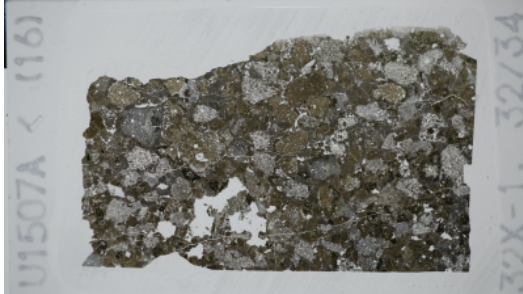


THIN SECTION LABEL ID: **371-U1507A-32X-1-W 32/34-TSB-TS16** Thin section no.: 16
 Observer: MG Unit/subunit: Unit I / 1a
 Thin section summary: Upper part of a 1m thick layer. Conglomeratic tuff with foraminifera. Poorly sorted and angular grains of basaltic composition, including plagioclase, pyroxene, and olivine

Plane-polarized: 42939671



Cross-polarized: 42939691



Sediments and Sedimentary Rock

Complete Lithology Name: conglomeratic tuff with foraminifers

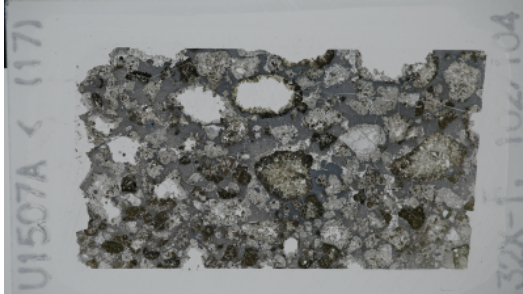
Remarks: Upper part of 1m volcanoclastic bed in chalk succession. Plagioclase, pyroxene and olivine phenocrysts still present.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		65		35		

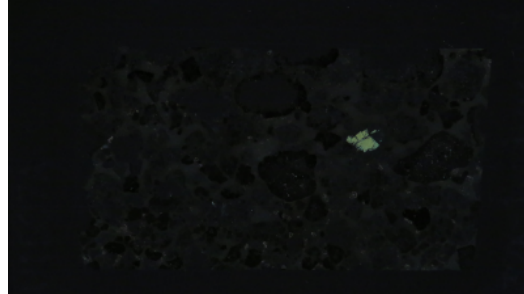
COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		5		95

THIN SECTION LABEL ID: **371-U1507A-32X-1-W 102/104-TSB-TS17** Thin section no.: 17
 Observer: MG Unit/subunit: Unit I / 1a
 Thin section summary: Lower part of a 1m thick layer. Conglomeratic tuff with foraminifera. Poorly sorted and angular grains of basaltic composition, including plagioclase, pyroxene, and olivine

Plane-polarized: 42939711



Cross-polarized: 42939731



Sediments and Sedimentary Rock

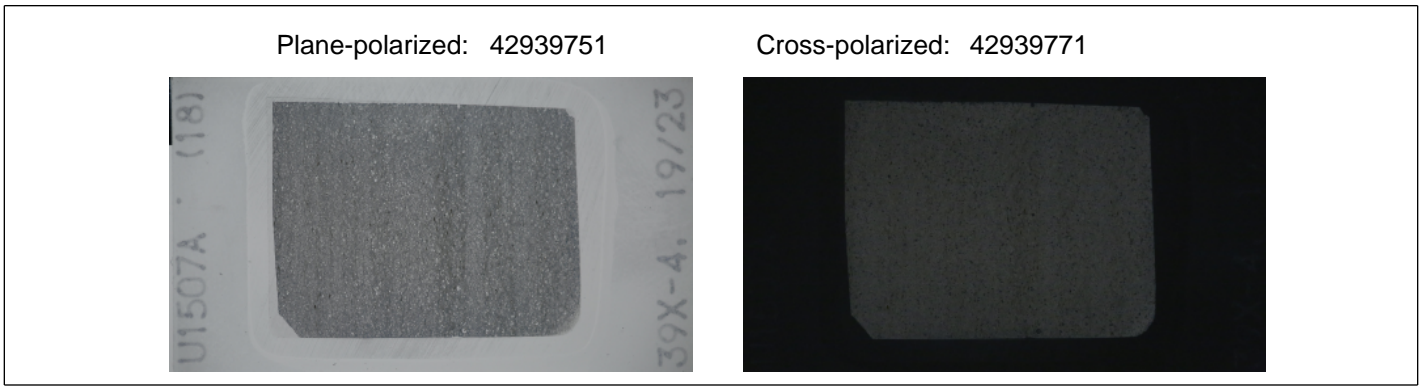
Complete Lithology Name: conglomeratic tuff with foraminifers

Remarks: Lower part of 1m volcanoclastic bed in chalk succession. Plagioclase, pyroxene and olivine phenocrysts still present.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		60		40		

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		5		95

THIN SECTION LABEL ID: **371-U1507A-39X-4-W 19/23-TSB-TS18** Thin section no.: 18
 Observer: MG Unit/subunit: Unit I / 1a
 Thin section summary: Foraminiferal packstone with parallel lamination created by variable amount of matrix



Sediments and Sedimentary Rock

Complete Lithology Name: foraminiferal packstone

Remarks: Parallel lamination created by variable amount of matrix

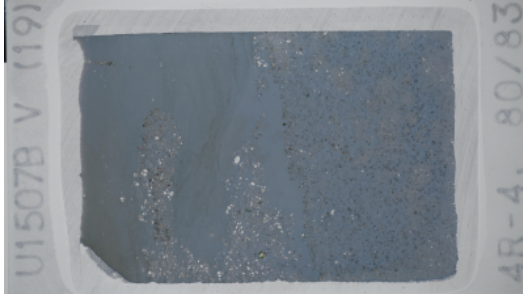
TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		80		20		

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		100		

THIN SECTION LABEL ID: **371-U1507B-4R-4-W 80/83-TSB-TS19** Thin section no.: 19
 Observer: MG Unit/subunit: Unit I / 1a
 Thin section summary: Foraminiferal packstone/ muddy limestone from a soft deformed sedimentary bed.
 Forams chambers sometimes filled with authigenic opaque minerals

Plane-polarized: 42939791

Cross-polarized: 42939811



Sediments and Sedimentary Rock

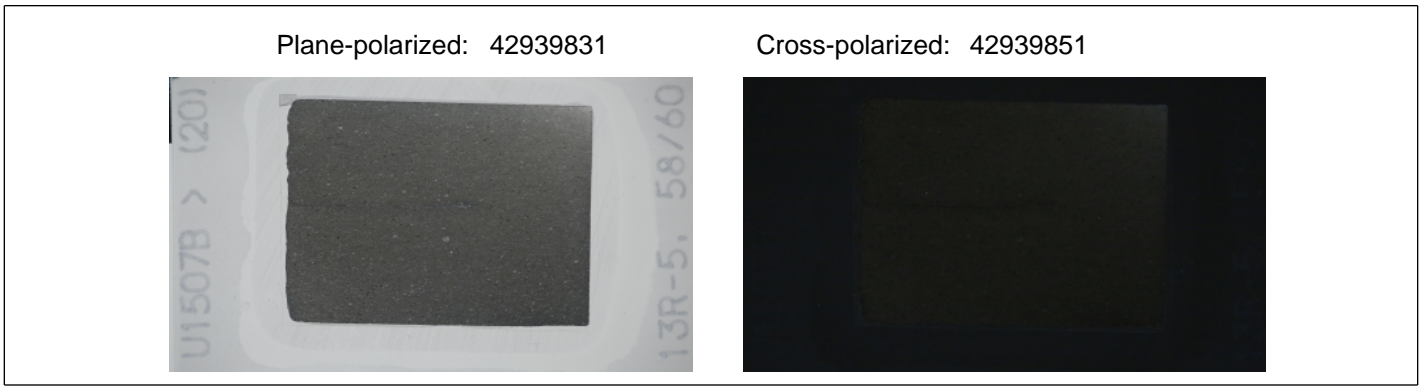
Complete Lithology Name: foraminiferal packstone

Remarks: Soft deformed sedimentary bed. Forams chambers sometimes filled with authigenic opaque minerals

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		70			30	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		100		

THIN SECTION LABEL ID: 371-U1507B-13R-5-W 58/60-TSB-TS20	Thin section no.: 20
Observer: MG	Unit/subunit: Unit I / 1b
Thin section summary: Bioclastic wackestone with foraminifera and traces of lithic grains	



Sediments and Sedimentary Rock

Complete Lithology Name: bioclastic wackestone with foraminifers

Remarks:

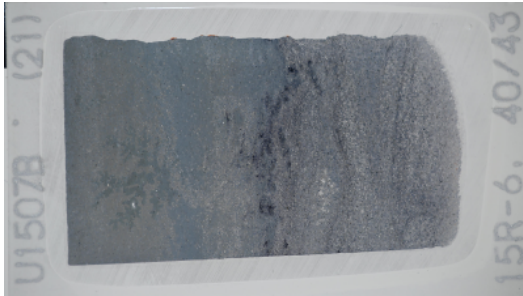
TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		10	30		60	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID: **371-U1507B-15R-6-W 40/43-TSB-TS21** Thin section no.: 21
 Observer: MG Unit/subunit: Unit I / 1b
 Thin section summary: Contact between bioturbated bioclastic wackestone and cross-laminated bioclastic packstone. The two have similar composition, juts different amount of matrix and traces of authigenic minerals. Forams seem internally silicified.

Plane-polarized: 42939871

Cross-polarized: 42939891



Sediments and Sedimentary Rock

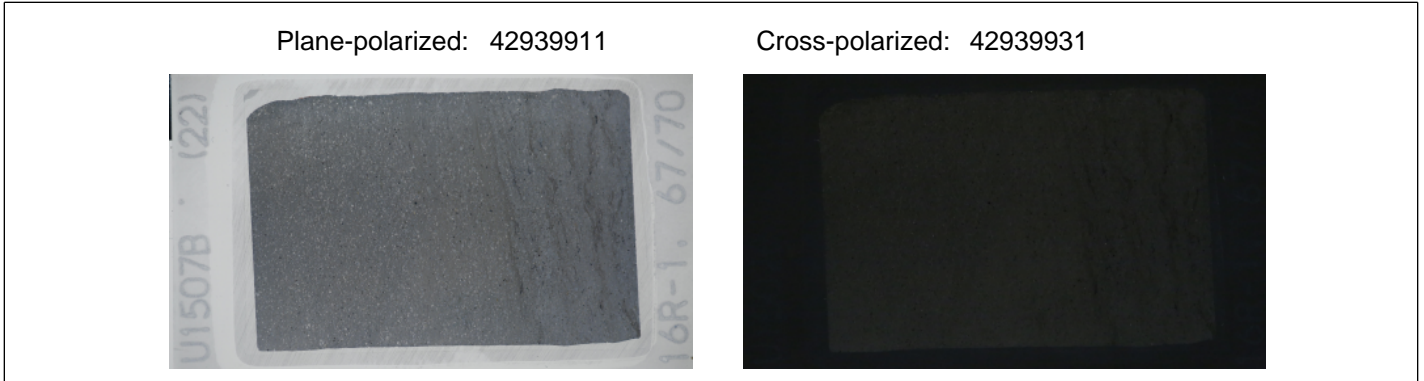
Complete Lithology Name: bioclastic wackestone with intraclasts

Remarks: Contact between bioturbated bioclastic wackestone and cross-laminated bioclastic packstone. The two have similar composition, juts different amount of matrix. Forams seem internally silicified.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		20	20		60	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID:	371-U1507B-16R-1-W 67/70-TSB-TS22	Thin section no.:	22
Observer:	MG	Unit/subunit:	Unit I / 1b
Thin section summary:	Bioclastic wackestone with intraclasts, partly disturbed and partly homogeneous. Bioclasts consist mainly of foraminifera. Traces of oxides are present.		



Sediments and Sedimentary Rock

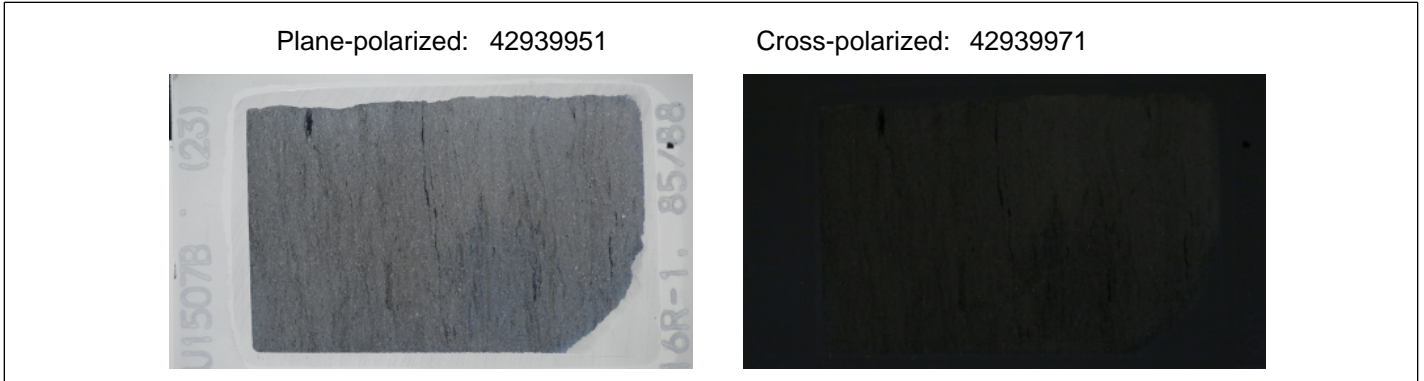
Complete Lithology Name: bioclastic wackestone with intraclasts

Remarks: Contact between disturbed and homogenous lithology.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		20	20		60	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID:	371-U1507B-16R-1-W 85/88-TSB-TS23	Thin section no.:	23
Observer:	MG	Unit/subunit:	Unit I / 1b
Thin section summary:	Bioclastic wackestone with intraclasts. Bioclasts consist mainly of foraminifera. Rare authigenic minerals are present.		



Sediments and Sedimentary Rock

Complete Lithology Name: bioclastic wackestone with intraclasts

Remarks: Irregular lamination

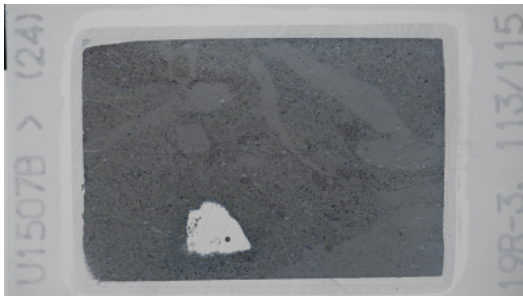
TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		25	20		55	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID: **371-U1507B-19R-3-W 113/115-TSB-TS24** Thin section no.: 24
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Intraclastic packstone with bioclasts, with burrows filled with intraclastic wackestone. Carbonate grains are rather re-crystallized. Traces of volcanic clasts are present, as well as rare opaque grains, probably of both lithic and authigenic origin.

Plane-polarized: 42939991

Cross-polarized: 42940011



Sediments and Sedimentary Rock

Complete Lithology Name: intraclastic packstone with bioclasts

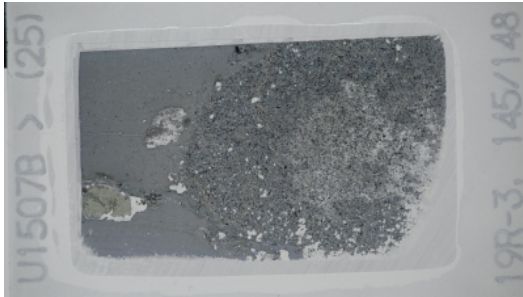
Remarks: Carbonate grains are rather re-crystallized. Several opaque grains are present, some are lithics, other probably authigenic.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		40	10		50	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID: **371-U1507B-19R-3-W 145/148-TSB-TS25** Thin section no.: 25
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Intraclastic packstone, with burrows filled with wackestone with foraminifera and other fine carbonate grains. Traces of volcanic clasts and opaque mineral, probably both detrital and authigenic. Abundant sparite in the packstone. Presence of stylolitic grain contacts.

Plane-polarized: 42940031



Cross-polarized: 42940051



Sediments and Sedimentary Rock

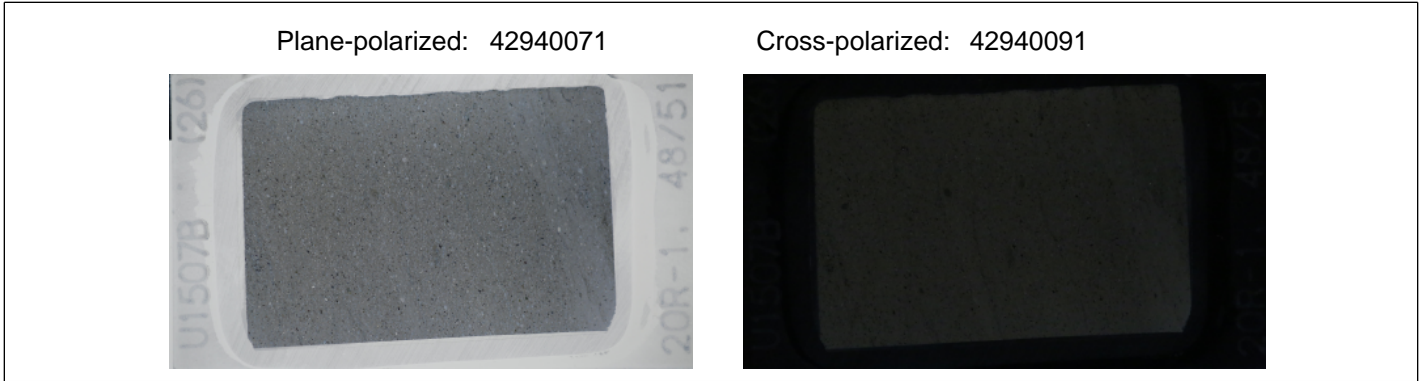
Complete Lithology Name: intraclastic packstone

Remarks: Abundant sparite in the packstone. Presence of stylolitic contacts. Some of the opaques are probably authigenic

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		80	10		10	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID:	371-U1507B-20R-1-W 48/51-TSB-TS26	Thin section no.:	26
Observer:	MG	Unit/subunit:	Unit I / 1c
Thin section summary:	Bioclastic wackestone with intraclasts. Bioclasts include foraminifera and other carbonate fragments. Traces of volcanic clasts are present.		



Sediments and Sedimentary Rock

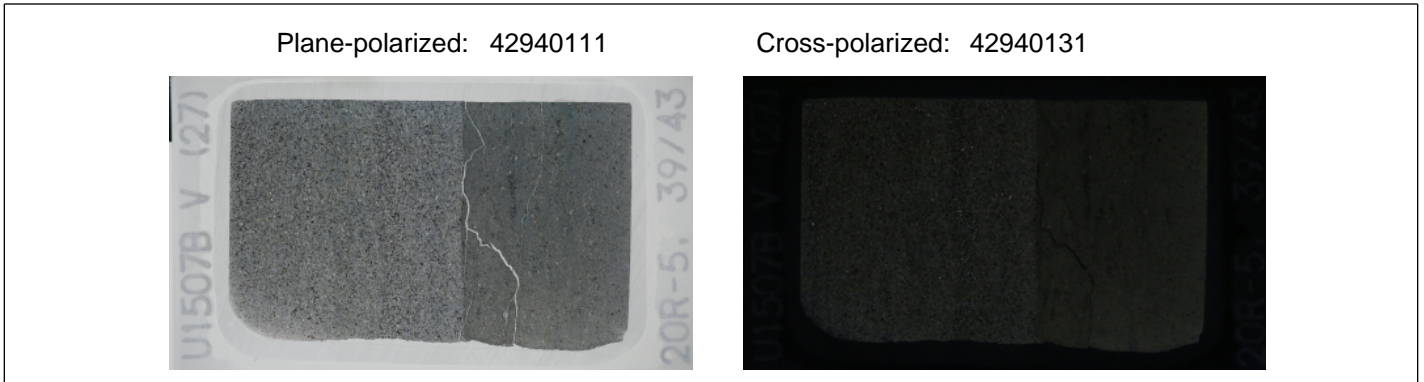
Complete Lithology Name: Bioclastic wackestone with intraclasts

Remarks:

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		30			70	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		95		5

THIN SECTION LABEL ID: **371-U1507B-20R-5-W 39/43-TSB-TS27** Thin section no.: 27
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Intraclastic packstone from the upper part of a turbiditic layer. Matrix and grains are clustered, with the local presence of cement. Common volcanic grains of basaltic composition. Rare foraminifera and other bioclasts.



Sediments and Sedimentary Rock

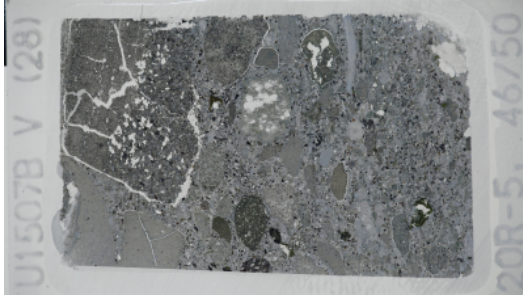
Complete Lithology Name: intraclastic packstone
Remarks: Upper part of a turbiditic layer

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		65	10		20	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		90		10

THIN SECTION LABEL ID: **371-U1507B-20R-5-W 46/50-TSB-TS28** Thin section no.: 28
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Highly mixed and very poorly sorted carbonate volcanoclastic conglomerate. The carbonate fraction includes micrite (matrix), planktonic foraminifera and shallow water bioclasts, including benthic foraminifera, algae, valves, and crinoids. Volcanic clasts are mainly basaltic tefra and glass. Grains are compenetrating with stylolithic contacts.

Plane-polarized: 42940151



Cross-polarized: 42940171



Sediments and Sedimentary Rock

Complete Lithology Name: calcareous conglomerate with silicate minerals

Remarks: Highly mixed and very poorly sorted carbonate volcanoclastic rock. Present several shallow water carbonate bioclasts, including benthic foraminifera, algae, valves, crinoids, as well as planktonic foraminifera. Grains are compenetrating with stylolithic contacts.

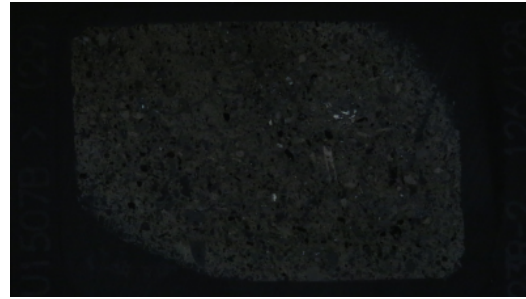
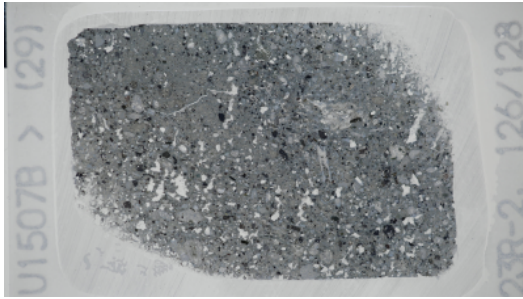
TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent	35	40	10		10	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		50		50

THIN SECTION LABEL ID: **371-U1507B-23R-2-W 126/128-TSB-TS29** Thin section no.: 29
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Highly mixed and poorly sorted carbonate volcanoclastic sandstone. The carbonate fraction includes micrite (matrix), planktonic foraminifera, and shallow water bioclasts, including benthic foraminifera, algae, bryozoans, valves, and crinoids. Volcanic clasts are mainly basaltic tefra.

Plane-polarized: 42940191

Cross-polarized: 42940211



Sediments and Sedimentary Rock

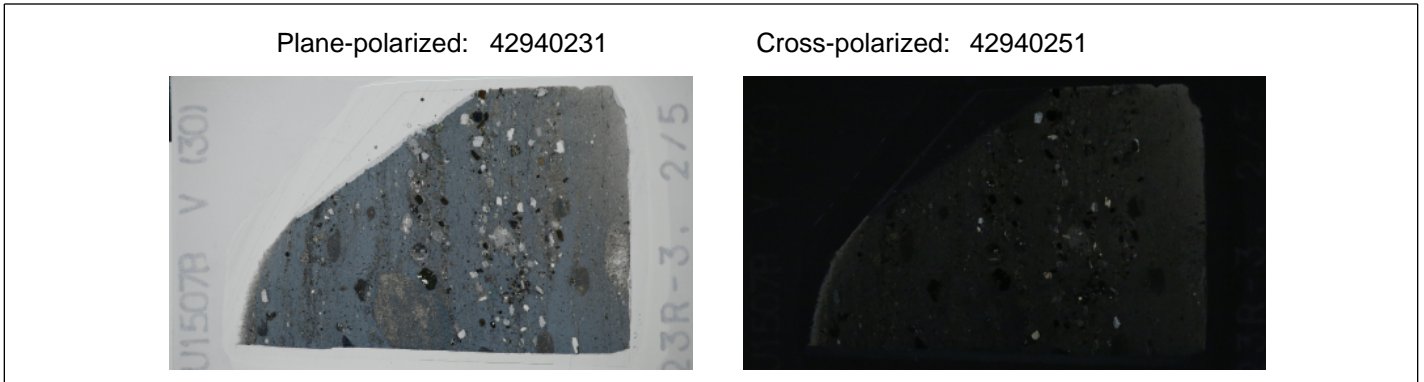
Complete Lithology Name: calcareous sandstone with silicate minerals

Remarks: Highly mixed and poorly sorted carbonate volcanoclastic rock. Present several shallow water carbonate bioclasts, including benthic foraminifera (Nummulites), algae, bryozoans, valves, crinoids, as well as planktonic foraminifera.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent	5	30	15		50	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		60		40

THIN SECTION LABEL ID:	371-U1507B-23R-3-W 2/5-TSB-TS30	Thin section no.:	30
Observer:	MG	Unit/subunit:	Unit I / 1c
Thin section summary:	Bioclastic conglomerate with volcanic clasts. The carbonate fraction includes micrite (matrix), and bioclasts, mainly foraminifera. Volcanic clasts are common and of basaltic composition. There are traces of authigenic sulfides.		



Sediments and Sedimentary Rock

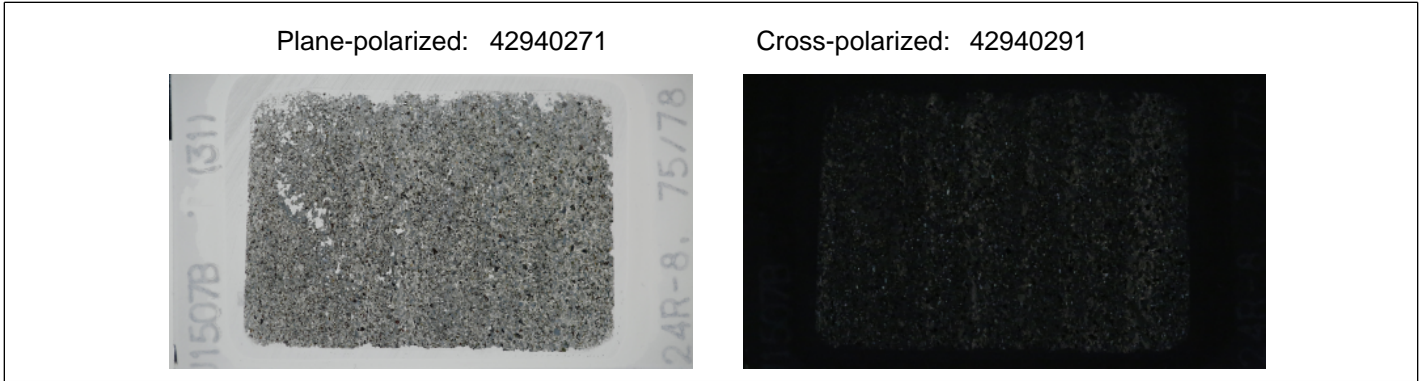
Complete Lithology Name: bioclastic conglomerate with volcanic ash

Remarks:

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent	5	50	15		30	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		90		10

THIN SECTION LABEL ID:	371-U1507B-24R-8-W 75/78-TSB-TS31	Thin section no.:	31
Observer:	MG	Unit/subunit:	Unit I / 1c
Thin section summary:	Bioclastic tuff. Dominant sand size volcanic glass with rare basaltic tephra. Bioclasts include foraminifera and other carbonate fragments. Coarse parallel lamination.		



Sediments and Sedimentary Rock

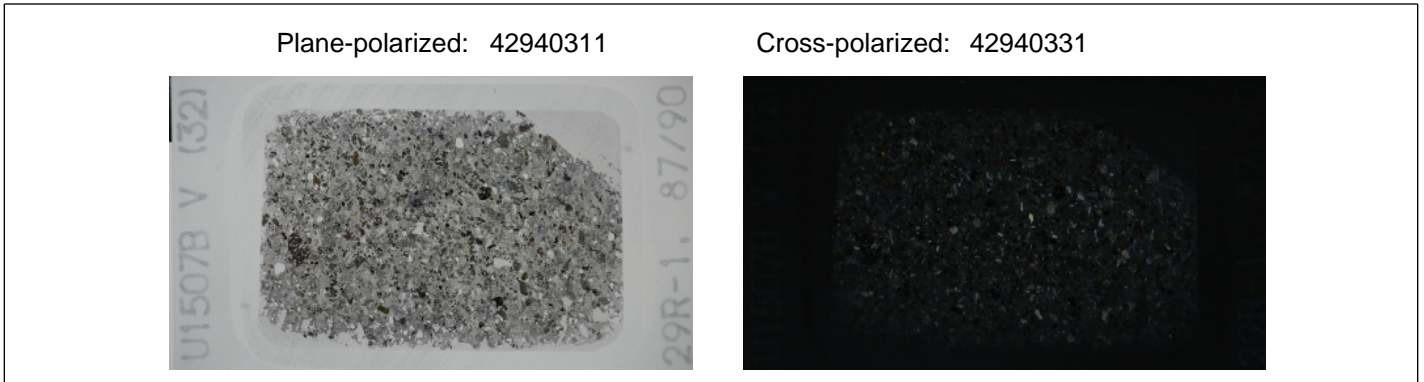
Complete Lithology Name: tuff with bioclasts

Remarks: Coarse parallel lamination

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		90			5	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		5		95

THIN SECTION LABEL ID:	371-U1507B-29R-1-W 87/90-TSB-TS32	Thin section no.:	32
Observer:	MG	Unit/subunit:	Unit I / 1c
Thin section summary:	Bioclastic tuff formed by lapilli, and basaltic grains with pyroxene and plagioclase. Carbonate grains include foraminifera, a bryozoan, and fragments of difficult identification.		



Sediments and Sedimentary Rock

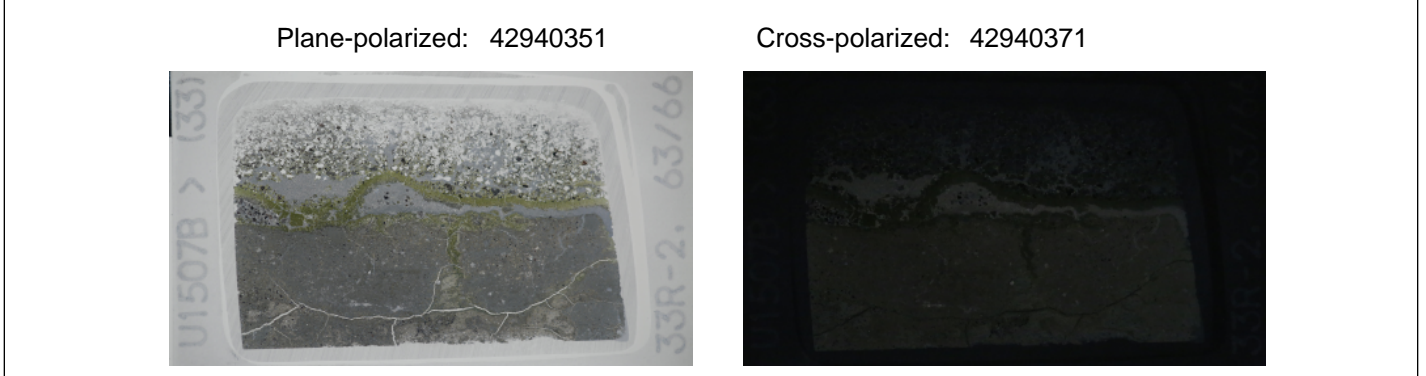
Complete Lithology Name: Tuff with bioclasts

Remarks: Rock formed by lapilli, pyroxene and plagioclase crystals, and mafic lithics. Foraminifera and a bryozoan recognized

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent	1	49	20			30

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		1		99

THIN SECTION LABEL ID: **371-U1507B-33R-2-W 63/66-TSB-TS33** Thin section no.: 33
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Contact between intraclastic packstone and lapilli tuff (Bioturbated chalk overlaid by turbiditic tuff). Carbonate grains rather recrystallized, The contact consists of an irregular greenish surface, probably chloritized, associated to sparitic carbonate, and containing altered intraclasts, bioclasts, and volcanic grains. Burrows protrude into the intraclastic packstone. Many cavities in the tuff part of the thin section



Sediments and Sedimentary Rock

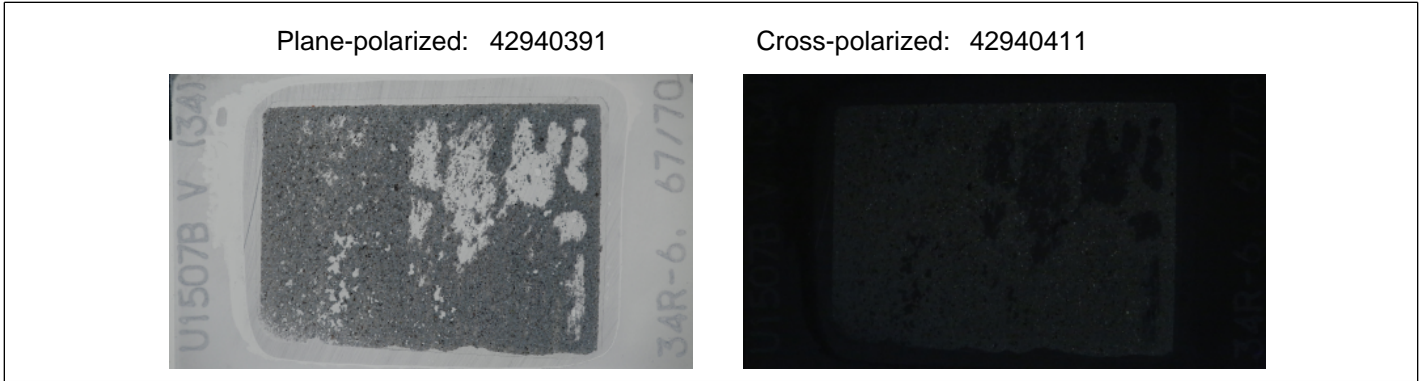
Complete Lithology Name: intraclastic packstone

Remarks: Bioturbated chalk overlaid by turbiditic tuff. Carbonate grains rather recrystallized, Many cavities in the tuff part of the thin section.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		1	89			10

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1

THIN SECTION LABEL ID:	371-U1507B-34R-6-W 67/70-TSB-TS34	Thin section no.:	34
Observer:	MG	Unit/subunit:	Unit I / 1c
Thin section summary:	Calcareous sandstone with volcanic clasts. Abundant micrite (matrix) and common volcanic glass grains. Rare basaltic tephra and traces of calcareous fragments.		



Sediments and Sedimentary Rock

Complete Lithology Name: calcareous sandstone with volcanic ash

Remarks:

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		60			35	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		70		30

THIN SECTION LABEL ID: **371-U1507B-35R-1-W 93/96-TSB-TS35** Thin section no.: 35
 Observer: MG Unit/subunit: Unit I / 1c
 Thin section summary: Tuff consisting of abundant lapilli and common basaltic grains with crystals crystals of plagioclase and oxides. Common carbonate intraclasts and traces of foraminifera and other bioclasts.

Plane-polarized: 42940431

Cross-polarized: 42940451



Sediments and Sedimentary Rock

Complete Lithology Name: tuff with intraclasts

Remarks: Common crystals of plagioclase and oxides

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		70	10		5	15

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		10		90

THIN SECTION LABEL ID: **371-U1507B-45R-2-W 129/132-TSB-TS36** Thin section no.: 36
 Observer: MG Unit/subunit: Unit II
 Thin section summary: Micritic limestone with rather recrystallized bioclasts, traces of foraminifera are still recognizable. A hard layer with abundant authigenic sulfides is in the lower part of the section.

Plane-polarized: 42940471



Cross-polarized: 42940491



Sediments and Sedimentary Rock

Complete Lithology Name: micritic limestone with bioclasts

Remarks: Bioclasts rather recrystallized. Harder layer with more authigenic sulfides in the lower part of the section

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		5	5		90	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		100		

THIN SECTION LABEL ID: **371-U1507B-45R-3-W 49/52-TSB-TS37** Thin section no.: 37
 Observer: MG Unit/subunit: Unit II
 Thin section summary: Micritic limestone with rather recrystallized bioclasts, traces of foraminifera are still recognizable, filled with cement or oxides. Section from slightly darker interval in the core.

Plane-polarized: 42940511



Cross-polarized: 42940531



Sediments and Sedimentary Rock

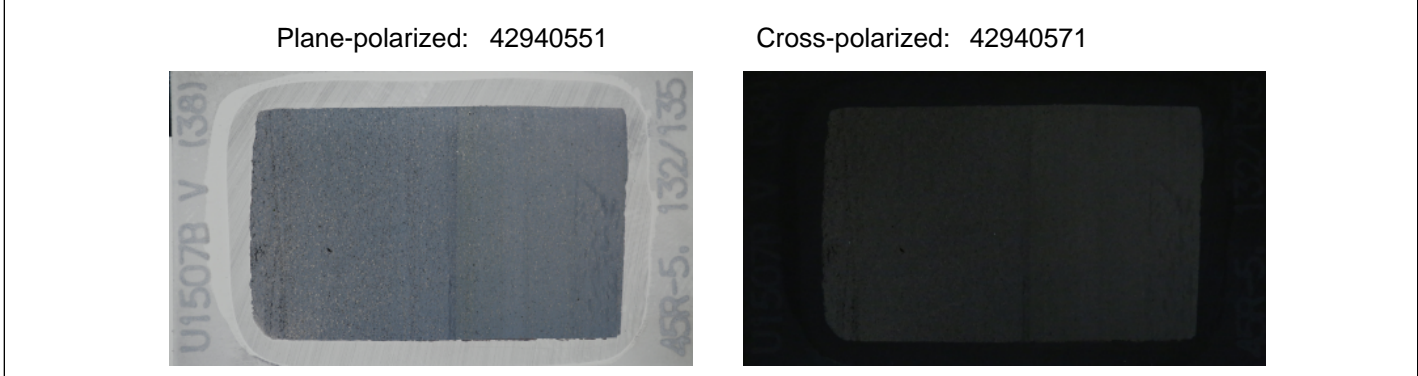
Complete Lithology Name: micritic limestone with bioclasts

Remarks: Section from slightly darker interval in the core. Bioclasts rather recrystallized. Forams filled with cement or oxides.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		5	5		90	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		100		

THIN SECTION LABEL ID: **371-U1507B-45R-5-W 132/135-TSB-TS38** Thin section no.: 38
 Observer: MG Unit/subunit: Unit II
 Thin section summary: Bioclastic packstone with abundant shallow water bioclasts, including benthic foraminifera (mainly Nummulites), green algae, bivalves, echinoderms, gastropods, bryozoans. among others more difficult to recognize; rather recrystallized, sometimes oxidized. Few volcanic plagioclase grains are also present. Section from a coarse, normally graded, 5cm thick layer.



Sediments and Sedimentary Rock

Complete Lithology Name: bioclastic packstone

Remarks: Section from a coarser, normally graded, 5cm thick layer. Abundant shallow water bioclasts, including benthic foraminifera (mainly Nummulites), green algae, bivalves, echinoderms, gastropods, bryozoans. among others more difficult to recognize. Few lithics, probably volcanic plagioclase, are also present. Bioclasts rather recrystallized, sometimes oxidized.

TEXTURE	Gravel	Sand	Silt	Clay	Matrix	Cement
Percent		80			20	

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous	Ash
Percent		99		1