

## David Ellis Notebooks

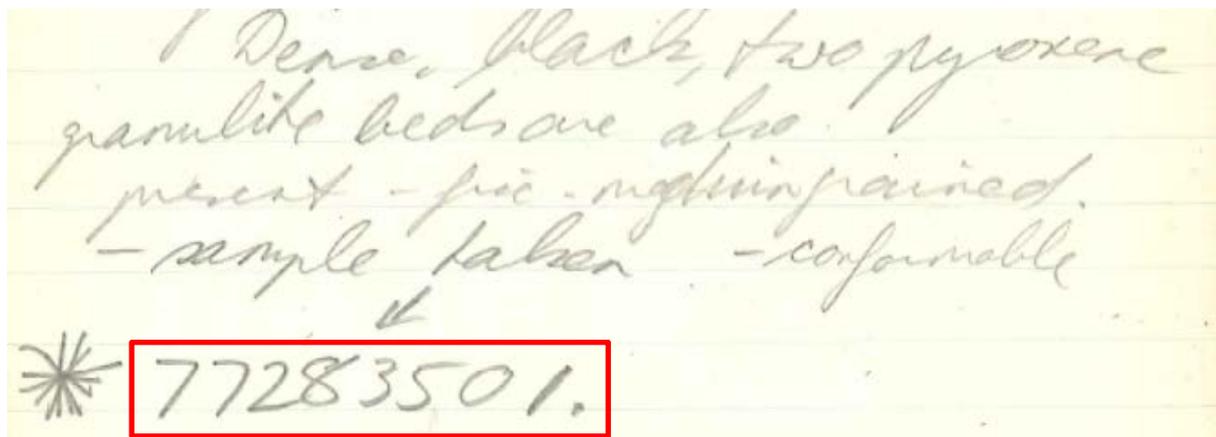
Welcome back to our wonderful team of Antarctic Field Notebook volunteers, and a warm hello to any new volunteers. There are 2 notebooks from David Ellis from the summer of 1976/77.

The transcription of these notebooks will be exactly the same as the previous ones. Please see the tutorials section to download copies of the procedures.

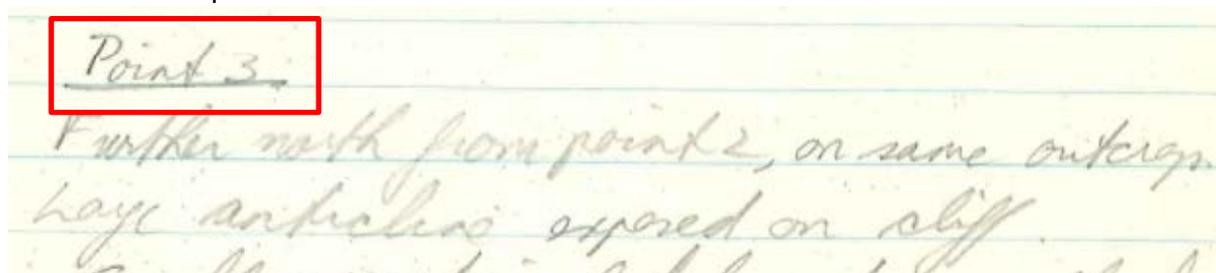
There are many familiar words which previous transcribers will recognise, charnockite, feldspar, augen, bands, gneiss and more!

Some key points to note for Section 2 of the transcriptions:

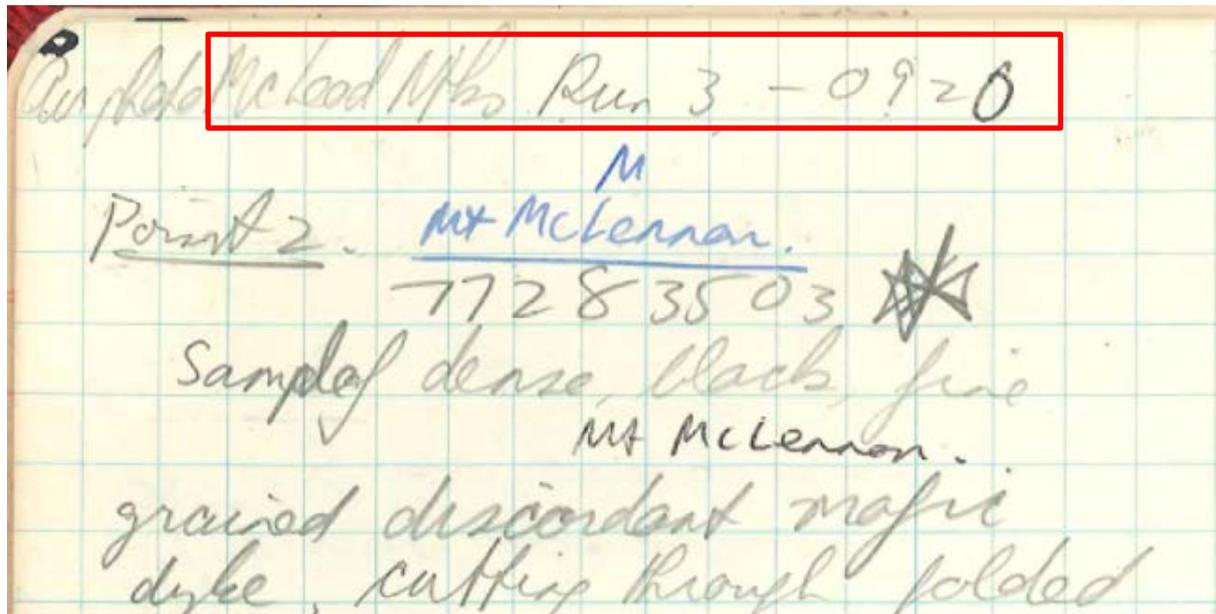
Please keep an eye out for **sample numbers** to be transcribed below the verbatim text transcription box.



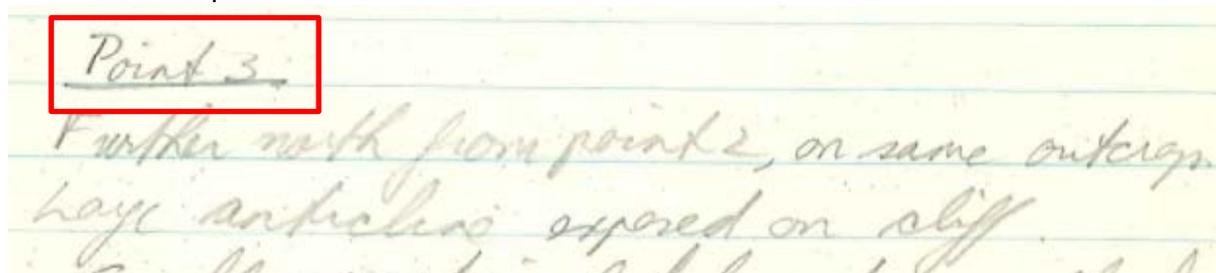
**Point numbers** please record in Section 2.



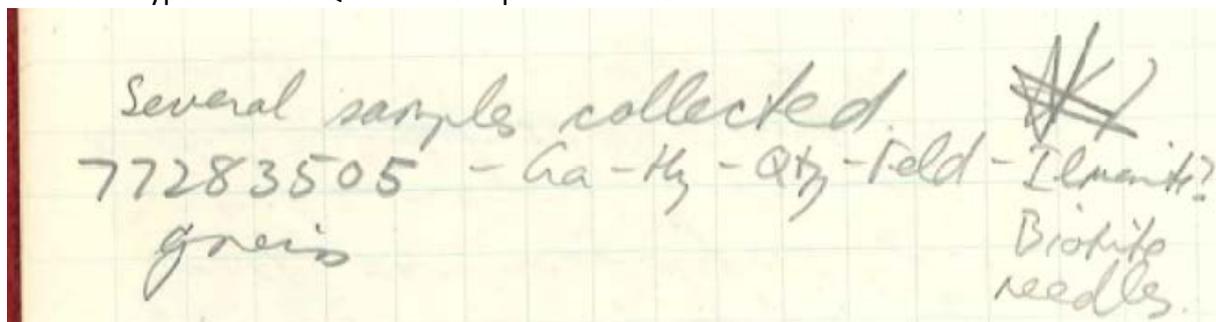
The **air photo run numbers** will be extra important with these notebooks as we already know we have many of these.



**Point numbers** please record in Section 2.



David has many recordings of mineral compositions such as:  
Garnet – Hypersthene – Quartz – feldspar - Ilmanite



A couple of ones to be aware of are:

Hy = hypersthene

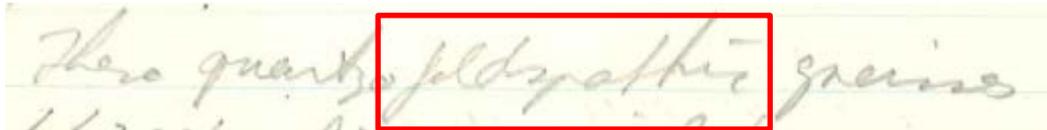
Sa = sapphirine

Opx = orthopyroxene

Cpx = clinopyroxene

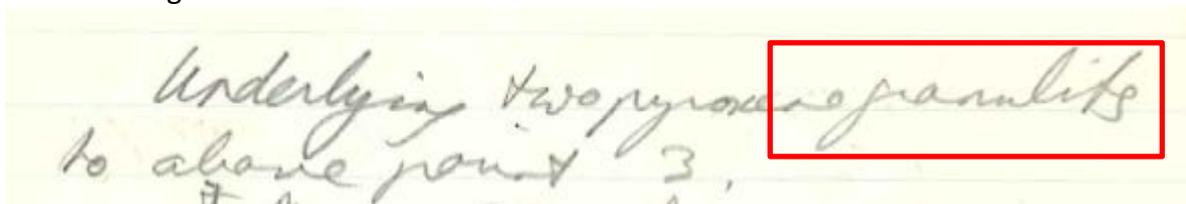
Bi = biotite  
Amph = amphibole  
Mt = magnetite  
Di = diopside

Feldspathic is commonly found in the notebooks.



These quartz feldspathic gneisses

This word is granulites



Underlying two pyroxene granulites  
to above point 3

This  $\approx$  symbol means 'around' e.g.:



coarse grained ( $\approx$  3 mm) two pyroxene

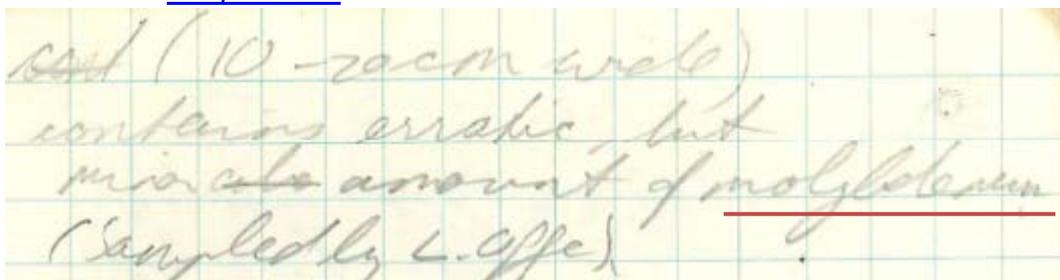
Some word that might be unfamiliar:



Eclogite

- eclogite

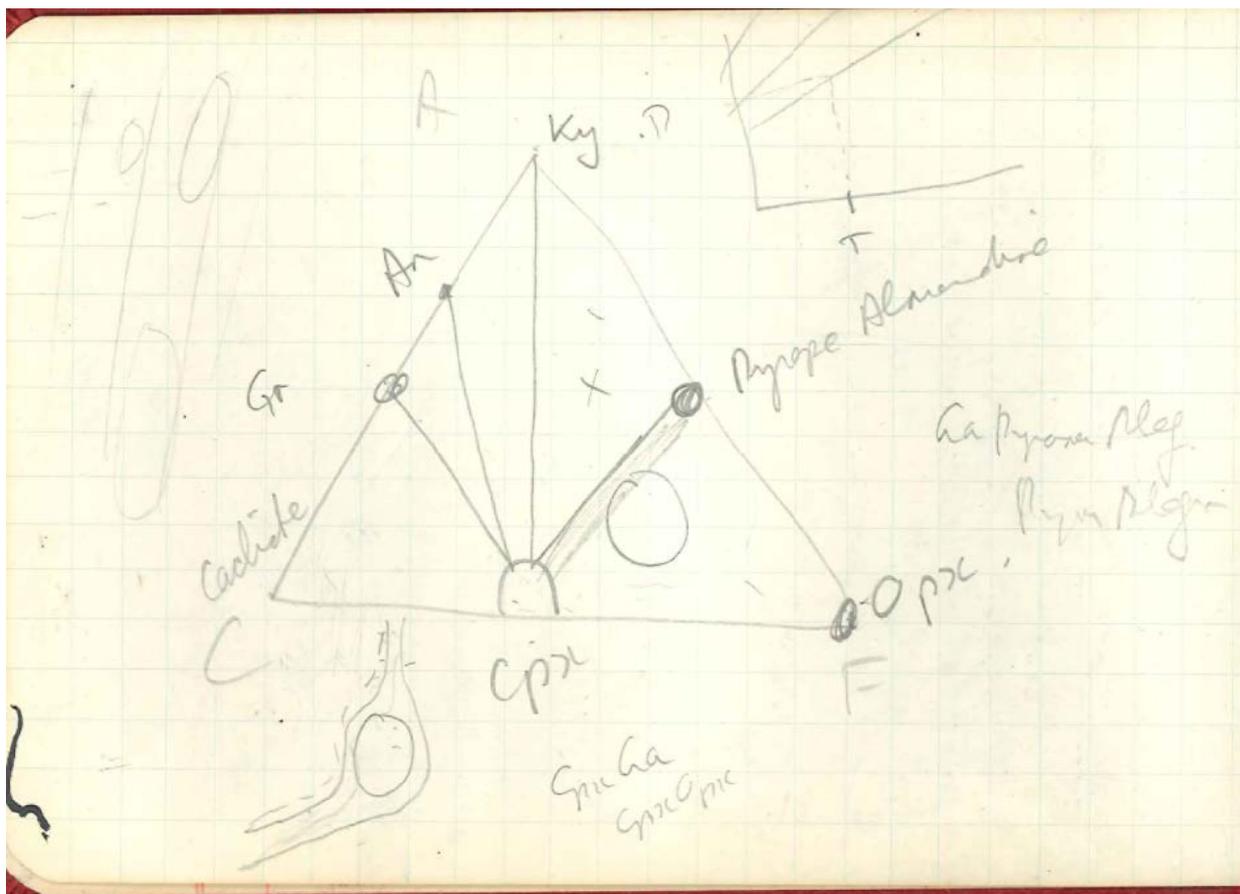
This word is [molybdenum](#):



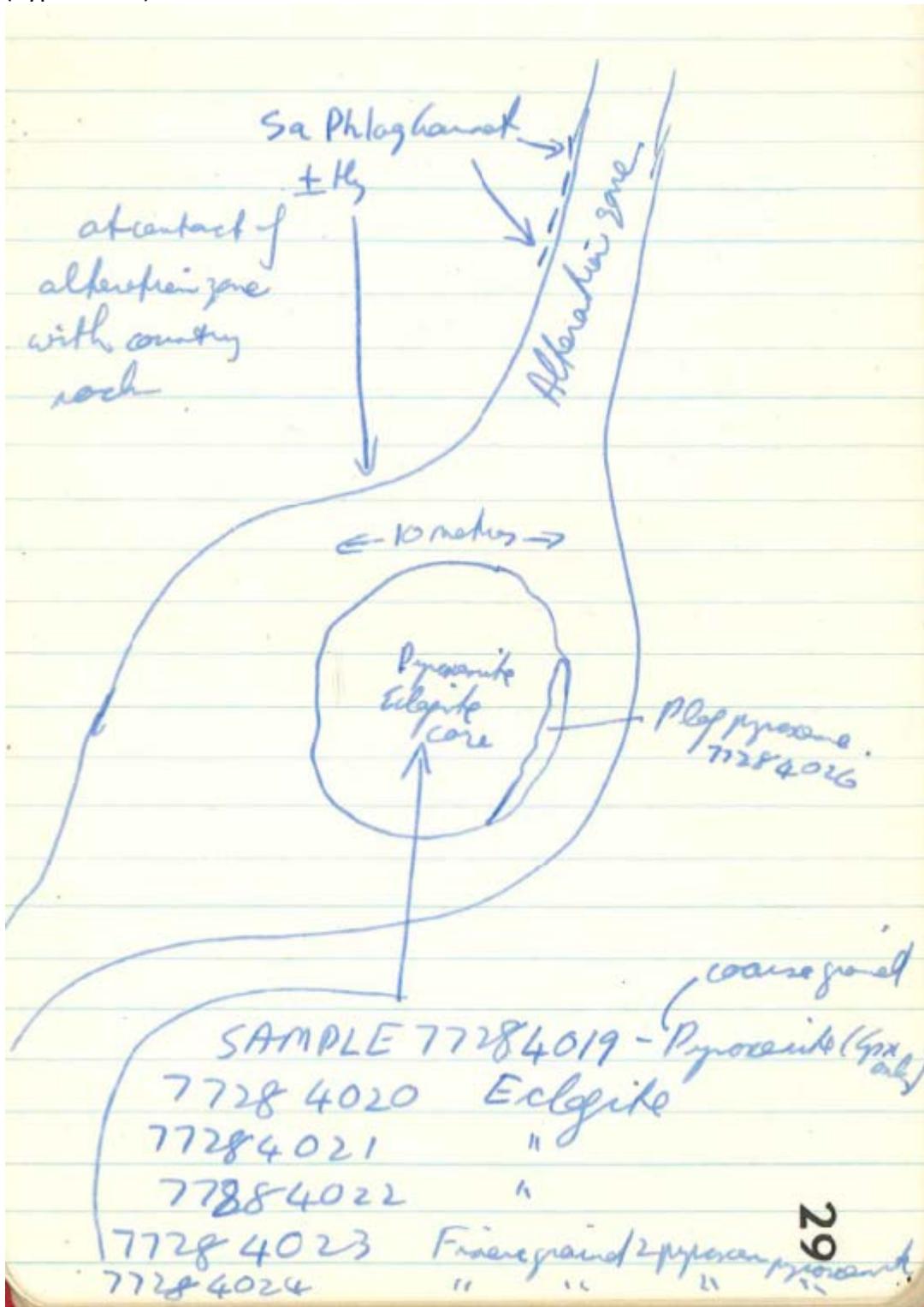
cut (10-cm wide)  
contains erratic but  
min. amount of molybdenum  
(sampled by L. Gffe)

Explanatory notes from Chris:

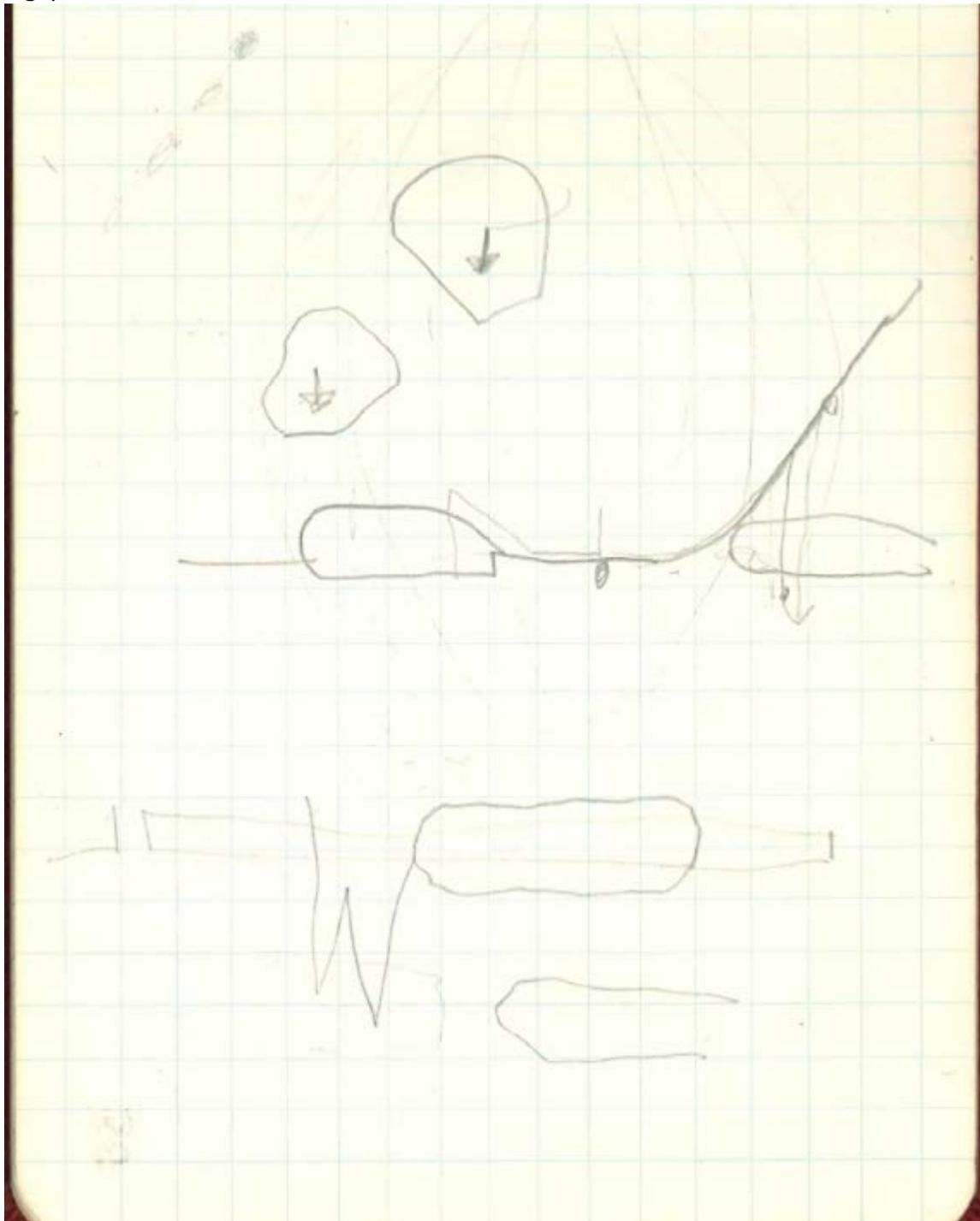
This is a diagram used by geologists to visualise mineral relationships in a graphical format, in this case the triangle represents the chemical system 'A' (at the top, = Aluminium), 'C' (lower left, Calcium) and 'F' (lower right, iron, Fe). Different minerals which have different compositions will plot in different locations on the figure. Ky (Kyanite) at the top, C (Calcite) Transcribe as [ternary diagram] the diagram shows mineral as abbreviations, I would list the minerals present in the diagram. For example in this figure Gr = grossular (a type of garnet), An (= anorthosite), Ky (=kyanite), Pyrope-almandine (a type of garnet again), opx (=orthopyroxene), cpx (=clinopyroxene), Ga (generic abb for garnet), plag (=plagioclase)



This is a field sketch of an outcrop of interest to Ellis. It shows the rock relationships in the field between a 'core' of pyroxenite-eclogite rock (pyroxenite is a ROCK comprised primarily of pyroxene), surrounded by a 'alteration zone' up to 10 m wide. Ellis has collected several samples at this location, 77284019-26. Along the margin of the alteration zone at the top of the figure there is a mineral assemblage of sa (sapphirine), phlog (phlogopite), garnet  $\pm$ Hy (hyperthene).



Diagrams found on pages 57a and 58 are cross section plate tectonic sketches.  
e.g. p.57a



A useful map covering Enderby Land which shows many of the places visited by Ellis can be found on the Australian Antarctic Division's website. Here's the [link](#) to the page to download the map from.

Thanks again for all your wonderful work with the notebooks, it is greatly appreciated!!  
Jane & Chris