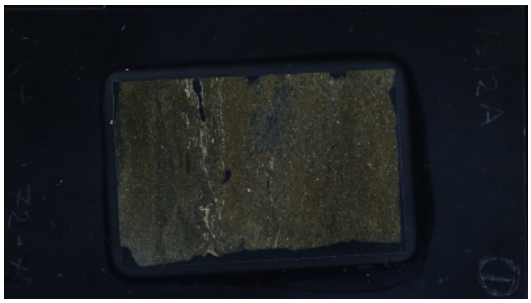
THIN SECTION LABEL ID **369-U1512A-5R-4-W 72/75-TSB-TS1** Thin section no.: 1

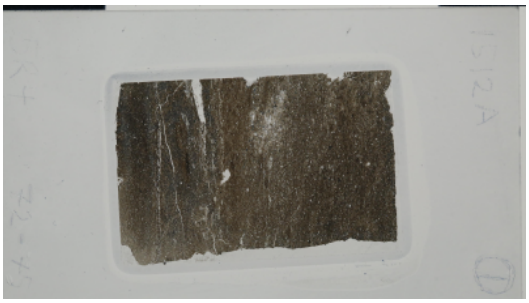
Observer: CW Unit/subunit: II-a

Thin section summary: A silty clay with moderately developed lamination and rare burrows. The sediment sample is moderately sorted and is comprised of silt-sized angular mineral grains including common quartz and trace amounts of feldspar hosted within a clay-rich matrix. Rare grains are sand sized. Other minerals/bioclasts present in common and trace amounts include muscovite mica, biotite mica, tubular bioclast fragments and poorly developed/fragmented radiolarians.

Plane-polarized: 43920161



Cross-polarized: 43920141



Sediments and Sedimentary Rock

Complete Lithology Name: silty clay

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	5	25	70

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	94	5	1
Cement (%)	94	5	1

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
angular	moderate

Mineral grain	Abundance
Quartz	C
Microcline feldspar	T
Clay	D
Calcite	R

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-13R-5-W 26/29-TSB-TS2**	Thin section no.:	2
Observer:	CW	Unit/subunit:	II-b
Thin section summary:	A possible sideritic siltstone, with quartz, glauconite, and Fe-oxide. The rock sample is moderately sorted and is comprised of silt-sized siderite grains hosted within a clay-rich matrix. Silt-sized quartz grains are common throughout. Pore spaces are also comprised of quartz cements. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.		

Plane-polarized: 43920031

Cross-polarized: 43920051

Sediments and Sedimentary Rock

Complete Lithology Name: siderite siltstone

Remarks: The dominant component of this rock could not be identified with confidence. It is most likely a ferrous carbonate mineral (siderite) due to its crystal shape and possible 3rd to 4th order birefringence colors. It is unlikely to be quartz as it does not exhibit undulose extinction or high to moderate relief. Crystals appear angular and do not interlock suggesting it has been reworked from elsewhere.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	90	10

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	1	0	0
Cement (%)	1	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	R
Clay	R
Calcite	T
Siderite	D

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-20R-7-W 55/58-TSB-TS3**	Thin section no.:	3
Observer:	CW	Unit/subunit:	II-b
Thin section summary:	A possible fine grained sideritic sandstone with traces of glauconite, quartz, and Fe-oxide/hydroxide minerals. The rock sample is moderately sorted and is comprised of possible sand-sized siderite grains hosted within a clay-rich matrix. Pore spaces comprise quartz cements. Silt-sized quartz grains are common throughout. Poorly preserved/fragmented radiolarian grains are present in trace amounts. The rock sample is likely reworked from a proximal source area on the slope due angularity of the grains,		

Plane-polarized: 43919991

Cross-polarized: 43920011

Sediments and Sedimentary Rock

Complete Lithology Name: siderite sandstone

Remarks: The dominant component of this rock could not be identified with confidence. It is most likely a ferrous carbonate (siderite) due to its crystal shape and possible 3rd to 4th order birefringence colors. It is unlikely to be quartz as it does not exhibit undulose extinction or high to moderate relief. Crystals appear angular and do not interlock suggesting it has been reworked from elsewhere.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	60	5	35

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	1	0	1
Cement (%)	1	0	1

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	well

Mineral grain	Abundance
Quartz	R
Clay	R
Siderite	D

Biogenic material	Abundance
Radiolarians	T

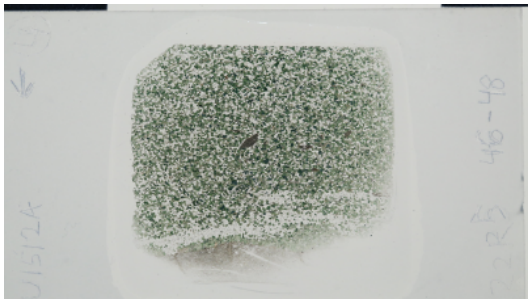
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-22R-5-W 46/48-TSB-TS4** Thin section no.: 4

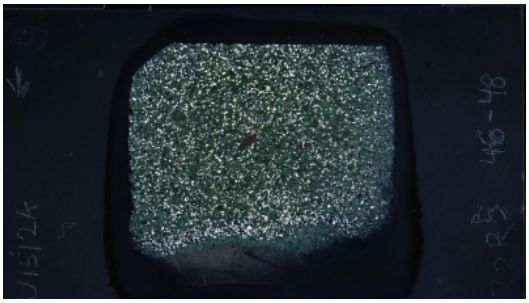
Observer: CW Unit/subunit: II-b

Thin section summary: A medium grained glauconitic sandstone. The rock sample is moderately sorted and is comprised of abundant glauconite, mica, and common sand-sized quartz grains with traces of muscovite, chlorite and lithic fragments (quartzite? and claystone with radiolarians). Some pore spaces are infilled with clay minerals. Organic matter and common opaque anhedral minerals are present in trace amounts. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.

Plane-polarized: 43919951



Cross-polarized: 43919971



Sediments and Sedimentary Rock

Complete Lithology Name: glauconitic sandstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	85	5	10

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	90	0	1
Cement (%)	90	0	1

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
angular	moderate

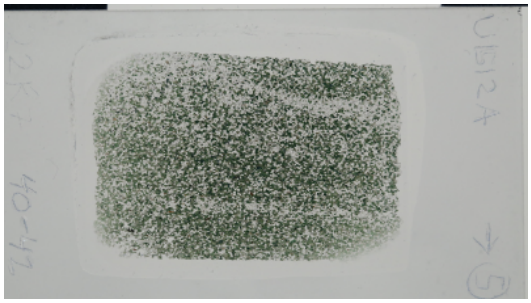
Mineral grain	Abundance
Quartz	A
Muscovite mica	T
Chlorite	T
Clay	C
Glauconite	D
Siderite	R
Lithic fragments	T
Other mineral grains	T

Biogenic material	Abundance
Plant material	T
Radiolarians	T

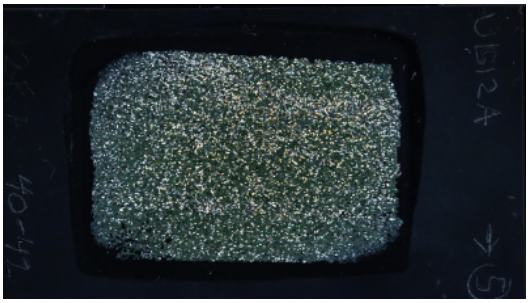
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-22R-7-W 40/42-TSB_MAD-TS5**	Thin section no.:	5
Observer:	CW	Unit/subunit:	II-b
Thin section summary:	A fine grained glauconitic sandstone. The rock sample is moderately sorted and is comprised of abundant glauconite, mica, and common angular sand-sized quartz grains with traces of muscovite, biotite mica and lithic fragments (quartzite?). Some pore spaces are infilled with clay minerals. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.		

Plane-polarized: 43919881



Cross-polarized: 43919901



Sediments and Sedimentary Rock

Complete Lithology Name: glauconitic sandstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	85	5	10

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	97	3	0
Cement (%)	97	3	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
angular	moderate

Mineral grain	Abundance
Quartz	A
Biotite mica	T
Clay	C
Glauconite	D

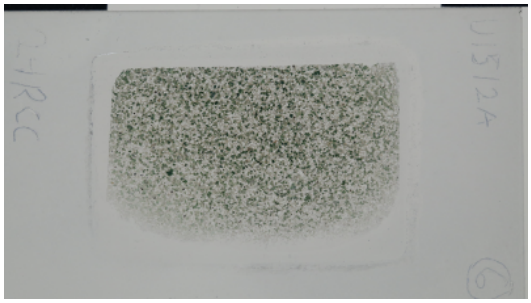
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-24R-CC-PAL-TSB-TS6** Thin section no.: 6

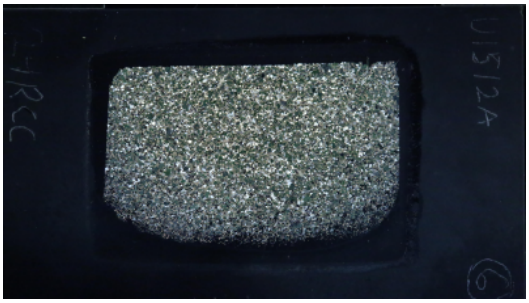
Observer: CW Unit/subunit: II-b

Thin section summary: A fine to medium grained siderite sandstone with glauconite grains. The sediment sample is poorly sorted and is comprised of common sand-sized subangular quartz grains and abundant glauconite and mica. The rock sample also comprises trace amounts of K-feldspar, muscovite mica and chlorite. Some pore spaces are infilled with clay minerals; however, the sandstone is cemented with siderite. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.

Plane-polarized: 43919821



Cross-polarized: 43919841



Sediments and Sedimentary Rock

Complete Lithology Name: glauconitic sandstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	65	30	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	60	0	0
Cement (%)	60	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

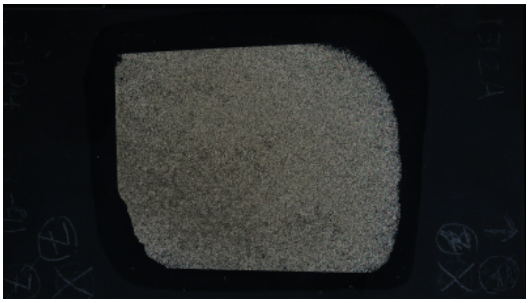
Mineral grain	Abundance
Quartz	A
Microcline feldspar	T
Muscovite mica	T
Chlorite	T
Clay	R
Glauconite	A

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-29R-4-W 89/91-TSB-TS7**	Thin section no.: 7
Observer:	CW	Unit/subunit: II-b
Thin section summary:	A possible fine grained sideritic sandstone with common Fe-oxide/hydroxide minerals and traces of quartz. The rock sample is moderately sorted and is comprised of sand-sized siderite grains hosted within a clay-rich matrix. Pore spaces may comprise quartz cements. Silt-sized quartz grains are common throughout. The rock sample is likely reworked from a proximal source area on the slope due angularity of the grains,	

Plane-polarized: 43919791

Cross-polarized: 43919641



Sediments and Sedimentary Rock

Complete Lithology Name: siderite sandstone

Remarks: The dominant component of this rock sample could not be identified with confidence. It is most likely a ferrous carbonate (siderite) due to its crystal shape and possible 3rd to 4th order birefringence colors. It is unlikely to be quartz as it does not exhibit undulose extinction or high to moderate relief. Crystals appear angular and do not interlock suggesting it has been reworked from elsewhere.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	65	30	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	1	0	1
Cement (%)	1	0	1

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	R
Clay	R
Siderite	D

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-29R-7-W 0/4-TSB-TS8**	Thin section no.:	8
Observer:	CW	Unit/subunit:	II-b
Thin section summary:	A silty claystone with moderately developed lamination. The rock sample is moderately sorted and is comprised of silt-sized subangular mineral grains commonly quartz within a clay-rich matrix. Rare grains are sand sized. Other minerals/bioclasts present in common and trace amounts include glauconite and mica. Tubular burrows maybe present in the thin section.		

Plane-polarized: 43919601

Cross-polarized: 43919581

Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	5	95

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	98	2	0
Cement (%)	98	2	0

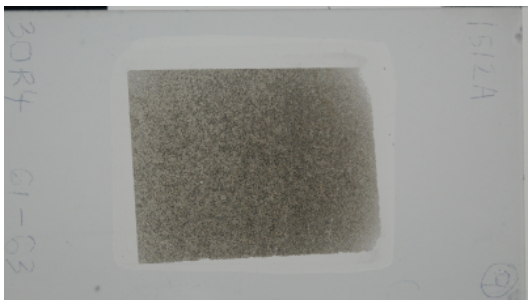
MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	C
Clay	D
Other mineral grains	C

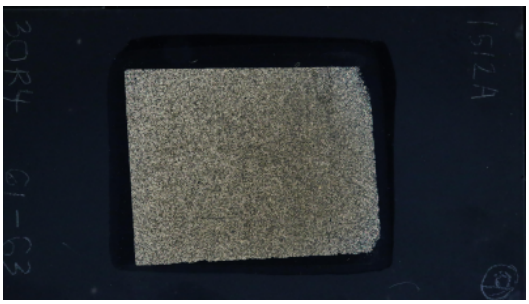
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-30R-4-W 61/64-TSB-TS9**	Thin section no.:	9
Observer:	CW	Unit/subunit:	II-b
Thin section summary:	A possible silt to fine grained siderite sandstone with rare grains of quartz and traces of clay minerals. The rock sample is moderately sorted and is comprised of silt and sand-sized siderite and quartz grains with pore spaces infilled with carbonate cement.		

Plane-polarized: 43914211



Cross-polarized: 43914251



Sediments and Sedimentary Rock

Complete Lithology Name: siderite sandstone

Remarks: The dominant component of this rock sample could not be identified with confidence. It is most likely a ferrous carbonate (siderite) due to its crystal shape and possible 3rd to 4th order birefringence colors. It is unlikely to be quartz as it does not exhibit undulose extinction or high to moderate relief. Crystals appear to interlock suggesting it is a diagenetic cement.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	80	15	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	3	0	1
Cement (%)	3	0	1

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	T
Clay	T
Siderite	D

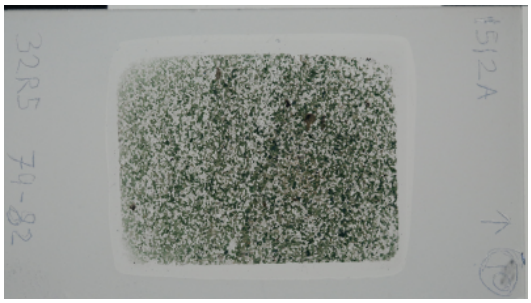
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-32R-5-W 79/82-TSB-TS_10** Thin section no.: 10

Observer: CW Unit/subunit: Unit II-b

Thin section summary: A fine to medium grained glauconitic sandstone with siderite. The rock sample is moderately sorted and is comprised of abundant glauconite mica and common sand-sized subangular quartz with traces of foraminifera shell and sponge spicules. The sandstone is cemented with siderite with some pore spaces infilled with clay minerals. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.

Plane-polarized: 43914151



Cross-polarized: 43914191

Sediments and Sedimentary Rock

Complete Lithology Name: glauconitic sandstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	90	6	3

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	90	0	0
Cement (%)	90	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	poor

Mineral grain	Abundance
Quartz	A
Glauconite	D

Biogenic material	Abundance
Foraminifers	T

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-32R-5-W 83/86-TSB-TS11**	Thin section no.:	11
Observer:	CW	Unit/subunit:	Unit II-b
Thin section summary:	A fine to medium grained glauconitic sandstone with siderite. The rock sample is poorly sorted and is comprised of abundant rounded glauconite grains, sand-sized subangular quartz grains, common rounded siderite grains with trace amounts of mica. Some pore spaces are infilled with clay minerals. The rock sample is likely reworked from a proximal source area on the slope due to the angularity of the grains.		

Plane-polarized: 43911901

Cross-polarized: 43911921

Sediments and Sedimentary Rock

Complete Lithology Name: glauconitic sandstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	90	5	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	80	0	0
Cement (%)	80	0	0

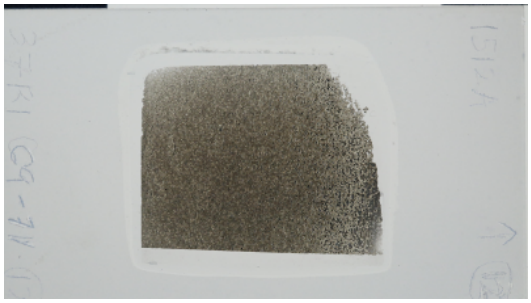
MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
sub-rounded	poor

Mineral grain	Abundance
Quartz	A
Clay	T
Glauconite	D

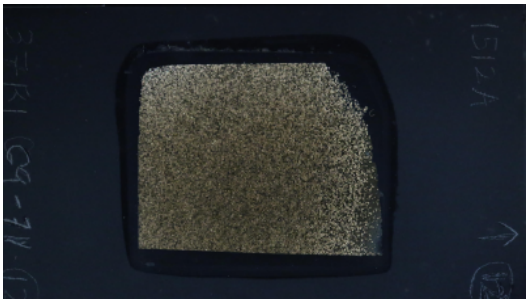
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-37R-1-W 69/71-TSB-TS12**	Thin section no.:	12
Observer:	CW	Unit/subunit:	Unit II-b
Thin section summary:	A silt-sized to fine grained crystalline siderite. The rock sample is comprised of dominant crystalline siderite, common clay with traces of quartz and radiolarians. Siderite present in this sample is likely to be diagenetic in origin because the majority of siderite crystals interlock with each other.		

Plane-polarized: 43911861



Cross-polarized: 43911881



Sediments and Sedimentary Rock

Complete Lithology Name: siderite sandstone with clay

Remarks: Siderite crystals interlock. This suggests the siderite was diagenetic and formed in-situ.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	60	25	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	10	0	0
Cement (%)	10	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
angular	well

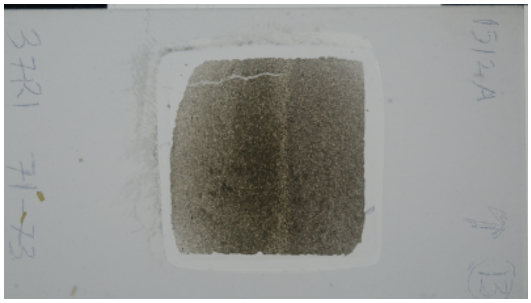
Mineral grain	Abundance
Quartz	T
Clay	C
Calcite	T
Siderite	D

Biogenic material	Abundance
Radiolarians	T

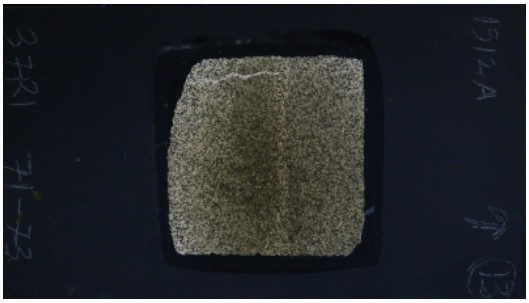
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-37R-1-W 71/73-TSB-TS13**	Thin section no.:	13
Observer:	CW	Unit/subunit:	Unit II-b
Thin section summary:	A very fine grained grained crystalline siderite. The rock sample is comprised of dominant crystalline siderite, common clay with traces of quartz and radiolarians. Siderite is present in this sample is likely to be diagenetic in origin because the majority of siderite crystals interlock with each other.		

Plane-polarized: 43911821



Cross-polarized: 43911841



Sediments and Sedimentary Rock

Complete Lithology Name: siderite sandstone

Remarks: Siderite crystals interlock. This suggests the siderite was diagenetic and formed in-situ.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	85	5	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	0	0	0
Cement (%)	0	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
angular	well

Mineral grain	Abundance
Quartz	T
Clay	C
Siderite	D

Biogenic material	Abundance
Radiolarians	T

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-50R-5-W 40/43-TSB-TS14** Thin section no.: 14

Observer: AM Unit/subunit: Unit II-b

Thin section summary: A silty claystone with moderately developed lamination. The rock sample is moderately sorted and is comprised of clay-sized subangular mineral grains commonly quartz within a clay-rich matrix. Rare grains are sand sized. Other minerals/bioclasts are present in common and trace amounts and include glauconite mica and biotite. Tubular burrows maybe present in the thin section.

Plane-polarized: 44000901

Cross-polarized: 44000921

Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	5	95

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	99	1	0
Cement (%)	98	2	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

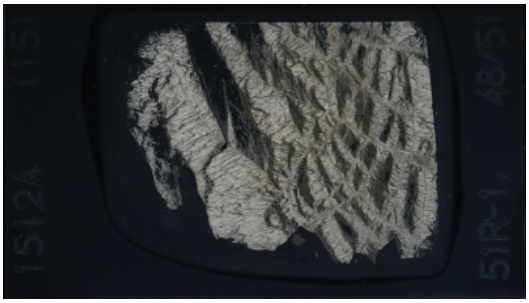
Mineral grain	Abundance
Quartz	C
Biotite mica	T
Clay	D
Other mineral grains	C

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-51R-1-W 48/51-TSB-TS15**	Thin section no.:	15
Observer:	MGT	Unit/subunit:	Unit II-b
Thin section summary:	Sideritic silty claystone, with quartz and Fe-oxide. The rock sample is moderately sorted and are comprised of burrows filled with laminated siderite and silt-sized siderite grains hosted within a clay-rich matrix. Silt-sized quartz grains are common throughout. Pore spaces and fractures comprises quartz cements.		

Plane-polarized: 44000861

Cross-polarized: 44000881



Sediments and Sedimentary Rock

Complete Lithology Name: clayey siltstone with siderite

Remarks: "Worm's nest". Section contains a lot of trace fossils forming a network. Siderite crystals within clayey siltstone, both diagenetic and detrital. siderite in burrows diagenetic, silt-sized siderite grains detrital

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	80	20

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	25	0	0
Cement (%)	1	0	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	R
Muscovite mica	T
Clay	A
Siderite	D

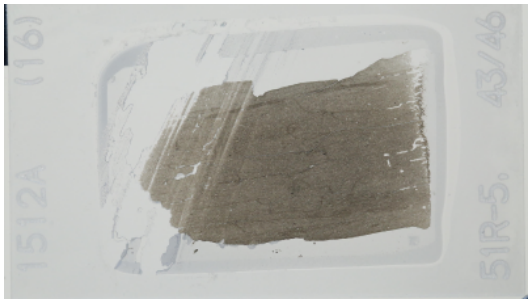
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-51R-5-W 43/46-TSB-TS16** Thin section no.: 16

Observer: AM Unit/subunit: Unit II-b

Thin section summary: A silty claystone with moderately developed lamination. The rock sample is moderately sorted and are comprised of clay-sized subangular mineral grains commonly quartz within a clay-rich matrix. Other minerals/bioclasts are muscovite, siderite (silt-sized grains), mica (biotite) and sponge spicula. Tubular burrows maybe present in the thin section.

Plane-polarized: 44000821



Cross-polarized: 44000841

Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	5	95

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	99	1	0
Cement (%)	95	5	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

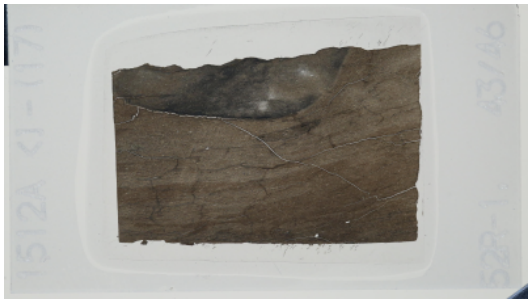
Mineral grain	Abundance
Quartz	C
Muscovite mica	T
Biotite mica	T
Clay	D
Siderite	T
Other mineral grains	C

Biogenic material	Abundance
Sponge spicules	T

D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-52R-1-W 43/46-TSB-TS17**	Thin section no.:	17
Observer:	AM	Unit/subunit:	Unit II-b
Thin section summary:	A silty claystone with moderately developed lamination. The rock sample is moderately sorted and shows alternation of clay-sized and silt-sized layers. Mineral grains are generally subrounded and are commonly quartz within a clay-rich matrix. Other minerals/bioclasts are muscovite, siderite (silt-sized grains), mica (biotite) and sponge spicula. Tubular burrows maybe present in the thin section.		

Plane-polarized: 44000761



Cross-polarized: 44000801

Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	5	95

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	99	1	0
Cement (%)	95	5	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
sub-rounded	moderate

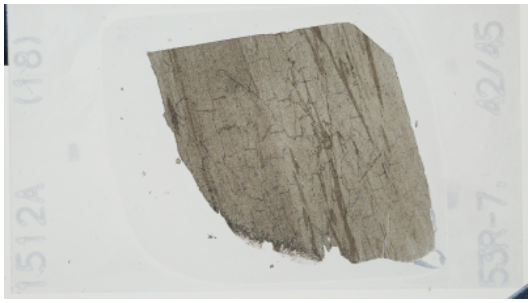
Mineral grain	Abundance
Quartz	C
Muscovite mica	T
Biotite mica	T
Clay	D
Siderite	T
Other mineral grains	C

Biogenic material	Abundance
Sponge spicules	T

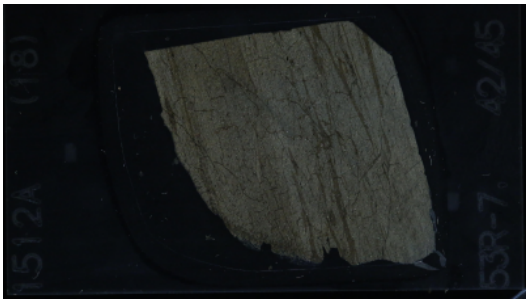
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-53R-7-W 42/45-TSB-TS18**	Thin section no.:	18
Observer:	MGT	Unit/subunit:	Unit II-b
Thin section summary:	This section shows two silty claystone beds, lighter and darker brown-gray colored ones, with sharp boundary between them. Sand-sized mineral grains are feldspars that are altered to clay. Quartz are mostly silt-sized. The darker brown shade of one of the beds comes from streaks of higher Fe-oxide contents.		

Plane-polarized: 44000721



Cross-polarized: 44000741



Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone with silt

Remarks: Section showing banded claystone of lighter and darker brown shade with sharp boundary. Sand-sized mineral grains are feldspars altered to clay. Quartz mostly silt-sized. Darker brown shading comes from streaks of higher Fe-oxide contents.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	5	3	92

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	90	0	0
Cement (%)	50	40	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
sub-rounded	moderate

Mineral grain	Abundance
Quartz	R
Plagioclase feldspar	C
Clay	A
Glauconite	T
Other mineral grains	R

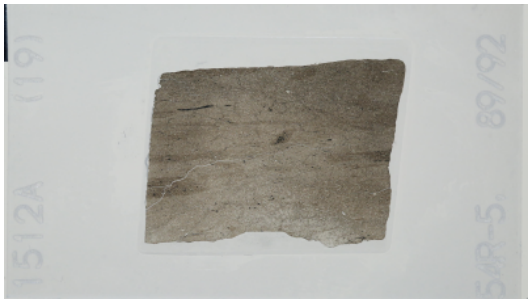
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID **369-U1512A-54R-5-W 89/92-TSB-TS19** Thin section no.: 19

Observer: MGT Unit/subunit: Unit II-b

Thin section summary: A silty claystone with outlines of two burrows shown in marcroscopic description as darker shade mottling. The burrows with darker shade are due to presence of pyrite. Pyrite forms rounded grains inside the burrows, Quartz domites the silt-sized grains with minor feldspar, micas (biotite and muscovite, chlorite). Siliceous and calcareous bioclasts are also present in trace amount.

Plane-polarized: 44000681



Cross-polarized: 44000701

Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks: Section showing burrows with darker shade due to pyrite content.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	13	87

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	90	0	2
Cement (%)	50	40	0

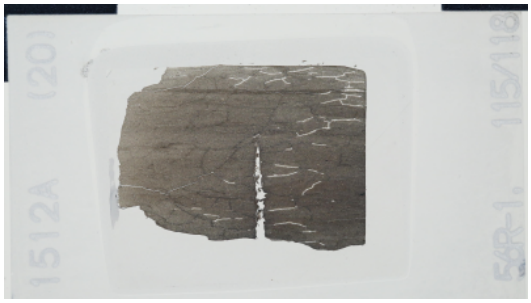
MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	C
Plagioclase feldspar	T
Muscovite mica	T
Biotite mica	T
Chlorite	T
Clay	A
Pyrite	T
Other mineral grains	R

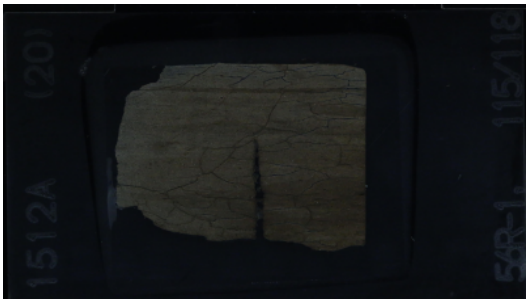
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-56R-1-W 115/118-TSB-TS20**	Thin section no.:	20
Observer:	MGT	Unit/subunit:	Unit II-b
Thin section summary:	This thin section shows a silty claystone with moderately developed lamination and almost equal amounts of clay and calcareous cement.		

Plane-polarized: 44000641



Cross-polarized: 44000661



Sediments and Sedimentary Rock

Complete Lithology Name: silty claystone

Remarks: Moderately developed lamination in silty claystone with almost equal amounts of clay and calcareous cement.

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	0	2	98

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	90	0	0
Cement (%)	50	40	0

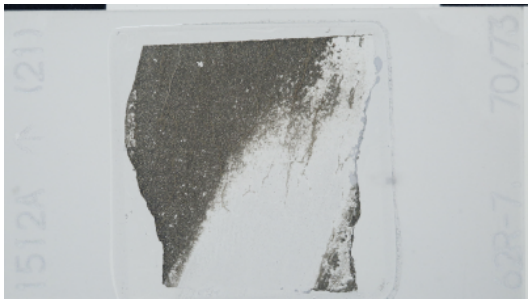
MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
subangular	moderate

Mineral grain	Abundance
Quartz	R
Plagioclase feldspar	T
Muscovite mica	T
Clay	A
Other mineral grains	C

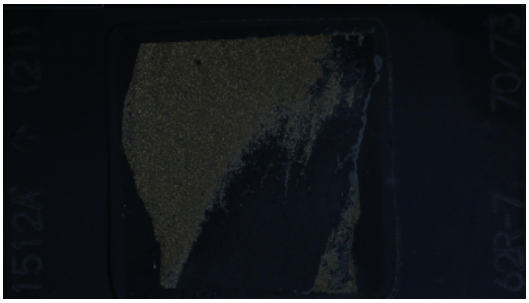
D=dominant, A=abundant, C=common, R=rare, T=trace

THIN SECTION LABEL ID	**369-U1512A-62R-7-W 70/73-TSB-TS21**	Thin section no.:	21
Observer:	MGT	Unit/subunit:	Unit II-b
Thin section summary:	A sandy siltstone composed dominantly of siderite grains set in a matrix of clay and calcite cement of equal proportions.		

Plane-polarized: 44000601



Cross-polarized: 44000621



Sediments and Sedimentary Rock

Complete Lithology Name: sandy siltstone with siderite

Remarks:

GRAIN SIZE	Gravel	Sand	Silt	Clay
Percent	0	30	65	5

COMPOSITION	Siliciclastic	Calcareous	Biosiliceous
Mineral grains (%)	0	95	0
Cement (%)	50	40	0

MINERAL GRAIN ROUNDNESS	MINERAL GRAIN SORTING
sub-rounded	well

Mineral grain	Abundance
Quartz	T
Clay	A
Siderite	A
Pyrite	T

D=dominant, A=abundant, C=common, R=rare, T=trace