Dredge 11

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D11-A1

Location: Horizon Guyot

2 broken pieces

Size: 6x5x4cm 6x5x3cm Weight: 220g

Mn crust thickness:

Total: min: max: ave: 4mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: rough & porous

Internal structure:

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

Mineralogy (XRD):

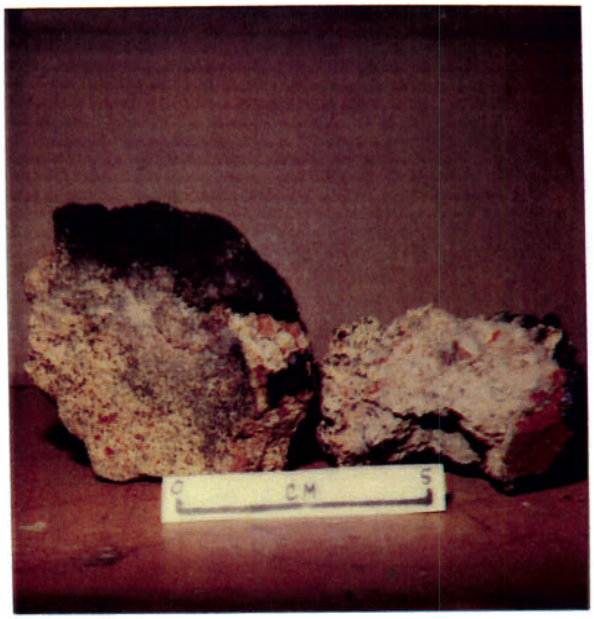
Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Volc. Breccia

Description: Highly altered red-orange volcanic? clasts poorly sorted (1-25mm), well cemented in an altered yellow zeolitized silty sand matrix speckled with Mn. Also translucent crystals of zeolites

Mineralogy (XRD):



L5-83-HW

D11-A1

Analyses and subsamples:

analysis:	analyst:
Sample to	J. Haggerty
XRD	C. Daniel
I bulk Mn crust	
II bulk substrate	

Sample Description

Cruise I.D: L5-83-HW Sample I.D: Sta: D11-A2 Location: [illegible]

Size: 10x8x7cm Weight: 3359

+ 3 small (<5cm) pieces

Mn crust thickness:

Total: min: ____ max: ____ ave: ≈3mm

Inner crust: min: ____ max: ____ ave: ____

Outer crust: min: ____ max: ____ ave: ____

Surface texture: Rough & porous

Internal structure: ____

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

Mineralogy (XRD): ____

Associated alteration, phosphorite, or hydrothermal deposits: ____

Substratum:

Rock type: Volc. Breccia

Description: altered, brown to orange, poorly sorted (3mm–3cm), well cemented sub-rounded volcanic clasts in an altered, yellow, zeolitized silty sand matrix. Speckled w/ Mn & translucent crystals of zeolites

Mineralogy (XRD): ____

L5-83-HW

D11-A2

Analyses and subsamples:

analysis:	analyst:

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D 11-A3

Location: Horizon Guyot

4 small rocks all cut in ½

ave **Size:** 4x5x3cm **Weight:** 440g

Mn crust thickness:

Total: min: [illegible] max: 2mm ave:

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 cobbles

Description: [illegible] & altered olivine? phyric basalt

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D11-A4

Location: Horizon

Size: 14x10x6cm Weight: 870g. * cut for Alice

Mn crust thickness:

Total: min: max: ave: 2mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: rough & porous

Internal structure:

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

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Basalt

Description: gray-brown plagioclase & altered orange olivine? phyric basalt

Mineralogy (XRD):

L5-83-HW

D11-A4

Analyses and subsamples:

analysis:	analyst:
Doubly Polished Thin Section	by Mann Petro.
XRD: composite Mn	Rosemary?

Sample Description

Cruise I.D: L5-83-HW Sample I.D: Sta: D11-A5 Location: Horizon Guyot

2 rocks:
Size: 1) 9x6x5cm Weight: 720 g
2) 8x7x8cm

Mn crust thickness:

Total: min: ____ max: ____ ave: 3mm

Inner crust: min: ____ max: ____ ave: ____

Outer crust: min: ____ max: ____ ave: ____

Surface texture: Flat & porous

Internal structure: ____

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

Mineralogy (XRD): ____

Associated alteration, phosphorite, or hydrothermal deposits: ____

Substratum:

Rock type: Volc. Breccia

Description: SAME AS D11-A1 & 4 except #2 rock has large (6x5cm) basalt clast otherwise is volc. breccia

Mineralogy (XRD): ____

L5-83-HW
D11-A5

Analyses and subsamples:

analysis:	analyst:

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D11-A6

Location: Horizon Guyot

Size: 3 x 6 cm Weight: 1.38 kg

Mn crust thickness:

Total: min: 4 mm max: 7mm ave: 5mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: rough & porous slightly botryoidal

Internal structure:

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

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Volc. Breccia

Description: SAME AS other D11 volc. breccia's except covered with zeolites

Mineralogy (XRD):

L5-83-HW

D11-A6

Analyses and subsamples:

analysis:	analyst:
XRD	C. Daniel
I volc. breccia	
II Mn crust (0-7mm)	
Chemistry-substrate	
Doubly Polished Thin Section by Mann Petro.	

Sample Description

Cruise I.D: L5-83-HW Sample I.D: Sta: D11-A7 Location: Horizon

Size: 14x13x12cm Weight: 1.33 kg * cut for Alice

Mn crust thickness:

Total: min: ____ max: ____ ave: 2mm

Inner crust: min: ____ max: ____ ave: ____

Outer crust: min: ____ max: ____ ave: ____

Surface texture: Rough & porous

Internal structure: ____

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

Mineralogy (XRD): ____

Associated alteration, phosphorite, or hydrothermal deposits: ____

Substratum:

Rock type: Basalt

Description: Plagioclase & altered, orange olivine? phyric basalt

Mineralogy (XRD): ____

L5-83-HW

D11-A7

Analyses and subsamples:

analysis:	analyst:
whole rock: 11/85	A. Davis