AHYI SMT.

SAMPLE ID	Mn CHEM	Pt & Au	REE	Si Chem	P.Sect.	35mm Pho	Archive	Paleo	+10 elem
D15-1	Bulk			Bulk					Bulk
D15-2									

Sample Description

Cruise I.D: ~~L5-83-HW~~ Mariana Islands

Sample I.D: Sta: D15-1

Location: Ahyi Seamt

Size: 9x7x4cm Weight: 70 g

Depth: 1930-1120m

Mn crust? thickness: possibly Mn-sst

* Total: min: 5mm max: 8mm ave: 6mm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Rough

Internal structure: ∅

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

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Some shiny, globular, hydrothermal Mn (?) on bottom

Substratum:

Rock type: Volcaniclastic Breccia (sst?)

Description: Orange to greenish-yellow fine to medium grained, closely packed, subrounded well indurated, slightly silty sandstone grading into breccia w/ gray, vesicular basalt clasts (≈1-6mm)

* The Mn crust (?) has clasts (up to 5mm) in it of white pumice (?) - gray basalt

Mineralogy (XRD):

MARIANA ISLANDS
D15-1

Analyses and subsamples:

analysis:	analyst:
Sampled for XRD.	Charlaine
D15-1-I: bulk ~~Mn "crust"~~ Mn Sandstone	
D15-1-II: bulk sst-breccia	
D15-1-III: shiny, globular, Mn on bottom	
Chemistry-'Manheim' pkg	F. Brown-Reston USGS
D15-1-A: bulk ~~Mn crust~~ Mn Sandstone	
D15-1-B: bulk breccia ICP, XRF	majors, minors
Metallic hydrothermal layer. Not analyzed -	

D15-#1 TT192

Sample Description

Cruise I.D: ~~E5-83-HW~~ Mariana Islands Sample I.D: Sta: D15-2 Location: Ahyi Seamt

Size: 10x9x5cm Weight: 560g

Mn crust thickness: 0

* Total: min: max: ave:

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Rough & Knobby (due to clasts)

Internal structure:

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

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Some Fe oxides on surface & possible yellow zeolitic material

Substratum:

Rock type: Volcaniclastic Breccia

Description: Green to black, very fine grained, well cemented sandstone-breccia. Only one basalt clast in middle of rock, rest of clasts are on upper surface & are well-rounded pumice & basalt. Clast size varies 2-15mm

* Dense of Mn on side of rock (bindstone)

Mineralogy (XRD):

Analyses and subsamples:

analysis:	analyst:
XRD:	Charlaine
D15-2-I: bulk Mn layer	

D152 TT192

Poorly Sorted, graded bedding (reversely graded?)