.59562842	0.2420484	-0.475894417	0.0585874
-1.966113	219	0.59836066	0.2491061	-0.48977061	0.0620538
-1.966113	220	0.6010929	0.2561774	-0.503673626	0.0656268
-1.966113	221	0.60382514	0.2632601	-0.517598994	0.0693059
-1.966113	222	0.60655738	0.2703575	-0.531553419	0.0730932
-1.966113	223	0.60928962	0.2774686	-0.545534667	0.0769888
-1.966113	224	0.61202186	0.2845923	-0.559540503	0.0809928
-1.937942	225	0.6147541	0.2917318	-0.565359291	0.0851074
-1.931022	226	0.61748634	0.2988861	-0.57715551	0.0893329
-1.931022	227	0.62021858	0.3060552	-0.590999181	0.0936698
-1.913927	228	0.62295082	0.3132402	-0.599518922	0.0981194
-1.900459	229	0.62568306	0.3204411	-0.608985196	0.1026825
-1.89712	230	0.6284153	0.3276591	-0.621608643	0.1073605
-1.89712	231	0.63114754	0.3348941	-0.635334364	0.1121541
-1.89712	232	0.63387978	0.3421474	-0.649094593	0.1170648
-1.89712	233	0.63661202	0.3494176	-0.662887174	0.1220927
-1.89712	234	0.63934426	0.3567061	-0.676714263	0.1272392
-1.89712	235	0.6420765	0.364015	-0.690580174	0.1325069
-1.89712	236	0.64480874	0.3713421	-0.704480594	0.137895
-1.89712	237	0.64754098	0.3786909	-0.718421992	0.1434068
-1.89712	238	0.65027322	0.3860578	-0.732397899	0.1490406
-1.86433	239	0.65300546	0.3934474	-0.73351587	0.1548009
-1.832581	240	0.6557377	0.4008575	-0.734604054	0.1606867
-1.832581	241	0.65846995	0.4082904	-0.748225348	0.166701
-1.832581	242	0.66120219	0.4157459	-0.761888311	0.1728447
-1.832581	243	0.66393443	0.4232243	-0.775592942	0.1791188
-1.832581	244	0.66666667	0.4307276	-0.789343408	0.1855263
-1.832581	245	0.66939891	0.4382537	-0.803135542	0.1920663
-1.820159	246	0.67213115	0.4458059	-0.811437562	0.1987429
-1.814005	247	0.67486339	0.4533831	-0.822439262	0.2055562
-1.807889	248	0.67759563	0.4609865	-0.833412326	0.2125085
-1.80181	249	0.68032787	0.468616	-0.844356918	0.219601
-1.789761	250	0.68306011	0.4762728	-0.852414735	0.2268358
-1.789761	251	0.68579235	0.483958	-0.866169464	0.2342154
-1.771957	252	0.68852459	0.4916728	-0.871223045	0.2417422

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-1.771957	253	0.69125683	0.499416	-0.88494368	0.2494164
-1.771957	254	0.69398907	0.5071888	-0.898716692	0.2572405
-1.771957	255	0.69672131	0.5149946	-0.912548123	0.2652194
-1.771957	256	0.69945355	0.5228299	-0.926431931	0.2733511
-1.771957	257	0.70218579	0.530697	-0.940372144	0.2816393
-1.771957	258	0.70491803	0.5385982	-0.954372792	0.290088
-1.771957	259	0.70765027	0.5465336	-0.968433874	0.2986989
-1.766092	260	0.71038251	0.554503	-0.979303165	0.3074736
-1.754464	261	0.71311475	0.5625066	-0.986897326	0.3164136
-1.742969	262	0.71584699	0.5705488	-0.994448982	0.3255259
-1.737271	263	0.71857923	0.5786251	-1.00522873	0.334807
-1.720369	264	0.72131148	0.5867423	-1.009413571	0.3442665
-1.714798	265	0.72404372	0.5948959	-1.020126618	0.3539012
-1.714798	266	0.72677596	0.6030905	-1.034178614	0.3637181
-1.714798	267	0.7295082	0.611326	-1.048300793	0.3737194
-1.714798	268	0.73224044	0.6196024	-1.062493154	0.3839071
-1.714798	269	0.73497268	0.627922	-1.076759596	0.394286
-1.703749	270	0.73770492	0.6362848	-1.084069276	0.4048583
-1.703749	271	0.74043716	0.644693	-1.098394869	0.4156291
-1.678788	272	0.7431694	0.6531468	-1.096495002	0.4266007
-1.660731	273	0.74590164	0.6616483	-1.098819981	0.4377785
-1.660731	274	0.74863388	0.6701976	-1.113017987	0.4491648
-1.660731	275	0.75136612	0.6787945	-1.127295291	0.460762
-1.655482	276	0.75409836	0.6874438	-1.138050807	0.472579
-1.639897	277	0.7568306	0.6961432	-1.141603165	0.4846153
-1.639897	278	0.75956284	0.704897	-1.155958638	0.4968798
-1.629641	279	0.76229508	0.7137044	-1.163081626	0.5093739
-1.624552	280	0.76502732	0.7225685	-1.173849825	0.5221053
-1.61445	281	0.76775956	0.7314884	-1.180951778	0.5350753
-1.609438	282	0.7704918	0.7404674	-1.191736283	0.5482919
-1.609438	283	0.77322404	0.7495055	-1.206282549	0.5617585
-1.609438	284	0.77595628	0.7586073	-1.22093128	0.575485
-1.609438	285	0.77868852	0.7677704	-1.235678816	0.5894714
-1.609438	286	0.78142077	0.7769995	-1.250532475	0.6037282
-1.609438	287	0.78415301	0.7862968	-1.265495918	0.6182627
-1.609438	288	0.78688525	0.7956601	-1.280565484	0.6330749
-1.609438	289	0.78961749	0.8050938	-1.295748493	0.648176
-1.609438	290	0.79234973	0.8146003	-1.311048604	0.6635736
-1.609438	291	0.79508197	0.8241818	-1.326469476	0.6792757
-1.60445	292	0.79781421	0.8338384	-1.337852306	0.6952865
-1.575036	293	0.80054645	0.8435745	-1.328660657	0.711618
-1.572624	294	0.80327869	0.8533902	-1.342061933	0.7282749
-1.565421	295	0.80601093	0.8632901	-1.351412471	0.7452698
-1.560648	296	0.80874317	0.8732741	-1.362873219	0.7626076
-1.560648	297	0.81147541	0.8833467	-1.378593084	0.7803014
-1.560648	298	0.81420765	0.8935081	-1.39445134	0.7983567
-1.560648	299	0.81693989	0.9037649	-1.410458633	0.816791
-1.560648	300	0.81967213	0.9141172	-1.426614963	0.8356103
-1.541779	301	0.82240437	0.9245673	-1.425478695	0.8548247
-1.537117	302	0.82513661	0.9351197	-1.437388646	0.8744489
-1.537117	303	0.82786885	0.9457767	-1.45376971	0.8944936
-1.527858	304	0.83060109	0.9565429	-1.461461594	0.9149742
-1.52326	305	0.83333333	0.9674204	-1.473633037	0.9359023
-1.514128	306	0.83606557	0.9784162	-1.481447118	0.9572983
-1.514128	307	0.83879781	0.9895302	-1.498275172	0.9791701
-1.514128	308	0.84153005	1.000767	-1.515289133	1.0015347
-1.514128	309	0.8442623	1.0121312	-1.532495887	1.0244095
-1.509593	310	0.84699454	1.0236272	-1.545260011	1.0478126
-1.505078	311	0.84972678	1.0352619	-1.558149808	1.0717672
-1.500584	312	0.85245902	1.0470376	-1.571167333	1.0962877
-1.491655	313	0.85519126	1.0589611	-1.579604431	1.1213985
-1.491655	314	0.8579235	1.0710369	-1.597617381	1.14712
-1.491655	315	0.86065574	1.0832696	-1.615864353	1.173473
-1.469676	316	0.86338798	1.0956683	-1.610277323	1.200489
-1.469676	317	0.86612022	1.1082375	-1.628749999	1.2281903

Table 47. Selenium Near Upgradient Background Data, Shapiro-Francia Test of Normality Analysis (continued)

Selenium - lognormal data					
Selenium	Count	i/(n+1)	Mi	Mi * Xi (lognormal	Mi^2
-1.469676	318	0.86885246	1.1209841	-1.647483324	1.2566052
-1.469676	319	0.8715847	1.1339148	-1.666487324	1.2857628
-1.469676	320	0.87431694	1.1470365	-1.685772022	1.3156928
-1.469676	321	0.87704918	1.1603606	-1.705354128	1.3464368
-1.469676	322	0.87978142	1.1738939	-1.725243666	1.3780269
-1.461018	323	0.88251366	1.1876455	-1.735171294	1.4105018
-1.458865	324	0.8852459	1.2016267	-1.753011162	1.4439067
-1.456717	325	0.88797814	1.2158466	-1.771144233	1.478283
-1.456717	326	0.89071038	1.2303144	-1.792219702	1.5136735
-1.44817	327	0.89344262	1.2450482	-1.803041195	1.5501451
-1.443923	328	0.89617486	1.2600549	-1.81942283	1.5877383
-1.443923	329	0.8989071	1.275348	-1.841504973	1.6265126
-1.439695	330	0.90163934	1.2909504	-1.858575046	1.666553
-1.431292	331	0.90437158	1.3068711	-1.870513832	1.7079121
-1.427116	332	0.90710383	1.3231283	-1.888258101	1.7506686
-1.427116	333	0.90983607	1.3397448	-1.911971735	1.7949162
-1.427116	334	0.91256831	1.3567433	-1.936230509	1.8407523
-1.427116	335	0.91530055	1.3741374	-1.961053894	1.8882535
-1.418818	336	0.91803279	1.3919589	-1.974935725	1.9375496
-1.418818	337	0.92076503	1.4102352	-2.000866455	1.9887633
-1.414694	338	0.92349727	1.4289981	-2.021594768	2.0420355
-1.410587	339	0.92622951	1.4482703	-2.042911291	2.0974868
-1.394327	340	0.92896175	1.4681018	-2.047013293	2.1553229
-1.386294	341	0.93169399	1.4885291	-2.06353943	2.2157187
-1.378326	342	0.93442623	1.5095929	-2.080711499	2.2788709
-1.372391	343	0.93715847	1.5313481	-2.101608996	2.3450269
-1.360627	344	0.93989071	1.5538581	-2.114220625	2.4144749
-1.331806	345	0.94262295	1.577182	-2.100500791	2.4875032
-1.313044	346	0.94535519	1.6013928	-2.102699041	2.5644589
-1.309333	347	0.94808743	1.6265858	-2.129742985	2.6457814
-1.287354	348	0.95081967	1.652852	-2.127806325	2.7319198
-1.269401	349	0.95355191	1.6803142	-2.132991868	2.8234558
-1.244795	350	0.95628415	1.7091043	-2.127484086	2.9210373
-1.231001	351	0.95901639	1.7393813	-2.141180989	3.0254474
-1.224176	352	0.96174863	1.7713501	-2.16844338	3.1376811
-1.224176	353	0.96448087	1.8052287	-2.209916827	3.2588508
-1.224176	354	0.96721311	1.8413266	-2.254106925	3.3904836
-1.22078	355	0.96994536	1.8799892	-2.295053086	3.5343594
-1.207312	356	0.9726776	1.9216895	-2.320078283	3.6928907
-1.203973	357	0.97540984	1.9670188	-2.368237094	3.8691628
-1.203973	358	0.97814208	2.0168045	-2.428177771	4.0675004
-1.171183	359	0.98087432	2.0721473	-2.426863599	4.2937942
-1.133204	360	0.98360656	2.134675	-2.419021696	4.5568374
-1.120858	361	0.9863388	2.2068707	-2.473588458	4.8702783
-1.021651	362	0.98907104	2.2928361	-2.342478906	5.2570976
-0.901402	363	0.99180328	2.4000474	-2.163407794	5.7602274
-0.356675	364	0.99453552	2.5449481	-0.907719212	6.4767607
-0.281038	365	0.99726776	2.7783244	-0.78081343	7.7190866

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.005	-5.298317367	1	0.00190	-2.8948	-0.014474	8.3799394	15.33763532
0.005	-5.298317367	2	0.00460	-2.6042	-0.013021	6.7817241	13.79774229
0.005	-5.298317367	3	0.00734	-2.4401	-0.0122	5.9540067	12.92833591
0.005	-5.298317367	4	0.01008	-2.3234	-0.011617	5.3981651	12.31008495
0.005	-5.298317367	5	0.01282	-2.2317	-0.011159	4.9806469	11.82444714
0.005	-5.298317367	6	0.01555	-2.1557	-0.010779	4.6471318	11.42169254
0.005	-5.298317367	7	0.01829	-2.0904	-0.010452	4.3698516	11.0757033
0.005	-5.298317367	8	0.02103	-2.0330	-0.010165	4.1330256	10.77139662
0.009	-4.710530702	9	0.02376	-1.9816	-0.017834	3.9265863	9.334206667
0.01	-4.605170186	10	0.02650	-1.9349	-0.019349	3.7438554	8.910564531
0.01	-4.605170186	11	0.02924	-1.8921	-0.018921	3.5800908	8.713501352
0.01	-4.605170186	12	0.03197	-1.8525	-0.018525	3.4318732	8.531223146
0.01	-4.605170186	13	0.03471	-1.8157	-0.018157	3.2965906	8.361384423
0.01	-4.605170186	14	0.03745	-1.7811	-0.017811	3.1722843	8.202226063
0.01	-4.605170186	15	0.04019	-1.7485	-0.017485	3.0573601	8.052282135
0.01	-4.605170186	16	0.04292	-1.7177	-0.017177	2.9505991	7.910442718
0.01	-4.605170186	17	0.04566	-1.6885	-0.016885	2.8509543	7.775723543
0.01	-4.605170186	18	0.04840	-1.6606	-0.016606	2.7575954	7.647349761
0.01	-4.605170186	19	0.05113	-1.6340	-0.01634	2.6698163	7.524651231
0.01	-4.605170186	20	0.05387	-1.6084	-0.016084	2.5870398	7.407083464
0.01	-4.605170186	21	0.05661	-1.5839	-0.015839	2.5087494	7.294143854
0.01	-4.605170186	22	0.05934	-1.5603	-0.015603	2.4345276	7.185434506
0.01	-4.605170186	23	0.06208	-1.5375	-0.015375	2.3639926	7.080578466
0.01	-4.605170186	24	0.06482	-1.5155	-0.015155	2.2968371	6.979282547
0.01	-4.605170186	25	0.06756	-1.4942	-0.014942	2.2327688	6.881253562
0.01	-4.605170186	26	0.07029	-1.4736	-0.014736	2.1715363	6.78624021
0.01	-4.605170186	27	0.07303	-1.4536	-0.014536	2.1129262	6.694033071
0.01	-4.605170186	28	0.07577	-1.4341	-0.014341	2.0567481	6.604443668
0.01	-4.605170186	29	0.07850	-1.4152	-0.014152	2.0028197	6.517283524
0.01	-4.605170186	30	0.08124	-1.3968	-0.013968	1.9509795	6.432385104
0.01	-4.605170186	31	0.08398	-1.3788	-0.013788	1.9010979	6.349622757
0.015	-4.199705078	32	0.08671	-1.3613	-0.020419	1.8530506	5.716924153
0.016	-4.135166557	33	0.08945	-1.3441	-0.021506	1.8067122	5.558242552
0.017	-4.074541935	34	0.09219	-1.3274	-0.022566	1.7619866	5.408540536
0.018	-4.017383521	35	0.09493	-1.3110	-0.023598	1.7187693	5.266863807
0.02	-3.912023005	36	0.09766	-1.2950	-0.0259	1.6769895	5.066016216

Normal

31.613 =sum X(i)*M(i)
360.147 =sum M(i)^2
0.09 = standard deviation
18.9775 = square root of sum Mi^2

0.937 = Fillibens's Statistic

Lognormal

343.168 =sum X(i)*M(i)
360.147 =sum M(i)^2
1.00 = standard deviation
18.9775 = square root of sum Mi^2

0.950 = Fillibens's Statistic

.987+ is acceptable value

Normal - Fail
Lognormal - Fail

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.02	-3.912023005	37	0.10040	-1.2793	-0.025586	1.6365498	5.00456128
0.02	-3.912023005	38	0.10314	-1.2639	-0.025278	1.5973909	4.944324946
0.02	-3.912023005	39	0.10587	-1.2488	-0.024976	1.5594444	4.88524495
0.02	-3.912023005	40	0.10861	-1.2340	-0.024679	1.5226385	4.827250134
0.02	-3.912023005	41	0.11135	-1.2194	-0.024388	1.4869209	4.770296022
0.02	-3.912023005	42	0.11408	-1.2051	-0.024102	1.4522409	4.71433814
0.02	-3.912023005	43	0.11682	-1.1910	-0.023821	1.4185442	4.659323119
0.0205	-3.887330393	44	0.11956	-1.1772	-0.024133	1.3857943	4.576156188
0.021	-3.863232841	45	0.12230	-1.1636	-0.024435	1.3539401	4.495216519
0.023	-3.772261063	46	0.12503	-1.1502	-0.026454	1.3229427	4.338826287
0.0235	-3.750754858	47	0.12777	-1.1370	-0.026719	1.2927644	4.264600698
0.024	-3.729701449	48	0.13051	-1.1240	-0.026976	1.2633738	4.1921808
0.0245	-3.709082161	49	0.13324	-1.1112	-0.027224	1.2347405	4.121490535
0.025	-3.688879454	50	0.13598	-1.0986	-0.027464	1.2068301	4.052448724
0.025	-3.688879454	51	0.13872	-1.0861	-0.027153	1.179614	4.006493388
0.025	-3.688879454	52	0.14145	-1.0738	-0.026845	1.1530648	3.961150342
0.026	-3.649658741	53	0.14419	-1.0617	-0.027604	1.1271557	3.874754739
0.03	-3.506557897	54	0.14693	-1.0497	-0.031491	1.1018656	3.680826312
0.03	-3.506557897	55	0.14967	-1.0379	-0.031136	1.0771739	3.63935082
0.03	-3.506557897	56	0.15240	-1.0262	-0.030786	1.053056	3.598377627
0.031	-3.473768074	57	0.15514	-1.0146	-0.031454	1.0294879	3.524613051
0.04	-3.218875825	58	0.15788	-1.0032	-0.040129	1.0064603	3.229256545
0.04	-3.218875825	59	0.16061	-0.9919	-0.039678	0.9839458	3.192932962
0.04	-3.218875825	60	0.16335	-0.9808	-0.039231	0.9619312	3.157011917
0.04	-3.218875825	61	0.16609	-0.9697	-0.03879	0.9403994	3.121478773
0.04	-3.218875825	62	0.16882	-0.9588	-0.038353	0.919338	3.08632621
0.04	-3.218875825	63	0.17156	-0.9480	-0.037921	0.8987307	3.051539591
0.042	-3.170085661	64	0.17430	-0.9373	-0.039367	0.8785573	2.971365262
0.0425	-3.158251203	65	0.17704	-0.9267	-0.039386	0.8588152	2.926823414
0.044	-3.123565645	66	0.17977	-0.9162	-0.040314	0.8394848	2.861917225
0.045	-3.101092789	67	0.18251	-0.9058	-0.040763	0.8205517	2.809103445
0.045	-3.101092789	68	0.18525	-0.8956	-0.0403	0.8020136	2.777190309
0.047	-3.057607677	69	0.18798	-0.8854	-0.041612	0.7838485	2.707059577
0.0485	-3.026191481	70	0.19072	-0.8752	-0.042449	0.7660545	2.648660189
0.05	-2.995732274	71	0.19346	-0.8652	-0.043261	0.7486183	2.591989409
0.05	-2.995732274	72	0.19619	-0.8553	-0.042765	0.7315267	2.562229937
0.05	-2.995732274	73	0.19893	-0.8454	-0.042272	0.7147786	2.532729302
0.05	-2.995732274	74	0.20167	-0.8357	-0.041784	0.6983574	2.50346707
0.05	-2.995732274	75	0.20441	-0.8260	-0.041299	0.6822586	2.47444324
0.05	-2.995732274	76	0.20714	-0.8164	-0.040819	0.6664718	2.445647596
0.05	-2.995732274	77	0.20988	-0.8068	-0.040342	0.6509908	2.417076732
0.05	-2.995732274	78	0.21262	-0.7974	-0.039869	0.6358097	2.388727241
0.050485	-2.986079017	79	0.21535	-0.7880	-0.039781	0.6209187	2.352982296
0.051	-2.975929646	80	0.21809	-0.7787	-0.039712	0.6063104	2.317235419
0.055	-2.900422094	81	0.22083	-0.7694	-0.042317	0.5919809	2.231593342
0.055	-2.900422094	82	0.22356	-0.7602	-0.041812	0.5779196	2.20493058
0.055	-2.900422094	83	0.22630	-0.7511	-0.04131	0.5641264	2.178459068
0.0565	-2.873514641	84	0.22904	-0.7420	-0.041924	0.5505908	2.132199798
0.057	-2.864704011	85	0.23178	-0.7330	-0.041782	0.5373096	2.099868364
0.0585	-2.838728525	86	0.23451	-0.7241	-0.042358	0.5242729	2.055429425
0.059	-2.830217835	87	0.23725	-0.7152	-0.042196	0.5114808	2.024112036
0.059	-2.830217835	88	0.23999	-0.7063	-0.041675	0.4989271	1.999117834

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.05955	-2.820938983	89	0.24272	-0.6976	-0.04154	0.4866038	1.967802211
0.06	-2.813410717	90	0.24546	-0.6888	-0.041331	0.4745098	1.9380088
0.06	-2.813410717	91	0.24820	-0.6802	-0.04081	0.4626376	1.913610812
0.06	-2.813410717	92	0.25093	-0.6716	-0.040293	0.450983	1.889353557
0.06	-2.813410717	93	0.25367	-0.6630	-0.039779	0.4395449	1.865240234
0.06	-2.813410717	94	0.25641	-0.6545	-0.039268	0.4283162	1.841261247
0.06	-2.813410717	95	0.25914	-0.6460	-0.038759	0.4172945	1.817416596
0.061	-2.796881415	96	0.26188	-0.6376	-0.038891	0.4064745	1.783161569
0.0615	-2.788718104	97	0.26462	-0.6292	-0.038694	0.3958552	1.754578452
0.062	-2.780620894	98	0.26736	-0.6208	-0.038491	0.3854287	1.726290204
0.063	-2.764620553	99	0.27009	-0.6125	-0.038589	0.3751943	1.6934159
0.064	-2.748872196	100	0.27283	-0.6043	-0.038674	0.3651498	1.661078149
0.064	-2.748872196	101	0.27557	-0.5961	-0.038148	0.3552903	1.638499259
0.065	-2.733368009	102	0.27830	-0.5879	-0.038213	0.3456126	1.606915018
0.065	-2.733368009	103	0.28104	-0.5798	-0.037684	0.3361134	1.584677894
0.065	-2.733368009	104	0.28378	-0.5717	-0.037158	0.3267894	1.562543316
0.065	-2.733368009	105	0.28651	-0.5636	-0.036634	0.3176401	1.540514393
0.065	-2.733368009	106	0.28925	-0.5556	-0.036112	0.3086599	1.518581802
0.065	-2.733368009	107	0.29199	-0.5476	-0.035593	0.2998483	1.49674865
0.07	-2.659260037	108	0.29473	-0.5396	-0.037774	0.2912011	1.4350178
0.07	-2.659260037	109	0.29746	-0.5317	-0.03722	0.2827167	1.41395799
0.07	-2.659260037	110	0.30020	-0.5238	-0.036668	0.2743934	1.392988876
0.07	-2.659260037	111	0.30294	-0.5160	-0.036118	0.2662274	1.372104412
0.07	-2.659260037	112	0.30567	-0.5082	-0.035571	0.258217	1.351304599
0.07	-2.659260037	113	0.30841	-0.5004	-0.035025	0.2503609	1.330589437
0.07	-2.659260037	114	0.31115	-0.4926	-0.034482	0.2426542	1.309949855
0.07	-2.659260037	115	0.31388	-0.4849	-0.033941	0.2350976	1.2893919
0.073	-2.617295838	116	0.31662	-0.4772	-0.034833	0.2276878	1.24888562
0.0735	-2.610469873	117	0.31936	-0.4695	-0.034508	0.2204232	1.225596115
0.074	-2.603690186	118	0.32210	-0.4618	-0.034177	0.2133017	1.202503786
0.0755	-2.583622623	119	0.32483	-0.4542	-0.034294	0.2063219	1.173550288
0.076	-2.577021939	120	0.32757	-0.4466	-0.033944	0.1994825	1.150987313
0.077	-2.563949857	121	0.33031	-0.4391	-0.033808	0.1927794	1.125744555
0.078	-2.551046452	122	0.33304	-0.4315	-0.033659	0.1862124	1.100836248
0.08	-2.525728644	123	0.33578	-0.4240	-0.033921	0.1797815	1.070925186
0.08	-2.525728644	124	0.33852	-0.4165	-0.033321	0.1734824	1.051996778
0.08	-2.525728644	125	0.34125	-0.4090	-0.032723	0.1673152	1.033128671
0.08	-2.525728644	126	0.34399	-0.4016	-0.032128	0.1612779	1.014317991
0.08	-2.525728644	127	0.34673	-0.3942	-0.031533	0.1553686	0.995561869
0.08	-2.525728644	128	0.34947	-0.3868	-0.030941	0.1495862	0.976860304
0.08	-2.525728644	129	0.35220	-0.3794	-0.03035	0.1439299	0.958213296
0.08	-2.525728644	130	0.35494	-0.3720	-0.029761	0.1383978	0.939617973
0.08	-2.525728644	131	0.35768	-0.3647	-0.029174	0.1329883	0.921071465
0.08	-2.525728644	132	0.36041	-0.3574	-0.028588	0.127702	0.902579514
0.081	-2.513306124	133	0.36315	-0.3501	-0.028354	0.1225356	0.879784991
0.082	-2.501036032	134	0.36589	-0.3428	-0.028107	0.1174884	0.857269656
0.085	-2.465104022	135	0.36862	-0.3355	-0.028517	0.1125595	0.827039819
0.085	-2.465104022	136	0.37136	-0.3283	-0.027901	0.1077482	0.809171086
0.087	-2.44184716	137	0.37410	-0.3210	-0.027929	0.1030523	0.783875729
0.089	-2.419118909	138	0.37684	-0.3138	-0.027928	0.0984723	0.759126667
0.09	-2.407945609	139	0.37957	-0.3066	-0.027594	0.0940062	0.738286493
0.09	-2.407945609	140	0.38231	-0.2994	-0.026948	0.0896533	0.720990859

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.09	-2.407945609	141	0.38505	-0.2923	-0.026303	0.0854122	0.703730813
0.09	-2.407945609	142	0.38778	-0.2851	-0.025659	0.0812829	0.686509093
0.09	-2.407945609	143	0.39052	-0.2780	-0.025017	0.0772635	0.669320222
0.09	-2.407945609	144	0.39326	-0.2708	-0.024375	0.0733535	0.652164202
0.09	-2.407945609	145	0.39599	-0.2637	-0.023736	0.0695527	0.635043769
0.09	-2.407945609	146	0.39873	-0.2566	-0.023097	0.06586	0.617956186
0.09	-2.407945609	147	0.40147	-0.2495	-0.022459	0.0622744	0.600898717
0.09	-2.407945609	148	0.40421	-0.2425	-0.021823	0.0587951	0.58387136
0.09	-2.407945609	149	0.40694	-0.2354	-0.021188	0.0554217	0.566874115
0.09	-2.407945609	150	0.40968	-0.2284	-0.020553	0.0521527	0.549901508
0.09	-2.407945609	151	0.41242	-0.2213	-0.01992	0.0489885	0.532959014
0.0905	-2.402405428	152	0.41515	-0.2143	-0.019395	0.0459283	0.514856586
0.091	-2.396895772	153	0.41789	-0.2073	-0.018864	0.0429709	0.496862846
0.0925	-2.380546634	154	0.42063	-0.2003	-0.018527	0.0401157	0.476797122
0.0945	-2.359155444	155	0.42336	-0.1933	-0.018266	0.0373629	0.456012737
0.095	-2.353878387	156	0.42610	-0.1863	-0.017699	0.034711	0.438548382
0.096	-2.343407088	157	0.42884	-0.1793	-0.017216	0.0321599	0.420247626
0.096	-2.343407088	158	0.43158	-0.1724	-0.016547	0.0297097	0.403921743
0.096	-2.343407088	159	0.43431	-0.1654	-0.015879	0.0273589	0.387611844
0.0995	-2.307597635	160	0.43705	-0.1585	-0.015766	0.0251078	0.365649093
0.1	-2.302585093	161	0.43979	-0.1515	-0.015151	0.0229554	0.3488657
0.1	-2.302585093	162	0.44252	-0.1446	-0.014458	0.0209021	0.33289751
0.1	-2.302585093	163	0.44526	-0.1376	-0.013765	0.0189462	0.31693979
0.1	-2.302585093	164	0.44800	-0.1307	-0.013072	0.0170885	0.301000394
0.1	-2.302585093	165	0.45073	-0.1238	-0.012381	0.0153282	0.285076705
0.1	-2.302585093	166	0.45347	-0.1169	-0.01169	0.0136647	0.269163487
0.1	-2.302585093	167	0.45621	-0.1100	-0.010999	0.012098	0.253263357
0.1	-2.302585093	168	0.45895	-0.1031	-0.010309	0.0106278	0.237376317
0.1	-2.302585093	169	0.46168	-0.0962	-0.00962	0.0092539	0.221502364
0.1	-2.302585093	170	0.46442	-0.0893	-0.008931	0.0079757	0.205636265
0.1	-2.302585093	171	0.46716	-0.0824	-0.008242	0.0067932	0.189780637
0.1	-2.302585093	172	0.46989	-0.0755	-0.007554	0.005706	0.173932863
0.1	-2.302585093	173	0.47263	-0.0687	-0.006866	0.0047142	0.158095559
0.1	-2.302585093	174	0.47537	-0.0618	-0.006178	0.0038173	0.14226349
0.1	-2.302585093	175	0.47810	-0.0549	-0.005491	0.0030154	0.126441893
0.1	-2.302585093	176	0.48084	-0.0480	-0.004804	0.0023081	0.110622913
0.1	-2.302585093	177	0.48358	-0.0412	-0.004118	0.0016954	0.094809169
0.101	-2.292634762	178	0.48632	-0.0343	-0.003465	0.0011771	0.078659269
0.1015	-2.287696481	179	0.48905	-0.0274	-0.002786	0.0007533	0.06278875
0.102	-2.282782466	180	0.49179	-0.0206	-0.002099	0.0004237	0.046986516
0.102	-2.282782466	181	0.49453	-0.0137	-0.0014	0.0001883	0.031324344
0.1025	-2.27789248	182	0.49726	-0.0069	-0.000703	4.707E-05	0.015628622
0.104	-2.26336438	183	0.50000	0.0000	0	0	0
0.1045	-2.258568208	184	0.50274	0.0069	0.000717	4.707E-05	-0.015496038
0.11	-2.207274913	185	0.50547	0.0137	0.0015094	0.0001883	-0.030288229
0.11	-2.207274913	186	0.50821	0.0206	0.0022641	0.0004237	-0.045432344
0.11	-2.207274913	187	0.51095	0.0274	0.0030191	0.0007533	-0.060581477
0.11	-2.207274913	188	0.51368	0.0343	0.0037741	0.0011771	-0.075730611
0.11	-2.207274913	189	0.51642	0.0412	0.0045293	0.0016954	-0.090884763
0.11	-2.207274913	190	0.51916	0.0480	0.0052847	0.0023081	-0.106043934
0.11	-2.207274913	191	0.52190	0.0549	0.0060404	0.0030154	-0.121208123
0.11	-2.207274913	192	0.52463	0.0618	0.0067963	0.0038173	-0.136374822

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.112	-2.189256408	193	0.52737	0.0687	0.0076899	0.0047142	-0.150314408
0.113	-2.18036746	194	0.53011	0.0755	0.0085358	0.005706	-0.164700777
0.115	-2.162823151	195	0.53284	0.0824	0.0094784	0.0067932	-0.178261363
0.12	-2.120263536	196	0.53558	0.0893	0.0107168	0.0079757	-0.18935373
0.12	-2.120263536	197	0.53832	0.0962	0.0115437	0.0092539	-0.203963531
0.12	-2.120263536	198	0.54105	0.1031	0.0123709	0.0106278	-0.218580564
0.12	-2.120263536	199	0.54379	0.1100	0.0131989	0.012098	-0.233209649
0.12	-2.120263536	200	0.54653	0.1169	0.0140275	0.0136647	-0.247850787
0.12	-2.120263536	201	0.54927	0.1238	0.0148569	0.0153282	-0.262503977
0.12	-2.120263536	202	0.55200	0.1307	0.0156867	0.0170885	-0.277166808
0.121	-2.111964733	203	0.55474	0.1376	0.0166551	0.0189462	-0.290701812
0.121	-2.111964733	204	0.55748	0.1446	0.0174936	0.0209021	-0.305338466
0.123	-2.095570924	205	0.56021	0.1515	0.0186358	0.0229554	-0.317500891
0.128	-2.055725015	206	0.56295	0.1585	0.0202822	0.0251078	-0.325738757
0.13	-2.040220829	207	0.56569	0.1654	0.0215027	0.0273589	-0.337463244
0.13	-2.040220829	208	0.56842	0.1724	0.0224075	0.0297097	-0.351662994
0.13	-2.040220829	209	0.57116	0.1793	0.0233131	0.0321599	-0.36587666
0.13	-2.040220829	210	0.57390	0.1863	0.0242202	0.034711	-0.380111202
0.13	-2.040220829	211	0.57664	0.1933	0.0251283	0.0373629	-0.394364299
0.13	-2.040220829	212	0.57937	0.2003	0.0260376	0.0401157	-0.408633633
0.13	-2.040220829	213	0.58211	0.2073	0.0269483	0.0429709	-0.422926161
0.13	-2.040220829	214	0.58485	0.2143	0.0278601	0.0459283	-0.437237245
0.13	-2.040220829	215	0.58758	0.2213	0.0287734	0.0489885	-0.451569204
0.13666667	-1.990210408	216	0.59032	0.2284	0.0312105	0.0521527	-0.454503499
0.138	-1.980501594	217	0.59306	0.2354	0.0324877	0.0554217	-0.466246033
0.14	-1.966112856	218	0.59579	0.2425	0.0339468	0.0587951	-0.476737092
0.14	-1.966112856	219	0.59853	0.2495	0.0349368	0.0622744	-0.490640107
0.14	-1.966112856	220	0.60127	0.2566	0.0359285	0.06586	-0.50456771
0.14	-1.966112856	221	0.60401	0.2637	0.036922	0.0695527	-0.518519901
0.14	-1.966112856	222	0.60674	0.2708	0.0379174	0.0733535	-0.532498914
0.14	-1.966112856	223	0.60948	0.2780	0.0389148	0.0772635	-0.546506984
0.14	-1.966112856	224	0.61222	0.2851	0.0399142	0.0812829	-0.560541878
0.144	-1.937941979	225	0.61495	0.2923	0.0420845	0.0854122	-0.566370553
0.145	-1.931021537	226	0.61769	0.2994	0.0434161	0.0896533	-0.578189504
0.145	-1.931021537	227	0.62043	0.3066	0.0444576	0.0940062	-0.592059519
0.1475	-1.913927103	228	0.62316	0.3138	0.0462859	0.0984723	-0.600595984
0.1495	-1.900458886	229	0.62590	0.3210	0.0479921	0.1030523	-0.610080605
0.15	-1.897119985	230	0.62864	0.3283	0.0492375	0.1077482	-0.622730167
0.15	-1.897119985	231	0.63138	0.3355	0.0503248	0.1125595	-0.636481769
0.15	-1.897119985	232	0.63411	0.3428	0.0514149	0.1174884	-0.650267879
0.15	-1.897119985	233	0.63685	0.3501	0.0525076	0.1225356	-0.664088498
0.15	-1.897119985	234	0.63959	0.3574	0.0536031	0.127702	-0.677943625
0.15	-1.897119985	235	0.64232	0.3647	0.0547013	0.1329883	-0.691833261
0.15	-1.897119985	236	0.64506	0.3720	0.0558028	0.1383978	-0.705763875
0.15	-1.897119985	237	0.64780	0.3794	0.0569071	0.1439299	-0.719731155
0.15	-1.897119985	238	0.65053	0.3868	0.0580146	0.1495862	-0.733737256
0.155	-1.864330162	239	0.65327	0.3942	0.0610961	0.1553686	-0.734859632
0.16	-1.832581464	240	0.65601	0.4016	0.0642551	0.1612779	-0.735954099
0.16	-1.832581464	241	0.65875	0.4090	0.0654467	0.1673152	-0.749602478
0.16	-1.832581464	242	0.66148	0.4165	0.066642	0.1734824	-0.763292525
0.16	-1.832581464	243	0.66422	0.4240	0.067841	0.1797815	-0.777026324
0.16	-1.832581464	244	0.66696	0.4315	0.0690437	0.1862124	-0.790801791

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.16	-1.832581464	245	0.66969	0.4391	0.0702506	0.1927794	-0.804625176
0.162	-1.820158944	246	0.67243	0.4466	0.0723548	0.1994825	-0.812946068
0.163	-1.814005078	247	0.67517	0.4542	0.0740389	0.2063219	-0.823969477
0.164	-1.807888851	248	0.67790	0.4618	0.0757427	0.2133017	-0.834966157
0.165	-1.801809805	249	0.68064	0.4695	0.0774663	0.2204232	-0.845936251
0.167	-1.789761467	250	0.68338	0.4772	0.0796868	0.2276878	-0.854014027
0.167	-1.789761467	251	0.68612	0.4849	0.0809731	0.2350976	-0.867799277
0.17	-1.771956842	252	0.68885	0.4926	0.0837419	0.2426542	-0.872864848
0.17	-1.771956842	253	0.69159	0.5004	0.0850613	0.2503609	-0.886617714
0.17	-1.771956842	254	0.69433	0.5082	0.0863856	0.258217	-0.900420943
0.17	-1.771956842	255	0.69706	0.5160	0.0877153	0.2662274	-0.914280577
0.17	-1.771956842	256	0.69980	0.5238	0.0890504	0.2743934	-0.928196617
0.17	-1.771956842	257	0.70254	0.5317	0.0903909	0.2827167	-0.942169062
0.17	-1.771956842	258	0.70527	0.5396	0.0917372	0.2912011	-0.956201941
0.17	-1.771956842	259	0.70801	0.5476	0.0930893	0.2998483	-0.970295255
0.171	-1.766091722	260	0.71075	0.5556	0.0950028	0.3086599	-0.98119051
0.173	-1.754463684	261	0.71349	0.5636	0.0975021	0.3176401	-0.988808148
0.175	-1.742969305	262	0.71622	0.5717	0.1000396	0.3267894	-0.996377008
0.176	-1.737271284	263	0.71896	0.5798	0.1020365	0.3361134	-1.007187978
0.179	-1.720369473	264	0.72170	0.5879	0.105232	0.3456126	-1.011385051
0.18	-1.714798428	265	0.72443	0.5961	0.1072912	0.3552903	-1.022126805
0.18	-1.714798428	266	0.72717	0.6043	0.1087697	0.3651498	-1.036211943
0.18	-1.714798428	267	0.72991	0.6125	0.1102556	0.3751943	-1.050367263
0.18	-1.714798428	268	0.73264	0.6208	0.1117492	0.3854287	-1.064596664
0.18	-1.714798428	269	0.73538	0.6292	0.1132506	0.3958552	-1.078900147
0.182	-1.703748592	270	0.73812	0.6376	0.1160347	0.4064745	-1.086230899
0.182	-1.703748592	271	0.74086	0.6460	0.117569	0.4172945	-1.100593293
0.1866	-1.678787991	272	0.74359	0.6545	0.122122	0.4283162	-1.098697481
0.19	-1.660731207	273	0.74633	0.6630	0.1259666	0.4395449	-1.101034643
0.19	-1.660731207	274	0.74907	0.6716	0.127595	0.450983	-1.115268522
0.19	-1.660731207	275	0.75180	0.6802	0.1292332	0.4626376	-1.129587363
0.191	-1.655481851	276	0.75454	0.6888	0.1315697	0.4745098	-1.140373276
0.194	-1.63989712	277	0.75728	0.6976	0.1353286	0.4866038	-1.14394292
0.194	-1.63989712	278	0.76001	0.7063	0.1370315	0.4989271	-1.158337545
0.196	-1.62964062	279	0.76275	0.7152	0.1401751	0.5114808	-1.165484561
0.197	-1.62455155	280	0.76549	0.7241	0.1426412	0.5242729	-1.176284041
0.199	-1.614450454	281	0.76822	0.7330	0.1458698	0.5373096	-1.183414908
0.2	-1.609437912	282	0.77096	0.7420	0.1484036	0.5505908	-1.194232019
0.2	-1.609437912	283	0.77370	0.7511	0.1502167	0.5641264	-1.208822199
0.2	-1.609437912	284	0.77644	0.7602	0.152042	0.5779196	-1.223511184
0.2	-1.609437912	285	0.77917	0.7694	0.1538806	0.5919809	-1.238306292
0.2	-1.609437912	286	0.78191	0.7787	0.1557319	0.6063104	-1.253203865
0.2	-1.609437912	287	0.78465	0.7880	0.1575968	0.6209187	-1.268211221
0.2	-1.609437912	288	0.78738	0.7974	0.1594753	0.6358097	-1.28332836
0.2	-1.609437912	289	0.79012	0.8068	0.161368	0.6509908	-1.298558941
0.2	-1.609437912	290	0.79286	0.8164	0.1632754	0.6664718	-1.313908455
0.2	-1.609437912	291	0.79559	0.8260	0.1651979	0.6822586	-1.329378729
0.201	-1.604450371	292	0.79833	0.8357	0.1679712	0.6983574	-1.340803617
0.207	-1.575036486	293	0.80107	0.8454	0.1750073	0.7147786	-1.331607999
0.2075	-1.572623939	294	0.80381	0.8553	0.1774734	0.7315267	-1.345054821
0.209	-1.565421027	295	0.80654	0.8652	0.1808325	0.7486183	-1.354445041
0.21	-1.560647748	296	0.80928	0.8752	0.1838015	0.7660545	-1.365949771

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.21	-1.560647748	297	0.81202	0.8854	0.185924	0.7838485	-1.381722863
0.21	-1.560647748	298	0.81475	0.8956	0.188066	0.8020136	-1.397641443
0.21	-1.560647748	299	0.81749	0.9058	0.190227	0.8205517	-1.413701964
0.21	-1.560647748	300	0.82023	0.9162	0.1924092	0.8394848	-1.429918619
0.214	-1.541779264	301	0.82296	0.9267	0.1983187	0.8588152	-1.428802004
0.215	-1.537117251	302	0.82570	0.9373	0.2015225	0.8785573	-1.440761321
0.215	-1.537117251	303	0.82844	0.9480	0.203823	0.8987307	-1.45720879
0.217	-1.527857925	304	0.83118	0.9588	0.2080642	0.919338	-1.464942488
0.218	-1.523260216	305	0.83391	0.9697	0.2114037	0.9403994	-1.477169263
0.22	-1.514127733	306	0.83665	0.9808	0.2157718	0.9619312	-1.485027555
0.22	-1.514127733	307	0.83939	0.9919	0.2182269	0.9839458	-1.501924463
0.22	-1.514127733	308	0.84212	1.0032	0.2207095	1.0064603	-1.519010722
0.22	-1.514127733	309	0.84486	1.0146	0.2232201	1.0294879	-1.536289773
0.221	-1.509592577	310	0.84760	1.0262	0.2267869	1.053056	-1.549121479
0.222	-1.505077897	311	0.85033	1.0379	0.2304071	1.0771739	-1.562075015
0.223	-1.500583508	312	0.85307	1.0497	0.2340826	1.1018656	-1.575159293
0.225	-1.491654877	313	0.85581	1.0617	0.2388771	1.1271557	-1.583654038
0.225	-1.491654877	314	0.85855	1.0738	0.2416069	1.1530648	-1.601751778
0.225	-1.491654877	315	0.86128	1.0861	0.2443726	1.179614	-1.620086933
0.23	-1.46967597	316	0.86402	1.0986	0.2526684	1.2068301	-1.614524569
0.23	-1.46967597	317	0.86676	1.1112	0.2555734	1.2347405	-1.633087469
0.23	-1.46967597	318	0.86949	1.1240	0.2585198	1.2633738	-1.651914361
0.23	-1.46967597	319	0.87223	1.1370	0.2615095	1.2927644	-1.67101861
0.23	-1.46967597	320	0.87497	1.1502	0.2645443	1.3229427	-1.690410241
0.23	-1.46967597	321	0.87770	1.1636	0.2676255	1.3539401	-1.71009928
0.23	-1.46967597	322	0.88044	1.1772	0.2707555	1.3857943	-1.730099092
0.232	-1.461017907	323	0.88318	1.1910	0.2763182	1.4185442	-1.740111064
0.2325	-1.458865054	324	0.88592	1.2051	0.2801833	1.4522409	-1.758063068
0.233	-1.456716825	325	0.88865	1.2194	0.2841187	1.4869209	-1.776311251
0.233	-1.456716825	326	0.89139	1.2340	0.2875109	1.5226385	-1.797519207
0.235	-1.448169765	327	0.89413	1.2488	0.2934626	1.5594444	-1.808441316
0.236	-1.443923474	328	0.89686	1.2639	0.2982755	1.5973909	-1.824945007
0.236	-1.443923474	329	0.89960	1.2793	0.3019094	1.6365498	-1.847178173
0.237	-1.439695138	330	0.90234	1.2950	0.3069118	1.6769895	-1.864385487
0.239	-1.431291727	331	0.90507	1.3110	0.3133334	1.7187693	-1.876449822
0.24	-1.427116356	332	0.90781	1.3274	0.3185756	1.7619866	-1.894351999
0.24	-1.427116356	333	0.91055	1.3441	0.3225936	1.8067122	-1.918244101
0.24	-1.427116356	334	0.91329	1.3613	0.3267043	1.8530506	-1.942687834
0.24	-1.427116356	335	0.91602	1.3788	0.3309127	1.9010979	-1.967712402
0.242	-1.418817553	336	0.91876	1.3968	0.3380195	1.9509795	-1.981768431
0.242	-1.418817553	337	0.92150	1.4152	0.3424809	2.0028197	-2.007924982
0.243	-1.414693836	338	0.92423	1.4341	0.3484952	2.0567481	-2.028864378
0.244	-1.410587054	339	0.92697	1.4536	0.3546762	2.1129262	-2.050416381
0.248	-1.394326533	340	0.92971	1.4736	0.3654561	2.1715363	-2.054698176
0.25	-1.386294361	341	0.93244	1.4942	0.3735613	2.2327688	-2.07146373
0.252	-1.378326191	342	0.93518	1.5155	0.3819141	2.2968371	-2.088897379
0.2535	-1.372391456	343	0.93792	1.5375	0.3897634	2.3639926	-2.110090398
0.2565	-1.360626614	344	0.94066	1.5603	0.4002163	2.4345276	-2.122982003
0.264	-1.331806176	345	0.94339	1.5839	0.4181504	2.5087494	-2.109452081
0.269	-1.313043899	346	0.94613	1.6084	0.4326671	2.5870398	-2.111936229
0.27	-1.30933332	347	0.94887	1.6340	0.4411685	2.6698163	-2.139394676
0.276	-1.287354413	348	0.95160	1.6606	0.4583258	2.7575954	-2.137781899

Table 48. Selenium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.281	-1.26940061	349	0.95434	1.6885	0.474462	2.8509543	-2.143353624
0.288	-1.244794799	350	0.95708	1.7177	0.4947065	2.9505991	-2.138222379
0.292	-1.231001477	351	0.95981	1.7485	0.510571	3.0573601	-2.152444057
0.294	-1.224175512	352	0.96255	1.7811	0.5236407	3.1722843	-2.180367692
0.294	-1.224175512	353	0.96529	1.8157	0.5338016	3.2965906	-2.222676175
0.294	-1.224175512	354	0.96803	1.8525	0.5446443	3.4318732	-2.26782378
0.295	-1.220779923	355	0.97076	1.8921	0.5581733	3.5800908	-2.30985329
0.299	-1.207311706	356	0.97350	1.9349	0.5785364	3.7438554	-2.336032856
0.3	-1.203972804	357	0.97624	1.9816	0.5944685	3.9265863	-2.385746254
0.3	-1.203972804	358	0.97897	2.0330	0.6098953	4.1330256	-2.447657944
0.31	-1.171182982	359	0.98171	2.0904	0.6480299	4.3698516	-2.44826316
0.322	-1.133203733	360	0.98445	2.1557	0.6941421	4.6471318	-2.44287077
0.326	-1.120857898	361	0.98718	2.2317	0.727546	4.9806469	-2.501459245
0.36	-1.021651248	362	0.98992	2.3234	0.8364223	5.3981651	-2.373699569
0.406	-0.901402119	363	0.99266	2.4401	0.9906738	5.9540067	-2.19949629
0.7	-0.356674944	364	0.99540	2.6042	1.8229221	6.7817241	-0.928843747
0.755	-0.28103753	365	0.99810	2.8948	2.1855834	8.3799394	-0.813550953

Figure 2. Selenium Near Upgradient Background Data Set, Histogram (normal)

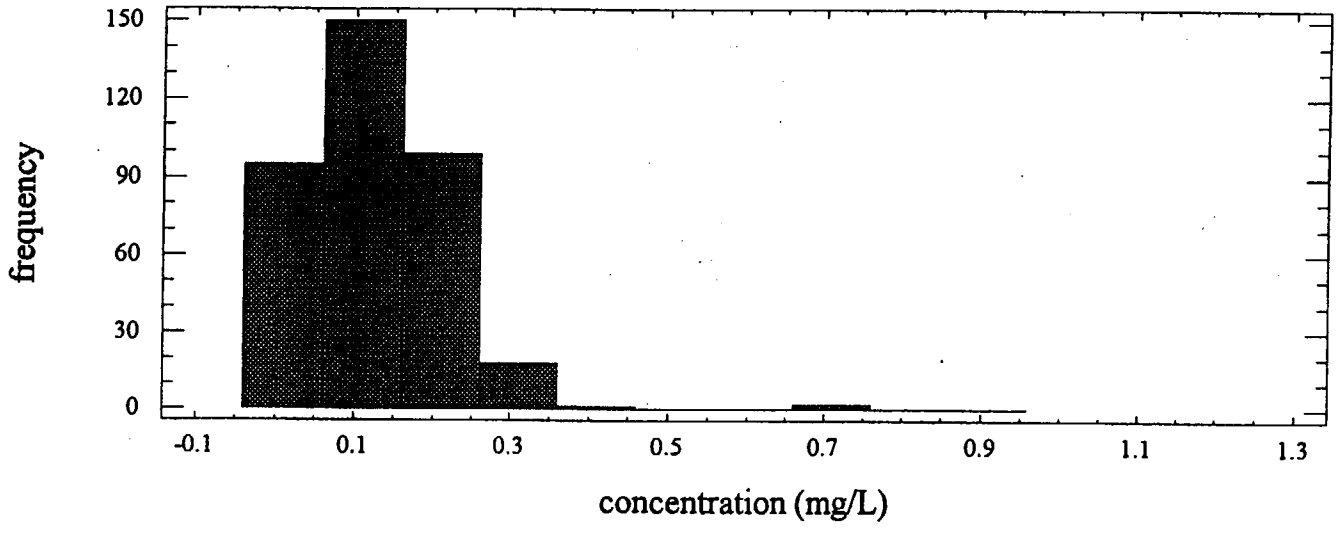

Figure 3. Selenium Near Upgradient Background Data Set, Histogram (lognormal)

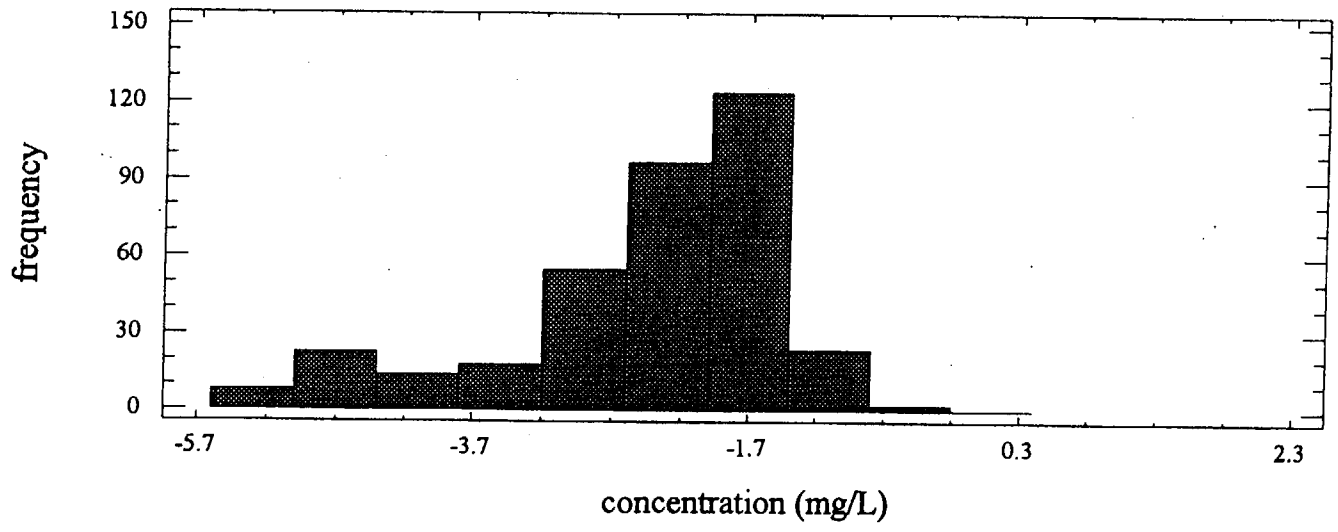

Figure 4. Selenium Near Upgradient Data Set, Probability Plot (normal)

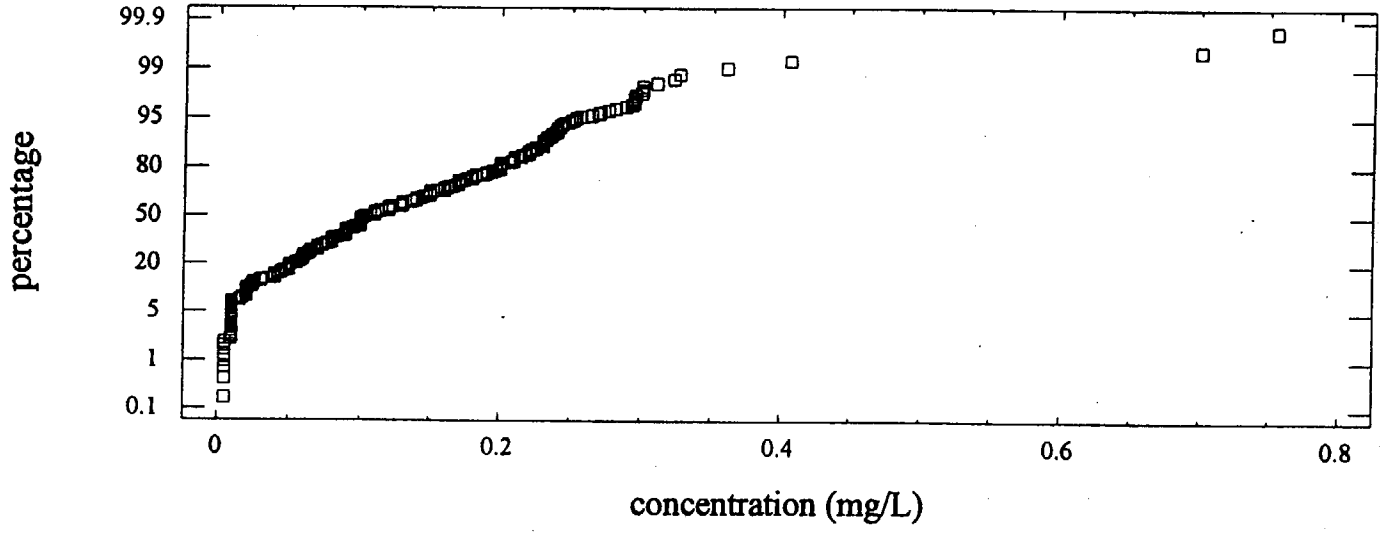

Figure 5. Selenium Near Upgradient Data Set, Probability Plot (lognormal)

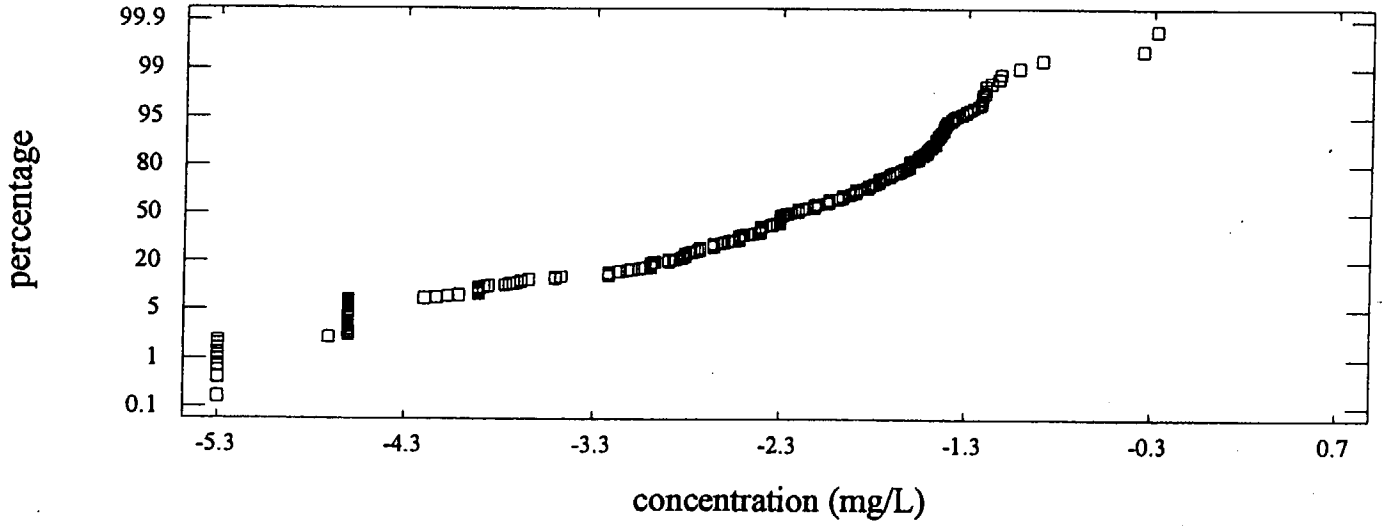

Table 49. Selenium Near Upgradient Background Data Set, Distribution Summary

Parameter	Distribution Type (tested)	Coefficient of Variation	Studentized Range Test	Geary's Test	Coefficient of Skewness (-1 to 1)	Shapiro-Francia Test	Filliben's Statistic	Histogram	Probability Plot	Number of Samples	Distribution Type (determined)
Selenium	Normal	Pass	Fail	Fail	Fail	Fail	Fail	Nonparametric	Nonparametric	365	Nonparametric
Selenium	Lognormal	Pass	NA	Fail	Fail	Fail	Fail	Nonparametric	Nonparametric	365	

NA - not applicable

Table 50. Selenium Near Upgradient Background Data Set, T_n Statisitic Analysis

Parameter	Distribution	Maximum Observation	Mean	Standard Deviation	T_n Statistic	N	Upper 5% Critical Value	Pass or Fail T_n Statistic
Selenium	Lognormal	-0.28104	-2.42326	0.998153	2.146	365	3.34+	Pass

N - number of samples

Table 51. Selenium Near Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (mg/L)	Sample #
Selenium	Nonparametric	0.27	365

SD = standard deviation

Table 52. Selenium Near Upgradient Background Data Set, Summary Table

Parameter	Distribution	95th Percentile (mg/L)	Range (normal)	Sample #
Selenium	Nonparametric	0.27	0.009 to 0.755	365

SD = standard deviation

ND = non-detect, concentration reported as the minimum detecatable activity (MDA)

Table 53. Selenium Far Upgradient Background Data Set (data not corrected for non-detects or duplicates)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value
0914	10-Jan-83	Selenium	Homestake	Less Than	0.01
0914	14-Mar-94	Selenium	Energy Laboratories	None	0.031
0914	12-May-94	Selenium	Energy Laboratories	None	0.052
0914	24-Jan-96	Selenium	Energy Laboratories	Less Than	0.01
0914	22-May-97	Selenium	Energy Laboratories	None	0.007
0914	12-May-98	Selenium	Energy Laboratories	Less Than	0.005
0916	21-Feb-94	Selenium	Energy Laboratories	None	0.008
0916	26-Apr-94	Selenium	Energy Laboratories	None	0.009
0916	29-Jan-96	Selenium	Energy Laboratories	Less Than	0.01
0916	28-May-97	Selenium	Energy Laboratories	None	0.008
0916	12-May-98	Selenium	Energy Laboratories	None	0.007
0920	03-Nov-81	Selenium	Homestake	None	0.79
0920	30-Aug-82	Selenium	Homestake	None	0.32
0920	05-Jan-83	Selenium	Homestake	None	0.37
0920	31-Aug-83	Selenium	Homestake	None	0.48
0920	14-Dec-89	Selenium	Homestake	None	0.51
0920	09-May-90	Selenium	Homestake	None	0.58
0920	21-May-91	Selenium	Homestake	None	0.73
0920	06-May-92	Selenium	Homestake	None	0.76
0920	06-May-93	Selenium	Homestake	None	0.57
0920	28-Feb-94	Selenium	Energy Laboratories	None	0.407
0920	29-Apr-94	Selenium	Energy Laboratories	None	0.367
0920	29-Apr-94	Selenium	Energy Laboratories	None	0.326
0920	11-May-94	Selenium	Energy Laboratories	None	0.516
0920	10-May-95	Selenium	Energy Laboratories	None	0.492
0920	24-Jan-96	Selenium	Energy Laboratories	None	0.394
0920	20-May-96	Selenium	Energy Laboratories	None	0.507
0920	23-May-97	Selenium	Energy Laboratories	None	0.495
0920	12-May-98	Selenium	Energy Laboratories	None	0.424
0921	28-Feb-94	Selenium	Energy Laboratories	None	0.415
0921	16-May-94	Selenium	Energy Laboratories	None	0.547
0921	24-Jan-96	Selenium	Energy Laboratories	None	0.534
0921	23-May-97	Selenium	Energy Laboratories	None	0.605
0921	12-May-98	Selenium	Energy Laboratories	None	0.522
0922	03-Nov-81	Selenium	Homestake	Less Than	0.01
0922	04-Mar-94	Selenium	Energy Laboratories	Less Than	0.005
0922	16-May-94	Selenium	Energy Laboratories	None	0.019
0922	24-Jan-96	Selenium	Energy Laboratories	None	0.011
0922	23-May-97	Selenium	Energy Laboratories	None	0.006
0922	12-May-98	Selenium	Energy Laboratories	Quality Control Less Than	0.005
0922	12-May-98	Selenium	Energy Laboratories	Less Than	0.005
0950	28-Feb-94	Selenium	Energy Laboratories	None	0.276
0950	11-May-94	Selenium	Energy Laboratories	None	0.288
0950	25-Jan-96	Selenium	Energy Laboratories	None	0.336

Table 54. Selenium Far Upgradient Background Data Set for Well 914
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
10-Jan-83	Selenium	0.005
14-Mar-94	Selenium	0.031
12-May-94	Selenium	0.052
24-Jan-96	Selenium	0.005
22-May-97	Selenium	0.007
12-May-98	Selenium	0.0025

Table 55. Selenium Far Upgradient Background Data Set for Well 916
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Feb-94	Selenium	0.008
26-Apr-94	Selenium	0.009
29-Jan-96	Selenium	0.005
28-May-97	Selenium	0.008
12-May-98	Selenium	0.007

Table 56. Selenium Far Upgradient Background Data Set for Well 920
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Selenium	0.79
30-Aug-82	Selenium	0.32
05-Jan-83	Selenium	0.37
31-Aug-83	Selenium	0.48
14-Dec-89	Selenium	0.51
09-May-90	Selenium	0.58
21-May-91	Selenium	0.73
06-May-92	Selenium	0.76
06-May-93	Selenium	0.57
28-Feb-94	Selenium	0.407
29-Apr-94	Selenium	0.3465
11-May-94	Selenium	0.516
10-May-95	Selenium	0.492
24-Jan-96	Selenium	0.394
20-May-96	Selenium	0.507
23-May-97	Selenium	0.495
12-May-98	Selenium	0.424

Table 57. Selenium Far Upgradient Background Data Set for Well 921
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Selenium	0.415
16-May-94	Selenium	0.547
24-Jan-96	Selenium	0.534
23-May-97	Selenium	0.605
12-May-98	Selenium	0.522

Table 58. Selenium Far Upgradient Background Data Set for Well 922
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Selenium	0.005
04-Mar-94	Selenium	0.0025
16-May-94	Selenium	0.019
24-Jan-96	Selenium	0.011
23-May-97	Selenium	0.006
12-May-98	Selenium	0.0025

Table 59. Selenium Far Upgradient Background Data Set for Well 950
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Selenium	0.276
11-May-94	Selenium	0.288
25-Jan-96	Selenium	0.336

Table 60. Selenium Far Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L)

Well ID					
914	**916**	**920**	**921**	**922**	**950**
0.005	0.009	0.79	0.415	0.005	0.276
0.031	0.008	0.76	0.547	0.0025	0.288
0.052	0.008	0.73	0.534	0.019	0.336
0.005	0.007	0.58	0.605	0.011	
0.007	0.005	0.57	0.522	0.006	
0.0025		0.516		0.0025	
		0.51			
		0.507			
		0.495			
		0.492			
		0.48			
		0.424			
		0.407			
		0.394			
		0.37			
		0.3465			
		0.32			

Table 61. Selenium Far Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Selenium	0.79	0.76	1.0	**PASS**

Table 62. Selenium Far Upgradient Background Data Set, Coefficient of Variation Analysis

Parameter	Mean	Standard Deviation	Coefficient of Variation	Results
Selenium, normal	0.2952381	0.2598118	0.88	**Pass**
Selenium, lognormal	-2.436615	2.1405601	-0.88	**Pass**

Table 63. Selenium Far Upgradient Background Data Set, Studentized Range Test Analysis

Parameter	Range		Standard Deviation	Critical Values		W/S	Results
	Maximum	Minimum		Maximum	Minimum		
Selenium, normal	0.79	0.0025[a]	0.26	5.26	3.75	3.03	**FAIL**

w = range of values

s = standard deviation

[a]Concentration is 0.5 of detection limit.

Table 64. Selenium Far Upgradient Background Data Set, Geary's Test Analysis

Selenium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.79	0.6241	0.4947619	0.494761905
0.76	0.5776	0.4647619	0.464761905
0.73	0.5329	0.4347619	0.434761905
0.605	0.366025	0.3097619	0.309761905
0.58	0.3364	0.2847619	0.284761905
0.57	0.3249	0.2747619	0.274761905
0.547	0.299209	0.2517619	0.251761905
0.534	0.285156	0.2387619	0.238761905
0.522	0.272484	0.2267619	0.226761905
0.516	0.266256	0.2207619	0.220761905
0.51	0.2601	0.2147619	0.214761905
0.507	0.257049	0.2117619	0.211761905
0.495	0.245025	0.1997619	0.199761905
0.492	0.242064	0.1967619	0.196761905
0.48	0.2304	0.1847619	0.184761905
0.424	0.179776	0.1287619	0.128761905
0.415	0.172225	0.1197619	0.119761905
0.407	0.165649	0.1117619	0.111761905
0.394	0.155236	0.0987619	0.098761905
0.37	0.1369	0.0747619	0.074761905
0.3465	0.1200623	0.0512619	0.051261905
0.336	0.112896	0.0407619	0.040761905
0.32	0.1024	0.0247619	0.024761905
0.288	0.082944	-0.007238	0.007238095
0.276	0.076176	-0.019238	0.019238095
0.052	0.002704	-0.243238	0.243238095
0.031	0.000961	-0.264238	0.264238095
0.019	0.000361	-0.276238	0.276238095
0.011	0.000121	-0.284238	0.284238095
0.009	0.000081	-0.286238	0.286238095
0.008	0.000064	-0.287238	0.287238095
0.008	0.000064	-0.287238	0.287238095
0.007	0.000049	-0.288238	0.288238095
0.007	0.000049	-0.288238	0.288238095
0.006	0.000036	-0.289238	0.289238095
0.005	0.000025	-0.290238	0.290238095
0.005	0.000025	-0.290238	0.290238095
0.005	0.000025	-0.290238	0.290238095
0.005	0.000025	-0.290238	0.290238095
0.0025	6.25E-06	-0.292738	0.292738095
0.0025	6.25E-06	-0.292738	0.292738095
0.0025	6.25E-06	-0.292738	0.292738095

0.2952381 =mean
12.4 = sum of Xi
6.428541 = sum of Xi^2
42 = count

2.7675886 = SSS
9.7200476 = SAD

0.9015566 = alpha

3.2 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 64. Selenium Far Upgradient Background Data Set, Geary's Test Analysis (continued)

Selenium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-0.235722	0.055565	2.2008929	2.200892851
-0.274437	0.0753156	2.1621783	2.162178338
-0.314711	0.0990429	2.1219044	2.121904439
-0.502527	0.2525332	1.9340884	1.934088363
-0.544727	0.2967277	1.891888	1.891888009
-0.562119	0.3159777	1.8744963	1.874496266
-0.603306	0.3639787	1.8333087	1.833308707
-0.627359	0.3935799	1.8092557	1.809255744
-0.650088	0.422614	1.7865275	1.786527493
-0.661649	0.4377788	1.7749667	1.774966671
-0.673345	0.4533929	1.7632706	1.763270631
-0.679244	0.4613728	1.7573709	1.757370909
-0.703198	0.4944867	1.7334177	1.733417668
-0.709277	0.5030732	1.7273386	1.727338622
-0.733969	0.5387107	1.702646	1.702646009
-0.858022	0.7362015	1.5785934	1.57859336
-0.879477	0.7734794	1.5571384	1.557138425
-0.898942	0.8080969	1.5376731	1.537673091
-0.931404	0.8675141	1.5052108	1.505210814
-0.994252	0.9885376	1.4423629	1.442362911
-1.059872	1.1233296	1.3767427	1.376742724
-1.090644	1.1895046	1.3459711	1.345971065
-1.139434	1.2983105	1.2971809	1.297180901
-1.244795	1.5495141	1.1918204	1.191820385
-1.287354	1.6572814	1.1492608	1.149260771
-2.956512	8.7409606	-0.519896	0.519896376
-3.473768	12.067065	-1.037153	1.03715289
-3.963316	15.707876	-1.526701	1.526701116
-4.50986	20.338837	-2.073245	2.073244822
-4.710531	22.189099	-2.273916	2.273915518
-4.828314	23.312614	-2.391699	2.391698553
-4.828314	23.312614	-2.391699	2.391698553
-4.961845	24.619907	-2.52523	2.525229946
-4.961845	24.619907	-2.52523	2.525229946
-5.115996	26.173413	-2.679381	2.679380626
-5.298317	28.072167	-2.861702	2.861702182
-5.298317	28.072167	-2.861702	2.861702182
-5.298317	28.072167	-2.861702	2.861702182
-5.298317	28.072167	-2.861702	2.861702182
-5.991465	35.897647	-3.554849	3.554849363
-5.991465	35.897647	-3.554849	3.554849363
-5.991465	35.897647	-3.554849	3.554849363

-2.436615 =mean
-102.3378 = sum of Xi
437.21982 = sum of Xi^2
42 = count

187.86189 = SSS
84.11101 = SAD

0.9469103 = alpha

4.5 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 65. Selenium Far Upgradient Background Data Set, Coefficient of Skewness Analysis

Selenium	Normal (xi-avg)^3
0.0025	-0.025086364
0.0025	-0.025086364
0.0025	-0.025086364
0.005	-0.024449121
0.005	-0.024449121
0.005	-0.024449121
0.005	-0.024449121
0.006	-0.024197276
0.007	-0.023947167
0.007	-0.023947167
0.008	-0.023698787
0.008	-0.023698787
0.009	-0.02345213
0.011	-0.022963964
0.019	-0.021079034
0.031	-0.018449572
0.052	-0.014391126
0.276	-7.1201E-06
0.288	-3.79204E-07
0.32	1.51828E-05
0.336	6.77272E-05
0.3465	0.000134705
0.37	0.00041787
0.394	0.000963315
0.407	0.001395987
0.415	0.001717735
0.424	0.002134824
0.48	0.00630721
0.492	0.007617686
0.495	0.007971463
0.507	0.009496061
0.51	0.009905394
0.516	0.010759012
0.522	0.011660315
0.534	0.013611159
0.547	0.015957691
0.57	0.020742904
0.58	0.023091156
0.605	0.02972241
0.73	0.082177788
0.76	0.100390258
0.79	0.121112441

	Normal
standard deviation =	0.2598118
mean =	0.295
count =	42
sum of (xi-avg)^3 =	0.0844822
1/n =	0.0238095
standard deviation cubed =	0.0175379
((n-1)/n)^(3/2) =	0.9644992
coef. of skewness =	0.1
acceptable range -1 to 1	**Pass**

Table 65. Selenium Far Upgradient Background Data Set, Coefficient of Skewness Analysis

(continued)

Selenium	Lognormal (xi-avg)^3
-5.99146455	-44.92246786
-5.99146455	-44.92246786
-5.99146455	-44.92246786
-5.29831737	-23.43545038
-5.29831737	-23.43545038
-5.29831737	-23.43545038
-5.29831737	-23.43545038
-5.11599581	-19.2354893
-4.96184513	-16.10285167
-4.96184513	-16.10285167
-4.82831374	-13.68104661
-4.82831374	-13.68104661
-4.7105307	-11.75771628
-4.50986001	-8.911519633
-3.9633163	-3.558459841
-3.47376807	-1.115650967
-2.95651156	-0.140523957
-1.28735441	1.517943993
-1.2447948	1.692904379
-1.13943428	2.18273814
-1.09064412	2.438412474
-1.05987246	2.609506419
-0.99425227	3.000707328
-0.93140437	3.410295325
-0.89894209	3.635733507
-0.87947676	3.775562515
-0.85802182	3.93378677
-0.73396918	4.935976623
-0.70927656	5.153858023
-0.70319752	5.208463874
-0.67924428	5.427380858
-0.67334455	5.482225833
-0.66164851	5.592044355
-0.65008769	5.702024932
-0.62735944	5.922429236
-0.60330648	6.16178873
-0.56211892	6.586485482
-0.54472718	6.771521685
-0.50252682	7.234840078
-0.31471074	9.553829009
-0.27443685	10.10821653
-0.23572233	10.66096945

Lognormal	
standard deviation =	2.1405601
mean =	-2.437
count =	42
sum of (xi-avg)^3 =	-204.0967
1/n =	0.0238095
standard deviation cubed =	9.8080406
((n-1)/n)^(3/2) =	0.9644992
coef. of skewness =	-0.5
acceptable range -1 to 1	**Pass**

Table 66. Selenium Far Upgradient Background Data Set, Shapiro-Wilk Test of Normality Analysis

Selenium - raw data				
X(i)	X(n-i+1)	X(n-i+1)-X(i)	An-i+1	Bi
0.0025	0.79	0.7875	0.3917	0.30846375
0.0025	0.76	0.7575	0.2701	0.20460075
0.0025	0.73	0.7275	0.2345	0.17059875
0.005	0.605	0.6	0.2085	0.1251
0.005	0.58	0.575	0.1874	0.107755
0.005	0.57	0.565	0.1694	0.095711
0.005	0.547	0.542	0.1535	0.083197
0.006	0.534	0.528	0.1392	0.0734976
0.007	0.522	0.515	0.1259	0.0648385
0.007	0.516	0.509	0.1136	0.0578224
0.008	0.51	0.502	0.102	0.051204
0.008	0.507	0.499	0.0909	0.0453591
0.009	0.495	0.486	0.0804	0.0390744
0.011	0.492	0.481	0.0701	0.0337181
0.019	0.48	0.461	0.0602	0.0277522
0.031	0.424	0.393	0.0506	0.0198858
0.052	0.415	0.363	0.0411	0.0149193
0.276	0.407	0.131	0.0318	0.0041658
0.288	0.394	0.106	0.0227	0.0024062
0.32	0.37	0.05	0.0136	0.00068
0.336	0.3465	0.0105	0.0045	0.00004725
0.3465	0.336	-0.0105		
0.37	0.32	-0.05		
0.394	0.288	-0.106		
0.407	0.276	-0.131		
0.415	0.052	-0.363		
0.424	0.031	-0.393		
0.48	0.019	-0.461		
0.492	0.011	-0.481		
0.495	0.009	-0.486		
0.507	0.008			
0.51	0.008			
0.516	0.007			
0.522	0.007			
0.534	0.006			
0.547	0.005			
0.57	0.005			
0.58	0.005			
0.605	0.005			
0.73	0.0025			
0.76	0.0025			
0.79	0.0025			

1.5307969 =sum of B
0.259811781 = standard deviation
41 = count - 1

0.8467079 = W statistic
.942 is acceptable low value
Fails Shapiro-Wilk test

Table 66. Selenium Far Upgradient Background Data Set, Shapiro-Wilk (continued) Test of Normality Analysis

Selenium - log data				
X(i)	X(n-i+1)	X(n-i+1)-X(i)	An-i+1	Bi
-5.991465	-0.235722334	5.755742214	0.3917	2.254524225
-5.991465	-0.274436846	5.717027701	0.2701	1.544169182
-5.991465	-0.314710745	5.676753802	0.2345	1.331198767
-5.298317	-0.502526821	4.795790546	0.2085	0.999922329
-5.298317	-0.544727175	4.753590191	0.1874	0.890822802
-5.298317	-0.562118918	4.736198448	0.1694	0.802312017
-5.298317	-0.603306477	4.69501089	0.1535	0.720684172
-5.115996	-0.62735944	4.48863637	0.1392	0.624818183
-4.961845	-0.650087691	4.311757439	0.1259	0.542850262
-4.961845	-0.661648514	4.300196616	0.1136	0.488502336
-4.828314	-0.673344553	4.154969184	0.102	0.423806857
-4.828314	-0.679244275	4.149069462	0.0909	0.377150414
-4.710531	-0.703197516	4.007333185	0.0804	0.322189588
-4.50986	-0.709276562	3.800583444	0.0701	0.266420899
-3.963316	-0.733969175	3.229347125	0.0602	0.194406697
-3.473768	-0.858021824	2.615746251	0.0506	0.13235676
-2.956512	-0.879476759	2.077034802	0.0411	0.08536613
-1.287354	-0.898942094	0.38841232	0.0318	0.012351512
-1.244795	-0.93140437	0.313390429	0.0227	0.007113963
-1.139434	-0.994252273	0.14518201	0.0136	0.001974475
-1.090644	-1.05987246	0.030771659	0.0045	0.000138472
-1.059872	-1.090644119	-0.030771659		
-0.994252	-1.139434283	-0.14518201		
-0.931404	-1.244794799	-0.313390429		
-0.898942	-1.287354413	-0.38841232		
-0.879477	-2.95651156	-2.077034802		
-0.858022	-3.473768074	-2.615746251		
-0.733969	-3.9633163	-3.229347125		
-0.709277	-4.509860006	-3.800583444		
-0.703198	-4.710530702	-4.007333185		
-0.679244	-4.828313737			
-0.673345	-4.828313737			
-0.661649	-4.96184513			
-0.650088	-4.96184513			
-0.627359	-5.11599581			
-0.603306	-5.298317367			
-0.562119	-5.298317367			
-0.544727	-5.298317367			
-0.502527	-5.298317367			
-0.314711	-5.991464547			
-0.274437	-5.991464547			
-0.235722	-5.991464547			

12.02308004 =sum of B
2.140560062 = standard deviation
41 = count - 1

0.769471934 = W statistic
.942 is acceptable low value
Fails Shapiro-Wilk test

Table 67. Selenium Far Upgradient Background Data, Filliben's Statistic Analysis

Selenium	Ln(Selenium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0025	-5.991464547	1	0.01637	-2.1353	-0.005338	4.559517	12.79358962
0.0025	-5.991464547	2	0.03971	-1.7540	-0.004385	3.076553	10.50909205
0.0025	-5.991464547	3	0.06332	-1.5275	-0.003819	2.3332451	9.151940237
0.005	-5.298317367	4	0.08692	-1.3599	-0.0068	1.8494619	7.205442664
0.005	-5.298317367	5	0.11053	-1.2237	-0.006119	1.4975087	6.483696109
0.005	-5.298317367	6	0.13413	-1.1071	-0.005535	1.2256013	5.865601761
0.005	-5.298317367	7	0.15774	-1.0038	-0.005019	1.007624	5.318476165
0.006	-5.11599581	8	0.18134	-0.9103	-0.005462	0.8285874	4.656926109
0.007	-4.96184513	9	0.20495	-0.8241	-0.005769	0.6791183	4.088988734
0.007	-4.96184513	10	0.22855	-0.7436	-0.005205	0.5529892	3.689788935
0.008	-4.828313737	11	0.25215	-0.6677	-0.005342	0.445858	3.223990613
0.008	-4.828313737	12	0.27576	-0.5955	-0.004764	0.3546076	2.875209565
0.009	-4.710530702	13	0.29936	-0.5262	-0.004736	0.2769218	2.478839691
0.011	-4.509860006	14	0.32297	-0.4594	-0.005054	0.2110645	2.071909088
0.019	-3.9633163	15	0.34657	-0.3946	-0.007497	0.1557039	1.56389834
0.031	-3.473768074	16	0.37018	-0.3314	-0.010273	0.109818	1.151165183
0.052	-2.95651156	17	0.39378	-0.2695	-0.014013	0.0726194	0.79672035
0.276	-1.287354413	18	0.41738	-0.2086	-0.057571	0.0435095	0.268528226
0.288	-1.244794799	19	0.44099	-0.1485	-0.042757	0.0220408	0.184803938
0.32	-1.139434283	20	0.46459	-0.0889	-0.028438	0.0078975	0.101259091
0.336	-1.090644119	21	0.48820	-0.0296	-0.009942	0.0008755	0.032270127
0.3465	-1.05987246	22	0.51180	0.0296	0.0102523	0.0008755	-0.031359651
0.37	-0.994252273	23	0.53541	0.0889	0.0328811	0.0078975	-0.088357076
0.394	-0.93140437	24	0.55901	0.1485	0.0584938	0.0220408	-0.138277567
0.407	-0.898942094	25	0.58262	0.2086	0.0848958	0.0435095	-0.187509611
0.415	-0.879476759	26	0.60622	0.2695	0.1118341	0.0726194	-0.237001282
0.424	-0.858021824	27	0.62982	0.3314	0.1405085	0.109818	-0.284338168
0.48	-0.733969175	28	0.65343	0.3946	0.1894048	0.1557039	-0.289619371
0.492	-0.709276562	29	0.67703	0.4594	0.2260335	0.2110645	-0.32585414
0.495	-0.703197516	30	0.70064	0.5262	0.2604856	0.2769218	-0.370046185
0.507	-0.679244275	31	0.72424	0.5955	0.3019131	0.3546076	-0.404482754
0.51	-0.673344553	32	0.74785	0.6677	0.3405403	0.445858	-0.449609664
0.516	-0.661648514	33	0.77145	0.7436	0.3837143	0.5529892	-0.49202329
0.522	-0.650087691	34	0.79505	0.8241	0.4301731	0.6791183	-0.535728378
0.534	-0.62735944	35	0.81866	0.9103	0.486083	0.8285874	-0.57106508
0.547	-0.603306477	36	0.84226	1.0038	0.5490812	1.007624	-0.60560191
0.57	-0.562118918	37	0.86587	1.1071	0.6310292	1.2256013	-0.622304307
0.58	-0.544727175	38	0.88947	1.2237	0.7097619	1.4975087	-0.666597567
0.605	-0.502526821	39	0.91308	1.3599	0.8227693	1.8494619	-0.683410967
0.73	-0.314710745	40	0.93668	1.5275	1.1150723	2.3332451	-0.480719515
0.76	-0.274436846	41	0.96029	1.7540	1.333048	3.076553	-0.481365124
0.79	-0.235722334	42	0.98363	2.1353	1.686889	4.559517	-0.503338504

Normal

9.661 =sum X(i)*M(i)
38.622 =sum M(i)^2
0.26 = standard deviation
6.2147 = square root of sum Mi^2

0.934 = Fillibens's Statistic

Lognormal

76.064 =sum X(i)*M(i)
38.622 =sum M(i)^2
2.14 = standard deviation
6.2147 = square root of sum Mi^2

0.893 = Fillibens's Statistic

.973 is acceptable value

Normal - Fail
Lognormal - Fail

Figure 6. Selenium Far Upgradient Background Data Set, Histogram (normal)

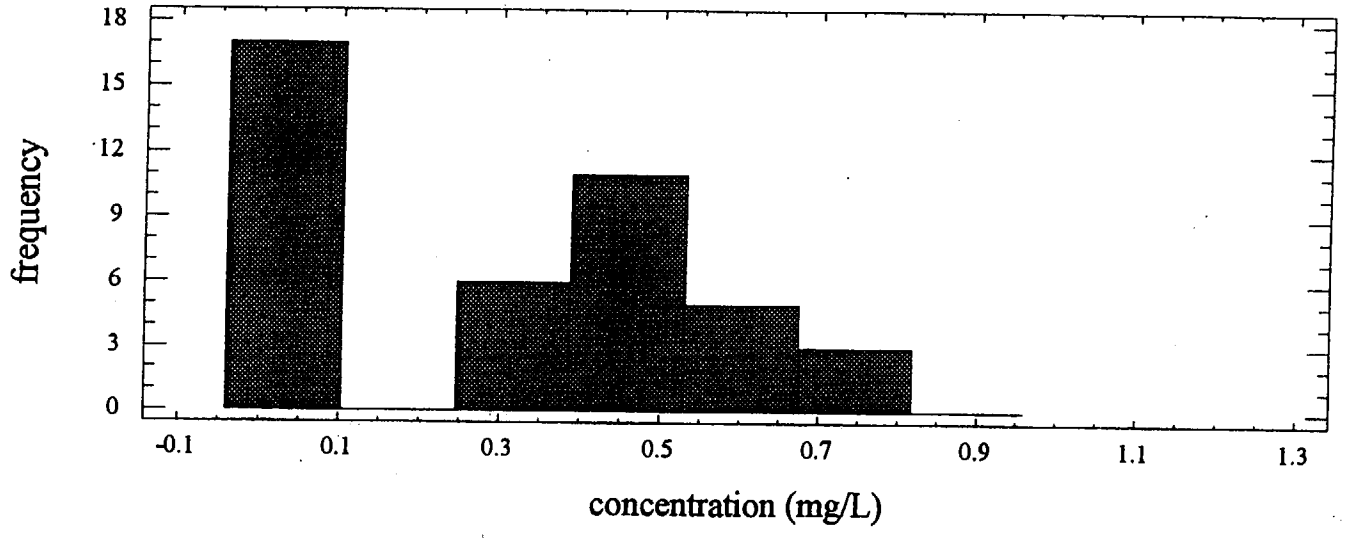

Figure 7. Selenium Far Upgradient Background Data Set, Histogram (lognormal)

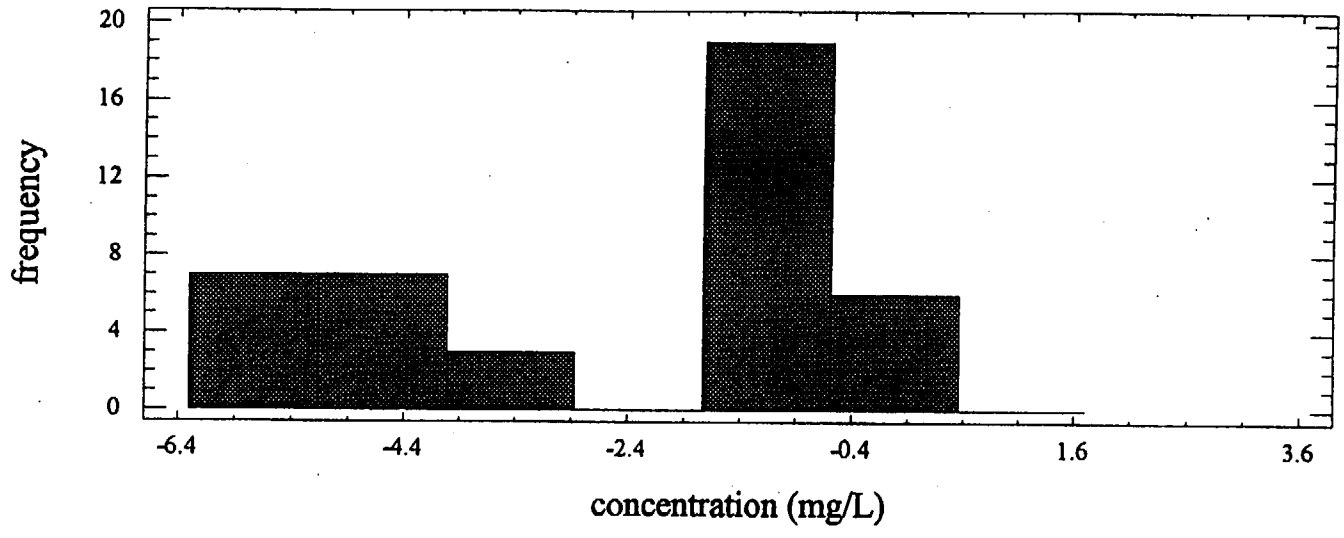

Figure 8. Selenium Far Upgradient Data Set, Probability Plot (normal)

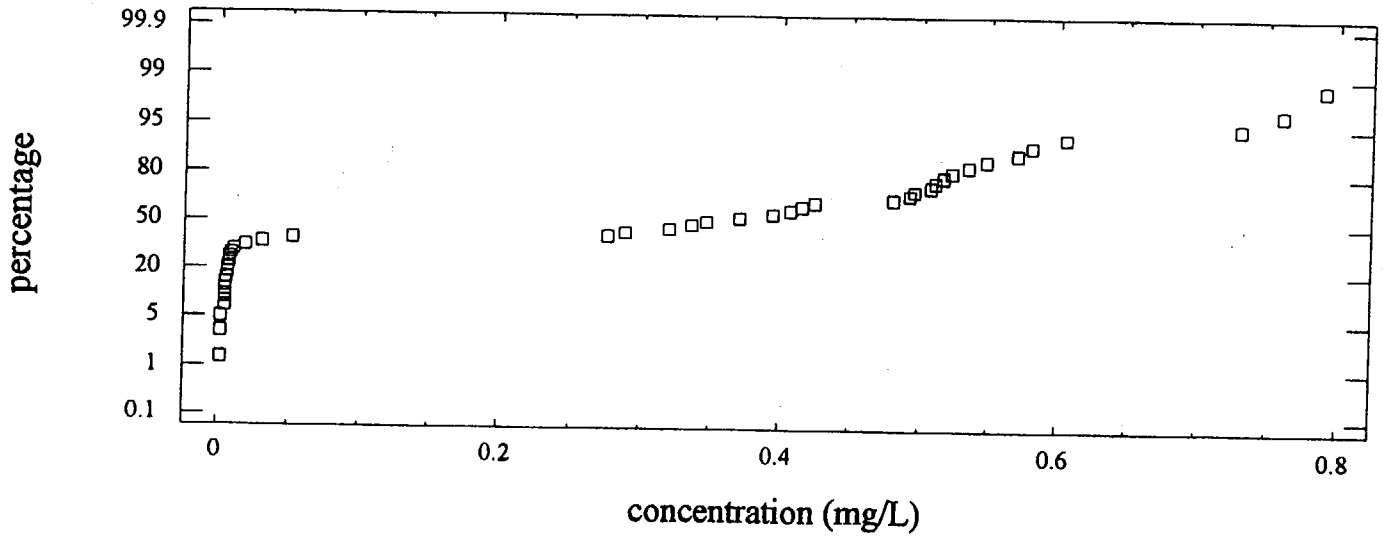

Figure 9. Selenium Far Upgradient Data Set, Probability Plot (lognormal)

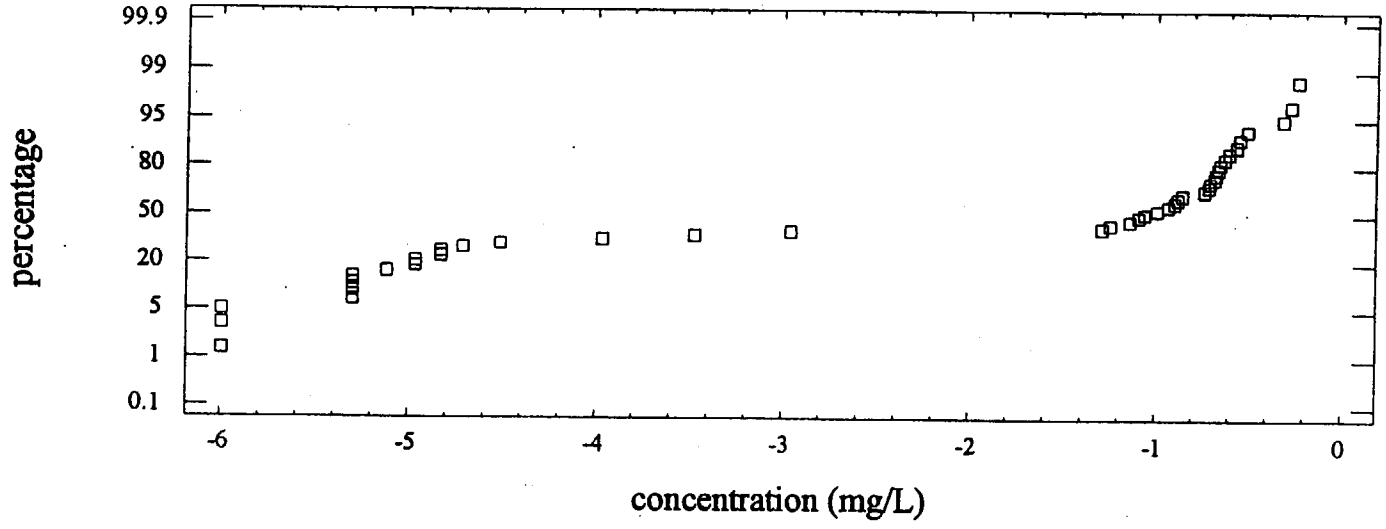

Table 68. Selenium Far Upgradient Background Data Set, Distribution Summary

Parameter	Distribution Type (tested)	Coefficient of Variation	Studentized Range Test	Geary's Test	Coefficient of Skewness (-1 to 1)	Shapiro-Wilk Test	Filliben's Statistic	Histogram	Probability Plot	Number of Samples	Distribution Type (determined)
Selenium	Normal	Pass	Fail	Fail	Pass	Fail	Fail	Nonparametric	Nonparametric	42	Nonparametric
Selenium	Lognormal	Pass	NA	Fail	Pass	Fail	Fail	Nonparametric	Nonparametric	42	

NA - not applicable

Table 69. Selenium Far Upgradient Background Data Set, T_n Statisitic Analysis

Parameter	Distribution	Maximum Observation	Mean	Standard Deviation	T_n Statistic	N	Upper 5% Critical Value	Pass or Fail T_n Statistic
Selenium	Normal	0.79	0.295238095	0.259811781	1.904	42	2.887	Pass

ND - concentration was non-detect
N - number of samples

Table 70. Selenium Far Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (pCi/g)	Sample #
Selenium	Nonparmetric	0.72	42

SD = standard deviation

Table 71. Selenium Far Upgradient Background Data Set, Summary Table

Parameter	Distribution	Mean	SD	95th Percentile (pCi/g)	Range (normal)	Sample #
Selenium	Nonparmetric	0.295238095	0.259811781	0.72	<0.005 to 0.79	42

SD = standard deviation
ND = non-detect, concentration reported as the minimum detecatable activity (MDA)

Table 72. Selenium Upgradient Background Data, Comparison Statistics Results

Comparison of Medians

Median of sample 1: 0.34125
Median of sample 2: 0.104

Mann-Whitney (Wilcoxon) W test to compare medians

Null hypothesis: median1 = median2
Alt. hypothesis: median1 NE median2

Average rank of sample 1: 243.119
Average rank of sample 2: 199.499

W = 6022.0
P-value = 0.0228734

The StatAdvisor

This option runs a Mann-Whitney W test option to compare the medians of the two samples. This test is constructed by combining the two samples, sorting the data from smallest to largest, and comparing the average ranks of the two samples in the combined data. Since the P-value is less than 0.05, there is a statistically significant difference between the medians at the 95.0% confidence level.

Table 73. Uranium concentrations in alluvial ground water samples upgradient of the Homestake Site, Grants, New Mexico, March 1976 to November 1998

Well ID	DD	ND	P	P1	P2	P3	P4	Q	R	All wells	914	916	920	921	922	950	All Wells
1st sampling date	03-Jun-76	12-Jan-83	30-Mar-76	21-Sep-92	21-Sep-92	23-Apr-98	24-Apr-98	30-Mar-76	30-Mar-76	30-Mar-76	10-Jan-83	21-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81	28-Feb-94	03-Nov-81
Most recent sampling date	01-Apr-98	05-Aug-98	12-Nov-98	28-Oct-98	28-Oct-98	23-Apr-98	24-Apr-98	04-Mar-98	06-May-98	12-Nov-98	12-May-98	12-May-98	12-May-98	12-May-98	12-May-98	25-Jan-96	12-May-98
Total number of measurments	56	13	132	32	31	1	1	100	110	476	6	5	18	5	6	3	43
Number of independent measurements	50	13	97	26	25	1	1	77	76	366	6	5	17	5	6	3	42
Percent nondect of total number of measurements	0.00%	7.69%	7.58%	0.00%	6.45%	0.00%	0.00%	12.00%	30.00%	12.20%	66.67%	20.00%	5.56%	0.00%	16.67%	0.00%	16.30%
Minimum	0.03392	0.00424	<0.00848	0.00848	0.005	0.024	0.022	<0.00848	0.003392	0.003392	0.001	0.007	<0.00848	0.148	0.003	0.06	0.001
Median	0.1272	0.056	0.0417	0.03	0.0275	0.024	0.022	0.0407	0.01688	0.03623	0.00462	0.008	0.09328	0.182	0.0081	0.093	0.0483
Mean	0.13	0.0562277	0.05149801	0.0292036	0.0274864	0.024	0.022	0.0460669	0.02369703	0.05166	0.00359	0.00746	0.09204659	0.174	0.00940667	0.1063333	0.0683
Maximum	0.20352	0.11872	0.7208	0.0416	0.0494	0.024	0.022	0.31376	0.11024	0.7208	0.005	0.009	0.185	0.192	0.019	0.166	0.192
Percent greater than or equal to the NRC site standard (0.04mg/L)	96.00%	69.23%	54.64%	7.69%	12.00%	0.00%	0.00%	51.95%	18.42%	46.20%	0.00%	0.00%	82.35%	100.00%	0.00%	100.00%	52.38%

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Table 74. Uranium Near Upgradient Background Data Set (data not corrected for non-detects or duplicates)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
DD	03-Jun-76	Uranium	Homestake	None	0.07632
DD	27-Aug-76	Uranium	Homestake	None	0.10176
DD	15-Sep-81	Uranium	Homestake	None	0.11872
DD	24-Mar-82	Uranium	Homestake	None	0.16112
DD	26-May-82	Uranium	Homestake	None	0.14416
DD	18-Nov-82	Uranium	Homestake	None	0.09328
DD	18-Nov-82	Uranium	Homestake	None	0.09328
DD	04-Mar-83	Uranium	Homestake	None	0.10176
DD	28-Jun-83	Uranium	Homestake	None	0.1272
DD	28-Jun-83	Uranium	NM EID	None	0.18
DD	14-Sep-83	Uranium	Homestake	None	0.09328
DD	19-Dec-83	Uranium	Homestake	None	0.111936
DD	07-Mar-84	Uranium	Homestake	None	0.125504
DD	09-May-84	Uranium	Homestake	None	0.11024
DD	09-May-84	Uranium	Controls for Env	None	0.018
DD	12-Sep-84	Uranium	Homestake	None	0.11194
DD	12-Dec-84	Uranium	Homestake	None	0.09328
DD	13-Mar-85	Uranium	Homestake	None	0.1272
DD	06-Jun-85	Uranium	Homestake	None	0.11872
DD	04-Sep-85	Uranium	Homestake	None	0.13568
DD	16-Dec-85	Uranium	Homestake	None	0.1272
DD	20-Mar-86	Uranium	Homestake	None	0.11872
DD	30-Jun-86	Uranium	Homestake	None	0.11024
DD	15-Sep-86	Uranium	Homestake	None	0.13568
DD	09-Dec-86	Uranium	Homestake	None	0.11024
DD	19-Mar-87	Uranium	Homestake	None	0.11024
DD	24-Jun-87	Uranium	Homestake	None	0.03392
DD	15-Sep-87	Uranium	Homestake	None	0.14416
DD	08-Dec-87	Uranium	Homestake	None	0.11872
DD	24-Feb-88	Uranium	Homestake	None	0.10176
DD	09-Jun-88	Uranium	Homestake	None	0.14416
DD	11-Oct-88	Uranium	Homestake	None	0.14416
DD	08-Dec-88	Uranium	Homestake	None	0.10176
DD	13-Dec-88	Uranium	Homestake	None	0.09328
DD	13-Dec-88	Uranium	Barringer Lab	None	0.229
DD	11-Jan-89	Uranium	Homestake	None	0.07632
DD	11-Jan-89	Uranium	Barringer Lab	None	0.204
DD	15-Feb-89	Uranium	Homestake	None	0.1272
DD	15-Feb-89	Uranium	Barringer Lab	None	0.245
DD	29-Mar-89	Uranium	Homestake	None	0.0848
DD	13-Jun-89	Uranium	Homestake	None	0.05936
DD	15-Nov-89	Uranium	Homestake	None	0.03392
DD	13-Mar-90	Uranium	Homestake	None	0.13568
DD	12-Sep-90	Uranium	Homestake	None	0.17808
DD	27-Feb-91	Uranium	Homestake	None	0.20352
DD	16-Sep-91	Uranium	Homestake	None	0.15264

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
DD	09-Mar-92	Uranium	Homestake	None	0.13568
DD	22-Sep-92	Uranium	Homestake	None	0.10176
DD	21-Oct-93	Uranium	Energy Lab	None	0.147
DD	09-Mar-94	Uranium	Energy Lab	None	0.182
DD	21-Oct-94	Uranium	Energy Lab	None	0.155
DD	10-Oct-95	Uranium	Energy Lab	None	0.163
DD	10-Oct-96	Uranium	Energy Lab	None	0.162
DD	14-Apr-97	Uranium	Energy Lab	None	0.188
DD	09-Sep-97	Uranium	Energy Lab	None	0.147
DD	01-Apr-98	Uranium	Energy Lab	None	0.175
ND	12-Jan-83	Uranium	Homestake	None	0.06784
ND	06-Jan-84	Uranium	Homestake	Less than	0.00848
ND	18-Dec-89	Uranium	Homestake	None	0.10176
ND	17-Oct-90	Uranium	Homestake	None	0.11872
ND	16-Sep-91	Uranium	Homestake	None	0.05936
ND	18-Aug-92	Uranium	Homestake	None	0.0424
ND	25-Aug-93	Uranium	Energy Laboratories	None	0.02544
ND	14-Mar-94	Uranium	Energy Laboratories	None	0.064
ND	22-Aug-94	Uranium	Energy Laboratories	None	0.028
ND	22-Aug-95	Uranium	Energy Laboratories	None	0.038
ND	29-Jul-96	Uranium	Energy Laboratories	None	0.0529
ND	11-Aug-97	Uranium	Energy Laboratories	None	0.056
ND	05-Aug-98	Uranium	Energy Laboratories	None	0.0723
P	30-Mar-76	Uranium	Homestake	None	0.1696
P	09-Apr-76	Uranium	Homestake	None	0.7208
P	03-Jun-76	Uranium	Homestake	None	0.07632
P	27-Aug-76	Uranium	Homestake	None	0.0848
P	13-Jun-77	Uranium	Eberline	None	0.07
P	13-Jun-77	Uranium	Homestake	None	0.05936
P	13-Jun-77	Uranium	NM EID	None	0.07
P	24-Aug-77	Uranium	Eberline	None	0.06
P	24-Aug-77	Uranium	Homestake	None	0.07632
P	24-Aug-77	Uranium	NM EID	None	0.06
P	11-Oct-77	Uranium	NM EID	None	0.06
P	11-Oct-77	Uranium	Homestake	None	0.05088
P	01-Feb-78	Uranium	NM EID	None	0.02
P	01-Feb-78	Uranium	Homestake	None	0.01696
P	17-Apr-78	Uranium	Homestake	None	0.14416
P	11-Jul-78	Uranium	NM EID	None	0.06
P	11-Jul-78	Uranium	Homestake	None	0.06784
P	23-Oct-78	Uranium	Homestake	None	0.0424
P	23-Oct-78	Uranium	NM EID	None	0.06
P	30-Jan-79	Uranium	Homestake	None	0.07632
P	30-Jan-79	Uranium	NM EID	None	0.052
P	30-Apr-79	Uranium	Homestake	None	0.05936
P	30-Apr-79	Uranium	NM EID	None	0.06
P	12-Jul-79	Uranium	Homestake	None	0.0424
P	06-Nov-79	Uranium	Homestake	None	0.00848
P	09-Jan-80	Uranium	Homestake	Less than	0.00848
P	16-Apr-80	Uranium	Homestake	Less than	0.00848
P	17-Apr-80	Uranium	NM EID	None	0.06

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
P	16-Jul-80	Uranium	Homestake	Less than	0.00848
P	16-Jul-80	Uranium	NM EID	None	0.05
P	13-Oct-80	Uranium	Homestake	Less than	0.00848
P	07-Jan-81	Uranium	Homestake	None	0.01696
P	07-Jan-81	Uranium	NM EID	U-Nat	0.048
P	15-Apr-81	Uranium	Homestake	Less than	0.00848
P	15-Apr-81	Uranium	NM EID	U-Nat	0.047
P	07-Jul-81	Uranium	Homestake	Less than	0.00848
P	15-Sep-81	Uranium	Homestake	Less than	0.00848
P	07-Oct-81	Uranium	Homestake	None	0.07632
P	28-Dec-81	Uranium	NM EID	U-Nat	0.043
P	28-Dec-81	Uranium	Homestake	Less than	0.00848
P	24-Mar-82	Uranium	Homestake	None	0.02544
P	24-Mar-82	Uranium	NM EID	U-Nat	0.04
P	22-May-82	Uranium	Homestake	Less than	0.00848
P	25-Aug-82	Uranium	Homestake	None	0.00848
P	18-Nov-82	Uranium	Assaigai Lab	None	0.3
P	18-Nov-82	Uranium	Homestake	None	0.05088
P	23-Feb-83	Uranium	Homestake	None	0.01696
P	23-Feb-83	Uranium	Homestake	None	0.01696
P	26-May-83	Uranium	Homestake	None	0.027136
P	27-Jun-83	Uranium	Homestake	None	0.02544
P	27-Jun-83	Uranium	NM EID	None	0.048
P	12-Sep-83	Uranium	Homestake	None	0.027136
P	19-Dec-83	Uranium	Homestake	None	0.02713
P	07-Mar-84	Uranium	Homestake	None	0.047488
P	07-Mar-84	Uranium	Homestake	None	0.047488
P	09-May-84	Uranium	Controls for Environmental Pollution	None	0.006
P	09-May-84	Uranium	Homestake	None	0.02544
P	12-Sep-84	Uranium	Homestake	None	0.10176
P	13-Dec-84	Uranium	Homestake	None	0.02544
P	11-Mar-85	Uranium	Controls for Environmental Pollution	None	0.039008
P	11-Mar-85	Uranium	Homestake	None	0.03392
P	29-May-85	Uranium	Homestake	None	0.03392
P	04-Sep-85	Uranium	Controls for Environmental Pollution	None	0.03816
P	04-Sep-85	Uranium	Homestake	None	0.05088
P	16-Dec-85	Uranium	Homestake	None	0.02544
P	10-Mar-86	Uranium	Controls for Environmental Pollution	None	0.052
P	10-Mar-86	Uranium	Homestake	None	0.03392
P	30-Jun-86	Uranium	Homestake	None	0.02544
P	15-Sep-86	Uranium	Controls for Environmental Pollution	None	0.05
P	15-Sep-86	Uranium	Homestake	None	0.03392

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
P	06-Dec-86	Uranium	Controls for Environmental Pollution	None	0.03816
P	16-Dec-86	Uranium	Homestake	None	0.01696
P	19-Mar-87	Uranium	Controls for Environmental Pollution	None	0.03
P	19-Mar-87	Uranium	Homestake	None	0.01696
P	24-Jun-87	Uranium	Homestake	None	0.00848
P	16-Sep-87	Uranium	Controls for Environmental Pollution	None	0.036
P	16-Sep-87	Uranium	Homestake	None	0.07632
P	08-Dec-87	Uranium	Homestake	None	0.02544
P	24-Feb-88	Uranium	Homestake	None	0.01696
P	24-Feb-88	Uranium	Barringer Laboratories Inc.	None	0.0465
P	12-May-88	Uranium	Homestake	None	0.11024
P	23-Aug-88	Uranium	Homestake	None	0.0424
P	23-Aug-88	Uranium	Barringer Laboratories Inc.	None	0.039
P	12-Oct-88	Uranium	Homestake	None	0.03392
P	13-Dec-88	Uranium	Homestake	None	0.0424
P	13-Dec-88	Uranium	Barringer Laboratories Inc.	None	0.041
P	11-Jan-89	Uranium	Homestake	None	0.02544
P	11-Jan-89	Uranium	Barringer Laboratories Inc.	None	0.0368
P	15-Feb-89	Uranium	Homestake	None	0.0424
P	15-Feb-89	Uranium	Barringer Laboratories Inc.	None	0.0399
P	16-May-89	Uranium	Homestake	None	0.03392
P	10-Aug-89	Uranium	Homestake	None	0.03392
P	15-Nov-89	Uranium	Homestake	None	0.00848
P	13-Mar-90	Uranium	Homestake	None	0.05088
P	04-Jun-90	Uranium	Homestake	None	0.02544
P	12-Sep-90	Uranium	Homestake	None	0.0848
P	03-Dec-90	Uranium	Homestake	None	0.02544
P	03-Dec-90	Uranium	Barringer Laboratories Inc.	None	0.0391
P	27-Feb-91	Uranium	Homestake	None	0.05936
P	03-Jun-91	Uranium	Homestake	Less than	0.00848
P	16-Sep-91	Uranium	Homestake	None	0.0424
P	18-Nov-91	Uranium	Homestake	None	0.06784
P	09-Mar-92	Uranium	Homestake	None	0.0424
P	04-Jun-92	Uranium	Homestake	None	0.05936
P	21-Sep-92	Uranium	Homestake	None	0.00848
P	03-Dec-92	Uranium	Homestake	None	0.05088
P	03-Mar-93	Uranium	Homestake	None	0.06784
P	01-Jun-93	Uranium	Homestake	None	0.03392
P	08-Sep-93	Uranium	Energy Laboratories	None	0.061
P	24-Nov-93	Uranium	Energy Laboratories	None	0.049

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
P	01-Mar-94	Uranium	Energy Laboratories	None	0.059
P	31-May-94	Uranium	Energy Laboratories	None	0.052
P	01-Sep-94	Uranium	Energy Laboratories	None	0.05
P	28-Nov-94	Uranium	Energy Laboratories	None	0.053
P	16-Mar-95	Uranium	Energy Laboratories	None	0.047
P	16-Mar-95	Uranium	Energy Laboratories	None	0.048
P	06-Jun-95	Uranium	Energy Laboratories	None	0.0636
P	05-Sep-95	Uranium	Energy Laboratories	None	0.054
P	05-Dec-95	Uranium	Energy Laboratories	None	0.0493
P	05-Dec-95	Uranium	Energy Laboratories	None	0.0506
P	11-Mar-96	Uranium	Energy Laboratories	None	0.046
P	03-Jun-96	Uranium	Energy Laboratories	None	0.056
P	17-Sep-96	Uranium	Energy Laboratories	None	0.0393
P	10-Oct-96	Uranium	Energy Laboratories	None	0.0652
P	06-Mar-97	Uranium	Energy Laboratories	None	0.044
P	27-May-97	Uranium	Energy Laboratories	None	0.045
P	09-Sep-97	Uranium	Energy Laboratories	None	0.04
P	09-Sep-97	Uranium	Energy Laboratories	Quality Control	0.04
P	03-Nov-97	Uranium	Energy Laboratories	None	0.051
P	04-Mar-98	Uranium	Energy Laboratories	None	0.0511
P	04-Mar-98	Uranium	Energy Laboratories	Quality Control	0.0474
P	05-May-98	Uranium	Energy Laboratories	None	0.0344
P	16-Sep-98	Uranium	Energy Laboratories	None	0.0409
P	12-Nov-98	Uranium	Energy Laboratories	None	0.032
P	12-Nov-98	Uranium	ACZ Laboratories	Quality Control	0.0299
P	12-Nov-98	Uranium	Energy Laboratories	Quality Control	0.03
P1	21-Sep-92	Uranium	Homestake	None	0.00848
P1	21-Jan-93	Uranium	Energy Laboratories	None	0.026288
P1	21-Jan-93	Uranium	Homestake	None	0.01696
P1	13-Apr-93	Uranium	Homestake	None	0.01696
P1	13-Jul-93	Uranium	Homestake	None	0.00848
P1	21-Oct-93	Uranium	Energy Laboratories	None	0.03
P1	04-Jan-94	Uranium	Energy Laboratories	None	0.026
P1	07-Mar-94	Uranium	Energy Laboratories	None	0.038
P1	12-Apr-94	Uranium	Energy Laboratories	None	0.028
P1	06-Jul-94	Uranium	Energy Laboratories	None	0.033
P1	21-Oct-94	Uranium	Energy Laboratories	None	0.028
P1	04-Jan-95	Uranium	Energy Laboratories	None	0.026
P1	04-Jan-95	Uranium	Energy Laboratories	None	0.031
P1	12-Apr-95	Uranium	Energy Laboratories	None	0.032
P1	06-Jul-95	Uranium	Energy Laboratories	None	0.0383
P1	03-Oct-95	Uranium	Energy Laboratories	None	0.03
P1	10-Jan-96	Uranium	Energy Laboratories	None	0.031
P1	10-Jan-96	Uranium	Energy Laboratories	None	0.032
P1	09-Apr-96	Uranium	Energy Laboratories	None	0.033
P1	09-Apr-96	Uranium	Energy Laboratories	None	0.034
P1	19-Jul-96	Uranium	Energy Laboratories	None	0.028
P1	19-Jul-96	Uranium	Energy Laboratories	None	0.029

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
P1	04-Nov-96	Uranium	Energy Laboratories	None	0.0308
P1	04-Nov-96	Uranium	Energy Laboratories	None	0.0315
P1	13-Jan-97	Uranium	Energy Laboratories	Quality Control	0.028
P1	13-Jan-97	Uranium	Energy Laboratories	None	0.024
P1	14-Apr-97	Uranium	Energy Laboratories	None	0.029
P1	14-Apr-97	Uranium	Energy Laboratories	Quality Control	0.03
P1	08-Jul-97	Uranium	Energy Laboratories	None	0.036
P1	03-Nov-97	Uranium	Energy Laboratories	None	0.031
P1	19-Jan-98	Uranium	Energy Laboratories	None	0.035
P1	19-Jan-98	Uranium	Energy Laboratories	Quality Control	0.0354
P1	01-Apr-98	Uranium	Energy Laboratories	None	0.0297
P1	01-Apr-98	Uranium	Energy Laboratories	Quality Control	0.0567
P1	14-Jul-98	Uranium	Energy Laboratories	None	0.0416
P1	28-Oct-98	Uranium	Energy Laboratories	None	0.041
P2	21-Sep-92	Uranium	Homestake	None	0.00848
P2	08-Feb-93	Uranium	Energy Laboratories	None	0.0212
P2	08-Feb-93	Uranium	Homestake	None	0.01696
P2	04-May-93	Uranium	Energy Laboratories	None	0.02544
P2	04-May-93	Uranium	Homestake	None	0.05088
P2	12-Aug-93	Uranium	Homestake	Less than	0.00848
P2	01-Nov-93	Uranium	Energy Laboratories	None	0.025
P2	01-Nov-93	Uranium	Energy Laboratories	None	0.028
P2	02-Feb-94	Uranium	Energy Laboratories	None	0.02
P2	07-Mar-94	Uranium	Energy Laboratories	None	0.041
P2	29-Apr-94	Uranium	Energy Laboratories	None	0.005
P2	29-Apr-94	Uranium	Energy Laboratories	Less than	0.01
P2	01-Aug-94	Uranium	Energy Laboratories	None	0.03
P2	01-Nov-94	Uranium	Energy Laboratories	None	0.031
P2	03-Feb-95	Uranium	Energy Laboratories	None	0.027
P2	05-May-95	Uranium	Energy Laboratories	None	0.025
P2	02-Aug-95	Uranium	Energy Laboratories	None	0.025
P2	02-Aug-95	Uranium	Energy Laboratories	None	0.025
P2	06-Nov-95	Uranium	Energy Laboratories	None	0.029
P2	12-Feb-96	Uranium	Energy Laboratories	None	0.033
P2	14-May-96	Uranium	Energy Laboratories	None	0.027
P2	14-May-96	Uranium	Energy Laboratories	None	0.028
P2	29-Jul-96	Uranium	Energy Laboratories	None	0.0316
P2	03-Feb-97	Uranium	Energy Laboratories	None	0.035
P2	03-Feb-97	Uranium	Energy Laboratories	Quality Control	0.028
P2	29-Apr-97	Uranium	Energy Laboratories	None	0.029
P2	29-Apr-97	Uranium	Energy Laboratories	Quality Control	0.027
P2	28-Jul-97	Uranium	Energy Laboratories	None	0.027
P2	28-Jul-97	Uranium	Energy Laboratories	Quality Control	0.022
P2	13-Oct-97	Uranium	Energy Laboratories	None	0.026

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
P2	10-Feb-98	Uranium	Energy Laboratories	Quality Control	0.033
P2	10-Feb-98	Uranium	Energy Laboratories	None	0.0274
P2	05-May-98	Uranium	Energy Laboratories	None	0.0286
P2	04-Aug-98	Uranium	Energy Laboratories	None	0.0432
P2	28-Oct-98	Uranium	Energy Laboratories	None	0.0494
P3	23-Apr-98	Uranium	Energy Laboratories	None	0.024
P4	24-Apr-98	Uranium	Energy Laboratories	None	0.022
Q	30-Mar-76	Uranium	Homestake	None	0.1696
Q	09-Apr-76	Uranium	Homestake	None	0.0848
Q	03-Jun-76	Uranium	Homestake	None	0.05088
Q	27-Aug-76	Uranium	Homestake	None	0.0848
Q	13-Jun-77	Uranium	Eberline	None	0.05
Q	13-Jun-77	Uranium	Homestake	None	0.02544
Q	24-Aug-77	Uranium	Eberline	None	0.08
Q	24-Aug-77	Uranium	Homestake	None	0.11872
Q	11-Oct-77	Uranium	Eberline	None	0.07
Q	11-Oct-77	Uranium	Homestake	None	0.06784
Q	01-Feb-78	Uranium	Homestake	None	0.01696
Q	17-Apr-78	Uranium	Homestake	None	0.09328
Q	10-Jul-78	Uranium	NM EID	None	0.06
Q	10-Jul-78	Uranium	Homestake	None	0.06784
Q	23-Oct-78	Uranium	Homestake	None	0.02544
Q	23-Oct-78	Uranium	NM EID	None	0.05
Q	30-Jan-79	Uranium	Homestake	None	0.05936
Q	30-Jan-79	Uranium	NM EID	None	0.056
Q	30-Apr-79	Uranium	Homestake	None	0.09328
Q	30-Apr-79	Uranium	NM EID	None	0.055
Q	12-Jul-79	Uranium	Homestake	None	0.07632
Q	10-Sep-79	Uranium	Homestake	Less than	0.00848
Q	06-Nov-79	Uranium	Homestake	None	0.00848
Q	09-Jan-80	Uranium	Homestake	None	0.05088
Q	16-Apr-80	Uranium	Homestake	Less than	0.00848
Q	17-Apr-80	Uranium	NM EID	None	0.053
Q	16-Jul-80	Uranium	Homestake	Less than	0.00848
Q	16-Jul-80	Uranium	NM EID	None	0.047
Q	13-Oct-80	Uranium	Homestake	Less than	0.00848
Q	07-Jan-81	Uranium	Homestake	Less than	0.00848
Q	07-Jan-81	Uranium	NM EID	U-Nat	0.063
Q	15-Apr-81	Uranium	Homestake	Less than	0.00848
Q	15-Apr-81	Uranium	NM EID	U-Nat	0.058
Q	07-Jul-81	Uranium	Homestake	Less than	0.00848
Q	15-Sep-81	Uranium	Homestake	Less than	0.00848
Q	07-Oct-81	Uranium	Homestake	Less than	0.00848
Q	28-Dec-81	Uranium	Homestake	Less than	0.00848
Q	28-Dec-81	Uranium	NM EID	U-Nat	0.061
Q	28-Dec-81	Uranium	Homestake	Less than	0.00848
Q	24-Mar-82	Uranium	Homestake	None	0.03392
Q	24-Mar-82	Uranium	NM EID	None	0.047
Q	22-May-82	Uranium	Homestake	None	0.00848
Q	25-Aug-82	Uranium	Homestake	None	0.00848
Q	18-Nov-82	Uranium	Homestake	None	0.02544

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
Q	23-Feb-83	Uranium	Homestake	None	0.02544
Q	23-Feb-83	Uranium	Homestake	None	0.02544
Q	26-May-83	Uranium	Homestake	None	0.02544
Q	28-Jun-83	Uranium	Homestake	None	0.02544
Q	28-Jun-83	Uranium	NM EID	None	0.059
Q	21-Sep-83	Uranium	Homestake	None	0.03392
Q	19-Dec-83	Uranium	Homestake	None	0.0407
Q	07-Mar-84	Uranium	Homestake	None	0.037312
Q	09-May-84	Uranium	Controls for Environmental Pollution	None	0.013
Q	09-May-84	Uranium	Homestake	None	0.03392
Q	12-Sep-84	Uranium	Homestake	None	0.037312
Q	12-Dec-84	Uranium	Homestake	None	0.03392
Q	11-Mar-85	Uranium	Homestake	None	0.03392
Q	29-May-85	Uranium	Homestake	None	0.03392
Q	06-Sep-85	Uranium	Homestake	None	0.0424
Q	16-Dec-85	Uranium	Homestake	None	0.02544
Q	16-Dec-85	Uranium	Homestake	None	0.02544
Q	10-Mar-86	Uranium	Homestake	None	0.0424
Q	30-Jun-86	Uranium	Homestake	None	0.03392
Q	15-Sep-86	Uranium	Homestake	None	0.0424
Q	15-Dec-86	Uranium	Controls for Environmental Pollution	None	0.050032
Q	15-Dec-86	Uranium	Homestake	Less than	0.01
Q	19-Mar-87	Uranium	Homestake	None	0.03392
Q	19-Jun-87	Uranium	Homestake	None	0.0424
Q	15-Sep-87	Uranium	Homestake	None	0.02544
Q	08-Dec-87	Uranium	Homestake	None	0.02544
Q	24-Feb-88	Uranium	Homestake	None	0.03392
Q	12-May-88	Uranium	Homestake	None	0.05936
Q	23-Aug-88	Uranium	Homestake	None	0.0424
Q	03-Nov-88	Uranium	Homestake	None	0.0424
Q	13-Dec-88	Uranium	Homestake	None	0.05936
Q	13-Dec-88	Uranium	Barringer Laboratories Inc.	None	0.0454
Q	11-Jan-89	Uranium	Homestake	None	0.02544
Q	11-Jan-89	Uranium	Barringer Laboratories Inc.	None	0.0501
Q	15-Feb-89	Uranium	Homestake	None	0.03392
Q	15-Feb-89	Uranium	Barringer Laboratories Inc.	None	0.0512
Q	16-May-89	Uranium	Homestake	None	0.31376
Q	15-Nov-89	Uranium	Homestake	None	0.00848
Q	13-Mar-90	Uranium	Homestake	None	0.06784
Q	12-Sep-90	Uranium	Homestake	None	0.05936
Q	27-Feb-91	Uranium	Homestake	None	0.09328
Q	16-Sep-91	Uranium	Homestake	None	0.06784
Q	09-Mar-92	Uranium	Homestake	None	0.05088
Q	16-Sep-92	Uranium	Homestake	None	0.02544
Q	03-Mar-93	Uranium	Homestake	None	0.05088

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
Q	08-Sep-93	Uranium	Energy Laboratories	None	0.026
Q	01-Mar-94	Uranium	Energy Laboratories	None	0.053
Q	01-Mar-94	Uranium	Energy Laboratories	None	0.079
Q	01-Sep-94	Uranium	Energy Laboratories	None	0.043
Q	16-Mar-95	Uranium	Energy Laboratories	None	0.046
Q	05-Sep-95	Uranium	Energy Laboratories	None	0.052
Q	11-Mar-96	Uranium	Energy Laboratories	None	0.046
Q	17-Sep-96	Uranium	Energy Laboratories	None	0.0413
Q	06-Mar-97	Uranium	Energy Laboratories	None	0.051
Q	09-Sep-97	Uranium	Energy Laboratories	None	0.043
Q	04-Mar-98	Uranium	Energy Laboratories	None	0.0538
R	30-Mar-76	Uranium	Homestake	None	0.00848
R	09-Apr-76	Uranium	Homestake	None	0.0424
R	03-Jun-76	Uranium	Homestake	None	0.02544
R	01-Sep-76	Uranium	Homestake	None	0.0848
R	13-Jun-77	Uranium	Eberline	None	0.02
R	13-Jun-77	Uranium	Homestake	None	0.06784
R	24-Aug-77	Uranium	Eberline	None	0.02
R	24-Aug-77	Uranium	Homestake	None	0.02544
R	11-Oct-77	Uranium	Eberline	Less than	0.01
R	11-Oct-77	Uranium	Homestake	None	0.02544
R	01-Feb-78	Uranium	Homestake	None	0.01696
R	17-Apr-78	Uranium	Homestake	None	0.09328
R	10-Jul-78	Uranium	Homestake	None	0.0424
R	23-Oct-78	Uranium	Homestake	None	0.0424
R	23-Oct-78	Uranium	NM EID	Less than	0.0229
R	31-Jan-79	Uranium	Homestake	None	0.05936
R	31-Jan-79	Uranium	NM EID	None	0.027
R	30-Apr-79	Uranium	Homestake	None	0.05088
R	30-Apr-79	Uranium	NM EID	None	0.024
R	12-Jul-79	Uranium	Homestake	None	0.07632
R	06-Nov-79	Uranium	Homestake	None	0.00848
R	07-Jan-80	Uranium	NM EID	U-Nat	0.025
R	09-Jan-80	Uranium	Homestake	Less than	0.00848
R	16-Apr-80	Uranium	Homestake	Less than	0.00848
R	17-Apr-80	Uranium	NM EID	None	0.015
R	16-Jul-80	Uranium	Homestake	Less than	0.00848
R	16-Jul-80	Uranium	NM EID	None	0.012
R	13-Oct-80	Uranium	Homestake	Less than	0.00848
R	07-Jan-81	Uranium	Homestake	Less than	0.00848
R	15-Apr-81	Uranium	Homestake	Less than	0.00848
R	15-Apr-81	Uranium	NM EID	U-Nat	0.052
R	07-Jul-81	Uranium	Homestake	Less than	0.00848
R	15-Sep-81	Uranium	Homestake	Less than	0.00848
R	28-Dec-81	Uranium	Homestake	Less than	0.00848
R	28-Dec-81	Uranium	NM EID	U-Nat	0.018
R	24-Mar-82	Uranium	Homestake	Less than	0.00848
R	24-Mar-82	Uranium	NM EID	U-Nat	0.014
R	22-May-82	Uranium	Homestake	Less than	0.00848
R	22-May-82	Uranium	Homestake	Less than	0.00848
R	25-Aug-82	Uranium	Homestake	Less than	0.00848
R	18-Nov-82	Uranium	Homestake	None	0.003392

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
R	18-Nov-82	Uranium	Homestake	Less than	0.00848
R	22-Feb-83	Uranium	Homestake	Less than	0.00848
R	23-Feb-83	Uranium	Homestake	None	0.00848
R	26-May-83	Uranium	Homestake	Less than	0.00848
R	28-Jun-83	Uranium	Homestake	Less than	0.00848
R	28-Jun-83	Uranium	NM EID	None	0.02
R	12-Sep-83	Uranium	Homestake	None	0.003392
R	20-Dec-83	Uranium	Homestake	None	0.0814
R	07-Mar-84	Uranium	Homestake	None	0.01017
R	09-May-84	Uranium	Controls for Environmental Pollution	None	0.008
R	09-May-84	Uranium	Homestake	Less than	0.01
R	12-Sep-84	Uranium	Homestake	Less than	0.01
R	12-Dec-84	Uranium	Homestake	Less than	0.01
R	11-Mar-85	Uranium	Controls for Environmental Pollution	None	0.020352
R	11-Mar-85	Uranium	Homestake	Less than	0.01
R	29-May-85	Uranium	Homestake	Less than	0.01
R	04-Sep-85	Uranium	Homestake	Less than	0.01
R	05-Sep-85	Uranium	Controls for Environmental Pollution	None	0.055968
R	05-Sep-85	Uranium	Homestake	Less than	0.01
R	16-Dec-85	Uranium	Homestake	Less than	0.01
R	16-Dec-85	Uranium	Homestake	Less than	0.01
R	10-Mar-86	Uranium	Controls for Environmental Pollution	None	0.021
R	10-Mar-86	Uranium	Homestake	None	0.00848
R	30-Jun-86	Uranium	Homestake	Less than	0.01
R	15-Sep-86	Uranium	Controls for Environmental Pollution	None	0.02
R	15-Sep-86	Uranium	Homestake	None	0.00848
R	15-Dec-86	Uranium	Controls for Environmental Pollution	None	0.126352
R	15-Dec-86	Uranium	Homestake	None	0.03392
R	19-Mar-87	Uranium	Controls for Environmental Pollution	None	0.03
R	19-Mar-87	Uranium	Homestake	Less than	0.01
R	19-Jun-87	Uranium	Homestake	None	0.01696
R	15-Sep-87	Uranium	Controls for Environmental Pollution	None	0.028
R	15-Sep-87	Uranium	Homestake	None	0.03392
R	08-Dec-87	Uranium	Homestake	Less than	0.01
R	24-Feb-88	Uranium	Homestake	Less than	0.01

Table 74. Uranium Near Upgradient Background Data Set
(data not corrected for non-detects or duplicates) (continued)

Well Name	Sample Date	Parameter Code	Lab Code	Remark Code	Value (mg/l)
R	24-Feb-88	Uranium	Barringer Laboratories Inc.	None	0.0259
R	12-May-88	Uranium	Homestake	None	0.03392
R	22-Aug-88	Uranium	Homestake	None	0.01696
R	22-Aug-88	Uranium	Barringer Laboratories Inc.	None	0.0167
R	03-Nov-88	Uranium	Homestake	None	0.03392
R	13-Dec-88	Uranium	Homestake	None	0.0424
R	13-Dec-88	Uranium	Barringer Laboratories Inc.	None	0.023
R	11-Jan-89	Uranium	Homestake	None	0.01696
R	11-Jan-89	Uranium	Barringer Laboratories Inc.	None	0.0169
R	15-Feb-89	Uranium	Homestake	None	0.01696
R	15-Feb-89	Uranium	Barringer Laboratories Inc.	None	0.018
R	16-May-89	Uranium	Homestake	None	0.0424
R	15-Nov-89	Uranium	Homestake	None	0.00848
R	13-Mar-90	Uranium	Homestake	None	0.01696
R	12-Sep-90	Uranium	Homestake	None	0.11024
R	27-Feb-91	Uranium	Homestake	None	0.06784
R	16-Sep-91	Uranium	Homestake	None	0.06784
R	09-Mar-92	Uranium	Homestake	None	0.01696
R	16-Sep-92	Uranium	Energy Laboratories	None	0.01696
R	16-Sep-92	Uranium	Homestake	Less than	0.00848
R	01-Jun-93	Uranium	Homestake	None	0.0424
R	08-Sep-93	Uranium	Energy Laboratories	None	0.005
R	07-Mar-94	Uranium	Energy Laboratories	None	0.021
R	31-May-94	Uranium	Energy Laboratories	None	0.018
R	01-Sep-94	Uranium	Energy Laboratories	None	0.016
R	06-Jun-95	Uranium	Energy Laboratories	None	0.0253
R	06-Jun-95	Uranium	Energy Laboratories	None	0.0247
R	05-Sep-95	Uranium	Energy Laboratories	None	0.018
R	05-Sep-95	Uranium	Energy Laboratories	None	0.018
R	03-Jun-96	Uranium	Energy Laboratories	None	0.02
R	17-Sep-96	Uranium	Energy Laboratories	None	0.0142
R	10-Oct-96	Uranium	Energy Laboratories	None	0.0197
R	27-May-97	Uranium	Energy Laboratories	None	0.014
R	06-May-98	Uranium	Energy Laboratories	None	0.0178

Table 75. Uranium Near Upgradient Background Data Set for Well DD.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Jun-76	Uranium	0.07632
27-Aug-76	Uranium	0.10176
15-Sep-81	Uranium	0.11872
24-Mar-82	Uranium	0.16112
26-May-82	Uranium	0.14416
18-Nov-82	Uranium	0.09328
04-Mar-83	Uranium	0.10176
28-Jun-83	Uranium	0.1536
14-Sep-83	Uranium	0.09328
19-Dec-83	Uranium	0.111936
07-Mar-84	Uranium	0.125504
09-May-84	Uranium	0.06412
12-Sep-84	Uranium	0.11194
12-Dec-84	Uranium	0.09328
13-Mar-85	Uranium	0.1272
06-Jun-85	Uranium	0.11872
04-Sep-85	Uranium	0.13568
16-Dec-85	Uranium	0.1272
20-Mar-86	Uranium	0.11872
30-Jun-86	Uranium	0.11024
15-Sep-86	Uranium	0.13568
09-Dec-86	Uranium	0.11024
19-Mar-87	Uranium	0.11024
24-Jun-87	Uranium	0.03392
15-Sep-87	Uranium	0.14416
08-Dec-87	Uranium	0.11872
24-Feb-88	Uranium	0.10176
09-Jun-88	Uranium	0.14416
11-Oct-88	Uranium	0.14416
08-Dec-88	Uranium	0.10176
13-Dec-88	Uranium	0.16114
11-Jan-89	Uranium	0.14016
15-Feb-89	Uranium	0.1861
29-Mar-89	Uranium	0.0848
13-Jun-89	Uranium	0.05936
15-Nov-89	Uranium	0.03392
13-Mar-90	Uranium	0.13568
12-Sep-90	Uranium	0.17808
27-Feb-91	Uranium	0.20352
16-Sep-91	Uranium	0.15264
09-Mar-92	Uranium	0.13568
22-Sep-92	Uranium	0.10176
21-Oct-93	Uranium	0.147
09-Mar-94	Uranium	0.182
21-Oct-94	Uranium	0.155
10-Oct-95	Uranium	0.163
10-Oct-96	Uranium	0.162
14-Apr-97	Uranium	0.188
09-Sep-97	Uranium	0.147
01-Apr-98	Uranium	0.175

Table 76. Uranium Near Upgradient Background Data Set for Well ND.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
12-Jan-83	Uranium	0.06784
06-Jan-84	Uranium	0.00424
18-Dec-89	Uranium	0.10176
17-Oct-90	Uranium	0.11872
16-Sep-91	Uranium	0.05936
18-Aug-92	Uranium	0.0424
25-Aug-93	Uranium	0.02544
14-Mar-94	Uranium	0.064
22-Aug-94	Uranium	0.028
22-Aug-95	Uranium	0.038
29-Jul-96	Uranium	0.0529
11-Aug-97	Uranium	0.056
05-Aug-98	Uranium	0.0723

Table 77. Uranium Near Upgradient Background Data Set for Well P.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
30-Mar-76	Uranium	0.1696
09-Apr-76	Uranium	0.7208
03-Jun-76	Uranium	0.07632
27-Aug-76	Uranium	0.0848
13-Jun-77	Uranium	0.066453333
24-Aug-77	Uranium	0.06544
11-Oct-77	Uranium	0.05544
01-Feb-78	Uranium	0.01848
17-Apr-78	Uranium	0.14416
11-Jul-78	Uranium	0.06392
23-Oct-78	Uranium	0.0512
30-Jan-79	Uranium	0.06416
30-Apr-79	Uranium	0.05968
12-Jul-79	Uranium	0.0424
06-Nov-79	Uranium	0.00848
09-Jan-80	Uranium	0.00424
16-Apr-80	Uranium	0.03212
16-Jul-80	Uranium	0.02712
13-Oct-80	Uranium	0.00424
07-Jan-81	Uranium	0.03248
15-Apr-81	Uranium	0.02562
07-Jul-81	Uranium	0.00424
15-Sep-81	Uranium	0.00424
07-Oct-81	Uranium	0.07632
28-Dec-81	Uranium	0.02362
24-Mar-82	Uranium	0.03272
22-May-82	Uranium	0.00424
25-Aug-82	Uranium	0.00848
18-Nov-82	Uranium	0.17544
23-Feb-83	Uranium	0.01696
26-May-83	Uranium	0.027136
27-Jun-83	Uranium	0.03672
12-Sep-83	Uranium	0.027136
19-Dec-83	Uranium	0.02713
07-Mar-84	Uranium	0.047488
09-May-84	Uranium	0.01572
12-Sep-84	Uranium	0.10176
13-Dec-84	Uranium	0.02544
11-Mar-85	Uranium	0.036464
29-May-85	Uranium	0.03392
04-Sep-85	Uranium	0.04452
16-Dec-85	Uranium	0.02544
10-Mar-86	Uranium	0.04296
30-Jun-86	Uranium	0.02544
15-Sep-86	Uranium	0.04196
06-Dec-86	Uranium	0.03816
16-Dec-86	Uranium	0.01696
19-Mar-87	Uranium	0.02348
24-Jun-87	Uranium	0.00848
16-Sep-87	Uranium	0.05616
08-Dec-87	Uranium	0.02544
24-Feb-88	Uranium	0.03173
12-May-88	Uranium	0.11024

Table 77. Uranium Near Upgradient Background Data Set for Well P (continued).
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
23-Aug-88	Uranium	0.0407
12-Oct-88	Uranium	0.03392
13-Dec-88	Uranium	0.0417
11-Jan-89	Uranium	0.03112
15-Feb-89	Uranium	0.04115
16-May-89	Uranium	0.03392
10-Aug-89	Uranium	0.03392
15-Nov-89	Uranium	0.00848
13-Mar-90	Uranium	0.05088
04-Jun-90	Uranium	0.02544
12-Sep-90	Uranium	0.0848
03-Dec-90	Uranium	0.03227
27-Feb-91	Uranium	0.05936
03-Jun-91	Uranium	0.00424
16-Sep-91	Uranium	0.0424
18-Nov-91	Uranium	0.06784
09-Mar-92	Uranium	0.0424
04-Jun-92	Uranium	0.05936
21-Sep-92	Uranium	0.00848
03-Dec-92	Uranium	0.05088
03-Mar-93	Uranium	0.06784
01-Jun-93	Uranium	0.03392
08-Sep-93	Uranium	0.061
24-Nov-93	Uranium	0.049
01-Mar-94	Uranium	0.059
31-May-94	Uranium	0.052
01-Sep-94	Uranium	0.05
28-Nov-94	Uranium	0.053
16-Mar-95	Uranium	0.0475
06-Jun-95	Uranium	0.0636
05-Sep-95	Uranium	0.054
05-Dec-95	Uranium	0.04995
11-Mar-96	Uranium	0.046
03-Jun-96	Uranium	0.056
17-Sep-96	Uranium	0.0393
10-Oct-96	Uranium	0.0652
06-Mar-97	Uranium	0.044
27-May-97	Uranium	0.045
09-Sep-97	Uranium	0.04
03-Nov-97	Uranium	0.051
04-Mar-98	Uranium	0.0511
05-May-98	Uranium	0.0344
16-Sep-98	Uranium	0.0409
12-Nov-98	Uranium	0.032

Table 78. Uranium Near Upgradient Background Data Set for Well P1.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Uranium	0.00848
21-Jan-93	Uranium	0.021624
13-Apr-93	Uranium	0.01696
13-Jul-93	Uranium	0.00848
21-Oct-93	Uranium	0.03
04-Jan-94	Uranium	0.026
07-Mar-94	Uranium	0.038
12-Apr-94	Uranium	0.028
06-Jul-94	Uranium	0.033
21-Oct-94	Uranium	0.028
04-Jan-95	Uranium	0.0285
12-Apr-95	Uranium	0.032
06-Jul-95	Uranium	0.0383
03-Oct-95	Uranium	0.03
10-Jan-96	Uranium	0.0315
09-Apr-96	Uranium	0.0335
19-Jul-96	Uranium	0.0285
04-Nov-96	Uranium	0.03115
13-Jan-97	Uranium	0.024
14-Apr-97	Uranium	0.029
08-Jul-97	Uranium	0.036
03-Nov-97	Uranium	0.031
19-Jan-98	Uranium	0.035
01-Apr-98	Uranium	0.0297
14-Jul-98	Uranium	0.0416
28-Oct-98	Uranium	0.041

Table 79. Uranium Near Upgradient Background Data Set for Well P2.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Sep-92	Uranium	0.00848
08-Feb-93	Uranium	0.01908
04-May-93	Uranium	0.03816
12-Aug-93	Uranium	0.00424
01-Nov-93	Uranium	0.0265
02-Feb-94	Uranium	0.02
07-Mar-94	Uranium	0.041
29-Apr-94	Uranium	0.005
01-Aug-94	Uranium	0.03
01-Nov-94	Uranium	0.031
03-Feb-95	Uranium	0.027
05-May-95	Uranium	0.025
02-Aug-95	Uranium	0.025
06-Nov-95	Uranium	0.029
12-Feb-96	Uranium	0.033
14-May-96	Uranium	0.0275
29-Jul-96	Uranium	0.0316
03-Feb-97	Uranium	0.035
29-Apr-97	Uranium	0.029
28-Jul-97	Uranium	0.027
13-Oct-97	Uranium	0.026
10-Feb-98	Uranium	0.0274
05-May-98	Uranium	0.0286
04-Aug-98	Uranium	0.0432
28-Oct-98	Uranium	0.0494

Table 80. Uranium Near Upgradient Background Data Set for Wells P3 and P4.
(corrected for non-detects and duplicates)

Well Name	Sample Date	Parameter Code	Final Data Set
P3	23-Apr-98	Uranium	0.024
P4	24-Apr-98	Uranium	0.022

Table 81. Uranium Near Upgradient Background Data Set for Well Q.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
30-Mar-76	Uranium	0.1696
09-Apr-76	Uranium	0.0848
03-Jun-76	Uranium	0.05088
27-Aug-76	Uranium	0.0848
13-Jun-77	Uranium	0.03772
24-Aug-77	Uranium	0.09936
11-Oct-77	Uranium	0.06892
01-Feb-78	Uranium	0.01696
17-Apr-78	Uranium	0.09328
10-Jul-78	Uranium	0.06392
23-Oct-78	Uranium	0.03772
30-Jan-79	Uranium	0.05768
30-Apr-79	Uranium	0.07414
12-Jul-79	Uranium	0.07632
10-Sep-79	Uranium	0.00424
06-Nov-79	Uranium	0.00848
09-Jan-80	Uranium	0.05088
16-Apr-80	Uranium	0.02862
16-Jul-80	Uranium	0.02562
13-Oct-80	Uranium	0.00424
07-Jan-81	Uranium	0.03362
15-Apr-81	Uranium	0.03112
07-Jul-81	Uranium	0.00424
15-Sep-81	Uranium	0.00424
07-Oct-81	Uranium	0.00424
28-Dec-81	Uranium	0.02316
24-Mar-82	Uranium	0.04046
22-May-82	Uranium	0.00848
25-Aug-82	Uranium	0.00848
18-Nov-82	Uranium	0.02544
23-Feb-83	Uranium	0.02544
26-May-83	Uranium	0.02544
28-Jun-83	Uranium	0.04222
21-Sep-83	Uranium	0.03392
19-Dec-83	Uranium	0.0407
07-Mar-84	Uranium	0.037312
09-May-84	Uranium	0.02346
12-Sep-84	Uranium	0.037312
12-Dec-84	Uranium	0.03392
11-Mar-85	Uranium	0.03392
29-May-85	Uranium	0.03392
06-Sep-85	Uranium	0.0424
16-Dec-85	Uranium	0.02544
10-Mar-86	Uranium	0.0424
30-Jun-86	Uranium	0.03392
15-Sep-86	Uranium	0.0424

Table 81. Uranium Near Upgradient Background Data Set for Well Q (continued).
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
15-Dec-86	Uranium	0.027516
19-Mar-87	Uranium	0.03392
19-Jun-87	Uranium	0.0424
15-Sep-87	Uranium	0.02544
08-Dec-87	Uranium	0.02544
24-Feb-88	Uranium	0.03392
12-May-88	Uranium	0.05936
23-Aug-88	Uranium	0.0424
03-Nov-88	Uranium	0.0424
13-Dec-88	Uranium	0.05238
11-Jan-89	Uranium	0.03777
15-Feb-89	Uranium	0.04256
16-May-89	Uranium	0.31376
15-Nov-89	Uranium	0.00848
13-Mar-90	Uranium	0.06784
12-Sep-90	Uranium	0.05936
27-Feb-91	Uranium	0.09328
16-Sep-91	Uranium	0.06784
09-Mar-92	Uranium	0.05088
16-Sep-92	Uranium	0.02544
03-Mar-93	Uranium	0.05088
08-Sep-93	Uranium	0.026
01-Mar-94	Uranium	0.066
01-Sep-94	Uranium	0.043
16-Mar-95	Uranium	0.046
05-Sep-95	Uranium	0.052
11-Mar-96	Uranium	0.046
17-Sep-96	Uranium	0.0413
06-Mar-97	Uranium	0.051
09-Sep-97	Uranium	0.043
04-Mar-98	Uranium	0.0538

Table 82. Uranium Near Upgradient Background Data Set for Well R.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
30-Mar-76	Uranium	0.00848
09-Apr-76	Uranium	0.0424
03-Jun-76	Uranium	0.02544
01-Sep-76	Uranium	0.0848
13-Jun-77	Uranium	0.04392
24-Aug-77	Uranium	0.02272
11-Oct-77	Uranium	0.01522
01-Feb-78	Uranium	0.01696
17-Apr-78	Uranium	0.09328
10-Jul-78	Uranium	0.0424
23-Oct-78	Uranium	0.026925
31-Jan-79	Uranium	0.04318
30-Apr-79	Uranium	0.03744
12-Jul-79	Uranium	0.07632
06-Nov-79	Uranium	0.00848
07-Jan-80	Uranium	0.01462
16-Apr-80	Uranium	0.00962
16-Jul-80	Uranium	0.00812
13-Oct-80	Uranium	0.00424
07-Jan-81	Uranium	0.00424
15-Apr-81	Uranium	0.02812
07-Jul-81	Uranium	0.00424
15-Sep-81	Uranium	0.00424
28-Dec-81	Uranium	0.01112
24-Mar-82	Uranium	0.00912
22-May-82	Uranium	0.00424
25-Aug-82	Uranium	0.00424
18-Nov-82	Uranium	0.003816
22-Feb-83	Uranium	0.00636
26-May-83	Uranium	0.00424
28-Jun-83	Uranium	0.01212
12-Sep-83	Uranium	0.003392
20-Dec-83	Uranium	0.0814
07-Mar-84	Uranium	0.01017
09-May-84	Uranium	0.0065
12-Sep-84	Uranium	0.005
12-Dec-84	Uranium	0.005
11-Mar-85	Uranium	0.012676
29-May-85	Uranium	0.005
04-Sep-85	Uranium	0.021989333
16-Dec-85	Uranium	0.005
10-Mar-86	Uranium	0.01474
30-Jun-86	Uranium	0.005
15-Sep-86	Uranium	0.01424
15-Dec-86	Uranium	0.080136
19-Mar-87	Uranium	0.0175

Table 82. Uranium Near Upgradient Background Data Set for Well R (continued).
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
19-Jun-87	Uranium	0.01696
15-Sep-87	Uranium	0.03096
08-Dec-87	Uranium	0.005
24-Feb-88	Uranium	0.01545
12-May-88	Uranium	0.03392
22-Aug-88	Uranium	0.01683
03-Nov-88	Uranium	0.03392
13-Dec-88	Uranium	0.0327
11-Jan-89	Uranium	0.01693
15-Feb-89	Uranium	0.01748
16-May-89	Uranium	0.0424
15-Nov-89	Uranium	0.00848
13-Mar-90	Uranium	0.01696
12-Sep-90	Uranium	0.11024
27-Feb-91	Uranium	0.06784
16-Sep-91	Uranium	0.06784
09-Mar-92	Uranium	0.01696
16-Sep-92	Uranium	0.0106
01-Jun-93	Uranium	0.0424
08-Sep-93	Uranium	0.005
07-Mar-94	Uranium	0.021
31-May-94	Uranium	0.018
01-Sep-94	Uranium	0.016
06-Jun-95	Uranium	0.025
05-Sep-95	Uranium	0.018
03-Jun-96	Uranium	0.02
17-Sep-96	Uranium	0.0142
10-Oct-96	Uranium	0.0197
27-May-97	Uranium	0.014
06-May-98	Uranium	0.0178

Table 83. Uranium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L)

Well ID								
DD	**ND**	**P**	**P1**	**P2**	**P3**	**P4**	**Q**	**R**
0.20352	0.11872	0.7208	0.0416	0.0494	0.024	0.022	0.31376	0.11024
0.188	0.10176	0.17544	0.041	0.0432			0.1696	0.09328
0.1861	0.0723	0.1696	0.0383	0.041			0.09936	0.0848
0.182	0.06784	0.14416	0.038	0.03816			0.09328	0.0814
0.17808	0.064	0.11024	0.036	0.035			0.09328	0.080136
0.175	0.05936	0.10176	0.035	0.033			0.0848	0.07632
0.163	0.056	0.0848	0.0335	0.0316			0.0848	0.06784
0.162	0.0529	0.0848	0.033	0.031			0.07632	0.06784
0.16114	0.0424	0.07632	0.032	0.03			0.07414	0.04392
0.16112	0.038	0.07632	0.0315	0.029			0.06892	0.04318
0.155	0.028	0.06784	0.03115	0.029			0.06784	0.0424
0.1536	0.02544	0.06784	0.031	0.0286			0.06784	0.0424
0.15264	0.00424	0.0664533	0.03	0.0275			0.066	0.0424
0.147		0.06544	0.03	0.0274			0.06392	0.0424
0.147		0.0652	0.0297	0.027			0.05936	0.03744
0.14416		0.06416	0.029	0.027			0.05936	0.03392
0.14416		0.06392	0.0285	0.0265			0.05768	0.03392
0.14416		0.0636	0.0285	0.026			0.0538	0.0327
0.14416		0.061	0.028	0.025			0.05238	0.03096
0.14016		0.05968	0.028	0.025			0.052	0.02812
0.13568		0.05936	0.026	0.02			0.051	0.026925
0.13568		0.05936	0.024	0.01908			0.05088	0.02544
0.13568		0.059	0.021624	0.00848			0.05088	0.025
0.13568		0.05616	0.01696	0.005			0.05088	0.02272
0.1272		0.056	0.00848	0.00424			0.05088	0.0219893
0.1272		0.05544	0.00848				0.046	0.021
0.125504		0.054					0.046	0.02
0.11872		0.053					0.043	0.0197
0.11872		0.052					0.043	0.018
0.11872		0.0512					0.04256	0.018
0.11872		0.0511					0.0424	0.0178
0.11194		0.051					0.0424	0.0175
0.111936		0.05088					0.0424	0.01748
0.11024		0.05088					0.0424	0.01696
0.11024		0.05					0.0424	0.01696
0.11024		0.04995					0.0424	0.01696
0.10176		0.049					0.04222	0.01696
0.10176		0.0475					0.0413	0.01693
0.10176		0.047488					0.0407	0.01683
0.10176		0.046					0.04046	0.016
0.10176		0.045					0.03777	0.01545
0.09328		0.04452					0.03772	0.01522
0.09328		0.044					0.03772	0.01474
0.09328		0.04296					0.037312	0.01462
0.0848		0.0424					0.037312	0.01424
0.07632		0.0424					0.03392	0.0142

Table 83. Uranium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L) (continued)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
0.06412		0.0424					0.03392	0.014
0.05936		0.04196					0.03392	0.012676
0.03392		0.0417					0.03392	0.01212
0.03392		0.04115					0.03392	0.01112
		0.0409					0.03392	0.0106
		0.0407					0.03392	0.01017
		0.04					0.03362	0.00962
		0.0393					0.03112	0.00912
		0.03816					0.02862	0.00848
		0.03672					0.027516	0.00848
		0.036464					0.026	0.00848
		0.0344					0.02562	0.00812
		0.03392					0.02544	0.0065
		0.03392					0.02544	0.00636
		0.03392					0.02544	0.005
		0.03392					0.02544	0.005
		0.03392					0.02544	0.005
		0.03272					0.02544	0.005
		0.03248					0.02544	0.005
		0.03227					0.02346	0.005
		0.03212					0.02316	0.005
		0.032					0.01696	0.00424
		0.03173					0.00848	0.00424
		0.03112					0.00848	0.00424
		0.027136					0.00848	0.00424
		0.027136					0.00848	0.00424
		0.02713					0.00424	0.00424
		0.02712					0.00424	0.00424
		0.02562					0.00424	0.003816
		0.02544					0.00424	0.003392
		0.02544					0.00424	
		0.02544						
		0.02544						
		0.02544						
		0.02362						
		0.02348						
		0.01848						
		0.01696						
		0.01696						
		0.01572						
		0.00848						

Table 83. Uranium Near Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L) (continued)

Well ID								
DD	ND	P	P1	P2	P3	P4	Q	R
		0.00848						
		0.00848						
		0.00848						
		0.00848						
		0.00424						
		0.00424						
		0.00424						
		0.00424						
		0.00424						
		0.00424						

Table 84. Uranium Near Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Uranium	0.7208	0.31376	2.3	**PASS**

Table 85. Uranium Near Upgradient Background Data Set, Coefficient of Variation Analysis

Parameter	Mean	Standard Deviation	Coefficient of Variation	Results
Uranium.normal	0.0516639	0.0564146	1.09	**Fail**
Uranium, lognormal	-3.378416	0.9641056	-0.29	**Pass**

Table 86. Uranium Near Upgradient Background Data Set, Studentized Range Test Analysis

Parameter	Range		Standard Deviation	Critical Values		W/S	Results
	Maximum	Minimum		Maximum	Minimum		
Uranium, normal	0.7208	0.003392	0.06	6.94	5.47	12.72	**FAIL**

w = range of values
s = standard deviation

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis

Uranium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.003392	1.151E-05	-0.048272	0.048271895
0.003816	1.456E-05	-0.047848	0.047847895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.00424	1.798E-05	-0.047424	0.047423895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.005	0.000025	-0.046664	0.046663895
0.00636	4.045E-05	-0.045304	0.045303895
0.0065	4.225E-05	-0.045164	0.045163895
0.00812	6.593E-05	-0.043544	0.043543895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895
0.00848	7.191E-05	-0.043184	0.043183895

0.0516639 =mean
18.908986 = sum of Xi
2.138563 = sum of Xi^2
366 = count

1.1616511 = SSS
12.652378 = SAD

0.6136119 = alpha

-16.6 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.00848	7.191E-05	-0.043184	0.043183895
0.00912	8.317E-05	-0.042544	0.042543895
0.00962	9.254E-05	-0.042044	0.042043895
0.01017	0.0001034	-0.041494	0.041493895
0.0106	0.0001124	-0.041064	0.041063895
0.01112	0.0001237	-0.040544	0.040543895
0.01212	0.0001469	-0.039544	0.039543895
0.012676	0.0001607	-0.038988	0.038987895
0.014	0.000196	-0.037664	0.037663895
0.0142	0.0002016	-0.037464	0.037463895
0.01424	0.0002028	-0.037424	0.037423895
0.01462	0.0002137	-0.037044	0.037043895
0.01474	0.0002173	-0.036924	0.036923895
0.01522	0.0002316	-0.036444	0.036443895
0.01545	0.0002387	-0.036214	0.036213895
0.01572	0.0002471	-0.035944	0.035943895
0.016	0.000256	-0.035664	0.035663895
0.01683	0.0002832	-0.034834	0.034833895
0.01693	0.0002866	-0.034734	0.034733895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01696	0.0002876	-0.034704	0.034703895
0.01748	0.0003056	-0.034184	0.034183895
0.0175	0.0003063	-0.034164	0.034163895
0.0178	0.0003168	-0.033864	0.033863895
0.018	0.000324	-0.033664	0.033663895
0.018	0.000324	-0.033664	0.033663895
0.01848	0.0003415	-0.033184	0.033183895
0.01908	0.000364	-0.032584	0.032583895
0.0197	0.0003881	-0.031964	0.031963895
0.02	0.0004	-0.031664	0.031663895
0.02	0.0004	-0.031664	0.031663895
0.021	0.000441	-0.030664	0.030663895
0.021624	0.0004676	-0.03004	0.030039895
0.0219893	0.0004835	-0.029675	0.029674562
0.022	0.000484	-0.029664	0.029663895
0.02272	0.0005162	-0.028944	0.028943895
0.02316	0.0005364	-0.028504	0.028503895
0.02346	0.0005504	-0.028204	0.028203895
0.02348	0.0005513	-0.028184	0.028183895
0.02362	0.0005579	-0.028044	0.028043895
0.024	0.000576	-0.027664	0.027663895

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.024	0.000576	-0.027664	0.027663895
0.025	0.000625	-0.026664	0.026663895
0.025	0.000625	-0.026664	0.026663895
0.025	0.000625	-0.026664	0.026663895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02544	0.0006472	-0.026224	0.026223895
0.02562	0.0006564	-0.026044	0.026043895
0.02562	0.0006564	-0.026044	0.026043895
0.026	0.000676	-0.025664	0.025663895
0.026	0.000676	-0.025664	0.025663895
0.026	0.000676	-0.025664	0.025663895
0.0265	0.0007023	-0.025164	0.025163895
0.026925	0.000725	-0.024739	0.024738895
0.027	0.000729	-0.024664	0.024663895
0.027	0.000729	-0.024664	0.024663895
0.02712	0.0007355	-0.024544	0.024543895
0.02713	0.000736	-0.024534	0.024533895
0.027136	0.0007364	-0.024528	0.024527895
0.027136	0.0007364	-0.024528	0.024527895
0.0274	0.0007508	-0.024264	0.024263895
0.0275	0.0007563	-0.024164	0.024163895
0.027516	0.0007571	-0.024148	0.024147895
0.028	0.000784	-0.023664	0.023663895
0.028	0.000784	-0.023664	0.023663895
0.028	0.000784	-0.023664	0.023663895
0.02812	0.0007907	-0.023544	0.023543895
0.0285	0.0008123	-0.023164	0.023163895
0.0285	0.0008123	-0.023164	0.023163895
0.0286	0.000818	-0.023064	0.023063895
0.02862	0.0008191	-0.023044	0.023043895
0.029	0.000841	-0.022664	0.022663895
0.029	0.000841	-0.022664	0.022663895
0.029	0.000841	-0.022664	0.022663895
0.0297	0.0008821	-0.021964	0.021963895
0.03	0.0009	-0.021664	0.021663895

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.03	0.0009	-0.021664	0.021663895
0.03	0.0009	-0.021664	0.021663895
0.03096	0.0009585	-0.020704	0.020703895
0.031	0.000961	-0.020664	0.020663895
0.031	0.000961	-0.020664	0.020663895
0.03112	0.0009685	-0.020544	0.020543895
0.03112	0.0009685	-0.020544	0.020543895
0.03115	0.0009703	-0.020514	0.020513895
0.0315	0.0009923	-0.020164	0.020163895
0.0316	0.0009986	-0.020064	0.020063895
0.03173	0.0010068	-0.019934	0.019933895
0.032	0.001024	-0.019664	0.019663895
0.032	0.001024	-0.019664	0.019663895
0.03212	0.0010317	-0.019544	0.019543895
0.03227	0.0010414	-0.019394	0.019393895
0.03248	0.001055	-0.019184	0.019183895
0.0327	0.0010693	-0.018964	0.018963895
0.03272	0.0010706	-0.018944	0.018943895
0.033	0.001089	-0.018664	0.018663895
0.033	0.001089	-0.018664	0.018663895
0.0335	0.0011223	-0.018164	0.018163895
0.03362	0.0011303	-0.018044	0.018043895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.03392	0.0011506	-0.017744	0.017743895
0.0344	0.0011834	-0.017264	0.017263895
0.035	0.001225	-0.016664	0.016663895
0.035	0.001225	-0.016664	0.016663895
0.036	0.001296	-0.015664	0.015663895
0.036464	0.0013296	-0.0152	0.015199895
0.03672	0.0013484	-0.014944	0.014943895
0.037312	0.0013922	-0.014352	0.014351895
0.037312	0.0013922	-0.014352	0.014351895
0.03744	0.0014018	-0.014224	0.014223895

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.03772	0.0014228	-0.013944	0.013943895
0.03772	0.0014228	-0.013944	0.013943895
0.03777	0.0014266	-0.013894	0.013893895
0.038	0.001444	-0.013664	0.013663895
0.038	0.001444	-0.013664	0.013663895
0.03816	0.0014562	-0.013504	0.013503895
0.03816	0.0014562	-0.013504	0.013503895
0.0383	0.0014669	-0.013364	0.013363895
0.0393	0.0015445	-0.012364	0.012363895
0.04	0.0016	-0.011664	0.011663895
0.04046	0.001637	-0.011204	0.011203895
0.0407	0.0016565	-0.010964	0.010963895
0.0407	0.0016565	-0.010964	0.010963895
0.0409	0.0016728	-0.010764	0.010763895
0.041	0.001681	-0.010664	0.010663895
0.041	0.001681	-0.010664	0.010663895
0.04115	0.0016933	-0.010514	0.010513895
0.0413	0.0017057	-0.010364	0.010363895
0.0416	0.0017306	-0.010064	0.010063895
0.0417	0.0017389	-0.009964	0.009963895
0.04196	0.0017606	-0.009704	0.009703895
0.04222	0.0017825	-0.009444	0.009443895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.0424	0.0017978	-0.009264	0.009263895
0.04256	0.0018114	-0.009104	0.009103895
0.04296	0.0018456	-0.008704	0.008703895
0.043	0.001849	-0.008664	0.008663895
0.043	0.001849	-0.008664	0.008663895
0.04318	0.0018645	-0.008484	0.008483895
0.0432	0.0018662	-0.008464	0.008463895
0.04392	0.001929	-0.007744	0.007743895
0.044	0.001936	-0.007664	0.007663895
0.04452	0.001982	-0.007144	0.007143895
0.045	0.002025	-0.006664	0.006663895
0.046	0.002116	-0.005664	0.005663895

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.046	0.002116	-0.005664	0.005663895
0.046	0.002116	-0.005664	0.005663895
0.047488	0.0022551	-0.004176	0.004175895
0.0475	0.0022563	-0.004164	0.004163895
0.049	0.002401	-0.002664	0.002663895
0.0494	0.0024404	-0.002264	0.002263895
0.04995	0.002495	-0.001714	0.001713895
0.05	0.0025	-0.001664	0.001663895
0.05088	0.0025888	-0.000784	0.000783895
0.05088	0.0025888	-0.000784	0.000783895
0.05088	0.0025888	-0.000784	0.000783895
0.05088	0.0025888	-0.000784	0.000783895
0.05088	0.0025888	-0.000784	0.000783895
0.05088	0.0025888	-0.000784	0.000783895
0.051	0.002601	-0.000664	0.000663895
0.051	0.002601	-0.000664	0.000663895
0.0511	0.0026112	-0.000564	0.000563895
0.0512	0.0026214	-0.000464	0.000463895
0.052	0.002704	0.0003361	0.000336105
0.052	0.002704	0.0003361	0.000336105
0.05238	0.0027437	0.0007161	0.000716105
0.0529	0.0027984	0.0012361	0.001236105
0.053	0.002809	0.0013361	0.001336105
0.0538	0.0028944	0.0021361	0.002136105
0.054	0.002916	0.0023361	0.002336105
0.05544	0.0030736	0.0037761	0.003776105
0.056	0.003136	0.0043361	0.004336105
0.056	0.003136	0.0043361	0.004336105
0.05616	0.0031539	0.0044961	0.004496105
0.05768	0.003327	0.0060161	0.006016105
0.059	0.003481	0.0073361	0.007336105
0.05936	0.0035236	0.0076961	0.007696105
0.05936	0.0035236	0.0076961	0.007696105
0.05936	0.0035236	0.0076961	0.007696105
0.05936	0.0035236	0.0076961	0.007696105
0.05936	0.0035236	0.0076961	0.007696105
0.05936	0.0035236	0.0076961	0.007696105
0.05968	0.0035617	0.0080161	0.008016105
0.061	0.003721	0.0093361	0.009336105
0.0636	0.004045	0.0119361	0.011936105
0.06392	0.0040858	0.0122561	0.012256105
0.06392	0.0040858	0.0122561	0.012256105
0.064	0.004096	0.0123361	0.012336105
0.06412	0.0041114	0.0124561	0.012456105
0.06416	0.0041165	0.0124961	0.012496105
0.0652	0.004251	0.0135361	0.013536105
0.06544	0.0042824	0.0137761	0.013776105

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.066	0.004356	0.0143361	0.014336105
0.0664533	0.004416	0.0147894	0.014789438
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06784	0.0046023	0.0161761	0.016176105
0.06892	0.00475	0.0172561	0.017256105
0.0723	0.0052273	0.0206361	0.020636105
0.07414	0.0054967	0.0224761	0.022476105
0.07632	0.0058247	0.0246561	0.024656105
0.07632	0.0058247	0.0246561	0.024656105
0.07632	0.0058247	0.0246561	0.024656105
0.07632	0.0058247	0.0246561	0.024656105
0.07632	0.0058247	0.0246561	0.024656105
0.080136	0.0064218	0.0284721	0.028472105
0.0814	0.006626	0.0297361	0.029736105
0.0848	0.007191	0.0331361	0.033136105
0.0848	0.007191	0.0331361	0.033136105
0.0848	0.007191	0.0331361	0.033136105
0.0848	0.007191	0.0331361	0.033136105
0.0848	0.007191	0.0331361	0.033136105
0.0848	0.007191	0.0331361	0.033136105
0.09328	0.0087012	0.0416161	0.041616105
0.09328	0.0087012	0.0416161	0.041616105
0.09328	0.0087012	0.0416161	0.041616105
0.09328	0.0087012	0.0416161	0.041616105
0.09328	0.0087012	0.0416161	0.041616105
0.09328	0.0087012	0.0416161	0.041616105
0.09936	0.0098724	0.0476961	0.047696105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.10176	0.0103551	0.0500961	0.050096105
0.11024	0.0121529	0.0585761	0.058576105
0.11024	0.0121529	0.0585761	0.058576105
0.11024	0.0121529	0.0585761	0.058576105
0.11024	0.0121529	0.0585761	0.058576105
0.11024	0.0121529	0.0585761	0.058576105
0.111936	0.0125297	0.0602721	0.060272105
0.11194	0.0125306	0.0602761	0.060276105
0.11872	0.0140944	0.0670561	0.067056105

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.11872	0.0140944	0.0670561	0.067056105
0.11872	0.0140944	0.0670561	0.067056105
0.11872	0.0140944	0.0670561	0.067056105
0.11872	0.0140944	0.0670561	0.067056105
0.125504	0.0157513	0.0738401	0.073840105
0.1272	0.0161798	0.0755361	0.075536105
0.1272	0.0161798	0.0755361	0.075536105
0.13568	0.0184091	0.0840161	0.084016105
0.13568	0.0184091	0.0840161	0.084016105
0.13568	0.0184091	0.0840161	0.084016105
0.13568	0.0184091	0.0840161	0.084016105
0.14016	0.0196448	0.0884961	0.088496105
0.14416	0.0207821	0.0924961	0.092496105
0.14416	0.0207821	0.0924961	0.092496105
0.14416	0.0207821	0.0924961	0.092496105
0.14416	0.0207821	0.0924961	0.092496105
0.14416	0.0207821	0.0924961	0.092496105
0.147	0.021609	0.0953361	0.095336105
0.147	0.021609	0.0953361	0.095336105
0.15264	0.023299	0.1009761	0.100976105
0.1536	0.023593	0.1019361	0.101936105
0.155	0.024025	0.1033361	0.103336105
0.16112	0.0259597	0.1094561	0.109456105
0.16114	0.0259661	0.1094761	0.109476105
0.162	0.026244	0.1103361	0.110336105
0.163	0.026569	0.1113361	0.111336105
0.1696	0.0287642	0.1179361	0.117936105
0.1696	0.0287642	0.1179361	0.117936105
0.175	0.030625	0.1233361	0.123336105
0.17544	0.0307792	0.1237761	0.123776105
0.17808	0.0317125	0.1264161	0.126416105
0.182	0.033124	0.1303361	0.130336105
0.1861	0.0346332	0.1344361	0.134436105
0.188	0.035344	0.1363361	0.136336105
0.20352	0.0414204	0.1518561	0.151856105
0.31376	0.0984453	0.2620961	0.262096105
0.7208	0.5195526	0.6691361	0.669136105

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-5.686336	32.334412	-2.30792	2.307919609
-5.568553	31.008777	-2.190137	2.190136573
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.463192	29.846467	-2.084776	2.084776058
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.298317	28.072167	-1.919901	1.919901414
-5.057727	25.580601	-1.679311	1.679310949
-5.035953	25.360824	-1.657537	1.65753715
-4.813425	23.169061	-1.435009	1.435009173
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877

-3.378416 =mean
-1236.5 = sum of Xi
4516.6795 = sum of Xi^2
366 = count

339.26737 = SSS
266.08586 = SAD

0.75511 = alpha

-3.9 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.770045	22.753328	-1.391629	1.391628877
-4.697285	22.064491	-1.31887	1.318869523
-4.643911	21.56591	-1.265495	1.265495062
-4.588313	21.052617	-1.209897	1.209897117
-4.546901	20.674311	-1.168485	1.168485326
-4.49901	20.241091	-1.120594	1.120594038
-4.412898	19.473671	-1.034482	1.034482346
-4.368045	19.079816	-0.989629	0.989628885
-4.268698	18.221782	-0.890282	0.890281997
-4.254513	18.100884	-0.876097	0.876097362
-4.2517	18.076956	-0.873284	0.873284421
-4.225365	17.853708	-0.846949	0.846948872
-4.21719	17.784695	-0.838774	0.83877444
-4.185145	17.515438	-0.806729	0.806728974
-4.170146	17.39012	-0.79173	0.791730323
-4.152821	17.245926	-0.774406	0.77440554
-4.135167	17.099602	-0.756751	0.756750605
-4.084592	16.683894	-0.706176	0.706176319
-4.078668	16.635533	-0.700252	0.700252131
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.076898	16.621094	-0.698482	0.698481696
-4.046698	16.375764	-0.668282	0.668281957
-4.045554	16.36651	-0.667138	0.667138446
-4.028557	16.22927	-0.650141	0.650140869
-4.017384	16.13937	-0.638968	0.638967569
-4.017384	16.13937	-0.638968	0.638967569
-3.991066	15.92861	-0.61265	0.612650261
-3.959115	15.674589	-0.580699	0.580698661
-3.927137	15.422402	-0.548721	0.548720691
-3.912023	15.303924	-0.533607	0.533607053
-3.912023	15.303924	-0.533607	0.533607053
-3.863233	14.924568	-0.484817	0.484816889
-3.833951	14.699184	-0.455536	0.455535518
-3.817198	14.570999	-0.438782	0.438781839
-3.816713	14.567297	-0.438297	0.438296873
-3.78451	14.322514	-0.406094	0.406093733
-3.765329	14.1777	-0.386913	0.386912674
-3.752458	14.080944	-0.374042	0.374042484
-3.751606	14.07455	-0.37319	0.373190332

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.745661	14.02998	-0.367246	0.367245516
-3.729701	13.910673	-0.351285	0.351285496
-3.729701	13.910673	-0.351285	0.351285496
-3.688879	13.607832	-0.310464	0.310463502
-3.688879	13.607832	-0.310464	0.310463502
-3.688879	13.607832	-0.310464	0.310463502
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.671433	13.479417	-0.293017	0.293016588
-3.664382	13.427695	-0.285966	0.28596603
-3.664382	13.427695	-0.285966	0.28596603
-3.649659	13.320009	-0.271243	0.271242789
-3.649659	13.320009	-0.271243	0.271242789
-3.649659	13.320009	-0.271243	0.271242789
-3.630611	13.181333	-0.252195	0.252194594
-3.6147	13.066056	-0.236284	0.236284104
-3.611918	13.045955	-0.233502	0.233502461
-3.611918	13.045955	-0.233502	0.233502461
-3.607484	13.013939	-0.229068	0.229067864
-3.607115	13.01128	-0.228699	0.2286992
-3.606894	13.009684	-0.228478	0.228478067
-3.606894	13.009684	-0.228478	0.228478067
-3.597212	12.939936	-0.218796	0.218796313
-3.593569	12.91374	-0.215153	0.215153322
-3.592988	12.90956	-0.214572	0.214571673
-3.575551	12.784563	-0.197135	0.197134817
-3.575551	12.784563	-0.197135	0.197134817
-3.575551	12.784563	-0.197135	0.197134817
-3.571274	12.753999	-0.192858	0.19285826
-3.557851	12.658305	-0.179435	0.179435239
-3.557851	12.658305	-0.179435	0.179435239
-3.554349	12.633394	-0.175933	0.175932609
-3.55365	12.628425	-0.175234	0.175233553
-3.540459	12.534853	-0.162043	0.162043497
-3.540459	12.534853	-0.162043	0.162043497
-3.540459	12.534853	-0.162043	0.162043497

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.516608	12.366533	-0.138192	0.138192281
-3.506558	12.295948	-0.128142	0.128141945
-3.506558	12.295948	-0.128142	0.128141945
-3.506558	12.295948	-0.128142	0.128141945
-3.475059	12.076037	-0.096643	0.096643278
-3.473768	12.067065	-0.095352	0.095352122
-3.473768	12.067065	-0.095352	0.095352122
-3.469905	12.040238	-0.091489	0.091488627
-3.469905	12.040238	-0.091489	0.091488627
-3.468941	12.033552	-0.090525	0.090525082
-3.457768	11.956158	-0.079352	0.079351781
-3.454598	11.934248	-0.076182	0.076182206
-3.450493	11.9059	-0.072077	0.072076721
-3.442019	11.847497	-0.063603	0.063603424
-3.442019	11.847497	-0.063603	0.063603424
-3.438276	11.821745	-0.05986	0.059860438
-3.433617	11.789728	-0.055201	0.055201321
-3.427131	11.745225	-0.048715	0.048714811
-3.42038	11.699001	-0.041964	0.041964249
-3.419769	11.694818	-0.041353	0.041352815
-3.411248	11.636611	-0.032832	0.032831765
-3.411248	11.636611	-0.032832	0.032831765
-3.39621	11.534241	-0.017794	0.017793888
-3.392634	11.509966	-0.014218	0.014218199
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.38375	11.449767	-0.005335	0.005334516
-3.369699	11.354869	0.0087172	0.008717238
-3.352407	11.238634	0.0260087	0.026008735
-3.352407	11.238634	0.0260087	0.026008735
-3.324236	11.050547	0.0541796	0.054179612
-3.31143	10.965567	0.0669861	0.066986146
-3.304434	10.919282	0.0739822	0.073982239
-3.28844	10.81384	0.0899757	0.089975664

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-3.28844	10.81384	0.0899757	0.089975664
-3.285016	10.791328	0.0934003	0.093400325
-3.277565	10.742431	0.1008511	0.100851131
-3.277565	10.742431	0.1008511	0.100851131
-3.27624	10.733749	0.1021758	0.10217581
-3.270169	10.694006	0.1082468	0.108246833
-3.270169	10.694006	0.1082468	0.108246833
-3.265967	10.666543	0.1124485	0.11244852
-3.265967	10.666543	0.1124485	0.11244852
-3.262305	10.642636	0.1161106	0.116110569
-3.236531	10.475131	0.1418852	0.141885192
-3.218876	10.361162	0.1595401	0.159540127
-3.207441	10.287681	0.1709745	0.170974505
-3.201527	10.249776	0.1768888	0.176888766
-3.201527	10.249776	0.1768888	0.176888766
-3.196625	10.218413	0.1817907	0.181790736
-3.194183	10.202806	0.1842327	0.18423274
-3.194183	10.202806	0.1842327	0.18423274
-3.190531	10.17949	0.1878846	0.1878846
-3.186893	10.156286	0.1915232	0.191523173
-3.179655	10.110207	0.1987608	0.198760841
-3.177254	10.094944	0.2011618	0.201161802
-3.171038	10.055485	0.2073775	0.207377457
-3.164861	10.016347	0.2135547	0.213554716
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.160607	9.9894361	0.217809	0.217809035
-3.15684	9.9656415	0.2215755	0.221575518
-3.147486	9.906667	0.2309301	0.230930123
-3.146555	9.9008094	0.2318608	0.231860789
-3.146555	9.9008094	0.2318608	0.231860789
-3.142378	9.8745386	0.2360381	0.236038098
-3.141915	9.8716285	0.2365012	0.236501168
-3.125385	9.7680344	0.2530305	0.25303047
-3.123566	9.7566623	0.2548503	0.254850307
-3.111817	9.6834035	0.2665992	0.2665992

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.101093	9.6167765	0.2773232	0.277323163
-3.079114	9.4809423	0.2993021	0.29930207
-3.079114	9.4809423	0.2993021	0.29930207
-3.079114	9.4809423	0.2993021	0.29930207
-3.047278	9.2859046	0.3311377	0.331137721
-3.047026	9.2843648	0.3313904	0.331390384
-3.015935	9.0958638	0.362481	0.362480971
-3.007805	9.04689	0.3706111	0.370611097
-2.996733	8.9804073	0.3816832	0.381683178
-2.995732	8.9744119	0.3826837	0.382683679
-2.978285	8.8701837	0.4001306	0.400130592
-2.978285	8.8701837	0.4001306	0.400130592
-2.978285	8.8701837	0.4001306	0.400130592
-2.978285	8.8701837	0.4001306	0.400130592
-2.978285	8.8701837	0.4001306	0.400130592
-2.978285	8.8701837	0.4001306	0.400130592
-2.97593	8.8561573	0.4024863	0.402486306
-2.97593	8.8561573	0.4024863	0.402486306
-2.973971	8.8445022	0.4044452	0.40444517
-2.972016	8.8328776	0.4064002	0.406400205
-2.956512	8.7409606	0.4219044	0.421904392
-2.956512	8.7409606	0.4219044	0.421904392
-2.94923	8.6979602	0.4291855	0.429185512
-2.939352	8.6397898	0.439064	0.439064012
-2.937463	8.628691	0.4409526	0.440952587
-2.922482	8.5408999	0.4559341	0.45593414
-2.918771	8.5192255	0.4596447	0.45964472
-2.892454	8.3662897	0.485962	0.485962028
-2.882404	8.3082504	0.4960124	0.496012364
-2.882404	8.3082504	0.4960124	0.496012364
-2.879551	8.2918112	0.4988654	0.498865433
-2.852845	8.1387234	0.5255712	0.525571166
-2.830218	8.010133	0.5481981	0.548198117
-2.824135	7.9757367	0.5542813	0.554281272
-2.824135	7.9757367	0.5542813	0.554281272
-2.824135	7.9757367	0.5542813	0.554281272
-2.824135	7.9757367	0.5542813	0.554281272
-2.824135	7.9757367	0.5542813	0.554281272
-2.824135	7.9757367	0.5542813	0.554281272
-2.818758	7.9453985	0.5596576	0.559657629
-2.796881	7.8225456	0.5815345	0.581534537
-2.755142	7.5908064	0.6232741	0.623274144
-2.750123	7.5631764	0.628293	0.628292975
-2.750123	7.5631764	0.628293	0.628292975
-2.748872	7.5562983	0.6295438	0.629543757
-2.746999	7.5460032	0.631417	0.631417001
-2.746375	7.5425774	0.6320406	0.632040637

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-2.730296	7.4545152	0.6481201	0.648120142
-2.726622	7.4344653	0.6517944	0.651794366
-2.718101	7.3880705	0.6603154	0.660315415
-2.711255	7.3509055	0.6671606	0.66716062
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.690603	7.2393461	0.6878127	0.687812665
-2.674809	7.1546025	0.7036071	0.703607085
-2.626931	6.9007673	0.7514848	0.751484802
-2.6018	6.7693637	0.7766159	0.776615871
-2.57282	6.619404	0.8055957	0.8055957
-2.57282	6.619404	0.8055957	0.8055957
-2.57282	6.619404	0.8055957	0.8055957
-2.57282	6.619404	0.8055957	0.8055957
-2.57282	6.619404	0.8055957	0.8055957
-2.52403	6.3707279	0.8543859	0.854385865
-2.50838	6.2919703	0.8700359	0.870035946
-2.46746	6.0883575	0.9109562	0.910956216
-2.46746	6.0883575	0.9109562	0.910956216
-2.46746	6.0883575	0.9109562	0.910956216
-2.46746	6.0883575	0.9109562	0.910956216
-2.46746	6.0883575	0.9109562	0.910956216
-2.46746	6.0883575	0.9109562	0.910956216
-2.37215	5.6270935	1.0062664	1.006266396
-2.37215	5.6270935	1.0062664	1.006266396
-2.37215	5.6270935	1.0062664	1.006266396
-2.37215	5.6270935	1.0062664	1.006266396
-2.37215	5.6270935	1.0062664	1.006266396
-2.37215	5.6270935	1.0062664	1.006266396
-2.309006	5.3315071	1.0694103	1.069410291
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.285138	5.2218565	1.0932778	1.093277773
-2.205095	4.862446	1.1733205	1.173320481
-2.205095	4.862446	1.1733205	1.173320481
-2.205095	4.862446	1.1733205	1.173320481
-2.205095	4.862446	1.1733205	1.173320481
-2.205095	4.862446	1.1733205	1.173320481
-2.189828	4.7953467	1.188588	1.188587953

Table 87. Uranium Near Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-2.189792	4.7951902	1.1886237	1.188623687
-2.130987	4.5411077	1.2474285	1.247428453
-2.130987	4.5411077	1.2474285	1.247428453
-2.130987	4.5411077	1.2474285	1.247428453
-2.130987	4.5411077	1.2474285	1.247428453
-2.130987	4.5411077	1.2474285	1.247428453
-2.075418	4.3073584	1.3029983	1.302998304
-2.061995	4.2518218	1.3164213	1.316421324
-2.061995	4.2518218	1.3164213	1.316421324
-1.997456	3.9898309	1.3809598	1.380959845
-1.997456	3.9898309	1.3809598	1.380959845
-1.997456	3.9898309	1.3809598	1.380959845
-1.997456	3.9898309	1.3809598	1.380959845
-1.964971	3.8611097	1.4134453	1.4134453
-1.936831	3.7513162	1.4415845	1.441584467
-1.936831	3.7513162	1.4415845	1.441584467
-1.936831	3.7513162	1.4415845	1.441584467
-1.936831	3.7513162	1.4415845	1.441584467
-1.936831	3.7513162	1.4415845	1.441584467
-1.917323	3.6761263	1.4610933	1.46109326
-1.917323	3.6761263	1.4610933	1.46109326
-1.879673	3.5331709	1.4987429	1.498742881
-1.873403	3.5096405	1.5050125	1.505012494
-1.86433	3.475727	1.5140858	1.51408579
-1.825606	3.3328367	1.5528101	1.552810102
-1.825482	3.3323835	1.5529342	1.552934226
-1.820159	3.3129786	1.558257	1.558257008
-1.814005	3.2906144	1.5644109	1.564410874
-1.774313	3.148185	1.6041034	1.604103397
-1.774313	3.148185	1.6041034	1.604103397
-1.742969	3.037942	1.6354466	1.635446647
-1.740458	3.0291947	1.6379578	1.637957777
-1.725522	2.9774275	1.6528936	1.652893561
-1.703749	2.9027593	1.6746674	1.67466736
-1.681471	2.8273451	1.6969448	1.696944837
-1.671313	2.7932882	1.7071026	1.707102636
-1.591991	2.5344353	1.786425	1.786424953
-1.159127	1.3435752	2.219289	2.219289036
-0.327394	0.1071866	3.0510224	3.05102238

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis

Uranium	Normal (xi-avg)^3
0.7208	0.299601092
0.31376	0.018004526
0.20352	0.003501844
0.188	0.002534152
0.1861	0.002429673
0.182	0.002214085
0.17808	0.00202026
0.17544	0.001896315
0.175	0.001876164
0.1696	0.001640364
0.1696	0.001640364
0.163	0.001380092
0.162	0.001343238
0.16114	0.001312073
0.16112	0.001311354
0.155	0.001103459
0.1536	0.001059215
0.15264	0.00102957
0.147	0.000866507
0.147	0.000866507
0.14416	0.000791353
0.14416	0.000791353
0.14416	0.000791353
0.14416	0.000791353
0.14416	0.000791353
0.14016	0.000693063
0.13568	0.000593045
0.13568	0.000593045
0.13568	0.000593045
0.13568	0.000593045
0.1272	0.000430987
0.1272	0.000430987
0.125504	0.000402603
0.11872	0.000301519
0.11872	0.000301519
0.11872	0.000301519
0.11872	0.000301519
0.11872	0.000301519
0.11194	0.000218996
0.111936	0.000218952
0.11024	0.000200984
0.11024	0.000200984
0.11024	0.000200984
0.11024	0.000200984
0.11024	0.000200984
0.10176	0.000125722
0.10176	0.000125722

	Normal
standard deviation =	0.0564146
mean =	0.052
count =	366
sum of (xi-avg)^3 =	0.3530307
1/n =	0.0027322
standard deviation cubed =	0.0001795
((n-1)/n)^(3/2) =	0.9959044
coef. of skewness =	5.4
acceptable range -1 to 1	**Fail**

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.10176	0.000125722
0.10176	0.000125722
0.10176	0.000125722
0.10176	0.000125722
0.10176	0.000125722
0.09936	0.000108505
0.09328	7.20749E-05
0.09328	7.20749E-05
0.09328	7.20749E-05
0.09328	7.20749E-05
0.09328	7.20749E-05
0.09328	7.20749E-05
0.0848	3.63835E-05
0.0848	3.63835E-05
0.0848	3.63835E-05
0.0848	3.63835E-05
0.0848	3.63835E-05
0.0848	3.63835E-05
0.0814	2.62937E-05
0.080136	2.30812E-05
0.07632	1.4989E-05
0.07632	1.4989E-05
0.07632	1.4989E-05
0.07632	1.4989E-05
0.07632	1.4989E-05
0.07414	1.13544E-05
0.0723	8.78786E-06
0.06892	5.1384E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.06784	4.23274E-06
0.0664533	3.23486E-06
0.066	2.94641E-06
0.06544	2.61444E-06
0.0652	2.48017E-06
0.06416	1.9513E-06
0.06412	1.93262E-06
0.064	1.8773E-06
0.06392	1.84102E-06
0.06392	1.84102E-06
0.0636	1.70054E-06
0.061	8.13762E-07
0.05968	5.15098E-07
0.05936	4.5584E-07

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.05936	4.5584E-07
0.05936	4.5584E-07
0.05936	4.5584E-07
0.05936	4.5584E-07
0.05936	4.5584E-07
0.059	3.94818E-07
0.05768	2.17744E-07
0.05616	9.08886E-08
0.056	8.15266E-08
0.056	8.15266E-08
0.05544	5.38434E-08
0.054	1.2749E-08
0.0538	9.74693E-09
0.053	2.38518E-09
0.0529	1.88871E-09
0.05238	3.67223E-10
0.052	3.79685E-11
0.052	3.79685E-11
0.0512	-9.98297E-11
0.0511	-1.79306E-10
0.051	-2.92616E-10
0.051	-2.92616E-10
0.05088	-4.81697E-10
0.05088	-4.81697E-10
0.05088	-4.81697E-10
0.05088	-4.81697E-10
0.05088	-4.81697E-10
0.05088	-4.81697E-10
0.05	-4.60657E-09
0.04995	-5.03446E-09
0.0494	-1.1603E-08
0.049	-1.89039E-08
0.0475	-7.21937E-08
0.047488	-7.28197E-08
0.046	-1.81696E-07
0.046	-1.81696E-07
0.046	-1.81696E-07
0.045	-2.95927E-07
0.04452	-3.6459E-07
0.044	-4.50141E-07
0.04392	-4.64385E-07
0.0432	-6.06332E-07
0.04318	-6.10641E-07
0.043	-6.50339E-07
0.043	-6.50339E-07
0.04296	-6.59388E-07
0.04256	-7.54539E-07
0.0424	-7.95025E-07

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.0424	-7.95025E-07
0.04222	-8.42274E-07
0.04196	-9.13773E-07
0.0417	-9.89208E-07
0.0416	-1.01929E-06
0.0413	-1.11319E-06
0.04115	-1.16223E-06
0.041	-1.21268E-06
0.041	-1.21268E-06
0.0409	-1.24712E-06
0.0407	-1.31794E-06
0.0407	-1.31794E-06
0.04046	-1.40639E-06
0.04	-1.58683E-06
0.0393	-1.89002E-06
0.0383	-2.38671E-06
0.03816	-2.46251E-06
0.03816	-2.46251E-06
0.038	-2.55108E-06
0.038	-2.55108E-06
0.03777	-2.68208E-06
0.03772	-2.71114E-06
0.03772	-2.71114E-06
0.03744	-2.87777E-06
0.037312	-2.95616E-06
0.037312	-2.95616E-06
0.03672	-3.33727E-06
0.036464	-3.51174E-06
0.036	-3.84326E-06
0.035	-4.62732E-06
0.035	-4.62732E-06
0.0344	-5.14537E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03392	-5.58659E-06
0.03362	-5.87477E-06
0.0335	-5.99276E-06
0.033	-6.5014E-06
0.033	-6.5014E-06
0.03272	-6.79842E-06
0.0327	-6.81997E-06
0.03248	-7.06009E-06
0.03227	-7.29449E-06
0.03212	-7.46506E-06
0.032	-7.60341E-06
0.032	-7.60341E-06
0.03173	-7.92094E-06
0.0316	-8.07692E-06
0.0315	-8.19829E-06
0.03115	-8.63266E-06
0.03112	-8.67058E-06
0.03112	-8.67058E-06
0.031	-8.82341E-06
0.031	-8.82341E-06
0.03096	-8.87475E-06
0.03	-1.01674E-05
0.03	-1.01674E-05
0.03	-1.01674E-05
0.0297	-1.05957E-05
0.029	-1.16414E-05
0.029	-1.16414E-05
0.029	-1.16414E-05
0.02862	-1.22368E-05
0.0286	-1.22687E-05
0.0285	-1.2429E-05
0.0285	-1.2429E-05
0.02812	-1.30507E-05
0.028	-1.32513E-05
0.028	-1.32513E-05
0.028	-1.32513E-05
0.027516	-1.40811E-05

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.0275	-1.41091E-05
0.0274	-1.4285E-05
0.027136	-1.47564E-05
0.027136	-1.47564E-05
0.02713	-1.47672E-05
0.02712	-1.47853E-05
0.027	-1.50032E-05
0.027	-1.50032E-05
0.026925	-1.51405E-05
0.0265	-1.59343E-05
0.026	-1.69032E-05
0.026	-1.69032E-05
0.026	-1.69032E-05
0.02562	-1.76652E-05
0.02562	-1.76652E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.02544	-1.8034E-05
0.025	-1.89571E-05
0.025	-1.89571E-05
0.025	-1.89571E-05
0.024	-2.11709E-05
0.024	-2.11709E-05
0.02362	-2.20554E-05
0.02348	-2.23874E-05
0.02346	-2.24351E-05
0.02316	-2.31586E-05
0.02272	-2.42477E-05
0.022	-2.61026E-05
0.0219893	-2.61308E-05
0.021624	-2.71079E-05
0.021	-2.88325E-05
0.02	-3.17463E-05
0.02	-3.17463E-05
0.0197	-3.26572E-05
0.01908	-3.45947E-05
0.01848	-3.65411E-05

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.018	-3.81499E-05
0.018	-3.81499E-05
0.0178	-3.88339E-05
0.0175	-3.98751E-05
0.01748	-3.99452E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01696	-4.1796E-05
0.01693	-4.19045E-05
0.01683	-4.22675E-05
0.016	-4.53614E-05
0.01572	-4.64382E-05
0.01545	-4.74926E-05
0.01522	-4.84032E-05
0.01474	-5.03411E-05
0.01462	-5.08335E-05
0.01424	-5.2414E-05
0.0142	-5.25822E-05
0.014	-5.34288E-05
0.012676	-5.92638E-05
0.01212	-6.18356E-05
0.01112	-6.66464E-05
0.0106	-6.92437E-05
0.01017	-7.14418E-05
0.00962	-7.43205E-05
0.00912	-7.70037E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00848	-8.05314E-05
0.00812	-8.25623E-05
0.0065	-9.21243E-05

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.00636	-9.29837E-05
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.005	-0.000101612
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.00424	-0.000106658
0.003816	-0.000109544
0.003392	-0.000112482

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-0.327394	28.40116662
-1.159127	10.93053962
-1.591991	5.701043168
-1.671313	4.974837495
-1.681471	4.886559311
-1.703749	4.696622644
-1.725522	4.515799627
-1.740458	4.394486225
-1.742969	4.374305819
-1.774313	4.127594977
-1.774313	4.127594977
-1.814005	3.828710048
-1.820159	3.78370498
-1.825482	3.745063491
-1.825606	3.744165553
-1.86433	3.470974721
-1.873403	3.408947523
-1.879673	3.366521556
-1.917323	3.119132416
-1.917323	3.119132416
-1.936831	2.995851502
-1.936831	2.995851502
-1.936831	2.995851502
-1.936831	2.995851502
-1.936831	2.995851502
-1.964971	2.823820057
-1.997456	2.633559603
-1.997456	2.633559603
-1.997456	2.633559603
-1.997456	2.633559603
-2.061995	2.281312215
-2.061995	2.281312215
-2.075418	2.212236488
-2.130987	1.941095653
-2.130987	1.941095653
-2.130987	1.941095653
-2.130987	1.941095653
-2.130987	1.941095653
-2.189792	1.679318768
-2.189828	1.679167315
-2.205095	1.615287954
-2.205095	1.615287954
-2.205095	1.615287954
-2.205095	1.615287954
-2.205095	1.615287954
-2.285138	1.306747133
-2.285138	1.306747133

	Lognormal
standard deviation =	0.9641056
mean =	-3.378
count =	366
sum of (xi-avg)^3 =	-132.6356
1/n =	0.0027322
standard deviation cubed =	0.8961358
((n-1)/n)^(3/2) =	0.9959044
coef. of skewness =	-0.4
acceptable range -1 to 1	**Pass**

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-2.285138	1.306747133
-2.285138	1.306747133
-2.285138	1.306747133
-2.285138	1.306747133
-2.285138	1.306747133
-2.309006	1.223018644
-2.37215	1.018917237
-2.37215	1.018917237
-2.37215	1.018917237
-2.37215	1.018917237
-2.37215	1.018917237
-2.37215	1.018917237
-2.46746	0.755949025
-2.46746	0.755949025
-2.46746	0.755949025
-2.46746	0.755949025
-2.46746	0.755949025
-2.46746	0.755949025
-2.50838	0.658584627
-2.52403	0.623680497
-2.57282	0.522819068
-2.57282	0.522819068
-2.57282	0.522819068
-2.57282	0.522819068
-2.57282	0.522819068
-2.6018	0.468402047
-2.626931	0.424385568
-2.674809	0.348329785
-2.690603	0.325394722
-2.690603	0.325394722
-2.690603	0.325394722
-2.690603	0.325394722
-2.690603	0.325394722
-2.690603	0.325394722
-2.690603	0.325394722
-2.711255	0.296955389
-2.718101	0.287908382
-2.726622	0.276905643
-2.730296	0.272249165
-2.746375	0.252484665
-2.746999	0.251738021
-2.748872	0.249504144
-2.750123	0.248019947
-2.750123	0.248019947
-2.755142	0.242123717
-2.796881	0.196664756
-2.818758	0.175294094

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-2.824135	0.170290576
-2.824135	0.170290576
-2.824135	0.170290576
-2.824135	0.170290576
-2.824135	0.170290576
-2.824135	0.170290576
-2.830218	0.164745143
-2.852845	0.145175922
-2.879551	0.124151004
-2.882404	0.122033061
-2.882404	0.122033061
-2.892454	0.114764352
-2.918771	0.097110642
-2.922482	0.094777738
-2.937463	0.085738461
-2.939352	0.084641534
-2.94923	0.079056059
-2.956512	0.075100381
-2.956512	0.075100381
-2.972016	0.067121516
-2.973971	0.066157481
-2.97593	0.06520086
-2.97593	0.06520086
-2.978285	0.064062705
-2.978285	0.064062705
-2.978285	0.064062705
-2.978285	0.064062705
-2.978285	0.064062705
-2.978285	0.064062705
-2.995732	0.056042799
-2.996733	0.055604387
-3.007805	0.050904392
-3.015935	0.047627265
-3.047026	0.036393155
-3.047278	0.036309976
-3.079114	0.026811997
-3.079114	0.026811997
-3.079114	0.026811997
-3.101093	0.021328408
-3.111817	0.018948574
-3.123566	0.016552191
-3.125385	0.016200129
-3.141915	0.013228173
-3.142378	0.013150623
-3.146555	0.012464703
-3.146555	0.012464703
-3.147486	0.012315208

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-3.15684	0.010878407
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.160607	0.01033303
-3.164861	0.009739294
-3.171038	0.008918352
-3.177254	0.008140228
-3.179655	0.00785222
-3.186893	0.007025286
-3.190531	0.006632443
-3.194183	0.006253173
-3.194183	0.006253173
-3.196625	0.006007797
-3.201527	0.005534785
-3.201527	0.005534785
-3.207441	0.004997975
-3.218876	0.004060783
-3.236531	0.002856349
-3.262305	0.001565364
-3.265967	0.001421874
-3.265967	0.001421874
-3.270169	0.001268369
-3.270169	0.001268369
-3.27624	0.001066705
-3.277565	0.001025752
-3.277565	0.001025752
-3.285016	0.000814789
-3.28844	0.000728409
-3.28844	0.000728409
-3.304434	0.000404932
-3.31143	0.000300576
-3.324236	0.00015904
-3.352407	1.75937E-05
-3.352407	1.75937E-05
-3.369699	6.62425E-07
-3.38375	-1.51805E-07

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.38375	-1.51805E-07
-3.392634	-2.87431E-06
-3.396211	-5.63394E-06
-3.411248	-3.53902E-05
-3.411248	-3.53902E-05
-3.419769	-7.07156E-05
-3.42038	-7.3899E-05
-3.427131	-0.000115607
-3.433617	-0.000168209
-3.438276	-0.000214496
-3.442019	-0.000257301
-3.442019	-0.000257301
-3.450493	-0.000374442
-3.454598	-0.000442141
-3.457768	-0.000499655
-3.468941	-0.000741834
-3.469905	-0.000765775
-3.469905	-0.000765775
-3.473768	-0.000866944
-3.473768	-0.000866944
-3.475059	-0.000902641
-3.506558	-0.002104137
-3.506558	-0.002104137
-3.506558	-0.002104137
-3.516608	-0.002639073
-3.540459	-0.004254954
-3.540459	-0.004254954
-3.540459	-0.004254954
-3.55365	-0.005380861
-3.554349	-0.005445516
-3.557851	-0.005777277
-3.557851	-0.005777277
-3.571274	-0.00717323

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-3.575551	-0.00766108
-3.575551	-0.00766108
-3.575551	-0.00766108
-3.592988	-0.009879095
-3.593569	-0.009959652
-3.597212	-0.010474179
-3.606894	-0.011927064
-3.606894	-0.011927064
-3.607115	-0.011961728
-3.607484	-0.012019669
-3.611918	-0.012731348
-3.611918	-0.012731348
-3.6147	-0.013191783
-3.630611	-0.016040109
-3.649659	-0.019956051
-3.649659	-0.019956051
-3.649659	-0.019956051
-3.664382	-0.023385321
-3.664382	-0.023385321
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.671433	-0.02515803
-3.688879	-0.029924827
-3.688879	-0.029924827
-3.688879	-0.029924827
-3.729701	-0.043349157
-3.729701	-0.043349157
-3.745661	-0.049530134
-3.751606	-0.0519746
-3.752458	-0.052331453
-3.765329	-0.057921376
-3.78451	-0.066969778
-3.816713	-0.084198648
-3.817198	-0.084478449
-3.833951	-0.094529363
-3.863233	-0.113954957

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-3.912023	-0.151937398
-3.912023	-0.151937398
-3.927137	-0.165216725
-3.959115	-0.195817938
-3.991066	-0.229952358
-4.017384	-0.260877394
-4.017384	-0.260877394
-4.028557	-0.274803591
-4.045554	-0.29692578
-4.046698	-0.298455239
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.076898	-0.340772931
-4.078668	-0.343370766
-4.084592	-0.352159532
-4.135167	-0.433369487
-4.152821	-0.464414053
-4.170146	-0.496285786
-4.185145	-0.525028605
-4.21719	-0.590113518
-4.225365	-0.607535392
-4.2517	-0.665989125
-4.254513	-0.672445541
-4.268698	-0.705639322
-4.368045	-0.969208219
-4.412898	-1.107055136
-4.49901	-1.407164669
-4.546901	-1.595400736
-4.588313	-1.771109144
-4.643911	-2.026662187
-4.697285	-2.294063828
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528

Table 88. Uranium Near Upgradient Background Data Set, Coefficient of Skewness Analysis (continued

Uranium	Lognormal (xi-avg)^3
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.770045	-2.695071528
-4.813425	-2.955044541
-5.035953	-4.553966302
-5.057727	-4.735800063
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.298317	-7.076797777
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.463192	-9.061043854
-5.568553	-10.50542418
-5.686336	-12.29311746

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.003392	1	0.0027248	-2.779198	-0.009427038	7.7239389
0.003816	2	0.0054496	-2.54593	-0.00971527	6.4817612
0.00424	3	0.0081744	-2.40103	-0.010180366	5.7649433
0.00424	4	0.0108992	-2.293855	-0.009725944	5.2617697
0.00424	5	0.013624	-2.207944	-0.009361682	4.8750163
0.00424	6	0.0163488	-2.135776	-0.009055688	4.561537
0.00424	7	0.0190736	-2.073266	-0.008790648	4.2984316
0.00424	8	0.0217984	-2.01795	-0.00855611	4.0721241
0.00424	9	0.0245232	-1.968183	-0.008345096	3.873744
0.00424	10	0.027248	-1.922872	-0.008152977	3.6974363
0.00424	11	0.0299728	-1.88119	-0.007976245	3.5388749
0.00424	12	0.0326975	-1.842545	-0.007812392	3.3949732
0.00424	13	0.0354223	-1.806475	-0.007659453	3.263351
0.00424	14	0.0381471	-1.772605	-0.007515846	3.1421291
0.00424	15	0.0408719	-1.740655	-0.007380376	3.0298785
0.00424	16	0.0435967	-1.710391	-0.007252059	2.925438
0.00424	17	0.0463215	-1.681619	-0.007130066	2.8278436
0.00424	18	0.0490463	-1.654171	-0.007013684	2.7362809
0.00424	19	0.0517711	-1.627918	-0.006902373	2.6501177
0.00424	20	0.0544959	-1.602739	-0.006795613	2.5687718
0.00424	21	0.0572207	-1.578542	-0.006693017	2.491794
0.00424	22	0.0599455	-1.555231	-0.006594181	2.4187447
0.005	23	0.0626703	-1.532735	-0.007663675	2.3492767
0.005	24	0.0653951	-1.510994	-0.007554968	2.2831016
0.005	25	0.0681199	-1.489943	-0.007449717	2.2199311
0.005	26	0.0708447	-1.46953	-0.007347649	2.1595176
0.005	27	0.0735695	-1.449712	-0.007248559	2.1016644
0.005	28	0.0762943	-1.430449	-0.007152244	2.0461835
0.005	29	0.0790191	-1.411699	-0.007058497	1.9928954
0.005	30	0.0817439	-1.393437	-0.006967184	1.9416662
0.00636	31	0.0844687	-1.375627	-0.008748986	1.8923487
0.0065	32	0.0871935	-1.358244	-0.008828586	1.8448266
0.00812	33	0.0899183	-1.341259	-0.010891024	1.798976
0.00848	34	0.0926431	-1.324654	-0.011233066	1.7547083

Uranium - normal

256.28477 = (sum of Mi*Xi)^2

365 = count -1

0.0031826 = standard deviation ^2

355.90411 = sum of Mi^2

0.62 = W statistic

FAIL

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.00848	35	0.095368	-1.308406	-0.011095282	1.711926
0.00848	36	0.098093	-1.292497	-0.010960371	1.670547
0.00848	37	0.100817	-1.276908	-0.010828178	1.630494
0.00848	38	0.103542	-1.261624	-0.01069857	1.591695
0.00848	39	0.106267	-1.246628	-0.010571409	1.554083
0.00848	40	0.108992	-1.231908	-0.010446582	1.517598
0.00848	41	0.111717	-1.21745	-0.010323973	1.482184
0.00848	42	0.114441	-1.203243	-0.010203503	1.447794
0.00848	43	0.117166	-1.189273	-0.010085039	1.414371
0.00848	44	0.119891	-1.175531	-0.009968503	1.381873
0.00848	45	0.122616	-1.162009	-0.009853837	1.350265
0.00848	46	0.125341	-1.148696	-0.009740945	1.319503
0.00848	47	0.128065	-1.135584	-0.00962975	1.28955
0.00848	48	0.13079	-1.122664	-0.009520194	1.260375
0.00912	49	0.133515	-1.109929	-0.010122554	1.231943
0.00962	50	0.13624	-1.097371	-0.010556712	1.204224
0.01017	51	0.138965	-1.084984	-0.011034287	1.17719
0.0106	52	0.141689	-1.07276	-0.01137126	1.150815
0.01112	53	0.144414	-1.060696	-0.011794939	1.125076
0.01212	54	0.147139	-1.048784	-0.01271126	1.099947
0.012676	55	0.149864	-1.037017	-0.01314523	1.075405
0.014	56	0.152589	-1.025394	-0.014355514	1.051433
0.0142	57	0.155313	-1.013907	-0.014397479	1.028007
0.01424	58	0.158038	-1.002554	-0.014276372	1.005115
0.01462	59	0.160763	-0.991326	-0.014493193	0.982728
0.01474	60	0.163488	-0.980224	-0.014448499	0.960839
0.01522	61	0.166213	-0.969242	-0.014751858	0.939429
0.01545	62	0.168937	-0.958373	-0.014806866	0.918479
0.01572	63	0.171662	-0.947618	-0.014896562	0.897981
0.016	64	0.174387	-0.936971	-0.014991529	0.877914
0.01683	65	0.177112	-0.926427	-0.01559177	0.858267
0.01693	66	0.179837	-0.915988	-0.015507685	0.839035
0.01696	67	0.182561	-0.905648	-0.015359782	0.820197
0.01696	68	0.185286	-0.895402	-0.015186019	0.801745
0.01696	69	0.188011	-0.88525	-0.015013837	0.783667

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.01696	70	0.190736	-0.875189	-0.014843198	0.765955
0.01696	71	0.19346	-0.865214	-0.014674024	0.748595
0.01696	72	0.196185	-0.855325	-0.014506315	0.731581
0.01696	73	0.19891	-0.845521	-0.014340034	0.714905
0.01696	74	0.201635	-0.835796	-0.014175101	0.698555
0.01748	75	0.20436	-0.826149	-0.014441078	0.682522
0.0175	76	0.207084	-0.816578	-0.014290123	0.6668
0.0178	77	0.209809	-0.807083	-0.014366083	0.651383
0.018	78	0.212534	-0.797659	-0.014357856	0.636259
0.018	79	0.215259	-0.788307	-0.014189523	0.621428
0.01848	80	0.217984	-0.779021	-0.014396306	0.606874
0.01908	81	0.220708	-0.769803	-0.014687844	0.592597
0.0197	82	0.223433	-0.760649	-0.014984787	0.578587
0.02	83	0.226158	-0.751559	-0.015031173	0.56484
0.02	84	0.228883	-0.742531	-0.014850616	0.551352
0.021	85	0.231608	-0.733562	-0.015404803	0.538113
0.021624	86	0.234332	-0.724654	-0.015669908	0.525123
0.021989	87	0.237057	-0.7158	-0.015739956	0.512369
0.022	88	0.239782	-0.707004	-0.015554081	0.499854
0.02272	89	0.242507	-0.698262	-0.015864519	0.48757
0.02316	90	0.245232	-0.689572	-0.015970489	0.47551
0.02346	91	0.247956	-0.680934	-0.015974715	0.463671
0.02348	92	0.250681	-0.672347	-0.015786716	0.452051
0.02362	93	0.253406	-0.663809	-0.01567918	0.440643
0.024	94	0.256131	-0.65532	-0.015727692	0.429445
0.024	95	0.258856	-0.646878	-0.015525075	0.418451
0.025	96	0.26158	-0.638481	-0.01596203	0.407658
0.025	97	0.264305	-0.630129	-0.015753216	0.397062
0.025	98	0.26703	-0.62182	-0.01554551	0.386661
0.02544	99	0.269755	-0.613554	-0.015608819	0.376449
0.02544	100	0.27248	-0.60533	-0.015399598	0.366425
0.02544	101	0.275204	-0.597147	-0.015191418	0.356584
0.02544	102	0.277929	-0.589005	-0.014984279	0.346927
0.02544	103	0.280654	-0.5809	-0.014778095	0.337445
0.02544	104	0.283379	-0.572834	-0.014572894	0.328139

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.02544	105	0.286104	-0.564803	-0.014368589	0.319002
0.02544	106	0.288828	-0.556811	-0.014165268	0.310038
0.02544	107	0.291553	-0.548853	-0.013962814	0.301239
0.02544	108	0.294278	-0.54093	-0.013761257	0.292605
0.02544	109	0.297003	-0.533041	-0.013560568	0.284133
0.02544	110	0.299728	-0.525184	-0.013360689	0.275819
0.02544	111	0.302452	-0.51736	-0.013161648	0.267662
0.02544	112	0.305177	-0.509567	-0.012963388	0.259659
0.02562	113	0.307902	-0.501807	-0.012856292	0.25181
0.02562	114	0.310627	-0.494074	-0.012658173	0.244109
0.026	115	0.313351	-0.486373	-0.012645692	0.236558
0.026	116	0.316076	-0.478699	-0.012446171	0.229153
0.026	117	0.318801	-0.471055	-0.012247419	0.221892
0.0265	118	0.321526	-0.463436	-0.012281066	0.214773
0.026925	119	0.324251	-0.455846	-0.012273642	0.207795
0.027	120	0.326975	-0.448281	-0.012103583	0.200956
0.027	121	0.3297	-0.440741	-0.011900011	0.194253
0.02712	122	0.332425	-0.433226	-0.011749101	0.187685
0.02713	123	0.33515	-0.425737	-0.011550238	0.181252
0.027136	124	0.337875	-0.418271	-0.0113502	0.174951
0.027136	125	0.340599	-0.410828	-0.011148225	0.16878
0.0274	126	0.343324	-0.403408	-0.011053366	0.162738
0.0275	127	0.346049	-0.39601	-0.010890273	0.156824
0.027516	128	0.348774	-0.388633	-0.010693619	0.151035
0.028	129	0.351499	-0.381278	-0.010675794	0.145373
0.028	130	0.354223	-0.373943	-0.010470412	0.139834
0.028	131	0.356948	-0.366629	-0.010265603	0.134417
0.02812	132	0.359673	-0.359333	-0.010104455	0.12912
0.0285	133	0.362398	-0.352056	-0.010033605	0.123944
0.0285	134	0.365123	-0.3448	-0.009826791	0.118887
0.0286	135	0.367847	-0.33756	-0.009654219	0.113947
0.02862	136	0.370572	-0.330339	-0.009454294	0.109124
0.029	137	0.373297	-0.323134	-0.009370897	0.104416
0.029	138	0.376022	-0.315946	-0.009162433	0.099822
0.029	139	0.378747	-0.308775	-0.008954463	0.095342

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.0297	140	0.381471	-0.301619	-0.008958088	0.090974
0.03	141	0.384196	-0.294478	-0.008834354	0.086718
0.03	142	0.386921	-0.287353	-0.008620577	0.082572
0.03	143	0.389646	-0.280243	-0.008407278	0.078536
0.03096	144	0.392371	-0.273146	-0.008456609	0.074609
0.031	145	0.395095	-0.266064	-0.008247971	0.07079
0.031	146	0.39782	-0.258993	-0.008028795	0.067078
0.03112	147	0.400545	-0.251937	-0.007840275	0.063472
0.03112	148	0.40327	-0.244893	-0.007621064	0.059972
0.03115	149	0.405995	-0.23786	-0.007409344	0.056577
0.0315	150	0.408719	-0.230841	-0.007271495	0.053288
0.0316	151	0.411444	-0.223831	-0.007073066	0.0501
0.03173	152	0.414169	-0.216834	-0.006880135	0.047017
0.032	153	0.416894	-0.209847	-0.00671509	0.044036
0.032	154	0.419619	-0.20287	-0.006491828	0.041156
0.03212	155	0.422343	-0.195903	-0.006292401	0.038378
0.03227	156	0.425068	-0.188945	-0.006097263	0.0357
0.03248	157	0.427793	-0.181997	-0.005911253	0.033123
0.0327	158	0.430518	-0.175056	-0.005724335	0.030645
0.03272	159	0.433243	-0.168125	-0.005501038	0.028266
0.033	160	0.435967	-0.161201	-0.005319637	0.025986
0.033	161	0.438692	-0.154287	-0.00509146	0.023804
0.0335	162	0.441417	-0.147378	-0.004937161	0.02172
0.03362	163	0.444142	-0.140476	-0.004722803	0.019734
0.03392	164	0.446866	-0.133582	-0.004531103	0.017844
0.03392	165	0.449591	-0.126694	-0.004297452	0.016051
0.03392	166	0.452316	-0.119812	-0.004064033	0.014355
0.03392	167	0.455041	-0.112935	-0.003830768	0.012754
0.03392	168	0.457766	-0.106064	-0.003597695	0.01125
0.03392	169	0.46049	-0.099199	-0.003364816	0.00984
0.03392	170	0.463215	-0.092336	-0.003132052	0.008526
0.03392	171	0.46594	-0.085479	-0.002899443	0.007307
0.03392	172	0.468665	-0.078626	-0.002666988	0.006182
0.03392	173	0.47139	-0.071777	-0.002434687	0.005152
0.03392	174	0.474114	-0.064931	-0.002202463	0.004216

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.03392	175	0.476839	-0.058087	-0.001970316	0.003374
0.03392	176	0.479564	-0.051248	-0.001738324	0.002626
0.03392	177	0.482289	-0.044409	-0.00150637	0.001972
0.03392	178	0.485014	-0.037573	-0.001274493	0.001412
0.03392	179	0.487738	-0.03074	-0.001042693	0.000945
0.0344	180	0.490463	-0.023907	-0.000822408	0.000572
0.035	181	0.493188	-0.017076	-0.000597652	0.000292
0.035	182	0.495913	-0.010245	-0.000358591	0.000105
0.036	183	0.498638	-0.003415	-0.000122945	1.17E-05
0.036464	184	0.501362	0.003415	0.00012453	1.17E-05
0.03672	185	0.504087	0.010245	0.000376213	0.000105
0.037312	186	0.506812	0.017076	0.000637131	0.000292
0.037312	187	0.509537	0.023907	0.000892026	0.000572
0.03744	188	0.512262	0.03074	0.001150898	0.000945
0.03772	189	0.514986	0.037573	0.001417272	0.001412
0.03772	190	0.517711	0.044409	0.001675126	0.001972
0.03777	191	0.520436	0.051248	0.001935628	0.002626
0.038	192	0.523161	0.058087	0.002207312	0.003374
0.038	193	0.525886	0.064931	0.002467382	0.004216
0.03816	194	0.52861	0.071777	0.002739023	0.005152
0.03816	195	0.531335	0.078626	0.003000361	0.006182
0.0383	196	0.53406	0.085479	0.00327384	0.007307
0.0393	197	0.536785	0.092336	0.003628822	0.008526
0.04	198	0.53951	0.099199	0.003967943	0.00984
0.04046	199	0.542234	0.106064	0.004291355	0.01125
0.0407	200	0.544959	0.112935	0.004596469	0.012754
0.0407	201	0.547684	0.119812	0.00487636	0.014355
0.0409	202	0.550409	0.126694	0.005181774	0.016051
0.041	203	0.553134	0.133582	0.005476863	0.017844
0.041	204	0.555858	0.140476	0.005759516	0.019734
0.04115	205	0.558583	0.147378	0.006064602	0.02172
0.0413	206	0.561308	0.154287	0.00637204	0.023804
0.0416	207	0.564033	0.161201	0.006705966	0.025986
0.0417	208	0.566757	0.168125	0.007010798	0.028266
0.04196	209	0.569482	0.175056	0.007345355	0.030645

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.04222	210	0.572207	0.181997	0.007683901	0.033123
0.0424	211	0.574932	0.188945	0.008011279	0.0357
0.0424	212	0.577657	0.195903	0.008306282	0.038378
0.0424	213	0.580381	0.20287	0.008601672	0.041156
0.0424	214	0.583106	0.209847	0.008897495	0.044036
0.0424	215	0.585831	0.216834	0.009193752	0.047017
0.0424	216	0.588556	0.223831	0.009490443	0.0501
0.0424	217	0.591281	0.230841	0.009787664	0.053288
0.0424	218	0.594005	0.23786	0.01008527	0.056577
0.0424	219	0.59673	0.244893	0.010383455	0.059972
0.0424	220	0.599455	0.251937	0.010682123	0.063472
0.0424	221	0.60218	0.258993	0.01098132	0.067078
0.0424	222	0.604905	0.266064	0.011281096	0.07079
0.0424	223	0.607629	0.273146	0.011581402	0.074609
0.0424	224	0.610354	0.280243	0.011882286	0.078536
0.04256	225	0.613079	0.287353	0.012229726	0.082572
0.04296	226	0.615804	0.294478	0.012650795	0.086718
0.043	227	0.618529	0.301619	0.012969623	0.090974
0.043	228	0.621253	0.308775	0.013277307	0.095342
0.04318	229	0.623978	0.315946	0.013642546	0.099822
0.0432	230	0.626703	0.323134	0.013959405	0.104416
0.04392	231	0.629428	0.330339	0.014508476	0.109124
0.044	232	0.632153	0.33756	0.014852644	0.113947
0.04452	233	0.634877	0.3448	0.015350481	0.118887
0.045	234	0.637602	0.352056	0.015842534	0.123944
0.046	235	0.640327	0.359333	0.016529336	0.12912
0.046	236	0.643052	0.366629	0.016864919	0.134417
0.046	237	0.645777	0.373943	0.017201392	0.139834
0.047488	238	0.648501	0.381278	0.018106147	0.145373
0.0475	239	0.651226	0.388633	0.018460057	0.151035
0.049	240	0.653951	0.39601	0.019404486	0.156824
0.0494	241	0.656676	0.403408	0.019928331	0.162738
0.04995	242	0.659401	0.410828	0.020520851	0.16878
0.05	243	0.662125	0.418271	0.020913546	0.174951
0.05088	244	0.66485	0.425737	0.021661486	0.181252

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.05088	245	0.667575	0.433226	0.022042561	0.187685
0.05088	246	0.6703	0.440741	0.022424909	0.194253
0.05088	247	0.673025	0.448281	0.022808529	0.200956
0.05088	248	0.675749	0.455846	0.023193422	0.207795
0.05088	249	0.678474	0.463436	0.023579646	0.214773
0.051	250	0.681199	0.471055	0.024023784	0.221892
0.051	251	0.683924	0.478699	0.024413644	0.229153
0.0511	252	0.686649	0.486373	0.024853648	0.236558
0.0512	253	0.689373	0.494074	0.025296584	0.244109
0.052	254	0.692098	0.501807	0.026093958	0.25181
0.052	255	0.694823	0.509567	0.026497491	0.259659
0.05238	256	0.697548	0.51736	0.027099337	0.267662
0.0529	257	0.700272	0.525184	0.02778225	0.275819
0.053	258	0.702997	0.533041	0.028251184	0.284133
0.0538	259	0.705722	0.54093	0.02910203	0.292605
0.054	260	0.708447	0.548853	0.029638049	0.301239
0.05544	261	0.711172	0.556811	0.030869593	0.310038
0.056	262	0.713896	0.564803	0.03162897	0.319002
0.056	263	0.716621	0.572834	0.032078697	0.328139
0.05616	264	0.719346	0.5809	0.032623341	0.337445
0.05768	265	0.722071	0.589005	0.03397379	0.346927
0.059	266	0.724796	0.597147	0.035231669	0.356584
0.05936	267	0.72752	0.60533	0.035932396	0.366425
0.05936	268	0.730245	0.613554	0.036420579	0.376449
0.05936	269	0.73297	0.62182	0.036911258	0.386661
0.05936	270	0.735695	0.630129	0.037404435	0.397062
0.05936	271	0.73842	0.638481	0.037900244	0.407658
0.05936	272	0.741144	0.646878	0.038398684	0.418451
0.05968	273	0.743869	0.65532	0.039109527	0.429445
0.061	274	0.746594	0.663809	0.040492379	0.440643
0.0636	275	0.749319	0.672347	0.042761293	0.452051
0.06392	276	0.752044	0.680934	0.04352531	0.463671
0.06392	277	0.754768	0.689572	0.044077446	0.47551
0.064	278	0.757493	0.698262	0.044688786	0.48757
0.06412	279	0.760218	0.707004	0.045333075	0.499854

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.06416	280	0.762943	0.7158	0.045925703	0.512369
0.0652	281	0.765668	0.724654	0.047247411	0.525123
0.06544	282	0.768392	0.733562	0.0480043	0.538113
0.066	283	0.771117	0.742531	0.049007033	0.551352
0.066453	284	0.773842	0.751559	0.049943579	0.56484
0.06784	285	0.776567	0.760649	0.051602433	0.578587
0.06784	286	0.779292	0.769803	0.052223445	0.592597
0.06784	287	0.782016	0.779021	0.052848776	0.606874
0.06784	288	0.784741	0.788307	0.053478734	0.621428
0.06784	289	0.787466	0.797659	0.054113165	0.636259
0.06784	290	0.790191	0.807083	0.054752533	0.651383
0.06784	291	0.792916	0.816578	0.055396682	0.6668
0.06892	292	0.79564	0.826149	0.056938162	0.682522
0.0723	293	0.798365	0.835796	0.060428056	0.698555
0.07414	294	0.80109	0.845521	0.062686915	0.714905
0.07632	295	0.803815	0.855325	0.065278419	0.731581
0.07632	296	0.80654	0.865214	0.066033108	0.748595
0.07632	297	0.809264	0.875189	0.066794391	0.765955
0.07632	298	0.811989	0.88525	0.067562268	0.783667
0.07632	299	0.814714	0.895402	0.068337087	0.801745
0.080136	300	0.817439	0.905648	0.072574971	0.820197
0.0814	301	0.820163	0.915988	0.074561463	0.839035
0.0848	302	0.822888	0.926427	0.078561028	0.858267
0.0848	303	0.825613	0.936971	0.079455102	0.877914
0.0848	304	0.828338	0.947618	0.080358044	0.897981
0.0848	305	0.831063	0.958373	0.081270049	0.918479
0.0848	306	0.833787	0.969242	0.082191695	0.939429
0.0848	307	0.836512	0.980224	0.083122981	0.960839
0.09328	308	0.839237	0.991326	0.092470935	0.982728
0.09328	309	0.841962	1.002554	0.093518256	1.005115
0.09328	310	0.844687	1.013907	0.094577242	1.028007
0.09328	311	0.847411	1.025394	0.095648742	1.051433
0.09328	312	0.850136	1.037017	0.096732967	1.075405
0.09328	313	0.852861	1.048784	0.097830554	1.099947
0.09936	314	0.855586	1.060696	0.105390747	1.125076

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.10176	315	0.858311	1.07276	0.109164095	1.150815
0.10176	316	0.861035	1.084984	0.11040797	1.17719
0.10176	317	0.86376	1.097371	0.111668503	1.204224
0.10176	318	0.866485	1.109929	0.11294639	1.231943
0.10176	319	0.86921	1.122664	0.114242324	1.260375
0.10176	320	0.871935	1.135584	0.115556999	1.28955
0.10176	321	0.874659	1.148696	0.116891341	1.319503
0.11024	322	0.877384	1.162009	0.128099881	1.350265
0.11024	323	0.880109	1.175531	0.129590537	1.381873
0.11024	324	0.882834	1.189273	0.131105506	1.414371
0.11024	325	0.885559	1.203243	0.132645541	1.447794
0.11024	326	0.888283	1.21745	0.134211645	1.482184
0.111936	327	0.891008	1.231908	0.137894887	1.517598
0.11194	328	0.893733	1.246628	0.139547591	1.554083
0.11872	329	0.896458	1.261624	0.149779973	1.591695
0.11872	330	0.899183	1.276908	0.151594497	1.630494
0.11872	331	0.901907	1.292497	0.153445192	1.670547
0.11872	332	0.904632	1.308406	0.155333948	1.711926
0.11872	333	0.907357	1.324654	0.157262925	1.754708
0.125504	334	0.910082	1.341259	0.168333385	1.798976
0.1272	335	0.912807	1.358244	0.172768629	1.844827
0.1272	336	0.915531	1.375627	0.17497971	1.892349
0.13568	337	0.918256	1.393437	0.189061509	1.941666
0.13568	338	0.920981	1.411699	0.191539386	1.992895
0.13568	339	0.923706	1.430449	0.194083282	2.046184
0.13568	340	0.926431	1.449712	0.196696899	2.101664
0.14016	341	0.929155	1.46953	0.205969284	2.159518
0.14416	342	0.93188	1.489943	0.214790228	2.219931
0.14416	343	0.934605	1.510994	0.217824833	2.283102
0.14416	344	0.93733	1.532735	0.220959084	2.349277
0.14416	345	0.940054	1.555231	0.224202158	2.418745
0.14416	346	0.942779	1.578542	0.227562577	2.491794
0.147	347	0.945504	1.602739	0.235602611	2.568772
0.147	348	0.948229	1.627918	0.239303977	2.650118
0.15264	349	0.950954	1.654171	0.252492627	2.736281

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.1536	350	0.953678	1.681619	0.258296728	2.827844
0.155	351	0.956403	1.710391	0.265110634	2.925438
0.16112	352	0.959128	1.740655	0.280454273	3.029879
0.16114	353	0.961853	1.772605	0.285637598	3.142129
0.162	354	0.964578	1.806475	0.292648911	3.263351
0.163	355	0.967302	1.842545	0.300334887	3.394973
0.1696	356	0.970027	1.88119	0.319049781	3.538875
0.1696	357	0.972752	1.922872	0.326119072	3.697436
0.175	358	0.975477	1.968183	0.34443201	3.873744
0.17544	359	0.978202	2.01795	0.354029229	4.072124
0.17808	360	0.980926	2.073266	0.369207197	4.298432
0.182	361	0.983651	2.135776	0.388711142	4.561537
0.1861	362	0.986376	2.207944	0.410898361	4.875016
0.188	363	0.989101	2.293855	0.431244698	5.26177
0.20352	364	0.991826	2.40103	0.488657551	5.764943
0.31376	365	0.99455	2.54593	0.7988111	6.481761
0.7208	366	0.997275	2.779198	2.00324558	7.723939

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-5.686336	1	0.0027248	-2.779198	15.80344975	7.7239389
-5.568553	2	0.0054496	-2.54593	14.17714676	6.4817612
-5.463192	3	0.0081744	-2.40103	13.11728591	5.7649433
-5.463192	4	0.0108992	-2.293855	12.53176909	5.2617697
-5.463192	5	0.013624	-2.207944	12.06242151	4.8750163
-5.463192	6	0.0163488	-2.135776	11.66815166	4.561537
-5.463192	7	0.0190736	-2.073266	11.32664988	4.2984316
-5.463192	8	0.0217984	-2.01795	11.02445085	4.0721241
-5.463192	9	0.0245232	-1.968183	10.75256117	3.873744
-5.463192	10	0.027248	-1.922872	10.50501834	3.6974363
-5.463192	11	0.0299728	-1.88119	10.27730079	3.5388749
-5.463192	12	0.0326975	-1.842545	10.06617885	3.3949732
-5.463192	13	0.0354223	-1.806475	9.869118455	3.263351
-5.463192	14	0.0381471	-1.772605	9.684082422	3.1421291
-5.463192	15	0.0408719	-1.740655	9.509530438	3.0298785
-5.463192	16	0.0435967	-1.710391	9.344195476	2.925438
-5.463192	17	0.0463215	-1.681619	9.187009253	2.8278436
-5.463192	18	0.0490463	-1.654171	9.037052554	2.7362809
-5.463192	19	0.0517711	-1.627918	8.893629753	2.6501177
-5.463192	20	0.0544959	-1.602739	8.75607007	2.5687718
-5.463192	21	0.0572207	-1.578542	8.623876631	2.491794
-5.463192	22	0.0599455	-1.555231	8.496527717	2.4187447
-5.298317	23	0.0626703	-1.532735	8.120916687	2.3492767
-5.298317	24	0.0653951	-1.510994	8.005723474	2.2831016
-5.298317	25	0.0681199	-1.489943	7.894192543	2.2199311
-5.298317	26	0.0708447	-1.46953	7.786034766	2.1595176
-5.298317	27	0.0735695	-1.449712	7.681033298	2.1016644
-5.298317	28	0.0762943	-1.430449	7.578971292	2.0461835
-5.298317	29	0.0790191	-1.411699	7.479631904	1.9928954
-5.298317	30	0.0817439	-1.393437	7.382870569	1.9416662
-5.057727	31	0.0844687	-1.375627	6.957543927	1.8923487
-5.035953	32	0.0871935	-1.358244	6.840052758	1.8448266
-4.813425	33	0.0899183	-1.341259	6.456050355	1.798976
-4.770045	34	0.0926431	-1.324654	6.318659068	1.7547083

Uranium - lognormal

116483.21 = (sum of Mi*Xi)^2

365 = count -1

0.9294996 = standard deviation ^2

355.90411 = sum of Mi^2

0.96 = W statistic

FAIL

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-4.770045	35	0.0953678	-1.308406	6.241154794	1.711926
-4.770045	36	0.0980926	-1.292497	6.165266548	1.6705474
-4.770045	37	0.1008174	-1.276908	6.090907563	1.6304936
-4.770045	38	0.1035422	-1.261624	6.018001919	1.5916945
-4.770045	39	0.106267	-1.246628	5.946473695	1.5540825
-4.770045	40	0.1089918	-1.231908	5.876257816	1.5175981
-4.770045	41	0.1117166	-1.21745	5.807289206	1.4821835
-4.770045	42	0.1144414	-1.203243	5.739524484	1.4477944
-4.770045	43	0.1171662	-1.189273	5.672887728	1.4143714
-4.770045	44	0.119891	-1.175531	5.607335554	1.3818731
-4.770045	45	0.1226158	-1.162009	5.542835425	1.3502651
-4.770045	46	0.1253406	-1.148696	5.479333112	1.3195033
-4.770045	47	0.1280654	-1.135584	5.416785232	1.2895504
-4.770045	48	0.1307902	-1.122664	5.355159248	1.2603752
-4.697285	49	0.133515	-1.109929	5.213654047	1.2319427
-4.643911	50	0.1362398	-1.097371	5.096094649	1.2042238
-4.588313	51	0.1389646	-1.084984	4.978246167	1.1771902
-4.546901	52	0.1416894	-1.07276	4.877735495	1.1508148
-4.49901	53	0.1444142	-1.060696	4.772081551	1.1250758
-4.412898	54	0.147139	-1.048784	4.628176314	1.0999475
-4.368045	55	0.1498638	-1.037017	4.529737747	1.0754047
-4.268698	56	0.1525886	-1.025394	4.377096776	1.0514326
-4.254513	57	0.1553134	-1.013907	4.313680692	1.0280073
-4.2517	58	0.1580381	-1.002554	4.262560065	1.0051149
-4.225365	59	0.1607629	-0.991326	4.18871607	0.9827282
-4.21719	60	0.1634877	-0.980224	4.133790522	0.9608388
-4.185145	61	0.1662125	-0.969242	4.05641691	0.9394294
-4.170146	62	0.1689373	-0.958373	3.996556517	0.9184792
-4.152821	63	0.1716621	-0.947618	3.935290248	0.8979807
-4.135167	64	0.1743869	-0.936971	3.874529228	0.8779138
-4.084592	65	0.1771117	-0.926427	3.78407746	0.8582674
-4.078668	66	0.1798365	-0.915988	3.736013034	0.8390349
-4.076898	67	0.1825613	-0.905648	3.692232323	0.8201975
-4.076898	68	0.1852861	-0.895402	3.65046264	0.8017449
-4.076898	69	0.1880109	-0.88525	3.609073019	0.7836673
-4.076898	70	0.1907357	-0.875189	3.568054189	0.765955
-4.076898	71	0.1934605	-0.865214	3.527387611	0.7485947
-4.076898	72	0.1961853	-0.855325	3.487073286	0.7315812
-4.076898	73	0.1989101	-0.845521	3.447101943	0.7149055

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-4.076898	74	0.2016349	-0.835796	3.407455042	0.6985551
-4.046698	75	0.2043597	-0.826149	3.343173841	0.6825215
-4.045554	76	0.2070845	-0.816578	3.303512537	0.6668004
-4.028557	77	0.2098093	-0.807083	3.251381033	0.6513835
-4.017384	78	0.2125341	-0.797659	3.20450086	0.6362594
-4.017384	79	0.2152589	-0.788307	3.166930774	0.6214276
-3.991066	80	0.2179837	-0.779021	3.109123856	0.6068735
-3.959115	81	0.2207084	-0.769803	3.047738848	0.5925969
-3.927137	82	0.2234332	-0.760649	2.987172846	0.578587
-3.912023	83	0.226158	-0.751559	2.940114819	0.5648404
-3.912023	84	0.2288828	-0.742531	2.904797577	0.551352
-3.863233	85	0.2316076	-0.733562	2.83392099	0.5381133
-3.833951	86	0.2343324	-0.724654	2.778286528	0.5251228
-3.817198	87	0.2370572	-0.7158	2.73234871	0.5123691
-3.816713	88	0.239782	-0.707004	2.698429954	0.4998542
-3.78451	89	0.2425068	-0.698262	2.642580375	0.4875702
-3.765329	90	0.2452316	-0.689572	2.596465424	0.4755096
-3.752458	91	0.2479564	-0.680934	2.555177042	0.4636713
-3.751606	92	0.2506812	-0.672347	2.522382614	0.452051
-3.745661	93	0.253406	-0.663809	2.486405619	0.440643
-3.729701	94	0.2561308	-0.65532	2.444149785	0.4294449
-3.729701	95	0.2588556	-0.646878	2.412662211	0.4184513
-3.688879	96	0.2615804	-0.638481	2.355280169	0.4076582
-3.688879	97	0.2643052	-0.630129	2.324468538	0.3970621
-3.688879	98	0.26703	-0.62182	2.293820464	0.3866606
-3.671433	99	0.2697548	-0.613554	2.252622931	0.3764488
-3.671433	100	0.2724796	-0.60533	2.222428682	0.3664245
-3.671433	101	0.2752044	-0.597147	2.192384694	0.3565845
-3.671433	102	0.2779292	-0.589005	2.162490967	0.3469265
-3.671433	103	0.280654	-0.5809	2.132734981	0.3374448
-3.671433	104	0.2833787	-0.572834	2.103120908	0.3281386
-3.671433	105	0.2861035	-0.564803	2.073636227	0.3190025
-3.671433	106	0.2888283	-0.556811	2.04429346	0.3100383
-3.671433	107	0.2915531	-0.548853	2.015075911	0.3012394
-3.671433	108	0.2942779	-0.54093	1.985987754	0.2926052
-3.671433	109	0.2970027	-0.533041	1.957024816	0.2841329
-3.671433	110	0.2997275	-0.525184	1.928178747	0.2758186
-3.671433	111	0.3024523	-0.51736	1.899453722	0.2676618
-3.671433	112	0.3051771	-0.509567	1.870841394	0.2596587

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-3.664382	113	0.3079019	-0.501807	1.838812092	0.2518101
-3.664382	114	0.3106267	-0.494074	1.810475504	0.244109
-3.649659	115	0.3133515	-0.486373	1.775094578	0.2365585
-3.649659	116	0.3160763	-0.478699	1.747087602	0.2291526
-3.649659	117	0.3188011	-0.471055	1.719188505	0.2218924
-3.630611	118	0.3215259	-0.463436	1.682557212	0.2147733
-3.6147	119	0.3242507	-0.455846	1.647744992	0.2077952
-3.611918	120	0.3269755	-0.448281	1.619153833	0.2009557
-3.611918	121	0.3297003	-0.440741	1.591921012	0.1942527
-3.607484	122	0.3324251	-0.433226	1.562857344	0.1876851
-3.607115	123	0.3351499	-0.425737	1.535681459	0.1812518
-3.606894	124	0.3378747	-0.418271	1.508658912	0.1749506
-3.606894	125	0.3405995	-0.410828	1.481812521	0.1687795
-3.597212	126	0.3433243	-0.403408	1.45114245	0.1627376
-3.593569	127	0.346049	-0.39601	1.423089042	0.1568238
-3.592988	128	0.3487738	-0.388633	1.396352735	0.1510354
-3.575551	129	0.3514986	-0.381278	1.363280165	0.1453732
-3.575551	130	0.3542234	-0.373943	1.337053233	0.1398336
-3.575551	131	0.3569482	-0.366629	1.310899469	0.1344166
-3.571274	132	0.359673	-0.359333	1.2832781	0.1291205
-3.557851	133	0.3623978	-0.352056	1.252563941	0.1239436
-3.557851	134	0.3651226	-0.3448	1.226745928	0.1188868
-3.554349	135	0.3678474	-0.33756	1.19980624	0.1139468
-3.55365	136	0.3705722	-0.330339	1.173907984	0.1091237
-3.540459	137	0.373297	-0.323134	1.144044143	0.1044158
-3.540459	138	0.3760218	-0.315946	1.118593838	0.0998218
-3.540459	139	0.3787466	-0.308775	1.093203908	0.0953417
-3.516608	140	0.3814714	-0.301619	1.060676346	0.0909741
-3.506558	141	0.3841962	-0.294478	1.032605799	0.0867176
-3.506558	142	0.386921	-0.287353	1.007618449	0.0825715
-3.506558	143	0.3896458	-0.280243	0.982686911	0.0785359
-3.475059	144	0.3923706	-0.273146	0.949199467	0.0746089
-3.473768	145	0.3950954	-0.266064	0.92424317	0.0707898
-3.473768	146	0.3978202	-0.258993	0.899682989	0.0670776
-3.469905	147	0.400545	-0.251937	0.874196842	0.0634722
-3.469905	148	0.4032698	-0.244893	0.849754708	0.0599725
-3.468941	149	0.4059946	-0.23786	0.825122832	0.0565775
-3.457768	150	0.4087193	-0.230841	0.79819499	0.0532876
-3.454598	151	0.4114441	-0.223831	0.773246829	0.0501004

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-3.450493	152	0.4141689	-0.216834	0.74818333	0.0470169
-3.442019	153	0.4168937	-0.209847	0.722295979	0.0440356
-3.442019	154	0.4196185	-0.20287	0.698281144	0.0411561
-3.438276	155	0.4223433	-0.195903	0.673568264	0.0383779
-3.433617	156	0.4250681	-0.188945	0.648765676	0.0357003
-3.427131	157	0.4277929	-0.181997	0.623726527	0.0331228
-3.42038	158	0.4305177	-0.175056	0.59875852	0.0306446
-3.419769	159	0.4332425	-0.168125	0.574947403	0.0282659
-3.411248	160	0.4359673	-0.161201	0.549896935	0.0259858
-3.411248	161	0.4386921	-0.154287	0.526310089	0.0238044
-3.39621	162	0.4414169	-0.147378	0.500526383	0.0217203
-3.392634	163	0.4441417	-0.140476	0.476583689	0.0197335
-3.38375	164	0.4468665	-0.133582	0.452008271	0.0178442
-3.38375	165	0.4495913	-0.126694	0.428700032	0.0160513
-3.38375	166	0.4523161	-0.119812	0.405414874	0.014355
-3.38375	167	0.4550409	-0.112935	0.382145103	0.0127544
-3.38375	168	0.4577657	-0.106064	0.358894567	0.0112496
-3.38375	169	0.4604905	-0.099199	0.335663266	0.0098404
-3.38375	170	0.4632153	-0.092336	0.312443505	0.008526
-3.38375	171	0.4659401	-0.085479	0.289239131	0.0073066
-3.38375	172	0.4686649	-0.078626	0.266050145	0.006182
-3.38375	173	0.4713896	-0.071777	0.242876546	0.005152
-3.38375	174	0.4741144	-0.064931	0.219710642	0.004216
-3.38375	175	0.4768392	-0.058087	0.196552431	0.0033741
-3.38375	176	0.479564	-0.051248	0.173409607	0.0026263
-3.38375	177	0.4822888	-0.044409	0.150270631	0.0019722
-3.38375	178	0.4850136	-0.037573	0.127139348	0.0014118
-3.38375	179	0.4877384	-0.03074	0.104015759	0.0009449
-3.369699	180	0.4904632	-0.023907	0.080560078	0.0005716
-3.352407	181	0.493188	-0.017076	0.057244911	0.0002916
-3.352407	182	0.4959128	-0.010245	0.034346947	0.000105
-3.324236	183	0.4986376	-0.003415	0.011352774	1.166E-05
-3.31143	184	0.5013624	0.0034152	-0.011309038	1.166E-05
-3.304434	185	0.5040872	0.0102455	-0.033855436	0.000105
-3.28844	186	0.506812	0.0170758	-0.056152627	0.0002916
-3.28844	187	0.5095368	0.0239072	-0.078617416	0.0005716
-3.285016	188	0.5122616	0.0307398	-0.100980671	0.0009449
-3.277565	189	0.5149864	0.0375735	-0.123149581	0.0014118
-3.277565	190	0.5177112	0.0444095	-0.14555498	0.0019722

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-3.27624	191	0.520436	0.0512478	-0.167899945	0.0026263
-3.270169	192	0.5231608	0.0580872	-0.189954814	0.0033741
-3.270169	193	0.5258856	0.0649311	-0.21233568	0.004216
-3.265967	194	0.5286104	0.0717773	-0.234422396	0.005152
-3.265967	195	0.5313351	0.0786258	-0.256789358	0.006182
-3.262305	196	0.5340599	0.0854789	-0.278858144	0.0073066
-3.236531	197	0.5367847	0.0923364	-0.298849759	0.008526
-3.218876	198	0.5395095	0.0991986	-0.319307934	0.0098404
-3.207441	199	0.5422343	0.1060641	-0.340194503	0.0112496
-3.201527	200	0.5449591	0.1129354	-0.36156565	0.0127544
-3.201527	201	0.5476839	0.1198123	-0.383582286	0.014355
-3.196625	202	0.5504087	0.1266937	-0.404992432	0.0160513
-3.194183	203	0.5531335	0.133582	-0.426685491	0.0178442
-3.194183	204	0.5558583	0.140476	-0.448706094	0.0197335
-3.190531	205	0.5585831	0.1473779	-0.470213913	0.0217203
-3.186893	206	0.5613079	0.1542867	-0.49169511	0.0238044
-3.179655	207	0.5640327	0.1612011	-0.512563948	0.0259858
-3.177254	208	0.5667575	0.1681246	-0.53417472	0.0282659
-3.171038	209	0.5694823	0.1750561	-0.555109726	0.0306446
-3.164861	210	0.5722071	0.1819967	-0.575994336	0.0331228
-3.160607	211	0.5749319	0.1889453	-0.597181666	0.0357003
-3.160607	212	0.5776567	0.1959029	-0.619172013	0.0383779
-3.160607	213	0.5803815	0.2028696	-0.641191107	0.0411561
-3.160607	214	0.5831063	0.2098466	-0.663242539	0.0440356
-3.160607	215	0.5858311	0.2168338	-0.685326309	0.0470169
-3.160607	216	0.5885559	0.2238312	-0.707442419	0.0501004
-3.160607	217	0.5912807	0.2308411	-0.729598053	0.0532876
-3.160607	218	0.5940054	0.2378601	-0.751782433	0.0565775
-3.160607	219	0.5967302	0.2448928	-0.774009932	0.0599725
-3.160607	220	0.599455	0.2519369	-0.796273362	0.0634722
-3.160607	221	0.6021798	0.2589934	-0.818576318	0.0670776
-3.160607	222	0.6049046	0.2660636	-0.840922391	0.0707898
-3.160607	223	0.6076294	0.2731463	-0.86330799	0.0746089
-3.160607	224	0.6103542	0.2802426	-0.885736708	0.0785359
-3.15684	225	0.613079	0.2873526	-0.907126235	0.0825715
-3.147486	226	0.6158038	0.2944785	-0.926866806	0.0867176
-3.146555	227	0.6185286	0.3016191	-0.949061258	0.0909741
-3.146555	228	0.6212534	0.3087746	-0.971576275	0.0953417
-3.142378	229	0.6239782	0.315946	-0.992821568	0.0998218

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-3.141915	230	0.626703	0.3231344	-1.015260662	0.1044158
-3.125385	231	0.6294278	0.3303387	-1.0324358	0.1091237
-3.123566	232	0.6321526	0.3375601	-1.054391117	0.1139468
-3.111817	233	0.6348774	0.3447997	-1.0729534	0.1188868
-3.101093	234	0.6376022	0.3520563	-1.091759266	0.1239436
-3.079114	235	0.640327	0.3593334	-1.106428456	0.1291205
-3.079114	236	0.6430518	0.3666287	-1.128891467	0.1344166
-3.079114	237	0.6457766	0.3739433	-1.151413988	0.1398336
-3.047278	238	0.6485014	0.3812784	-1.161861274	0.1453732
-3.047026	239	0.6512262	0.3886328	-1.184173988	0.1510354
-3.015935	240	0.653951	0.3960099	-1.194340138	0.1568238
-3.007805	241	0.6566757	0.4034075	-1.213371073	0.1627376
-2.996733	242	0.6594005	0.4108279	-1.231141288	0.1687795
-2.995732	243	0.6621253	0.4182709	-1.253027721	0.1749506
-2.978285	244	0.6648501	0.4257367	-1.267965511	0.1812518
-2.978285	245	0.6675749	0.4332264	-1.290271941	0.1876851
-2.978285	246	0.6702997	0.4407411	-1.312652862	0.1942527
-2.978285	247	0.6730245	0.4482808	-1.335108274	0.2009557
-2.978285	248	0.6757493	0.4558456	-1.357638175	0.2077952
-2.978285	249	0.6784741	0.4634364	-1.380245952	0.2147733
-2.97593	250	0.6811989	0.4710546	-1.401825322	0.2218924
-2.97593	251	0.6839237	0.4786989	-1.42457423	0.2291526
-2.973971	252	0.6866485	0.4863728	-1.446458364	0.2365585
-2.972016	253	0.6893733	0.4940739	-1.468395416	0.244109
-2.956512	254	0.6920981	0.5018069	-1.483597843	0.2518101
-2.956512	255	0.6948229	0.5095671	-1.506541152	0.2596587
-2.94923	256	0.6975477	0.5173604	-1.525814972	0.2676618
-2.939352	257	0.7002725	0.5251843	-1.543701506	0.2758186
-2.937463	258	0.7029973	0.5330412	-1.565789004	0.2841329
-2.922482	259	0.7057221	0.5409299	-1.580857888	0.2926052
-2.918771	260	0.7084469	0.5488528	-1.601975669	0.3012394
-2.892454	261	0.7111717	0.5568108	-1.610549717	0.3100383
-2.882404	262	0.7138965	0.564803	-1.627990283	0.3190025
-2.882404	263	0.7166213	0.5728339	-1.6511384	0.3281386
-2.879551	264	0.719346	0.5809	-1.672730754	0.3374448
-2.852845	265	0.7220708	0.5890047	-1.680338945	0.3469265
-2.830218	266	0.7247956	0.5971469	-1.690055909	0.3565845
-2.824135	267	0.7275204	0.6053301	-1.70953377	0.3664245
-2.824135	268	0.7302452	0.6135542	-1.732759753	0.3764488

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-2.824135	269	0.73297	0.6218204	-1.75610453	0.3866606
-2.824135	270	0.7356948	0.6301286	-1.779568102	0.3970621
-2.824135	271	0.7384196	0.6384812	-1.80315689	0.4076582
-2.824135	272	0.7411444	0.6468781	-1.826870895	0.4184513
-2.818758	273	0.7438692	0.6553205	-1.847190089	0.4294449
-2.796881	274	0.746594	0.6638095	-1.856596418	0.440643
-2.755142	275	0.7493188	0.6723474	-1.852412346	0.452051
-2.750123	276	0.7520436	0.6809341	-1.872652613	0.4636713
-2.750123	277	0.7547684	0.6895721	-1.896407971	0.4755096
-2.748872	278	0.7574932	0.6982623	-1.919433777	0.4875702
-2.746999	279	0.760218	0.7070037	-1.942138325	0.4998542
-2.746375	280	0.7629428	0.7157996	-1.965854394	0.5123691
-2.730296	281	0.7656676	0.7246535	-1.978518541	0.5251228
-2.726622	282	0.7683924	0.733562	-2.000146112	0.5381133
-2.718101	283	0.7711172	0.7425308	-2.01827337	0.551352
-2.711255	284	0.773842	0.7515587	-2.03766746	0.5648404
-2.690603	285	0.7765668	0.7606491	-2.046604895	0.578587
-2.690603	286	0.7792916	0.7698031	-2.071234851	0.5925969
-2.690603	287	0.7820163	0.7790209	-2.096036102	0.6068735
-2.690603	288	0.7847411	0.7883068	-2.121020885	0.6214276
-2.690603	289	0.7874659	0.7976587	-2.146183082	0.6362594
-2.690603	290	0.7901907	0.8070833	-2.171541046	0.6513835
-2.690603	291	0.7929155	0.8165784	-2.19708866	0.6668004
-2.674809	292	0.7956403	0.8261486	-2.209789621	0.6825215
-2.626931	293	0.7983651	0.8357961	-2.195578737	0.6985551
-2.6018	294	0.8010899	0.8455208	-2.199876202	0.7149055
-2.57282	295	0.8038147	0.8553252	-2.20059799	0.7315812
-2.57282	296	0.8065395	0.8652137	-2.226039274	0.7485947
-2.57282	297	0.8092643	0.8751886	-2.251702856	0.765955
-2.57282	298	0.8119891	0.8852498	-2.277588734	0.7836673
-2.57282	299	0.8147139	0.8954021	-2.303708608	0.8017449
-2.52403	300	0.8174387	0.9056475	-2.285881638	0.8201975
-2.50838	301	0.8201635	0.9159885	-2.297647224	0.8390349
-2.46746	302	0.8228883	0.9264272	-2.285921862	0.8582674
-2.46746	303	0.8256131	0.9369705	-2.311937073	0.8779138
-2.46746	304	0.8283379	0.9476184	-2.338210361	0.8979807
-2.46746	305	0.8310627	0.9583732	-2.364747335	0.9184792
-2.46746	306	0.8337875	0.9692417	-2.391564826	0.9394294
-2.46746	307	0.8365123	0.9802238	-2.418662835	0.9608388

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-2.37215	308	0.8392371	0.9913265	-2.351574688	0.9827282
-2.37215	309	0.8419619	1.0025542	-2.3782085	1.0051149
-2.37215	310	0.8446866	1.013907	-2.405138963	1.0280073
-2.37215	311	0.8474114	1.0253939	-2.43238765	1.0514326
-2.37215	312	0.8501362	1.0370172	-2.459959957	1.0754047
-2.37215	313	0.852861	1.0487838	-2.487872062	1.0999475
-2.309006	314	0.8555858	1.0606959	-2.449152889	1.1250758
-2.285138	315	0.8583106	1.0727604	-2.451405678	1.1508148
-2.285138	316	0.8610354	1.084984	-2.479338313	1.1771902
-2.285138	317	0.8637602	1.0973713	-2.507645046	1.2042238
-2.285138	318	0.866485	1.1099291	-2.536341464	1.2319427
-2.285138	319	0.8692098	1.1226643	-2.565443154	1.2603752
-2.285138	320	0.8719346	1.1355837	-2.594965705	1.2895504
-2.285138	321	0.8746594	1.1486964	-2.624929899	1.3195033
-2.205095	322	0.8773842	1.1620091	-2.56234097	1.3502651
-2.205095	323	0.880109	1.175531	-2.592158078	1.3818731
-2.205095	324	0.8828338	1.1892735	-2.622461526	1.4143714
-2.205095	325	0.8855586	1.2032433	-2.653266353	1.4477944
-2.205095	326	0.8882834	1.2174496	-2.684592617	1.4821835
-2.189828	327	0.8910082	1.2319083	-2.697667288	1.5175981
-2.189792	328	0.893733	1.2466285	-2.729857385	1.5540825
-2.130987	329	0.8964578	1.2616238	-2.688504473	1.5916945
-2.130987	330	0.8991826	1.2769078	-2.721074611	1.6304936
-2.130987	331	0.9019074	1.2924966	-2.754294019	1.6705474
-2.130987	332	0.9046322	1.3084059	-2.788196616	1.711926
-2.130987	333	0.9073569	1.324654	-2.822821162	1.7547083
-2.075418	334	0.9100817	1.3412591	-2.783672852	1.798976
-2.061995	335	0.9128065	1.3582439	-2.800691698	1.8448266
-2.061995	336	0.9155313	1.3756267	-2.836534768	1.8923487
-1.997456	337	0.9182561	1.3934368	-2.783328911	1.9416662
-1.997456	338	0.9209809	1.4116995	-2.81980776	1.9928954
-1.997456	339	0.9237057	1.4304487	-2.85725853	2.0461835
-1.997456	340	0.9264305	1.4497118	-2.895735723	2.1016644
-1.964971	341	0.9291553	1.4695297	-2.887582746	2.1595176
-1.936831	342	0.9318801	1.4899433	-2.885769124	2.2199311
-1.936831	343	0.9346049	1.5109936	-2.926539921	2.2831016
-1.936831	344	0.9373297	1.532735	-2.968649486	2.3492767
-1.936831	345	0.9400545	1.5552314	-3.012221128	2.4187447
-1.936831	346	0.9427793	1.5785417	-3.057369346	2.491794

Table 89. Uranium Near Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (lognormal)	Mi^2
-1.917323	347	0.9455041	1.6027388	-3.072967564	2.5687718
-1.917323	348	0.9482289	1.6279182	-3.121244523	2.6501177
-1.879673	349	0.9509537	1.6541708	-3.109300259	2.7362809
-1.873403	350	0.9536785	1.6816193	-3.150351457	2.8278436
-1.86433	351	0.9564033	1.7103912	-3.188733882	2.925438
-1.825606	352	0.9591281	1.7406546	-3.177749266	3.0298785
-1.825482	353	0.9618529	1.7726052	-3.235858353	3.1421291
-1.820159	354	0.9645777	1.8064748	-3.288071185	3.263351
-1.814005	355	0.9673025	1.8425453	-3.342386561	3.3949732
-1.774313	356	0.9700272	1.8811897	-3.337818586	3.5388749
-1.774313	357	0.972752	1.9228719	-3.411775734	3.6974363
-1.742969	358	0.9754768	1.9681829	-3.430482407	3.873744
-1.740458	359	0.9782016	2.0179505	-3.512158382	4.0721241
-1.725522	360	0.9809264	2.0732659	-3.57746679	4.2984316
-1.703749	361	0.9836512	2.1357755	-3.638824506	4.561537
-1.681471	362	0.986376	2.2079439	-3.712593905	4.8750163
-1.671313	363	0.9891008	2.2938548	-3.833750035	5.2617697
-1.591991	364	0.9918256	2.4010296	-3.822417563	5.7649433
-1.159127	365	0.9945504	2.5459303	-2.951056372	6.4817612
-0.327394	366	0.9972752	2.7791975	-0.909891409	7.7239389

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.003392	-5.686335561	1	0.00189	-2.8956	-0.009822	8.3845738	16.46542633
0.003816	-5.568552525	2	0.00459	-2.6051	-0.009941	6.7864619	14.50654633
0.00424	-5.46319201	3	0.00732	-2.4411	-0.01035	5.9588012	13.33601002
0.00424	-5.46319201	4	0.01005	-2.3244	-0.009856	5.4028995	12.6987189
0.00424	-5.46319201	5	0.01278	-2.2328	-0.009467	4.9854382	12.19826698
0.00424	-5.46319201	6	0.01551	-2.1568	-0.009145	4.6517993	11.78302903
0.00424	-5.46319201	7	0.01824	-2.0915	-0.008868	4.3744918	11.42642226
0.00424	-5.46319201	8	0.02097	-2.0341	-0.008625	4.1376494	11.11279513
0.00424	-5.46319201	9	0.02370	-1.9827	-0.008407	3.9312013	10.83201139
0.00424	-5.46319201	10	0.02643	-1.9361	-0.008209	3.7484323	10.57721419
0.00424	-5.46319201	11	0.02916	-1.8933	-0.008028	3.5846353	10.34353415
0.00424	-5.46319201	12	0.03189	-1.8538	-0.00786	3.4363901	10.12739378
0.00424	-5.46319201	13	0.03462	-1.8169	-0.007704	3.3010837	9.926010576
0.00424	-5.46319201	14	0.03735	-1.7823	-0.007557	3.1767568	9.737297672
0.00424	-5.46319201	15	0.04008	-1.7498	-0.007419	3.0618145	9.559516005
0.00424	-5.46319201	16	0.04281	-1.7190	-0.007289	2.955022	9.391324014
0.00424	-5.46319201	17	0.04554	-1.6898	-0.007165	2.855348	9.231578889
0.00424	-5.46319201	18	0.04826	-1.6619	-0.007047	2.761977	9.079386254
0.00424	-5.46319201	19	0.05099	-1.6353	-0.006934	2.6741723	8.933901424
0.00424	-5.46319201	20	0.05372	-1.6098	-0.006825	2.5913717	8.794503306
0.00424	-5.46319201	21	0.05645	-1.5853	-0.006722	2.5130585	8.66059565
0.00424	-5.46319201	22	0.05918	-1.5617	-0.006621	2.4388151	8.531706426
0.005	-5.298317367	23	0.06191	-1.5389	-0.007695	2.3682596	8.153660375
0.005	-5.298317367	24	0.06464	-1.5169	-0.007585	2.3010844	8.037190183
0.005	-5.298317367	25	0.06737	-1.4957	-0.007478	2.2369973	7.924478648
0.005	-5.298317367	26	0.07010	-1.4750	-0.007375	2.1757467	7.815236643
0.005	-5.298317367	27	0.07283	-1.4550	-0.007275	2.1171192	7.709223229
0.005	-5.298317367	28	0.07556	-1.4356	-0.007178	2.0609111	7.606197465
0.005	-5.298317367	29	0.07829	-1.4167	-0.007083	2.0069664	7.505990694
0.005	-5.298317367	30	0.08102	-1.3983	-0.006991	1.9551104	7.408386071
0.00636	-5.057726902	31	0.08375	-1.3803	-0.008779	1.9052007	6.981130303
0.0065	-5.035953102	32	0.08648	-1.3628	-0.008858	1.8571385	6.862839117
0.00812	-4.813425125	33	0.08921	-1.3457	-0.010927	1.8107793	6.477195054
0.00848	-4.770044829	34	0.09194	-1.3289	-0.011269	1.7660332	6.339016684
0.00848	-4.770044829	35	0.09467	-1.3126	-0.01113	1.7228019	6.260948427

Normal

16.179	=sum X(i)*M(i)
361.144	=sum M(i)^2
0.06	= standard deviation
19.0038	= square root of sum Mi^2
0.790	= Fillibens's Statistic

Lognormal

343.737	=sum X(i)*M(i)
361.144	=sum M(i)^2
0.96	= standard deviation
19.0038	= square root of sum Mi^2
0.982	= Fillibens's Statistic

.987+ is acceptable value

Normal - Fail
Lognormal - Fail

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.00848	-4.770044829	36	0.09740	-1.2965	-0.010995	1.6809964	6.184517889
0.00848	-4.770044829	37	0.10013	-1.2808	-0.010861	1.640543	6.109649151
0.00848	-4.770044829	38	0.10286	-1.2655	-0.010731	1.6013649	6.036255444
0.00848	-4.770044829	39	0.10558	-1.2504	-0.010603	1.5633936	5.96426085
0.00848	-4.770044829	40	0.10831	-1.2355	-0.010477	1.526569	5.893600292
0.00848	-4.770044829	41	0.11104	-1.2210	-0.010354	1.4908328	5.824208695
0.00848	-4.770044829	42	0.11377	-1.2067	-0.010233	1.4561344	5.756031832
0.00848	-4.770044829	43	0.11650	-1.1927	-0.010114	1.4224194	5.689004625
0.00848	-4.770044829	44	0.11923	-1.1788	-0.009997	1.3896513	5.623094539
0.00848	-4.770044829	45	0.12196	-1.1652	-0.009881	1.3577738	5.558225652
0.00848	-4.770044829	46	0.12469	-1.1519	-0.009768	1.3267637	5.494387119
0.00848	-4.770044829	47	0.12742	-1.1387	-0.009656	1.2965675	5.431503019
0.00848	-4.770044829	48	0.13015	-1.1257	-0.009546	1.267159	5.369551659
0.00912	-4.697285475	49	0.13288	-1.1129	-0.010149	1.2385029	5.227517194
0.00962	-4.643911014	50	0.13561	-1.1003	-0.010585	1.2105747	5.109515177
0.01017	-4.588313069	51	0.13834	-1.0878	-0.011063	1.183336	4.991224341
0.0106	-4.546901278	52	0.14107	-1.0755	-0.011401	1.1567692	4.890338073
0.01112	-4.49900999	53	0.14380	-1.0634	-0.011825	1.1308425	4.78429565
0.01212	-4.412898298	54	0.14653	-1.0514	-0.012744	1.1055347	4.639915824
0.012676	-4.368044837	55	0.14926	-1.0396	-0.013178	1.0808206	4.541129504
0.014	-4.268697949	56	0.15199	-1.0280	-0.014391	1.056685	4.388015908
0.0142	-4.254513314	57	0.15472	-1.0164	-0.014433	1.0330992	4.32435072
0.01424	-4.251700373	58	0.15745	-1.0050	-0.014311	1.0100493	4.273010359
0.01462	-4.225364825	59	0.16017	-0.9937	-0.014528	0.987517	4.198909487
0.01474	-4.217190392	60	0.16290	-0.9826	-0.014483	0.9654847	4.143772443
0.01522	-4.185144927	61	0.16563	-0.9716	-0.014787	0.943935	4.066132662
0.01545	-4.170146276	62	0.16836	-0.9607	-0.014842	0.9228513	4.006057296
0.01572	-4.152821492	63	0.17109	-0.9499	-0.014932	0.9022217	3.94457215
0.016	-4.135166557	64	0.17382	-0.9392	-0.015027	0.8820346	3.883611831
0.01683	-4.084592271	65	0.17655	-0.9286	-0.015628	0.8622701	3.792891096
0.01693	-4.078668083	66	0.17928	-0.9181	-0.015544	0.8429174	3.744646959
0.01696	-4.076897649	67	0.18201	-0.9077	-0.015395	0.8239701	3.700714183
0.01696	-4.076897649	68	0.18474	-0.8974	-0.015221	0.8054096	3.658796183
0.01696	-4.076897649	69	0.18747	-0.8873	-0.015048	0.787226	3.617258245
0.01696	-4.076897649	70	0.19020	-0.8772	-0.014877	0.7694095	3.576091099

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.01696	-4.076897649	71	0.19293	-0.8672	-0.014707	0.7519546	3.535294744
0.01696	-4.076897649	72	0.19566	-0.8572	-0.014539	0.7348443	3.494841372
0.01696	-4.076897649	73	0.19839	-0.8474	-0.014372	0.7180734	3.454730981
0.01696	-4.076897649	74	0.20112	-0.8376	-0.014206	0.7016333	3.414954304
0.01748	-4.046697909	75	0.20385	-0.8280	-0.014473	0.6855134	3.350493337
0.0175	-4.045554398	76	0.20658	-0.8184	-0.014321	0.6697074	3.310705784
0.0178	-4.028556822	77	0.20931	-0.8088	-0.014397	0.6542052	3.258415819
0.018	-4.017383521	78	0.21204	-0.7994	-0.014389	0.6390046	3.211406521
0.018	-4.017383521	79	0.21477	-0.7900	-0.01422	0.6240904	3.173708553
0.01848	-3.991066213	80	0.21749	-0.7807	-0.014427	0.6094623	3.115748338
0.01908	-3.959114613	81	0.22022	-0.7714	-0.014719	0.595113	3.054202273
0.0197	-3.927136643	82	0.22295	-0.7623	-0.015016	0.5810317	2.993476914
0.02	-3.912023005	83	0.22568	-0.7531	-0.015063	0.5672182	2.946296782
0.02	-3.912023005	84	0.22841	-0.7441	-0.014882	0.553659	2.910868353
0.021	-3.863232841	85	0.23114	-0.7351	-0.015437	0.5403573	2.839823821
0.021624	-3.83395147	86	0.23387	-0.7262	-0.015702	0.5272999	2.78404001
0.02198933	-3.817197792	87	0.23660	-0.7173	-0.015772	0.5144871	2.737990257
0.022	-3.816712826	88	0.23933	-0.7085	-0.015586	0.5019091	2.703970985
0.02272	-3.784509685	89	0.24206	-0.6997	-0.015897	0.4895664	2.647984302
0.02316	-3.765328626	90	0.24479	-0.6910	-0.016003	0.4774495	2.601756348
0.02346	-3.752458436	91	0.24752	-0.6823	-0.016007	0.4655559	2.56036456
0.02348	-3.751606284	92	0.25025	-0.6737	-0.015819	0.4538797	2.527479388
0.02362	-3.745661468	93	0.25298	-0.6651	-0.015711	0.4424183	2.49140915
0.024	-3.729701449	94	0.25571	-0.6566	-0.015759	0.4311691	2.449051433
0.024	-3.729701449	95	0.25844	-0.6482	-0.015556	0.4201238	2.417479055
0.025	-3.688879454	96	0.26117	-0.6398	-0.015994	0.4092814	2.35996461
0.025	-3.688879454	97	0.26390	-0.6314	-0.015784	0.3986382	2.329077491
0.025	-3.688879454	98	0.26663	-0.6230	-0.015576	0.3881905	2.298353929
0.02544	-3.671432541	99	0.26936	-0.6148	-0.01564	0.3779332	2.257059825
0.02544	-3.671432541	100	0.27209	-0.6065	-0.01543	0.3678656	2.226794618
0.02544	-3.671432541	101	0.27481	-0.5983	-0.015221	0.3579816	2.196675499
0.02544	-3.671432541	102	0.27754	-0.5902	-0.015013	0.3482805	2.166706642
0.02544	-3.671432541	103	0.28027	-0.5820	-0.014807	0.3387576	2.136879699
0.02544	-3.671432541	104	0.28300	-0.5739	-0.014601	0.3294111	2.107194669
0.02544	-3.671432541	105	0.28573	-0.5659	-0.014396	0.3202365	2.077643205

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.02544	-3.671432541	106	0.28846	-0.5579	-0.014193	0.3112321	2.048225307
0.02544	-3.671432541	107	0.29119	-0.5499	-0.01399	0.3023961	2.018940976
0.02544	-3.671432541	108	0.29392	-0.5420	-0.013788	0.2937267	1.98979021
0.02544	-3.671432541	109	0.29665	-0.5341	-0.013586	0.2852175	1.960756314
0.02544	-3.671432541	110	0.29938	-0.5262	-0.013386	0.2768692	1.931847636
0.02544	-3.671432541	111	0.30211	-0.5183	-0.013187	0.2686779	1.903055829
0.02544	-3.671432541	112	0.30484	-0.5105	-0.012988	0.2606421	1.874380892
0.02562	-3.664381983	113	0.30757	-0.5028	-0.012881	0.2527603	1.842278137
0.02562	-3.664381983	114	0.31030	-0.4950	-0.012682	0.2450288	1.813883226
0.026	-3.649658741	115	0.31303	-0.4873	-0.012669	0.2374473	1.778426371
0.026	-3.649658741	116	0.31576	-0.4796	-0.012469	0.2300111	1.750357157
0.026	-3.649658741	117	0.31849	-0.4719	-0.01227	0.2227222	1.722399972
0.0265	-3.630610546	118	0.32122	-0.4643	-0.012304	0.2155739	1.685690004
0.026925	-3.614700056	119	0.32395	-0.4567	-0.012296	0.2085681	1.650806523
0.027	-3.611918413	120	0.32668	-0.4491	-0.012126	0.2017015	1.622155521
0.027	-3.611918413	121	0.32941	-0.4416	-0.011922	0.1949719	1.594865212
0.02712	-3.607483816	122	0.33213	-0.4340	-0.011771	0.1883793	1.565744613
0.02713	-3.607115152	123	0.33486	-0.4265	-0.011572	0.1819203	1.538511021
0.027136	-3.606894019	124	0.33759	-0.4190	-0.011371	0.1755941	1.511430893
0.027136	-3.606894019	125	0.34032	-0.4116	-0.011169	0.1693994	1.484531195
0.0274	-3.597212266	126	0.34305	-0.4041	-0.011074	0.1633335	1.453796572
0.0275	-3.593569274	127	0.34578	-0.3967	-0.01091	0.157397	1.425687367
0.027516	-3.592987625	128	0.34851	-0.3893	-0.010713	0.1515864	1.398897537
0.028	-3.575550769	129	0.35124	-0.3820	-0.010695	0.1459025	1.365759773
0.028	-3.575550769	130	0.35397	-0.3746	-0.010489	0.1403416	1.339479996
0.028	-3.575550769	131	0.35670	-0.3673	-0.010284	0.1349039	1.313273389
0.02812	-3.571274212	132	0.35943	-0.3600	-0.010123	0.1295883	1.285600459
0.0285	-3.557851192	133	0.36216	-0.3527	-0.010052	0.1243923	1.254829034
0.0285	-3.557851192	134	0.36489	-0.3454	-0.009845	0.119316	1.228958439
0.0286	-3.554348561	135	0.36762	-0.3382	-0.009672	0.1143578	1.201968082
0.02862	-3.553649505	136	0.37035	-0.3309	-0.009471	0.1095161	1.176016881
0.029	-3.540459449	137	0.37308	-0.3237	-0.009388	0.1047909	1.146096911
0.029	-3.540459449	138	0.37581	-0.3165	-0.009179	0.1001799	1.120598306
0.029	-3.540459449	139	0.37854	-0.3093	-0.00897	0.0956833	1.095160076
0.0297	-3.516608233	140	0.38127	-0.3022	-0.008974	0.0912995	1.06257136

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.03	-3.506557897	141	0.38400	-0.2950	-0.00885	0.0870272	1.034447559
0.03	-3.506557897	142	0.38672	-0.2879	-0.008636	0.0828664	1.009416358
0.03	-3.506557897	143	0.38945	-0.2807	-0.008422	0.0788153	0.984432996
0.03096	-3.47505923	144	0.39218	-0.2736	-0.008472	0.0748743	0.950886409
0.031	-3.473768074	145	0.39491	-0.2665	-0.008263	0.0710411	0.925882095
0.031	-3.473768074	146	0.39764	-0.2595	-0.008043	0.0673157	0.901278473
0.03112	-3.46990458	147	0.40037	-0.2524	-0.007854	0.0636969	0.875743213
0.03112	-3.46990458	148	0.40310	-0.2453	-0.007635	0.0601848	0.851257686
0.03115	-3.468941034	149	0.40583	-0.2383	-0.007422	0.0567777	0.826582012
0.0315	-3.457767733	150	0.40856	-0.2312	-0.007284	0.0534757	0.799602298
0.0316	-3.454598158	151	0.41129	-0.2242	-0.007086	0.0502777	0.774613572
0.03173	-3.450492673	152	0.41402	-0.2172	-0.006892	0.0471827	0.749501376
0.032	-3.442019376	153	0.41675	-0.2102	-0.006727	0.0441908	0.723567744
0.032	-3.442019376	154	0.41948	-0.2032	-0.006503	0.041301	0.699509864
0.03212	-3.43827639	155	0.42221	-0.1962	-0.006303	0.0385126	0.674748742
0.03227	-3.433617273	156	0.42494	-0.1893	-0.006108	0.0358254	0.649901615
0.03248	-3.427130764	157	0.42767	-0.1823	-0.005922	0.0332388	0.624817462
0.0327	-3.420380201	158	0.43040	-0.1754	-0.005734	0.0307522	0.599808421
0.03272	-3.419768767	159	0.43313	-0.1684	-0.005511	0.028365	0.575954351
0.033	-3.411247718	160	0.43586	-0.1615	-0.005329	0.0260768	0.550858713
0.033	-3.411247718	161	0.43859	-0.1546	-0.0051	0.0238872	0.52722533
0.0335	-3.39620984	162	0.44132	-0.1476	-0.004946	0.0217961	0.501398979
0.03362	-3.392634151	163	0.44404	-0.1407	-0.004731	0.0198026	0.477416796
0.03392	-3.383750468	164	0.44677	-0.1338	-0.004539	0.0179065	0.452796881
0.03392	-3.383750468	165	0.44950	-0.1269	-0.004305	0.0161075	0.429450173
0.03392	-3.383750468	166	0.45223	-0.1200	-0.004071	0.0144049	0.406118853
0.03392	-3.383750468	167	0.45496	-0.1131	-0.003837	0.0127989	0.382810613
0.03392	-3.383750468	168	0.45769	-0.1062	-0.003604	0.0112889	0.359521609
0.03392	-3.383750468	169	0.46042	-0.0994	-0.003371	0.0098744	0.336244144
0.03392	-3.383750468	170	0.46315	-0.0925	-0.003137	0.0085556	0.312985914
0.03392	-3.383750468	171	0.46588	-0.0856	-0.002904	0.0073321	0.289743072
0.03392	-3.383750468	172	0.46861	-0.0788	-0.002672	0.0062035	0.26651177
0.03392	-3.383750468	173	0.47134	-0.0719	-0.002439	0.0051698	0.243295856
0.03392	-3.383750468	174	0.47407	-0.0650	-0.002206	0.0042307	0.220091483
0.03392	-3.383750468	175	0.47680	-0.0582	-0.001974	0.0033859	0.196894803

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.03392	-3.383750468	176	0.47953	-0.0513	-0.001741	0.0026354	0.173709664
0.03392	-3.383750468	177	0.48226	-0.0445	-0.001509	0.0019791	0.150532218
0.03392	-3.383750468	178	0.48499	-0.0376	-0.001277	0.0014167	0.127362467
0.03392	-3.383750468	179	0.48772	-0.0308	-0.001045	0.0009482	0.104196562
0.0344	-3.369698715	180	0.49045	-0.0239	-0.000824	0.0005736	0.080701822
0.035	-3.352407217	181	0.49318	-0.0171	-0.000599	0.0002926	0.057344004
0.035	-3.352407217	182	0.49591	-0.0103	-0.000359	0.0001053	0.034407927
0.036	-3.324236341	183	0.49864	-0.0034	-0.000123	1.17E-05	0.01137167
0.036464	-3.311429806	184	0.50136	0.0034	0.0001247	1.17E-05	-0.011327861
0.03672	-3.304433713	185	0.50409	0.0103	0.0003769	0.0001053	-0.033915544
0.037312	-3.288440288	186	0.50682	0.0171	0.0006382	0.0002926	-0.056249829
0.037312	-3.288440288	187	0.50955	0.0239	0.0008936	0.0005736	-0.078755742
0.03744	-3.285015627	188	0.51228	0.0308	0.0011529	0.0009482	-0.101156199
0.03772	-3.277564821	189	0.51501	0.0376	0.0014198	0.0014167	-0.123365699
0.03772	-3.277564821	190	0.51774	0.0445	0.001678	0.0019791	-0.145808359
0.03777	-3.276240142	191	0.52047	0.0513	0.001939	0.0026354	-0.168190468
0.038	-3.270169119	192	0.52320	0.0582	0.0022112	0.0033859	-0.190285693
0.038	-3.270169119	193	0.52593	0.0650	0.0024717	0.0042307	-0.212703737
0.03816	-3.265967432	194	0.52866	0.0719	0.0027438	0.0051698	-0.23482711
0.03816	-3.265967432	195	0.53139	0.0788	0.0030056	0.0062035	-0.257234915
0.0383	-3.262305383	196	0.53412	0.0856	0.0032795	0.0073321	-0.279343998
0.0393	-3.23653076	197	0.53685	0.0925	0.0036351	0.0085556	-0.29936857
0.04	-3.218875825	198	0.53958	0.0994	0.0039748	0.0098744	-0.319860509
0.04046	-3.207441447	199	0.54231	0.1062	0.0042989	0.0112889	-0.340788873
0.0407	-3.201527187	200	0.54504	0.1131	0.0046045	0.0127989	-0.362195321
0.0407	-3.201527187	201	0.54777	0.1200	0.0048848	0.0144049	-0.384248354
0.0409	-3.196625216	202	0.55050	0.1269	0.0051908	0.0161075	-0.40570109
0.041	-3.194183212	203	0.55323	0.1338	0.0054864	0.0179065	-0.427429922
0.041	-3.194183212	204	0.55596	0.1407	0.0057696	0.0198026	-0.449490469
0.04115	-3.190531352	205	0.55868	0.1476	0.0060752	0.0217961	-0.471033663
0.0413	-3.186892779	206	0.56141	0.1546	0.0063831	0.0238872	-0.492550157
0.0416	-3.179655112	207	0.56414	0.1615	0.0067177	0.0260768	-0.513460431
0.0417	-3.17725415	208	0.56687	0.1684	0.0070231	0.028365	-0.535110259
0.04196	-3.171038495	209	0.56960	0.1754	0.0073582	0.0307522	-0.55608309
0.04222	-3.164861237	210	0.57233	0.1823	0.0076973	0.0332388	-0.577001785

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0424	-3.160606917	211	0.57506	0.1893	0.0080253	0.0358254	-0.598227285
0.0424	-3.160606917	212	0.57779	0.1962	0.0083208	0.0385126	-0.620257158
0.0424	-3.160606917	213	0.58052	0.2032	0.0086168	0.041301	-0.64231937
0.0424	-3.160606917	214	0.58325	0.2102	0.0089132	0.0441908	-0.664410327
0.0424	-3.160606917	215	0.58598	0.2172	0.0092099	0.0471827	-0.686533622
0.0424	-3.160606917	216	0.58871	0.2242	0.0095072	0.0502777	-0.70869285
0.0424	-3.160606917	217	0.59144	0.2312	0.0098049	0.0534757	-0.730884417
0.0424	-3.160606917	218	0.59417	0.2383	0.0101031	0.0567777	-0.753111915
0.0424	-3.160606917	219	0.59690	0.2453	0.0104018	0.0601848	-0.775378939
0.0424	-3.160606917	220	0.59963	0.2524	0.010701	0.0636969	-0.797681894
0.0424	-3.160606917	221	0.60236	0.2595	0.0110008	0.0673157	-0.820027968
0.0424	-3.160606917	222	0.60509	0.2665	0.0113011	0.0710411	-0.842413567
0.0424	-3.160606917	223	0.60782	0.2736	0.011602	0.0748743	-0.864842284
0.0424	-3.160606917	224	0.61055	0.2807	0.0119034	0.0788153	-0.887310527
0.04256	-3.156840434	225	0.61328	0.2879	0.0122515	0.0828664	-0.908744834
0.04296	-3.147485829	226	0.61600	0.2950	0.0126734	0.0870272	-0.92851997
0.043	-3.146555163	227	0.61873	0.3022	0.0129928	0.0912995	-0.95075686
0.043	-3.146555163	228	0.62146	0.3093	0.0133011	0.0956833	-0.973314803
0.04318	-3.142377854	229	0.62419	0.3165	0.013667	0.1001799	-0.994600658
0.0432	-3.141914784	230	0.62692	0.3237	0.0139845	0.1047909	-1.017082354
0.04392	-3.125385482	231	0.62965	0.3309	0.0145345	0.1095161	-1.034290546
0.044	-3.123565645	232	0.63238	0.3382	0.0148794	0.1143578	-1.056290947
0.04452	-3.111816753	233	0.63511	0.3454	0.0153782	0.119316	-1.074888536
0.045	-3.101092789	234	0.63784	0.3527	0.0158712	0.1243923	-1.093733565
0.046	-3.079113882	235	0.64057	0.3600	0.0165592	0.1295883	-1.108430769
0.046	-3.079113882	236	0.64330	0.3673	0.0168955	0.1349039	-1.130935787
0.046	-3.079113882	237	0.64603	0.3746	0.0172326	0.1403416	-1.153503815
0.047488	-3.047278231	238	0.64876	0.3820	0.0181391	0.1459025	-1.16397453
0.0475	-3.047025568	239	0.65149	0.3893	0.0184937	0.1515864	-1.186332102
0.049	-3.015934981	240	0.65422	0.3967	0.0194399	0.157397	-1.196520805
0.0494	-3.007804855	241	0.65695	0.4041	0.0199648	0.1633335	-1.215590314
0.04995	-2.996732774	242	0.65968	0.4116	0.0205585	0.1693994	-1.233400056
0.05	-2.995732274	243	0.66241	0.4190	0.020952	0.1755941	-1.25533001
0.05088	-2.97828536	244	0.66514	0.4265	0.0217014	0.1819203	-1.270301794
0.05088	-2.97828536	245	0.66787	0.4340	0.0220833	0.1883793	-1.292655628

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.05088	-2.97828536	246	0.67059	0.4416	0.0224664	0.1949719	-1.315080566
0.05088	-2.97828536	247	0.67332	0.4491	0.0228508	0.2017015	-1.33758338
0.05088	-2.97828536	248	0.67605	0.4567	0.0232365	0.2085681	-1.360160684
0.05088	-2.97828536	249	0.67878	0.4643	0.0236235	0.2155739	-1.382815864
0.051	-2.975929646	250	0.68151	0.4719	0.0240687	0.2227222	-1.40444395
0.051	-2.975929646	251	0.68424	0.4796	0.0244593	0.2300111	-1.427240223
0.0511	-2.973970782	252	0.68697	0.4873	0.0249003	0.2374473	-1.449173317
0.0512	-2.972015747	253	0.68970	0.4950	0.0253442	0.2450288	-1.471159267
0.052	-2.95651156	254	0.69243	0.5028	0.0261431	0.2527603	-1.486394332
0.052	-2.95651156	255	0.69516	0.5105	0.0265476	0.2606421	-1.50939142
0.05238	-2.94923044	256	0.69789	0.5183	0.0271507	0.2686779	-1.528708513
0.0529	-2.93935194	257	0.70062	0.5262	0.0278351	0.2768692	-1.546638821
0.053	-2.937463365	258	0.70335	0.5341	0.0283051	0.2852175	-1.568774525
0.0538	-2.922481812	259	0.70608	0.5420	0.0291578	0.2937267	-1.583884664
0.054	-2.918771232	260	0.70881	0.5499	0.0296949	0.3023961	-1.605048377
0.05544	-2.892453924	261	0.71154	0.5579	0.030929	0.3112321	-1.613647333
0.056	-2.882403588	262	0.71427	0.5659	0.0316901	0.3202365	-1.63113612
0.056	-2.882403588	263	0.71700	0.5739	0.0321408	0.3294111	-1.654336668
0.05616	-2.879550519	264	0.71973	0.5820	0.0326867	0.3387576	-1.675981508
0.05768	-2.852844786	265	0.72246	0.5902	0.03404	0.3482805	-1.683614687
0.059	-2.830217835	266	0.72519	0.5983	0.0353006	0.3579816	-1.693363587
0.05936	-2.82413468	267	0.72791	0.6065	0.036003	0.3678656	-1.712892131
0.05936	-2.82413468	268	0.73064	0.6148	0.0364923	0.3779332	-1.736172695
0.05936	-2.82413468	269	0.73337	0.6230	0.0369842	0.3881905	-1.759575264
0.05936	-2.82413468	270	0.73610	0.6314	0.0374786	0.3986382	-1.783096628
0.05936	-2.82413468	271	0.73883	0.6398	0.0379756	0.4092814	-1.806743208
0.05936	-2.82413468	272	0.74156	0.6482	0.0384753	0.4201238	-1.830518215
0.05968	-2.818758323	273	0.74429	0.6566	0.039188	0.4311691	-1.850894557
0.061	-2.796881415	274	0.74702	0.6651	0.0405739	0.4424183	-1.860332549
0.0636	-2.755141809	275	0.74975	0.6737	0.0428477	0.4538797	-1.856155365
0.06392	-2.750122978	276	0.75248	0.6823	0.0436137	0.4655559	-1.876454471
0.06392	-2.750122978	277	0.75521	0.6910	0.0441673	0.4774495	-1.90027236
0.064	-2.748872196	278	0.75794	0.6997	0.0447802	0.4895664	-1.923358909
0.06412	-2.746998951	279	0.76067	0.7085	0.0454262	0.5019091	-1.946126366
0.06416	-2.746375315	280	0.76340	0.7173	0.0460205	0.5144871	-1.969913341

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0652	-2.73029581	281	0.76613	0.7262	0.0473453	0.5272999	-1.982615803
0.06544	-2.726621587	282	0.76886	0.7351	0.0481043	0.5403573	-2.004312256
0.066	-2.718100537	283	0.77159	0.7441	0.0491095	0.553659	-2.022491387
0.06645333	-2.711255332	284	0.77432	0.7531	0.0500486	0.5672182	-2.041951913
0.06784	-2.690603287	285	0.77705	0.7623	0.0517113	0.5810317	-2.050924008
0.06784	-2.690603287	286	0.77978	0.7714	0.0523342	0.595113	-2.075627376
0.06784	-2.690603287	287	0.78251	0.7807	0.0529614	0.6094623	-2.10050204
0.06784	-2.690603287	288	0.78523	0.7900	0.0535932	0.6240904	-2.125560236
0.06784	-2.690603287	289	0.78796	0.7994	0.0542298	0.6390046	-2.150808081
0.06784	-2.690603287	290	0.79069	0.8088	0.054871	0.6542052	-2.176239458
0.06784	-2.690603287	291	0.79342	0.8184	0.0555173	0.6697074	-2.20187272
0.06892	-2.674808867	292	0.79615	0.8280	0.0570628	0.6855134	-2.214627701
0.0723	-2.62693115	293	0.79888	0.8376	0.060561	0.7016333	-2.200410854
0.07414	-2.601800081	294	0.80161	0.8474	0.0628257	0.7180734	-2.204744912
0.07632	-2.572820252	295	0.80434	0.8572	0.0654238	0.7348443	-2.205500219
0.07632	-2.572820252	296	0.80707	0.8672	0.0661811	0.7519546	-2.231029252
0.07632	-2.572820252	297	0.80980	0.8772	0.0669448	0.7694095	-2.256774733
0.07632	-2.572820252	298	0.81253	0.8873	0.0677155	0.787226	-2.282754209
0.07632	-2.572820252	299	0.81526	0.8974	0.0684931	0.8054096	-2.308967683
0.080136	-2.524030088	300	0.81799	0.9077	0.0727417	0.8239701	-2.291132804
0.0814	-2.508380006	301	0.82072	0.9181	0.0747338	0.8429174	-2.302957085
0.0848	-2.467459736	302	0.82345	0.9286	0.078744	0.8622701	-2.291246088
0.0848	-2.467459736	303	0.82618	0.9392	0.0796414	0.8820346	-2.317356675
0.0848	-2.467459736	304	0.82891	0.9499	0.0805476	0.9022217	-2.343725338
0.0848	-2.467459736	305	0.83164	0.9607	0.0814632	0.9228513	-2.370368909
0.0848	-2.467459736	306	0.83437	0.9716	0.0823886	0.943935	-2.397292997
0.0848	-2.467459736	307	0.83710	0.9826	0.0833237	0.9654847	-2.424503214
0.09328	-2.372149556	308	0.83983	0.9937	0.092696	0.987517	-2.357297344
0.09328	-2.372149556	309	0.84255	1.0050	0.0937475	1.0100493	-2.384039029
0.09328	-2.372149556	310	0.84528	1.0164	0.0948112	1.0330992	-2.411088152
0.09328	-2.372149556	311	0.84801	1.0280	0.0958873	1.056685	-2.438455499
0.09328	-2.372149556	312	0.85074	1.0396	0.0969762	1.0808206	-2.466146466
0.09328	-2.372149556	313	0.85347	1.0514	0.0980787	1.1055347	-2.494182625
0.09936	-2.309005661	314	0.85620	1.0634	0.1056605	1.1308425	-2.455421474
0.10176	-2.285138179	315	0.85893	1.0755	0.1094461	1.1567692	-2.457739361

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.10176	-2.285138179	316	0.86166	1.0878	0.1106958	1.183336	-2.485801891
0.10176	-2.285138179	317	0.86439	1.1003	0.1119626	1.2105747	-2.514248911
0.10176	-2.285138179	318	0.86712	1.1129	0.1132467	1.2385029	-2.543085616
0.10176	-2.285138179	319	0.86985	1.1257	0.1145494	1.267159	-2.572337985
0.10176	-2.285138179	320	0.87258	1.1387	0.115871	1.2965675	-2.602016409
0.10176	-2.285138179	321	0.87531	1.1519	0.1172125	1.3267637	-2.632141673
0.11024	-2.205095472	322	0.87804	1.1652	0.1284556	1.3577738	-2.569455562
0.11024	-2.205095472	323	0.88077	1.1788	0.1299547	1.3896513	-2.599443139
0.11024	-2.205095472	324	0.88350	1.1927	0.131478	1.4224194	-2.629912042
0.11024	-2.205095472	325	0.88623	1.2067	0.133027	1.4561344	-2.660897367
0.11024	-2.205095472	326	0.88896	1.2210	0.1346027	1.4908328	-2.692414156
0.111936	-2.189828	327	0.89169	1.2355	0.1383019	1.526569	-2.705628857
0.11194	-2.189792266	328	0.89442	1.2504	0.139965	1.5633936	-2.738022963
0.11872	-2.1309875	329	0.89714	1.2655	0.1502343	1.6013649	-2.696659121
0.11872	-2.1309875	330	0.89987	1.2808	0.1520609	1.640543	-2.729447297
0.11872	-2.1309875	331	0.90260	1.2965	0.1539243	1.6809964	-2.762894435
0.11872	-2.1309875	332	0.90533	1.3126	0.1558266	1.7228019	-2.797039296
0.11872	-2.1309875	333	0.90806	1.3289	0.1577696	1.7660332	-2.831915799
0.125504	-2.075417648	334	0.91079	1.3457	0.1688847	1.8107793	-2.79278987
0.1272	-2.061994628	335	0.91352	1.3628	0.1733442	1.8571385	-2.810021679
0.1272	-2.061994628	336	0.91625	1.3803	0.1755729	1.9052007	-2.846150744
0.13568	-1.997456107	337	0.91898	1.3983	0.1897149	1.9551104	-2.792948209
0.13568	-1.997456107	338	0.92171	1.4167	0.1922144	2.0069664	-2.829744976
0.13568	-1.997456107	339	0.92444	1.4356	0.1947805	2.0609111	-2.867522748
0.13568	-1.997456107	340	0.92717	1.4550	0.1974188	2.1171192	-2.906363276
0.14016	-1.964970652	341	0.92990	1.4750	0.2067418	2.1757467	-2.898412756
0.14416	-1.936831485	342	0.93263	1.4957	0.2156143	2.2369973	-2.89684039
0.14416	-1.936831485	343	0.93536	1.5169	0.218681	2.3010844	-2.938042764
0.14416	-1.936831485	344	0.93809	1.5389	0.22185	2.3682596	-2.980619137
0.14416	-1.936831485	345	0.94082	1.5617	0.2251304	2.4388151	-3.024692817
0.14416	-1.936831485	346	0.94355	1.5853	0.2285315	2.5130585	-3.070387112
0.147	-1.917322692	347	0.94628	1.6098	0.2366367	2.5913717	-3.086455817
0.147	-1.917322692	348	0.94901	1.6353	0.2403876	2.6741723	-3.135377981
0.15264	-1.879673071	349	0.95174	1.6619	0.2536754	2.761977	-3.123865648
0.1536	-1.873403458	350	0.95446	1.6898	0.2595498	2.855348	-3.165634996

Table 90. Uranium Near Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.155	-1.864330162	351	0.95719	1.7190	0.2664478	2.955022	-3.204816633
0.16112	-1.82560585	352	0.95992	1.7498	0.2819284	3.0618145	-3.194452677
0.16114	-1.825481727	353	0.96265	1.7823	0.2872072	3.1767568	-3.253639802
0.162	-1.820158944	354	0.96538	1.8169	0.2943359	3.3010837	-3.3070258
0.163	-1.814005078	355	0.96811	1.8538	0.3021613	3.4363901	-3.362712442
0.1696	-1.774312556	356	0.97084	1.8933	0.3211059	3.5846353	-3.359329579
0.1696	-1.774312556	357	0.97357	1.9361	0.3283603	3.7484323	-3.4352232
0.175	-1.742969305	358	0.97630	1.9827	0.346977	3.9312013	-3.455830096
0.17544	-1.740458175	359	0.97903	2.0341	0.3568662	4.1376494	-3.540303011
0.17808	-1.725522391	360	0.98176	2.0915	0.3724594	4.3744918	-3.608979407
0.182	-1.703748592	361	0.98449	2.1568	0.3925381	4.6517993	-3.674650109
0.1861	-1.681471115	362	0.98722	2.2328	0.4155258	4.9854382	-3.754404668
0.188	-1.671313316	363	0.98995	2.3244	0.4369898	5.4028995	-3.884823735
0.20352	-1.591990999	364	0.99268	2.4411	0.4968057	5.9588012	-3.886154446
0.31376	-1.159126917	365	0.99541	2.6051	0.8173711	6.7864619	-3.019622827
0.7208	-0.327393573	366	0.99811	2.8956	2.0871577	8.3845738	-0.948005037

Figure 10. Uranium Near Upgradient Background Data Set, Histogram (normal)

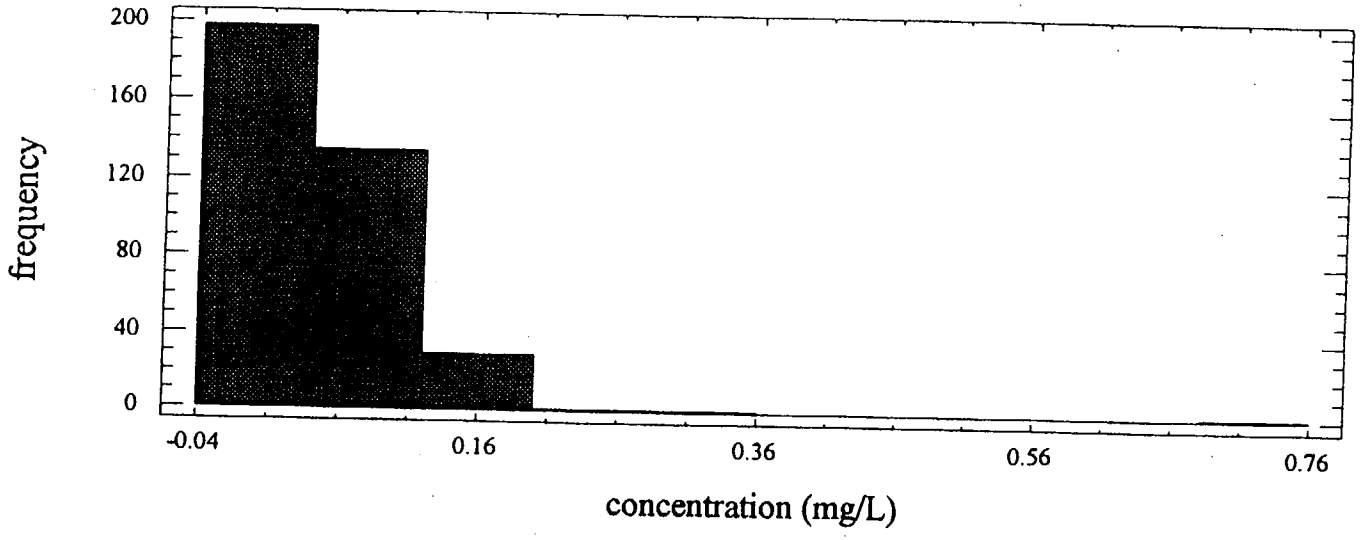

Figure 11. Uranium Near Upgradient Background Data Set, Histogram (lognormal)

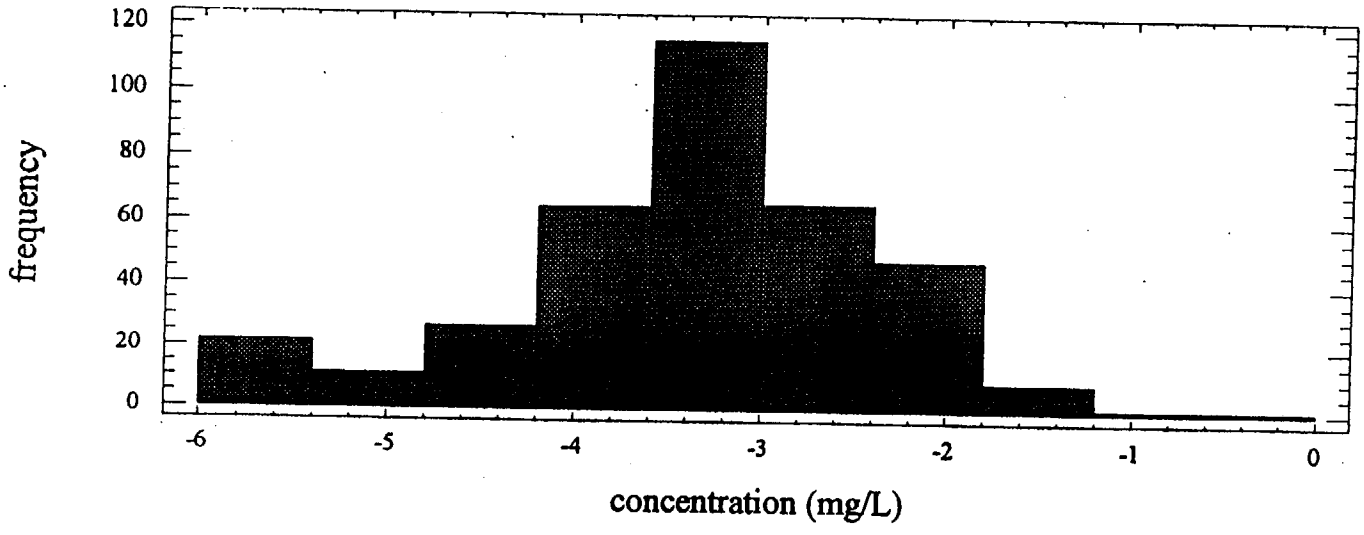

Figure 12. Uranium Near Upgradient Data Set, Probability Plot (normal)

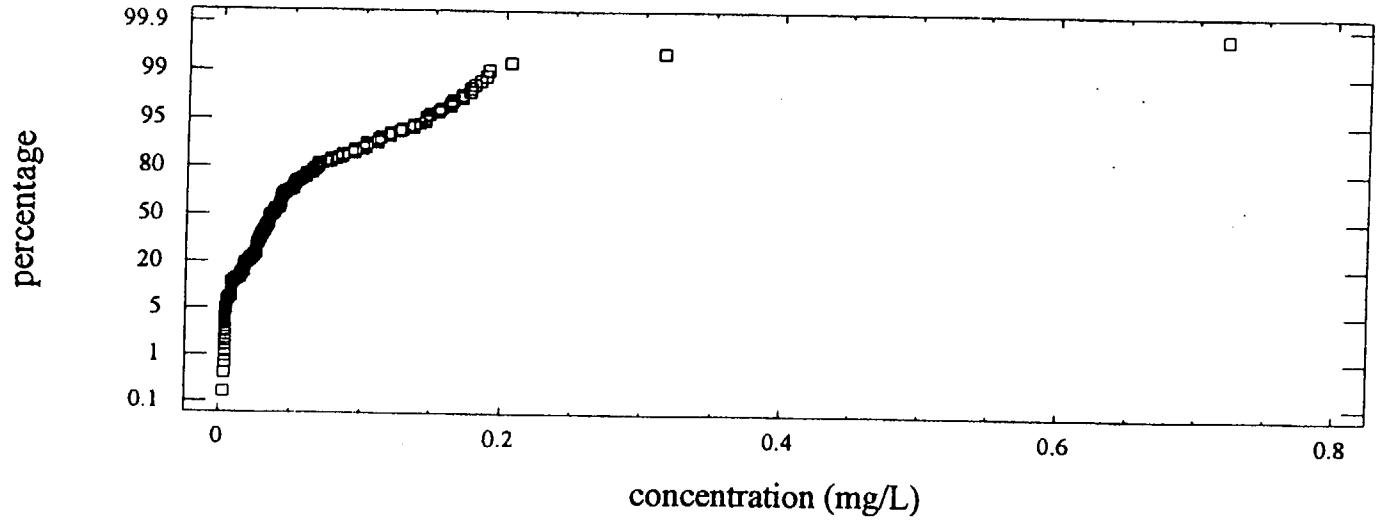

Figure 13. Uranium Near Upgradient Data Set, Probability Plot (lognormal)

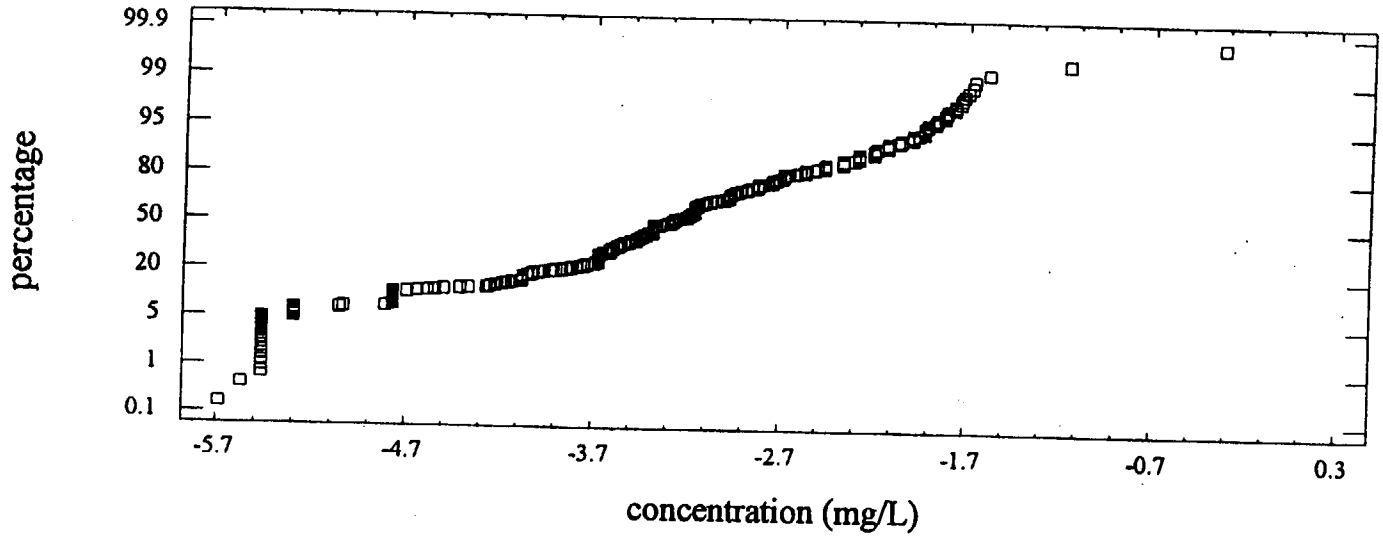

Table 91. Uranium Near Upgradient Background Data Set, Distribution Summary

Parameter	Distribution Type (tested)	Coefficient of Variation	Studentized Range Test	Geary's Test	Coefficient of Skewness (-1 to 1)	Shapiro-Francia Test	Filliben's Statistic	Histogram	Probability Plot	Number of Samples	Distribution Type (determined)
Uranium	Normal	Fail	Fail	Fail	Fail	Fail	Fail	Nonparametric	Nonparametric	366	Nonparametric
Uranium	Lognormal	Pass	NA	Fail	Pass	Fail	Fail	Lognormal	Nonparametric	366	

NA - not applicable

Table 92. Uranium Near Upgradient Background Data Set, T_n Statisitic Analysis

Parameter	Distribution	Maximum Observation	Mean	Standard Deviation	T_n Statistic	N	Upper 5% Critical Value	Pass or Fail T_n Statistic
Uranium	Lognormal	-0.327393573	-3.378415952	0.96410562	3.165	366	3.34+	Pass

N - number of samples

Table 93. Uranium Near Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (mg/L)	Sample #
Uranium	Nonparametric	0.147	366

SD = standard deviation

Table 94. Uranium Near Upgradient Background Data Set, Summary Table

Parameter	Distribution	95th Percentile (mg/L)	Range (normal)	Sample #
Uranium	Nonparametric	0.147	0.003392 to 0.7208	366

SD = standard deviation

ND = non-detect, concentration reported as the minimum detecatable activity (MDA)

Table 95. Uranium Far Upgradient Background Data Set (data not corrected for non-detects or duplicates)

Well Name	Sample_Date	Parameter_Code	Lab_Code	Remark_Code	Value
0914	10-Jan-83	Uranium	Homestake	Less Than	0.00848
0914	14-Mar-94	Uranium	Energy Laboratories	Less Than	0.01
0914	12-May-94	Uranium	Energy Laboratories	Less Than	0.01
0914	24-Jan-96	Uranium	Energy Laboratories	Less Than	0.01
0914	22-May-97	Uranium	Energy Laboratories	None	0.001
0914	12-May-98	Uranium	Energy Laboratories	None	0.0013
0916	21-Feb-94	Uranium	Energy Laboratories	None	0.009
0916	26-Apr-94	Uranium	Energy Laboratories	None	0.007
0916	29-Jan-96	Uranium	Energy Laboratories	Less Than	0.01
0916	28-May-97	Uranium	Energy Laboratories	None	0.008
0916	12-May-98	Uranium	Energy Laboratories	None	0.0083
0920	03-Nov-81	Uranium	Homestake	Less Than	0.00848
0920	30-Aug-82	Uranium	Homestake	None	0.01696
0920	05-Jan-83	Uranium	Homestake	None	0.0424
0920	31-Aug-83	Uranium	Homestake	None	0.054272
0920	14-Dec-89	Uranium	Homestake	None	0.05936
0920	09-May-90	Uranium	Homestake	None	0.09328
0920	21-May-91	Uranium	Homestake	None	0.0848
0920	06-May-92	Uranium	Homestake	None	0.11024
0920	06-May-93	Uranium	Homestake	None	0.11024
0920	28-Feb-94	Uranium	Energy Laboratories	None	0.132
0920	29-Apr-94	Uranium	Energy Laboratories	None	0.024
0920	29-Apr-94	Uranium	Energy Laboratories	None	0.026
0920	11-May-94	Uranium	Energy Laboratories	None	0.073
0920	10-May-95	Uranium	Energy Laboratories	None	0.141
0920	24-Jan-96	Uranium	Energy Laboratories	None	0.164
0920	20-May-96	Uranium	Energy Laboratories	None	0.185
0920	23-May-97	Uranium	Energy Laboratories	None	0.123
0920	12-May-98	Uranium	Energy Laboratories	None	0.146
0921	28-Feb-94	Uranium	Energy Laboratories	None	0.182
0921	16-May-94	Uranium	Energy Laboratories	None	0.164
0921	24-Jan-96	Uranium	Energy Laboratories	None	0.192
0921	23-May-97	Uranium	Energy Laboratories	None	0.148
0921	12-May-98	Uranium	Energy Laboratories	None	0.184
0922	03-Nov-81	Uranium	Homestake	Less Than	0.00848
0922	04-Mar-94	Uranium	Energy Laboratories	None	0.019
0922	16-May-94	Uranium	Energy Laboratories	None	0.014
0922	24-Jan-96	Uranium	Energy Laboratories	None	0.01
0922	23-May-97	Uranium	Energy Laboratories	None	0.003
0922	12-May-98	Uranium	Energy Laboratories	Quality Control	0.0059
0922	12-May-98	Uranium	Energy Laboratories	None	0.0062
0950	28-Feb-94	Uranium	Energy Laboratories	None	0.093
0950	11-May-94	Uranium	Energy Laboratories	None	0.06
0950	25-Jan-96	Uranium	Energy Laboratories	None	0.166

Table 96. Uranium Far Upgradient Background Data Set for Well 0914.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
10-Jan-83	Uranium	0.00424
14-Mar-94	Uranium	0.005
12-May-94	Uranium	0.005
24-Jan-96	Uranium	0.005
22-May-97	Uranium	0.001
12-May-98	Uranium	0.0013

Table 97. Uranium Far Upgradient Background Data Set for Well 0916.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
21-Feb-94	Uranium	0.009
26-Apr-94	Uranium	0.007
29-Jan-96	Uranium	0.005
28-May-97	Uranium	0.008
12-May-98	Uranium	0.0083

Table 98. Uranium Far Upgradient Background Data Set for Well 0920.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Uranium	0.00424
30-Aug-82	Uranium	0.01696
05-Jan-83	Uranium	0.0424
31-Aug-83	Uranium	0.054272
14-Dec-89	Uranium	0.05936
09-May-90	Uranium	0.09328
21-May-91	Uranium	0.0848
06-May-92	Uranium	0.11024
06-May-93	Uranium	0.11024
28-Feb-94	Uranium	0.132
29-Apr-94	Uranium	0.025
11-May-94	Uranium	0.073
10-May-95	Uranium	0.141
24-Jan-96	Uranium	0.164
20-May-96	Uranium	0.185
23-May-97	Uranium	0.123
12-May-98	Uranium	0.146

Table 99. Uranium Far Upgradient Background Data Set for Well 0921.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Uranium	0.182
16-May-94	Uranium	0.164
24-Jan-96	Uranium	0.192
23-May-97	Uranium	0.148
12-May-98	Uranium	0.184

Table 100. Uranium Far Upgradient Background Data Set for Well 0922.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
03-Nov-81	Uranium	0.00424
04-Mar-94	Uranium	0.019
16-May-94	Uranium	0.014
24-Jan-96	Uranium	0.01
23-May-97	Uranium	0.003
12-May-98	Uranium	0.0062

Table 101. Uranium Far Upgradient Background Data Set for Well 0950.
(corrected for non-detects and duplicates)

Sample Date	Parameter Code	Final Data Set
28-Feb-94	Uranium	0.093
11-May-94	Uranium	0.06
25-Jan-96	Uranium	0.166

Table 102. Uranium Far Upgradient Background Groundwater Data Set Used in Statistical Analysis (all concentrations in mg/L)

Well ID					
914	**916**	**920**	**921**	**922**	**950**
0.005	0.009	0.185	0.192	0.019	0.166
0.005	0.0083	0.164	0.184	0.014	0.093
0.005	0.008	0.146	0.182	0.01	0.06
0.00424	0.007	0.141	0.164	0.0062	
0.0013	0.005	0.132	0.148	0.00424	
0.001		0.123		0.003	
		0.11024			
		0.11024			
		0.09328			
		0.0848			
		0.073			
		0.05936			
		0.054272			
		0.0424			
		0.025			
		0.01696			
		0.00424			

Table 103. Uranium Far Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Uranium	0.192	0.185	1.0	**PASS**

Table 104. Uranium Far Upgradient Background Data Set, Coefficient of Variation Analysis

Parameter	Mean	Standard Deviation	Coefficient of Variation	Results
Uranium.normal	0.0683112	0.067564	0.99	**PASS**
Uranium, lognormal	-3.569943	1.6045214	-0.45	**PASS**

Table 105. Uranium Far Upgradient Background Data Set, Studentized Range Test Analysis

Parameter	Range		Standard Deviation	Critical Values		W/S	Results
	Maximum	Minimum		Maximum	Minimum		
Uranium, normal	0.192	0.001	0.07	5.26	3.75	2.83	**FAIL**

w = range of values
s = standard deviation

Table 106. Uranium Far Upgradient Background Data Set, Geary's Test Analysis

Uranium - raw data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
0.192	0.036864	0.1236888	0.123688762
0.185	0.034225	0.1166888	0.116688762
0.184	0.033856	0.1156888	0.115688762
0.182	0.033124	0.1136888	0.113688762
0.166	0.027556	0.0976888	0.097688762
0.164	0.026896	0.0956888	0.095688762
0.164	0.026896	0.0956888	0.095688762
0.148	0.021904	0.0796888	0.079688762
0.146	0.021316	0.0776888	0.077688762
0.141	0.019881	0.0726888	0.072688762
0.132	0.017424	0.0636888	0.063688762
0.123	0.015129	0.0546888	0.054688762
0.11024	0.0121529	0.0419288	0.041928762
0.11024	0.0121529	0.0419288	0.041928762
0.09328	0.0087012	0.0249688	0.024968762
0.093	0.008649	0.0246888	0.024688762
0.0848	0.007191	0.0164888	0.016488762
0.073	0.005329	0.0046888	0.004688762
0.06	0.0036	-0.0083112	0.008311238
0.05936	0.0035236	-0.0089512	0.008951238
0.054272	0.0029454	-0.0140392	0.014039238
0.0424	0.0017978	-0.0259112	0.025911238
0.025	0.000625	-0.0433112	0.043311238
0.019	0.000361	-0.0493112	0.049311238
0.01696	0.0002876	-0.0513512	0.051351238
0.014	0.000196	-0.0543112	0.054311238
0.01	0.0001	-0.0583112	0.058311238
0.009	0.000081	-0.0593112	0.059311238
0.0083	6.889E-05	-0.0600112	0.060011238
0.008	0.000064	-0.0603112	0.060311238
0.007	0.000049	-0.0613112	0.061311238
0.0062	3.844E-05	-0.0621112	0.062111238
0.005	0.000025	-0.0633112	0.063311238
0.005	0.000025	-0.0633112	0.063311238
0.005	0.000025	-0.0633112	0.063311238
0.005	0.000025	-0.0633112	0.063311238
0.00424	1.798E-05	-0.0640712	0.064071238
0.00424	1.798E-05	-0.0640712	0.064071238
0.00424	1.798E-05	-0.0640712	0.064071238
0.003	0.000009	-0.0653112	0.065311238
0.0013	1.69E-06	-0.0670112	0.067011238
0.001	0.000001	-0.0673112	0.067311238

0.0683112 =mean
2.869072 = sum of Xi
0.3831503 = sum of Xi^2
42 = count

0.1871605 = SSS
2.5239154 = SAD

0.9002085 = alpha

3.1 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 106. Uranium Far Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	**Xi^2**	**Xi-Mean**	**abs(Xi-mean)**
-1.6502599	2.7233578	1.9196836	1.919683585
-1.6873995	2.8473169	1.882544	1.882544038
-1.6928195	2.8656379	1.877124	1.87712397
-1.7037486	2.9027593	1.8661949	1.8661949
-1.7957675	3.2247809	1.774176	1.774176001
-1.8078889	3.2684621	1.7620546	1.76205464
-1.8078889	3.2684621	1.7620546	1.76205464
-1.910543	3.6501746	1.6594005	1.659400486
-1.9241487	3.7023481	1.6457948	1.645794834
-1.9589954	3.8376629	1.6109481	1.610948103
-2.0249534	4.1004361	1.5449901	1.544990135
-2.0955709	4.3914175	1.4743726	1.474372568
-2.2050955	4.862446	1.364848	1.36484802
-2.2050955	4.862446	1.364848	1.36484802
-2.3721496	5.6270935	1.1977939	1.197793935
-2.3751558	5.641365	1.1947877	1.194787706
-2.4674597	6.0883575	1.1024838	1.102483755
-2.6172958	6.8502375	0.9526477	0.952647654
-2.8134107	7.9152799	0.7565328	0.756532775
-2.8241347	7.9757367	0.7458088	0.745808811
-2.9137468	8.4899206	0.6561967	0.656196653
-3.1606069	9.9894361	0.4093366	0.409336575
-3.6888795	13.607832	-0.118936	0.118935963
-3.9633163	15.707876	-0.3933728	0.393372808
-4.0768976	16.621094	-0.5069542	0.506954157
-4.2686979	18.221782	-0.6987545	0.698754458
-4.6051702	21.207592	-1.0352267	1.035226694
-4.7105307	22.189099	-1.1405872	1.14058721
-4.7914998	22.95847	-1.2215563	1.221556273
-4.8283137	23.312614	-1.2583702	1.258370246
-4.9618451	24.619907	-1.3919016	1.391901638
-5.083206	25.838983	-1.5132625	1.513262495
-5.2983174	28.072167	-1.7283739	1.728373875
-5.2983174	28.072167	-1.7283739	1.728373875
-5.2983174	28.072167	-1.7283739	1.728373875
-5.2983174	28.072167	-1.7283739	1.728373875
-5.463192	29.846467	-1.8932485	1.893248518
-5.463192	29.846467	-1.8932485	1.893248518
-5.463192	29.846467	-1.8932485	1.893248518
-5.809143	33.746142	-2.2391995	2.239199499
-6.645391	44.161222	-3.0754475	3.075447523
-6.9077553	47.717083	-3.3378118	3.337811787

-3.5699435 =mean
-149.93763 = sum of Xi
640.8229 = sum of Xi^2
42 = count

105.55405 = SSS
61.049244 = SAD

0.916892 = alpha

3.6 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 107. Uranium Far Upgradient Background Data Set, Coefficient of Skewness Analysis

Uranium	Normal (xi-avg)^3
0.192	0.001892303
0.185	0.001588865
0.184	0.001548366
0.182	0.001469443
0.166	0.000932253
0.164	0.000876159
0.164	0.000876159
0.148	0.000506047
0.146	0.000468894
0.141	0.000384062
0.132	0.000258338
0.123	0.000163566
0.11024	7.37116E-05
0.11024	7.37116E-05
0.09328	1.55665E-05
0.093	1.50487E-05
0.0848	4.48295E-06
0.073	1.0308E-07
0.06	-5.74113E-07
0.05936	-7.17215E-07
0.054272	-2.76714E-06
0.0424	-1.73966E-05
0.025	-8.1246E-05
0.019	-0.000119905
0.01696	-0.000135411
0.014	-0.000160202
0.01	-0.00019827
0.009	-0.000208646
0.0083	-0.000216121
0.008	-0.000219379
0.007	-0.000230473
0.0062	-0.000239613
0.005	-0.000253771
0.005	-0.000253771
0.005	-0.000253771
0.005	-0.000253771
0.00424	-0.00026302
0.00424	-0.00026302
0.00424	-0.00026302
0.003	-0.000278589
0.0013	-0.000300914
0.001	-0.000304974

	Normal
standard deviation =	0.067564
mean =	0.068
count =	42
sum of (xi-avg)^3 =	0.0066277
1/n =	0.0238095
standard deviation cubed =	0.0003084
((n-1)/n)^(3/2) =	0.9644992
coef. of skewness =	0.5
acceptable range -1 to 1	PASS

Table 107. Uranium Far Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-1.650259907	7.074389276
-1.687399454	6.67168346
-1.692819521	6.614223509
-1.703748592	6.499366005
-1.795767491	5.584574654
-1.807888851	5.470891661
-1.807888851	5.470891661
-1.910543005	4.569341731
-1.924148657	4.457866768
-1.958995389	4.180658076
-2.024953356	3.687882983
-2.095570924	3.204953446
-2.205095472	2.5424527
-2.205095472	2.5424527
-2.372149556	1.71848731
-2.375155786	1.705580552
-2.467459736	1.340036405
-2.617295838	0.86456352
-2.813410717	0.43299536
-2.82413468	0.414841819
-2.913746839	0.282554372
-3.160606917	0.068586976
-3.688879454	-0.00168244
-3.9633163	-0.06087136
-4.076897649	-0.130288495
-4.268697949	-0.341172309
-4.605170186	-1.109446557
-4.710530702	-1.483834594
-4.791499764	-1.822805937
-4.828313737	-1.992623842
-4.96184513	-2.696656553
-5.083205987	-3.465315698
-5.298317367	-5.16313023
-5.298317367	-5.16313023
-5.298317367	-5.16313023
-5.298317367	-5.16313023
-5.46319201	-6.786140964
-5.46319201	-6.786140964
-5.46319201	-6.786140964
-5.80914299	-11.22737852
-6.645391015	-29.08874355
-6.907755279	-37.18651949

Lognormal	
standard deviation =	1.6045214
mean =	-3.570
count =	42
sum of (xi-avg)^3 =	-56.21901
1/n =	0.0238095
standard deviation cubed =	4.1308226
((n-1)/n)^(3/2) =	0.9644992
coef. of skewness =	-0.3
acceptable range -1 to 1	PASS

Table 108. Uranium Far Upgradient Background Data Set, Shapiro-Wilk Test of Normality Analysis

Uranium - raw data				
X(i)	X(n-i+1)	X(n-i+1)-X(i)	An-i+1	Bi
0.001	0.192	0.191	0.3917	0.0748147
0.0013	0.185	0.1837	0.2701	0.04961737
0.003	0.184	0.181	0.2345	0.0424445
0.00424	0.182	0.17776	0.2085	0.03706296
0.00424	0.166	0.16176	0.1874	0.030313824
0.00424	0.164	0.15976	0.1694	0.027063344
0.005	0.164	0.159	0.1535	0.0244065
0.005	0.148	0.143	0.1392	0.0199056
0.005	0.146	0.141	0.1259	0.0177519
0.005	0.141	0.136	0.1136	0.0154496
0.0062	0.132	0.1258	0.102	0.0128316
0.007	0.123	0.116	0.0909	0.0105444
0.008	0.11024	0.10224	0.0804	0.008220096
0.0083	0.11024	0.10194	0.0701	0.007145994
0.009	0.09328	0.08428	0.0602	0.005073656
0.01	0.093	0.083	0.0506	0.0041998
0.014	0.0848	0.0708	0.0411	0.00290988
0.01696	0.073	0.05604	0.0318	0.001782072
0.019	0.06	0.041	0.0227	0.0009307
0.025	0.05936	0.03436	0.0136	0.000467296
0.0424	0.054272	0.011872	0.0045	0.000053424
0.054272	0.0424	-0.011872		
0.05936	0.025	-0.03436		
0.06	0.019	-0.041		
0.073	0.01696	-0.05604		
0.0848	0.014	-0.0708		
0.093	0.01	-0.083		
0.09328	0.009	-0.08428		
0.11024	0.0083	-0.10194		
0.11024	0.008	-0.10224		
0.123	0.007	-0.116		
0.132	0.0062	-0.1258		
0.141	0.005	-0.136		
0.146	0.005	-0.141		
0.148	0.005	-0.143		
0.164	0.005	-0.159		
0.164	0.00424	-0.15976		
0.166	0.00424	-0.16176		
0.182	0.00424	-0.17776		
0.184	0.003	-0.181		
0.185	0.0013	-0.1837		
0.192	0.001	-0.191		

0.392989216 =sum of B
0.067563966 = standard deviation
41 = count - 1

0.82517706 = W statistic
.942 is acceptable low value
Fails Shapiro-Wilk test

Table 108. Uranium Far Upgradient Background Data Set, Shapiro-Wilk Test of Normality Analysis (continued)

Uranium - lognormal data				
X(i)	X(n-i+1)	X(n-i+1)-X(i)	An-i+1	Bi
-6.9077553	-1.65025991	5.257495372	0.3917	2.059360937
-6.645391	-1.68739945	4.957991561	0.2701	1.339153521
-5.809143	-1.69281952	4.116323469	0.2345	0.965277853
-5.463192	-1.70374859	3.759443418	0.2085	0.783843953
-5.463192	-1.79576749	3.667424519	0.1874	0.687275355
-5.463192	-1.80788885	3.655303159	0.1694	0.619208355
-5.2983174	-1.80788885	3.490428515	0.1535	0.535780777
-5.2983174	-1.91054301	3.387774361	0.1392	0.471578191
-5.2983174	-1.92414866	3.374168709	0.1259	0.42480784
-5.2983174	-1.95899539	3.339321978	0.1136	0.379346977
-5.083206	-2.02495336	3.058252631	0.102	0.311941768
-4.9618451	-2.09557092	2.866274206	0.0909	0.260544325
-4.8283137	-2.20509547	2.623218266	0.0804	0.210906749
-4.7914998	-2.20509547	2.586404292	0.0701	0.181306941
-4.7105307	-2.37214956	2.338381145	0.0602	0.140770545
-4.6051702	-2.37515579	2.2300144	0.0506	0.112838729
-4.2686979	-2.46745974	1.801238213	0.0411	0.074030891
-4.0768976	-2.61729584	1.459601811	0.0318	0.046415338
-3.9633163	-2.81341072	1.149905583	0.0227	0.026102857
-3.6888795	-2.82413468	0.864744774	0.0136	0.011760529
-3.1606069	-2.91374684	0.246860078	0.0045	0.00111087
-2.9137468	-3.16060692	-0.246860078		
-2.8241347	-3.68887945	-0.864744774		
-2.8134107	-3.9633163	-1.149905583		
-2.6172958	-4.07689765	-1.459601811		
-2.4674597	-4.26869795	-1.801238213		
-2.3751558	-4.60517019	-2.2300144		
-2.3721496	-4.7105307	-2.338381145		
-2.2050955	-4.79149976	-2.586404292		
-2.2050955	-4.82831374	-2.623218266		
-2.0955709	-4.96184513	-2.866274206		
-2.0249534	-5.08320599	-3.058252631		
-1.9589954	-5.29831737	-3.339321978		
-1.9241487	-5.29831737	-3.374168709		
-1.910543	-5.29831737	-3.387774361		
-1.8078889	-5.29831737	-3.490428515		
-1.8078889	-5.46319201	-3.655303159		
-1.7957675	-5.46319201	-3.667424519		
-1.7037486	-5.46319201	-3.759443418		
-1.6928195	-5.80914299	-4.116323469		
-1.6873995	-6.64539101	-4.957991561		
-1.6502599	-6.90775528	-5.257495372		

9.6433633 =sum of B
1.604521402 = standard deviation
41 = count - 1

0.881012705 = W statistic
.942 is acceptable low value
Fails Shapiro-Wilk test

Table 109. Uranium Far Upgradient Background Data Set, Filliben's Statistic Analysis

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.001	-6.907755279	1	0.01637	-2.1353	-0.002135	4.559517	14.75014757
0.0013	-6.645391015	2	0.03971	-1.7540	-0.00228	3.076553	11.65608598
0.003	-5.80914299	3	0.06332	-1.5275	-0.004582	2.3332451	8.873444724
0.00424	-5.46319201	4	0.08692	-1.3599	-0.005766	1.8494619	7.429663809
0.00424	-5.46319201	5	0.11053	-1.2237	-0.005189	1.4975087	6.685457726
0.00424	-5.46319201	6	0.13413	-1.1071	-0.004694	1.2256013	6.048129331
0.005	-5.298317367	7	0.15774	-1.0038	-0.005019	1.007624	5.318476165
0.005	-5.298317367	8	0.18134	-0.9103	-0.004551	0.8285874	4.822887546
0.005	-5.298317367	9	0.20495	-0.8241	-0.00412	0.6791183	4.366270904
0.005	-5.298317367	10	0.22855	-0.7436	-0.003718	0.5529892	3.940000601
0.0062	-5.083205987	11	0.25215	-0.6677	-0.00414	0.445858	3.394188795
0.007	-4.96184513	12	0.27576	-0.5955	-0.004168	0.3546076	2.954726091
0.008	-4.828313737	13	0.29936	-0.5262	-0.00421	0.2769218	2.540821086
0.0083	-4.791499764	14	0.32297	-0.4594	-0.003813	0.2110645	2.201299352
0.009	-4.710530702	15	0.34657	-0.3946	-0.003551	0.1557039	1.85874419
0.01	-4.605170186	16	0.37018	-0.3314	-0.003314	0.109818	1.526098308
0.014	-4.268697949	17	0.39378	-0.2695	-0.003773	0.0726194	1.150328166
0.01696	-4.076897649	18	0.41738	-0.2086	-0.003538	0.0435095	0.850396816
0.019	-3.9633163	19	0.44099	-0.1485	-0.002821	0.0220408	0.588399358
0.025	-3.688879454	20	0.46459	-0.0889	-0.002222	0.0078975	0.327822838
0.0424	-3.160606917	21	0.48820	-0.0296	-0.001255	0.0008755	0.093516469
0.054272	-2.913746839	22	0.51180	0.0296	0.0016058	0.0008755	-0.086212339
0.05936	-2.82413468	23	0.53541	0.0889	0.0052752	0.0078975	-0.250974817
0.06	-2.813410717	24	0.55901	0.1485	0.0089077	0.0220408	-0.417682803
0.073	-2.617295838	25	0.58262	0.2086	0.015227	0.0435095	-0.545939643
0.0848	-2.467459736	26	0.60622	0.2695	0.0228519	0.0726194	-0.664930728
0.093	-2.375155786	27	0.62982	0.3314	0.0308191	0.109818	-0.787098213
0.09328	-2.372149556	28	0.65343	0.3946	0.0368077	0.1557039	-0.936034491
0.11024	-2.205095472	29	0.67703	0.4594	0.0506462	0.2110645	-1.013059683
0.11024	-2.205095472	30	0.70064	0.5262	0.058012	0.2769218	-1.160395404
0.123	-2.095570924	31	0.72424	0.5955	0.0732452	0.3546076	-1.247890235
0.132	-2.024953356	32	0.74785	0.6677	0.0881398	0.445858	-1.352114003
0.141	-1.958995389	33	0.77145	0.7436	0.1048522	0.5529892	-1.456772495
0.146	-1.924148657	34	0.79505	0.8241	0.1203166	0.6791183	-1.585664602
0.148	-1.910543005	35	0.81866	0.9103	0.1347196	0.8285874	-1.739105725
0.164	-1.807888851	36	0.84226	1.0038	0.164624	1.007624	-1.814767425
0.164	-1.807888851	37	0.86587	1.1071	0.1815593	1.2256013	-2.001457311
0.166	-1.795767491	38	0.88947	1.2237	0.2031387	1.4975087	-2.197529873
0.182	-1.703748592	39	0.91308	1.3599	0.2475108	1.8494619	-2.317011599
0.184	-1.692819521	40	0.93668	1.5275	0.2810593	2.3332451	-2.585775643
0.185	-1.687399454	41	0.96029	1.7540	0.324492	3.076553	-2.959716452
0.192	-1.650259907	42	0.98363	2.1353	0.4099781	4.559517	-3.523804214

Normal

2.485	=sum X(i)*M(i)
38.622	=sum M(i)^2
0.07	= standard deviation
6.2147	= square root of sum Mi^2
0.924	= Fillibens's Statistic

Lognormal

60.733	=sum X(i)*M(i)
38.622	=sum M(i)^2
1.60	= standard deviation
6.2147	= square root of sum Mi^2
0.951	= Fillibens's Statistic

.973 is acceptable value

Normal - Fail
Lognormal - Fail

Figure 14. Uranium Far Upgradient Background Data Set, Histogram (normal)

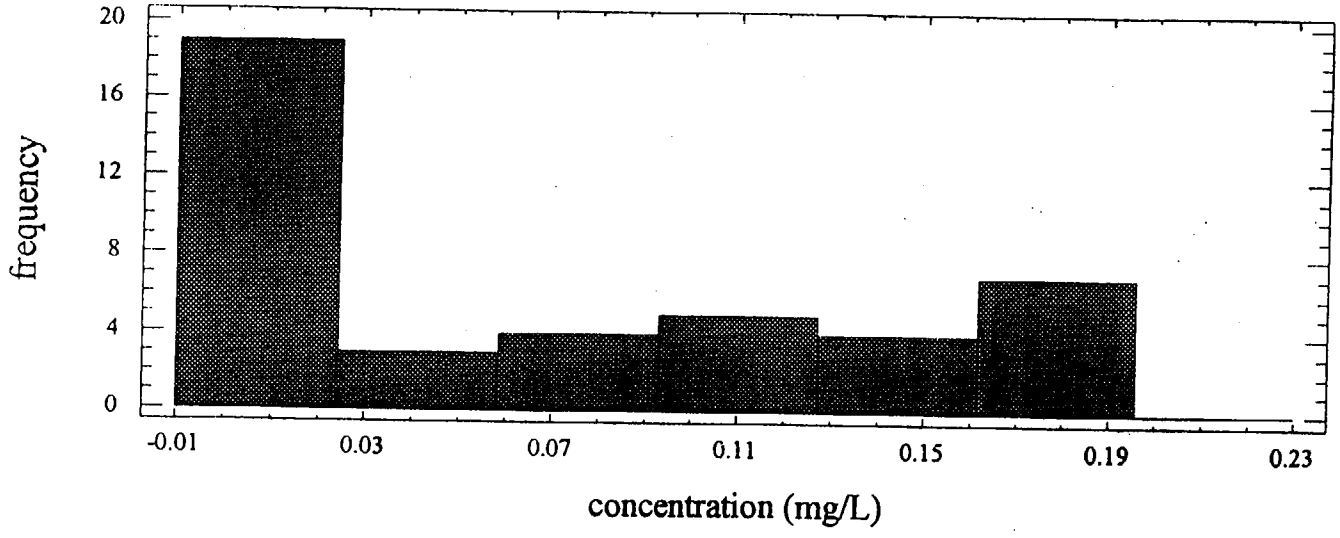

Figure 15. Uranium Far Upgradient Background Data Set, Histogram (lognormal)

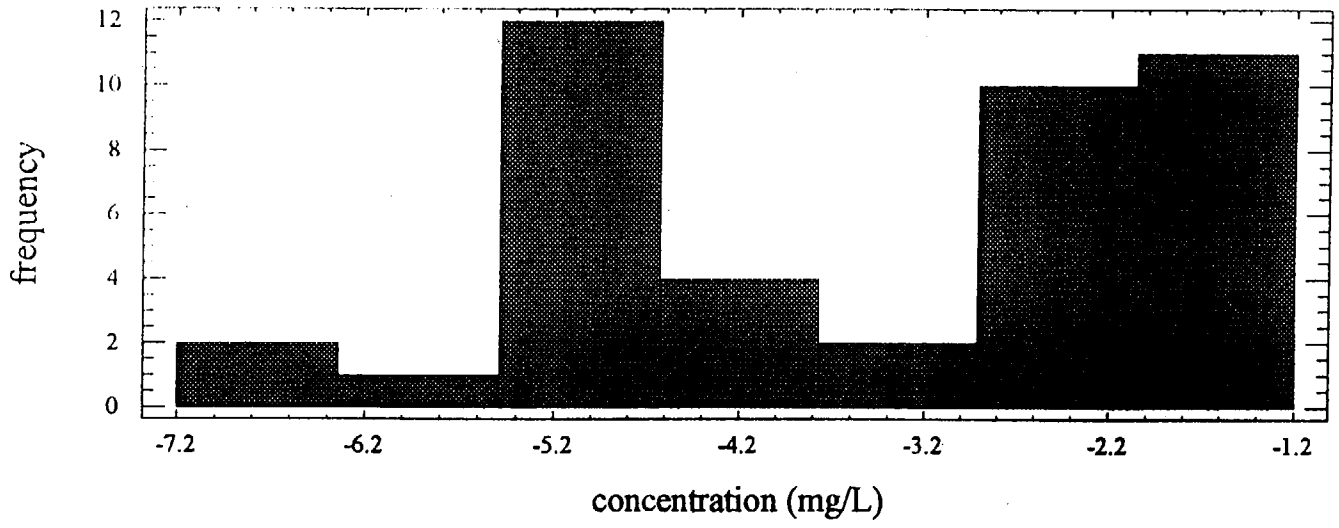

Figure 16. Uranium Far Upgradient Data Set, Probability Plot (normal)

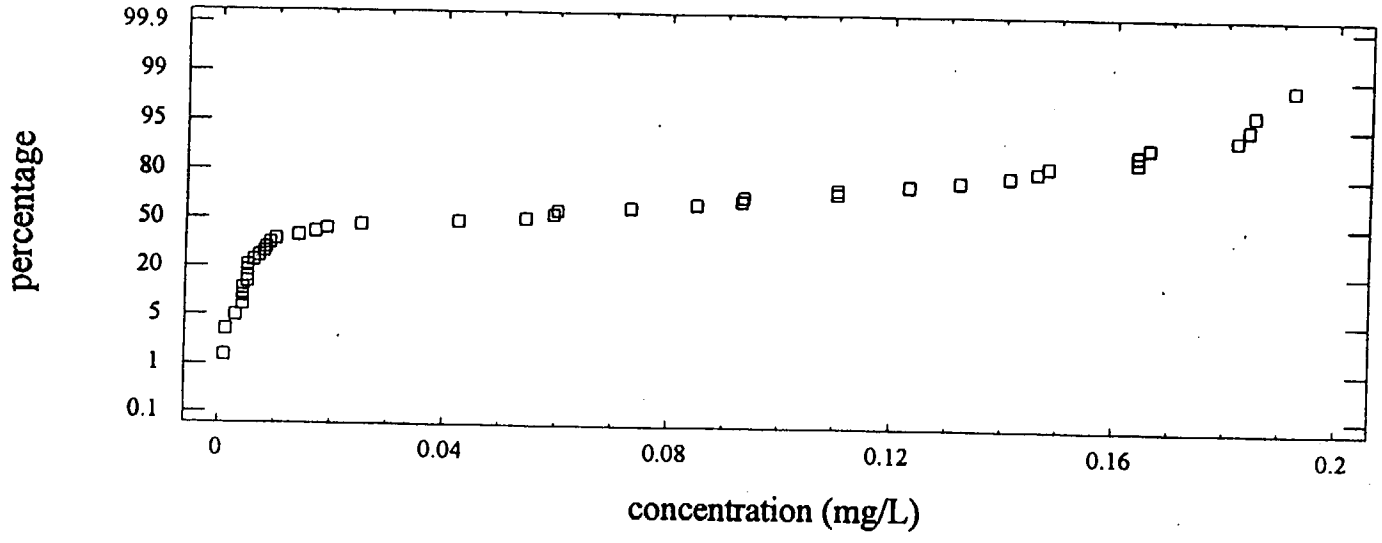

Figure 17. Uranium Far Upgradient Data Set, Probability Plot (lognormal)

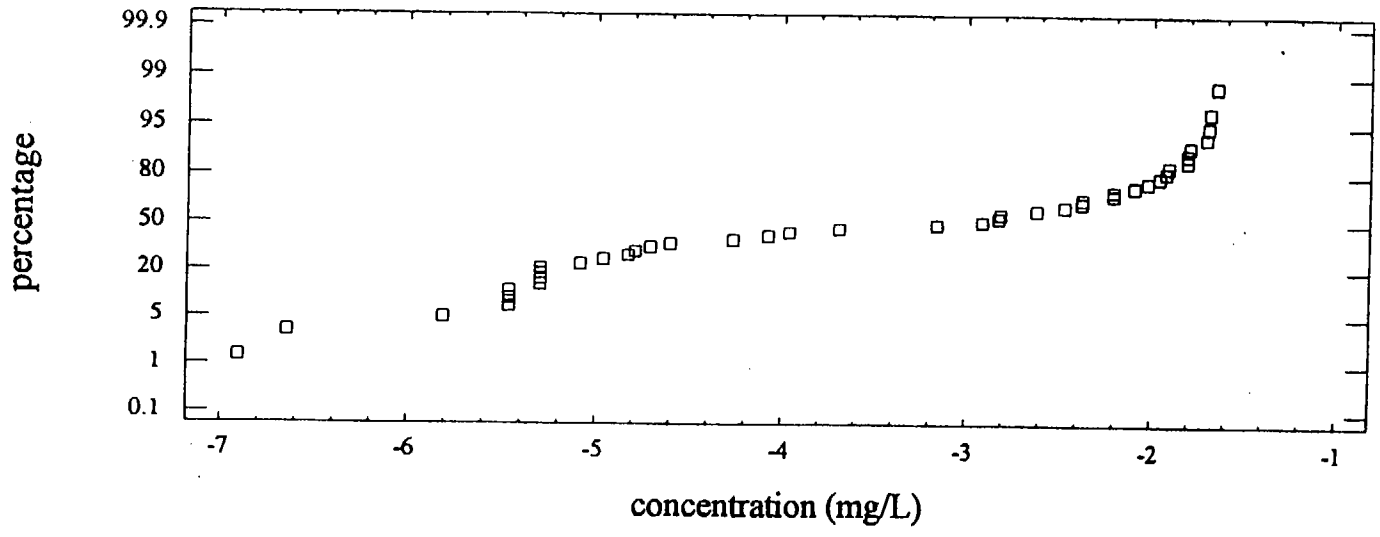

Table 110. Uranium Far Upgradient Background Data Set, Distribution Summary

Parameter	Distribution Type (tested)	Coefficient of Variation	Studentized Range Test	Geary's Test	Coefficient of Skewness (-1 to 1)	Shapiro-Wilk Test	Filliben's Statistic	Histogram	Probability Plot	Number of Samples	Distribution Type (determined)
Uranium	Normal	Pass	Fail	Fail	Pass	Fail	Fail	Nonparametric	Nonparametric	42	Nonparametric
Uranium	Lognormal	Pass	NA	Fail	Pass	Fail	Fail	Nonparametric	Nonparametric	42	

NA - not applicable

Table 111. Uranium Far Upgradient Background Data Set, T_n Statisitic Analysis

Parameter	Distribution	Maximum Observation	Mean	Standard Deviation	T_n Statistic	N	Upper 5% Critical Value	Pass or Fail T_n Statistic
Uranium	Lognormal	-1.650259907	-3.569943492	1.604521402	1.196	42	2.857	Pass

N - number of samples

Table 112. Uranium Far Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (mg/L)	Sample #
Uranium	Nonparametric	0.18	42

Table 113. Uranium Far Upgradient Background Data Set, Summary Table

Parameter	Distribution	95th Percentile (mg/L)	Range	Sample #
Uranium	Nonparametric	0.18	0.001 to 0.192	42

Table 114. Uranium Upgradient Background Data, Comparison Statistics Results

Comparison of Medians

Median of sample 1: 0.048336
Median of sample 2: 0.036232

Mann-Whitney (Wilcoxon) W test to compare medians

Null hypothesis: median1 = median2
Alt. hypothesis: median1 NE median2

Average rank of sample 1: 206.298
Average rank of sample 2: 204.294

W = 7610.5
P-value = 0.91745

The StatAdvisor

This option runs a Mann-Whitney W test option to compare the medians of the two samples. This test is constructed by combining the two samples, sorting the data from smallest to largest, and comparing the average ranks of the two samples in the combined data. Since the P-value is greater than or equal to 0.05, there is not a statistically significant difference between the medians at the 95.0% confidence level.

Table 115. Uranium Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis
(all concentrations in mg/L)

Well ID														
Near Upgradient Wells									Far Upgradient Wells					
DD	ND	P	P1	P2	P3	P4	Q	R	914	916	920	921	922	950
0.20352	0.11872	0.7208	0.0416	0.0494	0.024	0.022	0.31376	0.11024	0.005	0.009	0.185	0.192	0.019	0.166
0.188	0.10176	0.17544	0.041	0.0432			0.1696	0.09328	0.005	0.0083	0.164	0.184	0.014	0.093
0.1861	0.0723	0.1696	0.0383	0.041			0.09936	0.0848	0.005	0.008	0.146	0.182	0.01	0.06
0.182	0.06784	0.14416	0.038	0.03816			0.09328	0.0814	0.00424	0.007	0.141	0.164	0.0062	
0.17808	0.064	0.11024	0.036	0.035			0.09328	0.080136	0.0013	0.005	0.132	0.148	0.00424	
0.175	0.05936	0.10176	0.035	0.033			0.0848	0.07632	0.001		0.123		0.003	
0.163	0.056	0.0848	0.0335	0.0316			0.0848	0.06784			0.11024			
0.162	0.0529	0.0848	0.033	0.031			0.07632	0.06784			0.11024			
0.16114	0.0424	0.07632	0.032	0.03			0.07414	0.04392			0.09328			
0.16112	0.038	0.07632	0.0315	0.029			0.06892	0.04318			0.0848			
0.155	0.028	0.06784	0.03115	0.029			0.06784	0.0424			0.073			
0.1536	0.02544	0.06784	0.031	0.0286			0.06784	0.0424			0.05936			
0.15264	0.00424	0.0664533	0.03	0.0275			0.066	0.0424			0.054272			
0.147		0.06544	0.03	0.0274			0.06392	0.0424			0.0424			
0.147		0.0652	0.0297	0.027			0.05936	0.03744			0.025			
0.14416		0.06416	0.029	0.027			0.05936	0.03392			0.01696			
0.14416		0.06392	0.0285	0.0265			0.05768	0.03392			0.00424			
0.14416		0.0636	0.0285	0.026			0.0538	0.0327						
0.14416		0.061	0.028	0.025			0.05238	0.03096						
0.14016		0.05968	0.028	0.025			0.052	0.02812						
0.13568		0.05936	0.026	0.02			0.051	0.026925						
0.13568		0.05936	0.024	0.01908			0.05088	0.02544						
0.13568		0.059	0.021624	0.00848			0.05088	0.025						
0.13568		0.05616	0.01696	0.005			0.05088	0.02272						
0.1272		0.056	0.00848	0.00424			0.05088	0.0219893						
0.1272		0.05544	0.00848				0.046	0.021						
0.125504		0.054					0.046	0.02						
0.11872		0.053					0.043	0.0197						
0.11872		0.052					0.043	0.018						
0.11872		0.0512					0.04256	0.018						
0.11872		0.0511					0.0424	0.0178						

Table 115. Uranium Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued)
(all concentrations in mg/L)

Well ID														
Near Upgradient Wells									Far Upgradient Wells					
DD	ND	P	P1	P2	P3	P4	Q	R	914	916	920	921	922	950
0.11194		0.051					0.0424	0.0175						
0.111936		0.05088					0.0424	0.01748						
0.11024		0.05088					0.0424	0.01696						
0.11024		0.05					0.0424	0.01696						
0.11024		0.04995					0.0424	0.01696						
0.10176		0.049					0.04222	0.01696						
0.10176		0.0475					0.0413	0.01693						
0.10176		0.047488					0.0407	0.01683						
0.10176		0.046					0.04046	0.016						
0.10176		0.045					0.03777	0.01545						
0.09328		0.04452					0.03772	0.01522						
0.09328		0.044					0.03772	0.01474						
0.09328		0.04296					0.037312	0.01462						
0.0848		0.0424					0.037312	0.01424						
0.07632		0.0424					0.03392	0.0142						
0.06412		0.0424					0.03392	0.014						
0.05936		0.04196					0.03392	0.012676						
0.03392		0.0417					0.03392	0.01212						
0.03392		0.04115					0.03392	0.01112						
		0.0409					0.03392	0.0106						
		0.0407					0.03392	0.01017						
		0.04					0.03362	0.00962						
		0.0393					0.03112	0.00912						
		0.03816					0.02862	0.00848						
		0.03672					0.027516	0.00848						
		0.036464					0.026	0.00848						
		0.0344					0.02562	0.00812						
		0.03392					0.02544	0.0065						
		0.03392					0.02544	0.00636						
		0.03392					0.02544	0.005						
		0.03392					0.02544	0.005						

Table 115. Uranium Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued)
(all concentrations in mg/L)

Well ID														
Near Upgradient Wells									Far Upgradient Wells					
DD	ND	P	P1	P2	P3	P4	Q	R	914	916	920	921	922	950
		0.03392					0.02544	0.005						
		0.03272					0.02544	0.005						
		0.03248					0.02544	0.005						
		0.03227					0.02346	0.005						
		0.03212					0.02316	0.005						
		0.032					0.01696	0.00424						
		0.03173					0.00848	0.00424						
		0.03112					0.00848	0.00424						
		0.027136					0.00848	0.00424						
		0.027136					0.00848	0.00424						
		0.02713					0.00424	0.00424						
		0.02712					0.00424	0.00424						
		0.02562					0.00424	0.003816						
		0.02544					0.00424	0.003392						
		0.02544					0.00424							
		0.02544												
		0.02544												
		0.02544												
		0.02362												
		0.02348												
		0.01848												
		0.01696												
		0.01696												
		0.01572												
		0.00848												
		0.00848												
		0.00848												
		0.00848												
		0.00848												
		0.00424												
		0.00424												

Table 115. Uranium Combined Upgradient Background Groundwater Data Set Used in Statistical Analysis (continued)
(all concentrations in mg/L)

Well ID														
Near Upgradient Wells									Far Upgradient Wells					
DD	ND	P	P1	P2	P3	P4	Q	R	914	916	920	921	922	950
		0.00424												
		0.00424												
		0.00424												
		0.00424												

Table 116. Uranium Combined Upgradient Background Data Set, A Priori Screening

Parameter	Maximum Value	Next Maximum Value	Multiplicative Factor	Results
Uranium	0.7208	0.31376	2.3	**PASS**

Table 117. Uranium Combined Upgradient Background Data Set, Coefficient of Variation Analysis

Parameter	Mean	Standard Deviation	Coefficient of Variation	Results
Uranium.normal	0.05337759	0.05779003	1.08	**FAIL**
Uranium, lognormal	-3.398132	1.04705448	-0.31	**PASS**

Table 118. Uranium Combined Upgradient Background Data Set, Studentized Range Test Analysis

Parameter	Range		Standard Deviation	Critical Values		W/S	Results
	Maximum	Minimum		Maximum	Minimum		
Uranium, normal	0.7208	0.001	0.057790033	6.94	5.47	12.46	**FAIL**

w = range of values
s = standard deviation

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.001	0.000001	-0.0523776	0.052377592
0.0013	1.69E-06	-0.0520776	0.052077592
0.003	0.000009	-0.0503776	0.050377592
0.003392	1.151E-05	-0.0499856	0.049985592
0.003816	1.456E-05	-0.0495616	0.049561592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.00424	1.798E-05	-0.0491376	0.049137592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.005	0.000025	-0.0483776	0.048377592
0.0062	3.844E-05	-0.0471776	0.047177592
0.00636	4.045E-05	-0.0470176	0.047017592
0.0065	4.225E-05	-0.0468776	0.046877592
0.007	0.000049	-0.0463776	0.046377592
0.008	0.000064	-0.0453776	0.045377592
0.00812	6.593E-05	-0.0452576	0.045257592
0.0083	6.889E-05	-0.0450776	0.045077592

0.0533776 =mean
21.778058 = sum of Xi
2.5217133 = sum of Xi^2
408 = count

1.359253 = SSS
15.362824 = SAD

0.6523652 = alpha

-13.8 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed test.

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.00848	7.191E-05	-0.044898	0.044897592
0.009	0.000081	-0.044378	0.044377592
0.00912	8.317E-05	-0.044258	0.044257592
0.00962	9.254E-05	-0.043758	0.043757592
0.01	0.0001	-0.043378	0.043377592
0.01017	0.0001034	-0.043208	0.043207592
0.0106	0.0001124	-0.042778	0.042777592
0.01112	0.0001237	-0.042258	0.042257592
0.01212	0.0001469	-0.041258	0.041257592
0.012676	0.0001607	-0.040702	0.040701592
0.014	0.000196	-0.039378	0.039377592
0.014	0.000196	-0.039378	0.039377592
0.0142	0.0002016	-0.039178	0.039177592
0.01424	0.0002028	-0.039138	0.039137592
0.01462	0.0002137	-0.038758	0.038757592
0.01474	0.0002173	-0.038638	0.038637592
0.01522	0.0002316	-0.038158	0.038157592
0.01545	0.0002387	-0.037928	0.037927592
0.01572	0.0002471	-0.037658	0.037657592
0.016	0.000256	-0.037378	0.037377592
0.01683	0.0002832	-0.036548	0.036547592
0.01693	0.0002866	-0.036448	0.036447592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01696	0.0002876	-0.036418	0.036417592
0.01748	0.0003056	-0.035898	0.035897592
0.0175	0.0003063	-0.035878	0.035877592

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.0178	0.0003168	-0.035578	0.035577592
0.018	0.000324	-0.035378	0.035377592
0.018	0.000324	-0.035378	0.035377592
0.01848	0.0003415	-0.034898	0.034897592
0.019	0.000361	-0.034378	0.034377592
0.01908	0.000364	-0.034298	0.034297592
0.0197	0.0003881	-0.033678	0.033677592
0.02	0.0004	-0.033378	0.033377592
0.02	0.0004	-0.033378	0.033377592
0.021	0.000441	-0.032378	0.032377592
0.021624	0.0004676	-0.031754	0.031753592
0.0219893	0.0004835	-0.031388	0.031388259
0.022	0.000484	-0.031378	0.031377592
0.02272	0.0005162	-0.030658	0.030657592
0.02316	0.0005364	-0.030218	0.030217592
0.02346	0.0005504	-0.029918	0.029917592
0.02348	0.0005513	-0.029898	0.029897592
0.02362	0.0005579	-0.029758	0.029757592
0.024	0.000576	-0.029378	0.029377592
0.024	0.000576	-0.029378	0.029377592
0.025	0.000625	-0.028378	0.028377592
0.025	0.000625	-0.028378	0.028377592
0.025	0.000625	-0.028378	0.028377592
0.025	0.000625	-0.028378	0.028377592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02544	0.0006472	-0.027938	0.027937592
0.02562	0.0006564	-0.027758	0.027757592
0.02562	0.0006564	-0.027758	0.027757592
0.026	0.000676	-0.027378	0.027377592
0.026	0.000676	-0.027378	0.027377592
0.026	0.000676	-0.027378	0.027377592
0.0265	0.0007023	-0.026878	0.026877592
0.026925	0.000725	-0.026453	0.026452592
0.027	0.000729	-0.026378	0.026377592
0.027	0.000729	-0.026378	0.026377592

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.02712	0.0007355	-0.026258	0.026257592
0.02713	0.000736	-0.026248	0.026247592
0.027136	0.0007364	-0.026242	0.026241592
0.027136	0.0007364	-0.026242	0.026241592
0.0274	0.0007508	-0.025978	0.025977592
0.0275	0.0007563	-0.025878	0.025877592
0.027516	0.0007571	-0.025862	0.025861592
0.028	0.000784	-0.025378	0.025377592
0.028	0.000784	-0.025378	0.025377592
0.028	0.000784	-0.025378	0.025377592
0.02812	0.0007907	-0.025258	0.025257592
0.0285	0.0008123	-0.024878	0.024877592
0.0285	0.0008123	-0.024878	0.024877592
0.0286	0.000818	-0.024778	0.024777592
0.02862	0.0008191	-0.024758	0.024757592
0.029	0.000841	-0.024378	0.024377592
0.029	0.000841	-0.024378	0.024377592
0.029	0.000841	-0.024378	0.024377592
0.0297	0.0008821	-0.023678	0.023677592
0.03	0.0009	-0.023378	0.023377592
0.03	0.0009	-0.023378	0.023377592
0.03	0.0009	-0.023378	0.023377592
0.03096	0.0009585	-0.022418	0.022417592
0.031	0.000961	-0.022378	0.022377592
0.031	0.000961	-0.022378	0.022377592
0.03112	0.0009685	-0.022258	0.022257592
0.03112	0.0009685	-0.022258	0.022257592
0.03115	0.0009703	-0.022228	0.022227592
0.0315	0.0009923	-0.021878	0.021877592
0.0316	0.0009986	-0.021778	0.021777592
0.03173	0.0010068	-0.021648	0.021647592
0.032	0.001024	-0.021378	0.021377592
0.032	0.001024	-0.021378	0.021377592
0.03212	0.0010317	-0.021258	0.021257592
0.03227	0.0010414	-0.021108	0.021107592
0.03248	0.001055	-0.020898	0.020897592
0.0327	0.0010693	-0.020678	0.020677592
0.03272	0.0010706	-0.020658	0.020657592
0.033	0.001089	-0.020378	0.020377592
0.033	0.001089	-0.020378	0.020377592
0.0335	0.0011223	-0.019878	0.019877592
0.03362	0.0011303	-0.019758	0.019757592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.03392	0.0011506	-0.019458	0.019457592
0.0344	0.0011834	-0.018978	0.018977592
0.035	0.001225	-0.018378	0.018377592
0.035	0.001225	-0.018378	0.018377592
0.036	0.001296	-0.017378	0.017377592
0.036464	0.0013296	-0.016914	0.016913592
0.03672	0.0013484	-0.016658	0.016657592
0.037312	0.0013922	-0.016066	0.016065592
0.037312	0.0013922	-0.016066	0.016065592
0.03744	0.0014018	-0.015938	0.015937592
0.03772	0.0014228	-0.015658	0.015657592
0.03772	0.0014228	-0.015658	0.015657592
0.03777	0.0014266	-0.015608	0.015607592
0.038	0.001444	-0.015378	0.015377592
0.038	0.001444	-0.015378	0.015377592
0.03816	0.0014562	-0.015218	0.015217592
0.03816	0.0014562	-0.015218	0.015217592
0.0383	0.0014669	-0.015078	0.015077592
0.0393	0.0015445	-0.014078	0.014077592
0.04	0.0016	-0.013378	0.013377592
0.04046	0.001637	-0.012918	0.012917592
0.0407	0.0016565	-0.012678	0.012677592
0.0407	0.0016565	-0.012678	0.012677592
0.0409	0.0016728	-0.012478	0.012477592
0.041	0.001681	-0.012378	0.012377592
0.041	0.001681	-0.012378	0.012377592
0.04115	0.0016933	-0.012228	0.012227592
0.0413	0.0017057	-0.012078	0.012077592
0.0416	0.0017306	-0.011778	0.011777592
0.0417	0.0017389	-0.011678	0.011677592
0.04196	0.0017606	-0.011418	0.011417592
0.04222	0.0017825	-0.011158	0.011157592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.0424	0.0017978	-0.010978	0.010977592
0.04256	0.0018114	-0.010818	0.010817592
0.04296	0.0018456	-0.010418	0.010417592
0.043	0.001849	-0.010378	0.010377592
0.043	0.001849	-0.010378	0.010377592
0.04318	0.0018645	-0.010198	0.010197592
0.0432	0.0018662	-0.010178	0.010177592
0.04392	0.001929	-0.009458	0.009457592
0.044	0.001936	-0.009378	0.009377592
0.04452	0.001982	-0.008858	0.008857592
0.045	0.002025	-0.008378	0.008377592
0.046	0.002116	-0.007378	0.007377592
0.046	0.002116	-0.007378	0.007377592
0.046	0.002116	-0.007378	0.007377592
0.047488	0.0022551	-0.00589	0.005889592
0.0475	0.0022563	-0.005878	0.005877592
0.049	0.002401	-0.004378	0.004377592
0.0494	0.0024404	-0.003978	0.003977592
0.04995	0.002495	-0.003428	0.003427592
0.05	0.0025	-0.003378	0.003377592
0.05088	0.0025888	-0.002498	0.002497592
0.05088	0.0025888	-0.002498	0.002497592
0.05088	0.0025888	-0.002498	0.002497592
0.05088	0.0025888	-0.002498	0.002497592
0.05088	0.0025888	-0.002498	0.002497592
0.05088	0.0025888	-0.002498	0.002497592
0.051	0.002601	-0.002378	0.002377592
0.051	0.002601	-0.002378	0.002377592
0.0511	0.0026112	-0.002278	0.002277592
0.0512	0.0026214	-0.002178	0.002177592
0.052	0.002704	-0.001378	0.001377592
0.052	0.002704	-0.001378	0.001377592
0.05238	0.0027437	-0.000998	0.000997592
0.0529	0.0027984	-0.000478	0.000477592
0.053	0.002809	-0.000378	0.000377592
0.0538	0.0028944	0.0004224	0.000422408
0.054	0.002916	0.0006224	0.000622408
0.054272	0.0029454	0.0008944	0.000894408

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.05544	0.0030736	0.0020624	0.002062408
0.056	0.003136	0.0026224	0.002622408
0.056	0.003136	0.0026224	0.002622408
0.05616	0.0031539	0.0027824	0.002782408
0.05768	0.003327	0.0043024	0.004302408
0.059	0.003481	0.0056224	0.005622408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05936	0.0035236	0.0059824	0.005982408
0.05968	0.0035617	0.0063024	0.006302408
0.06	0.0036	0.0066224	0.006622408
0.061	0.003721	0.0076224	0.007622408
0.0636	0.004045	0.0102224	0.010222408
0.06392	0.0040858	0.0105424	0.010542408
0.06392	0.0040858	0.0105424	0.010542408
0.064	0.004096	0.0106224	0.010622408
0.06412	0.0041114	0.0107424	0.010742408
0.06416	0.0041165	0.0107824	0.010782408
0.0652	0.004251	0.0118224	0.011822408
0.06544	0.0042824	0.0120624	0.012062408
0.066	0.004356	0.0126224	0.012622408
0.0664533	0.004416	0.0130757	0.013075741
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06784	0.0046023	0.0144624	0.014462408
0.06892	0.00475	0.0155424	0.015542408
0.0723	0.0052273	0.0189224	0.018922408
0.073	0.005329	0.0196224	0.019622408
0.07414	0.0054967	0.0207624	0.020762408
0.07632	0.0058247	0.0229424	0.022942408
0.07632	0.0058247	0.0229424	0.022942408
0.07632	0.0058247	0.0229424	0.022942408
0.07632	0.0058247	0.0229424	0.022942408
0.07632	0.0058247	0.0229424	0.022942408
0.080136	0.0064218	0.0267584	0.026758408
0.0814	0.006626	0.0280224	0.028022408
0.0848	0.007191	0.0314224	0.031422408
0.0848	0.007191	0.0314224	0.031422408
0.0848	0.007191	0.0314224	0.031422408

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.0848	0.007191	0.0314224	0.031422408
0.0848	0.007191	0.0314224	0.031422408
0.0848	0.007191	0.0314224	0.031422408
0.0848	0.007191	0.0314224	0.031422408
0.093	0.008649	0.0396224	0.039622408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09328	0.0087012	0.0399024	0.039902408
0.09936	0.0098724	0.0459824	0.045982408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.10176	0.0103551	0.0483824	0.048382408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.11024	0.0121529	0.0568624	0.056862408
0.111936	0.0125297	0.0585584	0.058558408
0.11194	0.0125306	0.0585624	0.058562408
0.11872	0.0140944	0.0653424	0.065342408
0.11872	0.0140944	0.0653424	0.065342408
0.11872	0.0140944	0.0653424	0.065342408
0.11872	0.0140944	0.0653424	0.065342408
0.11872	0.0140944	0.0653424	0.065342408
0.123	0.015129	0.0696224	0.069622408
0.125504	0.0157513	0.0721264	0.072126408
0.1272	0.0161798	0.0738224	0.073822408
0.1272	0.0161798	0.0738224	0.073822408
0.132	0.017424	0.0786224	0.078622408
0.13568	0.0184091	0.0823024	0.082302408
0.13568	0.0184091	0.0823024	0.082302408
0.13568	0.0184091	0.0823024	0.082302408
0.13568	0.0184091	0.0823024	0.082302408
0.14016	0.0196448	0.0867824	0.086782408
0.141	0.019881	0.0876224	0.087622408
0.14416	0.0207821	0.0907824	0.090782408
0.14416	0.0207821	0.0907824	0.090782408

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - raw data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
0.14416	0.0207821	0.0907824	0.090782408
0.14416	0.0207821	0.0907824	0.090782408
0.14416	0.0207821	0.0907824	0.090782408
0.146	0.021316	0.0926224	0.092622408
0.147	0.021609	0.0936224	0.093622408
0.147	0.021609	0.0936224	0.093622408
0.148	0.021904	0.0946224	0.094622408
0.15264	0.023299	0.0992624	0.099262408
0.1536	0.023593	0.1002224	0.100222408
0.155	0.024025	0.1016224	0.101622408
0.16112	0.0259597	0.1077424	0.107742408
0.16114	0.0259661	0.1077624	0.107762408
0.162	0.026244	0.1086224	0.108622408
0.163	0.026569	0.1096224	0.109622408
0.164	0.026896	0.1106224	0.110622408
0.164	0.026896	0.1106224	0.110622408
0.166	0.027556	0.1126224	0.112622408
0.1696	0.0287642	0.1162224	0.116222408
0.1696	0.0287642	0.1162224	0.116222408
0.175	0.030625	0.1216224	0.121622408
0.17544	0.0307792	0.1220624	0.122062408
0.17808	0.0317125	0.1247024	0.124702408
0.182	0.033124	0.1286224	0.128622408
0.182	0.033124	0.1286224	0.128622408
0.184	0.033856	0.1306224	0.130622408
0.185	0.034225	0.1316224	0.131622408
0.1861	0.0346332	0.1327224	0.132722408
0.188	0.035344	0.1346224	0.134622408
0.192	0.036864	0.1386224	0.138622408
0.20352	0.0414204	0.1501424	0.150142408
0.31376	0.0984453	0.2603824	0.260382408
0.7208	0.5195526	0.6674224	0.667422408

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-6.907755	47.717083	-3.509623	3.509623257
-6.645391	44.161222	-3.247259	3.247258992
-5.809143	33.746142	-2.411011	2.411010968
-5.686336	32.334412	-2.288204	2.288203539
-5.568553	31.008777	-2.170421	2.170420503
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.463192	29.846467	-2.06506	2.065059987
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.298317	28.072167	-1.900185	1.900185344
-5.083206	25.838983	-1.685074	1.685073964
-5.057727	25.580601	-1.659595	1.659594879
-5.035953	25.360824	-1.637821	1.63782108
-4.961845	24.619907	-1.563713	1.563713107
-4.828314	23.312614	-1.430182	1.430181715
-4.813425	23.169061	-1.415293	1.415293102
-4.7915	22.95847	-1.393368	1.393367742

-3.398132 =mean
-1386.438 = sum of Xi
5157.5024 = sum of Xi^2
408 = count

446.2035 = SSS
327.42426 = SAD

0.7673867 = alpha

-2.9 = Z

Critical value = 1.645

abs(Z)>critical value, thus failed t

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.770045	22.753328	-1.371913	1.371912807
-4.710531	22.189099	-1.312399	1.312398679
-4.697285	22.064491	-1.299153	1.299153452
-4.643911	21.56591	-1.245779	1.245778992
-4.60517	21.207592	-1.207038	1.207038164
-4.588313	21.052617	-1.190181	1.190181046
-4.546901	20.674311	-1.148769	1.148769255
-4.49901	20.241091	-1.100878	1.100877968
-4.412898	19.473671	-1.014766	1.014766276
-4.368045	19.079816	-0.969913	0.969912815
-4.268698	18.221782	-0.870566	0.870565927
-4.268698	18.221782	-0.870566	0.870565927
-4.254513	18.100884	-0.856381	0.856381292
-4.2517	18.076956	-0.853568	0.853568351
-4.225365	17.853708	-0.827233	0.827232802
-4.21719	17.784695	-0.819058	0.81905837
-4.185145	17.515438	-0.787013	0.787012904
-4.170146	17.39012	-0.772014	0.772014253
-4.152821	17.245926	-0.754689	0.75468947
-4.135167	17.099602	-0.737035	0.737034534
-4.084592	16.683894	-0.68646	0.686460248
-4.078668	16.635533	-0.680536	0.68053606
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.076898	16.621094	-0.678766	0.678765626
-4.046698	16.375764	-0.648566	0.648565886
-4.045554	16.36651	-0.647422	0.647422376

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-4.028557	16.22927	-0.630425	0.630424799
-4.017384	16.13937	-0.619251	0.619251499
-4.017384	16.13937	-0.619251	0.619251499
-3.991066	15.92861	-0.592934	0.59293419
-3.963316	15.707876	-0.565184	0.565184277
-3.959115	15.674589	-0.560983	0.560982591
-3.927137	15.422402	-0.529005	0.529004621
-3.912023	15.303924	-0.513891	0.513890983
-3.912023	15.303924	-0.513891	0.513890983
-3.863233	14.924568	-0.465101	0.465100819
-3.833951	14.699184	-0.435819	0.435819448
-3.817198	14.570999	-0.419066	0.419065769
-3.816713	14.567297	-0.418581	0.418580803
-3.78451	14.322514	-0.386378	0.386377663
-3.765329	14.1777	-0.367197	0.367196604
-3.752458	14.080944	-0.354326	0.354326413
-3.751606	14.07455	-0.353474	0.353474262
-3.745661	14.02998	-0.347529	0.347529446
-3.729701	13.910673	-0.331569	0.331569426
-3.729701	13.910673	-0.331569	0.331569426
-3.688879	13.607832	-0.290747	0.290747432
-3.688879	13.607832	-0.290747	0.290747432
-3.688879	13.607832	-0.290747	0.290747432
-3.688879	13.607832	-0.290747	0.290747432
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.671433	13.479417	-0.273301	0.273300518
-3.664382	13.427695	-0.26625	0.26624996
-3.664382	13.427695	-0.26625	0.26624996
-3.649659	13.320009	-0.251527	0.251526719
-3.649659	13.320009	-0.251527	0.251526719
-3.649659	13.320009	-0.251527	0.251526719
-3.630611	13.181333	-0.232479	0.232478524
-3.6147	13.066056	-0.216568	0.216568033
-3.611918	13.045955	-0.213786	0.213786391
-3.611918	13.045955	-0.213786	0.213786391

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.607484	13.013939	-0.209352	0.209351793
-3.607115	13.01128	-0.208983	0.20898313
-3.606894	13.009684	-0.208762	0.208761997
-3.606894	13.009684	-0.208762	0.208761997
-3.597212	12.939936	-0.19908	0.199080243
-3.593569	12.91374	-0.195437	0.195437252
-3.592988	12.90956	-0.194856	0.194855603
-3.575551	12.784563	-0.177419	0.177418746
-3.575551	12.784563	-0.177419	0.177418746
-3.575551	12.784563	-0.177419	0.177418746
-3.571274	12.753999	-0.173142	0.17314219
-3.557851	12.658305	-0.159719	0.159719169
-3.557851	12.658305	-0.159719	0.159719169
-3.554349	12.633394	-0.156217	0.156216539
-3.55365	12.628425	-0.155517	0.155517482
-3.540459	12.534853	-0.142327	0.142327427
-3.540459	12.534853	-0.142327	0.142327427
-3.540459	12.534853	-0.142327	0.142327427
-3.516608	12.366533	-0.118476	0.118476211
-3.506558	12.295948	-0.108426	0.108425875
-3.506558	12.295948	-0.108426	0.108425875
-3.506558	12.295948	-0.108426	0.108425875
-3.475059	12.076037	-0.076927	0.076927208
-3.473768	12.067065	-0.075636	0.075636052
-3.473768	12.067065	-0.075636	0.075636052
-3.469905	12.040238	-0.071773	0.071772557
-3.469905	12.040238	-0.071773	0.071772557
-3.468941	12.033552	-0.070809	0.070809011
-3.457768	11.956158	-0.059636	0.059635711
-3.454598	11.934248	-0.056466	0.056466136
-3.450493	11.9059	-0.052361	0.052360651
-3.442019	11.847497	-0.043887	0.043887354
-3.442019	11.847497	-0.043887	0.043887354
-3.438276	11.821745	-0.040144	0.040144367
-3.433617	11.789728	-0.035485	0.03548525
-3.427131	11.745225	-0.028999	0.028998741
-3.42038	11.699001	-0.022248	0.022248179
-3.419769	11.694818	-0.021637	0.021636745
-3.411248	11.636611	-0.013116	0.013115695
-3.411248	11.636611	-0.013116	0.013115695
-3.39621	11.534241	0.0019222	0.001922182
-3.392634	11.509966	0.0054979	0.005497871
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.38375	11.449767	0.0143816	0.014381554
-3.369699	11.354869	0.0284333	0.028433308
-3.352407	11.238634	0.0457248	0.045724805
-3.352407	11.238634	0.0457248	0.045724805
-3.324236	11.050547	0.0738957	0.073895682
-3.31143	10.965567	0.0867022	0.086702216
-3.304434	10.919282	0.0936983	0.093698309
-3.28844	10.81384	0.1096917	0.109691734
-3.28844	10.81384	0.1096917	0.109691734
-3.285016	10.791328	0.1131164	0.113116395
-3.277565	10.742431	0.1205672	0.120567201
-3.277565	10.742431	0.1205672	0.120567201
-3.27624	10.733749	0.1218919	0.12189188
-3.270169	10.694006	0.1279629	0.127962903
-3.270169	10.694006	0.1279629	0.127962903
-3.265967	10.666543	0.1321646	0.13216459
-3.265967	10.666543	0.1321646	0.13216459
-3.262305	10.642636	0.1358266	0.13582664
-3.236531	10.475131	0.1616013	0.161601262
-3.218876	10.361162	0.1792562	0.179256198
-3.207441	10.287681	0.1906906	0.190690575
-3.201527	10.249776	0.1966048	0.196604836
-3.201527	10.249776	0.1966048	0.196604836
-3.196625	10.218413	0.2015068	0.201506807
-3.194183	10.202806	0.2039488	0.20394881
-3.194183	10.202806	0.2039488	0.20394881
-3.190531	10.17949	0.2076007	0.207600671
-3.186893	10.156286	0.2112392	0.211239243
-3.179655	10.110207	0.2184769	0.218476911
-3.177254	10.094944	0.2208779	0.220877872
-3.171038	10.055485	0.2270935	0.227093527
-3.164861	10.016347	0.2332708	0.233270786
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.160607	9.9894361	0.2375251	0.237525106
-3.15684	9.9656415	0.2412916	0.241291589
-3.147486	9.906667	0.2506462	0.250646194
-3.146555	9.9008094	0.2515769	0.251576859
-3.146555	9.9008094	0.2515769	0.251576859
-3.142378	9.8745386	0.2557542	0.255754169
-3.141915	9.8716285	0.2562172	0.256217239
-3.125385	9.7680344	0.2727465	0.272746541
-3.123566	9.7566623	0.2745664	0.274566377
-3.111817	9.6834035	0.2863153	0.28631527
-3.101093	9.6167765	0.2970392	0.297039233
-3.079114	9.4809423	0.3190181	0.31901814
-3.079114	9.4809423	0.3190181	0.31901814
-3.079114	9.4809423	0.3190181	0.31901814
-3.047278	9.2859046	0.3508538	0.350853791
-3.047026	9.2843648	0.3511065	0.351106455
-3.015935	9.0958638	0.382197	0.382197042
-3.007805	9.04689	0.3903272	0.390327168
-2.996733	8.9804073	0.4013992	0.401399249
-2.995732	8.9744119	0.4023997	0.402399749
-2.978285	8.8701837	0.4198467	0.419846663
-2.978285	8.8701837	0.4198467	0.419846663
-2.978285	8.8701837	0.4198467	0.419846663
-2.978285	8.8701837	0.4198467	0.419846663
-2.978285	8.8701837	0.4198467	0.419846663
-2.978285	8.8701837	0.4198467	0.419846663
-2.97593	8.8561573	0.4222024	0.422202376
-2.97593	8.8561573	0.4222024	0.422202376
-2.973971	8.8445022	0.4241612	0.424161241
-2.972016	8.8328776	0.4261163	0.426116276
-2.956512	8.7409606	0.4416205	0.441620462
-2.956512	8.7409606	0.4416205	0.441620462
-2.94923	8.6979602	0.4489016	0.448901583
-2.939352	8.6397898	0.4587801	0.458780082
-2.937463	8.628691	0.4606687	0.460668657
-2.922482	8.5408999	0.4756502	0.475650211
-2.918771	8.5192255	0.4793608	0.47936079
-2.913747	8.4899206	0.4843852	0.484385184

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-2.892454	8.3662897	0.5056781	0.505678098
-2.882404	8.3082504	0.5157284	0.515728434
-2.882404	8.3082504	0.5157284	0.515728434
-2.879551	8.2918112	0.5185815	0.518581503
-2.852845	8.1387234	0.5452872	0.545287236
-2.830218	8.010133	0.5679142	0.567914187
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.824135	7.9757367	0.5739973	0.573997342
-2.818758	7.9453985	0.5793737	0.579373699
-2.813411	7.9152799	0.5847213	0.584721306
-2.796881	7.8225456	0.6012506	0.601250608
-2.755142	7.5908064	0.6429902	0.642990214
-2.750123	7.5631764	0.648009	0.648009045
-2.750123	7.5631764	0.648009	0.648009045
-2.748872	7.5562983	0.6492598	0.649259827
-2.746999	7.5460032	0.6511331	0.651133071
-2.746375	7.5425774	0.6517567	0.651756707
-2.730296	7.4545152	0.6678362	0.667836212
-2.726622	7.4344653	0.6715104	0.671510436
-2.718101	7.3880705	0.6800315	0.680031486
-2.711255	7.3509055	0.6868767	0.68687669
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.690603	7.2393461	0.7075287	0.707528735
-2.674809	7.1546025	0.7233232	0.723323155
-2.626931	6.9007673	0.7712009	0.771200873
-2.617296	6.8502375	0.7808362	0.780836185
-2.6018	6.7693637	0.7963319	0.796331941
-2.57282	6.619404	0.8253118	0.825311771
-2.57282	6.619404	0.8253118	0.825311771
-2.57282	6.619404	0.8253118	0.825311771
-2.57282	6.619404	0.8253118	0.825311771
-2.57282	6.619404	0.8253118	0.825311771
-2.52403	6.3707279	0.8741019	0.874101935
-2.50838	6.2919703	0.889752	0.889752016
-2.46746	6.0883575	0.9306723	0.930672286
-2.46746	6.0883575	0.9306723	0.930672286
-2.46746	6.0883575	0.9306723	0.930672286

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-2.46746	6.0883575	0.9306723	0.930672286
-2.46746	6.0883575	0.9306723	0.930672286
-2.46746	6.0883575	0.9306723	0.930672286
-2.46746	6.0883575	0.9306723	0.930672286
-2.375156	5.641365	1.0229762	1.022976237
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.37215	5.6270935	1.0259825	1.025982466
-2.309006	5.3315071	1.0891264	1.089126362
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.285138	5.2218565	1.1129938	1.112993843
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.205095	4.862446	1.1930366	1.193036551
-2.189828	4.7953467	1.208304	1.208304023
-2.189792	4.7951902	1.2083398	1.208339757
-2.130987	4.5411077	1.2671445	1.267144523
-2.130987	4.5411077	1.2671445	1.267144523
-2.130987	4.5411077	1.2671445	1.267144523
-2.130987	4.5411077	1.2671445	1.267144523
-2.130987	4.5411077	1.2671445	1.267144523
-2.095571	4.3914175	1.3025611	1.302561099
-2.075418	4.3073584	1.3227144	1.322714374
-2.061995	4.2518218	1.3361374	1.336137394
-2.061995	4.2518218	1.3361374	1.336137394
-2.024953	4.1004361	1.3731787	1.373178666
-1.997456	3.9898309	1.4006759	1.400675916
-1.997456	3.9898309	1.4006759	1.400675916
-1.997456	3.9898309	1.4006759	1.400675916
-1.997456	3.9898309	1.4006759	1.400675916
-1.964971	3.8611097	1.4331614	1.433161371
-1.958995	3.8376629	1.4391366	1.439136634
-1.936831	3.7513162	1.4613005	1.461300537
-1.936831	3.7513162	1.4613005	1.461300537

Table 119. Uranium Combined Upgradient Background Data Set, Geary's Test Analysis (continued)

Uranium - lognormal data			
Xi	Xi^2	Xi-Mean	abs(Xi-mean)
-1.936831	3.7513162	1.4613005	1.461300537
-1.936831	3.7513162	1.4613005	1.461300537
-1.936831	3.7513162	1.4613005	1.461300537
-1.924149	3.7023481	1.4739834	1.473983365
-1.917323	3.6761263	1.4808093	1.48080933
-1.917323	3.6761263	1.4808093	1.48080933
-1.910543	3.6501746	1.487589	1.487589017
-1.879673	3.5331709	1.518459	1.518458951
-1.873403	3.5096405	1.5247286	1.524728564
-1.86433	3.475727	1.5338019	1.53380186
-1.825606	3.3328367	1.5725262	1.572526172
-1.825482	3.3323835	1.5726503	1.572650296
-1.820159	3.3129786	1.5779731	1.577973079
-1.814005	3.2906144	1.5841269	1.584126944
-1.807889	3.2684621	1.5902432	1.590243171
-1.807889	3.2684621	1.5902432	1.590243171
-1.795767	3.2247809	1.6023645	1.602364532
-1.774313	3.148185	1.6238195	1.623819467
-1.774313	3.148185	1.6238195	1.623819467
-1.742969	3.037942	1.6551627	1.655162717
-1.740458	3.0291947	1.6576738	1.657673848
-1.725522	2.9774275	1.6726096	1.672609631
-1.703749	2.9027593	1.6943834	1.694383431
-1.703749	2.9027593	1.6943834	1.694383431
-1.69282	2.8656379	1.7053125	1.705312501
-1.687399	2.8473169	1.7107326	1.710732569
-1.681471	2.8273451	1.7166609	1.716660907
-1.671313	2.7932882	1.7268187	1.726818706
-1.65026	2.7233578	1.7478721	1.747872116
-1.591991	2.5344353	1.806141	1.806141024
-1.159127	1.3435752	2.2390051	2.239005106
-0.327394	0.1071866	3.0707384	3.07073845

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis

Uranium	Normal (xi-avg)^3
0.001	-0.000143693
0.0013	-0.000141238
0.003	-0.000127853
0.003392	-0.000124892
0.003816	-0.000121741
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.00424	-0.000118643
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.005	-0.000113223
0.0062	-0.000105004
0.00636	-0.00010394
0.0065	-0.000103014
0.007	-9.97527E-05
0.008	-9.34382E-05
0.00812	-9.26988E-05
0.0083	-9.15972E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05

	Normal
standard deviation =	0.05779
mean =	0.053
count =	408
sum of (xi-avg)^3 =	0.3622093
1/n =	0.002451
standard deviation cubed =	0.000193
((n-1)/n)^(3/2) =	0.9963258
coef. of skewness =	4.6
acceptable range -1 to 1	**Fail**

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.00848	-9.05043E-05
0.009	-8.73959E-05
0.00912	-8.66889E-05
0.00962	-8.37838E-05
0.01	-8.162E-05
0.01017	-8.06641E-05
0.0106	-7.82797E-05
0.01112	-7.54596E-05
0.01212	-7.02282E-05
0.012676	-6.74271E-05
0.014	-6.10587E-05
0.014	-6.10587E-05
0.0142	-6.0133E-05
0.01424	-5.99491E-05
0.01462	-5.82198E-05
0.01474	-5.76807E-05
0.01522	-5.55575E-05
0.01545	-5.45589E-05
0.01572	-5.3402E-05
0.016	-5.22197E-05
0.01683	-4.88176E-05
0.01693	-4.8418E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01696	-4.82985E-05
0.01748	-4.6259E-05
0.0175	-4.61817E-05
0.0178	-4.50329E-05
0.018	-4.42777E-05
0.018	-4.42777E-05
0.01848	-4.24998E-05
0.019	-4.06281E-05
0.01908	-4.03451E-05
0.0197	-3.81965E-05
0.02	-3.71848E-05

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.02	-3.71848E-05
0.021	-3.39417E-05
0.021624	-3.20168E-05
0.0219893	-3.09244E-05
0.022	-3.08929E-05
0.02272	-2.88147E-05
0.02316	-2.75918E-05
0.02346	-2.67781E-05
0.02348	-2.67244E-05
0.02362	-2.63508E-05
0.024	-2.53541E-05
0.024	-2.53541E-05
0.025	-2.28521E-05
0.025	-2.28521E-05
0.025	-2.28521E-05
0.025	-2.28521E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02544	-2.18055E-05
0.02562	-2.13868E-05
0.02562	-2.13868E-05
0.026	-2.05204E-05
0.026	-2.05204E-05
0.026	-2.05204E-05
0.0265	-1.94165E-05
0.026925	-1.85099E-05
0.027	-1.83529E-05
0.027	-1.83529E-05
0.02712	-1.81036E-05
0.02713	-1.80829E-05
0.027136	-1.80705E-05
0.027136	-1.80705E-05
0.0274	-1.75306E-05
0.0275	-1.73289E-05
0.027516	-1.72968E-05
0.028	-1.63437E-05
0.028	-1.63437E-05
0.028	-1.63437E-05
0.02812	-1.6113E-05
0.0285	-1.53966E-05
0.0285	-1.53966E-05
0.0286	-1.52117E-05

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.02862	-1.51749E-05
0.029	-1.44868E-05
0.029	-1.44868E-05
0.029	-1.44868E-05
0.0297	-1.32743E-05
0.03	-1.27761E-05
0.03	-1.27761E-05
0.03	-1.27761E-05
0.03096	-1.12659E-05
0.031	-1.12057E-05
0.031	-1.12057E-05
0.03112	-1.10264E-05
0.03112	-1.10264E-05
0.03115	-1.09819E-05
0.0315	-1.04713E-05
0.0316	-1.03283E-05
0.03173	-1.01445E-05
0.032	-9.76959E-06
0.032	-9.76959E-06
0.03212	-9.60599E-06
0.03227	-9.40408E-06
0.03248	-9.12617E-06
0.0327	-8.84097E-06
0.03272	-8.81534E-06
0.033	-8.46172E-06
0.033	-8.46172E-06
0.0335	-7.85401E-06
0.03362	-7.71262E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.03392	-7.3666E-06
0.0344	-6.83476E-06
0.035	-6.20677E-06
0.035	-6.20677E-06
0.036	-5.2477E-06
0.036464	-4.83846E-06
0.03672	-4.62207E-06
0.037312	-4.14658E-06
0.037312	-4.14658E-06
0.03744	-4.04826E-06

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.03772	-3.83862E-06
0.03772	-3.83862E-06
0.03777	-3.80196E-06
0.038	-3.63634E-06
0.038	-3.63634E-06
0.03816	-3.52402E-06
0.03816	-3.52402E-06
0.0383	-3.42765E-06
0.0393	-2.78988E-06
0.04	-2.39405E-06
0.04046	-2.15548E-06
0.0407	-2.03756E-06
0.0407	-2.03756E-06
0.0409	-1.94264E-06
0.041	-1.89631E-06
0.041	-1.89631E-06
0.04115	-1.8282E-06
0.0413	-1.76174E-06
0.0416	-1.63369E-06
0.0417	-1.59243E-06
0.04196	-1.48841E-06
0.04222	-1.38903E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.0424	-1.32288E-06
0.04256	-1.26588E-06
0.04296	-1.13058E-06
0.043	-1.11761E-06
0.043	-1.11761E-06
0.04318	-1.06046E-06
0.0432	-1.05423E-06
0.04392	-8.45944E-07
0.044	-8.24658E-07
0.04452	-6.9494E-07
0.045	-5.87973E-07
0.046	-4.01554E-07
0.046	-4.01554E-07
0.046	-4.01554E-07
0.047488	-2.04294E-07
0.0475	-2.03048E-07
0.049	-8.38892E-08

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.0494	-6.29304E-08
0.04995	-4.02687E-08
0.05	-3.8532E-08
0.05088	-1.55799E-08
0.05088	-1.55799E-08
0.05088	-1.55799E-08
0.05088	-1.55799E-08
0.05088	-1.55799E-08
0.05088	-1.55799E-08
0.051	-1.34404E-08
0.051	-1.34404E-08
0.0511	-1.18148E-08
0.0512	-1.03259E-08
0.052	-2.61434E-09
0.052	-2.61434E-09
0.05238	-9.92794E-10
0.0529	-1.08936E-10
0.053	-5.38356E-11
0.0538	7.53695E-11
0.054	2.41115E-10
0.054272	7.15495E-10
0.05544	8.7725E-09
0.056	1.80344E-08
0.056	1.80344E-08
0.05616	2.15408E-08
0.05768	7.96406E-08
0.059	1.77733E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05936	2.14106E-07
0.05968	2.50334E-07
0.06	2.90434E-07
0.061	4.4287E-07
0.0636	1.06822E-06
0.06392	1.17171E-06
0.06392	1.17171E-06
0.064	1.19859E-06
0.06412	1.23967E-06
0.06416	1.25357E-06
0.0652	1.65241E-06
0.06544	1.7551E-06
0.066	2.01107E-06
0.0664533	2.23562E-06
0.06784	3.02498E-06
0.06784	3.02498E-06
0.06784	3.02498E-06
0.06784	3.02498E-06
0.06784	3.02498E-06
0.06784	3.02498E-06

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.06784	3.02498E-06
0.06892	3.75452E-06
0.0723	6.77531E-06
0.073	7.55539E-06
0.07414	8.95021E-06
0.07632	1.20758E-05
0.07632	1.20758E-05
0.07632	1.20758E-05
0.07632	1.20758E-05
0.07632	1.20758E-05
0.080136	1.91594E-05
0.0814	2.20047E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.0848	3.10255E-05
0.093	6.22046E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09328	6.35327E-05
0.09936	9.72244E-05
0.10176	0.000113256
0.10176	0.000113256
0.10176	0.000113256
0.10176	0.000113256
0.10176	0.000113256
0.10176	0.000113256
0.10176	0.000113256
0.11024	0.000183855
0.11024	0.000183855
0.11024	0.000183855
0.11024	0.000183855
0.11024	0.000183855
0.11024	0.000183855
0.11024	0.000183855
0.111936	0.000200802
0.11194	0.000200843
0.11872	0.000278988
0.11872	0.000278988
0.11872	0.000278988
0.11872	0.000278988
0.11872	0.000278988
0.123	0.000337479
0.125504	0.000375217
0.1272	0.000402314
0.1272	0.000402314

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Normal (xi-avg)^3
0.132	0.000486003
0.13568	0.000557491
0.13568	0.000557491
0.13568	0.000557491
0.13568	0.000557491
0.14016	0.000653574
0.141	0.000672737
0.14416	0.000748178
0.14416	0.000748178
0.14416	0.000748178
0.14416	0.000748178
0.14416	0.000748178
0.146	0.000794599
0.147	0.000820615
0.147	0.000820615
0.148	0.000847192
0.15264	0.000978035
0.1536	0.001006687
0.155	0.001049466
0.16112	0.00125072
0.16114	0.001251416
0.162	0.001281617
0.163	0.00131734
0.164	0.001353721
0.164	0.001353721
0.166	0.001428481
0.1696	0.001569891
0.1696	0.001569891
0.175	0.00179904
0.17544	0.001818636
0.17808	0.001939209
0.182	0.002127894
0.182	0.002127894
0.184	0.002228707
0.185	0.002280287
0.1861	0.002337937
0.188	0.002439788
0.192	0.002663792
0.20352	0.003384622
0.31376	0.017653666
0.7208	0.297305094

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-6.907755	-43.22962794
-6.645391	-34.24134254
-5.809143	-14.0151438
-5.686336	-11.9807487
-5.568553	-10.22425447
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.463192	-8.806392045
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.298317	-6.861007472
-5.083206	-4.784724158
-5.057727	-4.570947764
-5.035953	-4.393386076
-4.961845	-3.82358923
-4.828314	-2.925321908
-4.813425	-2.83490931
-4.7915	-2.705186774
-4.770045	-2.582138486
-4.770045	-2.582138486

Lognormal	
standard deviation =	1.0470545
mean =	-3.398
count =	408
sum of (xi-avg)^3 =	-223.404
1/n =	0.002451
standard deviation cubed =	1.14791
((n-1)/n)^(3/2) =	0.9963258
coef. of skewness =	-0.5
acceptable range -1 to 1	Pass

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.770045	-2.582138486
-4.710531	-2.260462746
-4.697285	-2.192710798
-4.643911	-1.933405762
-4.60517	-1.758583544
-4.588313	-1.685928257
-4.546901	-1.515997245
-4.49901	-1.334189567
-4.412898	-1.044956176
-4.368045	-0.912426924
-4.268698	-0.659788886
-4.268698	-0.659788886
-4.254513	-0.628060548
-4.2517	-0.621891915
-4.225365	-0.566087078
-4.21719	-0.549470724
-4.185145	-0.487467381
-4.170146	-0.460125132
-4.152821	-0.429838063
-4.135167	-0.400371829
-4.084592	-0.323479065
-4.078668	-0.315176209
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.076898	-0.312722783
-4.046698	-0.272811268
-4.045554	-0.2713708
-4.028557	-0.25055315
-4.017384	-0.23746587
-4.017384	-0.23746587
-3.991066	-0.208458439
-3.963316	-0.18053866
-3.959115	-0.176542044
-3.927137	-0.148039768
-3.912023	-0.135710357

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-3.912023	-0.135710357
-3.863233	-0.100610038
-3.833951	-0.082778932
-3.817198	-0.073594704
-3.816713	-0.073339496
-3.78451	-0.057681432
-3.765329	-0.049510347
-3.752458	-0.044484692
-3.751606	-0.044164507
-3.745661	-0.041973465
-3.729701	-0.036452174
-3.729701	-0.036452174
-3.688879	-0.024578063
-3.688879	-0.024578063
-3.688879	-0.024578063
-3.688879	-0.024578063
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.671433	-0.020413683
-3.664382	-0.018874204
-3.664382	-0.018874204
-3.649659	-0.015913011
-3.649659	-0.015913011
-3.649659	-0.015913011
-3.630611	-0.012564596
-3.6147	-0.010157412
-3.611918	-0.009771026
-3.611918	-0.009771026
-3.607484	-0.009175507
-3.607115	-0.009127118
-3.606894	-0.009098176
-3.606894	-0.009098176
-3.597212	-0.007890136
-3.593569	-0.007464866
-3.592988	-0.007398415
-3.575551	-0.005584683
-3.575551	-0.005584683
-3.575551	-0.005584683
-3.571274	-0.005190494
-3.557851	-0.00407447
-3.557851	-0.00407447
-3.554349	-0.003812247

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-3.55365	-0.003761297
-3.540459	-0.00288314
-3.540459	-0.00288314
-3.540459	-0.00288314
-3.516608	-0.001663005
-3.506558	-0.001274673
-3.506558	-0.001274673
-3.506558	-0.001274673
-3.475059	-0.000455239
-3.473768	-0.0004327
-3.473768	-0.0004327
-3.469905	-0.000369722
-3.469905	-0.000369722
-3.468941	-0.00035503
-3.457768	-0.00021209
-3.454598	-0.000180038
-3.450493	-0.000143554
-3.442019	-8.45314E-05
-3.442019	-8.45314E-05
-3.438276	-6.46955E-05
-3.433617	-4.46831E-05
-3.427131	-2.43858E-05
-3.42038	-1.10124E-05
-3.419769	-1.01292E-05
-3.411248	-2.25618E-06
-3.411248	-2.25618E-06
-3.39621	7.10205E-09
-3.392634	1.66182E-07
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.38375	2.97452E-06
-3.369699	2.2987E-05
-3.352407	9.55995E-05
-3.352407	9.55995E-05
-3.324236	0.000403513
-3.31143	0.000651764
-3.304434	0.000822612
-3.28844	0.001319841
-3.28844	0.001319841
-3.285016	0.00144736

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-3.277565	0.001752619
-3.277565	0.001752619
-3.27624	0.001811025
-3.270169	0.002095329
-3.270169	0.002095329
-3.265967	0.002308582
-3.265967	0.002308582
-3.262305	0.002505849
-3.236531	0.004220212
-3.218876	0.005760001
-3.207441	0.006934061
-3.201527	0.007599457
-3.201527	0.007599457
-3.196625	0.008182182
-3.194183	0.008483275
-3.194183	0.008483275
-3.190531	0.008947182
-3.186893	0.009425921
-3.179655	0.010428375
-3.177254	0.010775976
-3.171038	0.011711547
-3.164861	0.01269349
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.160607	0.013400733
-3.15684	0.01404839
-3.147486	0.015746475
-3.146555	0.01592253
-3.146555	0.01592253
-3.142378	0.01672893
-3.141915	0.016819963
-3.125385	0.020289799
-3.123566	0.020698652
-3.111817	0.023471105
-3.101093	0.026208457
-3.079114	0.032467297
-3.079114	0.032467297
-3.079114	0.032467297
-3.047278	0.043189534
-3.047026	0.043282909
-3.015935	0.055829272

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-3.007805	0.059468412
-2.996733	0.064673992
-2.995732	0.065158804
-2.978285	0.074006883
-2.978285	0.074006883
-2.978285	0.074006883
-2.978285	0.074006883
-2.978285	0.074006883
-2.978285	0.074006883
-2.97593	0.07525962
-2.97593	0.07525962
-2.973971	0.076312019
-2.972016	0.077372097
-2.956512	0.086128635
-2.956512	0.086128635
-2.94923	0.090459339
-2.939352	0.096563648
-2.937463	0.097761081
-2.922482	0.107612589
-2.918771	0.110150766
-2.913747	0.113650814
-2.892454	0.129307118
-2.882404	0.137171292
-2.882404	0.137171292
-2.879551	0.139460451
-2.852845	0.162134709
-2.830218	0.183167389
-2.824135	0.189116597
-2.824135	0.189116597
-2.824135	0.189116597
-2.824135	0.189116597
-2.824135	0.189116597
-2.824135	0.189116597
-2.824135	0.189116597
-2.818758	0.19448062
-2.813411	0.199915633
-2.796881	0.217353473
-2.755142	0.265835569
-2.750123	0.272109186
-2.750123	0.272109186
-2.748872	0.273687898
-2.746999	0.276063673
-2.746375	0.276857649
-2.730296	0.297858428
-2.726622	0.302801693
-2.718101	0.314475679
-2.711255	0.324068139
-2.690603	0.354186699
-2.690603	0.354186699
-2.690603	0.354186699
-2.690603	0.354186699
-2.690603	0.354186699
-2.690603	0.354186699

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-2.690603	0.354186699
-2.674809	0.378440061
-2.626931	0.458672325
-2.617296	0.476079841
-2.6018	0.504989569
-2.57282	0.562152462
-2.57282	0.562152462
-2.57282	0.562152462
-2.57282	0.562152462
-2.57282	0.562152462
-2.52403	0.667861248
-2.50838	0.704379881
-2.46746	0.806102642
-2.46746	0.806102642
-2.46746	0.806102642
-2.46746	0.806102642
-2.46746	0.806102642
-2.46746	0.806102642
-2.46746	0.806102642
-2.375156	1.070524562
-2.37215	1.079990204
-2.37215	1.079990204
-2.37215	1.079990204
-2.37215	1.079990204
-2.37215	1.079990204
-2.37215	1.079990204
-2.37215	1.079990204
-2.309006	1.291917586
-2.285138	1.378727016
-2.285138	1.378727016
-2.285138	1.378727016
-2.285138	1.378727016
-2.285138	1.378727016
-2.285138	1.378727016
-2.285138	1.378727016
-2.205095	1.698092124
-2.205095	1.698092124
-2.205095	1.698092124
-2.205095	1.698092124
-2.205095	1.698092124
-2.205095	1.698092124
-2.205095	1.698092124
-2.189828	1.764122196
-2.189792	1.764278716
-2.130987	2.034597245
-2.130987	2.034597245
-2.130987	2.034597245
-2.130987	2.034597245
-2.130987	2.034597245
-2.095571	2.210010369
-2.075418	2.314185773
-2.061995	2.385356836
-2.061995	2.385356836

Table 120. Uranium Combined Upgradient Background Data Set, Coefficient of Skewness Analysis (continued)

Uranium	Lognormal (xi-avg)^3
-2.024953	2.589292674
-1.997456	2.747976302
-1.997456	2.747976302
-1.997456	2.747976302
-1.997456	2.747976302
-1.964971	2.943643968
-1.958995	2.980616391
-1.936831	3.120460087
-1.936831	3.120460087
-1.936831	3.120460087
-1.936831	3.120460087
-1.936831	3.120460087
-1.924149	3.202415999
-1.917323	3.24711318
-1.917323	3.24711318
-1.910543	3.291917101
-1.879673	3.501137508
-1.873403	3.544684688
-1.86433	3.608342724
-1.825606	3.888603361
-1.825482	3.889524244
-1.820159	3.929151447
-1.814005	3.975300312
-1.807889	4.021523566
-1.807889	4.021523566
-1.795767	4.114186455
-1.774313	4.281670381
-1.774313	4.281670381
-1.742969	4.534423568
-1.740458	4.555093097
-1.725522	4.679331136
-1.703749	4.86446505
-1.703749	4.86446505
-1.69282	4.95920347
-1.687399	5.006640065
-1.681471	5.058870377
-1.671313	5.149205612
-1.65026	5.339848823
-1.591991	5.891894627
-1.159127	11.22445471
-0.327394	28.95532747

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.001	1	0.002445	-2.814195	-0.002814195	7.9196929
0.0013	2	0.00489	-2.583511	-0.003358564	6.6745273
0.003	3	0.007335	-2.440429	-0.007321287	5.9556934
0.003392	4	0.00978	-2.334673	-0.00791921	5.4506975
0.003816	5	0.0122249	-2.249981	-0.008585927	5.0624134
0.00424	6	0.0146699	-2.178895	-0.009238513	4.7475819
0.00424	7	0.0171149	-2.117358	-0.008977599	4.4832059
0.00424	8	0.0195599	-2.062925	-0.008746802	4.2556595
0.00424	9	0.0220049	-2.013994	-0.008539335	4.0561725
0.00424	10	0.0244499	-1.969465	-0.008350533	3.8787936
0.00424	11	0.0268949	-1.928529	-0.008176963	3.7192239
0.00424	12	0.0293399	-1.890585	-0.00801608	3.574311
0.00424	13	0.0317848	-1.855187	-0.007865994	3.4417199
0.00424	14	0.0342298	-1.821968	-0.007725144	3.3195674
0.00424	15	0.0366748	-1.79065	-0.007592354	3.2064258
0.00424	16	0.0391198	-1.760991	-0.007466602	3.101089
0.00424	17	0.0415648	-1.732806	-0.007347096	3.0026155
0.00424	18	0.0440098	-1.705939	-0.007233182	2.9102286
0.00424	19	0.0464548	-1.680246	-0.007124243	2.8232266
0.00424	20	0.0488998	-1.655617	-0.007019816	2.7410672
0.00424	21	0.0513447	-1.631952	-0.006919476	2.6632667
0.00424	22	0.0537897	-1.609169	-0.006822876	2.5894248
0.00424	23	0.0562347	-1.587191	-0.00672969	2.5191754
0.00424	24	0.0586797	-1.565954	-0.006639646	2.452213
0.00424	25	0.0611247	-1.5454	-0.006552495	2.3882604
0.00424	26	0.0635697	-1.525482	-0.006468043	2.3270948
0.00424	27	0.0660147	-1.506146	-0.006386059	2.2684757
0.00424	28	0.0684597	-1.48736	-0.006306408	2.2122408
0.005	29	0.0709046	-1.469089	-0.007345443	2.1582213
0.005	30	0.0733496	-1.45129	-0.007256449	2.1062421
0.005	31	0.0757946	-1.433941	-0.007169706	2.0561873
0.005	32	0.0782396	-1.417013	-0.007085066	2.0079264
0.005	33	0.0806846	-1.400481	-0.007002404	1.9613467
0.005	34	0.0831296	-1.384324	-0.006921618	1.9163521
0.005	35	0.0855746	-1.368521	-0.006842606	1.8728503
0.005	36	0.0880196	-1.353051	-0.006765254	1.8307463
0.005	37	0.0904645	-1.337899	-0.006689493	1.7899725
0.005	38	0.0929095	-1.323051	-0.006615255	1.750464
0.005	39	0.0953545	-1.308485	-0.006542427	1.7121343
0.005	40	0.0977995	-1.294193	-0.006470964	1.6749349
0.0062	41	0.1002445	-1.280159	-0.007936987	1.6388078
0.00636	42	0.1026895	-1.266376	-0.008054151	1.6037079
0.0065	43	0.1051345	-1.252827	-0.008143373	1.5695747
0.007	44	0.1075795	-1.239505	-0.008676534	1.5363723
0.008	45	0.1100244	-1.226399	-0.009811192	1.5040546
0.00812	46	0.1124694	-1.2135	-0.009853621	1.4725826
0.0083	47	0.1149144	-1.200801	-0.009966651	1.4419238
0.00848	48	0.1173594	-1.188291	-0.010076709	1.412036
0.00848	49	0.1198044	-1.175965	-0.009972186	1.3828943
0.00848	50	0.1222494	-1.163817	-0.009869166	1.3544693
0.00848	51	0.1246944	-1.151836	-0.009767573	1.3267271
0.00848	52	0.1271394	-1.14002	-0.009667368	1.2996451
0.00848	53	0.1295844	-1.128358	-0.009568474	1.2731913
0.00848	54	0.1320293	-1.11685	-0.009470891	1.2473548
0.00848	55	0.1344743	-1.105486	-0.009374524	1.2220999
0.00848	56	0.1369193	-1.094265	-0.00927937	1.1974167
0.00848	57	0.1393643	-1.083181	-0.009185374	1.1732809
0.00848	58	0.1418093	-1.072225	-0.009092477	1.1496687
0.00848	59	0.1442543	-1.061399	-0.009000659	1.1265668

Uranium - normal
359.78793 = (sum of Mi*Xi)^2
407 = count -1
0.0033397 = standard deviation ^2
397.70301 = sum of Mi^2

0.67 = W statistic

FAIL

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.00848	60	0.1466993	-1.050696	-0.008909902	1.1039621
0.00848	61	0.1491443	-1.040112	-0.008820148	1.0818325
0.00848	62	0.1515892	-1.029641	-0.008731358	1.0601611
0.009	63	0.1540342	-1.019284	-0.009173559	1.0389406
0.00912	64	0.1564792	-1.009034	-0.009202393	1.0181503
0.00962	65	0.1589242	-0.998889	-0.009609312	0.9977791
0.01	66	0.1613692	-0.988846	-0.009888458	0.9778161
0.01017	67	0.1638142	-0.978903	-0.009955441	0.9582507
0.0106	68	0.1662592	-0.969053	-0.010271961	0.9390636
0.01112	69	0.1687042	-0.959299	-0.010667401	0.9202539
0.01212	70	0.1711491	-0.949633	-0.011509552	0.9018028
0.012676	71	0.1735941	-0.940056	-0.01191615	0.8837053
0.014	72	0.1760391	-0.930565	-0.013027916	0.865952
0.014	73	0.1784841	-0.921157	-0.012896194	0.8485297
0.0142	74	0.1809291	-0.91183	-0.012947984	0.8314336
0.01424	75	0.1833741	-0.90258	-0.012852743	0.8146511
0.01462	76	0.1858191	-0.893408	-0.013061625	0.7981779
0.01474	77	0.1882641	-0.884311	-0.013034741	0.7820056
0.01522	78	0.190709	-0.875286	-0.013321858	0.7661262
0.01545	79	0.193154	-0.866332	-0.013384835	0.7505318
0.01572	80	0.195599	-0.857447	-0.01347906	0.7352147
0.016	81	0.198044	-0.848629	-0.013578065	0.7201713
0.01683	82	0.200489	-0.839875	-0.014135099	0.7053903
0.01693	83	0.202934	-0.831187	-0.014071999	0.6908722
0.01696	84	0.205379	-0.822561	-0.013950629	0.676606
0.01696	85	0.207824	-0.813995	-0.013805363	0.6625886
0.01696	86	0.2102689	-0.805487	-0.013661062	0.6488096
0.01696	87	0.2127139	-0.79704	-0.013517802	0.6352731
0.01696	88	0.2151589	-0.788648	-0.013375468	0.6219655
0.01696	89	0.2176039	-0.78031	-0.013234059	0.6088838
0.01696	90	0.2200489	-0.772027	-0.013093575	0.5960255
0.01696	91	0.2224939	-0.763798	-0.012954017	0.5833877
0.01696	92	0.2249389	-0.75562	-0.012815308	0.5709609
0.01748	93	0.2273839	-0.74749	-0.013066122	0.558741
0.0175	94	0.2298289	-0.73941	-0.012939677	0.5467273
0.0178	95	0.2322738	-0.731379	-0.013018551	0.5349156
0.018	96	0.2347188	-0.723394	-0.01302109	0.5232987
0.018	97	0.2371638	-0.715455	-0.012878193	0.5118761
0.01848	98	0.2396088	-0.707562	-0.013075743	0.5006438
0.019	99	0.2420538	-0.699711	-0.013294502	0.489595
0.01908	100	0.2444988	-0.691904	-0.013201524	0.4787308
0.0197	101	0.2469438	-0.684138	-0.013477515	0.4680446
0.02	102	0.2493888	-0.676414	-0.013528279	0.4575358
0.02	103	0.2518337	-0.668731	-0.01337462	0.4472011
0.021	104	0.2542787	-0.661084	-0.013882773	0.4370326
0.021624	105	0.2567237	-0.653479	-0.014130825	0.4270345
0.0219893	106	0.2591687	-0.645909	-0.014203119	0.4171991
0.022	107	0.2616137	-0.638379	-0.014044335	0.4075276
0.02272	108	0.2640587	-0.630882	-0.014333647	0.3980126
0.02316	109	0.2665037	-0.623422	-0.014438459	0.3886553
0.02346	110	0.2689487	-0.615996	-0.014451271	0.3794513
0.02348	111	0.2713936	-0.608603	-0.014290002	0.3703978
0.02362	112	0.2738386	-0.601244	-0.014201388	0.3614946
0.024	113	0.2762836	-0.593918	-0.014254038	0.3527389
0.024	114	0.2787286	-0.586622	-0.014078923	0.3441251
0.025	115	0.2811736	-0.579358	-0.014483959	0.3356561
0.025	116	0.2836186	-0.572124	-0.014303112	0.3273264
0.025	117	0.2860636	-0.564921	-0.014123032	0.319136
0.025	118	0.2885086	-0.557748	-0.013943691	0.3110824

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.02544	119	0.2909535	-0.550601	-0.014007296	0.3031618
0.02544	120	0.2933985	-0.543483	-0.013826216	0.2953741
0.02544	121	0.2958435	-0.536393	-0.01364583	0.2877171
0.02544	122	0.2982885	-0.529329	-0.013466138	0.2801895
0.02544	123	0.3007335	-0.522292	-0.013287111	0.2727891
0.02544	124	0.3031785	-0.515281	-0.01310875	0.2655146
0.02544	125	0.3056235	-0.508294	-0.012930996	0.2583626
0.02544	126	0.3080685	-0.501333	-0.012753907	0.2513346
0.02544	127	0.3105134	-0.494396	-0.012577425	0.244427
0.02544	128	0.3129584	-0.487482	-0.012401551	0.237639
0.02544	129	0.3154034	-0.480592	-0.012226255	0.2309685
0.02544	130	0.3178484	-0.473724	-0.012051537	0.2244144
0.02544	131	0.3202934	-0.466878	-0.01187737	0.2179748
0.02544	132	0.3227384	-0.460054	-0.01170378	0.2116499
0.02562	133	0.3251834	-0.453254	-0.011612355	0.2054387
0.02562	134	0.3276284	-0.446471	-0.011438586	0.1993363
0.026	135	0.3300733	-0.439711	-0.011432489	0.1933459
0.026	136	0.3325183	-0.43297	-0.011257207	0.1874626
0.026	137	0.3349633	-0.426248	-0.011082457	0.1816876
0.0265	138	0.3374083	-0.419546	-0.011117982	0.1760193
0.026925	139	0.3398533	-0.412863	-0.011116332	0.1704557
0.027	140	0.3422983	-0.406199	-0.01096736	0.1649972
0.027	141	0.3447433	-0.399552	-0.010787915	0.1596421
0.02712	142	0.3471883	-0.392922	-0.010656049	0.1543878
0.02713	143	0.3496333	-0.38631	-0.010480594	0.1492355
0.027136	144	0.3520782	-0.379716	-0.010303982	0.1441845
0.027136	145	0.3545232	-0.373137	-0.010125453	0.1392314
0.0274	146	0.3569682	-0.366574	-0.010044131	0.1343766
0.0275	147	0.3594132	-0.360028	-0.009900771	0.1296202
0.027516	148	0.3618582	-0.353497	-0.009726816	0.1249599
0.028	149	0.3643032	-0.34698	-0.009715445	0.1203953
0.028	150	0.3667482	-0.340478	-0.009533396	0.1159256
0.028	151	0.3691932	-0.333991	-0.009351761	0.1115503
0.02812	152	0.3716381	-0.327518	-0.00920981	0.1072681
0.0285	153	0.3740831	-0.321058	-0.009150166	0.1030785
0.0285	154	0.3765281	-0.314612	-0.008966454	0.098981
0.0286	155	0.3789731	-0.308179	-0.008813916	0.0949742
0.02862	156	0.3814181	-0.301759	-0.008636342	0.0910585
0.029	157	0.3838631	-0.29535	-0.008565163	0.0872319
0.029	158	0.3863081	-0.288954	-0.008379678	0.0834947
0.029	159	0.3887531	-0.282571	-0.008194556	0.0798463
0.0297	160	0.391198	-0.276198	-0.008203069	0.0762851
0.03	161	0.393643	-0.269837	-0.008095105	0.0728119
0.03	162	0.396088	-0.263486	-0.007904589	0.069425
0.03	163	0.398533	-0.257146	-0.00771438	0.0661241
0.03096	164	0.400978	-0.250816	-0.00776526	0.0629086
0.031	165	0.403423	-0.244497	-0.007579413	0.0597789
0.031	166	0.405868	-0.238188	-0.007383815	0.0567333
0.03112	167	0.408313	-0.231887	-0.007216325	0.0537716
0.03112	168	0.4107579	-0.225596	-0.007020535	0.0508934
0.03115	169	0.4132029	-0.219313	-0.006831609	0.0480983
0.0315	170	0.4156479	-0.21304	-0.006710761	0.0453861
0.0316	171	0.4180929	-0.206775	-0.006534082	0.0427558
0.03173	172	0.4205379	-0.200517	-0.006362418	0.0402072
0.032	173	0.4229829	-0.194268	-0.006216578	0.0377401
0.032	174	0.4254279	-0.188027	-0.006016853	0.035354
0.03212	175	0.4278729	-0.181792	-0.005839161	0.0330484
0.03227	176	0.4303178	-0.175564	-0.00566546	0.0308228
0.03248	177	0.4327628	-0.169345	-0.005500309	0.0286776

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.0327	178	0.4352078	-0.16313	-0.005334363	0.0266115
0.03272	179	0.4376528	-0.156923	-0.005134523	0.0246249
0.033	180	0.4400978	-0.150721	-0.004973808	0.022717
0.033	181	0.4425428	-0.144526	-0.004769342	0.0208876
0.0335	182	0.4449878	-0.138335	-0.004634232	0.0191366
0.03362	183	0.4474328	-0.13215	-0.004442869	0.0174635
0.03392	184	0.4498778	-0.12597	-0.004272888	0.0158683
0.03392	185	0.4523227	-0.119795	-0.004063454	0.0143509
0.03392	186	0.4547677	-0.113624	-0.003854137	0.0129105
0.03392	187	0.4572127	-0.107458	-0.003644973	0.0115472
0.03392	188	0.4596577	-0.101296	-0.003435964	0.0102609
0.03392	189	0.4621027	-0.095138	-0.003227071	0.0090512
0.03392	190	0.4645477	-0.088983	-0.003018293	0.0079179
0.03392	191	0.4669927	-0.082832	-0.002809669	0.0068612
0.03392	192	0.4694377	-0.076684	-0.002601123	0.0058804
0.03392	193	0.4718826	-0.070538	-0.002392654	0.0049756
0.03392	194	0.4743276	-0.064396	-0.0021843	0.0041468
0.03392	195	0.4767726	-0.058255	-0.001976023	0.0033937
0.03392	196	0.4792176	-0.052117	-0.001767824	0.0027162
0.03392	197	0.4816626	-0.045982	-0.001559702	0.0021143
0.03392	198	0.4841076	-0.039847	-0.001351618	0.0015878
0.03392	199	0.4865526	-0.033714	-0.001143573	0.0011366
0.0344	200	0.4889976	-0.027583	-0.000948845	0.0007608
0.035	201	0.4914425	-0.021452	-0.000750805	0.0004602
0.035	202	0.4938875	-0.015323	-0.000536295	0.0002348
0.036	203	0.4963325	-0.009193	-0.000330938	8.451E-05
0.036464	204	0.4987775	-0.003065	-0.000111762	9.394E-06
0.03672	205	0.5012225	0.003065	0.000112547	9.394E-06
0.037312	206	0.5036675	0.0091927	0.000342999	8.451E-05
0.037312	207	0.5061125	0.0153227	0.000571721	0.0002348
0.03744	208	0.5085575	0.0214516	0.000803147	0.0004602
0.03772	209	0.5110024	0.0275827	0.001040419	0.0007608
0.03772	210	0.5134474	0.0337138	0.001271686	0.0011366
0.03777	211	0.5158924	0.0398472	0.00150503	0.0015878
0.038	212	0.5183374	0.0459818	0.001747308	0.0021143
0.038	213	0.5207824	0.0521175	0.001980463	0.0027162
0.03816	214	0.5232274	0.0582554	0.002223026	0.0033937
0.03816	215	0.5256724	0.0643956	0.002457337	0.0041468
0.0383	216	0.5281174	0.0705381	0.002701611	0.0049756
0.0393	217	0.5305623	0.076684	0.003013683	0.0058804
0.04	218	0.5330073	0.0828322	0.003313289	0.0068612
0.04046	219	0.5354523	0.0889827	0.00360024	0.0079179
0.0407	220	0.5378973	0.0951377	0.003872104	0.0090512
0.0407	221	0.5403423	0.1012961	0.004122752	0.0102609
0.0409	222	0.5427873	0.1074579	0.00439503	0.0115472
0.041	223	0.5452323	0.1136243	0.004658597	0.0129105
0.041	224	0.5476773	0.1197952	0.004911604	0.0143509
0.04115	225	0.5501222	0.1259696	0.005183648	0.0158683
0.0413	226	0.5525672	0.1321496	0.005457778	0.0174635
0.0416	227	0.5550122	0.1383353	0.005754748	0.0191366
0.0417	228	0.5574572	0.1445255	0.006026715	0.0208876
0.04196	229	0.5599022	0.1507215	0.006324273	0.022717
0.04222	230	0.5623472	0.1569231	0.006625292	0.0246249
0.0424	231	0.5647922	0.1631304	0.006916728	0.0266115
0.0424	232	0.5672372	0.1693445	0.007180207	0.0286776
0.0424	233	0.5696822	0.1755643	0.007443927	0.0308228
0.0424	234	0.5721271	0.1817921	0.007707984	0.0330484
0.0424	235	0.5745721	0.1880267	0.00797233	0.035354
0.0424	236	0.5770171	0.1942681	0.008236966	0.0377401

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.0424	237	0.5794621	0.2005174	0.008501939	0.0402072
0.0424	238	0.5819071	0.2067748	0.00876725	0.0427558
0.0424	239	0.5843521	0.21304	0.009032898	0.0453861
0.0424	240	0.5867971	0.2193133	0.009298883	0.0480983
0.0424	241	0.5892421	0.2255956	0.009565254	0.0508934
0.0424	242	0.591687	0.231887	0.009832011	0.0537716
0.0424	243	0.594132	0.2381876	0.010099153	0.0567333
0.0424	244	0.596577	0.2444972	0.010366681	0.0597789
0.0424	245	0.599022	0.2508159	0.010634594	0.0629086
0.04256	246	0.601467	0.257146	0.010944133	0.0661241
0.04296	247	0.603912	0.2634863	0.011319371	0.069425
0.043	248	0.606357	0.2698368	0.011602984	0.0728119
0.043	249	0.608802	0.2761976	0.011876498	0.0762851
0.04318	250	0.6112469	0.2825709	0.012201412	0.0798463
0.0432	251	0.6136919	0.2889544	0.012482831	0.0834947
0.04392	252	0.6161369	0.2953504	0.012971792	0.0872319
0.044	253	0.6185819	0.301759	0.013277395	0.0910585
0.04452	254	0.6210269	0.3081789	0.013720123	0.0949742
0.045	255	0.6234719	0.3146124	0.014157558	0.098981
0.046	256	0.6259169	0.3210585	0.014768689	0.1030785
0.046	257	0.6283619	0.3275181	0.015065834	0.1072681
0.046	258	0.6308068	0.3339915	0.015363607	0.1115503
0.047488	259	0.6332518	0.3404784	0.01616864	0.1159256
0.0475	260	0.6356968	0.3469802	0.016481559	0.1203953
0.049	261	0.6381418	0.3534967	0.017321339	0.1249599
0.0494	262	0.6405868	0.360028	0.017785384	0.1296202
0.04995	263	0.6430318	0.3665741	0.018310377	0.1343766
0.05	264	0.6454768	0.3731373	0.018656863	0.1392314
0.05088	265	0.6479218	0.3797163	0.019319966	0.1441845
0.05088	266	0.6503667	0.3863101	0.01965546	0.1492355
0.05088	267	0.6528117	0.3929222	0.01999188	0.1543878
0.05088	268	0.6552567	0.3995524	0.020329226	0.1596421
0.05088	269	0.6577017	0.4061985	0.020667381	0.1649972
0.05088	270	0.6601467	0.4128628	0.021006462	0.1704557
0.051	271	0.6625917	0.4195465	0.021396871	0.1760193
0.051	272	0.6650367	0.4262483	0.021738665	0.1816876
0.0511	273	0.6674817	0.4329695	0.022124741	0.1874626
0.0512	274	0.6699267	0.4397111	0.02251321	0.1933459
0.052	275	0.6723716	0.4464709	0.023216489	0.1993363
0.052	276	0.6748166	0.4532535	0.023569182	0.2054387
0.05238	277	0.6772616	0.4600543	0.024097642	0.2116499
0.0529	278	0.6797066	0.4668777	0.024697832	0.2179748
0.053	279	0.6821516	0.473724	0.02510737	0.2244144
0.0538	280	0.6845966	0.4805918	0.025855838	0.2309685
0.054	281	0.6870416	0.4874823	0.026324046	0.237639
0.054272	282	0.6894866	0.4943956	0.02683184	0.244427
0.05544	283	0.6919315	0.5013328	0.027793891	0.2513346
0.056	284	0.6943765	0.5082939	0.028464456	0.2583626
0.056	285	0.6968215	0.515281	0.028855738	0.2655146
0.05616	286	0.6992665	0.5222921	0.029331925	0.2727891
0.05768	287	0.7017115	0.5293293	0.030531716	0.2801895
0.059	288	0.7041565	0.5363927	0.031647169	0.2877171
0.05936	289	0.7066015	0.5434833	0.032261171	0.2953741
0.05936	290	0.7090465	0.5506013	0.032683691	0.3031618
0.05936	291	0.7114914	0.5577476	0.033107899	0.3110824
0.05936	292	0.7139364	0.5649213	0.033533726	0.319136
0.05936	293	0.7163814	0.5721245	0.033961308	0.3273264
0.05936	294	0.7188264	0.5793584	0.034390712	0.3356561
0.05936	295	0.7212714	0.5866218	0.034821871	0.3441251

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.05968	296	0.7237164	0.5939182	0.03544504	0.3527389
0.06	297	0.7261614	0.6012442	0.036074653	0.3614946
0.061	298	0.7286064	0.6086032	0.037124793	0.3703978
0.0636	299	0.7310513	0.6159962	0.039177359	0.3794513
0.06392	300	0.7334963	0.6234222	0.039849149	0.3886553
0.06392	301	0.7359413	0.6308824	0.040326001	0.3980126
0.064	302	0.7383863	0.6383789	0.040856248	0.4075276
0.06412	303	0.7408313	0.6459095	0.041415717	0.4171991
0.06416	304	0.7432763	0.6534788	0.041927198	0.4270345
0.0652	305	0.7457213	0.6610844	0.043102704	0.4370326
0.06544	306	0.7481663	0.668731	0.043761756	0.4472011
0.066	307	0.7506112	0.6764139	0.044643321	0.4575358
0.0664533	308	0.7530562	0.6841378	0.045463239	0.4680446
0.06784	309	0.7555012	0.6919038	0.046938752	0.4787308
0.06784	310	0.7579462	0.6997107	0.047468371	0.489595
0.06784	311	0.7603912	0.7075619	0.048000997	0.5006438
0.06784	312	0.7628362	0.7154551	0.048536477	0.5118761
0.06784	313	0.7652812	0.7233939	0.049075042	0.5232987
0.06784	314	0.7677262	0.7313793	0.049616769	0.5349156
0.06784	315	0.7701711	0.7394101	0.050161581	0.5467273
0.06892	316	0.7726161	0.7474898	0.051516998	0.558741
0.0723	317	0.7750611	0.7556196	0.054631295	0.5709609
0.073	318	0.7775061	0.7637982	0.055757268	0.5833877
0.07414	319	0.7799511	0.7720269	0.057238071	0.5960255
0.07632	320	0.7823961	0.7803101	0.059553265	0.6088838
0.07632	321	0.7848411	0.7886479	0.060189605	0.6219655
0.07632	322	0.7872861	0.7970402	0.06083011	0.6352731
0.07632	323	0.7897311	0.8054872	0.06147478	0.6488096
0.07632	324	0.792176	0.8139955	0.062124135	0.6625886
0.080136	325	0.794621	0.8225607	0.06591672	0.676606
0.0814	326	0.797066	0.8311872	0.067658639	0.6908722
0.0848	327	0.799511	0.8398752	0.071221413	0.7053903
0.0848	328	0.801956	0.848629	0.071963743	0.7201713
0.0848	329	0.804401	0.8574466	0.072711471	0.7352147
0.0848	330	0.806846	0.8663324	0.073464984	0.7505318
0.0848	331	0.809291	0.8752863	0.074224281	0.7661262
0.0848	332	0.8117359	0.8843108	0.074989555	0.7820056
0.0848	333	0.8141809	0.893408	0.075761	0.7981779
0.093	334	0.8166259	0.9025803	0.083939965	0.8146511
0.09328	335	0.8190709	0.9118298	0.085055486	0.8314336
0.09328	336	0.8215159	0.9211567	0.085925497	0.8485297
0.09328	337	0.8239609	0.9305654	0.086803142	0.865952
0.09328	338	0.8264059	0.940056	0.087688423	0.8837053
0.09328	339	0.8288509	0.949633	0.088581764	0.9018028
0.09328	340	0.8312958	0.9592986	0.089483376	0.9202539
0.09328	341	0.8337408	0.969053	0.09039326	0.9390636
0.09936	342	0.8361858	0.9789028	0.097263781	0.9582507
0.10176	343	0.8386308	0.9888458	0.100624953	0.9778161
0.10176	344	0.8410758	0.9988889	0.101646938	0.9977791
0.10176	345	0.8435208	1.0090343	0.102679335	1.0181503
0.10176	346	0.8459658	1.0192844	0.103722376	1.0389406
0.10176	347	0.8484108	1.0296412	0.104776291	1.0601611
0.10176	348	0.8508557	1.0401118	0.105841775	1.0818325
0.10176	349	0.8533007	1.050696	0.106918828	1.1039621
0.11024	350	0.8557457	1.0613985	0.117008571	1.1265668
0.11024	351	0.8581907	1.072226	0.118202199	1.1496687
0.11024	352	0.8606357	1.0831809	0.119409863	1.1732809
0.11024	353	0.8630807	1.0942654	0.120631815	1.1974167
0.11024	354	0.8655257	1.1054863	0.121868806	1.2220999

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	Mi * Xi (normal)	Mi^2
0.11024	355	0.8679707	1.1168504	0.123121588	1.2473548
0.11024	356	0.8704156	1.1283578	0.124390162	1.2731913
0.111936	357	0.8728606	1.1400198	0.127609254	1.2996451
0.11194	358	0.8753056	1.1518364	0.128936565	1.3267271
0.11872	359	0.8777506	1.1638167	0.138168319	1.3544693
0.11872	360	0.8801956	1.1759653	0.139610598	1.3828943
0.11872	361	0.8826406	1.1882912	0.141073932	1.412036
0.11872	362	0.8850856	1.2008013	0.142559131	1.4419238
0.11872	363	0.8875306	1.2135001	0.144066735	1.4725826
0.123	364	0.8899756	1.226399	0.150847081	1.5040546
0.125504	365	0.8924205	1.2395049	0.155562817	1.5363723
0.1272	366	0.8948655	1.2528267	0.159359553	1.5695747
0.1272	367	0.8973105	1.2663759	0.161083011	1.6037079
0.132	368	0.8997555	1.2801593	0.168981023	1.6388078
0.13568	369	0.9022005	1.2941928	0.175596075	1.6749349
0.13568	370	0.9046455	1.3084855	0.17753531	1.7121343
0.13568	371	0.9070905	1.323051	0.179511565	1.750464
0.13568	372	0.9095355	1.3378985	0.181526074	1.7899725
0.14016	373	0.9119804	1.3530507	0.189643589	1.8307463
0.141	374	0.9144254	1.3685212	0.192961493	1.8728503
0.14416	375	0.9168704	1.3843237	0.199564104	1.9163521
0.14416	376	0.9193154	1.4004809	0.201893322	1.9613467
0.14416	377	0.9217604	1.4170132	0.204276624	2.0079264
0.14416	378	0.9242054	1.4339412	0.20671696	2.0561873
0.14416	379	0.9266504	1.4512898	0.209217936	2.1062421
0.146	380	0.9290954	1.4690886	0.214486936	2.1582213
0.147	381	0.9315403	1.4873604	0.218641972	2.2122408
0.147	382	0.9339853	1.506146	0.221403457	2.2684757
0.148	383	0.9364303	1.5254818	0.225771309	2.3270948
0.15264	384	0.9388753	1.5453998	0.235889819	2.3882604
0.1536	385	0.9413203	1.5659543	0.240530586	2.452213
0.155	386	0.9437653	1.587191	0.246014611	2.5191754
0.16112	387	0.9462103	1.609169	0.259269305	2.5894248
0.16114	388	0.9486553	1.6319518	0.262972716	2.6632667
0.162	389	0.9511002	1.6556169	0.268209933	2.7410672
0.163	390	0.9535452	1.680246	0.273880096	2.8232266
0.164	391	0.9559902	1.7059392	0.279774031	2.9102286
0.164	392	0.9584352	1.7328057	0.284180132	3.0026155
0.166	393	0.9608802	1.7609909	0.292324494	3.101089
0.1696	394	0.9633252	1.7906495	0.303694163	3.2064258
0.1696	395	0.9657702	1.821968	0.309005773	3.3195674
0.175	396	0.9682152	1.8551873	0.324657776	3.4417199
0.17544	397	0.9706601	1.8905848	0.331684202	3.574311
0.17808	398	0.9731051	1.9285289	0.343432435	3.7192239
0.182	399	0.9755501	1.9694653	0.358442685	3.8787936
0.182	400	0.9779951	2.0139942	0.366546938	4.0561725
0.184	401	0.9804401	2.062925	0.379578196	4.2556595
0.185	402	0.9828851	2.1173582	0.391711274	4.4832059
0.1861	403	0.9853301	2.1788946	0.405492294	4.7475819
0.188	404	0.9877751	2.2499808	0.422996382	5.0624134
0.192	405	0.99022	2.3346729	0.448257197	5.4506975
0.20352	406	0.992665	2.4404289	0.496676099	5.9556934
0.31376	407	0.99511	2.5835106	0.810602301	6.6745273
0.7208	408	0.997555	2.8141949	2.028471674	7.9196929

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-6.907755	1	0.002445	-2.814195	19.43976958	7.9196929
-6.645391	2	0.00489	-2.583511	17.16843846	6.6745273
-5.809143	3	0.007335	-2.440429	14.17680069	5.9556934
-5.686336	4	0.00978	-2.334673	13.27573353	5.4506975
-5.568553	5	0.0122249	-2.249981	12.529136	5.0624134
-5.463192	6	0.0146699	-2.178895	11.90371983	4.7475819
-5.463192	7	0.0171149	-2.117358	11.56753459	4.4832059
-5.463192	8	0.0195599	-2.062925	11.27015525	4.2556595
-5.463192	9	0.0220049	-2.013994	11.00283682	4.0561725
-5.463192	10	0.0244499	-1.969465	10.7595671	3.8787936
-5.463192	11	0.0268949	-1.928529	10.53592393	3.7192239
-5.463192	12	0.0293399	-1.890585	10.32862792	3.574311
-5.463192	13	0.0317848	-1.855187	10.13524439	3.4417199
-5.463192	14	0.0342298	-1.821968	9.953761012	3.3195674
-5.463192	15	0.0366748	-1.79065	9.782662306	3.2064258
-5.463192	16	0.0391198	-1.760991	9.620631558	3.101089
-5.463192	17	0.0415648	-1.732806	9.466650176	3.0026155
-5.463192	18	0.0440098	-1.705939	9.319873473	2.9102286
-5.463192	19	0.0464548	-1.680246	9.179506449	2.8232266
-5.463192	20	0.0488998	-1.655617	9.044952857	2.7410672
-5.463192	21	0.0513447	-1.631952	8.915666133	2.6632667
-5.463192	22	0.0537897	-1.609169	8.791199091	2.5894248
-5.463192	23	0.0562347	-1.587191	8.671129388	2.5191754
-5.463192	24	0.0586797	-1.565954	8.555109211	2.452213
-5.463192	25	0.0611247	-1.5454	8.442815592	2.3882604
-5.463192	26	0.0635697	-1.525482	8.334000095	2.3270948
-5.463192	27	0.0660147	-1.506146	8.228364593	2.2684757
-5.463192	28	0.0684597	-1.48736	8.125735182	2.2122408
-5.298317	29	0.0709046	-1.469089	7.783697652	2.1582213
-5.298317	30	0.0733496	-1.45129	7.689393901	2.1062421
-5.298317	31	0.0757946	-1.433941	7.597475452	2.0561873
-5.298317	32	0.0782396	-1.417013	7.507785694	2.0079264
-5.298317	33	0.0806846	-1.400481	7.42019211	1.9613467
-5.298317	34	0.0831296	-1.384324	7.334586278	1.9163521
-5.298317	35	0.0855746	-1.368521	7.250859774	1.8728503
-5.298317	36	0.0880196	-1.353051	7.168892129	1.8307463
-5.298317	37	0.0904645	-1.337899	7.088611062	1.7899725
-5.298317	38	0.0929095	-1.323051	7.009944289	1.750464
-5.298317	39	0.0953545	-1.308485	6.932771342	1.7121343
-5.298317	40	0.0977995	-1.294193	6.857044033	1.6749349
-5.083206	41	0.1002445	-1.280159	6.507313253	1.6388078
-5.057727	42	0.1026895	-1.266376	6.404983332	1.6037079
-5.035953	43	0.1051345	-1.252827	6.309176395	1.5695747
-4.961845	44	0.1075795	-1.239505	6.150231125	1.5363723
-4.828314	45	0.1100244	-1.226399	5.921439311	1.5040546
-4.813425	46	0.1124694	-1.2135	5.841092001	1.4725826
-4.7915	47	0.1149144	-1.200801	5.753639181	1.4419238
-4.770045	48	0.1173594	-1.188291	5.668202331	1.412036
-4.770045	49	0.1198044	-1.175965	5.609407107	1.3828943
-4.770045	50	0.1222494	-1.163817	5.551457857	1.3544693
-4.770045	51	0.1246944	-1.151836	5.494311198	1.3267271
-4.770045	52	0.1271394	-1.14002	5.437945439	1.2996451
-4.770045	53	0.1295844	-1.128358	5.382317197	1.2731913
-4.770045	54	0.1320293	-1.11685	5.32742647	1.2473548
-4.770045	55	0.1344743	-1.105486	5.27321903	1.2220999
-4.770045	56	0.1369193	-1.094265	5.219694878	1.1974167
-4.770045	57	0.1393643	-1.083181	5.166821475	1.1732809
-4.770045	58	0.1418093	-1.072226	5.114566284	1.1496687
-4.770045	59	0.1442543	-1.061399	5.062918459	1.1265668

Uranium - lognormal

171435.79 = (sum of Mi*Xi)^2
407 = count -1
1.0963231 = standard deviation ^2
397.70301 = sum of Mi^2

0.966 = W statistic

FAIL

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-4.770045	60	0.1466993	-1.050696	5.011867155	1.1039621
-4.770045	61	0.1491443	-1.040112	4.961379834	1.0818325
-4.770045	62	0.1515892	-1.029641	4.911434804	1.0601611
-4.710531	63	0.1540342	-1.019284	4.801370247	1.0389406
-4.697285	64	0.1564792	-1.009034	4.739722393	1.0181503
-4.643911	65	0.1589242	-0.998889	4.638751332	0.9977791
-4.60517	66	0.1613692	-0.988846	4.553803384	0.9778161
-4.588313	67	0.1638142	-0.978903	4.491512464	0.9582507
-4.546901	68	0.1662592	-0.969053	4.406188153	0.9390636
-4.49901	69	0.1687042	-0.959299	4.315894127	0.9202539
-4.412898	70	0.1711491	-0.949633	4.190633747	0.9018028
-4.368045	71	0.1735941	-0.940056	4.106206746	0.8837053
-4.268698	72	0.1760391	-0.930565	3.972302701	0.865952
-4.268698	73	0.1784841	-0.921157	3.932139706	0.8485297
-4.254513	74	0.1809291	-0.91183	3.87939215	0.8314336
-4.2517	75	0.1833741	-0.90258	3.837500863	0.8146511
-4.225365	76	0.1858191	-0.893408	3.774974797	0.7981779
-4.21719	77	0.1882641	-0.884311	3.729306982	0.7820056
-4.185145	78	0.190709	-0.875286	3.663200153	0.7661262
-4.170146	79	0.193154	-0.866332	3.612732652	0.7505318
-4.152821	80	0.195599	-0.857447	3.560822643	0.7352147
-4.135167	81	0.198044	-0.848629	3.509222436	0.7201713
-4.084592	82	0.200489	-0.839875	3.430547571	0.7053903
-4.078668	83	0.202934	-0.831187	3.390136736	0.6908722
-4.076898	84	0.205379	-0.822561	3.353495583	0.676606
-4.076898	85	0.207824	-0.813995	3.318576276	0.6625886
-4.076898	86	0.2102689	-0.805487	3.283888714	0.6488096
-4.076898	87	0.2127139	-0.79704	3.249451437	0.6352731
-4.076898	88	0.2151589	-0.788648	3.215236635	0.6219655
-4.076898	89	0.2176039	-0.78031	3.181244307	0.6088838
-4.076898	90	0.2200489	-0.772027	3.147474455	0.5960255
-4.076898	91	0.2224939	-0.763798	3.113927078	0.5833877
-4.076898	92	0.2249389	-0.75562	3.080583636	0.5709609
-4.046698	93	0.2273839	-0.74749	3.024865496	0.558741
-4.045554	94	0.2298289	-0.73941	2.991323772	0.5467273
-4.028557	95	0.2322738	-0.731379	2.946402905	0.5349156
-4.017384	96	0.2347188	-0.723394	2.906150717	0.5232987
-4.017384	97	0.2371638	-0.715455	2.874257706	0.5118761
-3.991066	98	0.2396088	-0.707562	2.82392626	0.5006438
-3.963316	99	0.2420538	-0.699711	2.77317464	0.489595
-3.959115	100	0.2444988	-0.691904	2.739326361	0.4787308
-3.927137	101	0.2469438	-0.684138	2.686702744	0.4680446
-3.912023	102	0.2493888	-0.676414	2.646146922	0.4575358
-3.912023	103	0.2518337	-0.668731	2.61609102	0.4472011
-3.863233	104	0.2542787	-0.661084	2.553923019	0.4370326
-3.833951	105	0.2567237	-0.653479	2.50540587	0.4270345
-3.817198	106	0.2591687	-0.645909	2.465564297	0.4171991
-3.816713	107	0.2616137	-0.638379	2.436508854	0.4075276
-3.78451	108	0.2640587	-0.630882	2.387580434	0.3980126
-3.765329	109	0.2665037	-0.623422	2.3473896	0.3886553
-3.752458	110	0.2689487	-0.615996	2.31150019	0.3794513
-3.751606	111	0.2713936	-0.608603	2.283239436	0.3703978
-3.745661	112	0.2738386	-0.601244	2.25205727	0.3614946
-3.729701	113	0.2762836	-0.593918	2.215137683	0.3527389
-3.729701	114	0.2787286	-0.586622	2.18792421	0.3441251
-3.688879	115	0.2811736	-0.579358	2.137183139	0.3356561
-3.688879	116	0.2836186	-0.572124	2.110498178	0.3273264
-3.688879	117	0.2860636	-0.564921	2.083926449	0.319136
-3.688879	118	0.2885086	-0.557748	2.057463758	0.3110824

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-3.671433	119	0.2909535	-0.550601	2.021495424	0.3031618
-3.671433	120	0.2933985	-0.543483	1.995362414	0.2953741
-3.671433	121	0.2958435	-0.536393	1.969329578	0.2877171
-3.671433	122	0.2982885	-0.529329	1.943396916	0.2801895
-3.671433	123	0.3007335	-0.522292	1.917560255	0.2727891
-3.671433	124	0.3031785	-0.515281	1.891819594	0.2655146
-3.671433	125	0.3056235	-0.508294	1.866166586	0.2583626
-3.671433	126	0.3080685	-0.501333	1.840609579	0.2513346
-3.671433	127	0.3105134	-0.494396	1.815140224	0.244427
-3.671433	128	0.3129584	-0.487482	1.789758522	0.237639
-3.671433	129	0.3154034	-0.480592	1.764460299	0.2309685
-3.671433	130	0.3178484	-0.473724	1.739245554	0.2244144
-3.671433	131	0.3202934	-0.466878	1.714110114	0.2179748
-3.671433	132	0.3227384	-0.460054	1.689058153	0.2116499
-3.664382	133	0.3251834	-0.453254	1.66089398	0.2054387
-3.664382	134	0.3276284	-0.446471	1.636040102	0.1993363
-3.649659	135	0.3300733	-0.439711	1.604795568	0.1933459
-3.649659	136	0.3325183	-0.43297	1.580190921	0.1874626
-3.649659	137	0.3349633	-0.426248	1.555660959	0.1816876
-3.630611	138	0.3374083	-0.419546	1.52320993	0.1760193
-3.6147	139	0.3398533	-0.412863	1.492375353	0.1704557
-3.611918	140	0.3422983	-0.406199	1.467155927	0.1649972
-3.611918	141	0.3447433	-0.399552	1.443150639	0.1596421
-3.607484	142	0.3471883	-0.392922	1.417460386	0.1543878
-3.607115	143	0.3496333	-0.38631	1.393465189	0.1492355
-3.606894	144	0.3520782	-0.379716	1.369596494	0.1441845
-3.606894	145	0.3545232	-0.373137	1.345866531	0.1392314
-3.597212	146	0.3569682	-0.366574	1.318644897	0.1343766
-3.593569	147	0.3594132	-0.360028	1.293785649	0.1296202
-3.592988	148	0.3618582	-0.353497	1.270109327	0.1249599
-3.575551	149	0.3643032	-0.34698	1.240645274	0.1203953
-3.575551	150	0.3667482	-0.340478	1.217397936	0.1159256
-3.575551	151	0.3691932	-0.333991	1.194203442	0.1115503
-3.571274	152	0.3716381	-0.327518	1.169657077	0.1072681
-3.557851	153	0.3740831	-0.321058	1.142278192	0.1030785
-3.557851	154	0.3765281	-0.314612	1.119344128	0.098981
-3.554349	155	0.3789731	-0.308179	1.09537512	0.0949742
-3.55365	156	0.3814181	-0.301759	1.072345626	0.0910585
-3.540459	157	0.3838631	-0.29535	1.045676278	0.0872319
-3.540459	158	0.3863081	-0.288954	1.023031424	0.0834947
-3.540459	159	0.3887531	-0.282571	1.000430844	0.0798463
-3.516608	160	0.391198	-0.276198	0.971278841	0.0762851
-3.506558	161	0.393643	-0.269837	0.946198524	0.0728119
-3.506558	162	0.396088	-0.263486	0.923929964	0.069425
-3.506558	163	0.398533	-0.257146	0.901697283	0.0661241
-3.475059	164	0.400978	-0.250816	0.871600113	0.0629086
-3.473768	165	0.403423	-0.244497	0.849326522	0.0597789
-3.473768	166	0.405868	-0.238188	0.827408368	0.0567333
-3.469905	167	0.408313	-0.231887	0.804625912	0.0537716
-3.469905	168	0.4107579	-0.225596	0.782795252	0.0508934
-3.468941	169	0.4132029	-0.219313	0.760784832	0.0480983
-3.457768	170	0.4156479	-0.21304	0.736642973	0.0453861
-3.454598	171	0.4180929	-0.206775	0.714323696	0.0427558
-3.450493	172	0.4205379	-0.200517	0.691883936	0.0402072
-3.442019	173	0.4229829	-0.194268	0.668674455	0.0377401
-3.442019	174	0.4254279	-0.188027	0.64719141	0.035354
-3.438276	175	0.4278729	-0.181792	0.625051398	0.0330484
-3.433617	176	0.4303178	-0.175564	0.602820646	0.0308228
-3.427131	177	0.4327628	-0.169345	0.580365755	0.0286776

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-3.42038	178	0.4352078	-0.16313	0.557967923	0.0266115
-3.419769	179	0.4376528	-0.156923	0.536640644	0.0246249
-3.411248	180	0.4400978	-0.150721	0.514148243	0.022717
-3.411248	181	0.4425428	-0.144526	0.493012382	0.0208876
-3.39621	182	0.4449878	-0.138335	0.469815643	0.0191366
-3.392634	183	0.4474328	-0.13215	0.448335179	0.0174635
-3.38375	184	0.4498778	-0.12597	0.42624957	0.0158683
-3.38375	185	0.4523227	-0.119795	0.405357171	0.0143509
-3.38375	186	0.4547677	-0.113624	0.384476312	0.0129105
-3.38375	187	0.4572127	-0.107458	0.363610841	0.0115472
-3.38375	188	0.4596577	-0.101296	0.342760757	0.0102609
-3.38375	189	0.4621027	-0.095138	0.321922214	0.0090512
-3.38375	190	0.4645477	-0.088983	0.301095212	0.0079179
-3.38375	191	0.4669927	-0.082832	0.280283597	0.0068612
-3.38375	192	0.4694377	-0.076684	0.259479676	0.0058804
-3.38375	193	0.4718826	-0.070538	0.238683448	0.0049756
-3.38375	194	0.4743276	-0.064396	0.217898762	0.0041468
-3.38375	195	0.4767726	-0.058255	0.197121769	0.0033937
-3.38375	196	0.4792176	-0.052117	0.17635247	0.0027162
-3.38375	197	0.4816626	-0.045982	0.155590864	0.0021143
-3.38375	198	0.4841076	-0.039847	0.134833106	0.0015878
-3.38375	199	0.4865526	-0.033714	0.114079194	0.0011366
-3.369699	200	0.4889976	-0.027583	0.092945391	0.0007608
-3.352407	201	0.4914425	-0.021452	0.071914396	0.0004602
-3.352407	202	0.4938875	-0.015323	0.05136797	0.0002348
-3.324236	203	0.4963325	-0.009193	0.030558766	8.451E-05
-3.31143	204	0.4987775	-0.003065	0.010149523	9.394E-06
-3.304434	205	0.5012225	0.003065	-0.01012808	9.394E-06
-3.28844	206	0.5036675	0.0091927	-0.030229703	8.451E-05
-3.28844	207	0.5061125	0.0153227	-0.050387823	0.0002348
-3.285016	208	0.5085575	0.0214516	-0.070468741	0.0004602
-3.277565	209	0.5110024	0.0275827	-0.090404089	0.0007608
-3.277565	210	0.5134474	0.0337138	-0.110499269	0.0011366
-3.27624	211	0.5158924	0.0398472	-0.130549116	0.0015878
-3.270169	212	0.5183374	0.0459818	-0.150368192	0.0021143
-3.270169	213	0.5207824	0.0521175	-0.170432899	0.0027162
-3.265967	214	0.5232274	0.0582554	-0.19026027	0.0033937
-3.265967	215	0.5256724	0.0643956	-0.210314048	0.0041468
-3.262305	216	0.5281174	0.0705381	-0.230116939	0.0049756
-3.236531	217	0.5305623	0.076684	-0.248190273	0.0058804
-3.218876	218	0.5330073	0.0828322	-0.266626663	0.0068612
-3.207441	219	0.5354523	0.0889827	-0.285406761	0.0079179
-3.201527	220	0.5378973	0.0951377	-0.304585911	0.0090512
-3.201527	221	0.5403423	0.1012961	-0.324302248	0.0102609
-3.196625	222	0.5427873	0.1074579	-0.343502747	0.0115472
-3.194183	223	0.5452323	0.1136243	-0.362936863	0.0129105
-3.194183	224	0.5476773	0.1197952	-0.382647917	0.0143509
-3.190531	225	0.5501222	0.1259696	-0.401909842	0.0158683
-3.186893	226	0.5525672	0.1321496	-0.421146543	0.0174635
-3.179655	227	0.5550122	0.1383353	-0.439858483	0.0191366
-3.177254	228	0.5574572	0.1445255	-0.459194338	0.0208876
-3.171038	229	0.5599022	0.1507215	-0.477943558	0.022717
-3.164861	230	0.5623472	0.1569231	-0.49663977	0.0246249
-3.160607	231	0.5647922	0.1631304	-0.515591008	0.0266115
-3.160607	232	0.5672372	0.1693445	-0.535231407	0.0286776
-3.160607	233	0.5696822	0.1755643	-0.554889772	0.0308228
-3.160607	234	0.5721271	0.1817921	-0.574573289	0.0330484
-3.160607	235	0.5745721	0.1880267	-0.594278365	0.035354
-3.160607	236	0.5770171	0.1942681	-0.614005	0.0377401

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-3.160607	237	0.5794621	0.2005174	-0.633756788	0.0402072
-3.160607	238	0.5819071	0.2067748	-0.653533728	0.0427558
-3.160607	239	0.5843521	0.21304	-0.673335821	0.0453861
-3.160607	240	0.5867971	0.2193133	-0.693163065	0.0480983
-3.160607	241	0.5892421	0.2255956	-0.713019056	0.0508934
-3.160607	242	0.591687	0.231887	-0.732903792	0.0537716
-3.160607	243	0.594132	0.2381876	-0.752817273	0.0567333
-3.160607	244	0.596577	0.2444972	-0.7727595	0.0597789
-3.160607	245	0.599022	0.2508159	-0.792730473	0.0629086
-3.15684	246	0.601467	0.257146	-0.811768841	0.0661241
-3.147486	247	0.603912	0.2634863	-0.829319394	0.069425
-3.146555	248	0.606357	0.2698368	-0.849056522	0.0728119
-3.146555	249	0.608802	0.2761976	-0.869071062	0.0762851
-3.142378	250	0.6112469	0.2825709	-0.887944566	0.0798463
-3.141915	251	0.6136919	0.2889544	-0.907870179	0.0834947
-3.125385	252	0.6161369	0.2953504	-0.923083997	0.0872319
-3.123566	253	0.6185819	0.301759	-0.942563962	0.0910585
-3.111817	254	0.6210269	0.3081789	-0.958996168	0.0949742
-3.101093	255	0.6234719	0.3146124	-0.975642267	0.098981
-3.079114	256	0.6259169	0.3210585	-0.988575533	0.1030785
-3.079114	257	0.6283619	0.3275181	-1.008465643	0.1072681
-3.079114	258	0.6308068	0.3339915	-1.028397758	0.1115503
-3.047278	259	0.6332518	0.3404784	-1.037532528	0.1159256
-3.047026	260	0.6356968	0.3469802	-1.057257501	0.1203953
-3.015935	261	0.6381418	0.3534967	-1.066123112	0.1249599
-3.007805	262	0.6405868	0.360028	-1.082894042	0.1296202
-2.996733	263	0.6430318	0.3665741	-1.098524659	0.1343766
-2.995732	264	0.6454768	0.3731373	-1.117819316	0.1392314
-2.978285	265	0.6479218	0.3797163	-1.130903532	0.1441845
-2.978285	266	0.6503667	0.3863101	-1.150541859	0.1492355
-2.978285	267	0.6528117	0.3929222	-1.170234361	0.1543878
-2.978285	268	0.6552567	0.3995524	-1.189981037	0.1596421
-2.978285	269	0.6577017	0.4061985	-1.209775116	0.1649972
-2.978285	270	0.6601467	0.4128628	-1.22962337	0.1704557
-2.97593	271	0.6625917	0.4195465	-1.248540853	0.1760193
-2.97593	272	0.6650367	0.4262483	-1.268485055	0.1816876
-2.973971	273	0.6674817	0.4329695	-1.287638643	0.1874626
-2.972016	274	0.6699267	0.4397111	-1.306828402	0.1933459
-2.956512	275	0.6723716	0.4464709	-1.319996522	0.1993363
-2.956512	276	0.6748166	0.4532535	-1.34004923	0.2054387
-2.94923	277	0.6772616	0.4600543	-1.356806005	0.2116499
-2.939352	278	0.6797066	0.4668777	-1.37231798	0.2179748
-2.937463	279	0.6821516	0.473724	-1.391546771	0.2244144
-2.922482	280	0.6845966	0.4805918	-1.404520735	0.2309685
-2.918771	281	0.6870416	0.4874823	-1.422849427	0.237639
-2.913747	282	0.6894866	0.4943956	-1.44054372	0.244427
-2.892454	283	0.6919315	0.5013328	-1.450082043	0.2513346
-2.882404	284	0.6943765	0.5082939	-1.465108021	0.2583626
-2.882404	285	0.6968215	0.515281	-1.485247932	0.2655146
-2.879551	286	0.6992665	0.5222921	-1.503966522	0.2727891
-2.852845	287	0.7017115	0.5293293	-1.510094411	0.2801895
-2.830218	288	0.7041565	0.5363927	-1.518108159	0.2877171
-2.824135	289	0.7066015	0.5434833	-1.534870144	0.2953741
-2.824135	290	0.7090465	0.5506013	-1.554972145	0.3031618
-2.824135	291	0.7114914	0.5577476	-1.575154413	0.3110824
-2.824135	292	0.7139364	0.5649213	-1.595413737	0.319136
-2.824135	293	0.7163814	0.5721245	-1.615756538	0.3273264
-2.824135	294	0.7188264	0.5793584	-1.636186028	0.3356561
-2.824135	295	0.7212714	0.5866218	-1.656698995	0.3441251

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-2.818758	296	0.7237164	0.5939182	-1.674111954	0.3527389
-2.813411	297	0.7261614	0.6012442	-1.691546904	0.3614946
-2.796881	298	0.7286064	0.6086032	-1.702190864	0.3703978
-2.755142	299	0.7310513	0.6159962	-1.697156923	0.3794513
-2.750123	300	0.7334963	0.6234222	-1.714487822	0.3886553
-2.750123	301	0.7359413	0.6308824	-1.735004098	0.3980126
-2.748872	302	0.7383863	0.6383789	-1.75482195	0.4075276
-2.746999	303	0.7408313	0.6459095	-1.774312705	0.4171991
-2.746375	304	0.7432763	0.6534788	-1.794697948	0.4270345
-2.730296	305	0.7457213	0.6610844	-1.804956005	0.4370326
-2.726622	306	0.7481663	0.668731	-1.823376355	0.4472011
-2.718101	307	0.7506112	0.6764139	-1.838561113	0.4575358
-2.711255	308	0.7530562	0.6841378	-1.854872342	0.4680446
-2.690603	309	0.7555012	0.6919038	-1.861638582	0.4787308
-2.690603	310	0.7579462	0.6997107	-1.882643786	0.489595
-2.690603	311	0.7603912	0.7075619	-1.903768285	0.5006438
-2.690603	312	0.7628362	0.7154551	-1.925005963	0.5118761
-2.690603	313	0.7652812	0.7233939	-1.946365994	0.5232987
-2.690603	314	0.7677262	0.7313793	-1.96785144	0.5349156
-2.690603	315	0.7701711	0.7394101	-1.989459239	0.5467273
-2.674809	316	0.7726161	0.7474898	-1.999392402	0.558741
-2.626931	317	0.7750611	0.7556196	-1.984960578	0.5709609
-2.617296	318	0.7775061	0.7637982	-1.999085845	0.5833877
-2.6018	319	0.7799511	0.7720269	-2.008659525	0.5960255
-2.57282	320	0.7823961	0.7803101	-2.007597562	0.6088838
-2.57282	321	0.7848411	0.7886479	-2.029049204	0.6219655
-2.57282	322	0.7872861	0.7970402	-2.050641244	0.6352731
-2.57282	323	0.7897311	0.8054872	-2.072373681	0.6488096
-2.57282	324	0.792176	0.8139955	-2.094264067	0.6625886
-2.52403	325	0.794621	0.8225607	-2.076167831	0.676606
-2.50838	326	0.797066	0.8311872	-2.084933374	0.6908722
-2.46746	327	0.799511	0.8398752	-2.072358131	0.7053903
-2.46746	328	0.801956	0.848629	-2.093957994	0.7201713
-2.46746	329	0.804401	0.8574466	-2.115714946	0.7352147
-2.46746	330	0.806846	0.8663324	-2.137640209	0.7505318
-2.46746	331	0.809291	0.8752863	-2.159733783	0.7661262
-2.46746	332	0.8117359	0.8843108	-2.182001277	0.7820056
-2.46746	333	0.8141809	0.893408	-2.204448303	0.7981779
-2.375156	334	0.8166259	0.9025803	-2.143768746	0.8146511
-2.37215	335	0.8190709	0.9118298	-2.162996725	0.8314336
-2.37215	336	0.8215159	0.9211567	-2.185121452	0.8485297
-2.37215	337	0.8239609	0.9305654	-2.207440349	0.865952
-2.37215	338	0.8264059	0.940056	-2.229953417	0.8837053
-2.37215	339	0.8288509	0.949633	-2.252671444	0.9018028
-2.37215	340	0.8312958	0.9592986	-2.275599823	0.9202539
-2.37215	341	0.8337408	0.969053	-2.298738555	0.9390636
-2.309006	342	0.8361858	0.9789028	-2.260292083	0.9582507
-2.285138	343	0.8386308	0.9888458	-2.259649384	0.9778161
-2.285138	344	0.8410758	0.9988889	-2.282599245	0.9977791
-2.285138	345	0.8435208	1.0090343	-2.305782916	1.0181503
-2.285138	346	0.8459658	1.0192844	-2.329205595	1.0389406
-2.285138	347	0.8484108	1.0296412	-2.352872476	1.0601611
-2.285138	348	0.8508557	1.0401118	-2.376799147	1.0818325
-2.285138	349	0.8533007	1.050696	-2.400985608	1.1039621
-2.205095	350	0.8557457	1.0613985	-2.340485041	1.1265668
-2.205095	351	0.8581907	1.072226	-2.364360788	1.1496687
-2.205095	352	0.8606357	1.0831809	-2.388517309	1.1732809
-2.205095	353	0.8630807	1.0942654	-2.412959616	1.1974167
-2.205095	354	0.8655257	1.1054863	-2.437702752	1.2220999

Table 121. Uranium Combined Upgradient Background Data Set, Shapiro-Francia Test of Normality Analysis (continued)

Uranium	Count	i/(n+1)	Mi	i * Xi (lognormal	Mi^2
-2.205095	355	0.8679707	1.1168504	-2.462761757	1.2473548
-2.205095	356	0.8704156	1.1283578	-2.488136632	1.2731913
-2.189828	357	0.8728606	1.1400198	-2.496447226	1.2996451
-2.189792	358	0.8753056	1.1518364	-2.52228241	1.3267271
-2.130987	359	0.8777506	1.1638167	-2.480078851	1.3544693
-2.130987	360	0.8801956	1.1759653	-2.505967313	1.3828943
-2.130987	361	0.8826406	1.1882912	-2.532233709	1.412036
-2.130987	362	0.8850856	1.2008013	-2.558892575	1.4419238
-2.130987	363	0.8875306	1.2135001	-2.585953601	1.4725826
-2.095571	364	0.8899756	1.226399	-2.57000616	1.5040546
-2.075418	365	0.8924205	1.2395049	-2.57249025	1.5363723
-2.061995	366	0.8948655	1.2528267	-2.58332188	1.5695747
-2.061995	367	0.8973105	1.2663759	-2.611260252	1.6037079
-2.024953	368	0.8997555	1.2801593	-2.592262805	1.6388078
-1.997456	369	0.9022005	1.2941928	-2.585093253	1.6749349
-1.997456	370	0.9046455	1.3084855	-2.613642313	1.7121343
-1.997456	371	0.9070905	1.323051	-2.642736375	1.750464
-1.997456	372	0.9095355	1.3378985	-2.672393606	1.7899725
-1.964971	373	0.9119804	1.3530507	-2.658704956	1.8307463
-1.958995	374	0.9144254	1.3685212	-2.680926769	1.8728503
-1.936831	375	0.9168704	1.3843237	-2.681201719	1.9163521
-1.936831	376	0.9193154	1.4004809	-2.712495441	1.9613467
-1.936831	377	0.9217604	1.4170132	-2.744515798	2.0079264
-1.936831	378	0.9242054	1.4339412	-2.777302424	2.0561873
-1.936831	379	0.9266504	1.4512898	-2.81090376	2.1062421
-1.924149	380	0.9290954	1.4690886	-2.826744861	2.1582213
-1.917323	381	0.9315403	1.4873604	-2.851749751	2.2122408
-1.917323	382	0.9339853	1.506146	-2.887767834	2.2684757
-1.910543	383	0.9364303	1.5254818	-2.914498622	2.3270948
-1.879673	384	0.9388753	1.5453998	-2.904846304	2.3882604
-1.873403	385	0.9413203	1.5659543	-2.933664267	2.452213
-1.86433	386	0.9437653	1.587191	-2.959048122	2.5191754
-1.825606	387	0.9462103	1.609169	-2.937708296	2.5894248
-1.825482	388	0.9486553	1.6319518	-2.979098223	2.6632667
-1.820159	389	0.9511002	1.6556169	-3.013485854	2.7410672
-1.814005	390	0.9535452	1.680246	-3.047974753	2.8232266
-1.807889	391	0.9559902	1.7059392	-3.084148482	2.9102286
-1.807889	392	0.9584352	1.7328057	-3.13272008	3.0026155
-1.795767	393	0.9608802	1.7609909	-3.162330257	3.101089
-1.774313	394	0.9633252	1.7906495	-3.177171977	3.2064258
-1.774313	395	0.9657702	1.821968	-3.232740696	3.3195674
-1.742969	396	0.9682152	1.8551873	-3.233534506	3.4417199
-1.740458	397	0.9706601	1.8905848	-3.290483817	3.574311
-1.725522	398	0.9731051	1.9285289	-3.327719878	3.7192239
-1.703749	399	0.9755501	1.9694653	-3.355473735	3.8787936
-1.703749	400	0.9779951	2.0139942	-3.431339719	4.0561725
-1.69282	401	0.9804401	2.062925	-3.492159673	4.2556595
-1.687399	402	0.9828851	2.1173582	-3.57282913	4.4832059
-1.681471	403	0.9853301	2.1788946	-3.663748412	4.7475819
-1.671313	404	0.9877751	2.2499808	-3.760422793	5.0624134
-1.65026	405	0.99022	2.3346729	-3.852817082	5.4506975
-1.591991	406	0.992665	2.4404289	-3.885140911	5.9556934
-1.159127	407	0.99511	2.5835106	-2.994616733	6.6745273
-0.327394	408	0.997555	2.8141949	-0.921349318	7.9196929

Table 122 Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.001	-6.907755279	1	0.00170	-2.9295	-0.00293	8.5821	20.23639905
0.0013	-6.645391015	2	0.00412	-2.6420	-0.003435	6.9804	17.55742695
0.003	-5.80914299	3	0.00657	-2.4800	-0.00744	6.1505	14.4067336
0.003392	-5.686335561	4	0.00902	-2.3649	-0.008022	5.5927	13.44753714
0.003816	-5.568552525	5	0.01147	-2.2746	-0.00868	5.1736	12.66598066
0.00424	-5.46319201	6	0.01392	-2.1997	-0.009327	4.8385	12.01720594
0.00424	-5.46319201	7	0.01636	-2.1354	-0.009054	4.5599	11.66611448
0.00424	-5.46319201	8	0.01881	-2.0789	-0.008815	4.3218	11.35745609
0.00424	-5.46319201	9	0.02126	-2.0284	-0.0086	4.1143	11.08134297
0.00424	-5.46319201	10	0.02371	-1.9825	-0.008406	3.9304	10.83086858
0.00424	-5.46319201	11	0.02616	-1.9405	-0.008228	3.7656	10.60136229
0.00424	-5.46319201	12	0.02861	-1.9017	-0.008063	3.6163	10.38909753
0.00424	-5.46319201	13	0.03106	-1.8655	-0.00791	3.48	10.19149058
0.00424	-5.46319201	14	0.03351	-1.8316	-0.007766	3.3547	10.00635517
0.00424	-5.46319201	15	0.03595	-1.7997	-0.007631	3.2389	9.832076467
0.00424	-5.46319201	16	0.03840	-1.7695	-0.007503	3.1312	9.667238379
0.00424	-5.46319201	17	0.04085	-1.7409	-0.007381	3.0307	9.510772624
0.00424	-5.46319201	18	0.04330	-1.7136	-0.007266	2.9364	9.361759986
0.00424	-5.46319201	19	0.04575	-1.6875	-0.007155	2.8478	9.219355778
0.00424	-5.46319201	20	0.04820	-1.6626	-0.007049	2.7642	9.082988594
0.00424	-5.46319201	21	0.05065	-1.6386	-0.006948	2.685	8.952037341
0.00424	-5.46319201	22	0.05310	-1.6155	-0.00685	2.61	8.826054832
0.00424	-5.46319201	23	0.05554	-1.5933	-0.006756	2.5387	8.70459388
0.00424	-5.46319201	24	0.05799	-1.5718	-0.006665	2.4707	8.58728183
0.00424	-5.46319201	25	0.06044	-1.5511	-0.006577	2.4058	8.473795712
0.00424	-5.46319201	26	0.06289	-1.5309	-0.006491	2.3438	8.363862247
0.00424	-5.46319201	27	0.06534	-1.5114	-0.006408	2.2844	8.257208153
0.00424	-5.46319201	28	0.06779	-1.4925	-0.006328	2.2275	8.153634681
0.005	-5.298317367	29	0.07024	-1.4740	-0.00737	2.1728	7.809863691
0.005	-5.298317367	30	0.07269	-1.4561	-0.00728	2.1202	7.714740745
0.005	-5.298317367	31	0.07513	-1.4386	-0.007193	2.0695	7.622051289
0.005	-5.298317367	32	0.07758	-1.4215	-0.007108	2.0207	7.531626665
0.005	-5.298317367	33	0.08003	-1.4049	-0.007024	1.9736	7.443346404
0.005	-5.298317367	34	0.08248	-1.3886	-0.006943	1.9281	7.357102081
0.005	-5.298317367	35	0.08493	-1.3727	-0.006863	1.8842	7.272761182
0.005	-5.298317367	36	0.08738	-1.3571	-0.006785	1.8417	7.190215282
0.005	-5.298317367	37	0.08983	-1.3418	-0.006709	1.8005	7.109380054
0.005	-5.298317367	38	0.09228	-1.3269	-0.006634	1.7606	7.03015912
0.005	-5.298317367	39	0.09473	-1.3122	-0.006561	1.7219	6.9524802
0.005	-5.298317367	40	0.09717	-1.2978	-0.006489	1.6843	6.876271011
0.0062	-5.083205987	41	0.09962	-1.2837	-0.007959	1.6479	6.525331976
0.00636	-5.057726902	42	0.10207	-1.2698	-0.008076	1.6125	6.42248624
0.0065	-5.035953102	43	0.10452	-1.2562	-0.008165	1.5781	6.326203187
0.007	-4.96184513	44	0.10697	-1.2428	-0.0087	1.5446	6.166623769
0.008	-4.828313737	45	0.10942	-1.2296	-0.009837	1.512	5.937028518
0.00812	-4.813425125	46	0.11187	-1.2167	-0.009879	1.4803	5.856304802
0.0083	-4.791499764	47	0.11432	-1.2039	-0.009992	1.4494	5.768455849
0.00848	-4.770044829	48	0.11676	-1.1913	-0.010102	1.4192	5.682638125
0.00848	-4.770044829	49	0.11921	-1.1789	-0.009997	1.3899	5.623539218

Normal

19.144 =sum X(i)*M(i)
403.069 =sum M(i)^2
0.06 = standard deviation
20.0766 = square root of sum Mi

0.818 = Fillibens's Statistic

Lognormal

416.818 =sum X(i)*M(i)
403.069 =sum M(i)^2
1.05 = standard deviation
20.0766 = square root of sum Mi

0.983 = Fillibens's Statistic

.987+ is acceptable value

Normal - Fail
Lognormal - Fail

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.00848	-4.770044829	50	0.12166	-1.1667	-0.009894	1.3612	5.565297131
0.00848	-4.770044829	51	0.12411	-1.1547	-0.009792	1.3333	5.507879327
0.00848	-4.770044829	52	0.12656	-1.1428	-0.009691	1.306	5.451242422
0.00848	-4.770044829	53	0.12901	-1.1311	-0.009592	1.2794	5.39535388
0.00848	-4.770044829	54	0.13146	-1.1195	-0.009494	1.2533	5.340202853
0.00848	-4.770044829	55	0.13391	-1.1081	-0.009397	1.2279	5.285756805
0.00848	-4.770044829	56	0.13635	-1.0968	-0.009301	1.2031	5.231994045
0.00848	-4.770044829	57	0.13880	-1.0857	-0.009207	1.1788	5.178892879
0.00848	-4.770044829	58	0.14125	-1.0747	-0.009114	1.155	5.126409926
0.00848	-4.770044829	59	0.14370	-1.0638	-0.009021	1.1318	5.074556031
0.00848	-4.770044829	60	0.14615	-1.0531	-0.00893	1.109	5.02328781
0.00848	-4.770044829	61	0.14860	-1.0425	-0.00884	1.0867	4.972594418
0.00848	-4.770044829	62	0.15105	-1.0320	-0.008751	1.0649	4.922454164
0.009	-4.710530702	63	0.15350	-1.0216	-0.009194	1.0436	4.812059332
0.00912	-4.697285475	64	0.15595	-1.0113	-0.009223	1.0227	4.750199856
0.00962	-4.643911014	65	0.15839	-1.0011	-0.00963	1.0022	4.648930238
0.01	-4.605170186	66	0.16084	-0.9910	-0.00991	0.9821	4.56372984
0.01017	-4.588313069	67	0.16329	-0.9810	-0.009977	0.9624	4.50122523
0.0106	-4.546901278	68	0.16574	-0.9711	-0.010294	0.9431	4.415658179
0.01112	-4.49900999	69	0.16819	-0.9613	-0.01069	0.9242	4.325110965
0.01212	-4.412898298	70	0.17064	-0.9516	-0.011534	0.9056	4.199523666
0.012676	-4.368044837	71	0.17309	-0.9420	-0.011941	0.8874	4.114867262
0.014	-4.268697949	72	0.17554	-0.9325	-0.013055	0.8696	3.980620654
0.014	-4.268697949	73	0.17798	-0.9231	-0.012923	0.8521	3.940321776
0.0142	-4.254513314	74	0.18043	-0.9137	-0.012975	0.8349	3.887421274
0.01424	-4.251700373	75	0.18288	-0.9044	-0.012879	0.818	3.845399005
0.01462	-4.225364825	76	0.18533	-0.8952	-0.013088	0.8014	3.782699121
0.01474	-4.217190392	77	0.18778	-0.8861	-0.013061	0.7852	3.736891708
0.01522	-4.185144927	78	0.19023	-0.8771	-0.013349	0.7692	3.670603537
0.01545	-4.170146276	79	0.19268	-0.8681	-0.013412	0.7536	3.619995722
0.01572	-4.152821492	80	0.19513	-0.8592	-0.013506	0.7382	3.567942229
0.016	-4.135166557	81	0.19757	-0.8503	-0.013605	0.723	3.516198928
0.01683	-4.084592271	82	0.20002	-0.8415	-0.014163	0.7082	3.437336578
0.01693	-4.078668083	83	0.20247	-0.8328	-0.0141	0.6936	3.396813885
0.01696	-4.076897649	84	0.20492	-0.8242	-0.013978	0.6793	3.360067865
0.01696	-4.076897649	85	0.20737	-0.8156	-0.013832	0.6652	3.325046591
0.01696	-4.076897649	86	0.20982	-0.8071	-0.013688	0.6513	3.290266331
0.01696	-4.076897649	87	0.21227	-0.7986	-0.013544	0.6377	3.255727086
0.01696	-4.076897649	88	0.21472	-0.7902	-0.013401	0.6244	3.221419586
0.01696	-4.076897649	89	0.21716	-0.7818	-0.013259	0.6112	3.187334561
0.01696	-4.076897649	90	0.21961	-0.7735	-0.013119	0.5983	3.15347201
0.01696	-4.076897649	91	0.22206	-0.7652	-0.012979	0.5856	3.119831935
0.01696	-4.076897649	92	0.22451	-0.7570	-0.012839	0.5731	3.086395795
0.01748	-4.046697909	93	0.22696	-0.7489	-0.013091	0.5608	3.030556392
0.0175	-4.045554398	94	0.22941	-0.7408	-0.012964	0.5488	2.996925674
0.0178	-4.028556822	95	0.23186	-0.7327	-0.013043	0.5369	2.951898831
0.018	-4.017383521	96	0.23431	-0.7247	-0.013045	0.5252	2.91154919
0.018	-4.017383521	97	0.23676	-0.7168	-0.012902	0.5138	2.879578536
0.01848	-3.991066213	98	0.23920	-0.7089	-0.0131	0.5025	2.829126026
0.019	-3.9633163	99	0.24165	-0.7010	-0.013319	0.4914	2.778266159
0.01908	-3.959114613	100	0.24410	-0.6932	-0.013226	0.4805	2.744335965
0.0197	-3.927136643	101	0.24655	-0.6854	-0.013502	0.4698	2.691604916
0.02	-3.912023005	102	0.24900	-0.6776	-0.013553	0.4592	2.650954621
0.02	-3.912023005	103	0.25145	-0.6699	-0.013399	0.4488	2.620823112
0.021	-3.863232841	104	0.25390	-0.6623	-0.013908	0.4386	2.558534605
0.021624	-3.83395147	105	0.25635	-0.6547	-0.014156	0.4286	2.509908405

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0219893	-3.817197792	106	0.25879	-0.6471	-0.014229	0.4187	2.469982062
0.022	-3.816712826	107	0.26124	-0.6395	-0.014069	0.409	2.440856632
0.02272	-3.784509685	108	0.26369	-0.6320	-0.014359	0.3994	2.391831294
0.02316	-3.765328626	109	0.26614	-0.6245	-0.014464	0.39	2.351550424
0.02346	-3.752458436	110	0.26859	-0.6171	-0.014477	0.3808	2.315587067
0.02348	-3.751606284	111	0.27104	-0.6097	-0.014315	0.3717	2.287261409
0.02362	-3.745661468	112	0.27349	-0.6023	-0.014226	0.3628	2.256017512
0.024	-3.729701449	113	0.27594	-0.5950	-0.014279	0.354	2.219013208
0.024	-3.729701449	114	0.27838	-0.5876	-0.014104	0.3453	2.191748853
0.025	-3.688879454	115	0.28083	-0.5804	-0.014509	0.3368	2.140903013
0.025	-3.688879454	116	0.28328	-0.5731	-0.014328	0.3285	2.114163533
0.025	-3.688879454	117	0.28573	-0.5659	-0.014147	0.3202	2.087533091
0.025	-3.688879454	118	0.28818	-0.5587	-0.013968	0.3122	2.061011687
0.02544	-3.671432541	119	0.29063	-0.5515	-0.014031	0.3042	2.024976486
0.02544	-3.671432541	120	0.29308	-0.5444	-0.01385	0.2964	1.998789215
0.02544	-3.671432541	121	0.29553	-0.5373	-0.013669	0.2887	1.972702117
0.02544	-3.671432541	122	0.29797	-0.5302	-0.013489	0.2811	1.946715195
0.02544	-3.671432541	123	0.30042	-0.5232	-0.01331	0.2737	1.920828446
0.02544	-3.671432541	124	0.30287	-0.5162	-0.013131	0.2664	1.895033525
0.02544	-3.671432541	125	0.30532	-0.5092	-0.012953	0.2592	1.869334603
0.02544	-3.671432541	126	0.30777	-0.5022	-0.012776	0.2522	1.843727509
0.02544	-3.671432541	127	0.31022	-0.4952	-0.012599	0.2453	1.818203893
0.02544	-3.671432541	128	0.31267	-0.4883	-0.012422	0.2384	1.792772104
0.02544	-3.671432541	129	0.31512	-0.4814	-0.012247	0.2317	1.767427967
0.02544	-3.671432541	130	0.31757	-0.4745	-0.012072	0.2252	1.742163135
0.02544	-3.671432541	131	0.32001	-0.4677	-0.011897	0.2187	1.716981782
0.02544	-3.671432541	132	0.32246	-0.4608	-0.011723	0.2124	1.691879733
0.02562	-3.664381983	133	0.32491	-0.4540	-0.011632	0.2061	1.663660151
0.02562	-3.664381983	134	0.32736	-0.4472	-0.011458	0.2	1.638764613
0.026	-3.649658741	135	0.32981	-0.4404	-0.011451	0.194	1.607459343
0.026	-3.649658741	136	0.33226	-0.4337	-0.011276	0.1881	1.582809055
0.026	-3.649658741	137	0.33471	-0.4270	-0.011101	0.1823	1.558233452
0.0265	-3.630610546	138	0.33716	-0.4202	-0.011136	0.1766	1.525723594
0.026925	-3.614700056	139	0.33960	-0.4135	-0.011135	0.171	1.494832797
0.027	-3.611918413	140	0.34205	-0.4069	-0.010985	0.1655	1.469570417
0.027	-3.611918413	141	0.34450	-0.4002	-0.010806	0.1602	1.445515854
0.02712	-3.607483816	142	0.34695	-0.3936	-0.010674	0.1549	1.419781685
0.02713	-3.607115152	143	0.34940	-0.3869	-0.010498	0.1497	1.395745243
0.027136	-3.606894019	144	0.35185	-0.3803	-0.010321	0.1447	1.371827201
0.027136	-3.606894019	145	0.35430	-0.3737	-0.010142	0.1397	1.348060333
0.0274	-3.597212266	146	0.35675	-0.3672	-0.01006	0.1348	1.320791914
0.0275	-3.593569274	147	0.35919	-0.3606	-0.009917	0.13	1.295885553
0.027516	-3.592987625	148	0.36164	-0.3541	-0.009743	0.1254	1.272168043
0.028	-3.575550769	149	0.36409	-0.3475	-0.009731	0.1208	1.242653349
0.028	-3.575550769	150	0.36654	-0.3410	-0.009549	0.1163	1.219365362
0.028	-3.575550769	151	0.36899	-0.3345	-0.009367	0.1119	1.196130219
0.02812	-3.571274212	152	0.37144	-0.3280	-0.009225	0.1076	1.171540949
0.0285	-3.557851192	153	0.37389	-0.3216	-0.009165	0.1034	1.144114535
0.0285	-3.557851192	154	0.37634	-0.3151	-0.008981	0.0993	1.121140023
0.0286	-3.554348561	155	0.37878	-0.3087	-0.008828	0.0953	1.097132879
0.02862	-3.553649505	156	0.38123	-0.3022	-0.00865	0.0914	1.07406264
0.029	-3.540459449	157	0.38368	-0.2958	-0.008579	0.0875	1.047350694
0.029	-3.540459449	158	0.38613	-0.2894	-0.008393	0.0838	1.024669614
0.029	-3.540459449	159	0.38858	-0.2830	-0.008208	0.0801	1.002028784
0.0297	-3.516608233	160	0.39103	-0.2766	-0.008216	0.0765	0.972830034
0.03	-3.506557897	161	0.39348	-0.2703	-0.008108	0.073	0.947705419

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.03	-3.506557897	162	0.39593	-0.2639	-0.007917	0.0696	0.925400981
0.03	-3.506557897	163	0.39838	-0.2576	-0.007727	0.0663	0.903132421
0.03096	-3.47505923	164	0.40082	-0.2512	-0.007778	0.0631	0.872986804
0.031	-3.473768074	165	0.40327	-0.2449	-0.007591	0.06	0.850673205
0.031	-3.473768074	166	0.40572	-0.2386	-0.007396	0.0569	0.828719508
0.03112	-3.46990458	167	0.40817	-0.2323	-0.007228	0.0539	0.805900091
0.03112	-3.46990458	168	0.41062	-0.2260	-0.007032	0.0511	0.784033927
0.03115	-3.468941034	169	0.41307	-0.2197	-0.006842	0.0483	0.761987669
0.0315	-3.457767733	170	0.41552	-0.2134	-0.006721	0.0455	0.737806556
0.0316	-3.454598158	171	0.41797	-0.2071	-0.006544	0.0429	0.715450866
0.03173	-3.450492673	172	0.42041	-0.2008	-0.006372	0.0403	0.692974462
0.032	-3.442019376	173	0.42286	-0.1946	-0.006226	0.0379	0.669730998
0.032	-3.442019376	174	0.42531	-0.1883	-0.006026	0.0355	0.648208822
0.03212	-3.43827639	175	0.42776	-0.1821	-0.005848	0.0332	0.626036433
0.03227	-3.433617273	176	0.43021	-0.1758	-0.005674	0.0309	0.603769214
0.03248	-3.427130764	177	0.43266	-0.1696	-0.005509	0.0288	0.581277465
0.0327	-3.420380201	178	0.43511	-0.1634	-0.005343	0.0267	0.55884284
0.03272	-3.419768767	179	0.43756	-0.1572	-0.005143	0.0247	0.537480415
0.033	-3.411247718	180	0.44000	-0.1510	-0.004982	0.0228	0.514954896
0.033	-3.411247718	181	0.44245	-0.1448	-0.004777	0.021	0.493784132
0.0335	-3.39620984	182	0.44490	-0.1386	-0.004641	0.0192	0.470549241
0.03362	-3.392634151	183	0.44735	-0.1324	-0.00445	0.0175	0.449037149
0.03392	-3.383750468	184	0.44980	-0.1262	-0.00428	0.0159	0.426918927
0.03392	-3.383750468	185	0.45225	-0.1200	-0.00407	0.0144	0.405991906
0.03392	-3.383750468	186	0.45470	-0.1138	-0.00386	0.013	0.385076425
0.03392	-3.383750468	187	0.45715	-0.1076	-0.003651	0.0116	0.364180179
0.03392	-3.383750468	188	0.45959	-0.1015	-0.003441	0.0103	0.343295473
0.03392	-3.383750468	189	0.46204	-0.0953	-0.003232	0.0091	0.322422308
0.03392	-3.383750468	190	0.46449	-0.0891	-0.003023	0.0079	0.301564531
0.03392	-3.383750468	191	0.46694	-0.0830	-0.002814	0.0069	0.280718294
0.03392	-3.383750468	192	0.46939	-0.0768	-0.002605	0.0059	0.259879751
0.03392	-3.383750468	193	0.47184	-0.0706	-0.002396	0.005	0.239052749
0.03392	-3.383750468	194	0.47429	-0.0645	-0.002188	0.0042	0.218237287
0.03392	-3.383750468	195	0.47674	-0.0583	-0.001979	0.0034	0.197429519
0.03392	-3.383750468	196	0.47919	-0.0522	-0.001771	0.0027	0.176625598
0.03392	-3.383750468	197	0.48163	-0.0461	-0.001562	0.0021	0.155829371
0.03392	-3.383750468	198	0.48408	-0.0399	-0.001354	0.0016	0.135040837
0.03392	-3.383750468	199	0.48653	-0.0338	-0.001145	0.0011	0.11425615
0.0344	-3.369698715	200	0.48898	-0.0276	-0.00095	0.0008	0.093090965
0.035	-3.352407217	201	0.49143	-0.0215	-0.000752	0.0005	0.072024922
0.035	-3.352407217	202	0.49388	-0.0153	-0.000537	0.0002	0.051444195
0.036	-3.324236341	203	0.49633	-0.0092	-0.000331	8E-05	0.030607896
0.036464	-3.311429806	204	0.49878	-0.0031	-0.000112	9E-06	0.010164582
0.03672	-3.304433713	205	0.50122	0.0031	0.0001127	9E-06	-0.010143107
0.037312	-3.288440288	206	0.50367	0.0092	0.0003436	8E-05	-0.030278304
0.037312	-3.288440288	207	0.50612	0.0153	0.0005726	0.0002	-0.050462594
0.03744	-3.285015627	208	0.50857	0.0215	0.0008044	0.0005	-0.070577045
0.03772	-3.277564821	209	0.51102	0.0276	0.001042	0.0008	-0.090545683
0.03772	-3.277564821	210	0.51347	0.0338	0.0012737	0.0011	-0.110670672
0.03777	-3.276240142	211	0.51592	0.0399	0.0015073	0.0016	-0.130750247
0.038	-3.270169119	212	0.51837	0.0461	0.00175	0.0021	-0.150598692
0.038	-3.270169119	213	0.52081	0.0522	0.0019835	0.0027	-0.170696859
0.03816	-3.265967432	214	0.52326	0.0583	0.0022265	0.0034	-0.190557308
0.03816	-3.265967432	215	0.52571	0.0645	0.0024612	0.0042	-0.21064079
0.0383	-3.262305383	216	0.52816	0.0706	0.0027058	0.005	-0.230472985
0.0393	-3.23653076	217	0.53061	0.0768	0.0030183	0.0059	-0.248572942

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.04	-3.218875825	218	0.53306	0.0830	0.0033184	0.0069	-0.267040179
0.04046	-3.207441447	219	0.53551	0.0891	0.0036059	0.0079	-0.285851627
0.0407	-3.201527187	220	0.53796	0.0953	0.0038781	0.0091	-0.305059074
0.0407	-3.201527187	221	0.54041	0.1015	0.0041292	0.0103	-0.324808168
0.0409	-3.196625216	222	0.54285	0.1076	0.0044019	0.0116	-0.344040601
0.041	-3.194183212	223	0.54530	0.1138	0.0046659	0.013	-0.363503356
0.041	-3.194183212	224	0.54775	0.1200	0.0049193	0.0144	-0.383247093
0.04115	-3.190531352	225	0.55020	0.1262	0.0051918	0.0159	-0.402540978
0.0413	-3.186892779	226	0.55265	0.1324	0.0054663	0.0175	-0.421805943
0.0416	-3.179655112	227	0.55510	0.1386	0.0057637	0.0192	-0.440545305
0.0417	-3.17725415	228	0.55755	0.1448	0.0060361	0.021	-0.45991315
0.04196	-3.171038495	229	0.56000	0.1510	0.0063342	0.0228	-0.478693409
0.04222	-3.164861237	230	0.56244	0.1572	0.0066357	0.0247	-0.497416944
0.0424	-3.160606917	231	0.56489	0.1634	0.0069276	0.0267	-0.516399477
0.0424	-3.160606917	232	0.56734	0.1696	0.0071915	0.0288	-0.536072214
0.0424	-3.160606917	233	0.56979	0.1758	0.0074556	0.0309	-0.555762918
0.0424	-3.160606917	234	0.57224	0.1821	0.0077201	0.0332	-0.575478774
0.0424	-3.160606917	235	0.57469	0.1883	0.0079849	0.0355	-0.595212595
0.0424	-3.160606917	236	0.57714	0.1946	0.00825	0.0379	-0.614975163
0.0424	-3.160606917	237	0.57959	0.2008	0.0085153	0.0403	-0.634755696
0.0424	-3.160606917	238	0.58203	0.2071	0.0087811	0.0429	-0.654564975
0.0424	-3.160606917	239	0.58448	0.2134	0.0090472	0.0455	-0.674399406
0.0424	-3.160606917	240	0.58693	0.2197	0.0093136	0.0483	-0.69425899
0.0424	-3.160606917	241	0.58938	0.2260	0.0095804	0.0511	-0.714147319
0.0424	-3.160606917	242	0.59183	0.2323	0.0098476	0.0539	-0.734064393
0.0424	-3.160606917	243	0.59428	0.2386	0.0101152	0.0569	-0.754010214
0.0424	-3.160606917	244	0.59673	0.2449	0.0103831	0.06	-0.773984779
0.0424	-3.160606917	245	0.59918	0.2512	0.0106515	0.0631	-0.793991684
0.04256	-3.156840434	246	0.60162	0.2576	0.0109616	0.0663	-0.81306085
0.04296	-3.147485829	247	0.60407	0.2639	0.0113374	0.0696	-0.830639778
0.043	-3.146555163	248	0.60652	0.2703	0.0116215	0.073	-0.85040871
0.043	-3.146555163	249	0.60897	0.2766	0.0118955	0.0765	-0.870459023
0.04318	-3.142377854	250	0.61142	0.2830	0.0122209	0.0801	-0.889362837
0.0432	-3.141914784	251	0.61387	0.2894	0.0125028	0.0838	-0.90932396
0.04392	-3.125385482	252	0.61632	0.2958	0.0129926	0.0875	-0.924562108
0.044	-3.123565645	253	0.61877	0.3022	0.0132987	0.0914	-0.944073173
0.04452	-3.111816753	254	0.62122	0.3087	0.0137421	0.0953	-0.960535078
0.045	-3.101092789	255	0.62366	0.3151	0.0141803	0.0993	-0.977207605
0.046	-3.079113882	256	0.62611	0.3216	0.0147924	0.1034	-0.990164782
0.046	-3.079113882	257	0.62856	0.3280	0.0150901	0.1076	-1.010089896
0.046	-3.079113882	258	0.63101	0.3345	0.0153884	0.1119	-1.030057018
0.047488	-3.047278231	259	0.63346	0.3410	0.0161948	0.1163	-1.039209275
0.0475	-3.047025568	260	0.63591	0.3475	0.0165082	0.1208	-1.05896875
0.049	-3.015934981	261	0.63836	0.3541	0.0173494	0.1254	-1.067851188
0.0494	-3.007804855	262	0.64081	0.3606	0.0178143	0.13	-1.084651654
0.04995	-2.996732774	263	0.64325	0.3672	0.0183402	0.1348	-1.100313277
0.05	-2.995732274	264	0.64570	0.3737	0.0186873	0.1397	-1.119641394
0.05088	-2.97828536	265	0.64815	0.3803	0.0193514	0.1447	-1.132745472
0.05088	-2.97828536	266	0.65060	0.3869	0.0196876	0.1497	-1.15242443
0.05088	-2.97828536	267	0.65305	0.3936	0.0200246	0.1549	-1.172150791
0.05088	-2.97828536	268	0.65550	0.4002	0.0203625	0.1602	-1.191931326
0.05088	-2.97828536	269	0.65795	0.4069	0.0207014	0.1655	-1.211766036
0.05088	-2.97828536	270	0.66040	0.4135	0.0210411	0.171	-1.23164815
0.051	-2.975929646	271	0.66284	0.4202	0.0214322	0.1766	-1.250601247
0.051	-2.975929646	272	0.66529	0.4270	0.0217746	0.1823	-1.270582664
0.0511	-2.973970782	273	0.66774	0.4337	0.0221614	0.1881	-1.289772063

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0512	-2.972015747	274	0.67019	0.4404	0.0225506	0.194	-1.308997585
0.052	-2.95651156	275	0.67264	0.4472	0.0232552	0.2	-1.322194724
0.052	-2.95651156	276	0.67509	0.4540	0.0236084	0.2061	-1.342281043
0.05238	-2.94923044	277	0.67754	0.4608	0.0241379	0.2124	-1.359072557
0.0529	-2.93935194	278	0.67999	0.4677	0.0247392	0.2187	-1.37461704
0.053	-2.937463365	279	0.68243	0.4745	0.0251495	0.2252	-1.393881088
0.0538	-2.922481812	280	0.68488	0.4814	0.0258993	0.2317	-1.406883016
0.054	-2.918771232	281	0.68733	0.4883	0.0263684	0.2384	-1.42524521
0.054272	-2.913746839	282	0.68978	0.4952	0.0268771	0.2453	-1.442975129
0.05544	-2.892453924	283	0.69223	0.5022	0.027841	0.2522	-1.452538433
0.056	-2.882403588	284	0.69468	0.5092	0.0285128	0.2592	-1.467595199
0.056	-2.882403588	285	0.69713	0.5162	0.0289048	0.2664	-1.487771155
0.05616	-2.879550519	286	0.69958	0.5232	0.0293819	0.2737	-1.506529805
0.05768	-2.852844786	287	0.70203	0.5302	0.0305838	0.2811	-1.512672841
0.059	-2.830217835	288	0.70447	0.5373	0.0317014	0.2887	-1.520707967
0.05936	-2.82413468	289	0.70692	0.5444	0.0323166	0.2964	-1.537506103
0.05936	-2.82413468	290	0.70937	0.5515	0.03274	0.3042	-1.557649843
0.05936	-2.82413468	291	0.71182	0.5587	0.033165	0.3122	-1.577870639
0.05936	-2.82413468	292	0.71427	0.5659	0.0335918	0.3202	-1.598174913
0.05936	-2.82413468	293	0.71672	0.5731	0.0340203	0.3285	-1.618562663
0.05936	-2.82413468	294	0.71917	0.5804	0.0344506	0.3368	-1.639033892
0.05936	-2.82413468	295	0.72162	0.5876	0.0348827	0.3453	-1.659595018
0.05968	-2.818758323	296	0.72406	0.5950	0.0355071	0.354	-1.67704092
0.06	-2.813410717	297	0.72651	0.6023	0.0361381	0.3628	-1.694521488
0.061	-2.796881415	298	0.72896	0.6097	0.0371902	0.3717	-1.705189308
0.0636	-2.755141809	299	0.73141	0.6171	0.0392466	0.3808	-1.700157603
0.06392	-2.750122978	300	0.73386	0.6245	0.0399198	0.39	-1.717526807
0.06392	-2.750122978	301	0.73631	0.6320	0.0403978	0.3994	-1.738093107
0.064	-2.748872196	302	0.73876	0.6395	0.0409292	0.409	-1.757953306
0.06412	-2.746998951	303	0.74121	0.6471	0.0414899	0.4187	-1.777491895
0.06416	-2.746375315	304	0.74365	0.6547	0.0420025	0.4286	-1.79792325
0.0652	-2.73029581	305	0.74610	0.6623	0.0431805	0.4386	-1.808215192
0.06544	-2.726621587	306	0.74855	0.6699	0.0438409	0.4488	-1.826674552
0.066	-2.718100537	307	0.75100	0.6776	0.0447244	0.4592	-1.841901535
0.0664533	-2.711255332	308	0.75345	0.6854	0.0455462	0.4698	-1.858256752
0.06784	-2.690603287	309	0.75590	0.6932	0.0470246	0.4805	-1.865043095
0.06784	-2.690603287	310	0.75835	0.7010	0.0475555	0.4914	-1.886100299
0.06784	-2.690603287	311	0.76080	0.7089	0.0480894	0.5025	-1.907273741
0.06784	-2.690603287	312	0.76324	0.7168	0.0486263	0.5138	-1.928569537
0.06784	-2.690603287	313	0.76569	0.7247	0.0491662	0.5252	-1.949981569
0.06784	-2.690603287	314	0.76814	0.7327	0.0497093	0.5369	-1.971522074
0.06784	-2.690603287	315	0.77059	0.7408	0.0502555	0.5488	-1.993184933
0.06892	-2.674808867	316	0.77304	0.7489	0.0516139	0.5608	-2.003154002
0.0723	-2.62693115	317	0.77549	0.7570	0.0547344	0.5731	-1.988705617
0.073	-2.617295838	318	0.77794	0.7652	0.055863	0.5856	-2.002876658
0.07414	-2.601800081	319	0.78039	0.7735	0.0573471	0.5983	-2.012487053
0.07632	-2.572820252	320	0.78284	0.7818	0.0596673	0.6112	-2.011440957
0.07632	-2.572820252	321	0.78528	0.7902	0.0603054	0.6244	-2.032951098
0.07632	-2.572820252	322	0.78773	0.7986	0.0609476	0.6377	-2.054601637
0.07632	-2.572820252	323	0.79018	0.8071	0.0615942	0.6513	-2.076398424
0.07632	-2.572820252	324	0.79263	0.8156	0.0622453	0.6652	-2.098347308
0.080136	-2.524030088	325	0.79508	0.8242	0.0660459	0.6793	-2.080236768
0.0814	-2.508380006	326	0.79753	0.8328	0.0677919	0.6936	-2.089039819
0.0848	-2.467459736	327	0.79998	0.8415	0.0713624	0.7082	-2.0764593
0.0848	-2.467459736	328	0.80243	0.8503	0.0721068	0.723	-2.098120876
0.0848	-2.467459736	329	0.80487	0.8592	0.0728569	0.7382	-2.119945153

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.0848	-2.467459736	330	0.80732	0.8681	0.0736127	0.7536	-2.14193774
0.0848	-2.467459736	331	0.80977	0.8771	0.0743743	0.7692	-2.164098638
0.0848	-2.467459736	332	0.81222	0.8861	0.0751421	0.7852	-2.186439067
0.0848	-2.467459736	333	0.81467	0.8952	0.075916	0.8014	-2.208959028
0.093	-2.375155786	334	0.81712	0.9044	0.0841127	0.818	-2.148180938
0.09328	-2.372149556	335	0.81957	0.9137	0.0852315	0.8349	-2.16747345
0.09328	-2.372149556	336	0.82202	0.9231	0.0861043	0.8521	-2.189668293
0.09328	-2.372149556	337	0.82446	0.9325	0.0869849	0.8696	-2.212062701
0.09328	-2.372149556	338	0.82691	0.9420	0.0878734	0.8874	-2.234656675
0.09328	-2.372149556	339	0.82936	0.9516	0.0887697	0.9056	-2.257450213
0.09328	-2.372149556	340	0.83181	0.9613	0.0896745	0.9242	-2.280459496
0.09328	-2.372149556	341	0.83426	0.9711	0.0905875	0.9431	-2.303679132
0.09936	-2.309005661	342	0.83671	0.9810	0.0974741	0.9624	-2.265179899
0.10176	-2.285138179	343	0.83916	0.9910	0.1008443	0.9821	-2.264575005
0.10176	-2.285138179	344	0.84161	1.0011	0.10187	1.0022	-2.287607998
0.10176	-2.285138179	345	0.84405	1.0113	0.1029063	1.0227	-2.310879999
0.10176	-2.285138179	346	0.84650	1.0216	0.1039533	1.0436	-2.334391006
0.10176	-2.285138179	347	0.84895	1.0320	0.1050114	1.0649	-2.358151411
0.10176	-2.285138179	348	0.85140	1.0425	0.106081	1.0867	-2.382171607
0.10176	-2.285138179	349	0.85385	1.0531	0.1071625	1.109	-2.406456789
0.11024	-2.205095472	350	0.85630	1.0638	0.1172775	1.1318	-2.345864856
0.11024	-2.205095472	351	0.85875	1.0747	0.1184759	1.155	-2.369835865
0.11024	-2.205095472	352	0.86120	1.0857	0.1196888	1.1788	-2.394097675
0.11024	-2.205095472	353	0.86365	1.0968	0.1209161	1.2031	-2.418645273
0.11024	-2.205095472	354	0.86609	1.1081	0.1221586	1.2279	-2.443498712
0.11024	-2.205095472	355	0.86854	1.1195	0.1234169	1.2533	-2.468668021
0.11024	-2.205095472	356	0.87099	1.1311	0.1246915	1.2794	-2.494163228
0.111936	-2.189828	357	0.87344	1.1428	0.1279213	1.306	-2.502551594
0.11194	-2.189792266	358	0.87589	1.1547	0.129255	1.3333	-2.528511153
0.11872	-2.1309875	359	0.87834	1.1667	0.1385128	1.3612	-2.486261459
0.11872	-2.1309875	360	0.88079	1.1789	0.1399623	1.3899	-2.512280745
0.11872	-2.1309875	361	0.88324	1.1913	0.1414332	1.4192	-2.53868281
0.11872	-2.1309875	362	0.88568	1.2039	0.1429262	1.4494	-2.56548219
0.11872	-2.1309875	363	0.88813	1.2167	0.1444419	1.4803	-2.592688575
0.123	-2.095570924	364	0.89058	1.2296	0.1512442	1.512	-2.576772143
0.125504	-2.075417648	365	0.89303	1.2428	0.1559774	1.5446	-2.579346889
0.1272	-2.061994628	366	0.89548	1.2562	0.1597896	1.5781	-2.59029358
0.1272	-2.061994628	367	0.89793	1.2698	0.1615232	1.6125	-2.618396047
0.132	-2.024953356	368	0.90038	1.2837	0.1694489	1.6479	-2.59944077
0.13568	-1.997456107	369	0.90283	1.2978	0.1760884	1.6843	-2.59234179
0.13568	-1.997456107	370	0.90527	1.3122	0.17804	1.7219	-2.621072517
0.13568	-1.997456107	371	0.90772	1.3269	0.1800292	1.7606	-2.65035733
0.13568	-1.997456107	372	0.91017	1.3418	0.1820579	1.8005	-2.680223479
0.14016	-1.964970652	373	0.91262	1.3571	0.1902077	1.8417	-2.666613008
0.141	-1.958995389	374	0.91507	1.3727	0.1935443	1.8842	-2.689024577
0.14416	-1.936831485	375	0.91752	1.3886	0.2001767	1.9281	-2.689432506
0.14416	-1.936831485	376	0.91997	1.4049	0.2025233	1.9736	-2.720959631
0.14416	-1.936831485	377	0.92242	1.4215	0.2049253	2.0207	-2.753231007
0.14416	-1.936831485	378	0.92487	1.4386	0.2073856	2.0695	-2.786286267
0.14416	-1.936831485	379	0.92731	1.4561	0.2099076	2.1202	-2.82016945
0.146	-1.924148657	380	0.92976	1.4740	0.215208	2.1728	-2.836247377
0.147	-1.917322692	381	0.93221	1.4925	0.2193927	2.2275	-2.861541159
0.147	-1.917322692	382	0.93466	1.5114	0.2221796	2.2844	-2.897890563
0.148	-1.910543005	383	0.93711	1.5309	0.2265803	2.3438	-2.924941771
0.15264	-1.879673071	384	0.93956	1.5511	0.2367554	2.4058	-2.915505365
0.1536	-1.873403458	385	0.94201	1.5718	0.2414351	2.4707	-2.944696699

Table 122. Uranium Combined Upgradient Background Data Set, Filliben's Statistic Analysis (continued)

Uranium	Ln(Uranium)	Count	m(i)	M(i)	X(i)*Mi	Mi^2	X(i)*Mi (log)
0.155	-1.864330162	386	0.94446	1.5933	0.2469641	2.5387	-2.970467977
0.16112	-1.82560585	387	0.94690	1.6155	0.2602973	2.61	-2.949355854
0.16114	-1.825481727	388	0.94935	1.6386	0.2640455	2.685	-2.99125137
0.162	-1.820158944	389	0.95180	1.6626	0.2693378	2.7642	-3.026158132
0.163	-1.814005078	390	0.95425	1.6875	0.275069	2.8478	-3.061206373
0.164	-1.807888851	391	0.95670	1.7136	0.2810314	2.9364	-3.098009639
0.164	-1.807888851	392	0.95915	1.7409	0.2855046	3.0307	-3.147321156
0.166	-1.795767491	393	0.96160	1.7695	0.2937406	3.1312	-3.177650058
0.1696	-1.774312556	394	0.96405	1.7997	0.3052282	3.2389	-3.193220501
0.1696	-1.774312556	395	0.96649	1.8316	0.3106385	3.3547	-3.249822006
0.175	-1.742969305	396	0.96894	1.8655	0.3264595	3.48	-3.251479212
0.17544	-1.740458175	397	0.97139	1.9017	0.3336261	3.6163	-3.309748166
0.17808	-1.725522391	398	0.97384	1.9405	0.3455655	3.7656	-3.348388263
0.182	-1.703748592	399	0.97629	1.9825	0.360818	3.9304	-3.377709782
0.182	-1.703748592	400	0.97874	2.0284	0.3691623	4.1143	-3.455822614
0.184	-1.692819521	401	0.98119	2.0789	0.3825185	4.3218	-3.519210628
0.185	-1.687399454	402	0.98364	2.1354	0.3950495	4.5599	-3.603277198
0.1861	-1.681471115	403	0.98608	2.1997	0.4093581	4.8385	-3.698677375
0.188	-1.671313316	404	0.98853	2.2746	0.4276164	5.1736	-3.801494561
0.192	-1.650259907	405	0.99098	2.3649	0.4540582	5.5927	-3.902677068
0.20352	-1.591990999	406	0.99343	2.4800	0.5047317	6.1505	-3.94815384
0.31376	-1.159126917	407	0.99588	2.6420	0.8289683	6.9804	-3.062466319
0.7208	-0.327393573	408	0.99830	2.9295	2.1115972	8.5821	-0.959105631

Figure 18. Uranium Combined Background Data Set, Histogram (normal)

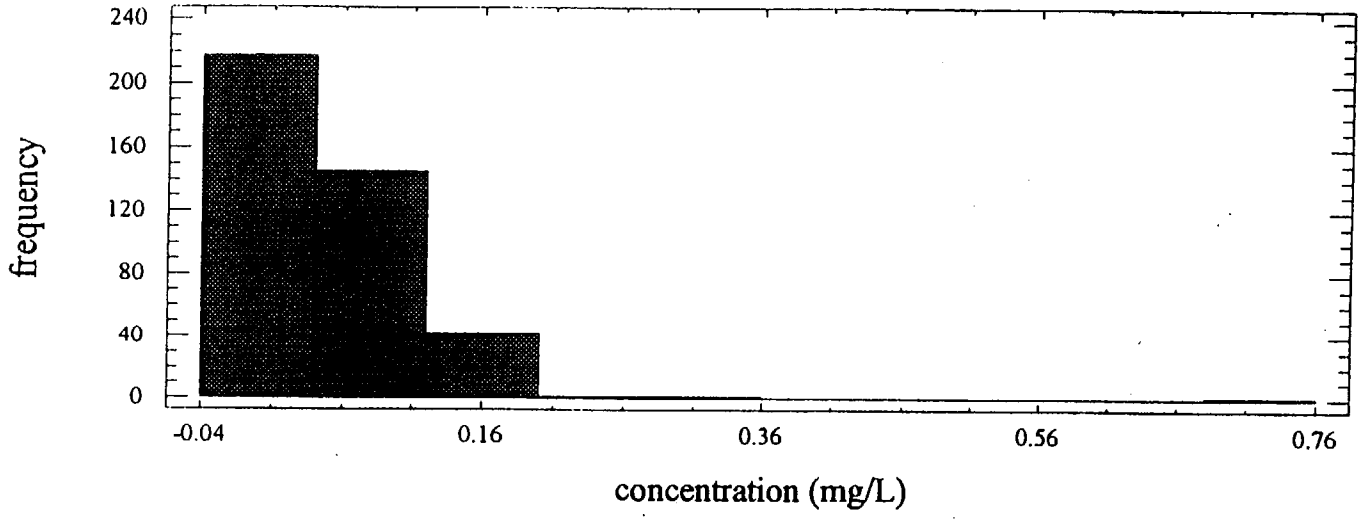

Figure 19. Uranium Combined Background Data Set, Histogram (lognormal)

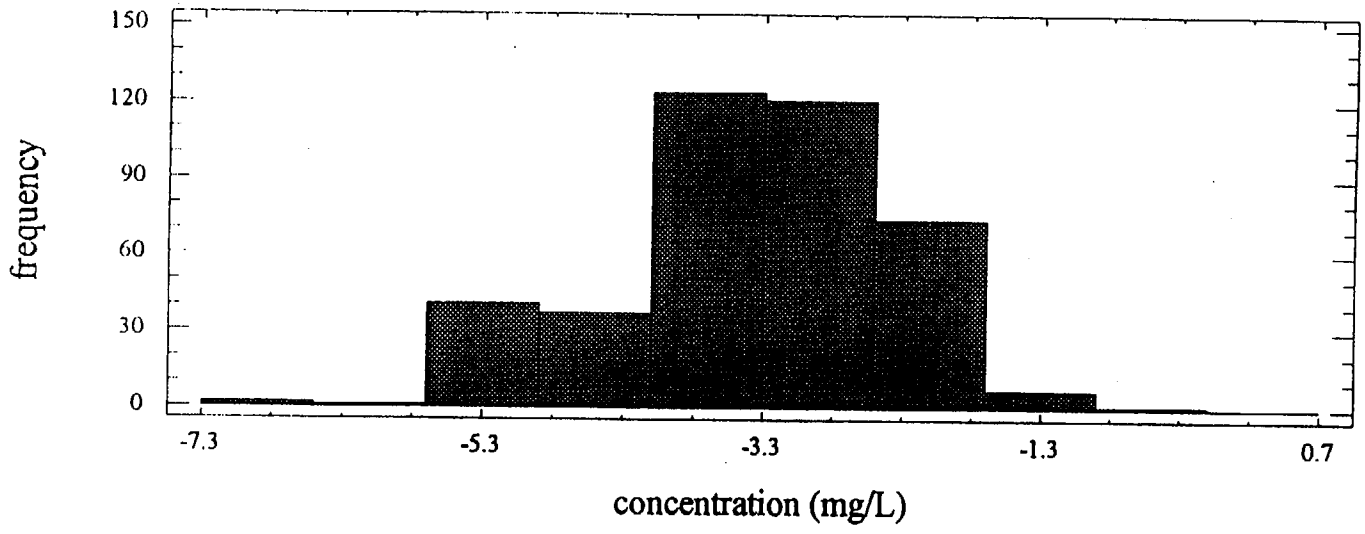

Figure 20. Uranium Combined Background Data Set, Probability Plot (normal)

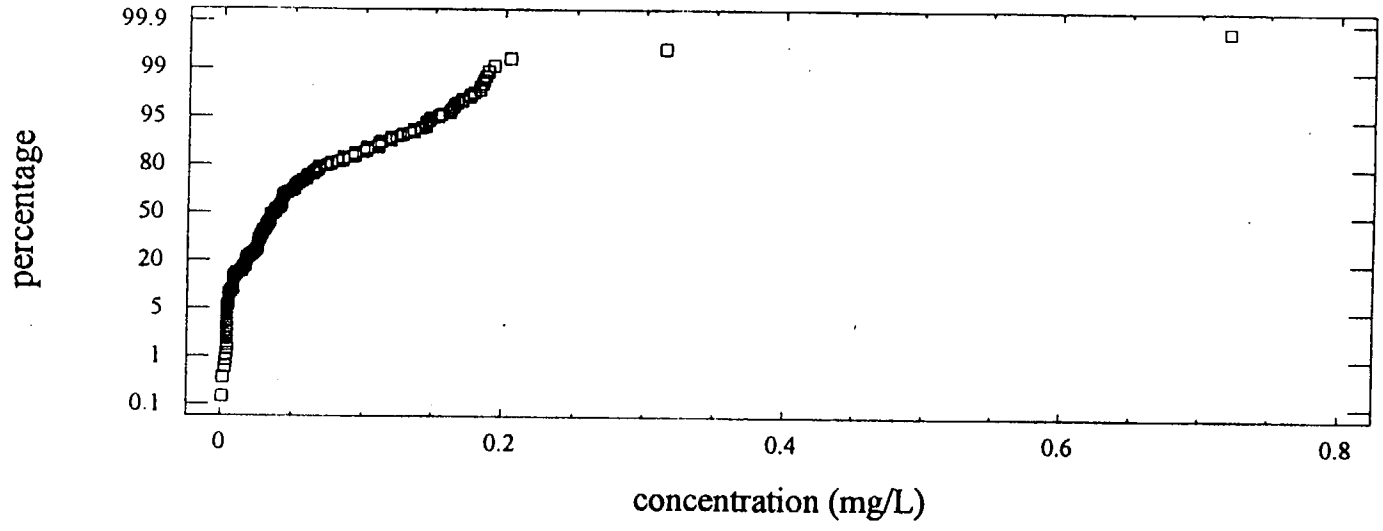

Figure 21. Uranium Combined Background Data Set, Probability Plot (lognormal)

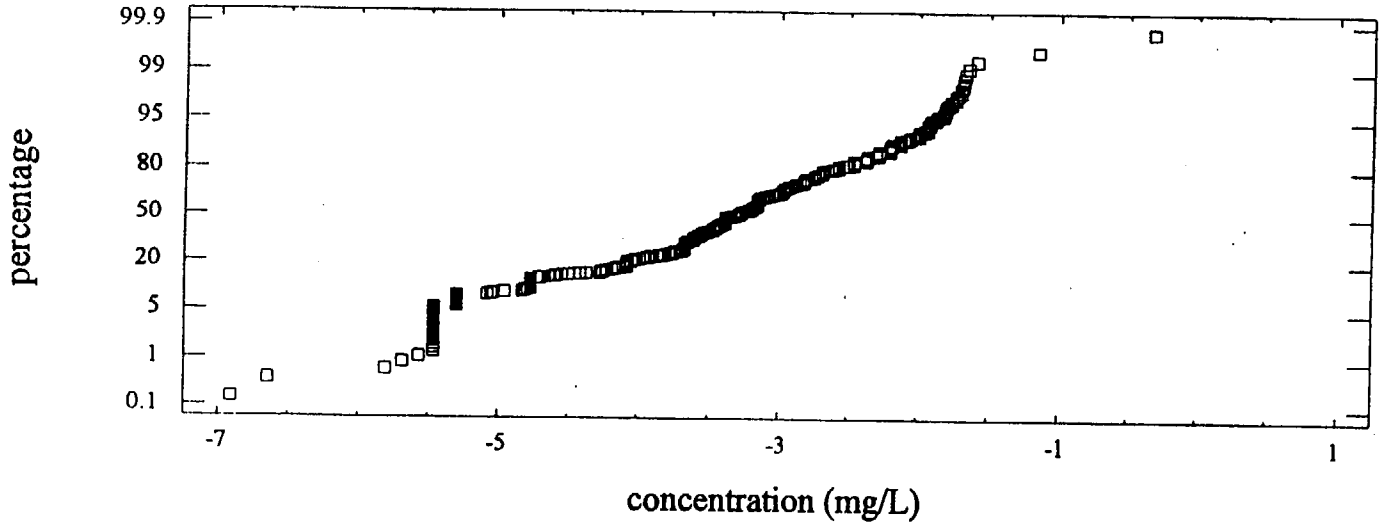

Table 123. Uranium Combined Upgradient Background Data Set, Distribution Summary

Parameter	Distribution Type (tested)	Coefficient of Variation	Studentized Range Test	Geary's Test	Coefficient of Skewness (-1 to 1)	Shapiro-Francia Test	Filliben's Statistic	Histogram	Probability Plot	Number of Samples	Distribution Type (determined)
Uranium	Normal	Fail	Fail	Fail	Fail	Fail	Fail	Nonparametric	Nonparametric	408	Nonparametric
Uranium	Lognormal	Pass	NA	Fail	Pass	Fail	Fail	Lognormal	Nonparametric	408	

NA - not applicable

Table 124. Uranium Combined Upgradient Background Data Set, T_n Statisitic Analysis

Parameter	Distribution	Maximum Observation	Mean	Standard Deviation	T_n Statistic	N	Upper 5% Critical Value	Pass or Fail T_n Statistic
Uranium	Lognormal	-0.327393573	-3.398132022	1.04705448	2.933	408	3.34+	Pass

ND - concentration was non-detect
N - number of samples

Table 125. Uranium Combined Upgradient Background Data Set, 95th Percentile Calculation

Parameter	Distribution	95th Percentile (mg/L)	Sample #
Uranium	Nonparametric	0.16	408

SD = standard deviation

Table 126. Uranium Combined Upgradient Background Data Set, Summary Table

Parameter	Distribution	95th Percentile (mg/L)	Range (normal)	Sample #
Uranium	Nonparametric	0.16	0.001 to 0.7208	408

SD = standard deviation
ND = non-detect, concentration reported as the minimum detecatable activity (MDA)

Table 127. Summary Table for Upgradient Wells, Statistical Analysis

Parameter	Data Set	Distribution	95th Percentile	Range	Arithmetic Mean	Sample #
Molybdenum	Near Upgradient	Nonparametric	0.054	<0.001 to 0.2	0.019	366
	Far Upgradient	Nonparametric	0.04	<0.01 to 0.07	0.018	42
	Combined	Nonparametric	0.05	<0.001 to 0.2	0.019	408
Selenium	Near Upgradient	Nonparametric	0.27	0.009 to 0.755	0.13	365
	Far Upgradient	Nonparametric	0.72	<0.005 to 0.79	0.3	42
Uranium	Near Upgradient	Nonparametric	0.147	0.003392 to 0.7208	0.05	366
	Far Upgradient	Nonparametric	0.18	0.001 to 0.192	0.07	42
	Combined	Nonparametric	0.16	0.001 to 0.7208	0.05	408