

# Spotlight on Geoscience Technicians



Have you ever wondered how Geologists and Geophysicists determine the location and extent of oil and gas beneath the earth's surface? There's a lot of technology involved and Geoscience Technicians are right in the thick of it.

Before wells are drilled, an area is surveyed to determine how much oil or gas is present. Seismic technology creates vibrations beneath the earth's surface. Dynamite charges or vibrating equipment generate shock waves, which bounce off underground structures and are picked up by sensors and digital recorders that map underground rock formations. While a well is being drilled, Geoscience Technicians collect information that is used to evaluate the rock formations to see if there is enough oil or gas to make the well economically viable.

Can you picture yourself as part of the dynamic team that pulls all this information together and prepares it for scientific analysis? Do you love working with sophisticated computer software? Do you have an eye for detail and an affinity for geography? If so, then a career as a Geoscience Technician is worth exploring!



*A Technician on a field trip.*



## What do Geoscience Technicians do?

**Geoscience Technicians** assist geoscience professionals in processing and interpreting geological and geophysical data. They do this by storing, retrieving, compiling, manipulating and displaying data using sophisticated computer software programs. There are two typical jobs that make up this occupation:

- **Geophysical Technicians:** Acquire the necessary land access and drilling approvals from the government, regulating bodies and other key stakeholders. They choose seismic contractors and monitor their work. They load, move and reformat seismic data using a variety of seismic software programs and in-house databases. They also compile and display required data from aerial photographs, survey notes, records, reports and maps.
- **Geological Technicians:** Research land titles and maintain geological and geophysical databases. They collate, analyze and ensure quality control on information about wells, rock formations, core, topography and other geological data needed for a project. They gather, transfer and load information, ensuring seismic data is properly matched to well logs and measurement data. They also prepare digital log data, geological maps, cross sections and illustrations for presentations using various geological software programs.



## How do I become a Geoscience Technician?

At minimum, you will need a one year certificate from a recognized technical school. A full list of the nationally accredited programs is available on the Canadian Council of Technicians and Technologists website at [www.cctt.ca](http://www.cctt.ca). Related fields of study include geological technology, petroleum technology, petroleum engineering technology, hydrogeology or groundwater technology, mining technology, mining engineering technology, mineralogy and metallurgical technology.

You can also obtain a **Certified Technician** designation if you have two or more years of acceptable technician experience, a certificate from an accredited technician program, three professional references and successful completion of a professional practice exam.





## What are the working conditions like?

Most Geoscience Technicians perform their work in comfortable well lit and office settings. They work regular business hours with some overtime required.

Trips to wells and seismic field sites may occur occasionally, where there may be exposure to variable weather conditions. Overnight stays are possible on these trips.



Studying seismic charts.



## Do I fit the bill?

Do you think you have what it takes to become a Geoscience Technician?

- I am very interested in mathematics, physics and earth sciences.
- I pay special attention to detail and accuracy and am not easily distracted.
- I am a good problem solver and think quickly on my feet.
- I am a great multi-tasker.
- I have a strong interest in scientific computer software.
- I enjoy studying maps, charts, graphs and tables.
- I am quite versatile and can work on my own or with a team.
- I have good communication skills.
- I am good at taking direction and can learn on the go.
- I am able to travel to and from work locations.
- I have the tolerance, stamina and flexibility to work outdoors in any weather conditions.
- I believe that following safety policies and procedures is very important.
- I believe that I have what it takes to be an excellent Geoscience Technician!



## Quick tips and next steps!

- Visit career fairs and talk to employers who offer jobs and careers in this occupation. Check with employment centres, educational institutions, newspapers, petroleum-related magazines and the internet for information on career fairs.
- Participate in *National Technology Week* which is held annually during November and offers a host of activities along with interactive and fun resources to help students, teachers and parents explore technical careers.
- Participate in *National Engineering and Geoscience Week*. For more information, check out the Association of Professional Engineers, Geologists, and Geophysicists of Alberta website at [www.apegga.com](http://www.apegga.com).
- Visit the Canadian Council of Technicians and Technologists website at [www.cctt.ca](http://www.cctt.ca) for more information on technologist/technician occupations and national technology benchmarks.
- Check out the student section of Canadian Society of Exploration Geophysicists' website at [www.cseg.ca](http://www.cseg.ca).
- Look for summer jobs working on drilling and service rigs or assisting Seismic Operators in the field.

## Want more info?

For information on other industry occupations check out [www.careersinoilandgas.com](http://www.careersinoilandgas.com).