

Bob Tingey's Antarctic field notebooks

Unfortunately Bob's field notebooks from the 1970s are not the clearest scans we've had. The contrast has been altered to try to enhance readability.

There are a lot of geological recordings in these notebooks. You will notice regular recordings of dip, strike and foliation.

Chris Carson (Antarctic Geoscientist) explains what these terms are:

Foliation (see Antarctic field notebook glossary) is a planar feature in the rock, layering formed by metamorphism (heat and pressure). Geologists measure the orientation of this plane to understand the orientation of rocks over a region, and how they might be folded and faulted or otherwise 'moved' by geological forces over millions of years.

Picture a plane such as a book held at an angle. This represents a foliation or other layer in a rock. To fully describe the orientation of this plane we measure two things. The direction of a horizontal line drawn (either in reality or imagined!) on that surface. A geologist will then place a compass on that line and record the direction the line points to. Say the line points south. That is 180 clockwise from North. We record as 180°. That is termed the 'strike' of the plane or foliation.

Secondly we measure the 'dip' which is the angle the surface of the foliation or plane 'dips' from the horizontal. Say the plane dips 45° from the horizontal. We say this plane has a dip of 45°

The reading that geologists ends up with is called the strike and dip of a plane/foliation and is recorded as 180/45 (using our example). This is enough information to tell another geologist the orientation in space of the measure plane!!!

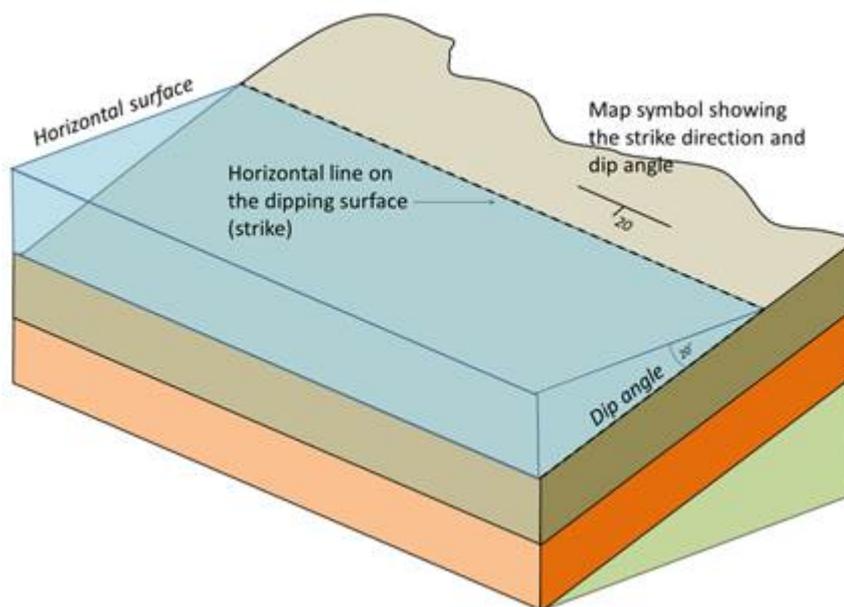
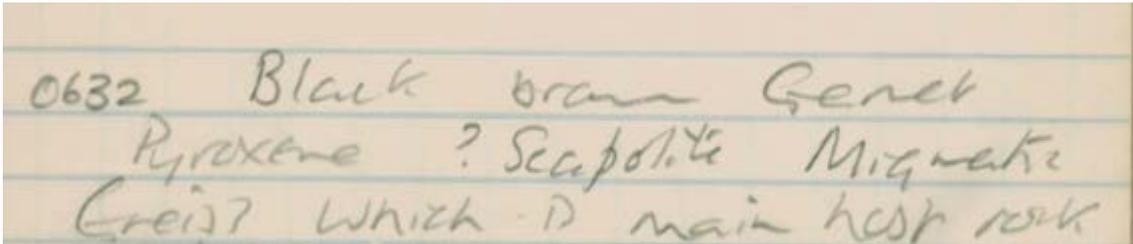


Image Source: <https://opentextbc.ca/geology/wp-content/uploads/sites/110/2015/08/strike-and-dip-of-some-tilted-sedimentary-beds.png>

Rock store number & sample number



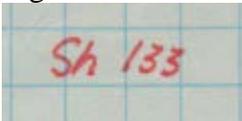
In most of Bob's notebooks, the 4 digit number is technically the sample number which is also the last 4 digits of the rock store number. If you can put in the full Rock sample number in Section 2 that would be handy.

E.g. 0632 = 70280632 70{year} 28{Antarctic code} 0632 {unique rock identifier}

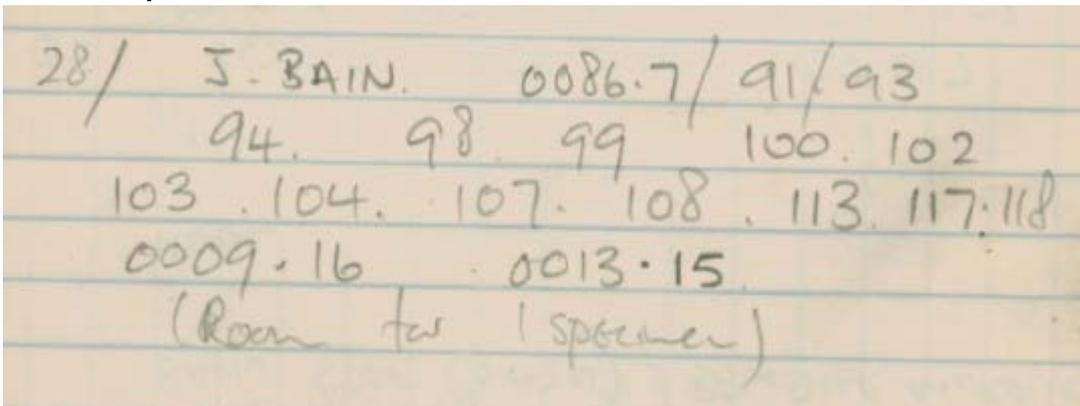
The 4 digit number can also go in the sample number field. If this is too confusing just put the 4 digit number in the rock store.

Sometimes Bob uses BH (for Bunge Hills) or Sh followed by a number as the rock sample number.

E.g. Sh 133

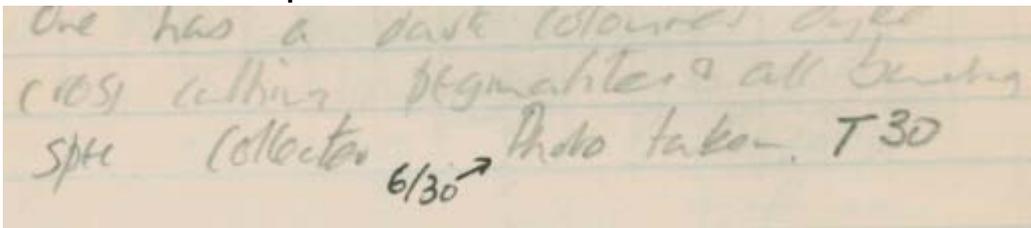


Lists of suspected rock numbers



There are some lists of what appear to be previously collected rock samples. Please just record these in Section 1 and don't worry about trying to put them in Section 2.

Photos and Rock samples



In book #2 there are photo references. These are just standard photos and **not** air photos, so do not need to be recorded in Section 2. The T30 is the rock sample number. T for Tingey.

Tables of numbers

Handwritten table on graph paper with columns for Strata, Foliation, and Dip. The text 'SW End of Mt' is written at the top left.

Strata	Foliation	Dip
098	150 S	VT
110	115	W

If you come across recordings listed in a table format like this, transcribe between the tag <table>

Point number

Handwritten note on graph paper. The number 166 is circled in the left margin. The text reads: 'Mainly magnetic covered. Sh 133' and 'Outcrop is layered felsic gneiss mostly with garnet plus subordinate'.

The point number is the number on the left in the circle.

Thank you for your ongoing support of our project!

Cheers,
Jane & Chris