DREDGE 23

Dredge Sample Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
D23-1A	✓		✓	✓			✓			
-1B,C		✓	✓	✓			✓			
D23-1D		✓	✓	✓			✓			
D23-1E							✓			
D23-5A	✓		✓	✓			✓			
-5B							✓			

SAMPLE DESCRIPTION

Cruise Id: Tunes 6 Size (cm): 25x22x12 Location: ~~V2-91-CP~~ NW Slope Manganese Guyot

Sample Id: D23-1 Weight (kg): 5.6 Depth (m):

Mn Crust Description

Surface Texture: Smooth and stain

Mn Crust Thickness (mm):

Min: 20 Max: 110 Ave: 60

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	1	23	20	dendritic growth porous, infilled with sediment phosphorite? brown some oxidation
2				
3	1	10	3	Slightly porous black dendritic growth layer
4				
5	18	77	37	Black, porous, dendritic growth, infilled with sediment Mn is coarse near the bottom in the thick area some phosphorite veins
6				

Tunes 6
D23-1

Comments and XRD Mineralogy:

Subsample No.

D23-1A 105.5g EC, XRD, Pt, REE Bulk 0-20
D23-1B, C 161.2g " " " " layer 1 0-2
* Layers 2 too thin combined with layer B
D23-1D 95.1g " " " " 3/25-
D23-1E XRD substrate

Substrate Description

Rock Type: Sedimentary – Hyaloclastite Breccia Ridge-Greg

Description: Poorly sorted angular to subrounded, highly altered basaltic pebble sized breccia, in hyaloclastite matrix, phosphorite cement & filling voids, some phosphorite veins some Mn oxide impregnation mostly around edges of clasts

Biology (?): encrusting forams

Described by: J.W.

Subsampled by: JW

Tunes 6
D23-1

SAMPLE DESCRIPTION

Cruise Id: Tunes 6 Size (cm): cut 12 x 8.7 x 4.2 Location: ~~V2-91-EP~~ NW Slope Malonesy Guyot 6

Sample Id: D23-2 Weight (kg): 0.69 Depth (m):

Mn Crust Description

Surface Texture: Granular
nodular piece?

Mn Crust Thickness (mm):

Min: 40 Max: 60 Ave: 50

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	15	55	18	Black dentritic growth porous, sediment filled
2				oxidation
3	20	45	35	Black dense some phosphorite veins
4			?	
5				
6			for	Top

Note: The layers are not evenly distributed so the thicknesses don't add up

Tunes 6
D23-2

Comments and XRD Mineralogy:

Subsample No

Substrate Description

Rock Type: Sedimentary Breccia
Grey

Description: Poorly sorted subangular to subrounded, pebble sized clast breccia in hyaloclastite matrix
Phosphorite & Mn oxide cement

Biology (?):
encrusting forams

Described by: J.W.

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: Tunes 6 Size (cm): cut 9½ x 4½ x 6 Location: NW Slope Malanga Guyot ~~V2-91-CP~~

Sample Id: D23-3 Weight (kg): 0.39 Depth (m):

Mn Crust Description

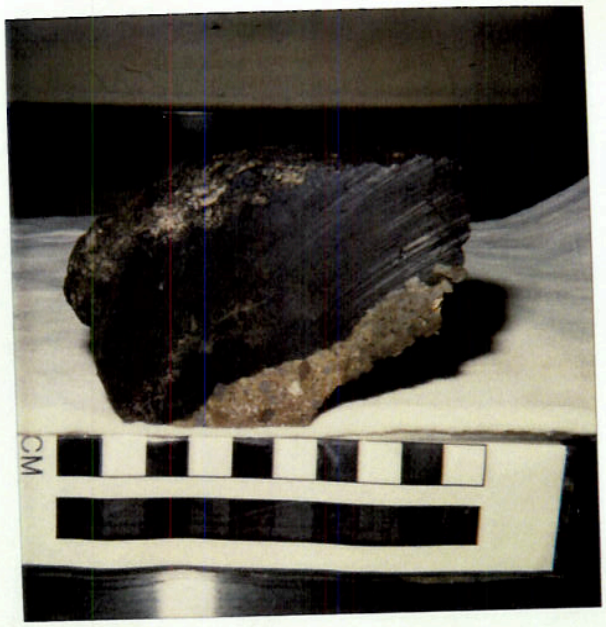
Surface Texture: Smoothed botryoidal

Mn Crust Thickness (mm):

Min: 22 Max: 44 Ave: 40

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	22	44	40	black, porous -
2				prego surface with infill of sediment
3				
4				dominately dense slightly porous.
5				
6				micro phosphorite veins & sediment infills



Tunes 6
D23-3

Comments and XRD Mineralogy:

Subsar

Substrate Description

Rock Type: sedimentary breccia Brown

Description: subrounded pebble sized clasts of basalt in a hyaloclastite matrix with speckles of phosphorite filling

Biology (?): voids

Described by: JW

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: Tunes 6 Size (cm): cut 13 X 5.6 X 9 Location: NW Slope Maloney ~~V2-91-CR~~ Guyot

Sample Id: D23-4 Weight (kg): 0.62 Depth (m):

Mn Crust Description

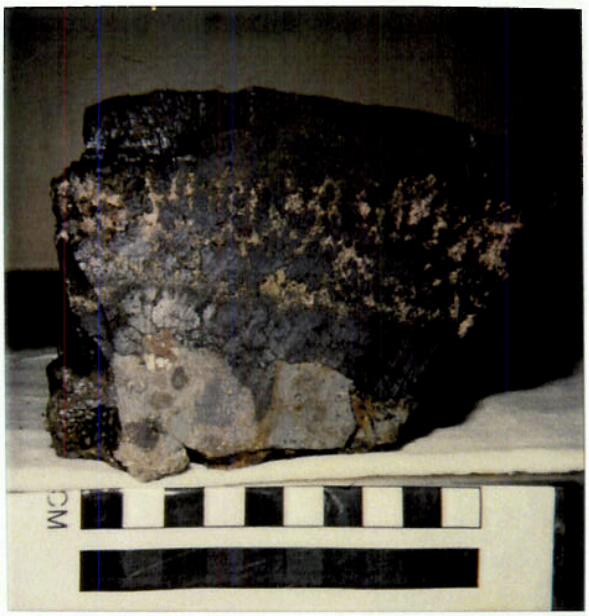
Surface Texture: Smooth eroded

Mn Crust Thickness (mm):

Min: 59 Max: 85 Ave: 70

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	19	25	20	Black dendritic growth ~~Semi Oxidation~~ porous
2				
3	40	60	3.5	black dense & vuggy
4				beige sediment
5				filled vugs
6			15	Dense black, fractured



D23-4

Comments and XRD Mineralogy:

Subsample No.

Substrate Description

Rock Type: Sedimentary breccia

Description: Poorly sorted, subangular - subrounded pebble sized basalt and sedimentary clasts in hyaloclastite matrix

Biology (?):

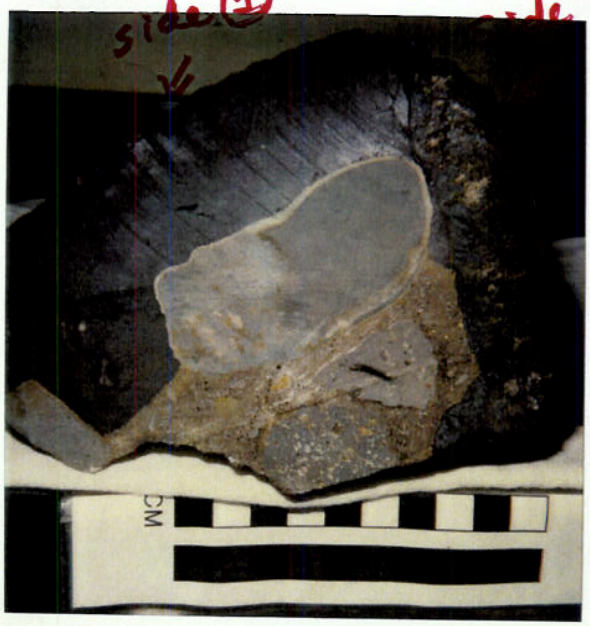
Described by: JW

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: Tunes 6 Size (cm): cut 16X6X11.1 Location: ~~V2-91-CP~~ NW Maloney Guyot

Sample Id: D23-5 Weight (kg): 1 Ka Depth (m):



Tunes 6
D23-5

Mn Crust Description

Surface Texture: Smooth eroded

Mn Crust Thickness (mm):

Min: 25 Max: 60 Ave: 35

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	25	60	35	Side 1: black dense
2				slightly porous & minor
3				sediment fills
4				side 2: reddish black porous
5				some alteration
6				sediment filled vugs

Comments and XRD Mineralogy:

Subsampl

D23-5A cc, XRD, Pt, REE Bulk crust
109g 0-40 mm Side 1
D23-5B XRD breccia matrix

Substrate Description

Rock Type: Sedimentary Breccia
Grey-brown

Description: Poorly sorted, subangular to subrounded, pebble sized mainly basalt clasts in a hyaloclastite matrix (Brown!) some vaids & vesicles in basalt

Biology (?): clasts are filled w/ phosphorite

Described by: JW

Subsampled by: JW