1/1

DREDGE OPERATIONS LOG

			JD	LOCAL
CRUISE	KODOS97-4	DATE	245	9-2-97
STATION	St. ~~19~~ 20	CHIEF SCIENTIST	Moon / Hein.	
DREDGE NO.	D ~~13~~ 14	TECH ON WATCH		
DEPTH INTERVAL(m)	2390 - 2142			

Corrected 2350 - 2250

ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
05:15	06:05	07:35	08:21
11°45.138'	11°44.693, 161°35.048	11°45.402	11°45.443
161°35.421'		161°35.164	161°34.652
2711	2390	2639	2477

Site Description and Target:

Lomillik seamount dredging 2,300 ~ 1,500 m

Operation*	GMT	Depth(m)	Wire Out(m)	Tension	HDG/SPD	Comments
on Bottom	06:05	2390	2700	1.1	119.3 / 0.9	
Wire out	06:08	2342	2800	1.3	126.1 / 1.3	11°44.676, 161°35.056
Begin Start		"	"			
Dredging	06:18	2297	2854	1.4	165.2 / 0.9	11°44.555, 161°35.038
Bites	06:30	2190	2888	2.2, 2.5	186. / 1.0	11°44.424, 161 34 951
(catch)				2.5, 2.6, 2.7	2.9, 3.3, 3.5,	3.5 [4.5]
Bites	06:41	2149	2833	3.5~5.2	155 / 0.5	11°44.34 161°34 850
(didnot)	07:00	2142	2365 (2929)	2296.	~~[illegible]~~ (07:25)	2664
pull out	07:34	2500	2800	2.0	326.1 / 1.5	11°45.511N, 161°35.183E
off Bottom	07:35	2639			296.8 / 1.58	11°45.4 / 161°35.164
off Station	08:21	2477				11°45.443 / 161°34.65

*on/off bottom, bites, etc.

Other Comments:

D 14

DREDGE SAMPLE LOG

			JD	LOCAL
CRUISE	KODOS97-4	DATE	247	9-4-97
STATION	21		GMT	LOCAL
DREDGE	D14	TIME	0708-0954	1908-2154
DEPTH INTERVAL(m)	2505-2492	LATITUDE	(N,S) 08° 54.74' - 08° 54.68'	
DEPTH(m) CORRECTED	2505-2492	LONGITUDE	(E,W) 160° 36.99' - 160° 37.0	

TOTAL WEIGHT : DREDGE 1-1 CRUST < 0.1

%OF ROCK COVERED BY CRUST 100

%BROKEN FROM : OUTCROP 100 TALUS 0 except Pumice

THICKNESS OF CRUST : MAX 2 MIN patina AVG 1

DOMINANT SURFACE TEXTURE granular

SUBSTRATE LITHOLOGY Phosphorite, replaced Carbonate 55% + Ironstone 0.4 kg
Pumice 0.7 kg

NODULES PRESENT ∅

REMARKS: ~75% pumice by vol.
70% pumice by wt.

KODOS
97-4
D14
KODOS 97-4

Dredge Sample Summary Sheet

D14

Sample ID	Bulk CC	Layer CC	Pt & Au	REE	OC	DPTS/TS	XRD	35mm Photo	Archive	Paleo
D14-1A	X						X			
D14-1B							X			
D14-2A					X		X			

SAMPLE DESCRIPTION

Cruse Id: KODOS97-4 Size(cm): 6 pebbles Location: R2
Sample Id: D14-1 Weight(kg): 0.25 Depth(m): 2505 - 2492

Substrate Color: Orange-Brown

D14-1

Mn Crust Description

Surface Texture: granular

Mn Crust Thickness(mm):

Min: patina Max: 2 Ave: 1

Outer to Inner Layers(mm)

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

Comments and XRD Mineralogy:

Analyses

Subsample No.	Analysis	Layer Thick.	Wt.(g)
D14-1A	CC	bulk crust	10 g
D14-1B	XRD	bulk substrate	

Substrate Description

RockType: ~~phosphorite (replacing~~ bioclastic limestone)

50% KORD1
50% YSGS

Description: yellow-brown orange 6 pebbles & cobbles mn dendrites

bioclastic Limestone, large mullusk fragments - shell hash replaced by CFA(?)

Hard, except directly under the crust, where it is very soft.

Biology:

Described by: S. Zielinski

Subsampled by: Heinz Zielinski

SAMPLE DESCRIPTION

Cruise Id: KODOS97-4 Size(cm): 7 X 4.5 X 3.0 Location: R2

Sample Id: D14-2 Weight(kg): 0.15 Depth(m): 2505-2492

Mn Crust Description

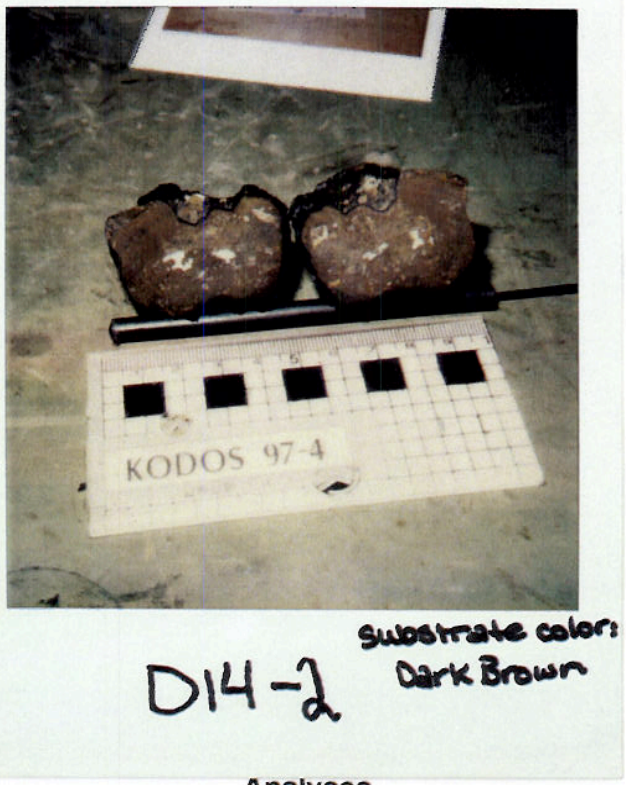
Surface Texture: Granular

Mn Crust Thickness(mm):

Min: patina Max: 3 Ave: 1

Outer to Inner Layers(mm)

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



Comments and XRD Mineralogy:

Substrate Description

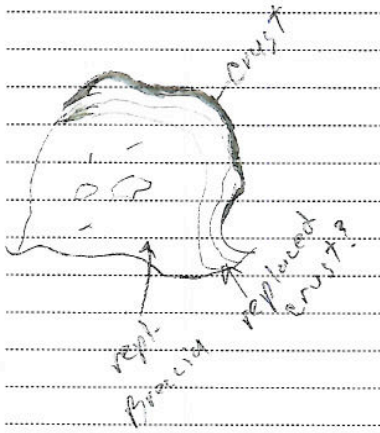
RockType: Ironstone

Description: Dark brown layered at top & Site

Goethite(?) FeOOH - replaced

Volcaniclastic - Carbonate breccia - layered part maybe replaced crust?

Biology:



Described by: Heir

Analyses

Subsample No.	Analysis	Layer Thick.	Wt.(g)
D14-2A	XRD, OC	Bulk Substrate	12g

50% KORDI
50% USGS

Subsampled by: Roberto

SAMPLE DESCRIPTION

Cruise Id: KODOS97-4 Size(cm): 9.5x6x5 to 2x2x1 Location: R2

Sample Id: D14-3 Weight(kg): 0.70 Depth(m): 2505 - 2492

Mn Crust Description

Surface Texture: no crust

Mn Crust Thickness(mm):

Min: _____ Max: _____ Ave: _____

no crust

Outer to Inner Layers(mm)

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

D14-3

Comments and XRD Mineralogy:

Substrate Description

RockType: pumice

Description: grey 27 pebbles & cobbles

Biology: 3 rocks have attached gelatinous pink organisms (< 20mm

Described by:

S Zielinski

Analyses

Subsample No.	Analysis	Layer Thick.	Wt.(g)
100% KORDI			

Subsampled by:

JD 247 it goes into PM 11/3

DREDGE OPERATIONS LOG

			JD	LOCAL
CRUISE	KODOS97-4	DATE	247	9-4-97
STATION	21	CHIEF SCIENTIST	Moon / Hein	
DREDGE NO.	D14	TECH ON WATCH		
DEPTH INTERVAL(m)	2505 - 2492			
Corrected Depth	2505 - 2492			

ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
06:19	07:08		
08° 25.635'	080 24.737		
160° 37.055	160° 36.992		
2516	2505		

Site Description and Target:

~~dredg~~ dredging, 2,500 ~ 2,200m

Operation*	GMT	Depth(m)	Wire Out(m)	Tension	HDG/SPD	Comments
ON bottom	07:08	~~2505~~	2715	0.5 1.2	184 / 1.1	
Wire out		~~2005~~	3004			
~~off bottom~~						
start dredging	07:15	2504	3005	0.5 1.2	184 / 0.18	08° 24.713 / 160° 37.015
small bite	07:24	2493	3043	1.5, 1.16	194 / 1.1	8° 24.56 / 160° 36.98
"	"	2492		1.16, 1.17	181 / 1.13	" / 160° 37.00
"	07:29	"	3040	1.7, 1.8		08° 24.488 / ~~08° 24.488~~
"	07:31	2484	3033	1.8, 1.9	191 / 0.19	08° 24.450 / 160 36.98
"	07:33	2480	3028	1.8 1.9	182 / 1.1	8° 24.44 / 160° 37.004
"	07:35	~~2476~~	3024	1.8, 1.7	182 / 1.10	"
"	07:36	2476	3021	1.8, 1.9, 2	0187 / 0.19	8° 24.41 / 160. 37.023
"	"	"	"	2.1	"	"
"	07:37	2474	3018	1.9, 2.2	191 / 0.19	8° 24.390 / 160° 37.029
good bite	07:38	2472	3013	2.3, 2.5	192 / 0.19	8° 24.376 / 160° 37.033

*on/off bottom, bites, etc.

Other Comments:

DREDGE OPERATIONS LOG

2/5

		JD	LOCAL
CRUISE	KODOS97-4	DATE	9-4-97
STATION	21	CHIEF SCIENTIST	Moon / Hein
DREDGE NO.	D14	TECH ON WATCH	
DEPTH INTERVAL(m)			

ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
	See Page 1		

Site Description and Target:

Operation*	GMT	Depth(m)	Wire Out(m)	Tension	HDG/SPD	Comments
Small bite	07:39	2471	3007	2.6, 2.5	192 / 1.0	08°24.363 / 160°37.028
"	07:43	2467	2983	2.7		
"				1.7, 1.8	188 / 0.8	08°24.321 / 160°37.045
"	07:45		2966	1.7, 1.8	189 / 0.8	8°24.31 / 160°37.03
"	07:45	2465	2957	1.7, 1.9, 2.0	186 / 0.8	8°24.30 / 160°37.03
"	07:51	2458	2963	1.7, 1.9, 2.0	184 / 0.9	8°24.21 / 160°37.04
"	07:53	2456	2953	2.0	184 / 0.8	8°24.21 / 160°37.04
"	07:57	2452	2966	1.8 1.8	192 / 0.8	8°24.17 / 160°37.03
"	07:58	2450	2964	1.8, 2.0 (2)	187 / 0.8	8°24.140 / 160°37.04
"	08:00		2957	1.8	188 / 1.1	
	08:01	2445	2949	2.0, 2.1	180 / 1.4	8°24.096 / 160°37.06
	08:07	2435	2911	1.8	192 / 0.9	8°24.01 / 160°37.03
	08:09	2432	2903	1.9, 2.0, 2.2, 2.3	196 / 1.1	8°23.98 / 160°37.00
				2.4		

*on/off bottom, bites, etc.

Other Comments:

3/3

DREDGE OPERATIONS LOG

			JD	LOCAL
CRUISE	KODOS97-4	DATE		9-4-97
STATION	21	CHIEF SCIENTIST	Moon / Hein	
DREDGE NO.	D14	TECH ON WATCH		
DEPTH INTERVAL(m)				

ON STATION	DREDGE ON BOTTOM	DREDGE OFF BOTTOM	OFF STATION
		09:54	10:35
		8°24.63	8°24.83
		160°37.048	160° 36.98
		2492	2516

Site Description and Target:

Operation*	GMT	Depth(m)	Wire Out(m)	Tension	HDG/SPD	Comments
Big bite	08/13	2422	2920	2.1, 2.5, 2.7	199.05	8°23.90 / 160°36.969
"	"	"	"	2.9, 3.0	3.1, 3.2, 3.4, 3.6, 3.8, 4.1, 4.3, 4.4, 4.6	
dredging	08/28	2427	2882	2.4	179 / 1.4	8°23.94 / 160°36.93
"	08/21	2437	2828	3.0, 2.8	174 / 1.3	8°24.04 / 160°36.93
"	08/48	2431	2888	4.4, 2.7	252 / 1.8	8°23.932 / 160°36.878
"	08:52	2424	2897	3.1	168 / 0.9	8°52.39 / 160°36.87
"	09:00	2417	2985	2.8	266 / 0.9	8°23.85 / 160°36.80
"	09:12	2424	2978	2.4	67.6 / 2.3	8°23.90 / 160°36.96
"	09:30	2447	2823	2.8	335 / 1.8	8°24.25 / 160°30.296
off bottom	09:54	2492	2503	1.6	2.0 / 1.7	8°24.63 / 160°37.048
off station	10:35	2516	0			8°24.83 / 160°36.98

*on/off bottom, bites, etc.

Other Comments:

8/13분 tention 4.6 정도의 Big bite가 있기 시작.
~ 시간정도를 이 큰 bite를 풀어내기 위해 배열 위치를
바꿔가면서 dredging 함.