KAIKO DIVE																
Sample	Time	Latitude	Longitude	Depth (m)	size X	size Y	Size Z	weight	rock type	color	phenocrysts	vesiculation	alteration	Mn coating (mm)	Remarks	DISTRIBUTION
K203-1	10:01	20° 39.89' N	158° 51.20' W	4181	15	10	5	3kg	mud or siltstone	yellowish brown				0.5	bioturvation	Clague,
K203-2	10:16	20° 39.92' N	158° 51.04' W	4186	16	10	4	2.5kg	siltstone	light blown				<1mm		Clague,
K203-3a	11:08	20° 39.96' N	158° 51.23' W	4210	13	7.1	1	1kg	aphyric basalt	dark grey	oliv	0	fresh	<1mm	thick glassy surface	Clague, Takahashi, Nakagawa,Kani
K203-3b	11:16	20° 39.96' N	158° 51.23' W	4213	13	7	2	800g	Ol basalt	black	oliv	<1%	week	1mm	sheet lava with 4mm glass rim and paragonite	Clague, Takahashi, Nakagawa,Kani
K203-3c	11:26	20° 39.96' N	158° 51.23' W	4213	8.5	8	2	400g	olivine basalt	dark grey	oliv	<2-3%	fresh	2mm	sheet lava with 3mm glass rim paragonite, marginal part of sheet flow	Clague, Takahashi, Nakagawa, Kani
K203-4a	11:32	20° 40.00' N	158° 51.42' W	4213	20	15	11	5kg	olivine basalt	black	oliv	<1%	week			Takahashi, Yokose, Nakagawa,Mashima, Kani
K203-4b	11:35	20° 40.00' N	158° 51.42' W	4211	7	6.5	4.5	400g	aphyric rock	black	olivine	<1%	week	2mm	pillow lava with 4mm glass rim and paragonite	Clague,
K203-4c	11:39	20° 40.00' N	158° 51.42' W	4211	8.5	6	3.5	200g	olivine basalt	black	olivine	<1%	fresh	0.7mm	pillow lava with glass rim and paragonite	Takahashi,
K203-5a	11:56	20° 40.03' N	158° 51.48' W	4220	11	9.5	5	1kg	Pl-Olivine basalt	black	Pl, Ol	<1%	fresh	1mm	lava with 5mm glass rim and paragonite	Takahashi, Nakagawa,
K203-5b	11:56	20° 40.03' N	158° 51.48' W	4220	8.5	5.5	5	400g	Ol basalt	black	Pl, Ol	<1%	fresh	1mm	pillow lava with glass rim and paragonite	Clague, Kani
K203-5c	11:56	20° 40.03' N	158° 51.48' W	4220	8	4.5	4	100g	Pl-Ol basalt		Pl, Ol	<1%			lava with glass rim, surface of sheet flow	Mashima,
K203-6a	12:12	20° 40.07' N	158° 51.59' W	4224	13	9	3	150g	aphyric basalt	black		20%	week	1mm	lava with glass rim and paragonite	Clague, Mashima
K203-6b	12:12	20° 40.07' N	158° 51.59' W	4224	5.5	4.2	2	80g	aphyric basalt	black		15%	fresh	1mm	lavas with 5mm glass rim	Yokose, Nakagawa,Mashima, Kani
K203-7	12:34	20° 40.23' N	158° 51.60' W	4226	17	11	6	4kg	silt	brown		bioturvation	strong	0.5mm		Clague,
K203-8	12:46	20° 40.28' N	158° 51.61' W	4215	40	22	14	14kg	aphyric basalt	black		37%	fresh	2-3mm	lavas with glass rim and paragonite	Clague, Takahashi,Yokose, Nakagawa, Kani
K203-9	12:56	20° 40.31' N	158° 51.62' W	4203	48	24	10	10kg	silt							Clague, Takahashi, Yokose,
K203-10	13:19	20° 40.36' N	158° 51.63' W	4112	27	18	10	5kg	silt	yellowish blown		bioturvation		6mm	siltstone with rock fragments or altered hyaloclastite	Clague, Takahashi, Yokose, Nakagawa,Kani
K203-11	13:25	20° 40.44' N	158° 51.64' W	4024	27.5	23.5	20	12kg	olivine basalt	black	ol. 10%	35%		2mm	lava with glass and paragpnite rim.	Clague, Takahashi, Yokose, Nakagawa,Mashima, Kani
K203-12a	13:32	20° 40.48' N	158° 51.65' W	3938	17.5	13	12	5kg	Pl-Ol basalt	black	Ol 8%, Pl 2%	40%		2mm	pillow lava with glass and paragpnite rim.	Clague, Takahashi, Yokose, Nakagawa,Kani
K203-12b	13:32	20° 40.48' N	158° 51.65' W	3938	13.5	8	4	800g	silt	brown				2mm	siltstone with rock fragments or altered hyaloclastite	Clague,
K203-13a	14:21	20° 40.66' N	158° 55.75' W	3865	10.5	10	9	2kg	Olivine basalt	dark grey	Ol 10%, Cpx?	40%			pillow lava	Clague, Takahashi, Yokose, Nakagawa, Kani
K203-13b	14:21	20° 40.66' N	158° 55.75' W	3865	7	6	4.5	150g	olivine basalt	black	Ol 5%	30%		2.5-3mm	pillow lava with glass and paragpnite rim.	Clague, Nakagawa,
K203-14	14:33	20° 40.68' N	158° 55.77' W	3831	51	12	10	9.5kg	silt	light blown				4mm	siltstone with rock fragments or altered hyaloclastite	Clague, Yokose,
K204-1	10:52	21° 30.25' N	159° 06.32' W	4202	12	10	6	400g	olivine basalt	black	Ol 10%	5%	week	1mm	pillow lava with 5mm glass rim	Clague, Takahashi, Nakagawa,Kani
K204-2	11:52	21° 30.38' N	159° 06.53' W	4188	9	7	4	100g	olivine basalt?	black		50%	week	1mm	pillow lava?	Clague, Yokose, Nakagawa, Kani
K204-3A	11:57	21° 30.52' N	159° 06.75' W	4189	14	10	7	1 kg	olivine basalt	black	Ol 10%	<1%	fresh	1mm		Clague, Takahashi, Nakagawa, Kani
K204-3B	12:01	21° 30.52' N	159° 06.75' W	4187	25	25	17	11kg	olivine basalt	black	Ol. 10%	<1%	week	1mm	pillow lava with 5mm glass rim	Clague, Takahashi, Nakagawa, Kani
K204-4	12:25	21° 30.65' N	159° 06.83' W	4169	25	15	15	9kg	olivine basalt	black	Ol. 10%	<1%	week	1mm	pillow lava with parlagonite and 1mm glass rim	Clague, Takahashi, Nakagawa, Kani
K204-5A	12:53	21° 30.78' N	159° 06.90' W	4133	6	5	4	150g	olivine basalt	black	Ol 5%	<1%	week	2mm	pillow lava with palagonite and 2mm glass rim	Clague, Nakagawa,
K204-5B	12:57	21° 30.78' N	159° 06.90' W	4133				800g	olivine basalt	black	Ol 15%	2-3%	fresh	<0.5mm	pillow lava with palagonite and 3-8mm glass rim	Clague, Takahashi, Nakagawa,Kani
K204-6A	13:08	21° 30.91' N	159° 06.91' W	4088	18	12	12	3kg	olivine basalt	black	Ol 10%,Pl 5%	0.10%	fresh	<1mm		Clague, Takahashi, Nakagawa, Kani
K204-6B	13:11	21° 30.91' N	159° 06.91' W	4088	11	8	3	150g	olivine basalt	black	Ol 10%	10%	fresh	0.2mm		Clague, Yokose, Nakagawa,
K204-6C	13:12	21° 30.91' N	159° 06.91' W	4088	18	16	7	2.5kg	Pl-Ol basalt	black	Ol <1%,Pl 10%	<1%	week	1.3mm	pillow lava with palagonite and 3-5mm glass rim	Clague, Takahashi, Yokose, Nakagawa,Kani
K204-7	13:20	21° 30.94' N	159° 06.92' W	4064	22	10	8	5kg	Pl-Ol basalt	dk grey	Ol 3%, Pl 3%	~5%	week	2mm	pillow lava knob w/ vuggy center	Clague, Takahashi, Yokose, Nakagawa, Kani
K204-8	13:27	21° 30.98' N	159° 06.92' W	4077	20	15	12	2.6kg	Ol basalt	black	Ol 11%	<1%	week	1~2mm	pillow lava with 10~6 mm glass rim	Clague, Takahashi, Nakagawa, Kani
K204-9	13:36	21° 30.02' N	159° 06.93' W	4046	37	15	11	15kg	Ol basalt	dark grey	Ol 10%	2-3%	fresh	0.5mm	pillow lava with 15~8mm glass rim	Clague, Takahashi, Yokose, Nakagawa, Kani
K204-10	13:45	21° 30.05' N	159° 06.92' W	4045	7	4	4	80g	Ol basalt	black		1%	fresh	1.5mm		Clague, Nakagawa,
K204-11	14:01	21° 30.09' N	159° 06.87' W	4045	17	8	6.5	700g	Ol basalt	darl grey	Ol 2%, Pl 4%	0		1mm	very fine grained, dense rock with 4mm grass	Clague, Takahashi, Nakagawa, Kani

K204-12	14:38	21° 30.26' N	159° 06.83' W	4031	17	10	6	3.8kg	Pl-Ol basalt	dark grey	Ol 5%	0	fresh	1mm		Clague, Takahashi, Yokose, Nakagawa, Kani
K205-1A	9:54	21° 3.40' N	158° 37.96' W	4637	15	13	5	1kg	volcaniclastics	greysh brown		0	week	1.5~0.5mm		Naka, Clague,Yokose
K205-1B	9:54	21° 3.40' N	158° 37.96' W	4637	11	9	7	1kg	volcaniclastics	black			strong	0.2mm	volcanic sand	Naka, Clague,Yokose
K205-1C	9:56	21° 3.40' N	158° 37.96' W	4637	16	13	9	2kg	volcaniclastics	dark brown			strong	2mm		Naka, Clague,Yokose,Kanamatsu
K205-2	10:05	21° 3.41' N	158° 37.95' W	4612	25	14	12	5kg	volcaniclastics	brown,grey,white/red				0.3mm	breccia	Naka, Clague,Yokose,Kanamatsu
K205-3a	10:09	21° 3.41' N	158° 37.95' W	4611	12.5	8	4	1.2kg	volcaniclastics	dk brown~black			strong	0.1mm		Naka, Clague
K205-3b	10:12	21° 3.41' N	158° 37.95' W	4611	10	8	4	400g	volcaniclastics	grey+brown			week	thin		Naka, Clague,Yokose
K205-3c	10:12	21° 3.41' N	158° 37.95' W	4611				1.8kg	volcaniclastics	brown			strong	0~2mm	silt	Naka, Clague,Yokose
K205-4	10:19	21° 3.44' N	158° 37.94' W	4586	68	19	14	33kg	hyaloclastite	brown			week	1~4mm	columnar jointed volcanic lappili, hyaloclastite polymictic	Naka, Clague,Yokose,Nakagawa,Kanamatsu
K205-5a	10:34	21° 3.46' N	158° 37.92' W	4560	29	17	12	5kg	hyaroclastite					0.1~3mm		Naka, Clague,Yokose,Nakagawa,Kanamatsu
K205-5b	10:45	21° 3.46' N	158° 37.92' W	4557	11	8	7	800g	volcaniclastics	dark brown				0.5mm		Naka, Clague,Yokose
K205-6	10:55	21° 3.50' N	158° 37.88' W	4543	29	18	16	4kg	volcaniclastics	dark brown			week	0.2mm	some liniations are observed	Naka, Clague,Yokose,Nakagawa,Kanamatsu
K205-7a	11:16	21° 3.53' N	158° 37.83' W	4425	20	12	10	2kg	volcaniclastics	varued		N/A		~1mm	breccia	Naka, Clague,Yokose,Mashima,Nakagawa
K205-7b	11:19	21° 3.53' N	158° 37.83' W	4425	10	10	8	800g	volcaniclastics	dk grey			strong	1.5mm		Naka, Clague,Yokose,Mashima
K205-7C	11:21	21° 3.53' N	158° 37.83' W	4425	10	7	6	800g	volcaniclastics	blown			strong	0.5mm		Naka, Clague,Yokose
K205-8a	11:30	21° 3.57' N	158° 37.82' W	4401	32	19	10	5kg	volcaniclastics	light brown			week	2mm		Naka, Clague,Yokose,Nakagawa,Kanamatsu
K205-8b	11:32	21° 3.57' N	158° 37.82' W	4401	8	7	6	400g	volcaniclastics	brown		<5%	strong	<0.5mm		Naka, Clague,Yokose
K205-8C	11:33	21° 3.57' N	158° 37.82' W	4401	9	6	6	400g	volcaniclastics	variable		N/A	week	<<1mm		Naka, Clague,Yokose
K205-9	11:43	21° 3.58' N	158° 37.80' W	4371	12	8	4	800g	volcaniclastics	brown		0	week	<0.5mm		Naka, Clague,Yokose
K205-10	14:14	21° 3.75' N	158° 37.36' W	4325	23	15	9	2.5kg	mudstone or fine hyaroclastite	brown		NA	strong	2~3mm		Naka, Clague,Yokose,Kanamatsu
K205-11a	14:25	21° 3.77' N	158° 37.36' W	4318	21	9	8	1kg	mudstone	light brown		NA	strong	thin		Naka, Clague,Yokose
K205-11b	14:30	21° 3.77' N	158° 37.36' W	4317	19	17	10	2.5kg	mudstone	med brown			strong	3.5mm		Naka, Clague,Yokose,Kanamatsu
K206-1a	9:51	21° 38.93' N	158° 48.07' W	4002	26	23	20	12kg	aphyric rock	black		30	week	3mm	high vesicular rock	Takahashi,Clague,Nakagawa,Yokose,Kani
K206-1b	9:56	21° 38.93' N	158° 48.07' W	4002	14	8	6	100g	aphyric rock	black		60	fresh	thin		
K206-2	10:10	21° 38.88' N	158° 48.00' W	3997	38	24	12	5kg	silt stone	light brown			fresh	0.5mm	looks bioturbated	Clague,Yokose
K206-3	10:12	21° 38.88' N	158° 48.00' W	3997	18	12	8	500g	silt stone	light brown		NA	fresh	1mm	massive	Clague,Yokose
K206-5	10:35	21° 38.84' N	158° 47.88' W	3987	30	29	19	10kg	volcaniclastics	brown		0	fresh	5~1mm		Takahashi,Clague,Nakagawa,Yokose,Kani
K206-6	10:41	21° 38.81' N	158° 47.84' W	3980	11	8	8	300g	silt stone	brown		40	week	3~2mm	lava	Clague
K206-7	10:48	21° 38.81' N	158° 47.83' W	3972	24	16	9	1kg	siltstone	pale brown				4~3mm	mud stone with angular basalt clasts	Takahashi,Clague,Nakagawa,Yokose,Kani
K206-8	10:56	21° 38.81' N	158° 47.83' W	3968	21	13	6	200g	siltstone	light brown			no	0.5mm	mottled with dark color spot	Clague
K206-9	11:07	21° 38.83' N	158° 47.73' W	3906	25	12	8	400g	aphyric rock	dk. Grey		0	week	2mm	pillow like but glass is absent	Takahashi,Clague,Nakagawa,Yokose,Kani,Mashima
K206-10	11:13	21° 38.84' N	158° 47.68' W	3886	30	21	7	1kg	siltstone	light brown		NA	fresh	0.5mm	mottled with bioturbation	Clague,Yokose
K206-11	11:27	21° 38.86' N	158° 47.62' W	3868	30	20	15	6kg	mudstone	brown		N/A	week	<1mm	relatively lithified mudstone w/ scattered clasts of mudstone	Clague,Yokose
K206-12	11:35	21° 38.86' N	158° 47.60' W	3848	9	6	3	200g	aphyric rock	black		<1%	week	4~1mm	with mud	Takahashi,Clague,Nakagawa,Yokose,Kani
K206-13	13:20	21° 38.98' N	158° 47.03' W	3758	18	14	9	600g	volcanoclastics	brown			strong	4~0.5mm		Takahashi,Clague,Nakagawa,Yokose,Kani,Mashima
K206-14	13:26	21° 39.' N	158° 46.' W	3727	17	14	11	1.5kg	aphyric rock	black		40	week	3~2mm	lava	Takahashi,Clague,Nakagawa,Yokose,Kani
K206-16a	13:34	21° 39.00' N	158° 46.99' W	3717	18	14	9	600g	volcanoclastics	brown			strong	4~0.5mm		Clague,Nakagawa,Yokose,Kani
K206-16b	13:36	21° 39.00' N	158° 46.99' W	3717	6	4	3	50g	volcaniclastics	tan&black		12%	week	2mm	ves. Basalt+mud	Clague,Yokose
K206-17	13:45	21° 39.' N	158° 46.' W	3664	5	5	2	60g	aphyric rock	black		30%	week	3~0.5mm	lava	Clague,Nakagawa
K206-18	13:49	21° 39.04' N	158° 46.92' W	3649	22	19	17	3kg	aphyric rock	black		15%		3mm	lava	Takahashi,Clague,Nakagawa,Yokose,Kani,Mashima

K206-19	14:08	21° 39.06' N	158° 46.89' W	3608	14	13	12	2kg	aphyric rock	black		25%		2mm	lava. Vesicles in out 1~2mm filled w/ It brown clay	Takahashi,Clague,Nakagawa,Yokose,Kani,Mashima
K207-1	9:20	19° 1.05	155° 11.55	2935	19	13	9	3.5kg	aphyric rock	black		10%	week	0mm	coarse grandmass	Yokose, USGS, Kimura, Takahashi
K207-2	9:30	19° 1.11	155° 11.56	2889	10	7	5	200g	Pl-Ol basalt	dk grey	Pl, 15%	1%	no	0mm	hyaloclastite	Yokose, USGS, Kimura,
K207-3	9:37	19° 1.13	155° 11.57	2883	9	8	8	300g	Ol basalt	dark greenish grey	Pl 10%, Ol 10%	10%		0mm	lava, pilotaxitic or intersertal texture, coarse grained ground mass	Yokose, USGS, Kimura,
K207-4	9:37	19° 1.13	155° 11.57	2883	8	7	5	200g	Ol basalt	black,dk grey	Pl 10%, Ol 10%	10%	week	0mm	lava, pilotaxitic or intersertal texture, coarse grained ground mass	Yokose, USGS, Kimura,
K207-5	10:09	19° 1.28	155° 11.64	2819	8	6	5	100g	volcanislastics	black					lava fragment	Yokose, USGS, Kanamatsu
K207-6	10:17	19° 1.30	155° 11.65	2808	5	5	3	60g	volcanislastics	black			no	1mm	thin glass	Yokose, USGS,
K207-7	10:28	19° 1.35	155° 11.67	2803	9	7	7	200g	hyaloclastite	black		0%	no	0mm		Yokose, USGS, Kanamatsu,Takahashi
K207-8	11:28	19° 1.36	155° 11.68	2803	20	9	8	1.5kg	volcanislastics	black		0%	week	1mm	glass	Yokose, USGS, Kanamatsu,Takahashi
K207-9	12:28	19° 1.37	155° 11.69	2803	17	14	12	4kg	volcanislastics	black		0%	week	0mm		Yokose, USGS, Kanamatsu,
K207-10	11:06	19° 1.55	155° 11.79	2728	10	7	7	400g	hyaloclastite	black		<3%	week	very thin	contain aphyric block	Yokose, USGS, Kanamatsu,
K207-11	12:06	19° 1.55	155° 11.79	2728	9	8	5	300g	hyaloclastite	black		<3%	week	0mm		Yokose, USGS,
K207-12	13:06	19° 1.55	155° 11.79	2728	10	8	7	400g	hyaloclastite			<5%	week	very thin		Yokose, USGS,
K207-13	11:22	19° 1.65	155° 11.84	2678	15	10	9	1kg	volcanislastics	black		0%	week	2-8mm	matri:volcanic glass	Yokose, USGS, Kanamatsu,Takahashi
K207-14	11:22	19° 1.65	155° 11.84	2678	10	7	6	300g	hyaloclastite	dk grey		5%	no	0mm	autobrecciate	Yokose, USGS,
K207-15	11:22	19° 1.65	155° 11.84	2678	7	6	6	250g	volcanislastics	black and dk green		5%	no	3mm?	like as vent breccia?	Yokose, USGS,
K207-16	11:33	19° 1.69	155° 11.88	2658	25	13	12	4kg	Ol basalt	dk grey		0-20%	fresh	0mm	Quench glass (6-4mm)	Yokose, USGS, Hanyu,Mashima,Kimura,Takahashi
K207-17	11:33	19° 1.69	155° 11.88	2658	12	10	10	1.5kg	Ol basalt	dk grey	Ol 5%	0-21%	fresh	1mm	pillow lava with glass (5mm)	USGS, Hanyu,Mashima,Kimura
K207-18	11:53	19° 1.88	155° 11.99	2568	9	9	6	400g	volcanislastics	black		0%	no	0mm	Ol bearing aphyric basalt	Yokose,USGS, Kanamatsu
K207-19	11:53	19° 1.88	155° 11.99	2568	13	10	8	1kg	Ol basalt	dk grey	Ol 20%	0-15%	fresh	0mm	pillow breccia with quench glass (8-5mm)	USGS, Hanyu,Mashima
K207-20	12:16	19° 2.01	155° 12.04	2483	12	9	8	800g	Ol basalt	black	0l 5%	10%	fresh		pillow lava with glass	USGS,Kimurai,Kanamatsu
K207-21	12:16	19° 2.01	155° 12.04	2483	9	8	7	200g	volcanislastics	dark grey		0%	no	Omm	contain basalt breccia	Yokose, USGS, Kanamatsu
K207-22	12:31	19° 2.12	155° 12.12	2429	15	13	9	2kg	Ol basalt	black	Ol 10%	5%	fresh	0mm	quenched glass (4mm) zoning of cooling texture	USGS, Hanyu,Mashima,Kimura,Takahashi
K207-23	12:51	19° 2.19	155° 12.18	2411	8	6	6	150g	Ol basalt	black	Ol 10%	5%	fresh	0mm	pillow basalt	USGS,Kimura
K207-24	13:16	19° 2.36	155° 12.26	2307	25	18	9	10g	Ol basalt	grey/dk grey	Ol <5%	10%	week	0mm	diktytaxitic textured groundmass lots of visible plagioclase and maficsingmass	Yokose, USGS,Mashima,Kimura,Kanamatsu,Takahashi
K207-25	13:57	19° 2.71	155° 12.40	2137	9	7	5	500g	Ol basalt	black	Ol 13%	2%		0mm		Yokose, USGS,Kimura,Takahashi
K207-26	13:57	19° 2.72	155° 12.41	2137	12	10	8	1kg	Ol basalt	black	Ol 5%		fresh	0mm	lava	USGS,Kimura,Takahashi
K207-27	13:57	19° 2.73	155° 12.42	2137	6	3	2	50g	Pl-Ol basalt	dk grey	Ol 3%, Pl3%	<5%	fresh	0mm	Lava, small phenocrysts	USGS
K207-28	13:57	19° 2.74	155° 12.43	2137	6	5	3	100g	Ol basalt	black	Ol 5%	5%	fresh	0mm	pillow lava	USGS+mud (no archive)
K208-1	9:28	19° 07.86	155° 06.21	2568	11	5	4	100g	Aphyric basalt	chacoal grey	Ol 2%	2-5%	fresh	0mm	pillow lava, finely vesicular pl. visible in groundmass	Kimura,Nakagawa,USGS
K208-2a	9:43	19° 07.91	155° 06.28	2539	11	10	7	700g	Aphyric basalt	black	Ol<1%	~5%	fresh	0mm	Prismatic pillow fragment 10mm glass	USGS,Kimura,Nakagawa,Hanyu
K208-2b	9:43	19o 07.91	155° 06.28	2539	14	10	10	1kg	Pl-Ol basalt	dk grey	Ol1%, Pl 1%	2%	fresh	0mm	nearly aphyric pillow basalt	USGS,Kimura,Nakagawa,
K208-3	10:02	19° 08.00	155° 06.35	2515	15	13	11	1kg	Aphyric rock	black	Ol<1%	<3%	week	0mm	1-2mm glass rim	Takahashi,USGS,Kimura,Nakagawa,Hanyu
K208-4	10:07	19° 08.02	155° 06.37	2496	17	14	11	2kg	Ol basalt	black	Ol 2%	5%	fresh	0mm	~5mm glass rim	Takahashi,USGS,Kimura,Nakagawa,Hanyu,Orihashi
K208-5a	10:16	19° 08.05	155° 06.43	2472	10	7	6	200g	Aphyric rock	black		5%	fresh	0mm	7mm glass layer	Nakagawa, Kimura,USGS
K208-5b	10:17	19° 08.05	155° 06.43	2472	12	10	8	600g	Aphyric basalt	black		<5%	fresh	0mm	3mm glass	Nakagawa, Kimura,USGS
K208-6	10:34	19° 08.13	155° 06.50	2446	18	13	13	2kg	Aphyric basalt	black	Ol 1-2%	2%	fresh	0mm		Nakagawa,Kimura,USGS
K208-7	10:59	19° 08.22	155° 06.65	2372	20	20	12	3.5kg	Aphyric basalt	dk grey	Ol 0.1%	3-5%	fresh	0mm		USGS,Kimura,Nakagawa,Hanyu,Mashima
K208-8	11:41	19° 08.38	155° 06.83	2338	21	16	15	2kg	Aphyric basalt	black		7%	fresh	0mm	pillow lava	Takahashi,USGS,Kimura,Nakagawa,Hanyu,Orihashi,Mashima,Yokose

K208-9	12:17	19° 08.56	155° 07.01	2243	16	15	12	2kg	Pl-Ol basalt	dk grey	Ol 3%, Pl 2%	~4%	week	0mm	vuggy vesicles concentrated near glass rind. Pillow basalt fragment	Takahashi,USGS,Kimura,Nakagawa,Hanyu,Yokose
K208-10	13:00	19° 08.75	155° 07.15	2213	21	9	9	1.3kg	Aphyric basalt	black	Ol ~1%	5% microvesicular	fresh	0mm	fine crystalling ground mass	USGS,Kimura,Nakagawa
K208-11	13:36	19° 08.93	155° 07.36	2204	11	7	6	150g	Ol basalt	dk grey	Ol<1%	~1%	fresh	0mm	aphyric basalt with rare small olivine	USGS,Kimura,Nakagawa
K208-12	13:50	19° 09.03	155° 07.45	2181	25	16	11	2kg	Ol basalt	black	Ol 3~5%	5%	week	0mm		Takahashi,USGS,Kimura,Nakagawa,Mashima,Yokose
K208-13	14:02	19° 09.10	155° 07.50	2156	19	17	12	1.8kg	Ol basalt	dk grey	Ol 5%	5%	week	0mm	pillow lava	USGS,Nakagawa,Kimura,Mashima
K208-14	14:24	19° 09.21	155° 07.60	2085	14	11	9	1kg	Ol basalt	black	Ol 5%	5%	fresh	0mm		Takahashi,USGS,Nakagawa,Kimura,Orihashi
K209-1a	9:12	19° 05.60	155° 16.60	1715	13	12	9	1kg	vesic pl-ol basalt	black	Ol 20%, plag	30%	fresh	0mm	Ol. Rich basalt with near surfacial past. Highly vesiculated (~1mm spherical bubbles)	USGS,Kimura,Nakagawa,Takahashi
K209-1b	9:13	19° 05.60	155° 16.60	1715	20	14	10	2kg	vesic pl-ol basalt	black	Ol 20%, plag	40%	week	0mm		USGS,Kimura,Nakagawa,Takahashi,Hanyu,Yokose
K209-2a	9:45	19° 05.79	155° 16.58	1639	9	9	7	500g	vesic oliv basalt	dk grey	Ol 10%	30%	week	0mm		USGS,Kimura,Nakagawa,Yokose
K209-2b	9:46	19° 05.79	155° 16.58	1639	10	8	7	300g	vesic oliv basalt	black		50%	fresh	0mm		USGS,Kimura,Nakagawa
K209-3a	10:29	19° 06.07	155° 16.56	1534	12	9	8	600g	vesic aphyric bas	dk grey	Ol <0.5%	40%	week	0mm	rounded	USGS,Kimura,Nakagawa,Yokose
K209-3b	10:30	19° 06.07	155° 16.56	1532	5	4	3	50g	vesiv pl-oliv bsalt	black	Ol 15%	10%		0mm		USGS,Kimura,
K209-4a	10:44	19° 06.23	155° 16.58	1456	13	12	10	1.8kg	dense picrite w/ pl	black	Ol 15-20%	0%		0mm	with 3-4mm glass small but abund ol phenos; probably subaerial pahoehoe bud,	USGS,Kimura,Nakagawa,Takahashi,Hanyu,
K209-4b	10:46	19° 06.23	155° 16.58	1456	18	14	10	1.5kg	f.g. dense basalt	dk grey	Ol <0.5%	0%	fresh	0mm	relatively glassy and high vesicularity zone with 7-10mm thickness	USGS,Kimura,Nakagawa,Yokose
K209-5a	11:00	19° 06.32	155° 16.62	1404	12	10	7	1kg	aphyric basalt	black		2%	fresh	0mm		USGS,Kimura,Nakagawa,Mashima,Yokose
K209-5b	11:02	19° 06.32	155° 16.62	1404	9	7	7	600g	dense ol-pl basalt	grey	Ol 5%	2%	fresh	0mm		USGS,Kimura
K209-6a	11:20	19° 06.43	155° 16.62	1329	9	6	6	200g	Pl-Ol basalt		Ol 5%, Pl 1%	<2%	fresh	0mm	dense, no large vesicles, in poly-crystalline aggregates, glassy rind	USGS,Kimura,Nakagawa,Takahashi,Orihashi
K209-6b	11:21	19° 06.43	155° 16.62	1329	8	5	5	100g	Ol basalt	black	Ol ~10%	15%	fresh	0mm	1~2mm glass rim ,maybe part of pahoehoe lava, olivine basalt with euhedral~subhedral coarse phenocryst and planty elongated Xtals	USGS,Kimura,Nakagawa,Hanyu,Tahkahashi,Yokose
K209-7	11:34	19° 06.55	155° 16.62	1288					silt with glass	light grey						USGS,Yokose
K209-8a	11:45	19° 06.62	155° 16.61	1230	8	7	5	200g	picrite	black	Ol 20%	0%	fresh	0mm	10mm glass rim	USGS,Kimura,Nakagawa,Hanyu,Tahkahashi,Yokose
K209-8b	11:45	19° 06.62	155° 16.61	1230	7	6	5	100g	finely ves ol bsalt	black	Ol 10%	30%	week	0mm	half of olivines are altered	USGS,Kimura,
K209-9a	12:16	19° 06.85	155° 16.56	1100	23	21	19	5kg	aphyric basalt	dk grey	Ol <1%	0%				USGS,Kimura,Nakagawa,Mashima,Tahkahashi,Yokose
K209-9b	12:19	19° 06.85	155° 16.56	1101	19	18	13	4kg	aphyric basalt	dk grey	Ol <1%	0%	week	0mm	has porous. Coasser crystallized patches that are altered to a tan color	USGS,Kimura,Nakagawa,Mashima,Tahkahashi
K209-10a	12:44	19° 06.99	155° 16.56	1035	10	9	4	100g	picrite	black	Ol 15%	40%	week	0mm		USGS,Kimura,Nakagawa,Tahkahashi
K209-10b	12:46	19° 06.99	155° 16.56	1034	17	13	12	3kg	aphyric basalt	black slightly colored in red	Ol <1%	30%	week	0mm		USGS,Kimura,Yokose
K209-11	13:08	19° 07.13	155° 16.56	962	7	7	5	100g	Pl-Ol basalt	black	Ol 10%	0%	fresh	0mm	evolved tholeiite; some Mn coating	USGS,Kimura
K209-12a	13:42	19° 07.30	155° 16.55	889	15	13	10	1.8kg	Ol basalt	dk grey	Ol 5%	20%	week	0mm		USGS,Kimura,Nakagawa,Mashima,Tahkahashi,Yokose
K209-12b	13:44	19° 07.30	155° 16.55	889	10	9	8	600g	Ol basalt	dk grey~black	Ol 3~5%	5~10%	fresh	0mm		USGS,Kimura,Nakagawa,Hanyu,Tahkahashi,Orihashi
K209-12c	13:45	19° 07.30	155° 16.55	889	8	7	3	80g	Pl-Ol basalt		Ol ~5%, Pl ~5%	30%	week	0mm	rounded, slightly reddish	USGS,Kimura

K209-13a	14:46	19° 07.58	155° 16.57	744	9	5	6	100g	aphyric basalt	black	Ol 1%	5%	fresh	0mm	with glass?	USGS,Kimura
K209-13b	14:53	19° 07.58	155° 16.57	743	6	6	4	80g	aphyric basalt	black	Ol <1%	5%	fresh	0mm		USGS,Kimura
K209-13c	14:56	19° 07.58	155° 16.57	742	6	5	2	50g	Pl-Ol basalt	dk grey	Ol 0.5%, Pl 0.5%	0%	fresh	0mm	small, dense fragment, nearly aphyric	USGS,Kimura
K210-1a	9:39	18° 53.24	156° 03.78	3895	14	13	6	800g	picrite	grey	Ol 30%	20%	week	0mm		USGS,Takahashi,Nakagawa,Yokose
K210-1b	9:39	18° 53.24	156° 03.78	3895	16	12	3	200g	volcaniclastics	reddish brown				very thin	small fragments probably basalts but altered	USGS,Yokose,Kanamatsu
K210-2	9:45	18° 53.27	156° 03.76	3873	8	7	4	100g	aphyric rock	dk grey		5%	fresh	0mm	highly small vesiculated, some microphenocryst	USGS,Nakagawa,Yokose
K210-3	10:05	18° 53.33	156° 03.70	3807	10	9	4	200g	aphyric rock	grey		10%	fresh	<0.5mm		USGS,Takahashi,Nakagawa
K210-4a	10:25	18° 53.39	156° 03.66	3737	14	9	8	600g	picrite	grey	Ol 10%	5%	week	very thin		USGS,Takahashi,Nakagawa,Yokose,Hanyu
K210-4b	10:26	18° 53.39	156° 03.66	3737	14	8	7	500g	hyaloclastite	reddish brown			week	0.2mm	strongly oxdized rock with prominent black patches	USGS,Takahashi,Nakagawa,Yokose,Kanamatsu
K210-5	10:38	18° 53.42	156° 03.63	3701	16	13	5	700g	aphyric rock	dk grey and partly reddish		5%	week	0mm		USGS,Takahashi,Nakagawa,Yokose
K210-6	10:43	18° 53.44	156° 03.59	3665	25	8	7	1kg	volcanoclastics	grey		<5%	strong	thin		USGS,Takahashi,Nakagawa,Yokose,Kanamatsu
K210-7a	11:19	18° 53.55	156° 03.46	3505	11	10	8	300g	aphyric rock	dk grey	Ol ~1%	10%	fresh	trace		USGS,Takahashi,Nakagawa
K210-7b	11:19	18° 53.55	156° 03.46	3505	16	14	10	2kg	aphyric rock	dk grey		15%	week		Lava clast in breccia	USGS,Takahashi,Nakagawa,Yokose
K210-8	11:36	18° 53.61	156° 03.38	3409	30	28	15	8kg	volcaniclastics	Red & black		N/A	strong	-	matrix is silt to coarse sand. Clast are severely fracture basalt. Some clasts retain primary texture, some are completely crushed	USGS,Takahashi,Nakagawa,Yokose,Kanamatsu
K210-9	12:26	18° 53.74	156° 03.15	3339												lost
K210-10	12:37	18° 53.75	156° 03.10	3288	18	14	7	1kg	volcaniclastics	dk brown		5~10%	week~strong	thin	variable vesicularities in the fragment (0~15%), the fragments show partly reddish	USGS,Takahashi,Nakagawa,Yokose,Kanamatsu
K210-11	12:45	18° 53.76	156° 03.07	3259												lost
K210-12a	13:04	18° 53.82	156° 02.99	3191	8	7	5	200g	aphyric rock	black		10%	fresh		fine vesicles	USGS,Takahashi,Nakagawa
K210-12b	13:04	18° 53.82	156° 02.99	3191	5	5	5	50g	Ol basalt	grey	Ol 8%, Pl 2%	0%	week	0mm	ancular olivine (oxdized?) very dark	
K210-12c	13:04	18° 53.82	156° 02.99	3191	8	6	5	150g	aphyric rock	dk grey	~1%	20%	fresh	trace		USGS,Nakagawa,Yokose
K210-12d	13:04	18° 53.82	156° 02.99	3191	4	4	3	35g	Ol basalt	grey	Ol <5%	5%	week	very thin		
K210-13	13:21	18° 53.84	156° 02.93	3134	22	15	6	2kg	aphyric rock	light grey	Ol <1%	0%	strong	thin	sparsely altered olivine phenocrysts	USGS,Takahashi,Nakagawa,Yokose
K210-14a	13:37	18° 53.87	156° 02.86	3045	14	9.5	8	1kg	Ol basalt	dk grey	Ol 30%	2%	fresh	0	rounded shape maybe rolling stone	USGS,Takahashi,Nakagawa,Yokose,Hanyu
K210-14b	13:37	18° 53.87	156° 02.86	3045	11	9	5	400g	Ol basalt	black	Ol 5%	40%	week	0mm	mud in vesicles	USGS,Nakagawa,Nakagawa
K210-14c	13:40	18° 53.87	156° 02.86	3043	12	12	8	2kg	Ol basalt	grey	Ol 5%	20%	week	<1mm	clay fills pore	USGS,Nakagawa,Nakagawa
K210-15a	14:00	18° 53.94	156° 02.72	2908	10	8	7	600g	Picrite	slightly reddish grey	Ol 20%	<1%	week	0.1mm	pale grey mineral fills some vesicles-silica or zeolite	USGS,Takahashi,Nakagawa(altered zeolite)
K210-15b	14:02	18° 53.94	156° 02.72	2908	10	8	7	600g	Picrite	slightly reddish grey	Ol 20%	<1%	week	0.1mm	pale grey mineral fills some vesicles-silica or zeolite	USGS,Takahashi,Nakagawa (flesh part)
K210-15c	14:05	18° 53.94	156° 02.72	2908	10	8	7	600g	Picrite	slightly reddish grey	Ol 20%	<1%	week	0.1mm	pale grey mineral fills some vesicles-silica or zeolite	USGS,Nakagawa,Kanamatsu,Yokose (matrix)
K210-16	14:21	18° 53.97	156° 02.65	2833	28	19	17	7kg	volcanoclastics	grey				very thin	highly vesiculated basalt fragment	USGS,Takahashi,Nakagawa,Yokose,Kanamatsu
K211-1	10:03	19° 07.98	156° 32.37	4663	24	15	11	2.2kg	volcanoclastics	dk grey clasts in grey-green matrix		N/A	strong	<<1mm	Ol basalt clast, smaller basalt clasts are altered green, grey-green matrix	USGS,Takahashi,Nakagawa,Yokose
K211-2	10:09	19° 07.98	156° 32.38	4655	17	7	5	500g	hyaloclastite	greenish grey				very thin		USGS,Takahashi,Kanamatsu,Yokose
K211-3a	10:31	19° 07.99	156° 32.48	4553	12	9	5	600g	Ol basalt	black	Ol 5%	1%	fresh	trace	with fine grained aphyric pach and glass	USGS,Takahashi,Nakagawa,Yokose
K211-3b	10:31	19° 07.99	156° 32.48	4553	9	8	8	400g	Ol basalt	black	Ol 5%	7%	fresh	trace		USGS,Takahashi,Nakagawa,Yokose
K211-4a	10:44	19° 07.99	156° 32.51	4514	12	9	9	600g	Ol basalt	dk grey	Ol 10%, Pl 5%	1%	week	0.1mm		USGS,Nakagawa,Yokose
K211-4b	11:44	19° 07.99	156° 32.51													
K211-5a	10:49	19° 08.00	156° 32.55	4477	28	11	11	6kg	Picrite	black	Ol 15%	3%	week	trace	greenish olivine, weathered clasts	USGS,Takahashi,Nakagawa,Yokose,Hanyu
K211-5b	10:51	19° 08.00	156° 32.55	4477	15	12	8	1.5kg	Ol basalt	grey	Ol 10%	0%	week	0mm		USGS,Takahashi,Nakagawa,Yokose,Hanyu
K211-6a	10:56	19° 08.01	156° 32.62	4430	9	8	7	500g	Ol basalt	black	Ol 15%	10%	week			USGS,Takahashi,Nakagawa,Yokose

K211-6b	10:56	19° 08.01	156° 32.62	4430	8	8	7	500g	Picrite	grey	Ol 10%	3%	week	very thin	with glass, vesicles small, olivine xenocrystine max 5mm size	USGS,Takahashi,Nakagawa,Yokose,Mashima
K211-7	11:13	19° 08.01	156° 32.70	4354	22	14	9	5kg	Picrite	black	Ol 20%	=	fresh	<1mm		USGS,Takahashi,Nakagawa,Yokose,Mashima, Hanyu
K211-8	11:17	19° 08.02	156° 32.72	4328	19	12	9	1kg	volcaniclastics	grey			week	<<1mm	nice grading is present but orientation of rock is not known SANDSTONE	USGS,Nakagawa,Kanamatsu,Yokose
K211-9	11:26	19° 08.03	156° 32.76	4304	10	8	6	200g	Ol basalt	dk grey	Ol 10%, cpx 2%	2~3%	fresh	<0.2mm	with 12mm glass rind, porphyritic and aphyric part	USGS,Takahashi,Nakagawa,Yokose
K211-10	12:38	19° 07.73	156° 32.74	4417	14	12	9	1.3kg	picrite	black	Ol 15%	<2%	fresh	<0.5mm	rounded outer surface; olivine has wide size range	USGS,Takahashi,Nakagawa,Yokose,Mashima, Hanyu
K211-11	13:33	19° 07.73	156° 33.09	4343					others						surface sediment with Mn coating, basalt glass chips	USGS,Nakagawa,Yokose,Kanamatsu
K211-12a	13:50	19° 07.74	156° 33.16	4295	18	10	9	1kg	picrite	dk grey	Ol 30%	20%	week	<0.5mm		USGS,Takahashi,Nakagawa,Yokose
K211-12b	13:50	19° 07.74	156° 33.16	4295	17	12	10	500g	aphyric rock	black		70%	week		mud in vesicles	USGS,Takahashi,Nakagawa,Yokose
K211-13	14:02	19° 07.73	156° 33.21	4302	16	13	11	3kg	picrite	grey	Ol 15%	3%	week	very thin	with glassy rind and altered layer	USGS,Takahashi,Nakagawa,Yokose,Mashima, Hanyu
K212-1a	10:07	20° 32.53' N	154° 56.23' W	4773	12	10	5	100g	volcaniclastics	brown			strong	0.1mm	laminated weekly	USGS,Takahashi,Kanamatsu,Johnson,Yokose
K212-1b	10:07	20° 32.53' N	154° 56.23' W	4773	12	10	7	500g	picrite	black	Ol 20%	<1%	week	<1mm		USGS,Takahashi,Hanyu,Johnson
K212-2a	10:17	20° 32.56' N	154° 56.26' W	4747	13	12	11	1kg	picrite	grey	Ol18%	0	week	<1mm	pillow fragment w/ indurated mud, entire thing coated with MnO	USGS,Takahashi,Hanyu,Orihashi,Johnson,Yokose
K212-2b	10:17	20° 32.56' N	154° 56.26' W	4747	12	9	8	600g	Ol basalt	black	Ol 30%	0	fresh	0.5-1%	mud layer observed between lava and Mn layer	USGS,Takahashi,Johnson
K212-2c	10:17	20° 32.56' N	154° 56.26' W	4747	13	10	7	100g	volcaniclastics	brown			no	0.5mm	faint crude bedding	USGS,Takahashi,Johnson,Yokose
K212-3a	11:00	20° 32.66' N	154° 56.33' W	4568	27	16	14	4kg	Ol basalt	black	Ol 5%	25%	fresh	0.3mm		USGS,Takahashi,Johnson,Mashima,Orihashi,Hanyu
K212-3b	11:00	20° 32.66' N	154° 56.33' W	4568	17	17	14	4kg	picrite	dk grey	Ol 20%	6%	fresh	<1mm		USGS,Takahashi,Johnson,Mashima,Orihashi,Hanyu
K212-4	11:20	20° 32.80' N	154° 56.41' W	4496	21	19	12	3kg	Ol basalt	dk grey	Ol 20%	<1%	week	very thin		USGS,Takahashi,Johnson,Mashima,Hanyu
K212-5	11:28	20° 32.83' N	154° 56.41' W	4474	11	7	6	100g	volcaniclastics	brown			no	~1mm		USGS,Takahashi,Kanamatsu,Johnson,Yokose
K212-6a	11:47	20° 32.89' N	154° 56.45' W	4402	10	9	7	600g	Ol basalt	grey	Ol 15%	<1%	fresh	4-5mm		USGS,Takahashi,Johnson,Hanyu
K212-6b	11:47	20° 32.89' N	154° 56.45' W	4402	20	19	15	3kg	Ol basalt	dk grey	Ol 205	<0.1%	fresh	<0.5mm	dense pillow lava with altered glass rim vesicules less than <0.1%	USGS,Takahashi,Johnson,Yokose,Hanyu,Orihashi
K212-7a	12:17	20° 33.02' N	154° 56.53' W	4319	15	12	11	1kg	Pl-Ol basalt	dk grey	Pl 5%, Ol 3%	0	fresh	<0.2mm	dense angular pillow lava fragments	USGS,Takahashi,Johnson,Hanyu
K212-7b	12:17	20° 33.02' N	154° 56.53' W	4319	8	5	4	0.2kg	picrite	dk grey	Ol 20%, Pl 10%, Cpx<3%		week	<1mm	angular fragments	USGS,Takahashi,Johnson
K212-8	12:44	20° 33.13' N	154° 56.60' W	4219	11	10	9	800g	Ol basalt	dk grey	Ol 10%	5%	fresh	<0.5mm	0.5mm paragonite rim, Ol ;max 2mm av. <1mm	USGS,Takahashi,Johnson,Orihashi
K212-9	13:31	20° 33.29' N	154° 56.70' W	4038	15	14	9	2kg	Pl-Ol basalt	grey	Ol 3%, Pl <1%	2%	week	1mm	some vesicules are filled with mud	USGS,Takahashi,Johnson,Mashima
K212-10	13:45	20° 33.32' N	154° 56.75' W	3945	15	10	9	1kg	Ol basalt	black	Ol 2%	0.50%	fresh	<1mm	with 1mm glass	USGS,Takahashi,Johnson,Mashima,Orihashi,Hanyu
K212-11a	14:21	20° 33.52' N	154° 56.95' W	3739	13	13	9	1.5kg	Ol basalt	dk grey	Ol 3%	0	fresh	1~2mm	with glass?	USGS,Takahashi,Johnson,Orihashi,Mashima
K212-11b	14:21	20° 33.52' N	154° 56.95' W	3739	7	5	4	100g	Ol basalt	dk grey	Ol 15%	0	week	0.5mm		USGS,Takahashi,Johnson
K212-11c	14:21	20° 33.52' N	154° 56.95' W	3739	17	12	7	800g	Ol basalt	black	Ol 5%	0%	fresh	2.5mm		USGS,Takahashi,Johnson
K212-12a	14:32	20° 33.57' N	154° 56.99' W	3666	17	13	10	1.5kg	Ol basalt	dk grey	Ol 5%	<1%	fresh	0.5mm	dense pillow fragment with Mn coating, very small vesicules (0.1-0.5mm)	USGS,Takahashi,Johnson,Orihashi,Mashima,Hanyu
K212-12b	14:32	20° 33.57' N	154° 56.99' W	3666	8	7	5	100g	Ol basalt	grey	Ol 4%	<0.5mm	week		dense pillow fragment 1/3 of the clast coated in ~1 cm indurated mud or silt	USGS,Takahashi,Johnson
K212-12c	14:32	20° 33.57' N	154° 56.99' W	3666	13	8	7	200g	Ol basalt	black	Ol 7%	no	week	0.5mm	with 1mm glass, indurated mud	USGS,Takahashi,Johnson
K212-12d	14:32	20° 33.57' N	154° 56.99' W	3666	6	5	3	80g	Ol basalt	dk grey	Ol 6%	0	week	<0.2mm		USGS,Takahashi,Johnson
K212-13a	14:38	20° 33.61' N	154° 57.01' W	3619	17	16	12	2kg	Ol basalt	black	Ol 7%	2%	fresh	1mm		USGS,Takahashi,Johnson,Orihashi,Mashima

K212-13b	14:38	20° 33.61' N	154° 57.01' W	3619	26	18	17	7kg	Ol basalt	dk grey	Ol 10%, Cpx 1%		fresh	<0.5mm	Ol max 1.5mm, av. <0.5mm	USGS,Takahashi,Johnson,Orihashi,Mashima
K213-1a	10:09	20° 24.79' N	155° 11.97' W	4461	7	5	5	100g	Pl-Ol basalt	black	Ol 20%, Pl 5%	5%		<0.5mm		Kimura, USGS
K213-1b	10:09	20° 24.79' N	155° 11.97' W	4461	8	7	5	200g	Ol basalt	dk grey	Ol 5-10%	3%	week	<1mm		Kimura, USGS, Orihashi
K213-2a	10:19	20° 24.74' N	155° 12.02' W	4414	8	6	6	100g	Ol basalt	grey	Ol 3%	10%	week	1mm		Kimura, USGS, Nakagawa, Takahashi
K213-2b	10:22	20° 24.74' N	155° 12.02' W	4414	9	8	6	180g	volcaniclastics	dk brown			week	<0.5mm	volcaniclastics, sandstone with many olivine crystals, Paragonatized glass matrix	Kimura, USGS, Yokose
K213-2c	10:22	20° 24.74' N	155° 12.02' W	4414	4	3	3	40g	Ol basalt	dk grey	Ol 5-10%	5%	week	<1mm		USGS, Kimura
K213-3a	10:38	20° 24.69' N	155° 12.08' W	4340	13	10	8	800g	Ol basalt	dk grey	Ol 5%	10%	fresh	<0.5mm	Paragonite very thin	USGS, Kimura, Nakagawa, Takahashi,Hanyu
K213-3b	10:38	20° 24.69' N	155° 12.08' W	4340	13	6	4	150g	Ol basalt	dk grey	Ol 5%	10%	week	<0.1mm		USGS, Kimura, Nakagawa
K213-4a	11:17	20° 24.54' N	155° 12.24' W	4180	15	10	9	1.5kg	Ol basalt	dk grey	Ol 10%	10%	fresh	<0.5mm	Ol phenocrysts are fine	Kimura, USGS, Nakagawa, Takahashi
K213-4b	11:17	20° 24.54' N	155° 12.24' W	4180	12	8	7	500g	Ol basalt	dk grey	Ol 10%	20%	fresh	<0.5mm	vesiculation;heterogeneous	Kimura, USGS, Nakagawa, Takahashi
K213-5	11:32	20° 24.47' N	155° 12.32' W	4133	7	7	6	100g	volcaniclastics	brown-grey			strong		matrix sand	USGS,Kimura, Yokose
K213-6	11:35	20° 24.41' N	155° 12.38' W	4121	9	7	5	300g	Ol basalt	dk grey	Ol 15%	5-10%	fresh	0.5mm		USGS, Kimura,TaKahashi
K213-7	11:53	20° 24.35' N	155° 12.44' W	4050	15	11	6	800g	Ol basalt	dk grey	Ol 10%	<5%	week	~0.5mm	samall olivine phenocryst ~micro phenocrysts sparse large elongated vesicles	USGS, Kimura, Nakagawa
K213-8	11:59	20° 24.30' N	155° 12.46' W	4045	17	14	13	2kg	Ol basalt	dk grey	Ol 10%	4%	week	~0.5mm		USGS, Kimura, Nakagawa, Takahashi,Hanyu, Orihashi
K213-9a	12:05	20° 24.26' N	155° 12.49' W	3975	15	10	8	1.5kg	volcaniclastics	grey				<1mm	matrix sand, center part is fresh, but rim is paragonization	USGS, Kimura, Nakagawa, Yokose
K213-9b	12:05	20° 24.26' N	155° 12.49' W	3975	12	9	9	600g	hyaloclastite	dk grey partly brown		<3%	strong	<0.1mm	matrix; volcanic glass	USGS, Kimura,Yokose
K213-10	12:26	20° 24.08' N	155° 12.54' W	3845	12	9	9	700g	volcaniclastics	brown~grey			week	<0.5mm	volcanic breccia (lappilli) with fresh interior	USGS, Kimura, Nakagawa, Yokose
K213-11	12:38	20° 24.00' N	155° 12.59' W	3799	19	16	10	2kg	volcaniclastics	greenish grey, dk grey			week	0.5mm		USGS, Kimura, Nakagawa, Yokose
K213-12a	12:46	20° 23.95' N	155° 12.62' W	3757	15	14	10	1kg	hyaloclastite	brown~black			strong	<0.2mm	matri; paragonite, Porphritic basalt fragments	Kimura, Nakagawa, Yokose, Takahashi
K213-12b	12:46	20° 23.95' N	155° 12.62' W	3757	12	10	6	800g	volcaniclastics	grey-brown			strong	1mm	relstively fresh part and altered part	USGS, Kimura, Nakagawa, Yokose, Johnson
K213-12c	12:46	20° 23.95' N	155° 12.62' W	3757	8	6	2	50g	hyaloclastite	black blown			week	0.5mm	matrix poor, very poorly sorted subangular~angular breccia	USGS
K213-12d	12:46	20° 23.95' N	155° 12.62' W	3757	6	6	4	100g	volcaniclastics	black~grey			week~strong	<1mm	fresh part and altered part	USGS, Kimura
K213-12e	12:46	20° 23.95' N	155° 12.62' W	3757	10	9	8	300g	volcaniclastics	grey		N/A	week	<1mm	well sorted sandstone W/ one ~2cm basalt clast	USGS, Kimura, Yokose
K213-13	13:03	20° 23.85' N	155° 12.68' W	3691	16	12	5	1kg	Ol basalt	dk grey	Ol 20-25%	3%	week	<<1mm	Ol rich basalt	USGS, Kimura, Nakagawa, Takahashi,Hanyu
K213-14	13:27	20° 23.68' N	155° 12.78' W	3574	17	11	10	1.8kg	aphyric rock	dk grey		40%	week	<0.5mm		USGS, Kimura, Nakagawa, Takahashi
K213-15	13:38	20° 23.60' N	155° 12.83' W	3538	11	9	8	800g	Ol basalt	grey	Ol 5%, Pl <3%	<3%	fresh	~0.1mm	radial cracks similar to fragment of pillow lava. With very small vasicules	USGS, Kimura, Nakagawa, Takahashi
K213-16	13:52	20° 23.55' N	155° 12.88' W	3443	10	9	9	350g	Ol basalt	black	Ol 10%	5%	fresh	0.3mm		USGS, Kimura, Nakagawa, Takahashi,Hanyu
K213-17	14:22	20° 23.33' N	155° 13.05' W	3340	24	21	10	4kg	volcaniclastics	brown~grey			strong	<1mm		USGS, Kimura, Nakagawa, Yokose
K214-1	9:35	20° 28.17' N	155° 16.03' W	4440	11	9	6	400g	picrite	grey	Ol 30%	<5%	fresh	<0.5mm		USGS,Johnson,Takahashi,Hanyu
K214-2	9:40	20° 28.27' N	155° 16.05' W	4387	14	9	7	800g	picrite	dk grey	Ol 40%	<1%	week	<1mm	picrite with small vesicles	USGS,Johnson,Takahashi,Hanyu,Mashima
K214-3	9:57	20° 28.35' N	155° 16.06' W	4332	15	12	9	1kg	picrite	grey	Ol 30%	10%	fresh	<0.5mm		Johnson,Takahashi,Hanyu,Orihashi
K214-4a	10:16	20° 28.44' N	155° 16.07' W	4273	14	11	3	200g	picrite	black	Ol 30%	5%	week	1.5mm	with altered glass (1mm)	USGS,Johnson,Takahashi,Hanyu,Yokose
K214-4b	10:16	20° 28.44' N	155° 16.07' W	4273	12	9	8	500g	picrite	dk grey	Ol 30%	2-3%	week	<1mm	8-10mm glassy zone	USGS,Johnson,Takahashi,Hanyu,Orihashi
K214-5a	10:26	20° 28.47' N	155° 16.08' W	4251	5	5	5	80g	picrite	black	Ol 30%	7%	fresh	0.8mm		USGS,Johnson
K214-5b	10:26	20° 28.47' N	155° 16.08' W	4251	23	15	15	5kg	Ol basalt	black	Ol 30%	5~10%	week	1mm	picrite; maybe part of pillow breccia with grassy matrix	USGS,Johnson,Takahashi,Hanyu,Orihashi,Mashima
K214-6a	10:59	20° 28.67' N	155° 16.06' W	4135	24	18	17	3kg	Pl-Ol basalt	black	Ol 5%, Pl 10%	5%	fresh	0.5mm		Johnson,Takahashi,Hanyu,Orihashi,Mashima
K214-6b	10:59	20° 28.67' N	155° 16.06' W	4135	15	10	8	1kg	Ol basalt	black	Ol 10%	3%	week	<1mm		USGS,Johnson,Takahashi,Hanyu

K214-7	11:11	20° 28.71' N	155° 16.07' W	4095	14	14	9	1.1kg	Pl-Ol basalt	black	Pl 5%, Ol 10%	10%	fresh	<0.5mm		USGS,Johnson,Takahashi,Hanyu,Orihashi,Mashima
K214-8	11:21	20° 28.78' N	155° 16.07' W	4018	13	10	8	1kg	Ol basalt	black	Ol 3%	5%	fresh	0.5mm		Johnson,Takahashi,Orihashi
K214-9	11:28	20° 28.87' N	155° 16.07' W	3948	17	15	14	2kg	picrite	grey	Ol 25-30%	8%	week	0.5mm		Johnson,Takahashi,Hanyu,Orihashi
K214-10	11:47	20° 28.96' N	155° 16.09' W	3856	12	12	9	800g	Pl-Ol basalt	black	Ol 5%	10%	fresh	1mm		USGS,Johnson,Takahashi,Orihashi,Mashima
K214-11	12:33	20° 29.29' N	155° 16.02' W	3683	20	11	10	2kg	Ol basalt	grey	Ol 15%	3%	fresh	0.5mm		USGS,Johnson,Takahashi,Orihashi,Hanyu
K214-12	12:42	20° 29.34' N	155° 16.02' W	3649	30	15	15	7kg	Ol basalt	black	Ol 7%	3%	week	2.5mm		USGS,Johnson,Takahashi,Orihashi, Hanyu, Mashima
K214-13	12:53	20° 29.44' N	155° 16.01' W	3584	17	15	12	3kg	Ol basalt	grey	Ol 10%	5%	fresh	<1mm		Johnson,Takahashi,Orihashi, Hanyu, Mashima
K214-14a	14:10	20° 30.04' N	155° 15.95' W	3273	14	10	6	800g	picrite	black	Ol 35%	10%	fresh	<0.5mm	rounded clast; subaerial or coastline?	USGS,Johnson,Takahashi,Hanyu,
K214-14b	14:10	20° 30.04' N	155° 15.95' W	3273	7	7	6	300g	picrite	dk grey	Ol 35%	8%	week	<0.5mm		USGS,Johnson,Takahashi
K214-14c	14:10	20° 30.04' N	155° 15.95' W	3273	9	7	7	400g	picrite	dk grey	Ol 40%	3%	fresh	<1mm		USGS,Johnson,Takahashi
K214-15a	14:28	20° 30.17' N	155° 15.93' W	3174	21	15	10	4kg	picrite	black	Ol 25%	10%	week	1.2mm		USGS,Johnson,Takahashi,Orihashi, Hanyu, Mashima
K214-15b	14:28	20° 30.17' N	155° 15.93' W	3174	15	13	10	1kg	picrite	black	Ol 30%	15%	week	<0.5mm	Ol max.6mm	USGS,Johnson,Takahashi
K214-15c	14:28	20° 30.17' N	155° 15.93' W	3174	16	8	7	1kg	picrite	grey	Ol 30%	15%	fresh	<0.5mm	Ol max.8mm	USGS,Johnson,Takahashi,Orihashi, Hanyu
K214-15d	14:28	20° 30.17' N	155° 15.93' W	3174	16	14	12	2kg	picrite	grey	Ol 30%	3%	week	1mm		Johnson,Takahashi,Hanyu
K215-1	9:32	19° 50.43	154° 32.37	4032	15	12	6	1.5kg	Ol basalt	dk grey	Ol 3-5%	<5%	no	<0.1mm	rarely cpx phenocryst	USGS,Kimura,Orihashi,Johnson,Takahashi,Nakagawa,Hanyu
K215-2	9:37	19° 50.45	154° 32.40	3999	11	9	8	1kg	Ol basalt	dk grey	Ol 5-10%	<5%	no	<0.1mm	Ol phenocryst max 5mm	USGS,Kimura,Johnson,Mashima,Nakagawa,Hanyu,Takahashi
K215-3a	9:48	19° 50.48	154° 32.44	3954	6	5	5	100g	Ol basalt	dk grey	Ol 8%	10%	weak	0.5mm	Ol max 3mm, average 0.5mm	USGS,Kimura
K215-3b	9:50	19° 50.48	154° 32.44	3953	17	12	8	2kg	Ol basalt	black	Ol 5-10%	5%	no	<0.5mm		USGS,Kimura,Orihashi,Johnson,Mashima,Hanyu,Takahashi,Nakagawa
K215-4	10:03	19° 50.52	154° 32.46	3906	14	9	7	500g	Pl-Ol basalt	dk grey	Ol 5%, Pl 2%	2%	weak	2mm		USGS,Kimura,Johnson,Nakagawa,Takahashi,Kanamatsu
K215-5	10:26	19° 50.58	154° 32.48	3862	16	15	13	3.5kg	Ol basalt	black	Ol 8%	10%	no	0.5mm	Ol average 1mm	USGS,Kimura,Johnson,Orihashi,Takahashi,Hanyu,Nakagawa,Mashima,Yokose,Kanamatsu
K215-6	10:36	19° 50.62	154° 32.53	3815	20	15	9	2kg	Ol basalt	dk grey	Ol 10%	3%	weak	3mm		USGS,Kimura,Johnson,Orihashi,Takahashi,Hanyu,Nakagawa
K215-7	11:05	19° 50.69	154° 32.60	3775	12	10	5	200g	picrite	dk grey	Ol 25-30%	<3%	no	2mm	Ol phenocryst max 10mm	USGS,Kimura,Johnson,Orihashi,Takahashi,Nakagawa
K215-8	11:19	19° 50.75	154° 32.64	3716	27	17	16	8kg	picrite	dk grey	Ol 20-25%	3%	no	1mm	glass 3mm but mostly paragonized	USGS,Kimura,Johnson,Orihashi,Takahashi,Hanyu,Mashima,Nakagawa
K215-9	11:40	19° 50.81	154° 32.73	3664	18	10	9	2kg	picrite	black	Ol 25-30%	10%	no	0.5mm	Ol size 1-2mm and 4-6mm	USGS,Kimura,Johnson,Takahashi,Mashima,Hanyu
K215-10	12:05	19° 50.91	154° 32.81	3619	19	12	12	1.5kg	picrite	dk grey	Ol 25%	0%	no	0.5-1mm	outer rim with small amount of glass	USGS,Kimura,Takahashi,Hanyu,Nakagawa
K215-11	12:45	19° 51.06	154° 32.93	3530	9	8	8	1kg	picrite	dk grey	Ol 30%	3%	no	0.1mm		USGS,Kimura,Johnson,Orihashi,Takahashi,Hanyu,Nakagawa
K215-12	13:13	19° 51.15	154° 33.06	3379	12	9	7	800g	picrite	black	Ol 20-25%	5%	no	0.5mm	mud in vesicles, ol max 6mm	USGS,Kimura,Johnson,Takahashi,Nakagawa,Orihashi
K215-13a	13:30	19° 51.20	154° 33.12	3289	10	9	6	200g	picrite	black	Ol 20%	3%	no	0.2mm	rounded, lectangular shaped olivine	USGS,Kimura,Mashima,Takahashi,Nakagawa
K215-13b	13:31	19° 51.20	154° 33.16	3289	16	13	8	2kg	picrite	dk grey	Ol 20%	1%	no	1.5mm		USGS,Kimura,Johnson,Takahashi,Nakagawa,Mashima,Orihashi,Kanamatsu
K215-14	13:51	19° 51.24	154° 33.16	3253	24	19	17	8kg	picrite	grey	Ol 15-20, Pl 1%	3%	no	3mm		USGS,Kimura,Johnson,Orihashi,Takahashi,Hanyu,Nakagawa
K215-15	14:16	19° 51.33	154° 33.27	3274	14	10	8	800g	picrite	dk grey	Ol 25%	10-15%	no	0.5mm	Ol phenocryst max 7mm, vesicularity is relatively high	USGS,Kimura,Johnson,Takahashi,Orihashi,Nakagawa
K215-16	14:30	19° 51.47	154° 33.27	3252	24	18	9	9kg	picrite	dk grey	Ol 22%	0%	weak	1mm		USGS,Kimura,Johnson,Mashima,Orihashi,Hanyu,Takahashi,Nakagawa,Yokose,Kanamatsu
K215-17	14:47	19° 51.46	154° 33.34	3208	11	8	6	600g	picrite	black	Ol 20%	10%	weak	0.5mm		USGS,Kimura,Johnson,Takahashi,Hanyu,Nakagawa

K216-1a	9:33	20° 38.62	155° 07.98	3141	14	8	7	300g	Ol basalt	dk grey	Ol 10%	10%	no	1mm		USGS,Johnson,hanyu,Orihashi,Takahashi
K216-1b	9:33	20° 38.62	155° 07.98	3141	8	6	6	100g	Ol basalt	dk grey	Ol 15%	2-3%	no	<1mm	spherical vesicles	USGS,Johnson,Takahashi
K216-2	10:17	20° 38.40	155° 08.01	2976	15	9	8	1kg	Ol basalt	dk grey	Ol 3%, pl 1-2%	5-7%	weak	1mm	Ol <5mm	USGS,Johnson,Takahashi,Mashima,Orihashi
K216-3	10:49	20° 38.19	155° 08.02	2913	16	15	14	3kg	Ol basalt	black	Ol 10%	5%	no	0.2mm		USGS,Johnson,Takahashi,Mashima,Orihashi
K216-4	11:16	20° 38.19	155° 08.06	2807	16	14	12	2.5kg	Ol basalt	dk grey	Ol 10%	5%	no	<0.5mm	Ol max 3mm, average 1mm	USGS,Johnson,Takahashi,Hanyu
K216-5a	11:22	20° 37.98	155° 08.06	2761	21	12	9	2kg	Ol basalt	dk grey	Ol 5%	5%	weak	<1mm	coarse groundmass, Plag/mafic clots	USGS,Johnson,Takahashi,Hanyu,Orihashi,Mashima
K216-5b	11:22	20° 37.98	155° 08.06	2761	13	9	8	1kg	Ol basalt	black	Ol 7%	2%		0.2mm	fine grained olivine	USGS,Johnson,Takahashi
K216-6	11:34	20° 37.88	155° 08.07	2700	23	16	11	5kg	Ol basalt	black	Ol 5%	3-5%	weak	<0.5mm		USGS,Johnson,Takahashi,Mashima,Orihashi,Hanyu
K216-7a	12:01	20° 37.74	155° 08.12	2602	15	13	8	3kg	Ol basalt	dk grey	Ol 10%	15%		2mm	Ol max 2mm, average 1mm	USGS,Johnson,Takahashi
K216-7b	12:01	20° 37.74	155° 08.12	2602	13	13	10	4.5kg	Ol basalt	black	Ol 10%	15%	no	1.5mm		USGS,Johnson,Takahashi,Hanyu,Mashima
K216-8a	12:18	20° 37.63	155° 08.12	2505	14	10	7	2kg	Ol basalt	black	Ol 10%	5%	weak	1mm		USGS,Johnson,Takahashi,Hanyu,Orihashi
K216-8b	12:18	20° 37.63	155° 08.12	2505	5	5	4	80g	Ol basalt		Ol 5%	5%	weak	0.5mm		USGS,Johnson,Takahashi
K216-8c	12:18	20° 37.63	155° 08.12	2505	8	6	4	80g	Ol basalt	black	Ol 10%	15%		0.8mm		USGS,Johnson,Takahashi
K216-9	12:37	20° 37.54	155° 08.11	2435	18	12	8	2.2kg	Ol basalt	black	Ol 10%	20%	weak	3mm		USGS,Johnson,Takahashi,Hanyu,Orihashi
K216-10	14:03	20° 36.83	155° 08.18	2519	10	10	9	800g	Ol basalt	dk grey	O 5%	5-10%	no	3mm		USGS,Johnson,Takahashi.Orihashi,Mashima
K216-11a	14:12	20° 36.70	155° 08.18	2481	19	11	9	1.5kg	Ol basalt	dk grey	Ol 8-10%, Pl 8-10%	8-10%	weak	2mm	Thick Mn is angle cut, normal thickness=2mm	USGS,Johnson,Takahashi.Orihashi,Mashima
K216-11b	14:12	20° 36.70	155° 08.18	2481	17	12	8	2.5kg	Ol basalt	black	Ol 10%	30%	no	1mm		USGS,Johnson,Takahashi,Orihashi,Hanyu
K216-11c	14:12	20° 36.70	155° 08.18	2481	11	6	6	500g	Ol basalt	black	Ol 5%	10%	weak	1.5mm		USGS,Johnson,Takahashi
K216-12a	14:25	20° 36.62	155° 08.18	2400	19	12	9	3kg	Ol basalt	black	Ol 15%	15-20%	no	1mm		USGS,Johnson,Takahashi,Orihashi,Hanyu,Mashima
K216-12b	14:25	20° 36.62	155° 08.18	2400	11	10	7	1kg	Ol basalt	black	Ol 10%	15%	weak	1mm		USGS,Johnson,Takahashi
K216-12c	14:25	20° 36.62	155° 08.18	2400	10	7	5	400g	Ol basalt	black	Ol 10%	15%	no	1mm		USGS,Johnson,Takahashi
K216-12d	14:25	20° 36.62	155° 08.18	2400	6	5	5	15g	Pl-Ol basalt	black	Pl 15%, Ol 5%	15%		0.5mm		USGS,Johnson,Takahashi
K216-13	14:31	20° 36.59	155° 08.18	2353	10	8	7	400g	Ol basalt	dk grey	Ol 10%	7%	no	3mm		USGS,Johnson,Takahashi,Orihashi
K217-1		17 13.46	155 51.74	4909	20	13	7	800g	sandstone				strong	<0.2mm	hydro thermal altered rock or old sandstone	Takahashi
K217-2	10:32	17 13.35	155 51.80	4941	13	10	8	500g	aphyric rock	black		<1%	fresh	<0.1mm	0.3 mm quenched glass surface	USGS,Takahashi, USGS
K217-3a	10:58	17 13.30	155 51.82	4941	23	14	14	5kg	aphyric rock	black			fresh	0	4mm grass rind, covered surface of paragonote or Fe (OH)?	Archive
K217-3b	10:59	17 13.30	155 51.82	4941	8	6	5	100g	aphyric rock	black, partly brown		0	fresh	0	max. 7mm grass rind, covered surface of paragonote or Fe (OH)?	Hanyu
K217-3c	11:02	17 13.30	155 51.82	4941	25	20	17	12kg	aphyric rock	dk grey partly brown		0	fresh	0	grass rind, covered surface of paragonote or Fe (OH)?	USGS,Takahashi, Yokose, Hanyu, Orihashi,Kani
K217-4	11:08	17 13.23	155 51.82	4941	20	12	12	2.5kg	aphyric rock	black		<1%	week	0	3mm grass rind, covered surface of paragonote or Fe (OH)?	USGS,Takahashi, Hanyu, Kani
K217-5	12:08	17 12.90	155 51.80	4935	5	3	3	20g	aphyric rock	black		<2%	week	0	glass rind <1mm, two types; 1. Aphyric rock as discribed above. 2. Hyaloclastite altered by hydrothermal activity	Takahashi, Kani
K217-6	12:17	17 12.75	155 51.84	4930	15	12	10	500g	aphyric rock	black		<1%	week	0	<2mm glass, roof of lobate flow	Takahashi,USGS,Kani,Orihashi
K217-7	12:31	17 12.73	155 51.82	4935	6	5	3	30g	aphyric rock	black		<1%	week	0	<2mm glass rind	USGS,Takahashi,Hanyu,Kani
K217-8	12:40	17 12.52	155 51.76	4934	9	7	5	150g	aphyric rock	black		<2%	fresh	<0.1mm	5mm glass rind with palagonite	USGS, Takahashi, Hanyu, Kani
K217-9	13:11	17 12.18	155 51.78	4873	9	8	3	70g	ol basalt	reddish brown	Ol 7%, Pl?2%	0	strong	<1mm	tholeiite, completely altered olivine	Yokose, Takahashi
K218-1	10:05	19 42.64	156 13.80	3936	22	20	13	5.5kg	Picrite	black	Ol 25%	10%	week	<0.5mm	palagonite rind	USGS, Takahshi, Hanyu, Yokose
K218-2a	10:34	19 42.61	156 13.68	3899	20	17	14	7kg	Picrite	black	Ol 25%	0%	week	0mm	palagonited (oxidized) reddish surface	USGS, Takahshi, Hanyu, Orihashi

K218-2b	10:34	19 42.61	156 13.68	3899	13	10	5	150g	Picrite	black	Ol 25%	0%	week	1mm	palagonited (oxidized) reddish surface, 10mm glass rind	USGS
K218-3a	10:55	19 42.63	156 13.59	3859	8	7	5	150g	Picrite	black	Ol 25%	5%	fresh	<0.5mm	palagonited (oxidized) reddish surface, 5mm glass	USGS, Takahshi
K218-3b	10:55	19 42.63	156 13.59	3859	15	10	10	500g	Picrite	black	Ol 25%	<5%	fresh	tr	5mm glass, pillow fragment	USGS, Takahshi, Hanyu
K218-4	11:03	19 42.62	156 13.55	3844	14	10	8	500g	Picrite	black	Ol 25%	10%	fresh	0	Rough surface, irregular long vesicules, many internal cracks-like subaerial "spiny a'a"- Described previous in submarine environment?	USGS, Takahashi
K218-5	11:12	19 42.62	156 13.49	3806	18	18	18	3kg	Picrite	black	Ol 20%	20%	week	<0.5mm		USGS, Takahshi,Yokose
K218-6	11:25	19 42.62	156 13.42	3756	12	9	7	500g	Picrite	black	Ol 25%	<1%	fresh		5mm glass, pillow fragment	USGS, Takahshi, Hanyu
K218-7	11:35	19 42.63	156 13.33	3666	14	8	6	500g	Picrite	black	Ol 25%	0	fresh	0mm	10mm palagonatized glass	USGS, Takahshi, Hanyu
K218-8	12:18	19 42.62	156 13.10	3545	16	11	11	5kg	Picrite	black	Ol 25%	0	fresh	1mm	palagonited (oxidized) surface, 10mm glass	
K218-9a	12:28	19 42.62	156 13.01	3466	18	17	16	8kg	Picrite	black	Ol 20%	2%	fresh	<0.5mm	palagonited (oxidized) surface, 10mm glass	USGS, Takahshi, Hanyu,
K218-9b	12:28	19 42.62	156 13.01	3466	15	9	6	300g	Picrite	black	Ol 25%	0%	week	0mm	some palagonatization on 2-3 mm glass rind	USGS
K218-10	13:04	19 42.71	156 12.90	3366	11	9	7	500g	Picrite	black	Ol 25%	10%	fresh	0mm	some palagonatization on 0.5 mm glass rind	USGS, Takahshi, Hanyu
K218-11	13:29	19 42.78	156 12.80	3249	13	11	11	500g	Picrite	black	Ol 25%	<1%	fresh	0mm	palagonited (oxidized) reddish surface, 2mm glass rind	USGS, Takahshi, Hanyu
K218-12	13:50			3179	11	9	8	700g	Picrite	black	Ol 25%	<2%	fresh	1mm	palagonited (oxidized) reddish surface, 3mm glass rind	USGS, Takahshi, Hanyu
K218-13	14:03	19 42.93	156 12.72	3168	24	21	9	6kg	Picrite	black	Ol 25%	3%	fresh	<<1 mm	1-2mm glass, lopy flow structure	USGS, Takahshi,Yokose
K218-14	14:51	19 43.20	156 12.48	3018	22	17	15	13kg	Picrite	black	Ol 25%	0%	fresh	0mm	0.5mm palagonite layer	USGS, Takahshi,Yokose, Hanyu, Orihashi
K219-1	9:18	19 26.73	156 08.32	3513	18	15	8	1.5kg	Picrite	black	Ol 25%	<1%	fresh	0	glassy surface, partly palagonited (oxidized) reddish surface, 4mm glass	USGS, Takahshi,Kani, Hanyu, Orihashi
K219-2	9:32	19 26.77	156 08.25	3437	25	14	14	5kg	Ol basalt	black	Ol 7%	2%	fresh	<0.5mm	2mm glass rim	USGS, Takahshi,Kani, Hanyu, Orihashi, Yokose
K219-3	9:51	19 26.81	156 08.20	3381	14	11	9	800g	Picrite	black	Ol 25%	3%	fresh	0		USGS, Takahshi,Kani, Hanyu
K219-4a	10:45	19 27.01	156 07.97	3283	16	15	13	1.5kg	Picrite	dk grey	Ol 20%	5%	fresh	tr	3-5mm glass rind	USGS, Takahshi,Kani, Hanyu, Orihashi
K219-4b	10:48	19 27.01	156 07.97	3284	13	8	5	200g	Ol basalt	dk grey	Ol 15%	3-5%	fresh	tr	1-2mm glass rind? Pillow fragment, pillow surface cabraded	USGS, Takahshi,Kani
K219-5	11:04	19 27.11	156 07.91	3202	10	8	4	150g	Picrite	black	Ol 20%	10%	fresh	-	12mm glass rind	USGS, Takahshi,Kani
K219-6	11:20	19 27.18	156 07.81	3130	9	7	6	150g	Picrite	black	Ol 15-20%	3%	fresh	0		USGS, Takahshi,Kani, Hanyu
K219-7	11:31	19 27.19	156 07.74	3114	17	13	12	6kg	Ol basalt	dk grey	Ol 15-20%	2%	week	<0.5mm	5mm glass rind	USGS, Takahshi,Kani, Hanyu, Orihashi
K219-8	11:54	19 27.29	156 07.58	2999	12	11	10	700g	Ol-Pl basalt	dk grey	Ol 3-5%, Pl<0.5%	<3%	fresh	0	rarely plagioclase as microcrystal	USGS, Takahshi,Kani, Hanyu
K219-9	12:24	19 27.30	156 07.37	2921	13	12	10	1kg	Picrite	dk grey	Ol 15-20%	5%	fresh	tr		USGS, Takahshi,Kani, Hanyu,Yokose
K219-10	12:38	19 27.33	156 07.28	2836	14	10	5	700g	Ol basalt	black	Ol 15-20%	3%	fresh	0	needle like shaped olivine phenocrysts are included	USGS, Takahshi,Kani, Hanyu
K219-11	13:08	19 27.32	156 07.18	2801	17	11	8	1.5kg	Ol basalt	black	Ol 15%	3%	fresh	0	glass rind palagonited (oxidized) reddish surface	USGS, Takahshi,Kani, Hanyu,Yokose
K219-12	13:30	19 27.37	156 07.10	2746	17	17	15	5kg	Ol basalt	black	Ol 10-15%	3%	fresh	0		USGS, Takahshi,Kani, Hanyu,Yokose, Orihashi
K219-13a	14:10	19 27.41	156 06.90	2714	36	23	22	5kg	hyaroclastite	greyish white, reddish brown, black			strong	0	oxdized "a'a lava" like reddish brown aphyric basalt fragments, some black aphyric vesicular basalt fragments,partly greyish white, volcanic breccia	USGS, Takahshi,Kani, Yokose
K219-13b	14:10	19 27.41	156 06.90	2714	17	13	12	1.5kg	hyaroclastite	reddish, dk brey (fragments)			strong	0	volcanic breccia monomictic. Probably oxdized under air and also quenched in water, large clast of olivine phyric basalt with quenched glassy margin, vesicles to irregular shaped vavity	USGS, Takahshi,Kani, Yokose
K219-13c	14:10	19 27.41	156 06.90	2714	10	7	6	400g		black	Ol 10%	3%	week	<0.5mm	~10mm glassy pillow rim	USGS, Takahshi,Kani, Yokose, Hanyu