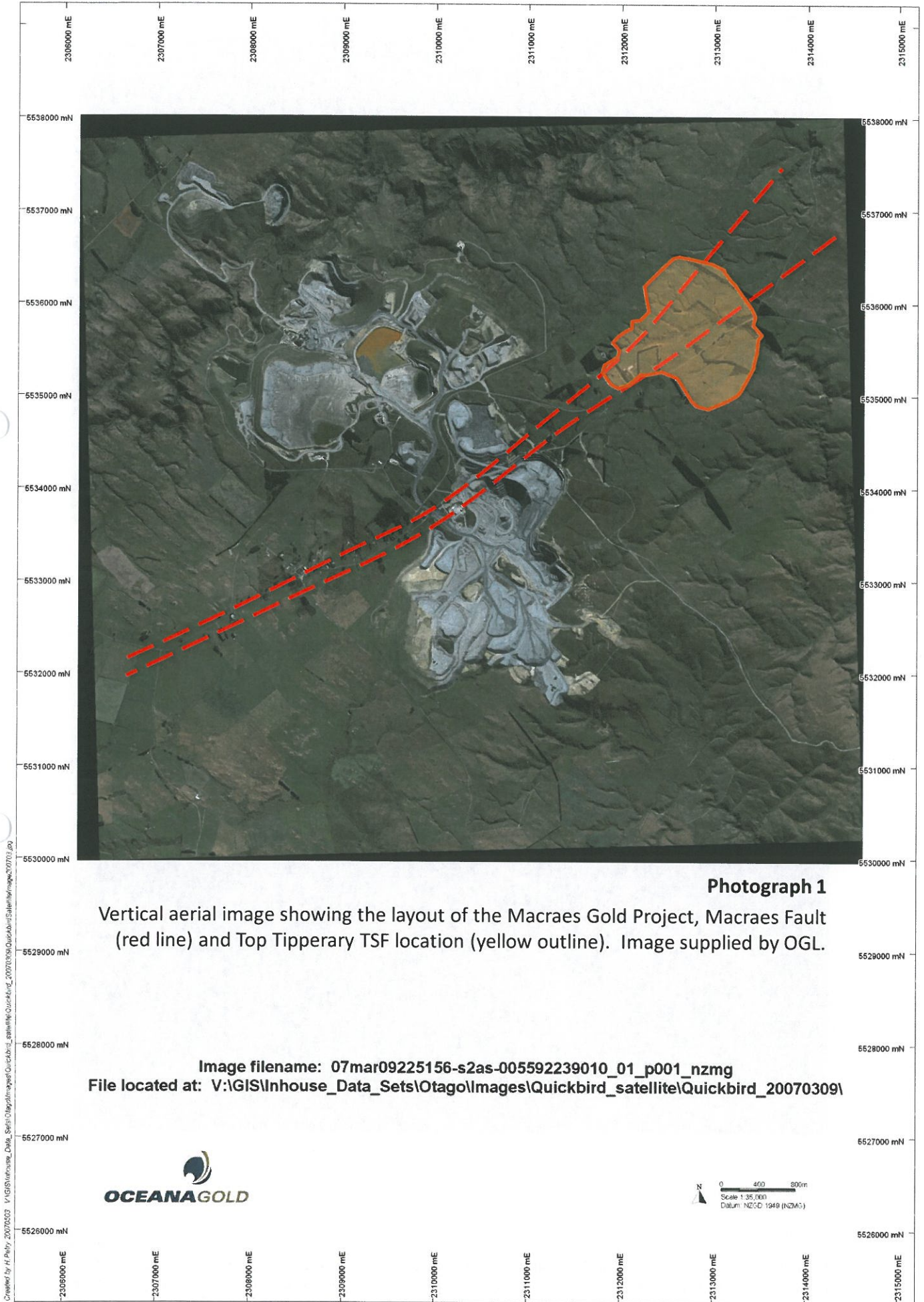




APPENDIX A

Photographs



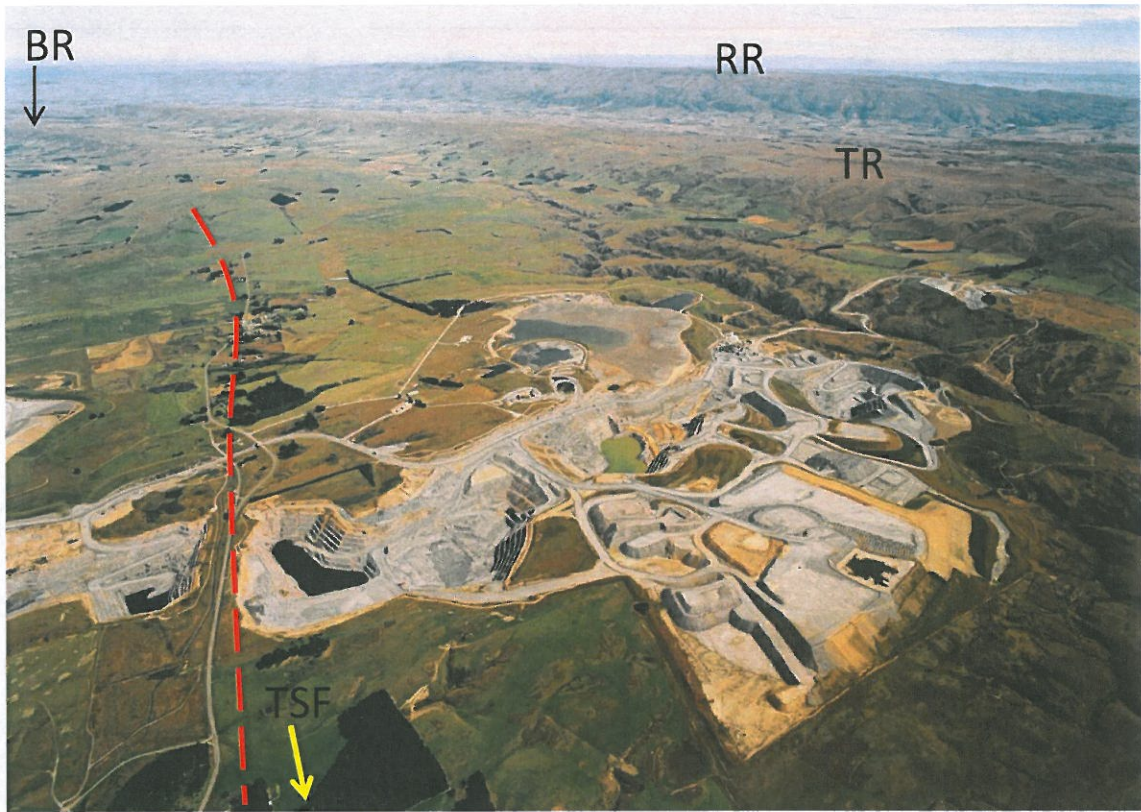
Photograph 1

Vertical aerial image showing the layout of the Macraes Gold Project, Macraes Fault (red line) and Top Tipperary TSF location (yellow outline). Image supplied by OGL.

Image filename: 07mar09225156-s2as-005592239010_01_p001_nzmg
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Created by H.Petry, 20070303 V:\GIS\Inhouse_Data_Sets\Otago\Images\Quickbird_satellite\Quickbird_20070309\magnomaps\magnomaps20070309.jpg

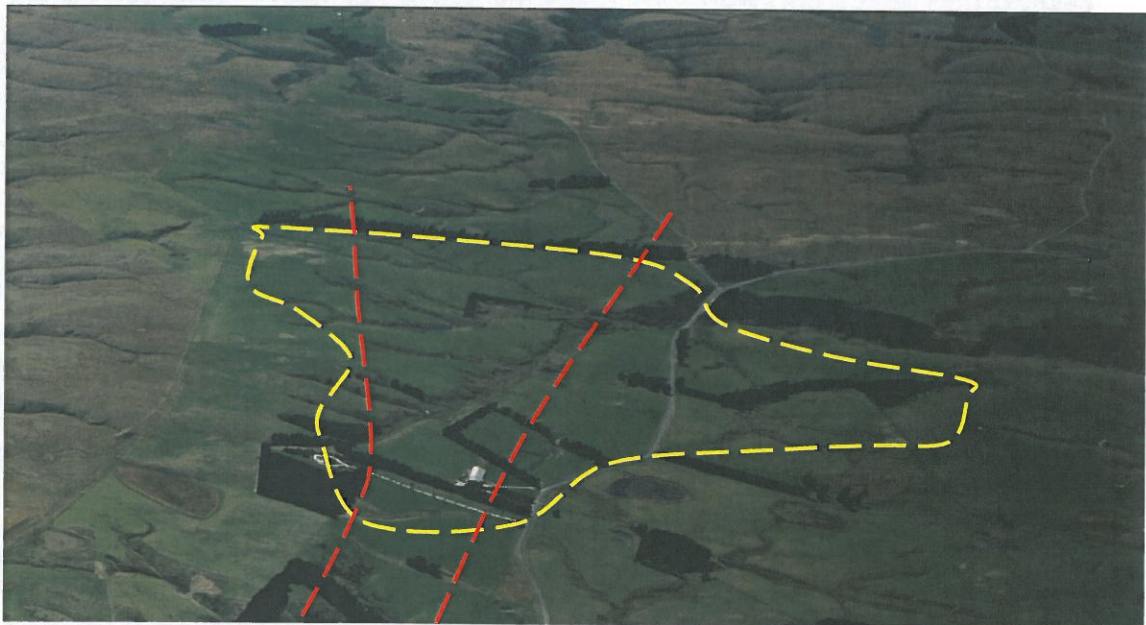


Photograph 2
Oblique aerial photographs of the Macraes Gold Project at Macraes Flat. Labelled structures include RR (Rock and Pillar Range), TR (Taieri Ridge) and BiR (Billy's Ridge). Approximate location of the Macraes Fault is dashed in Red. Top Tipperary TSF site is outside these images (arrowed). Photos supplied by OGL.



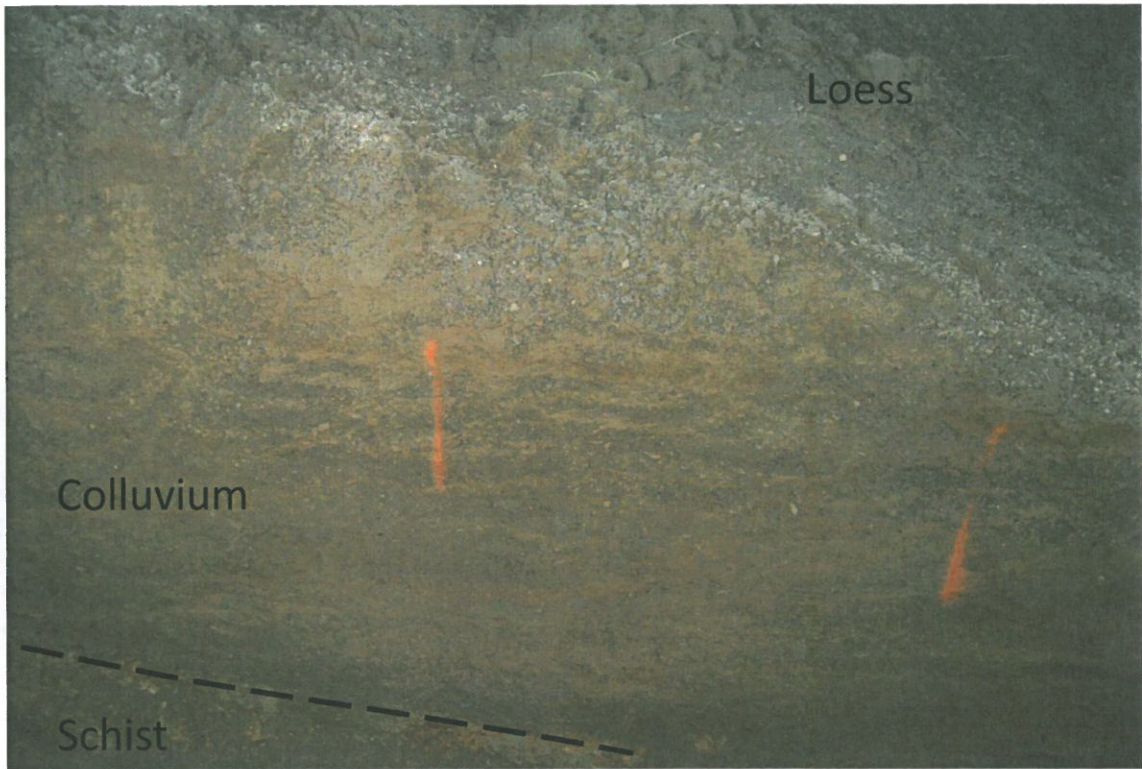
Photograph 3

View from near the main embankment looking west.



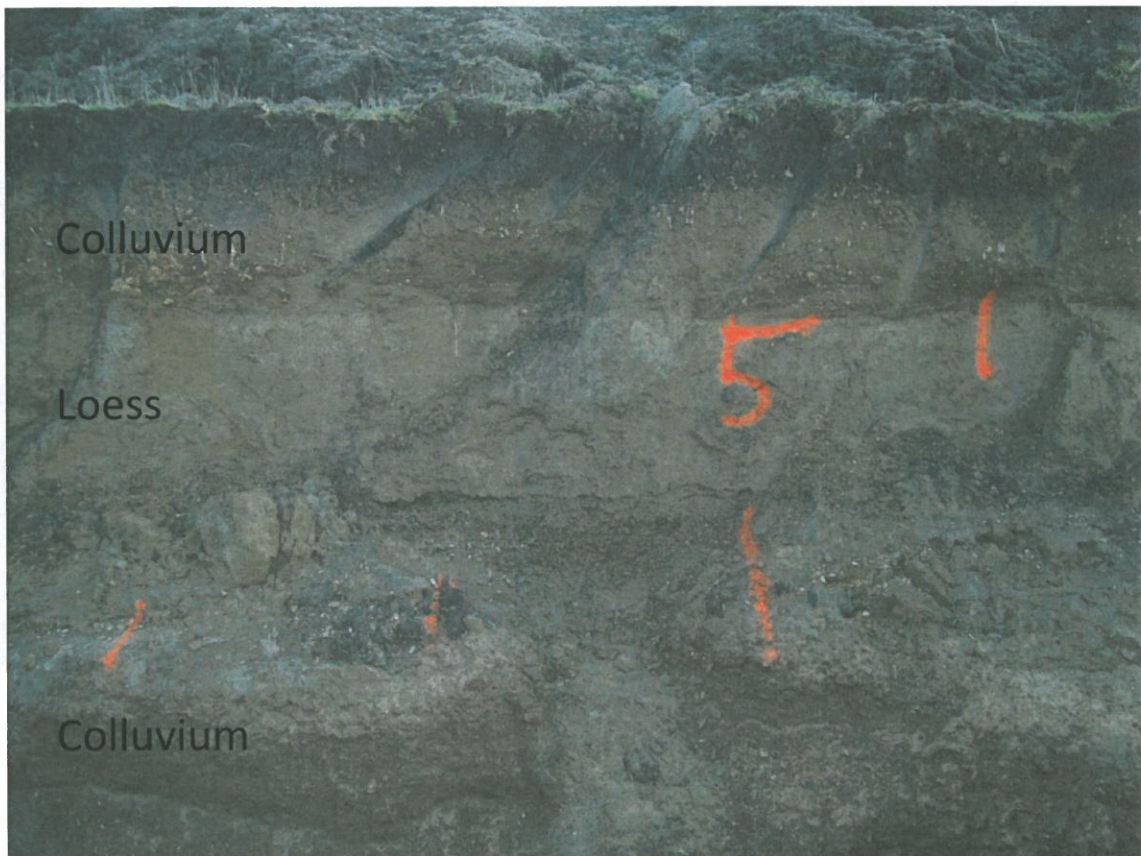
Photograph 4

Oblique aerial view of the proposed TSF site looking east. Approximate TSF footprint is indicated in yellow, Margins of the Macraes Fault are shown in red.



Photograph 5

Interbedded gravelly sands and silts within colluvium in Trench 100 (+18m). Orange spray marks are 1m apart. HW schist is exposed in the base of the trench and the colluvium/loess contact corresponds with the bench.



Photograph 6

Colluvium overlain by 0.8 m thick loess layer, overlain by loess colluvium with 0.25 m thick soil profile. Trench 200 (+5 m).



Photograph 7

Horizontally bedded gravels within colluvium in Trench 200 (+5 m). This strata is the lower colluvium exposed in Photograph 6.



Photograph 8

Loess containing characteristic light grey veins exposed in Trench 200 (+12 m).



Photograph 9

Steeply dipping fault in schist (Trench 300 (+10 m)). The fault cuts across foliation, strikes parallel to the Macraes Fault but dips to the south.



Photograph 10

Fault exposed in Trench 400 (+67 m). Fault dips steeply to the southeast, parallel to foliation.



Photograph 11

North dipping ($\sim 45^\circ$) fault in schist (Trench 100 (-22 m)). The fault has the same orientation as the Macraes Fault and is inferred to be the main fault plane. No offset is apparent across the soil/rock contact.



Photograph 12

Close-up of the above fault (Trench 100 -22m).



Photograph 13

Layout of Trench 700 along the proposed main embankment footprint, across the Macraes Fault



Photograph 14

View along Trench 700 from the north



Photograph 15

North dipping fault exposed in Trench 700 at 120m. No deformation of thin loess soil.



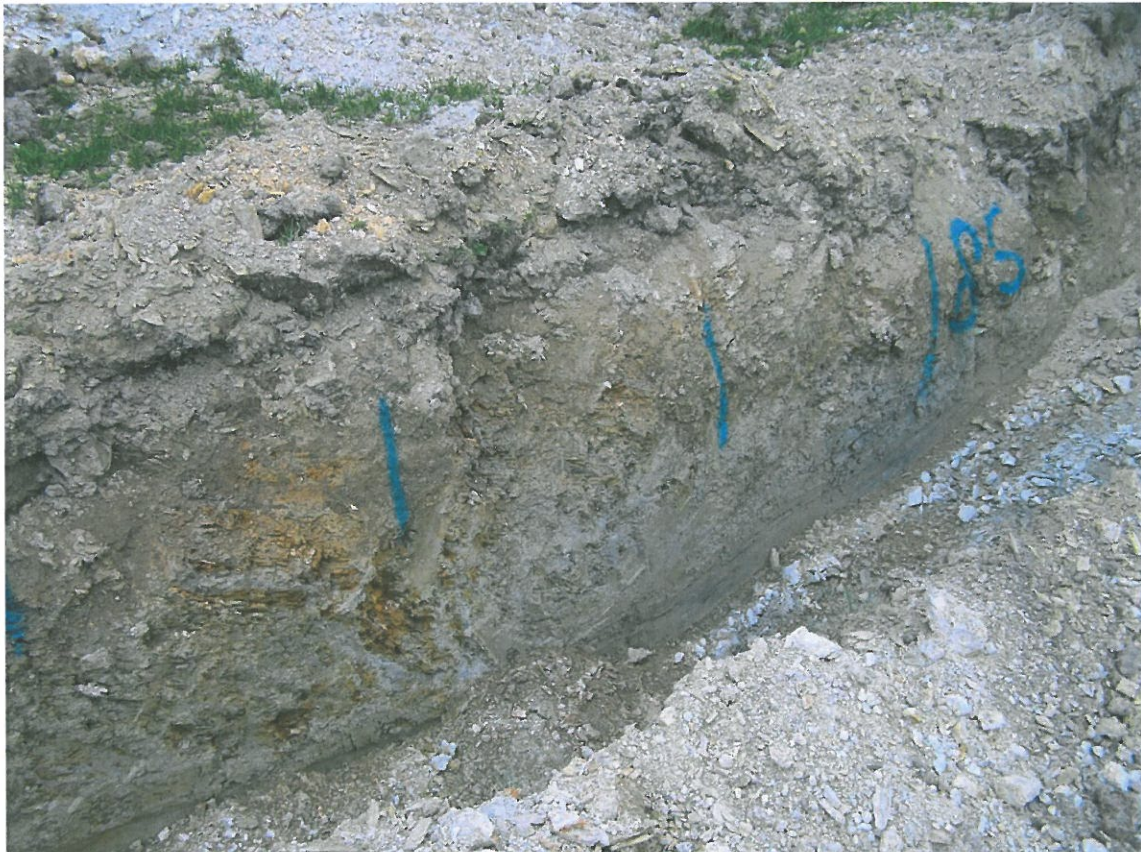
Photograph 16

North dipping fault exposed in Trench 700 at 170 m. Continuous topsoil and unfaulted loess layer can be seen across the exposure.



Photograph 17

View of Trench 700 from 260 m showing generally weak or moderately strong, unfaulted schist with thin covering soil for the next 50 m of trench.



Photograph 18

South-east dipping fault, oriented parallel to local foliation attitude in Trench 700 at 385 m.



Photograph 19

View of Trench 700 from 500 m showing generally weak or moderately strong, unfaulted schist with thin covering soil in this area.



Photograph 20

One of several south-east dipping faults, oriented parallel to local foliation attitude in Trench 700 at about 635 m.



Photograph 21

South dipping fault parallel to local foliation oriented at 640 m in Trench 700.



Photograph 22

Weak or moderately strong schist with thin soil cover exposed at 700 m in Trench 700