



Annual Water Quality Report  
For January 1 to December 31, 2024

**Para Clientes Que Hablan Español:** Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcala o hable con alguien que lo entienda bien.

SCOTT HANIS  
402-820-2881

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The Nebraska Department of Environment and Energy (NDEE) has completed the Source Water Assessment. Included in the assessment are a Wellhead Protection Area map, potential contaminant source inventory, and source water protection information. To view the Source Water Assessment or for more information please contact the person named above on this report or the NDEE at 402-471-3378 or go to <http://den.ne.gov>.

#### Sources of Drinking Water

substances resulting from the presence of animals or from human activity.

The source of water used by City of Humphrey is ground water.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

\* Pestidous and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and

- \* Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stoves, urban storm water runoff, and septic systems.

\* Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4781).

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Humphrey is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsible action by identifying and removing lead from your home. The following are some of the steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact SCOTT HANIS, (402-292-2991). Information on lead in drinking water, including testing kits and steps you can take to minimize exposure is available at <http://www.epa.gov/leadinwater/>

[illegible][illegible]

The EPA and State Drinking Water Program establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table. The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be older than currently available.

**MCL (Maximum Contaminant Level)** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**AL (Action Level)**—The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MRDL (Maximum Residual Disinfectant Level)** - The highest level of a disinfectant allowed in drinking water.

Write in the Table:

ppm (parts per million) — One ppm corresponds to 1 gallon of concentrate in 1 million gallons of water.

ppb (parts per billion) — One ppb corresponds to 1 gallon of concentrate in 1 billion gallons of water.

pCi/L [Picocuries per liter] - Radioactivity concentration unit.

**RRA (Running Annual Average)**—An ongoing annual average calculation of data from the most recent four quarters.

averages calculation of data from the most recent four quarters at each sampling location.

90<sup>th</sup> Percentile - Represents the highest value found out of 90% of the samples taken in a representative group. If the 90<sup>th</sup> percentile is greater than the action level, it will trigger a treatment or other requirements via a

**TT (Treatment Technique)**—A required process intended to reduce the level of a contaminant in drinking water.

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## TEST RESULTS

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|                                                                                                   |                                                                                                    |                             |                |            |                   |               |                                                                                                 |                                                                                                        |                                |  |                    |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------|----------------|------------|-------------------|---------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------|--|--------------------|
| Microbiological Results                                                                           | Highest Number of Positive Samples<br>Not Detected Results were Found in the Calendar Year of 2024 |                             |                |            | MCL               |               | MCLG                                                                                            |                                                                                                        | Likely Source of Contamination |  | Violations Present |
| Lead and Copper                                                                                   | Monitoring Period                                                                                  | 90 <sup>th</sup> Percentile | Range          | Unit       | AL                | Sites Over AL | Likely Source of Contamination                                                                  |                                                                                                        |                                |  |                    |
| COPPER, FREE                                                                                      | 2020 - 2022                                                                                        | 0.189                       | 0.0168 - 0.871 | ppm        | 1.3               | 0             | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing. |                                                                                                        |                                |  |                    |
| LEAD                                                                                              | 2020 - 2022                                                                                        | 0.660                       | 0 - 1.36       | ppb        | 16                | 0             | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing. |                                                                                                        |                                |  |                    |
| Regulated Contaminants                                                                            |                                                                                                    | Collection Date             | Highest Value  | Range      | Unit              | MCL           | MCLG                                                                                            | Likely Source of Contamination                                                                         |                                |  |                    |
| ARSENIC                                                                                           |                                                                                                    | 3/18/2024                   | 1.8            | 1.6        | ppb               | 10            | 0                                                                                               | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste. |                                |  |                    |
| BARIUM                                                                                            |                                                                                                    | 7/24/2023                   | 0.213          | 0.213      | ppm               | 2             | 2                                                                                               | Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.          |                                |  |                    |
| CHROMIUM                                                                                          |                                                                                                    | 7/24/2023                   | 3.6            | 3.5        | ppb               | 100           | 100                                                                                             | Discharge from steel and pulp mills; Erosion of natural deposits.                                      |                                |  |                    |
| FLUORIDE                                                                                          |                                                                                                    | 7/24/2023                   | 0.285          | 0.285      | ppm               | 4             | 4                                                                                               | Erosion of natural deposits; water additive which promotes strong teeth; Fertilizer discharge.         |                                |  |                    |
| NITRATE-NITRITE                                                                                   |                                                                                                    | 10/18/2024                  | 11             | 0.493 - 11 | ppm               | 10            | 10                                                                                              | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.           |                                |  |                    |
| SELENIUM                                                                                          |                                                                                                    | 4/10/2024                   | 41.1           | 2.6 - 41.1 | ppb               | 80            | 60                                                                                              | Erosion of natural deposits.                                                                           |                                |  |                    |
| Radioisotopic Contaminants                                                                        |                                                                                                    | Collection Date             | Highest Value  | Range      | Unit              | MCL           | MCLG                                                                                            | Likely Source of Contamination                                                                         |                                |  |                    |
| COMBINED RADIUM (226 & 228)                                                                       |                                                                                                    | 12/18/2024                  | 1.89           | 1.69       | pCi/L             | 5             | 0                                                                                               | Erosion of natural deposits.                                                                           |                                |  |                    |
| GROSS ALPHA, INCL. RADON & U                                                                      |                                                                                                    | 1/30/2024                   | 8.02           | 8.02       | pCi/L             | 16            | 0                                                                                               | Erosion of natural deposits.                                                                           |                                |  |                    |
| RADIUM-226                                                                                        |                                                                                                    | 12/15/2024                  | 1.99           | 1.59       | pCi/L             | 1             | 0                                                                                               | Erosion of natural deposits.                                                                           |                                |  |                    |
| Unregulated Water Quality Data                                                                    |                                                                                                    | Collection Date             | Highest Value  |            | Range             | Unit          | Secondary MCL                                                                                   |                                                                                                        |                                |  |                    |
| SULFATE                                                                                           |                                                                                                    | 9/12/2022                   | 268            |            | 80.0 - 256        | mg/L          | 250                                                                                             |                                                                                                        |                                |  |                    |
| During the 2024 calendar year, we had the below noted violation(s) of drinking water regulations. |                                                                                                    |                             |                |            |                   |               |                                                                                                 |                                                                                                        |                                |  |                    |
| Violation Type                                                                                    |                                                                                                    | Category                    | Analysis       |            | Compliance Period |               |                                                                                                 |                                                                                                        |                                |  |                    |
| No Violations Occurred in the Calendar Year of 2024                                               |                                                                                                    |                             |                |            |                   |               |                                                                                                 |                                                                                                        |                                |  |                    |

The City of Humphrey has taken the following actions to return to compliance with the Nebraska Safe Drinking Water Act:

## Additional Required Health Effects Language:

Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

There are no additional required health effects violation notices.

The City of Humphrey lead service line inventory has been prepared and can be accessed here: