

D8

start
22°57.63'S

175°25.82'W

1660m

end
22°57.32'S

175°26.55'W

1545m

Cruise I.D: L3-84-SP
15-83-4W

Sample Description
Sample I.D: Sta: D8-3

Tonga Ridge
Location: LAJ BASH

Size: 10x9x6cm Weight: _____

Mn crust thickness:
Total: min: 4cm max: 4.5cm ave: 4.2cm

Inner crust: min: _____ max: _____ ave: _____

Outer crust: min: _____ max: _____ ave: _____

Surface texture: Rough & porous

Internal structure: _____
layered: _____
laminated: _____
massive: _____
porous: _____
dendritic: _____
other: _____

Mineralogy (XRD): _____

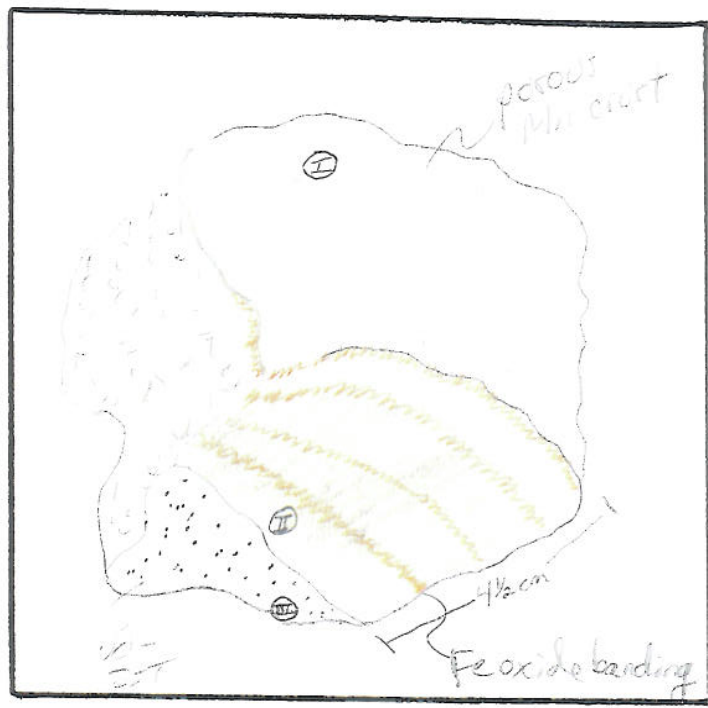
Associated alteration, phosphorite, or hydrothermal deposits:
Fe oxide staining (in bands) of Mn crust

Substratum:
Rock type: Volcaniclastic sandstone

Description: Thick Mn crust on 3 sides surrounding one clast (4x6cm). Clast is tan to gray, very fine grained moderately sorted & packed feldspar. Mn grains in a silty sand matrix.

Vertical columns in one layer; similar to D11.

Mineralogy (XRD): _____



Took whole rock

Analyses and subsamples:
analysis: _____ analyst: C. Daniel
XRD: _____
I. outer Mn crust (0.8mm) _____
II. inner " " (30-4.0cm) _____
III. SST clast _____
Chem - bulk D8-3-I U.S.S. Montebank
↓
also submitted for Manheim Robert's Denver
phys. & chem. & REE _____
D8-3-II (0-4.5cm) _____
D8-3-II resubmitted for geochem _____
Cronan parthian

25-84-28
Cruise I.D.: 15-83-HW

Sample Description
Sample I.D.: Sta: D8-5

Location: LAU BASIN

Size: 18x12x10cm Weight: _____

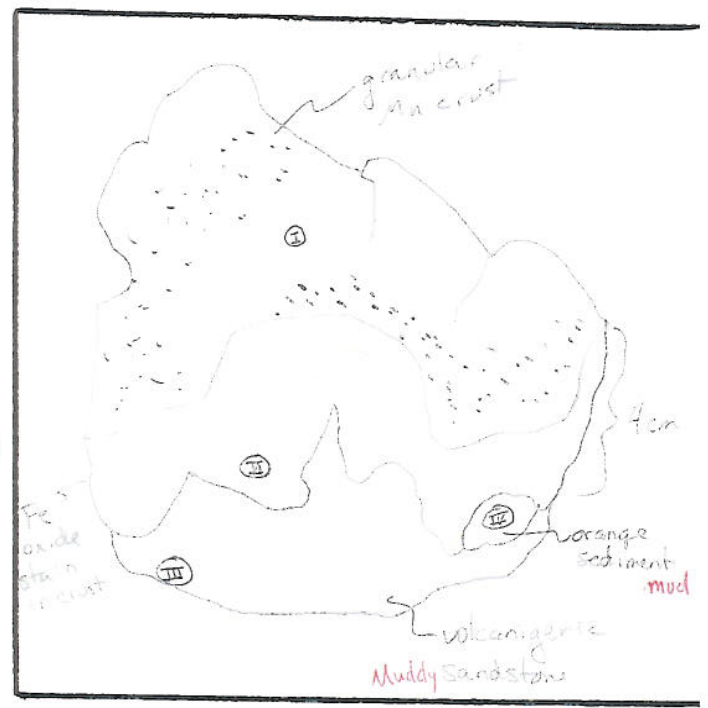
Late Miocene foraminifera

Mn crust thickness:
Total: min: 3cm max: 5cm ave: 3.5cm
Inner crust: min: 2cm max: 3cm ave: 2cm
Outer crust: min: 1cm max: 2cm ave: 1.5cm

Surface texture: granular

Internal structure:
layered: / alternating layers of Fe oxides
laminated: _____
massive: columnar development in some areas
porous: within crust similar to D 11
dendritic: _____
other: _____

Mineralogy (XRD): _____



1 Broken piece

Associated alteration, phosphorite, or hydrothermal deposits:
Extensive Fe oxide staining in crust

Analyses and subsamples:

Substratum: ~~Muddy~~ Muddy
Rock type: Volcanogenic Sandstone

analysis:	analyst:
XRD	C. Daniel
I: Mn crust outer 0-9mm	
II: " " " " 10-22.5 2.0-2.7cm	
III: Sandstone	
IV: sediment pocket	

Description: Very fine grained tan sandstone w/ muddy matrix; grey orange volcanic clasts (<1mm) w/ lots of Mn clasts (<1mm) throughout
Dessication (?) cracks on top of sandstone filled w/ Mn and Klastic debris

Coran - Parthia

Mineralogy (XRD): _____

C3-24-SF
Cruise I.D: E5-83-HW

Sample Description
Sample I.D: Sta: D 8-6

Location: Low Basin

Size: 5x25x3cm Weight: 4.734kg broke up

Mn crust thickness:

Total: min: 3cm max: 3.4cm ave: 3.4cm

Inner crust: min: _____ max: _____ ave: 2cm

Outer crust: min: _____ max: _____ ave: 1cm

Surface texture: Rough & porous

Internal structure:

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

Mineralogy (XRD): _____

Associated alteration, phosphorite, or hydrothermal deposits:

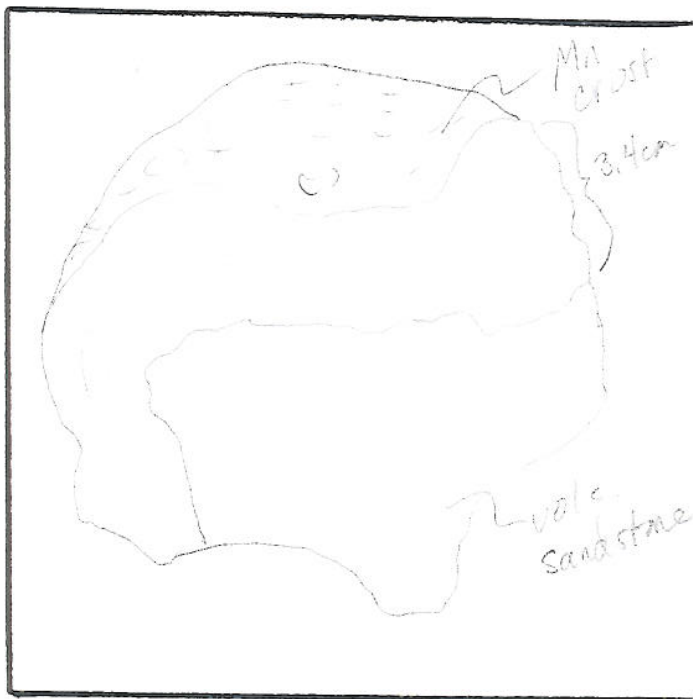
heavy Fe oxide staining in crust
White carbonate sediment in a few packets

Substratum:

Rock type: Volcanogenic sandstone *gypsiferous volcanic*

Description: Very fine grained, white to gray muddy matrix surrounding closely packed grains (clasts) of feldspar? quartz? Mn (a lot), some packets of yellow soft sediment, sulfur?
Thin coating of Mn in one packet w/ encrusting yellow crystals & clear crystals (zeolites?)

Mineralogy (XRD): _____



Analyses and subsamples:

analysis: _____ analyst: _____
Took 1 piece of 12x12x3cm
XRD: _____ C. Daniel
I. Mn crust - outer 0.2cm
II " " inner 0.2cm
III SST
IV silty sed.
V yellow sulfide?

Chemistry: V.S.G.S. Mech. Part
D8-6-1: outer (0.2cm)
-6-2 inner (0.2cm)
-6-3 outer porous side (0.12cm)
-6-4 inner " (0.2cm)

Polished thin section Mann Petro.
Cranan parkia
Split. O/N ions Be & other isotopes
Af + Li isotopes

Cruise I.D: 15-83-HW

Sample I.D: Sta: D8-27

Location: Lau Basin

Size: ~~6x9x10cm~~ Weight: 182g

Mn crust thickness:

Total: min: 1.7cm max: 2.5cm ave: 2cm

Inner crust: min: max: ave:

Outer crust: min: max: ave:

Surface texture: Rough & porous

Internal structure:

layered: ~4 Fe oxide bands

laminated:

massive:

porous:

dendritic:

other:

Mineralogy (XRD):

Associated alteration, phosphorite, or hydrothermal deposits:

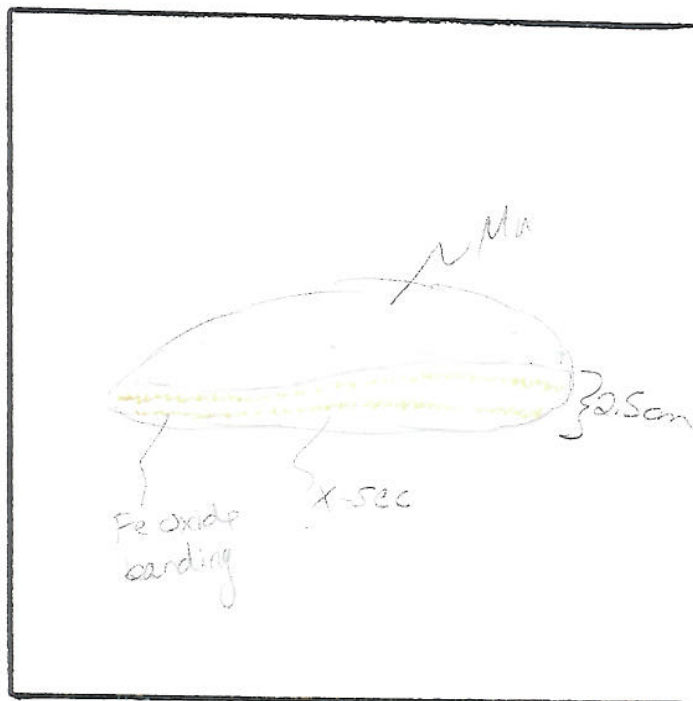
Fe oxide staining
Coated w/ thin layers of tan sediment

Substratum:

Rock type: Mn crust

Description: thin layer of tan sediment coating Mn-crust

Mineralogy (XRD):



Whole rx

Analyses and subsamples:

analysis:

- XRD: _____
- I. Mn crust _____
- II. tan sediment _____

analyst:

C Daniel

Cronan Parshia