Dredge Sample Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
D3-1	X	X					2X			
D3.2										
D3.3	NONE									

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 11x21x37 Location: V2-91-CP

Sample Id: D3-1 Weight (kg): 11 Depth (m): 2600-2500

Mn Crust Description

Surface Texture: deep to subdued botryoids, current smoothed & polished in places + Lizard Skin

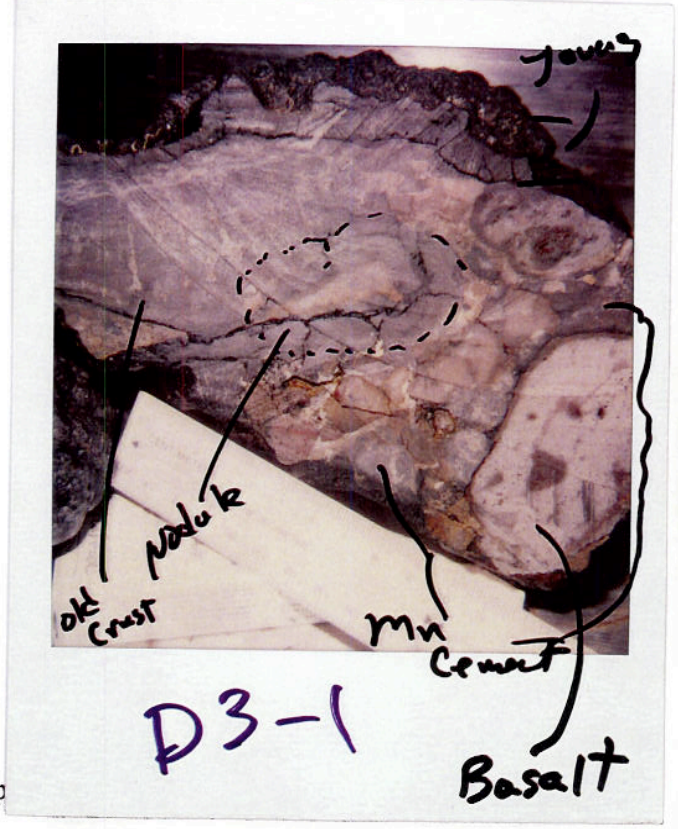
Mn Crust Thickness (mm):

Min: 3 Max: 13 Ave: 10

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				massive
2	25	50	40	massive, dense,
3				microfractured -
4				filled w/ CFA
5				w/ CFA lenses
6				+ stringers - small basalt clasts

Recent
old



Comments and XRD Mineralogy:

Thin Crust on 25-50mm Thick older massive - porous generation - The kind common in Z5 layer Crusts

Subsamp

D3-1A	Surface Scrape + XRD	5.40g
D3-1B	Bulk CC + XRD 0-13 MM	11.6g

Substrate Description

Rock Type: Breccia

Description: Mn Nodules, clasts gray basalt, red-brown, & brown basalt clasts in Fe-Mn oxide & phosphorite Cement

1/3 TO USSR
2/3 TO USGS

Biology (?):

Described by: HEIN

Subsampled by: G.S. / LEN

Hyd. w/
basalt
core

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 27 1/2 X 13 1/2 X 7 Location: V2-91-CP

Sample Id: D3-2 Weight (kg): 2.72 Depth (m): 2600-2500

91-AV-19/2
D3-2

Mn Crust Description

Surface Texture: Smooth Subdue Botryoidal

Mn Crust Thickness (mm):

New Crust Min: Patina Max: 13 Ave: 3

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1	Patina	13	3	Dense
2				
old crust 3	16	52	18	Dense, some microfractures filled with phosphorite
4				
5				
6				

Comments and XRD Mineralogy:

New crust grew on old crust with phosphotized foram layer between old & new crust layer. some phosphate growth on bottom of crust surface

Substrate Description

Rock Type: Breccia

Description: "Breccia" with Vesicular grey basalt clasts and Mn Fe clasts, small to large pebble sized clasts in Mn-Fe oxide + PO4 cement

Biology (?): Mostly Phosphatized forams on crust some unphosphatized on top surface & in between cracks in breccia

Described by: JW

Subs

2/3 USSR
1/3 USGS

make polished section of radial-banded phosphorite

Subsampled by:

D3-2
91-AU-19/2

17 pieces

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 1.5 x 2 x 3 smallest 1.5 x 8 x 6 longest Location: ~~V2-91-CP~~ SW Karin Ridge

Sample Id: D3-3 Weight (kg): 0.5 Depth (m): 2600-2500 m

Mn Crust Description

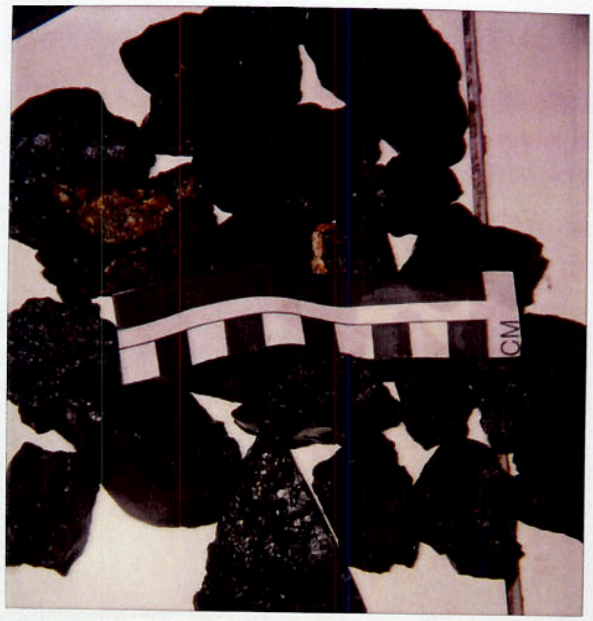
Surface Texture: Granular over older botryoids
Smoothed by currents

Mn Crust Thickness (mm):

Min: 10 Max: 20 Ave: 10

Outer to Inner Layers (mm)

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



91-AV-19/2
D3-3

Comments and XRD Mineralogy:

Pieces of crust interlayer? Dense Black with minor Phosphate veins

Subsa

Substrate Description

Rock Type: Breccia

Description: highly altered Basalt clast with manganese matrix

Biology (?): encrusting forams

½ to USSR
½ to USGS

Described by: G.S.

Subsampled by: