Table 5. Summary of Results of the Wilcoxon-Mann-Whitney Tests

Analyte	Year of Sample Event	Type of Water	Raw Statistics								Wilcoxon-Mann-Whitney (WMW) Test[1]					
			Number of Valid Observa-tions	Number of Distinct Observa-tions	Minimum	Maximum	Mean	Median	Standard Deviation	Standard Error of the Mean	Site Rank Sum W-Statistic	WMW Test U-Statistic	Lower Critical Value (0.001)	Upper Critical Value (1.000)	Approx-imate P-Value	Statistical Conclusion
pH	2005	Spring Water	4	4	6.62	7.34	6.963	6.945	0.296	0.148	159	54	N/A[2]	N/A[2]	0.00677	Reject Null Hypothesis[3] (H0)
		Groundwater	14	14	7.18	10.52	7.918	7.545	0.963	0.257						
	2007	Spring Water	6	6	6.19	7.08	6.728	6.735	0.308	0.126	169	78	N/A[2]	N/A[2]	0.000734	Reject Null Hypothesis[3] (H0)
		Groundwater	13	11	7.26	10.22	7.998	7.67	0.897	0.249						
	2009	Spring Water	5	5	6.77	7.38	7.052	6.96	0.251	0.112	136	58	N/A[2]	N/A[2]	0.00375	Reject Null Hypothesis[3] (H0)
		Groundwater	12	10	7.26	10.24	7.958	7.535	0.963	0.278						
Carbon-14	2005	Spring Water	4	4	70.3	104.2	90.08	92.9	14.41	7.207	106	1	N/A[2]	N/A[2]	0.0035	Reject Null Hypothesis[3] (H0)
		Groundwater	14	14	2.9	80.9	34.16	35.45	21.91	5.856						
	2007	Spring Water	6	6	82.65	109.9	98.49	101	10.81	4.414	91	0	N/A[2]	N/A[2]	0.000531	Reject Null Hypothesis[3] (H0)
		Groundwater	13	13	4.6	82.08	36.38	37.64	21.88	6.068						
	2009	Spring Water	5	5	82.9	108	96.16	96.7	10.15	4.538	78	0	N/A[2]	N/A[2]	0.0013	Reject Null Hypothesis[3] (H0)
		Groundwater	12	12	2.5	80.6	31.28	29	22.12	6.385						

[1] Test Specifications:

- Confidence Coefficient = 99.9%
- Selected Null Hypothesis (H0) = “Spring Water Mean/Median is Equal to Groundwater Mean/Median” (Two Sided Alternative)
- Alternative Hypothesis = “Spring Water Mean/Median is Not Equal to Groundwater Mean/Median”

[3] Conclude spring water is statistically different than groundwater (see footnote 1)