

**Residential Water Well Field Data Form**

Project Name: COGCC - Environmental Support Complaint # 200113299 Permit No: 280327-A  
Project Number: 25087038 Owner: Ron Nelson

**Well Owner Survey**

Is there a holding tank for the well? Yes \_\_\_\_\_ No x  
Do you have a water softener/treatment system? Yes \_\_\_\_\_ No \_\_\_\_\_  
Do you have an in-line filter? Yes \_\_\_\_\_ No \_\_\_\_\_  
Sampling point upstream of pressure tank and treatment system? Yes x No \_\_\_\_\_  
Address: 18852 County Rd 74  
Peetz, CO Logan County  
Location: S6, T11N, R52W  
Date: 06/25/2010  
Weather: Sunny, 88

Location of well: Appx. 50 south of house  
Type of pump (jet, submersible, suction): submersible  
Casing material and diameter: unknown  
Depth to Static Water Table (fluctuations): unknown  
Description of area around well: grass/ground cover; old garage and barn  
Location and description of sample point: Well spigot  
Pump start time: 11:04 AM

| Time     | Volume Purged (gal.) | PH (SI Units) | Spec Cond (µs/cm) | DO (mg/L) | Turbidity (NTU) | Temperature (°C) | Clarity | Other * (ORP mv) |
|----------|----------------------|---------------|-------------------|-----------|-----------------|------------------|---------|------------------|
| 11:15 AM | 20                   |               |                   |           |                 |                  |         |                  |
| 11:18 AM | 25                   |               |                   |           |                 |                  |         |                  |
|          |                      | 8.22          | 972               | 3.8       |                 | 17.11            | clr.    | -62.8            |
|          | 30                   | 8.27          | 965               | 2.98      | slt. Cldy       | 16.79            | clr.    | -66.2            |
|          | 35                   | 8.31          | 959               | 2.72      |                 | 16.38            | clr.    | -70.5            |
|          | 40                   | 8.32          | 959               | 2.5       |                 | 16.47            | clr.    | -68.7            |
|          | 50 gals tot.         |               |                   |           |                 |                  |         |                  |

\* odors (if any); effervescence (if any); produced sediment (if any); evidence of bacterial fouling (bioslimes or biofilms).

Field Sample ID : Nelson 1 Collection Time: 11:25 AM Number of Containers: 10

| Analyte  | # of Containers | Container Size | Type | Analytical Method | Preservative                          |
|--|-----------------|----------------|------|-------------------|---------------------------------------|
| Dissolved Methane  | 3               | 40 ml          | vial | RSK175            | 4°C                                   |
| Diss. Metals (Ca, Na, Fe, As, Cr, Cd, Pb, Mn, Mg, K, Se) | 1               | 500 ml         | HDPE | 6020              | 4° C                                  |
| Major cations and anions, Br, Cl, F, SO <sub>4</sub>     | 1               | 250 ml         | HDPE | 300               | 4° C                                  |
| BTEX, MTBE   | 2               | 40 ml          | vial | 8021              | HCl, 4°C                              |
| Total Dissolved Solids                                   | 1               | 500 ml         | poly | TDS_W             | 4° C                                  |
| Specific Conductance at 25°C                             | 1               | 125 ml         | poly | COND_W            | 4°C                                   |
| NO <sub>3</sub> , NO <sub>2</sub>                        | 1               | 250 ml         | HDPE | 353.2             | H <sub>2</sub> SO <sub>4</sub> , 4° C |
| pH   | 1               | 125 ml         | HDPE | 150.1             | 4°C                                   |
| Alkalinity (Carbonate/Bicarbonate)                       | 1               | 250 ml         | poly | CARB/BICAR        | 4°C                                   |
| Duplicate Sample Collected?                              | Yes:            |                | No:  | X                 |                                       |

Sampler: J. Geissler

Duplicate ID: \_\_\_\_\_

**GPS Coordinates**

Latitude: 40°57'42.4"(40.961778) Longitude: 103°12'45.6"(103.212667)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



| Sample Point: Nelson 1                 |               |                 |                 |
|--|---------------|-----------------|-----------------|
| Analyte                                | Result        | Unit            | Reporting Limit |
| <b>Bromide</b>                         | <b>0.77</b>   | <b>mg/L</b>     | <b>0.2</b>      |
| <b>Chloride</b>                        | <b>46</b>     | <b>mg/L</b>     | <b>3</b>        |
| <b>Fluoride</b>                        | <b>1</b>      | <b>mg/L</b>     | <b>0.5</b>      |
| <b>Sulfate</b>                         | <b>160</b>    | <b>mg/L</b>     | <b>25</b>       |
| Hydroxide Alkalinity                   | ND            | mg/L            | 5               |
| <b>Bicarbonate Alkalinity as CaCO3</b> | <b>410</b>    | <b>mg/L</b>     | <b>5</b>        |
| Carbonate Alkalinity as CaCO3          | ND            | mg/L            | 5               |
| <b>Alkalinity</b>                      | <b>410</b>    | <b>mg/L</b>     | <b>5</b>        |
| <b>Total Dissolved Solids</b>          | <b>810</b>    | <b>mg/L</b>     | <b>10</b>       |
| <b>Specific Conductance</b>            | <b>1200</b>   | <b>umhos/cm</b> | <b>2</b>        |
| <b>pH adj. to 25 deg C</b>             | <b>8</b>      | <b>SU</b>       | <b>0.1</b>      |
| <b>Methane</b>                         | <b>47</b>     | <b>ug/L</b>     | <b>5</b>        |
| <b>Methane</b>                         | <b>47</b>     | <b>ug/L</b>     | <b>5</b>        |
| <b>Manganese</b>                       | <b>10</b>     | <b>ug/L</b>     | <b>10</b>       |
| <b>Calcium</b>                         | <b>12000</b>  | <b>ug/L</b>     | <b>200</b>      |
| <b>Magnesium</b>                       | <b>4000</b>   | <b>ug/L</b>     | <b>200</b>      |
| Selenium                               | ND            | ug/L            | 15              |
| <b>Potassium</b>                       | <b>9800</b>   | <b>ug/L</b>     | <b>3000</b>     |
| Iron                                   | ND            | ug/L            | 100             |
| <b>Sodium</b>                          | <b>280000</b> | <b>ug/L</b>     | <b>1000</b>     |
| Xylenes, Total                         | ND            | ug/L            | 0.5             |
| m-Xylene & p-Xylene                    | ND            | ug/L            | 0.5             |
| Benzene                                | ND            | ug/L            | 0.5             |
| o-Xylene                               | ND            | ug/L            | 0.5             |
| <b>Toluene</b>                         | <b>2.8</b>    | <b>ug/L</b>     | <b>0.5</b>      |
| Ethylbenzene                           | ND            | ug/L            | 0.5             |
| Nitrate Nitrite as N                   | ND            | mg/L            | 0.1             |
| Anion/Cation Balance                   | 1.8           | %               |                 |
| Total Cations                          | 13            | meq/L           |                 |
| Total Anions                           | 13            | meq/L           |                 |
| Percent Difference                     | 1.8           | %               |                 |