DREDGE
13

Little Joe Seamount 2840 - 2155 m

SAMPLE ID	*Mn CHEM	Pt & Au*	REE *	Si Chem*	P.Sect.	35mm Pho	Archive	Paleo	XRD
D13-1	Layers				dpts		X ←	largest in cut	piece w/ faces
D13-2	Layers				TS				
D13-3	Bulk								

* All chemistry samples have XRD mineralogy done also.

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: [illegible] Location: Little Joe

Sample Id: D13-1 Weight: [illegible] Depth: _____

Mn Crust Description

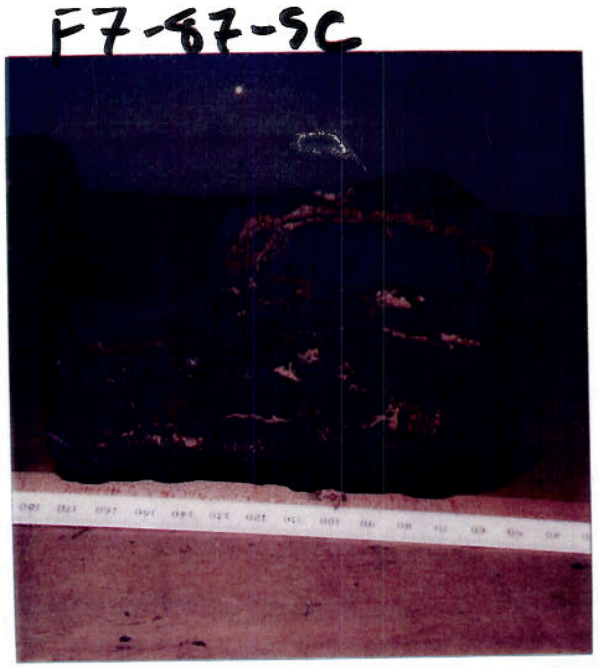
Surface Texture: Smooth + abraided granular on side + bottom!

Mn Crust Thickness:

Min:_____ Max:_____ Ave:_____

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.		Top	7	Laminated brown
2.			5	Massive red-brown
3.	Bottom		4	Black granular, Bottom
4.				
5.				
6.				



Comments and XRD Mineralogy:

Fe-Mn oxide + phosphorite cemented Breccia w/ clasts of old Crusts, phosphorite + tabular basalt clasts

Breccia is coated w/ 2 layers of crust on top + one on bottom (see above)

Substrate Description

Rock Type: Sedimentary breccia

Description:

Clasts of Crust, phosphorite, tabular basalt, most clast are tabular + oriented in some direction; 50x20x15 mm is largest clast - basalt veins + fractures fill up phosphorite

sample for glass taken breccia sort of fell apart

Described By: D S Subsampled By: D.S.

ANALYSES

Subsample & Type	Analysis	Weight
D13-1A	CC, XRD	0-12 mm Thick - upper Crust
		0-12 mm
D13-1B	CC, XRD	Breccia - Mn + phosphorite 80 mm Thick
D13-1C	CC, XRD	lower granular Crust 4 mm Thick - black Bottom
D13-1D	DPTS	Complete x-section probe (A-D)
D13-1E	glass for	

B
C
Face
other 2
Photos

Basalt
Light Colored = phosphorite

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: 2x2.5x4 Location: [illegible]

Sample Id: D13-2 Weight: 0.3 kg Depth: _____

Mn Crust Description

Surface Texture: [illegible]

Mn Crust Thickness:

Min: 9 Max: 15 Ave: 12 Top [illegible] "A"

8 20 18 Bottom [illegible] "C"

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

Maybe a fragment of D13-1

Tabular Basalt clast cemented by [illegible] [illegible] [illegible] upper laminated [illegible] [illegible] [illegible] Black Crust [illegible] Barite

XRD -

CC - Shows 5-6 Wt% Barium in D13-2C

Substrate Description

Rock Type: _____

Description: _____

ANALYSES

Subsample & Type	Analysis	Weight
		12mm upper layer
D13-2A	CC, XRD	Layer A may not be complete upper surface appears to have chipped away
D13-2B	TC	Basalt
D13-2C	CC, XRD	bottom ~10mm

Note: layer of phosphate between A+B. Removed visible PO4 from A but possible contamination

phos. ppn around basalt clast, removed from Mn layers for chem -

Described By: DJ Subsampled By: LB

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: Location:

Sample Id: Weight: Depth:

Mn Crust Description

Surface Texture:

Mn Crust Thickness:

Min: Max: Ave:

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

red brown 1mm □ laminated dk brown□ 18mm□ Dk brown□ massive w/ layer□ 8mm□

Comments and XRD Mineralogy:

Misc. crust fragments w/□ brown upper layer 1-2mm, laminated black or massive black□ lower layer, some goethite

ANALYSES

Subsample & Type	Analysis	Weight

27mm bulk 2 thin phos. laminae□ NCr (?) bottom of crust

Substrate Description

Rock Type: None

Description:

Described By: Subsampled By: