Encl. 77

Hauvette 2021, Seismic interpretation around the Greater Geneva Basin
Tectonics of the Western Northern Alpine Foreland
Results of PhD Thesis, University of Fribourg, 2023.

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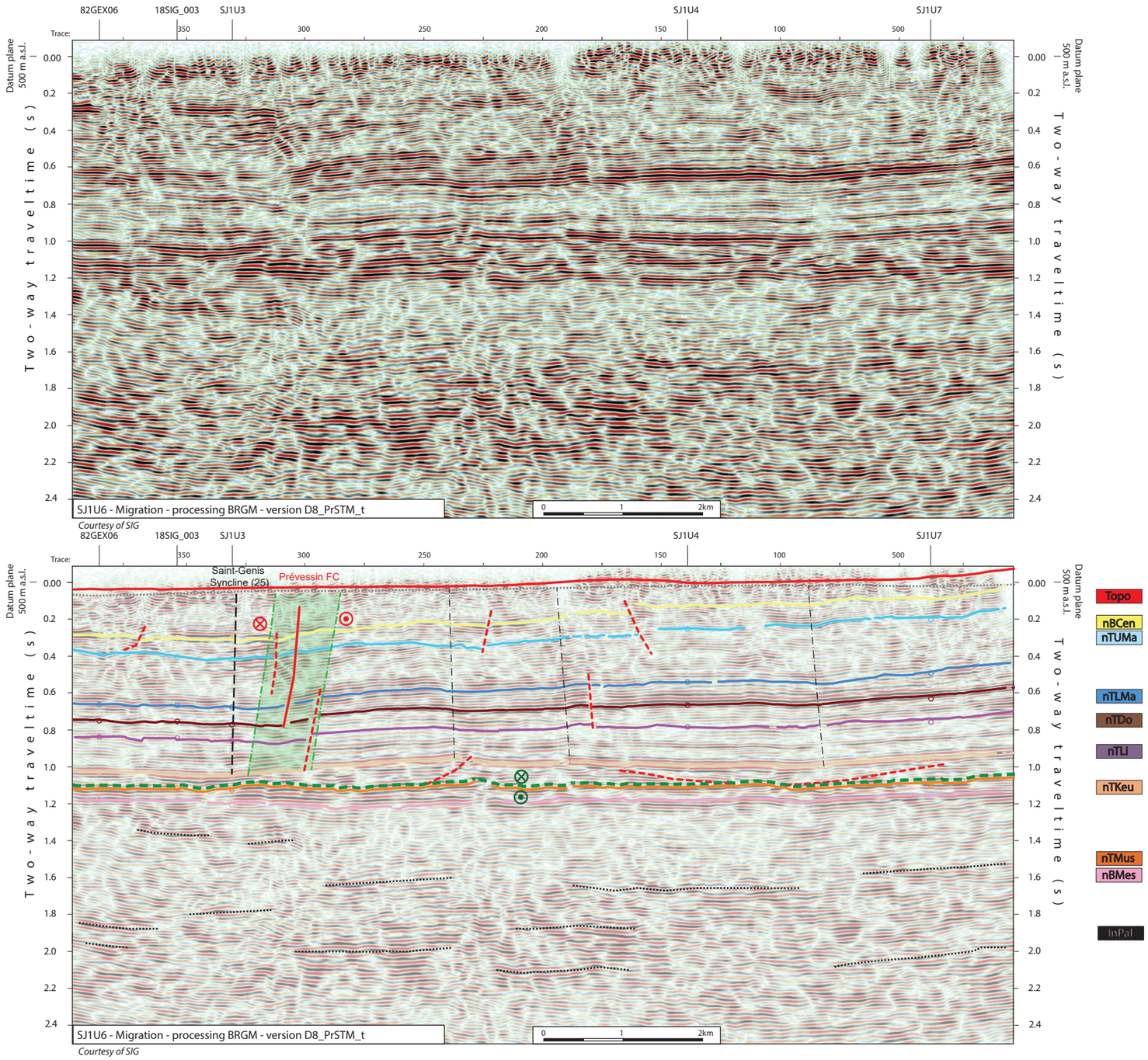
2D seismic line SJ1U6 (FR)

SW — NE



Structural Interpretation

- Correlated fault stick (with intersection cross with other surveys)
- Non-correlated fault stick
- Conceptual fault stick
- Basal décollement zone
- Fault corridor boundary
- Major dip change line
- Fold axial surface

- Displacement vector pointing towards the observer
- Displacement vector pointing away from the observer

Stratigraphic Interpretation

- Horizon well defined
- Horizon poorly defined / intra Paleozoic reflections / near Base Quaternary model (GESDEC)
- Horizons TWT at line intersections
- Well — Projected perpendicular to the seismic line

Well abbreviation (Map and section)

Crozet	Fc
Gex CD-01	GEX-1
Gex CD-02	GEX-2
Gex CD-07	GEX-7
L 112	L 112
L 132	L 133
L 135	L 135
Grilly	Fg

Other abbreviations

Trace	Seismic trace
FZ	Fault zone
FC	Fault corridor
TWT	Two way traveltime
proj.	Projected
s	Seconds
nT	near Top
nB	near Base
Q	Quaternary
Cen	Cenozoic
UMa	Upper Malm
LMa	Lower Malm
Do	Dogger
Li	Lias
Keu	Keuper
Mus	Muschelkalk
Mes	Mesozoic
InPal	Intra Paleozoic

Folds in detached Mesozoic and Cenozoic sedimentary cover

- Anticline visible on surface and on seismic data (blue -> only in Cenozoic cover)
- Syncline visible on surface and on seismic data (blue -> only in Cenozoic cover)
- Anticline visible only on seismic data (blue -> only in Cenozoic cover)
- Syncline visible only seismic data (blue -> only in Cenozoic cover)

Main Faults at nBCen (near Base Cenozoic)

- Reverse fault
- Strike-slip fault
- Normal fault
- Fault corridor

FT: Frontal Thrust
FBT: Frontal Back Thrust
FZ: Fault Zone
FC: Fault Corridor

Other features

- Seismic lines with trace numbers (250)
- **Interpreted seismic lines (left)**
- Geomorphologic lineaments
- Wells (GEo-01)
- Frontier CH-FR

0 km 2

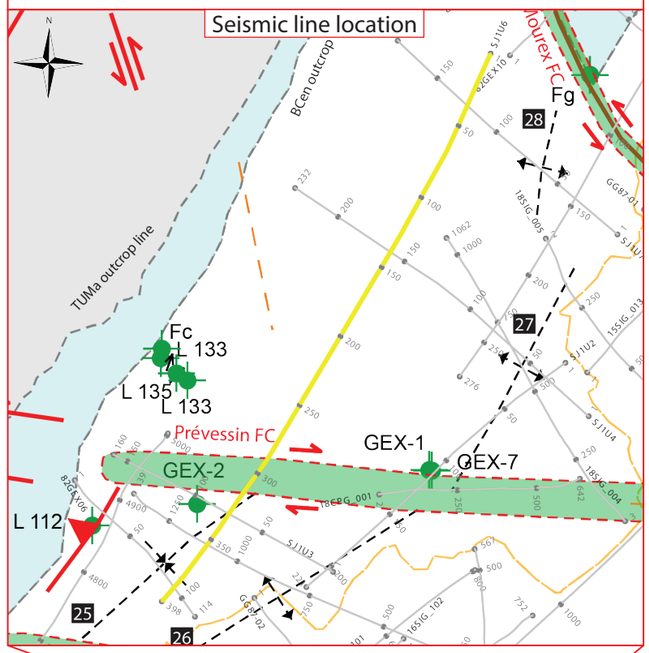
Fold Names

25 Saint - Genis Syncline
26 CERN Anticline
27 Ornex Anticline
28 Versonnex Anticline

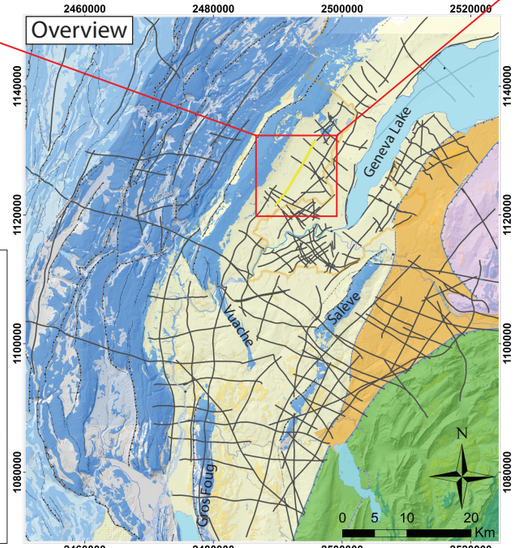
Areas

- Molasse Basin (Quaternary or Molasse outcrops)
- Mesozoic outcrops — Cretaceous outcrops at the bounday between the Molasse Basin and the Jura fold and Thrust Belt

Seismic line location



Overview



Legend

Tectonic domains
- Molasse Basin
- Subalpine Molasse
- Internal Jura *
- External Jura
- Penninic nappes
- Ultrahelvetic nappes

* plus the Salève, Gros Foug and Vuache structures in the Molasse Basin

Other features
- Border
- Seismic Lines
- Thrust
- Alpine Thrust

Coordinate system: CH1903+ / LV95