

Geology Technician interview questions

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What to expect

Geology Technician interviews usually blend practical field checks with safety and teamwork questions, because the role is hands-on and often roster based. Employers want to know you can collect clean samples, log core accurately and keep yourself and others safe in remote settings.

- **Field sampling and core skills:** Questions that test your understanding of sample integrity, core logging, chain of custody and field equipment.
- **Safety and roster fitness:** Questions about WHS, fatigue management, remote work and how you handle fly-in fly-out conditions.
- **Data and software:** Questions about geological databases, QA checks and common tools such as ArcGIS, QGIS, Leapfrog Geo, ioGAS and Excel.
- **Behavioural and teamwork:** Questions that ask for real examples of working with geologists, solving problems and communicating under pressure.
- **Scenario and judgement:** Questions that put you in a field or core shed situation and ask how you would prioritise competing demands.

A typical process starts with a phone or video screen with recruitment, then a site or panel interview with a geologist, senior technician or mine geology superintendent. Some employers include a practical task such as describing a core tray, completing a sample register or reading a field map. Roster roles usually finish with reference checks, a pre-employment medical and sometimes a police check.

1. Walk me through how you prepare and log a drill core sample from the time it comes out of the tube to when it is dispatched for assay.

Why they ask

This is core to the job and shows your understanding of sample integrity, chain of custody and the geology workflow.

How to structure your answer

Answer as a step-by-step walk-through: setup and safety, core recovery and orientation, geological logging, marking and cutting, sample numbering, QA checks and dispatch paperwork. Keep it in order and mention where you record data.

Example answer

"I start by checking the core tray against the drill run, confirming depth markers and recovery. I note any lost core and take a photo before anything is moved. I lay the core out in order, orient it if needed, and log the main lithology, alteration, mineralisation and structures. I mark sample intervals with the geologist's instructions or the sampling protocol, then cut or split the core, keeping one half for reference where required. I bag and number each sample, check the numbers against the tray and the register, and complete the assay request form. Before dispatch I do a final check that sample IDs, depths and weights match, then store the trays and upload the data to the database."

2. Tell me about a time you noticed a sampling or data error in the field. What did you do?

Why they ask

This tests your attention to detail and whether you will speak up rather than let a problem flow into the geological dataset.

How to structure your answer

Use STAR: describe the situation, the task you were responsible for, the action you took and the result. Make the result about data quality or program efficiency rather than a dollar figure.

Example answer

"At a previous exploration project I was logging core and noticed that the depth on a sample bag did not match the depth in the tray register. I flagged it to the geologist immediately and we checked the drill run and the previous tray. The error came from a transposed number during marking. I corrected the bag, updated the register and helped review the surrounding intervals for any other mismatches. We caught it before the samples went to the lab, which meant the assay results stayed in the right order and the geologist did not have to reinterpret the zone later."

3. How do you manage fatigue and safety on a remote fly-in fly-out roster?

Why they ask

Roster work is common in this role and employers need to know you can look after yourself and follow site rules when you are far from home.

How to structure your answer

Use a practical risk-management walk-through: acknowledge the risk, then describe the controls you use before and during shift, and how you report issues. Finish with a real example if you have one.

Example answer

"I treat fatigue like any other hazard. Before a roster I make sure my sleep routine is consistent, I eat properly and I am honest with my supervisor if I am not fit for shift. On site I do pre-start checks, use the Take 5 or JSA for each task, and keep an eye on my teammates. If I feel fatigue building during a long core logging day, I take a break, rotate tasks or speak up rather than push through. I also report any near miss or hazard immediately so the crew can adjust the plan. On one swing I noticed a vehicle had a slow leak and reported it before the next field run, which avoided a breakdown out on the track."

4. Which geological software and data tools are you comfortable using, and how do you keep sample data clean?

Why they ask

Technicians increasingly support digital data capture, and employers want confidence you can maintain databases and use common packages.

How to structure your answer

Give a short inventory of your tools, then explain your checks and a specific example of data QA. Do not just list software; show how you use it.

Example answer

"I am comfortable with ArcGIS and QGIS for field maps and spatial checks, Leapfrog Geo for viewing drill data and sections, ioGAS for basic assay plots, and Excel for sample registers and daily tracking. I keep data clean by using consistent sample IDs, validating depths against the drill log, and doing a daily reconciliation between the field sheets and the database. In one program I set up a simple Excel check that flagged when a sample number skipped or repeated, which caught a numbering issue before the assay dispatch. I also version-control my field maps so the geologist knows which file is current."

5. You are on a remote field campaign and the drill rig is ahead of schedule, but the core shed is short-staffed. How do you prioritise?

Why they ask

This tests judgement, communication and how you handle competing demands under pressure without compromising sample integrity.

How to structure your answer

Show your judgement process: clarify the goal, identify risks, prioritise safety and sample integrity, communicate, and propose a realistic plan. Mention what you would not compromise.

Example answer

"First I would check with the supervisor and geologist on what the priority is: is it keeping the rig drilling, or is it getting the core logged and sampled accurately? I would not rush logging in a way that risks mislabelled samples or unsafe cutting. I would look at the backlog, see which intervals are most important for the current decision, and start there. I would ask for help from the field team if they have capacity, or suggest a short delay to the next run if the core shed cannot keep up. I would keep the rig and geology team informed so nobody is surprised, and I would document what was prioritised and what was deferred."

6. Tell me about a time you had to explain a technical issue to a geologist or engineer who disagreed with your field observation.

Why they ask

Technicians work closely with geologists, and field observations sometimes challenge the planned interpretation. Employers want to see you can communicate evidence calmly.

How to structure your answer

Use STAR and keep the focus on evidence and collaboration. Explain how you presented your observation, what happened next and what the outcome was for the project.

Example answer

"During a grade control program I logged a change in lithology that did not match the block model. The geologist initially thought I had mislogged the interval. I showed the photos, the core tray and the assay sheet, and walked through the depth and recovery notes. We checked the original logging together and found the earlier interval had been logged from cuttings, which were more weathered. We updated the interpretation and flagged the area for follow-up. It was a good reminder to keep photos and notes clear so the evidence speaks for itself."