



Manganese Concentration Level in City Water Supply

| MONTH | # READINGS | AVERAGE-PPB | HIGH-PPB | LOW-PPB |
|-----------------|------------|-------------|----------|---------|
| February, 2022 | 19 | 152 | 178 | 112 |
| January, 2022 | 20 | 151 | 216 | 102 |
| December, 2021 | 18 | 267 | 479 | 113 |
| November, 2021 | 19 | 293 | 399 | 125 |
| October, 2021 | 21 | 288 | 422 | 180 |
| September, 2021 | 21 | 246 | 377 | 71 |
| August, 2021 | 21 | 172 | 352 | 88 |
| July, 2021 | 20 | 218 | 379 | 84 |
| June, 2021 | 22 | 187 | 333 | 79 |
| May, 2021 | 20 | 125 | 170 | 83 |
| April, 2021 | 22 | 106 | 162 | 76 |
| March, 2021 | 23 | 104 | 187 | 87 |
| February, 2021 | 19 | 101 | 128 | 79 |
| January, 2021 | 18 | 99 | 126 | 83 |
| December, 2020 | 20 | 100 | 164 | 78 |
| November, 2020 | 18 | 118 | 196 | 76 |
| October, 2020 | 22 | 115 | 156 | 81 |
| September 2020 | 21 | 140 | 261 | 58 |
| August, 2020 | 21 | 159 | 315 | 74 |
| July, 2020 | 22 | 169 | 281 | 68 |
| June, 2020 | 22 | 148 | 250 | 65 |
| May, 2020 | 20 | 128 | 196 | 78 |
| April, 2020 | 22 | 101 | 154 | 56 |

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|----------------|----|------------|-----|-----|
| March, 2020 | 22 | 96 | 160 | 67 |
| February, 2020 | 19 | 102 | 144 | 52 |
| January, 2020 | 20 | 110 | 148 | 67 |
| December, 2019 | 17 | 151 | 331 | 117 |

| <i>Date</i> | <i>Reading (PPB)</i> | <i>DATE</i> | <i>READING (PPB)</i> | <i>DATE</i> | <i>Reading (PPB)</i> |
|----------------|----------------------|---------------|----------------------|---------------|----------------------|
| March 16, 2022 | 208 | Jan. 27, 2022 | 126 | Dec. 3, 2021 | 380 |
| March 15, 2022 | 153 | Jan. 26, 2022 | 196 | Dec. 2, 2021 | 387 |
| March 14, 2022 | 130 | Jan. 25, 2022 | 149 | Dec. 1, 2021 | 378 |
| March 11, 2022 | 138 | Jan. 24, 2022 | 158 | Nov. 30, 2021 | 146 |
| March 10, 2022 | 132 | Jan. 21, 2022 | 216 | Nov. 29, 2021 | 387 |
| March 9, 2022 | 130 | Jan. 20, 2022 | 215 | Nov. 24, 2021 | 231 |
| March 8, 2022 | 132 | Jan. 19, 2022 | 127 | Nov. 23, 2021 | 225 |
| March 7, 2022 | 166 | Jan 18, 2022 | 147 | Nov. 22, 2021 | 378 |
| March 4, 2022 | 131 | Jan. 14, 2021 | 213 | Nov. 19, 2021 | 125 |
| March 3, 2022 | 180 | Jan. 13, 2022 | 120 | Nov. 18, 2021 | 379 |
| March 2, 2022 | 146 | Jan. 12, 2022 | 125 | Nov. 17, 2021 | 374 |
| March 1, 2022 | 153 | Jan. 11, 2022 | 121 | Nov. 16, 2021 | 317 |
| Feb. 28, 2022 | 147 | Jan. 10, 2022 | 114 | Nov. 15, 2021 | 270 |
| Feb. 25, 2022 | 158 | Jan. 7, 2022 | 181 | Nov. 12, 2021 | 399 |
| Feb. 24, 2022 | 153 | Jan. 6, 2022 | 143 | Nov. 10, 2021 | 256 |
| Feb. 23, 2022 | 112 | Jan. 5, 2022 | 161 | Nov. 9, 2021 | 150 |
| Feb. 22, 2022 | 146 | Jan. 4, 2022 | 132 | Nov. 8, 2021 | 377 |
| Feb. 18, 2022 | 141 | Jan. 3, 2022 | 137 | Nov. 5, 2021 | 386 |
| Feb. 17, 2022 | 175 | Dec. 29, 2021 | 152 | Nov. 4, 2021 | 198 |
| Feb. 16, 2022 | 132 | Dec. 28, 2021 | 126 | Nov. 3, 2021 | 386 |
| Feb. 15, 2022 | 134 | Dec. 22, 2021 | 132 | Nov. 2, 2021 | 253 |
| Feb. 14, 2022 | 163 | Dec. 21, 2021 | 265 | Nov. 1, 2021 | 336 |
| Feb. 11, 2022 | 174 | Dec. 20, 2021 | 134 | Oct. 29, 2021 | 193 |
| Feb. 10, 2022 | 116 | Dec. 17, 2021 | 346 | Oct. 28, 2021 | 422 |
| Feb. 9, 2022 | 152 | Dec. 16, 2021 | 284 | Oct. 27, 2021 | 288 |
| Feb. 8, 2022 | 174 | Dec. 15, 2021 | 132 | Oct. 26, 2021 | 200 |
| Feb. 7, 2022 | 136 | Dec. 14, 2021 | 113 | Oct. 25, 2021 | 190 |
| Feb. 4, 2022 | 178 | Dec. 13, 2021 | 479 | Oct. 22, 2021 | 385 |
| Feb. 3, 2022 | 164 | Dec. 10, 2021 | 394 | Oct. 21, 2021 | 180 |
| Feb. 2, 2022 | 152 | Dec. 9, 2021 | 250 | Oct. 20, 2021 | 224 |
| Feb. 1, 2022 | 175 | Dec. 8, 2021 | 247 | Oct. 19, 2021 | 295 |
| Jan. 31, 2022 | 102 | Dec. 7, 2021 | 223 | Oct. 18, 2021 | 283 |
| Jan. 28, 2022 | 140 | Dec. 6, 2021 | 391 | Oct. 15, 2021 | 306 |

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| Oct. 14, 2021 | 329 |
| Oct. 13, 2021 | 257 |
| Oct. 12, 2021 | 251 |
| Oct. 11, 2021 | 391 |
| Oct. 8, 2021 | 262 |
| Oct. 7, 2021 | 364 |
| Oct. 6, 2021 | 180 |
| Oct. 5, 2021 | 319 |
| Oct. 4, 2021 | 392 |
| Oct. 1, 2021 | 340 |
| Sept. 30, 2021 | 202 |
| Sept. 29, 2021 | 376 |
| Sept. 28, 2021 | 226 |
| Sept. 27, 2021 | 226 |
| Sept. 24, 2021 | 377 |
| Sept. 23, 2021 | 370 |
| Sept. 22, 2021 | 326 |
| Sept. 21, 2021 | 221 |
| Sept. 20, 2021 | 345 |
| Sept. 17, 2021 | 144 |
| Sept. 16, 2021 | 128 |
| Sept. 15, 2021 | 265 |
| Sept. 14, 2021 | 298 |
| Sept. 13, 2021 | 337 |
| Sept. 10, 2021 | 71 |
| Sept. 9, 2021 | 81 |
| Sept. 8, 2021 | 200 |
| Sept. 7, 2021 | 327 |
| Sept. 3, 2021 | 128 |
| Sept. 2, 2021 | 317 |
| Sept. 1, 2021 | 207 |
| August 31, 2021 | 175 |
| August 30, 2021 | 99 |
| August 27, 2021 | 91 |
| August 26, 2021 | 98 |
| August 25, 2021 | 88 |
| August 24, 2021 | 352 |
| August 23, 2021 | 98 |
| August 20, 2021 | 334 |
| August 19, 2021 | 332 |
| August 17, 2021 | 336 |
| August 16, 2021 | 109 |
| August 13, 2021 | 96 |

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| August 12, 2021 | 213 |
| August 11, 2021 | 240 |
| August 10, 2021 | 155 |
| August 9, 2021 | 90 |
| August 6, 2021 | 104 |
| August 5, 2021 | 172 |
| August 4, 2021 | 111 |
| August 3, 2021 | 139 |
| August 2, 2021 | 174 |
| July 30, 2021 | 104 |
| July 29, 2021 | 279 |
| July 27, 2021 | 325 |
| July 26, 2021 | 379 |
| July 23, 2021 | 105 |
| July 22, 2021 | 150 |
| July 21, 2021 | 331 |
| July 20, 2021 | 162 |
| July 19, 2021 | 92 |
| July 16, 2021 | 84 |
| July 15, 2021 | 207 |
| July 14, 2021 | 224 |
| July 13, 2021 | 276 |
| July 12, 2021 | 245 |
| July 9, 2021 | 219 |
| July 8, 2021 | 134 |
| July 7, 2021 | 88 |
| July 6, 2021 | 310 |
| July 2, 2021 | 332 |
| July 1, 2021 | 307 |
| June 30, 2021 | 96 |
| June 29, 2021 | 294 |
| June 28, 2021 | 102 |
| June 25, 2021 | 178 |
| June 24, 2021 | 288 |
| June 23, 2021 | 218 |
| June 22, 2021 | 293 |
| June 21, 2021 | 79 |
| June 18, 2021 | 265 |
| June 17, 2021 | 333 |
| June 16, 2021 | 276 |
| June 15, 2021 | 170 |
| June 14, 2021 | 327 |
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| June 10, 2021 | 140 |
| June 9, 2021 | 206 |
| June 8, 2021 | 119 |
| June 7, 2021 | 167 |
| June 4, 2021 | 123 |
| June 3, 2021 | 91 |
| June 2, 2021 | 118 |
| June 1, 2021 | 122 |
| May 28, 2021 | 86 |
| May 27, 2021 | 118 |
| May 26, 2021 | 141 |
| May 25, 2021 | 163 |
| May 24, 2021 | 83 |
| May 21, 2021 | 136 |
| May 20, 2021 | 170 |
| May 19, 2021 | 83 |
| May 18, 2021 | 138 |
| May 17, 2021 | 96 |
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| April 23, 2021 | 120 |
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| April 20, 2021 | 162 |
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| April 7, 2021 | 78 |
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| April 5, 2021 | 75 |
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| March 31, 2021 | 106 |
| March 30, 2021 | 95 |
| March 29, 2021 | 187 |
| March 26, 2021 | 103 |
| March 25, 2021 | 126 |
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| July 1, 2020 | 138 |
| June 30, 2020 | 161 |
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| June 24, 2020 | 91 |
| June 23, 2020 | 144 |
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| June 18, 2020 | 231 |
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| June 16, 2020 | 162 |
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| June 8, 2020 | 83 |
| June 5, 2020 | 99 |
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| June 2, 2020 | 138 |
| June 1, 2020 | 72 |
| May 29, 2020 | 78 |
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| May 27, 2020 | 119 |
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| May 13, 2020 | 173 |
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| May 11, 2020 | 99 |
| May 8, 2020 | 164 |
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| May 1, 2020 | 97 |
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| April 29, 2020 | 126 |
| April 28, 2020 | 122 |
| April 27, 2020 | 69 |
| April 24, 2020 | 154 |
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| April 22, 2020 | 73 |
| April 21, 2020 | 107 |
| April 20, 2020 | 76 |
| April 17, 2020 | 109 |
| April 16, 2020 | 101 |
| April 15, 2020 | 123 |
| April 14, 2020 | 60 |
| April 13, 2020 | 63 |
| April 10, 2020 | 106 |
| April 9, 2020 | 119 |
| April 8, 2020 | 139 |
| April 7, 2020 | 130 |
| April 6, 2020 | 62 |
| April 3, 2020 | 76 |
| April 2, 2020 | 137 |
| April 1, 2020 | 56 |
| March 31, 2020 | 96 |
| March 30, 2020 | 82 |
| March 27, 2020 | 87 |

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|----------------|-----|--------------|-----|--------------|-----|
| March 26, 2020 | 67 | Feb 19, 2020 | 144 | Jan 9, 2020 | 90 |
| March 25, 2020 | 93 | Feb 18, 2020 | 81 | Jan 8, 2020 | 148 |
| March 24, 2020 | 105 | Feb 14, 2020 | 56 | Jan 7, 2020 | 120 |
| March 23, 2020 | 52 | Feb 13, 2020 | 73 | Jan 6, 2020 | 126 |
| March 20, 2020 | 88 | Feb 12, 2020 | 138 | Jan 3, 2020 | 147 |
| March 19, 2020 | 78 | Feb 11, 2020 | 113 | Jan 2, 2020 | 118 |
| March 18, 2020 | 89 | Feb 10, 2020 | 111 | Dec 30, 2019 | 161 |
| March 17, 2020 | 135 | Feb 7, 2020 | 121 | Dec 27, 2019 | 139 |
| March 16, 2020 | 80 | Feb 6, 2020 | 122 | Dec 26, 2019 | 126 |
| March 13, 2020 | 102 | Feb 5, 2020 | 52 | Dec 23, 2019 | 117 |
| March 12, 2020 | 86 | Feb 4, 2020 | 112 | Dec 20, 2019 | 129 |
| March 11, 2020 | 102 | Feb 3, 2020 | 100 | Dec 19, 2019 | 135 |
| March 10, 2020 | 117 | Jan 31, 2020 | 67 | Dec 18, 2019 | 149 |
| March 9, 2020 | 87 | Jan 30, 2020 | 120 | Dec 17, 2019 | 123 |
| March 6, 2020 | 95 | Jan 29, 2020 | 108 | Dec 16, 2019 | 149 |
| March 5, 2020 | 103 | Jan 28, 2020 | 103 | Dec 13, 2019 | 128 |
| March 4, 2020 | 86 | Jan 27, 2020 | 94 | Dec 12, 2019 | 133 |
| March 3, 2020 | 160 | Jan 24, 2020 | 116 | Dec 11, 2019 | 128 |
| March 2, 2020 | 125 | Jan 23, 2020 | 98 | Dec 10, 2019 | 142 |
| Feb 28, 2020 | 89 | Jan 22, 2020 | 67 | Dec 9, 2019 | 160 |
| Feb 27, 2020 | 130 | Jan 21, 2020 | 134 | Dec 6, 2019 | 147 |
| Feb 26, 2020 | 95 | Jan 16, 2020 | 100 | Dec 5, 2019 | 172 |
| Feb 25, 2020 | 140 | Jan 15, 2020 | 133 | Dec 4, 2019 | 331 |
| Feb 24, 2020 | 90 | Jan 14, 2020 | 73 | | |
| Feb 21, 2020 | 77 | Jan 13, 2020 | 112 | | |
| Feb 20, 2020 | 89 | Jan 10, 2020 | 121 | | |

MDH recommended health guidelines:

- 1) If you have an infant who drinks tap water or drinks formula made with tap water, a safe level of manganese in your water is 100 parts per billion (ppb) or less.
- 2) If you have an infant who never drinks tap water or formula made with tap water, a safe level of manganese in your water is 300 ppb or less.
- 3) If everyone is more than one year old, a safe level of manganese in your water is 300 ppb or less.