

## GEOEXCHANGE DRILLER

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### Occupation Description

Geoexchange drillers set up and operate mobile equipment used to drill *vertical closed-loop borehole heat exchangers* to provide a heat source/sink for geoexchange heating and cooling systems. These systems may be developed for residential, commercial, and industrial applications. Geoexchange drillers must have familiarity with the geological formations in the area they are working to enable selection of the most appropriate type of drilling technology. They must have knowledge related to borehole heat exchange principles and have an awareness of the advantages and drawbacks of different borehole completion designs. Geoexchange drillers must have knowledge of hydrogeological principles and be knowledgeable and skilled in practices important for protecting groundwater aquifers.

For detailed information on the scope of knowledge and skills taught and assessed in this program, refer to the Program Outline, available on the ITA website.

### Pathways to Certification

In B.C., an individual can become certified as a Geoexchange Driller by challenging the certification. There is no Apprenticeship pathway for this trade. Apprenticeship programs are for individuals who have an employer to sponsor them and challenge programs are for individuals who have extensive experience working in the occupation and wish to challenge the certification.

### Recommended Education

The following education is **recommended** for challengers entering this occupation. These are not prerequisites, but rather a desired level of skill or knowledge that will contribute to success in the industry.

- Grade 10 or equivalent including English 10, Math 10, and Science 10.
- Preferred level of education: Grade 12.

### ITA Registration

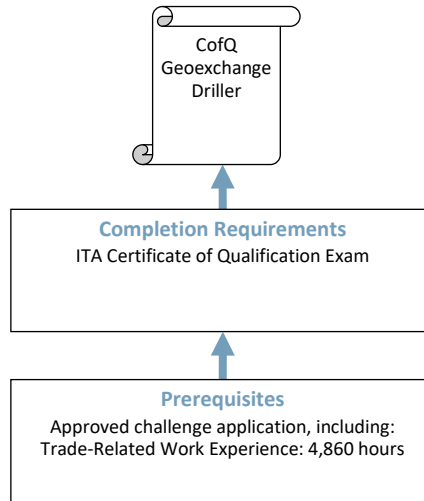
Individuals who wish to challenge the Geoexchange Driller certification must complete the Geoexchange Driller Challenge Application and submit it to ITA. Challenge applications are assessed for proof of workplace hours and scope of experience prior to acceptance of the individual into the Challenge pathway.

## Challenge Pathway

This graphic provides an overview of the Geoexchange Driller challenge pathway.

### Geoexchange Driller

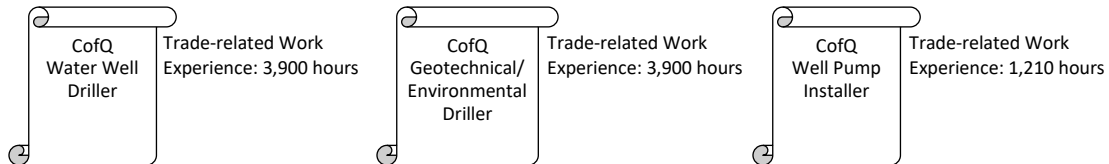
*C of Q = Certificate of Qualification*




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#### CREDIT FOR PRIOR LEARNING

*Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program*



**Challenge Program Standards**

<b>Credentials Awarded</b>	Geoexchange Driller – Certificate of Qualification								
<b>ITA Registration Prerequisites</b>	An approved Challenge Application, which includes: <ul style="list-style-type: none"> <li>▪ 4,860 documented hours of directly related experience working in the occupation</li> </ul>								
<b>Credit for Prior Learning</b>	Individuals who hold the credentials listed below are considered to have met, or partially met, the prerequisites for challenging this program: <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Credential</th> <th style="text-align: left;">Credit(s) Granted</th> </tr> </thead> <tbody> <tr> <td>Water Well Driller – Certificate of Qualification</td> <td>▪ Work Experience: 3,900 hours</td> </tr> <tr> <td>Geotechnical/Environmental Driller – Certificate of Qualification</td> <td>▪ Work Experience: 3,900 hours</td> </tr> <tr> <td>Well Pump Installer – Certificate of Qualification</td> <td>▪ Work Experience: 1,210 hours</td> </tr> </tbody> </table>	Credential	Credit(s) Granted	Water Well Driller – Certificate of Qualification	▪ Work Experience: 3,900 hours	Geotechnical/Environmental Driller – Certificate of Qualification	▪ Work Experience: 3,900 hours	Well Pump Installer – Certificate of Qualification	▪ Work Experience: 1,210 hours
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<b>Completion Requirements</b>	Certification as a Geoexchange Driller is awarded upon successful completion of: <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Requirement</th> <th style="text-align: left;">Level of Achievement Required</th> </tr> </thead> <tbody> <tr> <td>Geoexchange Driller – ITA Certificate of Qualification Exam</td> <td>▪ Minimum 70%</td> </tr> </tbody> </table>	Requirement	Level of Achievement Required	Geoexchange Driller – ITA Certificate of Qualification Exam	▪ Minimum 70%				
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**Supporting Documents**

Geoexchange Driller Program Outline (2014) – Defines the full scope of knowledge and skills required to competently perform the occupation in B.C. Available from the ITA website.

Geoexchange Driller Occupational Analysis Chart (2014) – Defines the full scope of knowledge and skills tested on the ITA Certification Exam. Available from the ITA website.



## INDUSTRY TRAINING PROGRAM PROFILE RECOGNIZED PROGRAM

### Contacts

The **Industry Training Authority (ITA)** manages B.C.'s industry training and apprenticeship programs. Contact ITA Customer service if you have any questions regarding registration, examinations or certification for this program.

Telephone:	778-328-8700	Fax:	778-328-8701
Toll Free (within B.C.):	1-866-660-6011	Email:	<a href="mailto:customerservice@itabc.ca">customerservice@itabc.ca</a>
Website:	<a href="http://www.itabc.ca">www.itabc.ca</a>		

**BC Ground Water Association** works with industry to identify current and emerging knowledge and skill requirements for occupations related to this program, explore training and certification options, and maintain this program.

Telephone:	604-530-8934	Fax:	604-530-8934
Toll Free (within B.C.):	1-855-530-8934	Email:	<a href="mailto:secretary@bcgwa.org">secretary@bcgwa.org</a>
Website:	<a href="http://www.bcgwa.org">www.bcgwa.org</a>		

### Revision History

The standards for this program were reviewed and/or updated on the dates below.

Program Standards Approved: September 2014

Program Profiles are updated regularly. Visit [www.itabc.ca](http://www.itabc.ca) for the most current version.