Dredge 1

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 1-A1

Location:

Size: 10x8x6cm Weight: <100g

Mn crust thickness: thin, patchy coating of Mn on all sides

Total: min: max: ave: <1mm

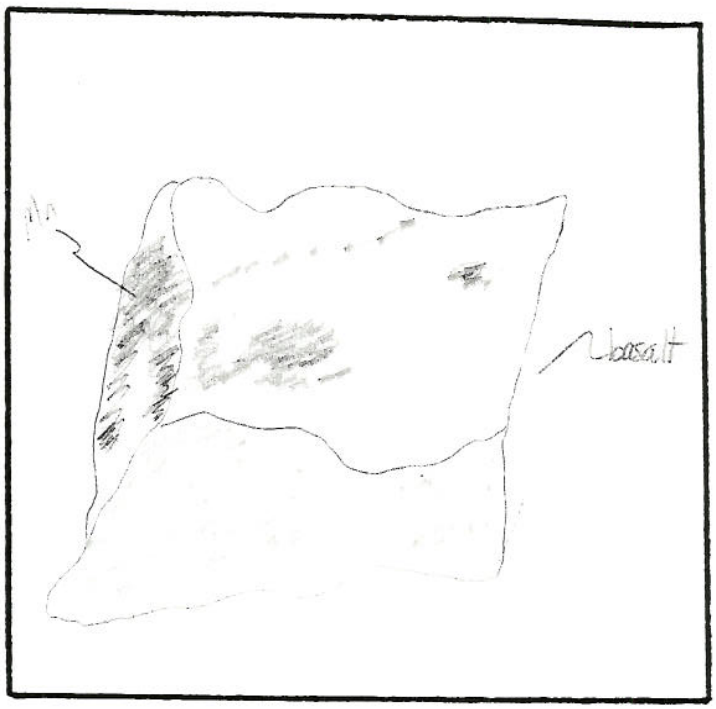
Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Smooth

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:



Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: Altered gray basalt w/ orange altered phenocrysts of olivine?

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
XRD comp. crust	Lisa M.
piece to	A. Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D1-A2

Location:

Size: 2x1.5cm Weight: <100g

SAME AS D1-A1

Mn crust thickness:

Total: min: max: ave: 1mm

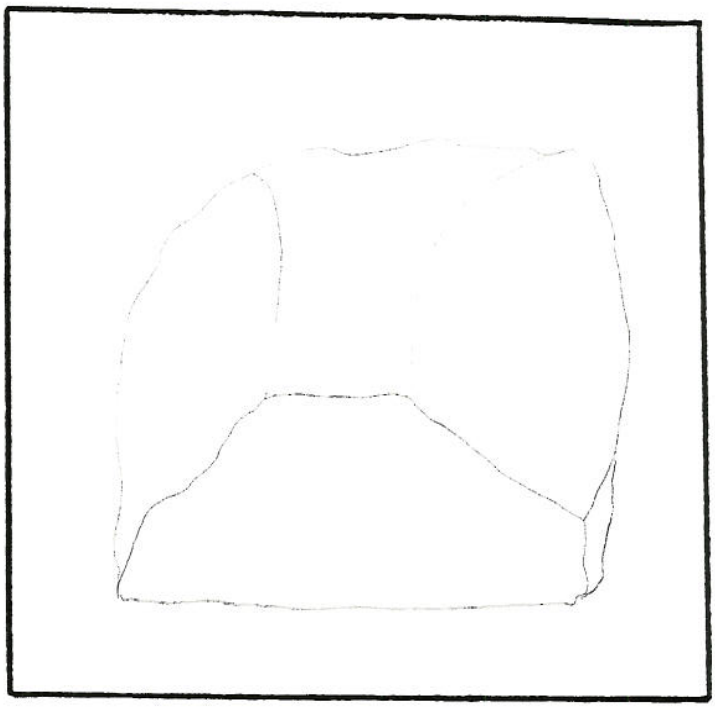
Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture:

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:



Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type:

Description:

Mineralogy(XRD):

Analyses and subsamples:

analysis:	analyst:
fuccite	A Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D1-A3

Location:

Size: 7x6x6cm Weight: <100g

Mn crust thickness:

Total: min: max: ave: <1mm

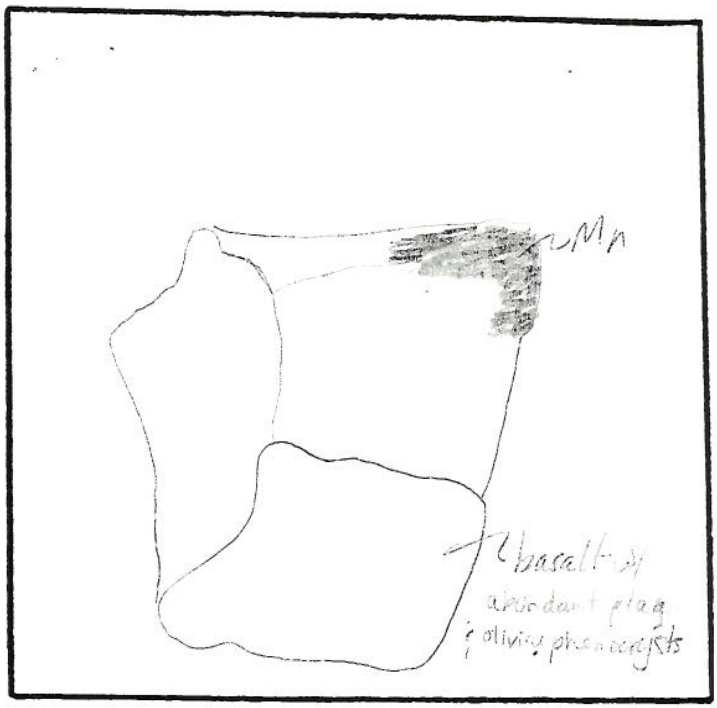
Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Smooth

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:



Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: Brownish gray altered basalt w/ abundant plag phenocrysts and orange altered olivine? phenocrysts

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
Piece to	A. Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D1-A4

Location:

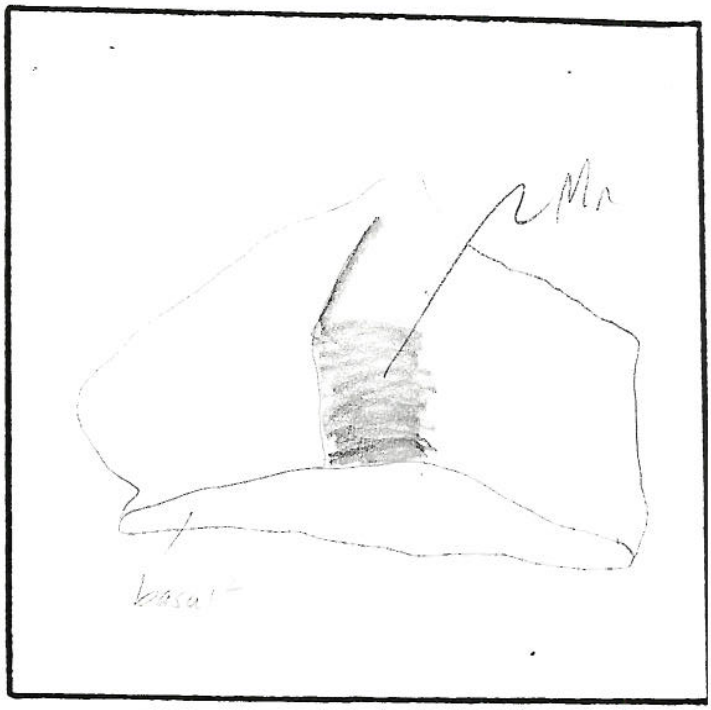
Size: 7x7x2cm Weight: <100g

Mn crust thickness:

Total: min: max: ave: <1mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:



Surface texture:

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: Gray-brown basalt w/ altered olivine? phenocrysts

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
XRD	
D1-A4-I bulk Mn	
[illegible]	A. Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 1-A5

Location:

Size: ~5x4x3cm Weight: ~100g

Mn crust thickness:

Total: min: max: ave: <1mm

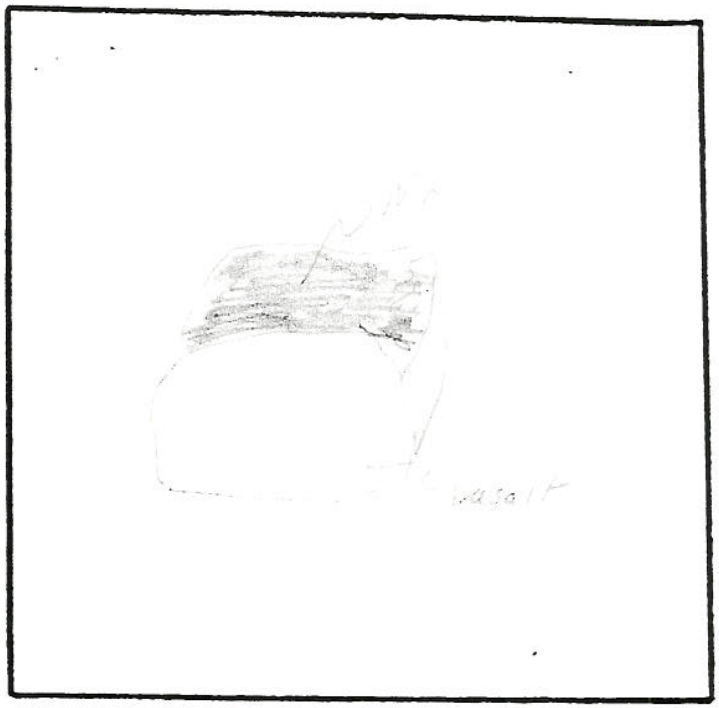
Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Porous

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:



Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: Gray-green basalt w/ altered yellow & orange (olivine?) phenocrysts

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
piece to	A. Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D1-A7

Location:

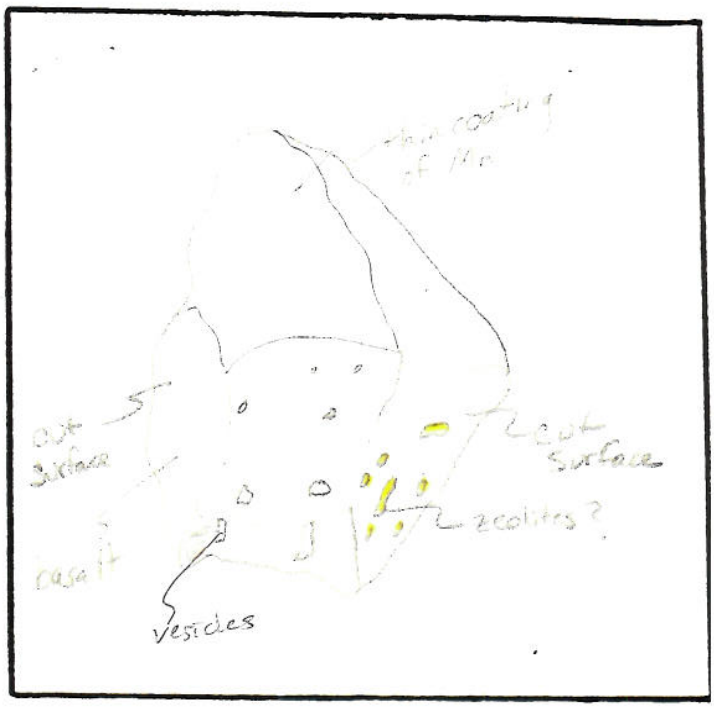
Size: 8X6x4cm Weight: <100g

Mn crust thickness: thin coating on all sides

Total: min: max: ave: 1mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:



Surface texture: Porous

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: Gray basalt w/abundant plag. phenocrysts & large vesicles filled w/yellow sediment (zeolites?)

Mineralogy(XRD):

Analyses and subsamples:

analysis:	analyst:
freeze to	A Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 1-48

Location:

Size: 6x5x4cm Weight: 5.00g

Mn crust thickness: patchy thin coating of Mn

Total: min: max: ave: 5.1mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Porous

Internal structure:

layered:
laminated:
massive:
porous:
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt?

Description: Reddish-brown phosphatized? basalt w/ vesicles filled w/ tan sediment. Some tan sediment coating on all surfaces

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
piece to	A. Davis

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 1-(2)

Location:

Size: 7x4x2 cm Weight: <1000g

Mn crust thickness:

Total: min: max: ave: 2mm

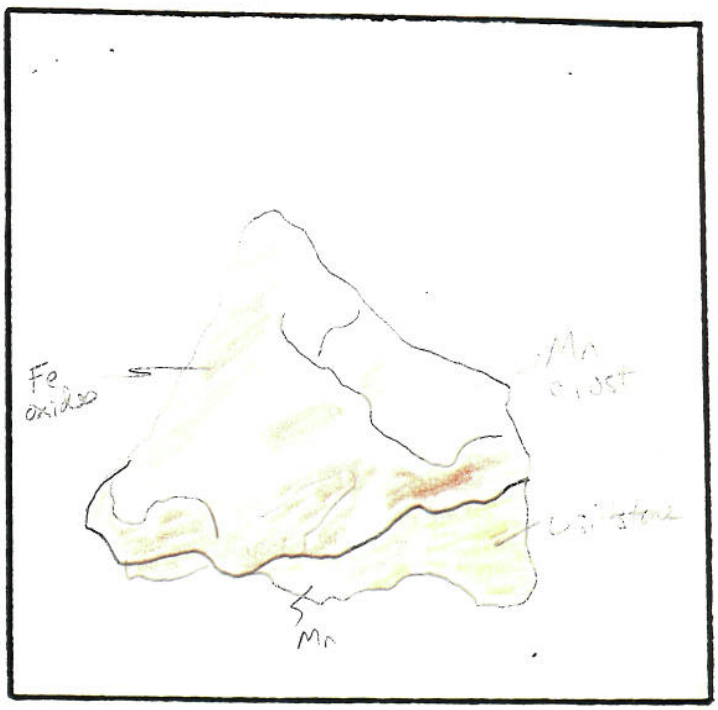
Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: pores

Internal structure:

layered:
laminated:
massive:
porous: ✓
dendritic:
other:



Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Heavy red-orange Fe oxides on crust

Substratum:

Rock type: Siltstone

Description: Tan, well indurated silt stone. Patchy Mn on bottom & throughout siltstone

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
XRD	C.L. Daniel
D1-81-I bulk Mn	
D1-81-II bulk siltstn.	

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 1-B2

Location:

Size: 6x5x2cm Weight: 510g

Mn crust thickness:

Total: min: max: ave: 2mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Botryoidal - smooth

Internal structure:

layered:
laminated:
massive: ✓
porous:
dendritic:
other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Heavy red-orange Fe oxides in crust

Substratum:

Rock type: Siltstone

Description: Tan dessicated saturated siltstone speckled with Mn

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
XRD	C.L. Daniel
I Bulk Mn crust	
II bottom Mn	
III Siltstone	