

Shapiro-Wilk Test of Normality
Chromium Detected in Krum Complex Soils
Camp Stanley Storage Activity, Texas

Number of Samples, n	Reverse Ordered					ln of Reverse Ordered				
	Ordered Concentrations x(i)	Ordered Concentrations x(n-i+1)	Difference x(n-i+1)-x(i)	a(n-i+1) ^a	b(i) ^b	ln of Ordered Concentrations ln x(i)	Ordered Concentrations ln x(n-i+1)	Difference ln x(n-i+1)- ln x(i)	a(n-i+1) ^a	b(i) ^b
1	4.1	29.3	25.2	0.5739	14.46	1.41	3.38	1.97	0.5739	1.13
2	5.4	17	11.6	0.3291	3.82	1.69	2.83	1.15	0.3291	0.38
3	5.6	14	8.4	0.2141	1.80	1.72	2.64	0.92	0.2141	0.20
4	6.9	8.6	1.7	0.1224	0.21	1.93	2.15	0.22	0.1224	0.03
5	7.1	8.2	1.1	0.0399	0.04	1.96	2.10	0.14	0.0399	0.01
6	8.2	7.1	-1.1		b= 20.33	2.10	1.96	-0.14		b= 1.73
7	8.6	6.9	-1.7			2.15	1.93	-0.22		
8	14	5.6	-8.4		W ^c = 0.777	2.64	1.72	-0.92		W ^c = 0.931
9	17	5.4	-11.6		W(0.05,10)= 0.842	2.83	1.69	-1.15		W(0.05,10)= 0.842
10	29.3	4.1	-25.2		Normality= Not normal	3.38	1.41	-1.97		Normality= Lognormal

*** Distribution is normal because of higher W value.

^a From An Analysis of Variance Test for Normality (complete samples), by S.S. Shapiro and M.B. Wilk, Biometrika, vol. 52, pp. 591-611.

^b $b(i) = [x(n-i+1) - x(i)] * a(n-i+1)$

^c $W = b*b/S*S*n$