SAMPLE DESCRIPTION

Cruise Id: L5-83-HW Size: _____ Location: S.P. Lee Guyot

Sample Id: D31-A1 Weight: _____ Depth: _____

Mn Crust Description

Surface Texture: granular overprinting botryoidal

Mn Crust Thickness:

Min: 1mm Max: 4mm Ave: 3mm

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.	1mm	4mm	3mm	black, massive
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

Substrate Description

Rock Type: Volcaniclastic breccia

Description:

limestone (foram sand). Pebble sized angular to subrounded clasts in limestone matrix. ~10% clasts, clasts are altered basalt.

Encrusting forams on top

ANALYSES

Subsample & Type	Analysis	Weight
Bulk new crust	CC (Reston)	12g 6/88 Job# BZ 89 (from submittal sheet)

D31

Described By: Jung-Keuk Kang 6/88 Subsampled By: Jung-Keuk Kang 6/88

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: 49 D 31 A1-1

Location: S.P. Lee S.

Size: _____ Weight: ~ 1.1 kg (0.27 kg/in²)

Mn crust thickness: None left

Total: min: _____ max: _____ ave: _____

Inner crust: min: _____ max: _____ ave: _____

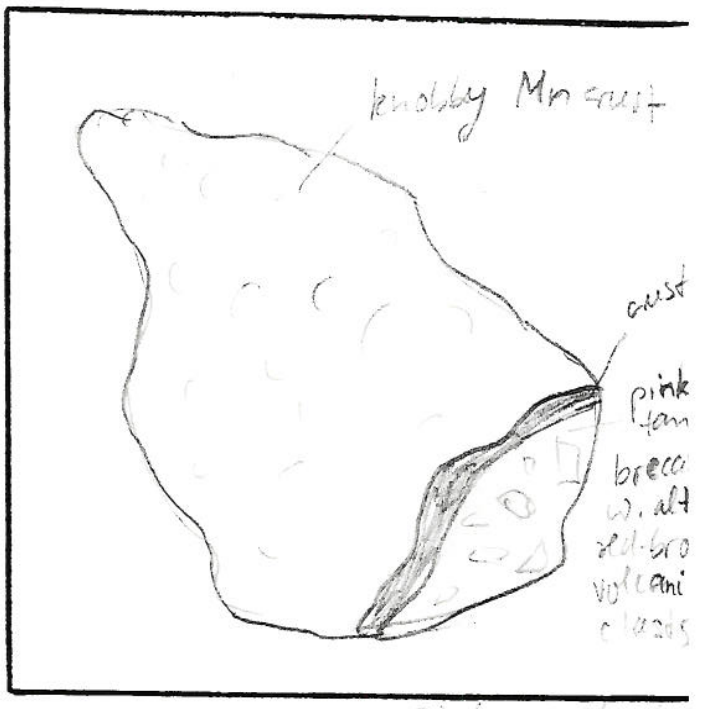
Outer crust: min: _____ max: _____ ave: _____

Surface texture: no crust left

Internal structure: _____

layered: _____
laminated: _____
massive: _____
porous: _____
dendritic: _____
other: _____

Mineralogy (XRD): _____



picture on back →

Associated alteration, phosphorite, or hydrothermal deposits: _____

Substratum:

Rock type: Volcaniclastic breccia with replaced limestone cement

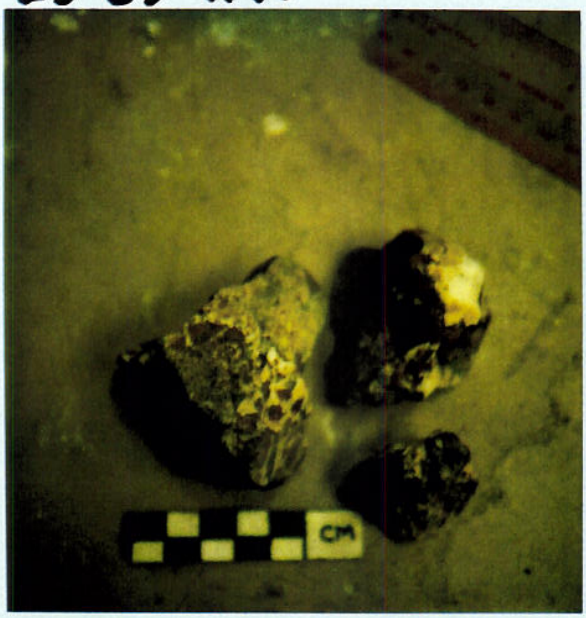
Description: Cement is replaced foram sand, now mostly apatite. Clasts are pebble-sized angular, altered basalt. All this surrounds a cobble of altered basalt

Mineralogy (XRD): _____

Analyses and subsamples:

analysis:	analyst:
XRD - composite crust + substrate	Janet Haggart, Lisa C. Daniel
Chemistry - bulk substrate	USGS

LS-83-HW



D31-A1-1

SAMPLE DESCRIPTION

Id: L5-83-HW Size: _____ (cm) Location: S.P. Lee Guyot

Sample Id: D31-A2 Weight: 4 kg (kg) Depth: 1600-1750 (m)

Mn Crust Description

Surface Texture: [illegible]

Mn Crust Thickness (mm):

Min: [illegible] Max: [illegible] Ave: _____

Layers (Outer to Inner)(mm):

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

L5-83-HW

D31-A2

Comments and XRD Mineralogy:

Substrate Description

Rock Type: Altered Volcanic Breccia with phosphatic [illegible]

Description:

[illegible]gy ?:

ANALYSES

Subsample Number	Analysis	LayerThickness-Explanation

[illegible] J. Schulz [illegible]

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D31-2

Location: S.P. Lee Guyot

Size: _____ Weight: <1kg

Mn crust thickness:

Total: min: _____ max: _____ ave: _____

Inner crust: min: _____ max: _____ ave: _____

Outer crust: min: _____ max: _____ ave: _____

Surface texture: No Mn crust

Internal structure: _____

layered: _____
laminated: _____
massive: _____
porous: _____
dendritic: _____
other: _____

Mineralogy (XRD): _____

Associated alteration, phosphorite, or hydrothermal deposits: _____

Substratum:

Rock type: Volcanic ash (breccia, cemented) and to some extent replaced by phosphorite

Description: Small disaggregated pieces

Mineralogy (XRD): _____

L5-83-HW
D31-2

Analyses and subsamples:

analysis:	analyst:
XRD	C. Daniel
I: substrate	
Chemistry - bulk substrate	

SAMPLE DESCRIPTION

Id: L5-83-HH Size: 6x4x3 cm (cm) Location: S.P. Lee Guyot

Sample Id: D31-B Weight: [illegible] kg (kg) Depth: [illegible] (m)

Mn Crust Description

Surface Texture: Botryoidal to smoothed botryoidal

Mn Crust Thickness (mm):

Min:_____ Max:_____ Ave:_____

Layers (Outer to Inner)(mm):

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

L5-83-HW

D31-B

Comments and XRD Mineralogy:

Crust with no substrate, laminated on the lower portion, vitreous and very black

Substrate Description

Rock Type:

Description:

gy ?: encrusting foram

J. Schulz

ANALYSES

Subsample Number	Analysis	LayerThickness-Explanation

Sample Description

Cruise I.D: L5-83-HW

Sample I.D: Sta: D31-10

Location: S.P. Lee Guyot

Size: _____ Weight: _____

Mn crust thickness:

Total: min: [illegible] max: [illegible] ave: _____

Inner crust: min: _____ max: _____ ave: _____

Outer crust: min: _____ max: _____ ave: _____

Surface texture: Smooth

Internal structure: _____

layered: _____
laminated: _____
massive: _____
porous: _____
dendritic: _____
other: _____

Mineralogy (XRD): _____

Associated alteration, phosphorite, or hydrothermal deposits: _____

Substratum:

Rock type: Very Altered porphyritic basalt

Description: with hyaloclastite pieces cemented to outer surfaces. Hyaloclastite is cemented by phosphorite replaced carbonate (reacts mildly w/ HCl)

1 Small piece vesicular basalt fresh w/ altered volcaniclastic above

Mineralogy (XRD): _____

L5-83-HW
D31-10

Analyses and subsamples:

analysis:	analyst:
XRD	C Daniel
T substrate	
Chemistry-bulk substrate	U.S.G.S.
Density	C Daniel