CAM-1

Dredge Sample Summary Sheet

Sample ID	Bulk CC	Layer CC	Pt & Au	Ree	OC	DPTS/TS	XRD	35mm Photo	Paleo	Archive
CAM1-1	X	2X			X		4X			Mn an
CAM1-2										
CAM1-3					X	X	X			
CAM1-4										
CAM1-5										
1-6										
1-7										

Cluno-
Perox

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 20 x 14 x 1 Location: V2-91-CP

Sample Id: CAM-1-1 Weight (kg): 4 Depth (m): 4200-3600

Mn Crust Description

Surface Texture: Current-smoothed botryoidal To lizard Skin

Mn Crust Thickness (mm):

Min: 3 Max: 8 Ave: 6

Outer to Inner Layers (mm)

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

Comments and XRD Mineralogy:

At least 1 side clear encrusted host rock removed

Subsampl

CAM1-1A But IC CC 0-6 5.4 gm

CAM1-1B CC 0-≤0.3 mm 2.6 g Surface scrape

CAM1-1C OC + XRD 38 gm

CAM1-1A XRD & CAM1-1B XRD Have vial w/ Mn growing on top of a Pyroxenes crystal

K-Ar date Hornblende

after surface scrape & USGS 1/3 USGS

CAM1-1D ≤0.3-0.5 mm Surface Scrape CC + XRD

Substrate Description

Rock Type: Breccia

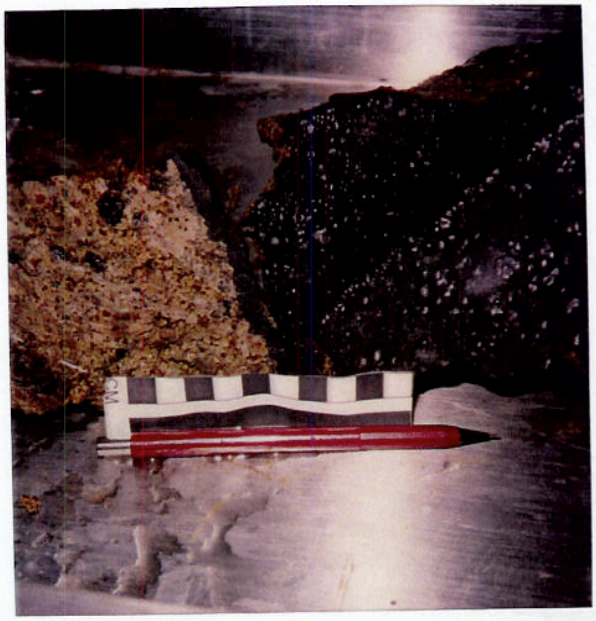
Description: basalt clasts altered brown to red-yellow brown + large hornblende xstals in basalt-crystal hash matrix

Biology (?):

Described by: HEIN

Subsampled by: J.W. / Hein

LeV



CAM1 - 1

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 16 x 9 x 8 Location: V2-91-CP

Sample Id: CAM 1-2 Weight (kg): 1 Depth (m): 4200-3600

Mn Crust Description

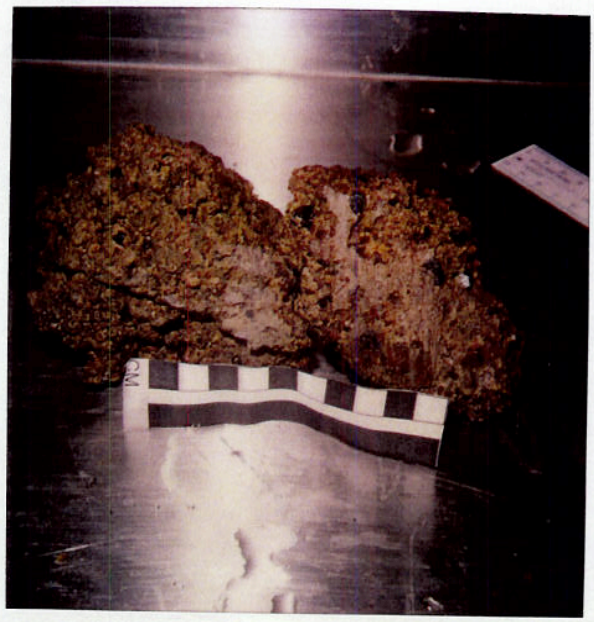
Surface Texture: NO Crust

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1				
2				NONE
3				
4				
5				
6				



CAM 1-2

Comments and XRD Mineralogy:

Subsa

Substrate Description

Rock Type: Breccia

Description: Same as CAM1-1

Combine w/ 1-1 for K-Ar dating

½ USSR ½ USGS

Biology (?):

Described by: HEIN

Subsampled by: Hein

SAMPLE DESCRIPTION

Cruise Id: 91-AV-1/2 Size (cm): 10 x 7 x 6 Location: V2-91-CP

Sample Id: CAM 1-3 Weight (kg): < 1 kg Depth (m): 4200-3600

Mn Crust Description

Surface Texture: Current Smoothed botryoidal Patchy

Mn Crust Thickness (mm):

Min: < 1 Max: 2 Ave: 1

Outer to Inner Layers (mm)

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

Comments and XRD Mineralogy:

Subsa

CAM 1-3 OC + XRD 20 gm

1-3 TS

Substrate Description

Rock Type: Vesicular Basalt

Description: Dark grey, rel. Fresh - altered glassy rind; Sparse to CKA vesicle fill

½ USSR

½ USGS

Biology (?):

Described by: HEIN

Subsampled by: HEIN

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 11 x 8.5 cm Location: ~~V2-91-CP~~ SW. Karin Ridge

Sample Id: CAM1-4 Weight (kg): 1.2 Depth (m): 42-3620M

Mn Crust Description

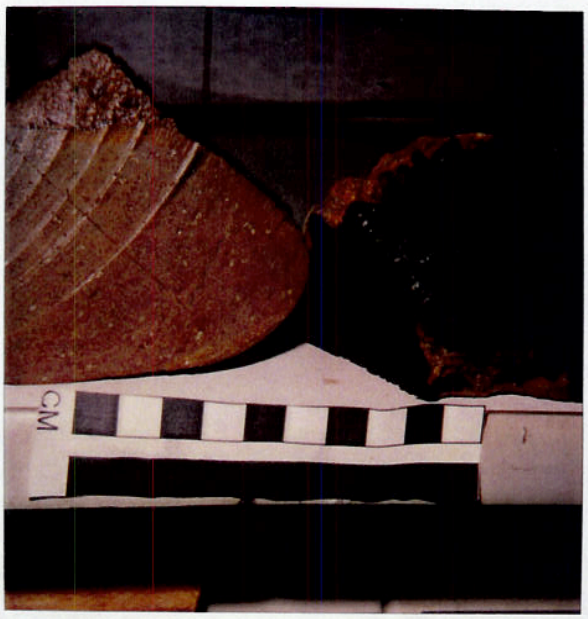
Surface Texture: Dominantly Smooth to Botryoidal Granular on the sides

Mn Crust Thickness (mm):

Min: 1.0 Max: 2.0 Ave: 1.0

Outer to Inner Layers (mm)

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



91-AV-19/2
CAM1-4

Comments and XRD Mineralogy:

Botryoidal texture is more pronounced where the current seemed inhibited

Subsam

Substrate Description

Rock Type: Basalt cobble w/ breccia

Description: Rounded Basalt cobble, brown w/ moderately fresh plagioclase. Breccia is fine with 1-2mm basalt clasts

Biology (?): None

½ USGS
½ USSR

Check plag for K-Ar

Described by: J.S.

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 20 pieces 1-4.5 width 2.8-6.5 length Location: ~~V2-91-CP~~ SW Loran Ridge

Sample Id: CAM 1-5 Weight (kg): 0.5 Depth (m): 46 - 3800m

Mn Crust Description

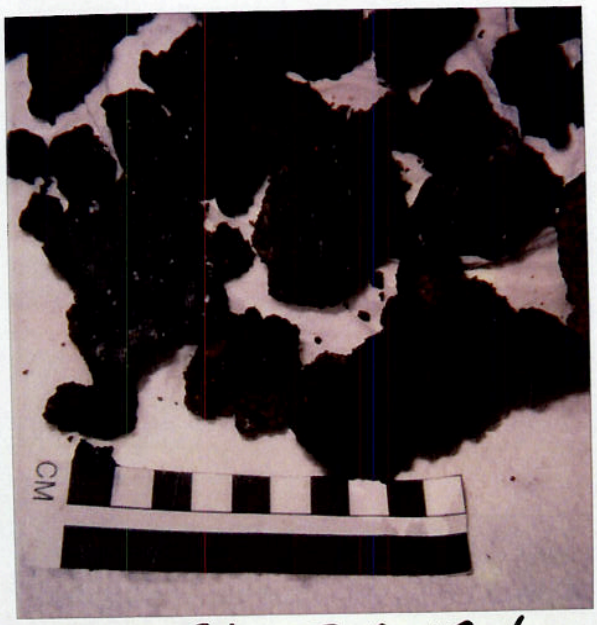
Surface Texture: Low botryoidal - curren smoothed

Mn Crust Thickness (mm):

Min: 10 Max: 25 Ave: 15

Outer to Inner Layers (mm)

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



91-AV-19/2
CAM 1-5

Comments and XRD Mineralogy:

Crusts are broken off of substrate possible CAM 1-1

Black, dense with current induced botryoids

Subsa

Surface scraped combined with CAM 1-1

Substrate Description

Rock Type: Breccia to conglomerate

Description: Highly altered vesicular basalt, fine grained matrix light brown to yellowish brown

Biology (?): None

½ U.S.S.R

½ U.S.G.S.

Described by: L.S.

Subsampled by: LeV

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 50-100 Very small pieces Location: ~~V2-91-CP~~ SW Karin Ridge

Sample Id: CAM1-6 Weight (kg): 0.2 kg Depth (m): 42-3600 m

Mn Crust Description

Surface Texture: Botanic / granular to Black 7mm thick crusts (texture is broken up)

Mn Crust Thickness (mm):

Min: _____ Max: 7 Ave: To

No Photo

Outer to Inner Layers (mm)

	Min	Max	Ave	Texture & Color
1			6	Black dense
2				~~possibly current~~ smoothed
3				
4				
5				
6				

Comments and XRD Mineralogy:

Substrate Description

Rock Type: Disaggregated Breccia

Description: Sub-Rounded to Clastic Basalt clasts. Clasts are highly altered.

Biology (?): None

Described by: GS

Analyses

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

Subsampled by:

SAMPLE DESCRIPTION

Cruise Id: 91-AV-19/2 Size (cm): 10 pieces 1.7 x 3.5 length 1.5 x 3.5 width Location: ~~V2-91-CP~~ SW. Korin Ridge

Sample Id: CAM1-7 Weight (kg): < 1 Depth (m): 46-3805m

Mn Crust Description

Surface Texture: 2 pieces only

petina granular + eroded

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Outer to Inner Layers (mm)

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

NO photo

Comments and XRD Mineralogy:

Black

Substrate Description

Rock Type: Basalt pebbles subrounded to rounded

Description: Brown Similar to CAM1-4 2 with Mn crust eroded off

Biology (?): None

Described by: M.S

Analyses

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

All USSR

Subsampled by: