

## Occupational Analysis Chart

### WATER WELL DRILLER

Occupation Description: "Water Well Driller" refers to a person who sets up and operates mobile equipment used to drill residential commercial and industrial water wells. In addition, they conduct other types of industrial drilling. They must know the geological formations of the area where they are working to find potable water that is clean and safe for drinking. They may assist customers in selecting a drilling site and estimating the cost. Water Well Drillers re-construct, re-develop, disinfect, cap, cover, close and seal wells as required, as well as service and install pumping systems".

|  |  |                                      |                               |   |                     |                                 |
|--|--|--------------------------------------|-------------------------------|---|---------------------|---------------------------------|
| <b>Tools, Safety and Maintenance</b><br>A    | Proper Care and Use of Hand Tools<br>A1          | Hydraulic Systems<br>A2              | Safety procedures<br>A3       | Fuel Supply Systems<br>A4   |                     |                                 |
|  | 1  | 1                                    | 1                             | 1   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
| <b>Drilling Equipment</b><br>B               | High Air Volume Systems<br>B1                    | Drilling Safety<br>B2                | Cable Tool Drilling<br>B3     | Mud Rotary, Air Rotary, Dual Rotary and Air Hammer Drilling<br>B4 | Drilling Bits<br>B5 | Auger and Boring Drilling<br>B6 |
|  | 1  | 1                                    | 1                             | 1   | 1                   | 1                               |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
| <b>Well Construction and Monitoring</b><br>C | Well Construction and Design<br>C1               | Well Development<br>C2               | Ground Water Monitoring<br>C3 | Regulations<br>C4   |                     |                                 |
|  | 2  | 2                                    | 2                             | 1   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
| <b>Pumping Systems</b><br>D                  | Pump Types, Applications and Installations<br>D1 | Pump Maintenance and Diagnosis<br>D2 | Electrical<br>D3              |   |                     |                                 |
|  | 2  | 2                                    | 2                             |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |
|  |  |                                      |                               |   |                     |                                 |

*W = Competencies for which knowledge or skills are primarily acquired in the workplace*

*E = Endorsement*

*EL = Elective*

*F = Foundation*

**Well Development and Maintenance**  
E

|                                  |  |  |  |  |    |
|----------------------------------|--|--|--|--|----|
| Water Well/Bore Hole Reclamation |  |  |  |  | E1 |
| 2                                |  |  |  |  |    |
| Aquifer Characteristics          |  |  |  |  | E7 |
| 2                                |  |  |  |  |    |

|                         |  |  |  |  |    |
|-------------------------|--|--|--|--|----|
| Ground Water Monitoring |  |  |  |  | E2 |
| 2                       |  |  |  |  |    |

|             |  |  |  |  |    |
|-------------|--|--|--|--|----|
| Regulations |  |  |  |  | E3 |
| 1           |  |  |  |  |    |

|              |  |  |  |  |    |
|--------------|--|--|--|--|----|
| Well Closure |  |  |  |  | E4 |
| 2            |  |  |  |  |    |

|                     |  |  |  |  |    |
|---------------------|--|--|--|--|----|
| Groundwater Geology |  |  |  |  | E5 |
| 2                   |  |  |  |  |    |

|               |  |  |  |  |    |
|---------------|--|--|--|--|----|
| Water Sources |  |  |  |  | E6 |
| 2             |  |  |  |  |    |

**Regulations, Metric and Intro to Gas and Monitoring Wells**  
F

|                           |  |  |  |  |    |
|---------------------------|--|--|--|--|----|
| Environmental Regulations |  |  |  |  | F1 |
| 1                         |  |  |  |  |    |

|                       |  |  |  |  |    |
|-----------------------|--|--|--|--|----|
| Groundwater Chemistry |  |  |  |  | F2 |
| 2                     |  |  |  |  |    |

|      |  |  |  |  |    |
|------|--|--|--|--|----|
| Maps |  |  |  |  | F3 |
| 2    |  |  |  |  |    |

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