Table A.5
Aitchison's Adjustment to the Overall Mean and Standard Deviation
of Arsenic Concentrations
Detected in Glen Rose Formation
Camp Stanley Storage Activity, Texas

Sample ID	Arsenic Concentrations (mg/kg)	Natural log of Arsenic Concentrations (mg/kg)	
BKGR-SS1 (4.5)	2.2	0.79	U
BKGR-SS2 (10.0)	2.1	0.74	U
BKGR-SS3 (19.5)	2.2	0.79	U
BKGR-SS4 (17.5)	2.1	0.74	U
BKGR-SS5 (10.0)	2.1	0.74	
BKGR-SS6 (18.0)	4.3	1.46	
BKGR-SS7 (24.0)	2.7	0.99	
BKGR-SS8 (5.0)	2.1	0.74	U
BKGR-SS9 (5.0)	2.0	0.69	U
BKGR-SS10 (20.0)	2.2	0.79	U
BKGR-SB11 (8.5)	1.8	0.58	
BKGR-SB12 (8.5)	1.2	0.18	
BKGR-SB13 (13.5)	2.2	0.78	
BKGR-SB14 (10.5)	1.0	0.00	
BKGR-SB15 (6.0)	1.2	0.14	
BKGR-SB16 (12.0)	2.8	1.04	
BKGR-SB17 (8.5)	1.9	0.65	
BKGR-SB18 (8.5)	0.8	-0.27	
BKGR-SB19 (8.5)	1.3	0.25	
BKGR-SB20 (10.5)	1.0	0.03	
BKGR-SB100 (10.5)	0.9	-0.11	
BKGR-SB101 (6.0)	0.9	-0.06	
Mean of Detects (X)		0.43	
Variance of Detects (V)		0.26	
Number of samples (n)		22	
Number of samples with nondetected values (d)		7	
Adjusted Mean (X*)		0.29	
Adjusted Standard Deviation (S*)		0.44	

d = number of samples with nondetected values

n = number of samples

$$X^* = \left(1 - \frac{d}{n}\right)X$$

$$S^* = \left(\frac{n-(d+1)}{n-1}V + \frac{d}{n}\left(\frac{n-d}{n-1}\right)(X^*)^2\right)^{\frac{1}{2}}$$

Note: Adjustment method was selected based
on the probability plot correlation coefficient value:

	Censored (Cohen)	Detects Only (Aitchison)
Lognormal	0.95230	0.96065