

1	>3.50	>3.50	>3.50	2.00	1.00	0.50	0.45	0.20	0.00	No response
2	>3.50	>3.50	2.10	0.00						No response
3	Missing	2.10	0.30	0.00						2 months
4	4.00	0.70	0.00							No response
5	16.00	8.50	3.60	0.00						No response
6	0.70	0.30	0.00							45 days
7	18.00	0.80	0.00							3 months
8	30.00	0.45	0.00							2 weeks
9	7.50	0.90	0.00							6 months
10	0.40	0.00								25 days

None of the wells had detectable residual chlorine levels immediately before chlorination. Bold areas indicate days when the wells were open for use and residual chlorine levels were ≥ 0.2 mg/L.

Chlorination with a single 'shock' dose has been recommended as a means of disinfecting contaminated wells, and ongoing chlorination has been recommended for keeping well water safe in areas where aquifers are contaminated (WHO 1996). In our investigation, the duration of an adequate RCL after a single, large dose of liquid bleach was short-lived and variable. Furthermore, it left the mistaken impression among well owners that the well water would be safe to drink for weeks or months. These results suggest that 'shock' well chlorination may not be an effective intervention for disinfecting water and that a systematic study is needed which compares the effectiveness of 'shock' well chlorination to other more reliable strategies such as point-of-use chlorination (Quick et al. 1996).

References

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