Observer: MH	Date: 17 / 7 / 2019
· · · · · · · · · · · · · · · · · · ·	(d/m/y)
1 	Expedition Number: 358
	Site: C0024
	Hole: G
	Core: 18X
	Section: 5W
	Interval: 64–70
— 0.06 mm	Misc # (SMW):
Heavy minerals	
1 1 1 1 1	Sample comment:
!	
Image file name:	
Rock type: Clast of dense mineral ?	Object: Granules in sand

Clast is overall composed of dense minerals.

Comments:

Microscope image for this sample is

Supplementary Materials

"358-C0024G-18X-05_64-70_TSS_Li_56.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_57.JPG" in

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 C0024 Site: Cooling rim? G Hole: Ap? 18X Core: Section: 5W Interval: 64–70 0.06 mm Dense Misc # (SMW): minerals Dense Cracks inside minerals Sample comment:

Object: Granules in sand

Image file name:

Rock type: Basalt (volcanic rock)

Comments:

- Composed of heavy minerals, opaque grains
- Black-brown matrix
- Crystals are fractured inside
- Some have outer rims (rounded)

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_58.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_59.JPG" in Supplementary Materials.

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 Fs C0024 Site: G Hole: Dense mineral Px? 18X Core: Section: 5W Interval: 64–70 Misc # (SMW): Fs 0.06 mm Sample comment: Image file name: Object: Granules in sand

Rock type: Basalt

Comments: Composed of feldspar, opaque grain (pyrite?)

Heavy mineral (fractured inside due to cooling?)

(pyroxene?)

Black-brown matrix

Microscope image for this sample is "358-C0024G-18X-05 64-70 TSS Li 52.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_53.JPG" in Supplementary Materials.

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 C0024 Site: Hole: 18X Core: Heavy minerals Section: 5W Interval: 64–70 Apatite? Misc # (SMW): Feldspars 0.06 mm Sample comment: Image file name: Object: Granules in sand

Rock type: Basalt

Comments:

Composed of feldspars, some heavy minerals, (randomly oriented crystals) Dark black matrix

Needle-shaped minerals are also feldspar/zeolite.

Microscope image for this sample is "358-C0024G-18X-05 64-70 TSS Li 50.JPG" and "358-C0024G-18X-05 64-70 TSS Li 51.JPG" in Supplementary Materials.

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 C0024 Site: G Hole: 18X Core: Section: 5W Interval: 64–70 Misc # (SMW): 0.06 mm Sample comment: Image file name: Object: Granules in sand Rock type: Siltstone

Comments:

Microscope image for this sample is

Supplementary Materials.

"358-C0024G-18X-05_64-70_TSS_Li_30.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_31.JPG" in

Composed of quartz, clay minerals, pyrite, organic material, mudstone lithics, few mica.

Observer: MH	Date: 17 / 7 / 19
·,	(d/m/y)
	Expedition Number: 358
	Site: C0024
	Hole: G
3 3 2 4 5	Core: 18X
(0,30,56,80)	Section: 5W
	Interval: 64–70
	Misc # (SMW):
	Sample comment:
Image file name:	
Rock type: Sandstone	Object: Granules in sand
Comments: Composed of grains of quartz, opaque grain (pyrite), feldspar, mica, clay mineral.	

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_29.JPG" in

Observer: MH	Date: 1/ / / 19
<u> </u>	(d/m/y)
	Expedition Number: 358
	Site: C0024
	Hole: G
	Core: 18X
	Section: 5W
	Interval: 64–70
	Misc # (SMW):
├─ 0.06 mm	
	Sample comment:
Image file name:	•
Rock type: Mudstone	Object: Granules in sand
Comments: Composed of clay minerals, mudstone lithics, opaque grains (pyrite).	

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_27.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_28.JPG" in Supplementary Materials.

Observer: MH		Date: 17 / 7 / 19	
;		(d/m/y)	
 		Expedition Number: 358	
1 1 1 1		Site: C0024	
 		Hole: G	
	(200	Core: 18X	
 		Section: 5W	
1 1 1 1		Interval: 64–70	
 		Misc # (SMW):	
	Н		
	0.06 mm	Sample comment:	
	·		
Image file name:			
Rock type: Sedir	nentary rock	Object: Granules in sand	
Comments: Com	posed of mudstone lithics (shape is rounded)		

→ biogenic?

Microscope image for this sample is

Supplementary Materials.

"358-C0024G-18X-05_64-70_TSS_Li_25.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_26.JPG" in

Observer:	MH	Date: 1/ / / 19
		(d/m/y)
	Expedition Number: 358	
1 1 1 1		Site: C0024
	Quartz	Hole: G
		Core: 18X
	Section: 5W	
	Interval: 64–70	
		Misc # (SMW):
 	⊢⊣ 0.06 mm	
	Sample comment:	
Image file r	name:	!
		Object: Granules in sand
	Mudstone	
Comments:	(poorly sorted)	

Composed of grains of chlorite, opaque grains (pyrite?), quartz, feldspar, lithics (mudstone etc), clay minerals

Microscope image for this sample is

Supplementary Materials.

"358-C0024G-18X-05_64-70_TSS_Li_23.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_24.JPG" in

Observer: MH	Date: 1/ / / 19
	(d/m/y)
	Expedition Number: 358
	Site: C0024
	Hole: G
	Core: 18X
	Section: 5W
	Interval: 64–70
	Misc # (SMW):
├─ 0.06 mm	
0.06 11111	Sample comment:
Image file name:	_ ;
Rock type: Sandstone	Object: Granules in sand
Comments: Composed of grains of quartz, feldspar, polycrystalline	

quartz, mica (pyrite coated), organic material + pyrite,

mudstone lithics, cut by quartz vein.

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_21.JPG" and

"358-C0024G-18X-05_64-70_TSS_Li_22.JPG" in

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 Chlorite + carbonate C0024 Site: + clay G Hole: 18X Feldspars/Zeolites Core: Section: 5W Bigger quartz Interval: 64–70 Misc # (SMW): 0.06 mm Sample comment: Image file name: Object: Granules in sand Rock type: Volcanic rock Comments: Composed of needle-shaped crystal (feldpar/zeolite), quartz, carbonates (polycrystalline, clay minerals), (larger crystals)

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_19.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_20.JPG" in Supplementary Materials.

Observer:	MH	Date: 17 / 7 / 19
		(d/m/y)
		Expedition Number: 358
 		Site: C0024
1 1 1 1 1 1		Hole: G
1 1 1 1 1 1		Core: 18X
 		Section: 5W
		Interval: 64–70
 		Misc # (SMW):
	├─ 0.06 mm	Sample comment:
Image file n	ame:	
Rock type:	Volcanic rock	Object: Granules in sand
Comments:	Composed of <u>randomly oriented needle-shaped</u> <u>feldspar/zeolites</u> , polycrystalline minerals (carbonate?), few quartz grains. + clay minerals	
	Chlorite and opaque grains (pyrite?) are also abundant.	

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_17.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_18.JPG" in

Observer: MH	Date: 1/ / / 19
	(d/m/y)
1 1 1 1	Expedition Number: 358
1 	Site: C0024
000	Hole: G
	Core: 18X
8 10 16	Section: 5W
	Interval: 64–70
	Misc # (SMW):
 	Sample comment:
0.06 mm	
Image file name:	
Rock type: Mudstone	Object: Granules in sand
Comments: Composed of aligned clay minerals, quartz,	

polycrystalline quartz, microfossil (few foram) mudstone clasts, opaque grains (organics?)

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_15.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_16.JPG" in

Observer: MH	Date: 17 / 7 / 19
,	(d/m/y)
	Expedition Number: 358
Feldspar Some chlorite Opaque miner	Site: C0024 Hole: G Core: 18X Section: 5W Interval: 64–70
1 	Misc # (SMW):
⊢⊢ 0.06 mm	1
	Sample comment:
Image file name:	·
Rock type: Basalt	Object: Granules in sand
Comments: (rectangular + needle-sl Composed of feldspar crystals, opaque miner	

chlorite, and fine grained minerals (~ clay).

Microscope image for this sample is

Supplementary Materials.

"358-C0024G-18X-05_64-70_TSS_Li_13.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_14.JPG" in

Observer: MH Date: 17 / 7 / 19 (d/m/y)**Expedition Number:** 358 Feldspar C0024 Site: G Hole: 18X Core: Section: 5W Interval: 64–70 Misc # (SMW): 0.06 mm Sample comment: Image file name: Granules in sand Object: Rock type: Mudstone (clay-silt)

Comments: Composed of quartz, feldspar, and opaque grains

+ Needle-shaped grains (clay minerals?) (some organic also)

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_11.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_12.JPG" in Supplementary Materials.

Observer: MH	Date: 17 / 7 / 19
	(d/m/y)
Needle-shaped crystals alligned in 2–3 directions	Expedition Number: 358
Chlorite	Site: C0024
	Hole: G
	Core: 18X
	Section: 5W
	Interval: 64–70
Opaque grain	Misc # (SMW):
i - - - -	
0.06 mm	Sample comment:
Image file name:	!
Rock type: Volcanic rock	Object: Granules in sand
Comments: Composed of chlorite, needle-shaped crystals (zeolite	?

feldspar?) and surrounding smaller-grained quartz and

feldspar.

Supplementary Materials.

Microscope image for this sample is

"358-C0024G-18X-05_64-70_TSS_Li_7.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_8.JPG" in

Observer:	MH		Date: 1/ / / 19
		—- 	(d/m/y)
			Expedition Number: 358
 			Site: C0024
 		 	Hole: G
 			Core: 18X
1 1 1 1 1			Section: 5W
			Interval: 64–70
		0.06 mm	Misc # (SMW):
1 1 1 1 1 1 1		 	Sample comment:
Image file na	ame:		
Rock type:	Mudstone (clay-silt)	_	Object: Granules in sand
Comments:	Mudstone clast composed of clay, elonga opaque grains (organics?), few quartz an		

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_5.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_6.JPG" in

Observer: MH Date: 17 / 7 / 19 (d/m/y)(Crosspolar image) **Expedition Number:** 358 C0024 Site: Grain of clay minerals G Hole: Quartz 18X Core: Section: 5W Polycrystalline quartz Interval: 64–70 Misc # (SMW): Feldspar 10 tick marks Sample comment: 0.06 mm Image file name: Object: Granules in sand

Rock type: Granite

Comments:

Composed of quartz (mostly), feldspar,

polycrystalline quartz and clay mineral aggregates.

(No color except for clay)

Microscope image for this sample is "358-C0024G-18X-05 64-70 TSS Li 1.JPG" to "358-C0024G-18X-05 64-70 TSS Li 4.JPG" in Supplementary Materials.

Observer:	MH	Date: 17 / 7 / 19
		(d/m/y)
 		Expedition Number: 358
 		Site: C0024
 		Hole: G
		Core: 18X
 	うだっているから	Section: 5W
	30.32.2	Interval: 64–70
 		Misc # (SMW):
 		0.06 mm
 		Sample comment:
Image file na	me:	· '
Rock type:	Quartzite	Object: Granules in sand
Comments:	Composed of completely quartz	

Microscope image for this sample is "358-C0024G-18X-05_64-70_TSS_Li_38.JPG" and "358-C0024G-18X-05_64-70_TSS_Li_39.JPG" in Supplementary Materials.

Composed of completely quartz. Crystals have wavy contacts due to

pressure solution/dissolution. (puzzle like)