Dredge 5

Dredge Sample Summary Sheet

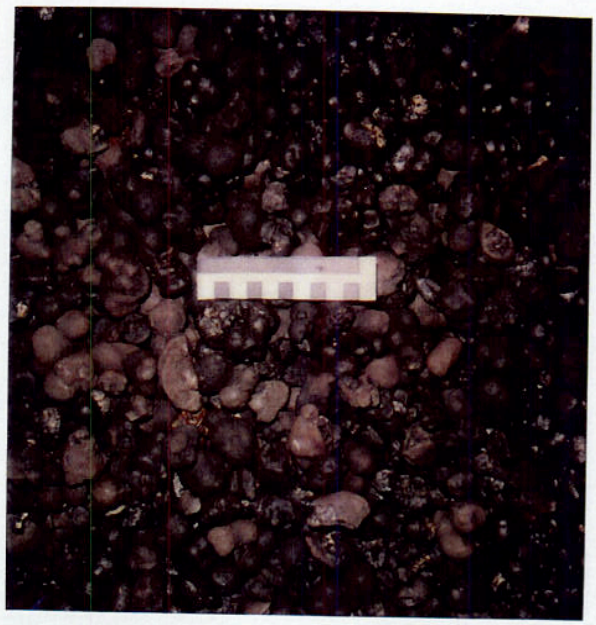
Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
DS-1-1	X						X			
DS-3-1		X	X	X						
DS-5-1						X				
DS-5-2						X				
DS-6							X			

SAMPLE DESCRIPTION

100013

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

Sample Id: D5-1 Weight (kg): 75 Depth (m): 4300-3900



D5-1

Mn Crust Description

Surface Texture: Smooth, granular, Lizard Skin

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave: 25-30

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				10mm - 60mm
2				diameter
3				Nodules
4				
5				
6				

Comments and XRD Mineralogy:

Nuclei 1. 60% Fe-Mn nodule fragments 2. 30% phosphorite 3. 10% others = basalt, hyaloclastite; 30% small nucleus, 70% large - but because most nuclei are Fe-Mn fragments, many nodules are all Mn-Fe oxides

Substrate Description

Rock Type: Nodule Nuclei of Fe-Mn oxides - phosphorite, hyaloclastite

Description: most nodules are poly-nuclei

Biology (?):

Subsa

D5-1-1 CC 0-25 diameter (1155 bulk nodules w/ nodule nuclei composite of 4 nodules

2/3 USSR

1/3 USGS

Described by: HEIN

Subsampled by: HEIN

D5-1

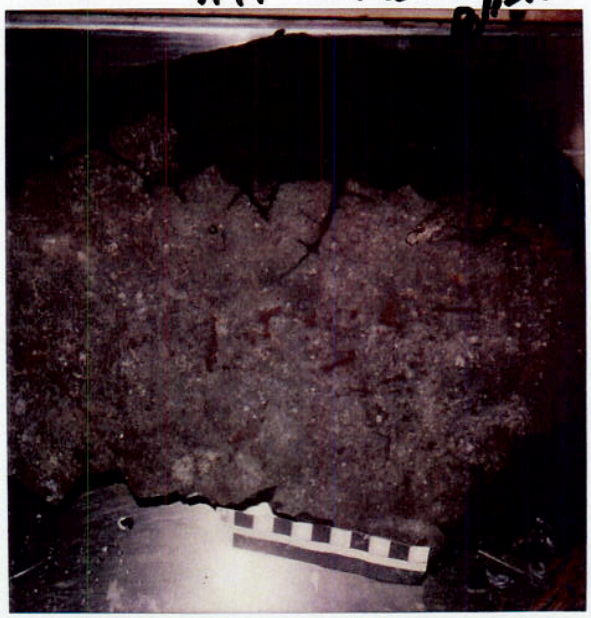
D5-1 cut

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 44 X 30 X 16 Location: V2-91-CP

Sample Id: D5-2 Weight (kg): 25 Depth (m): 4300-3900

All Crust polished



DS-2

Mn Crust Description

Surface Texture: smooth; polished & smoothed botryoidal on sides

Mn Crust Thickness (mm):

Min: 20 Max: 35 Ave: 28

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1			10	Massive
2			20	dense massive
3				
4				other sublayers
5				all massive
6				

Comments and XRD Mineralogy:

current smoothed crust on pillow basalt fragment

Subsan

D5-2 CC Surface Scrape 3.6g

XRD

Substrate Description

Rock Type: Vesicular basalt

Description: Not cut - altered glassy rind -

K-Ar date, cut & describe

Biology (?): Encrusting Forams

Described by: HEIN

Subsampled by: LEN

D5-~~5~~2

D5-~~3~~2

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): Pebbles + Cobbles Location: V2-91-CP

Sample Id: D5-3 Weight (kg): 2.5 Depth (m): 4300 - 3900

Mn Crust Description

Surface Texture: Smooth

Mn Crust Thickness (mm):

Min: 10 Max: 30 Ave: 25

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				up to 4
2				massive layers
3				
4				
5				
6				

D5-3

Comments and XRD Mineralogy:

Crust Fragments, most probably broken off D5-2

Subsa

D5-3-1 cc, Pt, REE 0-30 bulk (250 gm)

definately a piece of Crust from D5-2

Substrate Description

Rock Type: NONE

Description:

Biology (?):

Described by: HEIN

Subsampled by: HEIN

SAMPLE DESCRIPTION

Cruise Id: 91-AV-1912 Size (cm): 3 Cobbles Location: V2-91-CP

Sample Id: D5-4 Weight (kg): 1-5 Depth (m): 4300-3700.

Mn Crust Description

Surface Texture: NONE TO Smooth

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

NONE

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)

All used for Tubing

Substrate Description

Rock Type: 3 Basalt Fragments

Description: Aphanitic to Plagioclase phyric gray to brown-gray alteration Rim

Biology (?):

Described by: HEIN

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-1712 Size (cm): Pebbles + small cobbles Location: V2-91-CP

Sample Id: D5-5 Weight (kg): 3 Depth (m): 4300-3900

Mn Crust Description

Surface Texture: cement smoothed

Mn Crust Thickness (mm):

Min: 2 Max: 30 Ave: 10

Outer to Inner Layers (mm)

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

Comments and XRD Mineralogy:

mixed Fe-Mn oxides + phosphorite ; Fragments

Subsam

Substrate Description

Rock Type: phosphorite

Description: pale brown to cream-colored - intimately mixed w/ ~~Fe~~ Mn in zone

Biology (?):

D5-5-1 DPTS

D5-5-2 DPTS

½ USGS

½ USGR

Described by: HEIN

Subsampled by: HEIN

SAMPLE DESCRIPTION

Cruise Id: Karin Ridge Size (cm): 4 x 2.5 x 1.5 Location: V2-91-CP

Sample Id: D5-6 Weight (kg): ~1 Depth (m):

Mn Crust Description

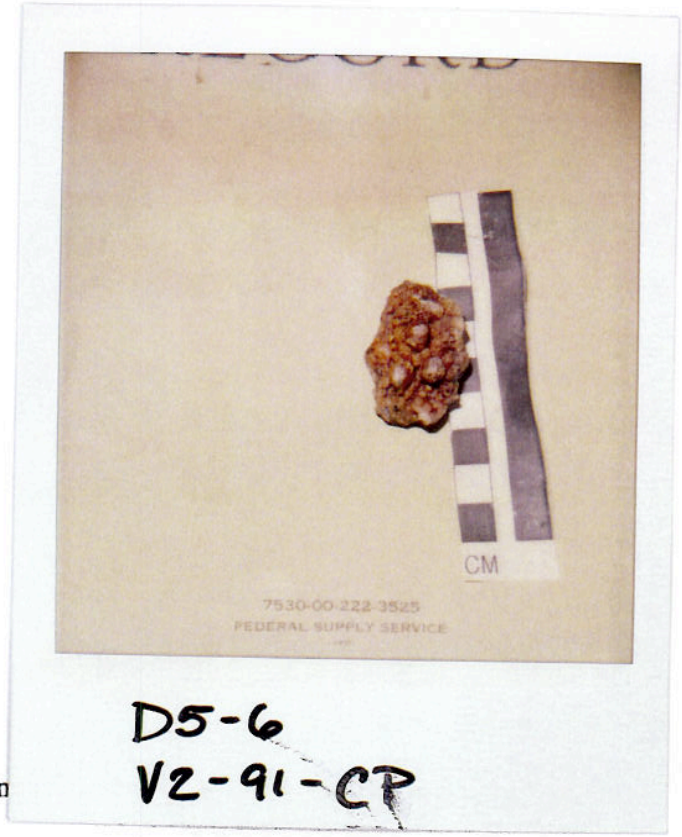
Surface Texture:

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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



Comments and XRD Mineralogy:

Subsan

XRD D5-6

Substrate Description

Rock Type: Phosphorite ? (maybe zeolite)

Description: Small piece w/ botryoidal surface found in with small nodules of D5-1

Biology (?):

Described by: Jorie

Subsampled by: Jorie