

Appendix B: A comparison of Canadian shock chlorination protocols for existing wells

Jurisdiction	Document	Direct pour/ pre-mix	Recirculate within well	Holding time (h)	Desired chlorine dose (mg/L)	Chlorine dose achieved (mg/L) ^a	Estimated Concentration x Time (CT) (mg-h/L)	Testing after disinfection
Health Canada (2024)	Well water and health: treat your well water ¹¹⁵	Direct pour	Yes (30 min)	12-24	50	57.5	690-1380	Test after 48 hours, retest after one-three weeks and three-four months
BC (2024)	Water well disinfection using the simple chlorination method ¹²²	Both methods described	Yes	12	200	191	2292	Test after one week; retest after one month
AB (2022)	Shock chlorinating your well ¹³²	Pre-mix	No (pre-mix in tank)	8-48	200	191 in tank 71.6 in well	573-3437	No test recommendation
AB (2019)	Shock chlorination procedure for contaminated wells ¹³³	Pre-mix	No (pre-mix in tank)	8	50 in well 10 taps	50.5 in tank 33.6 in well	269	Test after seven days
SK (2025)	Shock chlorination for ground water wells ¹³⁴ (High level chlorination)	10L direct pour, 10L pre-mixed	No (pre-mix large volume)	12	Not specified	1451	17412	Test after five days; retest after 12 days with at least one week of constant use.
SK (2007)	Low level chlorine well disinfection (shock disinfection) ¹³⁵	Direct pour	Yes	12	250	286	3432	Test after five days; retest after 12 days with at least one week of constant use.
MB (2016)	How to disinfect a well. Partial chlorination method ¹³⁶	Direct pour in two parts	Yes	12-24	250	258	3096-6192	Test after seven days; retest after one month
ON (2021)	Disinfecting private water wells ^{84,123}	Pre-mix	Yes	12	50	57.5	690	Test after the process
ON (2024)	Well disinfection ⁹⁸	Pre-mix	Yes	12-24	50-200	54.7-216	776-5184	Test after one-two days, and two more samples one-three weeks apart
QC (2025)	The quality of my well water ⁹³	Direct pour	Yes	24	50	49.3	1183	Test after seven days; retest after four weeks

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NB (2024)	How to chlorinate your well water ¹³⁷	Direct pour	Yes (1 hr)	8-24	Not specified	383-639	3064-15336	Test after seven days
NS (2008)	Disinfection of water wells by chlorination ¹³⁸	Pre-mix	If possible	12-24	100	114	1368-2736	Test after process and again at two-four weeks and three-four months
NL (2024)	Guidelines for disinfecting dug and drilled wells ¹³⁹	Pre-mix	Yes	12-24	100-300	98-294	1176-7128	Test after 10 days, with two-three follow-ups
PEI (2024)	How to disinfect your well ¹⁴⁰	Pre-mix	Yes (30 min)	8-12	Not specified	156-281	1248-3372	Test after 48 hours, wait for two consecutive safe results
YK (2024)	Learn how to disinfect your drinking water well ¹⁴¹	Direct pour	No	6	Not specified	766	4596	Test after seven days

^a Achieved dose calculated for a hypothetical drilled well (15 m of water, 6-inch diameter casing)