Dredge Sample Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
D4-1	X				X	X	2X			
D4-2					X	2X	4X		X	
D4-3										
D4-4									X	

SAMPLE DESCRIPTION

Cruise Id: F11-90-CP Size (cm): 35x35x24 Location: YAP A

Sample Id: D4-1 Weight (kg): 40 Depth (m): 2900~2714

Mn Crust Description

Surface Texture: Granular; small botryoids (1~2 mm) on side

Mn Crust Thickness (mm):

Min: patina Max: 10 Ave: 1

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	<1	10	1	Porous; black
2				
3				
4				
5				
6				

D4-1

Comments and XRD Mineralogy:

Su

D4-1A CC bulk 0-8mm (31.4gms)

D4-1B TS Basalt

D4-1B OC " (43.5gm)

Next page for D4-1 C+D

15 TO KORDI

Substrate Description

Rock Type: BASALT (BOULDER) with fresh and altered phenocrysts (max. 8mm)

Description: Fresh phenocrysts are mainly plagioclase + pyroxene(?) - Maybe fresh glass!

Olivine phenocrysts altered to reddish mineral-iddingsite - to 8mm in size

some vugs filled with white (opaque) calcite + greenish translucent

Biology (?): Forams

*Cut on big saw - Plag separate for age dating

Described by: Yoon

Subsampled by:

G.S. next page

SAMPLE DESCRIPTION

second description

2 of 2

Cruise Id: F11-90-CP Size (cm): Location:

Sample Id: ~~D4-1~~ Weight (kg): Depth (m):

Mn Crust Description

Surface Texture: Granular
-Patena

Mn Crust Thickness (mm):

Min: Pat. Max: Ave:

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				
2				
3				
4				
5				
6				

D4-1

Comments and XRD Mineralogy:

Subsa

D4-1C T.S. of interior Basalt on heavy surface

D4-1D XRD of glass rind between phosphate + basalt

Substrate Description

Rock Type: Vesicular Basalt w/ phosphorite layer above glass rim on basalt

Description: Vesicals filled with Phosphate. Plagioclase fresh? altered. Glassy Rim between Basalt + phosphate layer. Phosphate layer is whitish tan with specks of Mn. Some altered basalt frags in phos.

Biology (?): encrusting forams

Described by: G.S.

Subsampled by: G.S.

Alice

SAMPLE DESCRIPTION

Cruise Id: F11-90-CP Size (cm): 13 X 9 X 8 / 2.3 X 2 X 1 Location: YAP A

Sample Id: D4-2 Weight (kg): 2 kg Depth (m): 3195-2774

Mn Crust Description

Surface Texture: Smooth. Botryoidal

Mn Crust Thickness (mm):

Min: Patina Max: 2 Ave: Patina

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				Black, porous Patina
2				
3				
4				
5				
6				

D4-2

Comments and XRD Mineralogy:

Abundant small Mn dentrites + Sub grains pepper the rock

Rare bore holes and fractures in rock are lined by Mn

Thin layer of white foraminifera limestone on side of rock (fracture fill) peppered with clastic Mn oxide grains

Substrate Description

Rock Type: Calcareous (Foraminifera) reworked Tuff Grey-greenish to White

Description: Ash with Forams.

Brown mud layer & mottles (burrows) -

Turbidite (?) burrowed into lower layer

Rare layer (2 cm) basalt (Same basalt as D4-1)

pebbles clasts -

Biology (?): Encrusting Forams on Mn Crust surface

D4-2A	DC, XRD	Tuff - general (18 gm)
D4-2A	TS	tuff
D4-2B	XRD	brown layer
D4-2C	TS	altered basalt cream
D4-2C	XRD	" " "
D4-2D	XRD	Amphibole? x sta
D4-2A	Paleo	Calcareous Tuff -

½ TO KORDT

½ TO USGS

Described by: [signature]

Subsampled by: HEIN + J.W

Vesicles near top of rock

Possible zeolites filling some vesicles

Altered red olivine crystals and either black pyroxene or amphiboles are in rock (3%)

large on surface - Amphiboles? mm size → [Plagioclase + Amphibole? Pyroxene? xstals in Tuff] - Lotable?

2A
on surface 2D
clast - fresh Glass?
Basalt = 2C
Basalt
CM
2B
D4-2

SAMPLE DESCRIPTION

Cruise Id: F11-90-CP Size (cm): gravels Location: YAP A

Sample Id: D4-3 Weight (kg): 0.23 kg Depth (m): 2900~2774

Mn Crust Description

Surface Texture:

Mn Crust Thickness (mm):

Min: 0 Max: _____ Ave: 6

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				
2				
3				
4				
5				
6				

Comments and XRD Mineralogy:

Analyses

Subsample No.	Analysis	Layer Thick.	Wt.(g)

Substrate Description

Rock Type: Pumice ~ 6 pebbles

Description: gray

Biology (?):

Described by: yoon

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: F11-90-CP Size (cm): 3 bottles Location: Yap A

Sample Id: D4-4 Weight (kg): ≈ 1 Depth (m): 2900 – 2774

Mn Crust Description

Surface Texture: NONE

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				
2				
3				
4				
5				
6				

no photo

Comments and XRD Mineralogy:

Substrate Description

Rock Type: Foram-nanno ooze

Description: soupy pale brown foraminiferal-nannoplankton ooze

Biology (?):

Described by: HEIN

Analyses

Subsample No.	Analysis	Layer Thick.	Wt.(g)
	≈ 6 kg ≈ 5 overboard		
	~1 USGS		
	~1 HORDI		
	2 vials preserved in rose Bengal for paula PALEO		

Subsampled by: Hein