DREDGE 51
Central
Hiyoshi
Knoll

| SAMPLE ID | Mn CHEM | Pt & Au | REE | Si Chem | P.Sect. | 35mm Pho | Archive | Paleo | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DE1-1 | Bulk | Bulk | Bulk | | | | | | | | | | |
| DE1-2 | | | | | | | | | | | | | |

## Sample Description

Cruise I.D: ~~L5-83-HW~~ Mariana Is (chase % of slanted piece)

Sample I.D: Sta: D 51-1 Fmn #

Location: [illegible] Hiyoshi Knoll

Depth: 1050-1400 m

Size: 5X11X5cm Weight: 379 gms (wet)

Mn crust thickness:

Total: min: 4 max: 4.5 ave: 4.2cm

Inner crust: min: 4 layers max: ave:

Outer crust: min: max: ave:

Surface texture: Granular to porous w/ small patches of submerging hydrothermal Mn

Internal structure:

layered: ✓ 4 - 2 thin (3-12mm) discontinuous [illegible] in between the granular Mn

laminated:

massive:

porous:

dendritic:

other: ✓ granular - sandstone like texture

Mariana Is.
D51-1

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum: none

Rock type:

Description:

Manganiferous sandstone, predominately Fine grained but, poorly sorted w/ coarse clasts. Mn cement overwhelms the clastic debris. Dense layers have no included sediment

Mineralogy (XRD):

Analyses and subsamples:

| analysis: | analyst: |
|---|---|
| Chemistry: Bulk sample from "bdst" of rock sent for "mangan" + Pt group + Au, RGE | L. Morgenson 7/86 |
| XRD: bulk of sample sent for chem | |

MARIANA ISLANDS
DS1-1

Mariana Islands

Cruise I.D: TT-192

## Sample Description

Sample I.D: Sta: D51-2

Location: SE Flank Central Higashi Knoll

Depth: 1000-1400m

Size: 15x10x35cm Weight: 200g

Mn crust thickness:

Total: min: max: ave:

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Smooth

Internal structure:

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

Mineralogy (XRD):

ssociated alteration, phosphorite, or hydrothermal deposits:

~~Substratum:~~

Rock type: Manganiferous Sandstone

Description:

Smooth surface with "clump" of finer grained material on top. Sandstone coarse to medium grained, poorly sorted angular grains.

Mineralogy (XRD):

MARIANA ISLANDS
D51-2

Analyses and subsamples:

| analysis: | analyst: |
|---|---|