

Sample # (Dive#_Stn#_Type)		Vvan #	Date	Time (UTC)	Marker#	Local X	Local Y	Depth (m)	Del X	Del Y	Renav X	Renav Y	Renav Depth	Heading	Altitude (m)	Type/Collection Meth'd	Comments/Description
J2-200-1-R1	Vienna Woods	300	7/22	15:15		3328	5780	2482	3	4	3331	5784	2483	143	2.3	Relict Sulfide Chimney/ Grab	Tip of ~ 1-2 m tall single, Zn-rich, relict chimney.
J2-200-2-R1	Vienna Woods	423	7/22	15:43		3346	5835	2482	-2	-2	3344	5833	2482	028	4.3	Relict Sulfide Chimney/ Grab	Tip of ~ 1-2 m tall single, Zn-rich, relict chimney.
J2-200-3-R1	Vienna Woods	536	7/22	16:22		3369	5847	2483	0	0	3369	5847	2484	279	3.7	Relict Sulfide Chimney/ Grab	Small parasitic spire from near base of large (>10 m) sulfide edifice.
J2-200-4-R1	Vienna Woods	1229	7/22	21:52		3227	5749	2475	0	0	3227	5749	2475	018	4.7	Relict Sulfide Chimney/ Grab	Tip of Zn-rich, small bulbous sulfide mound at base of large spire.
J2-200-5-R1	Vienna Woods	1409	7/22	23:00		3272	5757	2478	0	0	3272	5757	2482	098	2.1	Relict Sulfide Chimney/ Grab	Outer Zn-rich sulfide chimney wall from base of large sulfide edifice.
J2-200-6-R1	Vienna Woods	1465	7/22	23:35		3286	5791	2485	1	-2	3287	5789	2484	162	5.8	Relict Sulfide Chimney/ Grab	Parasitic spire from mid-way up large (>5 m) sulfide edifice that has partly collapsed.
J2-200-7-R1	Vienna Woods	1640	7/22	23:45		3311	5778	2482	-1	-1	3310	5777	2482	014	2.7	Collapsed Chimney/ Grab	Tip of one spire [multi-spined] from large (>10 m) collapsed chimney
J2-200-7-R2	Vienna Woods	1658	7/22	23:47		3311	5778	2482	-1	-1	3310	5777	2483	014	2.7	Collapsed Chimney/ Grab	2nd piece from same structure (part of main chimney edifice vs. parasitic chimlet?).
J2-200-8-R1	Vienna Woods	1898	7/23	0:50		3237	5772	2484	1	-2	3238	5770	2484	123	1.6	Relict Sulfide Chimney/ Grab	Tip (?) of ~ 2m Zn-rich, relict sulfide chimney (tip knocked off during sampling).
J2-200-9-R1	Vienna Woods	1964	7/23	1:10		3257	5754	2480	0	0	3257	5754	2478	130	1.7	Collapsed Chimney/ Grab	Weathered, Zn-Fe relict collapsed sulfide rubble, next to > 3m collapsed edifice.
J2-200-10-R1	Vienna Woods	2154	7/23	2:10		3227	5732	2480	0	3	3227	5735	2479	161	1.8	Collapsed Chimney/ Grab	Small tip of chimney from collapsed sulfide talus/pile
J2-200-11-R1	Vienna Woods	2215	7/23	2:30		3197	5738	2478	1	1	3198	5739	2477	206	3.7	Hydrothermal Talus/ Breccia/ Grab	Cu-sulfide [and late-stage clay/sulfate] cemented breccia from sulfide/talus rubble.
J2-200-12-R1	Vienna Woods	2294	7/23	2:55		3193	5743	2480	-2	2	3191	5745	2480	154	4.5	Collapsed Chimney/ Grab	Zn-rich sulfide spire section from mid-way up large (>5 m) collapsed chimney
J2-200-13-R1	Vienna Woods	2315	7/23	3:02		3204	5723	2477	1	2	3205	5725	2463	180	16.7	Relict Sulfide Chimney/ Grab	Small, thin-walled chimlet from tip of large multi-spined chimney
J2-200-14-R1	Vienna Woods	2400	7/23	3:34		3216	5686	2376	2	0	3218	5686	2475	173	1.6	Relict Sulfide Chimney/ Grab	One [of two] spire from small (~1 m) relict chimney
J2-200-15-R1	Vienna Woods	2439	7/23	3:49		3204	5691	2473	3	2	3207	5693	2474	239	1.6	Collapsed Chimney/ Grab	Piece of Cpy-rich sulfide from basal section of collapsed sulfide chimney/talus.
J2-200-16-R1	Vienna Woods	2480	7/23	4:03		3179	5718	2476	2	1	3181	5719	2477	265	4.6	Relict Sulfide Chimney/ Grab	Tip of spire from top of multi-spined tall (>5 m) and wide (>2 m) relict chimney
J2-200-17-R1	Vienna Woods	2492	7/23	4:23		3172	5728	2479	-9	-5	3163	5723	2479	294	0.8	Collapsed Chimney/ Grab	Spire from base of several ~2 m tall chimneys. Rubble/talus piece (?)
J2-200-18-R1	Vienna Woods	2519	7/23	5:04		3183	5663	2471	-1	3	3182	5666	2471	150	3.8	Relict Sulfide Chimney/ Grab	Zn-rich Spire from top of one of many multi-spined chimneys
J2-200-19-R1	Vienna Woods	2533	7/23	5:16		3203	5652	2472	2	1	3205	5653	2473	228	1.4	Relict Sulfide Chimney/ Grab	~ 50 cm tall chimney, growing directly from basement (lightly sedimented)
J2-200-20-R1	Vienna Woods	2542	7/23	5:38		3177	5651	2472	3	-2	3180	5649	2473	306	2.3	Relict Sulfide Chimney/ Grab	~ 50 cm tall chimney, growing directly from basement (lightly sedimented)
J2-200-21-R1	Vienna Woods	2624	7/23	7:03		3208	5748	2482	0	0	3208	5748	2482	300	0.8	Relict Sulfide Chimney/ Grab	Exterior piece, mid-way up from partially collapsed, Fe-oxide stained chimney
J2-200-22-R1	Vienna Woods	2658	7/23	7:27		3241	5742	2483	-1	10	3240	5752	2483	253	1.6	Relict Sulfide Chimney/ Grab	Chimney from base of large (>6 m) sulfide edifice atop basal mound.
J2-201-1-R1	Tufar 2	2911	7/24	8:41		3860	6500	2490	1	-1	3861	6499	2490	303	1.0	Relict Sulfide Chimney/ Grab	Top of ~ 50 cm tall chimney growing out from sedimented pillow basalt
J2-201-2-R1	Tufar 2	3021	7/24	9:18		3849	6509	2490	0	-1	3849	6508	2490	197	1.3	Relict Sulfide Chimney/ Grab	~ 50 cm tall chimney growing out from sedimented pillow basalt
J2-201-3-R1	Tufar 2	3188	7/24	9:54		3825	6488	2489	1	1	3826	6489	2489	223	1.1	Collapsed Chimney/ Grab	Small sulfide knob from (top?) of relict, collapsed and broken spire
J2-201-4-R1	Tufar 2	3215	7/24	10:03		3812	6487	2481	-2	1	3810	6488	2481	120	9.0	Relict Sulfide Chimney/ Grab	Spire from periphery at top of >7 m tall inactive chimney.
J2-201-4-R2	Tufar 2	3276	7/24	10:07		3812	6487	2481	-2	1	3810	6488	2481	120	9.0	Relict Sulfide Chimney/ Grab	2nd piece from same structure - about 20 cm below apex of chimney on periphery.

J2-201-5-R1	Tufar 2	3273	7/24	10:20		3776	6480	2487	-1	0	3775	6480	2487	239	1.4	Collapsed Chimney/ Grab	Zn-Sulfide talus/chimney rubble from base of large sulfide mounds hosting few spires.
J2-201-6-R1	Tufar 2	3337	7/24	10:37		3747	6485	2484	1	1	3748	6486	2484	241	1.5	Relict Sulfide Chimney/ Grab	Spire from bulbous sulfide mound/chimney w/ in Fe-oxide rich sedimented area
J2-201-7-R1	Tufar 2	3380	7/24	10:55		3743	6468	2484	0	-1	3743	6467	2484	333	1.7	Relict Sulfide Chimney/ Grab	Spire from ~ 1m chimney within complex of multiple sulfide edifices
J2-201-8-R1	Tufar 2	3592	7/24	11:37		3718	6472	2481	-6	-18	3712	6454	2483	319	4.7	Relict Sulfide Chimney/ Grab	Sulfide chimney from small bulbous sulfide mounds at base of complex.
J2-201-9-R1	Tufar 2	3650	7/24	12:05		3720	6475	2478	-1	3	3719	6478	2479	279	3.0	Collapsed Chimney/ Grab	Pieces of exterior crust from talus remnants of relict chimney at base ~12 m chimney.
J2-201-10-R1	Tufar 2	3718	7/24	12:25		3707	6476	2480	-1	0	3706	6476	2480	130	1.3	Relict Sulfide Chimney/ Grab	Small spire from within talus pile of large fallen chimney
J2-201-11-R1	Tufar 2	3832	7/24	12:52		3705	6464	2480	-10	4	3695	6468	2478	160	1.0	Hydrothermal Talus/ Breccia/ Grab	Py/Cpy rich talus piece on E slope of large mound
J2-201-12-R1	Tufar 2	3918	7/24	13:14		3695	6452	2474	0	-1	3695	6451	2474	033	2.0	Hydrothermal Talus/ Breccia/ Grab	Zn-rich sulfide collapsed chimney/talus from S slope of large mound
J2-201-13-R1	Tufar 2	3964	7/24	13:23		3705	6434	2485	4	3	3709	6437	2485	180	2.7	Hydrothermal Talus/ Breccia/ Grab	Zn-rich sulfide rubble from talus of large fallen chimney (basal piece?)
J2-201-14-R1	Tufar 2	4099	7/24	14:14		3679	6419	2479	-1	-2	3678	6417	2482	342	3.4	Relict Sulfide Chimney/ Grab	Top-half of ~ 60 cm relict sulfide chimney atop sulfide basal mound ~ 1 m tall/diameter
J2-201-15-R1	Tufar 2	4199	7/24	14:34		3673	6439	2470	-1	2	3672	6441	2470	150	4.8	Relict Sulfide Chimney/ Grab	Small, knobly spire from periphery of multi-spired edifice on side of >7 m sulfide chimney/mound
J2-201-16-R1	Tufar 2	4287	7/24	14:52		3663	6423	2478	1	0	3664	6423	2477	185	3.5	Relict Sulfide Chimney/ Grab	Large parasitic spire from side of ~3 m tall chimney; field of many relict chimneys. Navigation questionable.
J2-201-17-R1	Tufar 2	4347	7/24	15:15		3665	6414	2483	0	-1	3665	6413	2483	337	3.0	Collapsed Chimney/ Grab	Zn-rich sulfide, crumbled and picked up from base of relict chimneys
J2-201-18-R1	Tufar 2	4408	7/24	15:30		3646	6388	2490	1	0	3647	6388	2490	287	2.7	Relict Sulfide Chimney/ Grab	Small Zn-sulfide sampled from exterior, base of relict ~ 1m chimney.
J2-201-19-R1	Tufar 2	4487	7/24	15:55		3649	6425	2478	-1	-1	3648	6424	2479	019	4.5	Relict Sulfide Chimney/ Grab	Spire broken from off mid-section of larger chimney complex (WHOI has tip).
J2-201-20-R1	Tufar 2	4544	7/24	16:13		3631	6439	2479	1	1	3632	6440	2479	220	1.1	Relict Sulfide Chimney/ Grab	Tip broken from bulbous, knobly ~ 3m sulfide chimney/mound
J2-201-21-R1	Tufar 2	4614	7/24	16:34		3627	6412	2485	-2	-2	3625	6410	2486	018	2.2	Relict Sulfide Chimney/ Grab	Large sulfide-silica-sulfate piece grabbed from small knob on (sulfide?) mound
J2-201-22-R1	Tufar 2	4979	7/24	18:42		3762	6437	2488	3	1	3765	6438	2488	357	2.5	Relict Sulfide Chimney/ Grab	Py-rich small chimney from mid-way up larger multi-spired edifice
J2-201-22-R2	Tufar 2	5090	7/24	19:20		3768	6437	2488	-12	1	3756	6438	2490	310	1.0	Hydrothermal Talus/ Breccia/ Grab	Small broken Zn-rich pieces from rubble pile at base of talus scree. ~4 m from 22-R1.
J2-201-23-R1	Tufar 2	5158	7/24	19:48		3730	6461	2481	3	4	3733	6465	2478	317	4.7	Relict Sulfide Chimney/ Grab	Tip of large chimney from multi-spired chimney complex.
J2-201-24-R1	Tufar 2	5230	7/24	19:58		3737	6480	2482	1	6	3738	6486	2482	14	1.8	Relict Sulfide Chimney/ Grab	Tip from one of many, single spired <2 m chimneys upon sedimented mound.
J2-202-1-R1	Vienna Woods	5620	7/25	10:00		3311	5814	2485	2	5	3313	5819	2485	245	2.1	Sediment/ Grab	Coalesced sediment piece from base of large, active (~ 255 °C) sulfide mound
J2-202-2-R1	Vienna Woods	5651	7/25	10:09		3296	5828	2485	-1	-1	3295	5827	2485	345	1.4	Hydrothermal Talus/ Breccia/ Grab	Weathered/Altered clay-silica-oxide (formerly sulfide-rich?) 'apron' from Fe-oxide rich horizon
J2-202-3-R1	Vienna Woods	5770	7/25	10:45		3287	5911	2483	-1	0	3286	5911	2483	290	1.1	Relict Sulfide Chimney/ Grab	Spire knocked from small (<2 m) chimney complex.
J2-202-4-R1	Vienna Woods	5934	7/25	11:12		3233	5873	2482	-1	-1	3232	5872	2482	204	5.1	Relict Sulfide Chimney/ Grab	Colonized, sulfide protrusion from large (~ 50 cm) flange off mid-section of chimney.
J2-202-5-R1	Vienna Woods	6025	7/25	11:35		3217	5860	2484	1	5	3218	5865	2484	240	3.0	Collapsed Chimney/ Grab	Peripheral chimney from vertical mid-section of large (> 5m) fallen chimney
J2-202-6-R1	Vienna Woods	6094	7/25	11:41		3205	5878	2484	-2	-1	3203	5877	2484	217	4.4	Relict Sulfide Chimney/ Grab	Small spire broken off side of chimney; about half-way up structure

J2-202-7-R1	Vienna Woods	6202	7/25	12:18		3167	5880	2480	6	2	3173	5882	2480	333	3.6	Active Sulfide Chimney/ Grab	Anh-rich piece of exterior active smoker. Breaking off piece resulted in venting from crack.
J2-202-8-R1	Vienna Woods	6280	7/25	12:37		3152	5871	2484	4	2	3156	5873	2484	345	1.8	Relict Sulfide Flange/ Grab	Flange/ledge formed at very base of ~6 m tall chimney edifice.
J2-202-9-R1	Vienna Woods	6350	7/25	12:52		3154	5849	2487	5	5	3159	5854	2487	209	1.4	Relict Sulfide Chimney/ Grab	Inactive spire piece from base of small (broken) chimney
J2-202-10-R1	Vienna Woods	6410	7/25	13:05		3135	5861	2484	3	4	3138	5865	2484	248	2.0	Sediment/ Grab	Clay-silica-sulfate precipitate encrusted in Mn-oxide casing (early or late?) lying within sulfide-sediment mound.
J2-202-11-R1	Vienna Woods	6460	7/25	13:12		3112	5825	2481	-2	36	3110	5861	2480	190	1.4	Relict Sulfide Chimney/ Grab	Parasite spire from base and side of ~8 m tall inactive chimney complex.
J2-202-12-R1	Vienna Woods	6560	7/25	13:31		3100	5832	2487	4	-1	3104	5831	2487	245	1.4	Relict Sulfide Chimney/ Grab	Exterior piece from side of lone, partially broken sulfide chimney
J2-202-13-R1	Vienna Woods	7600	7/25	20:25		3282	5798	2485	-3	1	3279	5799	2485	120	0.7	Volcanic Rock/ Grab	Partly altered basalt, glassy rind in places; interior tubes of drained lava flows.
J2-202-14-R1	Vienna Woods	7653	7/25	20:42		3256	5786	2487	-3	0	3253	5786	2486	177	1.0	Sediment / Grab	Mn-oxide coating inner amorphous oxide-clay mass from exterior of base of large, collapsed sulfide chimney.
J2-202-15-R1	Vienna Woods	7731	7/25	21:25		3224	5698	2476	0	0	3224	5698	2476	316	0.7	Collapsed Chimney/ Grab	Large (>50 cm diameter) basal piece of Zn-rich (w/ Py veins?) massive chimney.
J2-202-16-R1	Vienna Woods	7861	7/25	21:44		3207	5668	2474	-1	-2	3206	5666	2474	149	1.9	Relict Sulfide Chimney/ Grab	Zn-sulfide spire from mid-section of small (~ 2 m) chimney (part of larger complex)
J2-202-17-R1	Vienna Woods	7907	7/25	21:54		3219	5666	2467	-5	-1	3214	5665	2467	074	7.0	Relict Sulfide Chimney/ Grab	Top (~30 cm) of protruding spire from large (~8 m) inactive chimney
J2-203-1-R1	Bronze Age Fort	8926	7/26	15:53		5716	8462	2462	1	2	5717	8464	2461	240	3.2	Volcanic Rock/ Grab	Altered, non-glassy basalt from rubble front. Some surface colonization.
J2-203-2-R1	Bronze Age Fort	9005	7/26	16:43		5614	8386	2400	-1	1	5613	8387	2402	235	0.7	Volcanic Rock/ Grab	Protruding, glassy, fresh pillowbud from edge of outcrop. Navigation questionable.
J2-203-3-R1	Bronze Age Fort	9076	7/26	17:16		5634	8287	2433	0	-1	5634	8286	2436	205	4.0	Relict Sulfide Chimney/ Grab	Tip of ~ 4-5 m chimney from extinct sulfide field (> 10 large-ish spires).
J2-203-4-R1	Bronze Age Fort	9520	7/26	20:27		5560	8135	2445	-3	0	5557	8135	2445	045	1.2	Volcanic Rock/ Grab	Altered basalt from top of 'hogback' or 'razorback' wall (~ 15 m high)
J2-203-5-R1	Bronze Age Fort	9682	7/26	21:24		5652	8307	2444	0	-1	5652	8306	2444	326	2.0	Relict Sulfide Chimney/ Grab	Tip of 1 m relict chimney; from small complex hosted on basalt rubble.
J2-203-5-R2	Bronze Age Fort	9702	7/26	21:28		5652	8307	2444	0	-1	5652	8306	2444	326	2.0	Relict Sulfide Chimney/ Grab	Complete sample of 1 m tall Zn-rich relict chimney.
J2-203-6-R1	Bronze Age Fort	10140	7/26	23:41		5327	8295	2425	19	-5	5346	8290	2429	319	3.1	Volcanic Rock/ Grab	Basalt w/ bi-modal vesicle population taken from basal section of most NW wall.
J2-203-7-R1	Bronze Age Fort	10349	7/27	0:54		5245	7866	2468	-1	4	5244	7870	2467	191	0.7	Volcanic Rock/ Grab	Hackly sheet flow. Partly glassy, folded sheet flow from SW of wall
J2-203-7-R2	Bronze Age Fort	10380	7/27	0:59		5245	7866	2468	-1	4	5244	7870	2467	191	0.7	Volcanic Rock/ Grab	2nd sample of same sheet flow
J2-204-1-R1	Tufar 3	10938	7/27	14:37		12445	11725	2570	-8	-1	12437	11724	2570	141	---	Relict Sulfide Chimney/ Grab	Small relict spire from atop of small (volcanic?) mound.
J2-204-1-R2	Tufar 3	10959	7/27	14:44		12445	11725	2570	-5	-3	12440	11722	2569	096	1.8	Active Sulfide Chimney/ Grab	Active, juvenile chimney (194 C); distance ~ 1 m from inactive 1-R1.
J2-205-1-R1	Tufar 3	13648	7/28	19:20		12166	11404	2520	-1	4	12165	11408	2520	202	1.0	Volcanic Rock/ Grab	Pillow w/ glassy rind. Some plg-olv phenocrysts. Incipient alteration to clay.
J2-206-1-R1	Vienna Woods [Unnamed]	14230	7/29	10:34		20728	16237	2640	27	48	20755	16285	2640	032	1.0	Pumice/ Grab	Pumice from surface of sediment
J2-206-2-R1	Vienna Woods [Unnamed]	15486	7/29	17:34		20171	15242	2587	16	10	20187	15252	2585	249	1.2	Volcanic Rock/ Grab	Weathered pillow from sedimented axial ridge
J2-206-3-R1	Vienna Woods [Unnamed]	15820	7/29	19:30		20663	15331	2421	3	1	20666	15332	2621	002	3.4	Hydrothermal Talus/ Breccia/ Grab	Altered brecciated clasts (volcanic? Perlitic textures) cemented by minor sulfide (Py)
J2-206-4-R1	Vienna Woods [Unnamed]	16230	7/29	22:00		21180	16011	2594	1	3	21181	16014	2592	163	1.6	Volcanic Rock/ Grab	Small piece of broken pillow from small, irregular largely sedimented mound

J2-206-5-R1	Vienna Woods [Unnamed]	16427	7/29	23:18		21170	15906	2602	0	0	21170	15906	2602	318	3.1	Sediment/ Grab	Orange, friable/soft clay-oxide encrusted in Mn-oxide from small exposed volcanic face on sedimented mound
J2-206-6-R1	Vienna Woods [Unnamed]	16500	7/29	23:38		21149	15808	2605	0	0	21149	15808	2605	231	0.8	Pumice/ Grab	Pumice piece from small trench with sea cucumbers
J2-207-1-W1-IGT7	Vienna Woods	16899	7/30	14:46		3243	5747	2470	-2	-3	3241	5744	2470	043	5.5	IGT water sample	From open conduit venting clear fluid; top of main chimney stack w/ other venting spires adjacent. T (max) 282°C
J2-207-1-W2-IGT3	Vienna Woods	16950	7/30	15:00		3243	5747	2470	-2	-3	3241	5744	2470	044	5.5	IGT water sample	Replicate fluid sample. Outside temp taken ~ 31 °C. T (max 282 °C).
J2-207-1-R1	Vienna Woods	16970	7/30	15:08		3243	5747	2470	-2	-3	3241	5744	2470	045	5.5	Active Sulfide Chimney/ Grab	Wtz-lined open conduit; peripheral spire from top of large (>5 m) active chimney. PAIR to three fluids from station #1.
J2-207-1-W3-M2	Vienna Woods	17000	7/30	15:15		3243	5747	2470	-2	-3	3241	5744	2470	044	5.5	MAJOR water sample	Replicate fluid sample. No temperature taken.
J2-207-2-R1	Vienna Woods	17164	7/30	15:59		3336	5785	2474	-2	-4	3334	5781	2474	017	8.3	Active Sulfide Chimney/ Grab	Tip of peripheral spire from heavily colonized (snails), tall (~ 8 m?) chimney. PAIR to one fluid from Stn #2.
J2-207-2-W1-IGT4	Vienna Woods	17190	7/30	16:08		3336	5786	2474	0	-4	3336	5782	2475	017	8.3	IGT water sample	From spire for a fluid-solid pair. Clear fluid. T (max) 273°C. PAIR to one fluid from Stn #2.
J2-207-3-W1-IGT8	Vienna Woods	17393	7/30	17:01		3277	5904	2475	2	2	3279	5906	2475	271	8.0	IGT water sample	Clear fluid from orifice of small spire from large chimney. T (max) 285°C.
J2-207-3-R1	Vienna Woods	17445	7/30	17:18		3277	5904	2475	2	2	3279	5906	2475	271	8.0	Active Sulfide Chimney/ Grab	Sample of sulfide chimney tip from auxillary spire. I don't think this is a solid-fluid pair after preliminary description of sample.
J2-207-3-W2-IGT6	Vienna Woods	17474	7/30	17:38		3277	5904	2475	2	2	3279	5906	2474	271	8.0	IGT water sample	Clear smoker from 2 cm wide conduit. Sample was friable and I don't think it is an exact fluid-solid pair to 3-R1. T (max) 240 °C.
J2-207-4-R1	Vienna Woods	17683	7/30	18:25		3143	5877	2484	5	-5	3148	5872	2484	067	1.0	Sediment/ Grab	Solid, platy sediment at base of chimney
J2-207-5-R1	Vienna Woods	17781	7/30	18:50		3149	5876	2485	1	-9	3150	5867	2485	024	1.1	Relict Sulfide/ Grab	Fragments of base of small, bulbous relict sulfide (massive?) from surface of large pillow basalt
J2-207-5-R2	Vienna Woods	17791	7/30	18:54		3149	5876	2485	1	-9	3150	5867	2485	028	1.4	Relict Sulfide/ Grab	2nd piece from adjacent section of relict sulfide.
J2-207-6-R1	Vienna Woods	17871	7/30	19:15		3147	5867	2487	9	-13	3156	5854	2487	066	1.3	Volcanic Rock/ Grab	Moderately vesicular basalt from near base of sulfide chimney
J2-207-7-R1	Vienna Woods	18076	7/30	20:12		3173	5882	2482	0	1	3173	5883	2483	300	1.3	Volcanic Rock/ Grab	Underside of old pillow flow from section under a relict sulfide chimney
J2-207-8-R1	Vienna Woods	18200	7/30	20:35		3170	5882	2480	-4	0	3166	5882	2480	314	4.1	Active Sulfide Chimney/ Grab	Extremely friable, fragments of young (4 days) Anh-Sph active "beehive" chimney
J2-208-1-R3	Roman Ruins	19160	8/02	11:35	2	2793	3256	1677	4	-2	2797	3254	1677	275	2.0	Active Sulfide Chimney/ Volunteer	Volunteer sulfide spire from Stn #1. Fell in during approach to station from tall edifice.
J2-208-1-T1	Roman Ruins	19190	8/02	11:44	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.9	Temperature Measurement	Jason T probe. 307 °C. Orifice of black smoker spire from rotund chimney edifice [part of sulfide wall complex].
J2-208-1-T2	Roman Ruins	19200	8/02	11:47	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.9	Temperature Measurement	Jason T probe. 277 °C. Orifice of grey smoker of same chimney complex.
J2-208-1-W1-IGT8	Roman Ruins	19225	8/02	11:57	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	IGT water sample	Grey/black smoker fluid from top of rotund edifice. Pair to 1-T2 and sulfide 1-R1. T (max) 312 °C.
J2-208-1-W2-IGT5	Roman Ruins	19243	8/02	12:03	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	IGT water sample	Replicate fluid sample. T (max) 314 °C.
J2-208-1-W3-M4	Roman Ruins	19290	8/02	12:23	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	MAJOR water sample	Replicate fluid sample. No T measurement taken.
J2-208-1-R1	Roman Ruins	19311	8/02	12:51	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	Active Sulfide Chimney/ Grab	Small remaining piece of black smoker spire for PAIR to three fluids from Station 208-1. Sample mostly lost. Cpy-lined.
J2-208-1-T3	Roman Ruins	19393	8/02	12:58	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	Temperature Measurement	Jason T probe. 6 °C. From outside surface of chimney conduit.
J2-208-1-T4	Roman Ruins	19403	8/02	13:00	2	2793	3256	1677	4	-2	2797	3254	1677	275	1.3	Temperature Measurement	Jason T probe. 315 °C. In fluid conduit after sampling for fluids.

J2-208-1-R2	Roman Ruins	19422	8/02	13:03	2	2794	3254	1677	3	0	2797	3254	1677	280	1.3	Relict Sulfide Chimney/ Grab	Relict beehive knob from main "wall" of sulfide complex. Pervasive (white) microbial mat on exterior.
J2-208-1-Mkr2	Roman Ruins	19446	8/02	13:10	2	2794	3254	1677	3	0	2797	3254	1677	280	1.3	Marker [Roman Ruins]	Marker #2 placed at base of large active chimney complex where station 208-1 samples taken.
J2-208-1-R4	Roman Ruins	19461	8/02	13:11	2	2794	3254	1677	3	0	2797	3254	1677	280	1.3	Relict Sulfide Chimney/ Volunteer	2nd volunteer sulfide chimney from Stn #1. Fell in whilst deploying marker from right (north) side of complex.
J2-208-2-T1	Roman Ruins	19694	8/02	14:30	1	2802	3235	1675	3	-1	2805	3234	1676	333	2.9	Temperature Measurement	Jason T probe. 282 °C. Top of bulbous beehive at top of 1 - 2 m tall sulfide complex.
J2-208-2-W1-IGT1	Roman Ruins	19731	8/02	14:43	1	2802	3235	1675	3	-1	2805	3234	1675	333	2.9	IGT water sample	Grey/black smoker fluid from beehive. T (max) 271 °C.
J2-208-2-W2-IGT2	Roman Ruins	19754	8/02	14:53	1	2802	3235	1675	3	-1	2805	3234	1675	333	2.9	IGT water sample	Replicate fluid sample. T (max) 272 °C.
J2-208-2-W3-M2	Roman Ruins	19778	8/02	15:04	1	2802	3235	1675	3	-1	2805	3234	1676	333	2.9	MAJOR water sample	Replicate fluid sample. No T measurement taken.
J2-208-2-R1	Roman Ruins	19801	8/02	15:13	1	2802	3235	1675	4	-1	2806	3234	1675	333	2.9	Inactive Sulfide Chimney/ Grab	External shell of small beehive, next to beehive sampled for fluids, but this sample does not have venting.
J2-208-2-R2	Roman Ruins	19820	8/02	15:16	1	2802	3235	1675	3	-1	2805	3234	1676	333	2.9	Active Sulfide Chimney/ Grab	External shell of beehive from which fluids at station 208-2 were taken. Interior friable and crumbled; not a good fluid-solid pair.
J2-208-2-R3	Roman Ruins	19832	8/02	15:20	1	2802	3235	1675	3	-2	2805	3233	1676	333	2.9	Inactive Sulfide Chimney/ Grab	External shell of beehive from base of wall of complex. In proximity (<1 m) to samples 2-R1 and 2-R2.
J2-208-2-R4	Roman Ruins	19850	8/02	15:24	1	2801	3234	1675	6	-1	2807	3233	1675	298	3.1	Relict Sulfide Chimney/ Grab	Collapsed, relict beehive from base of sulf. complex; approx 2 m from 2-R1, R2 and R3. [Still shimmering after sampling - 40 °C, hot and only recently active?]
J2-208-2-T2	Roman Ruins	19868	8/02	15:30	1	2801	3234	1675	6	0	2807	3234	1675	298	3.1	Temperature Measurement	Jason T probe. 264 °C. From orifice of grey smoker close to (~1 m) from relict 2-R4.
J2-208-2-Mkr1	Roman Ruins	19924	8/02	15:38	1	2802	3233	1675	5	1	2807	3234	1675	306	4.0	Marker [Roman Ruins]	Marker #1 placed at base of sulfide complex, closest to sample 2-R4
J2-208-3-R1	Roman Ruins	19962	8/02	15:56		2778	3225	1683	4	-4	2782	3221	1683	326	2.1	Hydrothermal Talus/ Breccia/ Grab	Rock from talus pile at base of sulfide rampart; i) mineralized and altered volcanic breccia or ii) degraded massive sulfide?
J2-208-4-R1	Roman Ruins	20093	8/02	16:26		2746	3188	1681	3	-1	2749	3187	1680	044	1.6	Relict Sulfide Chimney/ Grab	Outer ~ 2 cm of exterior layers of relict sulfide spire from base of large, mostly inactive chimney. No interior layers.
J2-208-4-R2	Roman Ruins	20130	8/02	16:29		2745	3189	1680	2	-2	2747	3187	1681	040	1.5	Relict Sulfide Chimney/ Grab	Tip of spire from relict ~1.5 m chimney next to sample 4-R2.
J2-208-4-T1	Roman Ruins	20165	8/02	16:38		2741	3192	1681	6	-5	2747	3187	1681	041	0.8	Temperature Measurement	Jason T probe. 236 °C. In orifice of white smoker from small spire next to relict samples 4-R2.
J2-208-5-R1	Roman Ruins	20458	8/02	18:10		2680	3164	1670	-1	-4	2679	3160	1670	130	2.5	Volcanic Rock/ Grab	Relatively fresh volcanic pillow flow from edge of flat-topped conical hill.
J2-208-6-T1	Roman Ruins	20538	8/02	18:33		2692	3170	1669	0	-3	2692	3167	1669	048	3.0	Temperature Measurement	Jason T probe. 106 °C. Temp of clear fluid directly out of sedimented (+ Fe-oxide casing) fissure.
J2-208-6-T2	Roman Ruins	20617	8/02	18:45		2693	3171	1669	1	1	2694	3172	1669	049	1.8	Temperature Measurement	Jason T probe. 277 °C. Fluid from orifice of grey smoker from small (~ 1 m) Fe-oxide coated sulfide chimney
J2-208-7-T1	Roman Ruins	20746	8/02	19:13	4	2708	3169	1666	-1	1	2708	3170	1666	250	4.7	Temperature Measurement	Jason T probe. 316 °C. In conduit of small black smoker spire from side of large (>5 m) chimney.
J2-208-7-Mkr4	Roman Ruins	20770	8/02	19:19	4	2708	3169	1667	-1	1	2708	3170	1666	247		Marker [Roman Ruins]	Marker #4 at base of black smoker chimney complex where T sampled, in case we return for fluid sampling on future dive.

J2-208-8-T1	Roman Ruins	20964	8/02	19:59		2723	3192	1681	-1	1	2722	3193	1681	149	1.3	Temperature Measurement	Jason T probe. 266 °C. Grey smoker fluid from wide conduit [fissure] from hydro- thermally stained pillows at base of scarp.
J2-208-9-T1	Roman Ruins	21107	8/02	20:35		2719	3217	1681	0	0	2719	3217	1681	104	2.8	Temperature Measurement	Jason T probe. 39 °C. Exterior surface of white, microbially-coated beehive knob from top of small sulfide chimney.
J2-208-9-R1	Roman Ruins	21177	8/02	20:54		2719	3217	1681	0	0	2719	3217	1681	104	2.8	Active Sulfide Chimney/ Grab	Exterior ~3 cm skin of [active] sulfide chimney. Heavy surface microbial deposits. Several pieces.
J2-208-9-T3	Roman Ruins	21218	8/02	21:01		2719	3217	1681	0	0	2719	3217	1681	104	2.8	Temperature Measurement	Jason T probe. 196 °C. Interior of [sampled] white , beehive knob from top of small sulfide chimney.
J2-208-10-R1	Roman Ruins	21447	8/02	22:11		2776	3246	1677	0	0	2776	3246	1677	053	3.8	Active Sulfide Chimney/ Grab	Piece of massive sulfide (Py + minor ZnS) from base of wall w/ sulfide encrustations and well-developed diffuse flow chimneys.
J2-208-10-T1	Roman Ruins	21490	8/02	22:19		2776	3246	1677	0	1	2776	3247	1677	053	3.8	Temperature Measurement	Jason T probe. 54 °C. High temp measured from flow within and around altered pillow and sulfide edifices.
J2-208-11-N1	Roman Ruins	21720	8/02	23:51		2678	3431	1707	-2	2	2676	3433	1707	272	9.5	NISKIN water sample	Niskin samples of local bottom water from Rogers Ruins vent field. T = 2.4 °C. Eh = 142 mV (rebounding to background).
J2-209-1-R1	Satanic Mills	22110	8/03	11:47	3	2448	2574	1685	-1	0	2447	2574	1685	188	3.2	Active Sulfide Chimney/ Grab	Tip of black smoker chimney. PAIR to three fluids. Cpy and Py lined conduits.
J2-209-1-W1-IGT7	Satanic Mills	22129	8/03	11:52	3	2448	2574	1685	-1	0	2447	2574	1685	188	3.2	IGT water sample	Grey/black smoker from tip of ~3 m chimney. T (max) 293 °C. Pair to sulfide 209-1-R1.
J2-209-1-W1-IGT6	Satanic Mills	22152	8/03	12:00	3	2448	2574	1685	-1	0	2447	2574	1685	188	3.2	IGT water sample	Replicate fluid sample. T (max) 295 °C.
J2-209-1-W3-M4	Satanic Mills	22179	8/03	12:10	3	2448	2574	1685	-1	0	2447	2574	1685	188	3.2	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-209-1-R2	Satanic Mills	22220	8/03	12:25	3	2448	2574	1685	0	0	2448	2574	1685	188	3.2	Relict Sulfide Chimney/ Grab	Tall, relict sulfide spindle; close to 209-1-R1. Cpy w/ oxidation products.
J2-209-1-Mkr3	Satanic Mills	22444	8/03	13:37	3	2446	2574	1685	2	1	2448	2575	1685	163	4.4	Marker [Satanic Mills]	Marker #3. Deployed post-sampling upon return to edifice N side of active edifice.
J2-209-2-N1	Satanic Mills	22285	8/03	12:44		2432	2561	1685	-2	-2	2430	2559	1682	230	4.0	NISKIN water sample	Niskin bottle fired from bottom of depression; N of Satanic Mills vent field.
J2-209-2-N2	Satanic Mills	22297	8/03	12:47		2432	2561	1685	-2	-2	2430	2559	1685	230	0.8	NISKIN water sample	Niskin bottle fired from bottom of depression; N of Satanic Mills vent field.
J2-209-3-R1	Satanic Mills	22655	8/03	14:45		2454	2621	1683	1	2	2455	2623	1683	027	2.7	Volcanic Rock/ Grab	Black, holohyaline lava, numerous vesicles. Some surface staining. From area of seafloor w/ shimmering flow.
J2-209-4-T1	Satanic Mills	22940	8/03	16:40		2461	2542	1684	-1	-3	2460	2539	1687	025	1.5	Temperature Measurement	Jason T probe 136 °C. Clear fluid emanating from fissure between pillow flows. Small white diffuser smokers and Ifremeria snails.
J2-209-4-T2	Satanic Mills	22993	8/03	16:50		2461	2544	1684	-1	-4	2460	2540	1687	025	1.5	Temperature Measurement	Jason T probe. 219 °C. Grey smoker fluids from the white diffuser smoker.
J2-209-5-R1	Satanic Mills	23103	8/03	17:22		2452	2523	1684	0	-6	2452	2517	1689	347	4.8	Active Sulfide Chimney/ Grab	Tip of spire from small (~1 m) white smoker from fissure in basement. Temp (int) 212 °C; (ext) 5.6 °C.
J2-209-6-R1	Satanic Mills	23183	8/03	17:56	5	2450	2537	1688	0	0	2450	2537	1688	349	1.3	Active Sulfide Chimney/ Grab	Multi-conduit, large active Fe-Zn spire. PAIR to two fluids.
J2-209-6-W1-IGT4	Satanic Mills	23344	8/03	18:40	5	2450	2537	1688	0	0	2450	2537	1688	349	1.3	IGT water sample	Focused fluid from orifice left open after sampling for sulfide. T (max) 241 °C
J2-209-6-W2-M2	Satanic Mills	23413	8/03	18:54	5	2450	2537	1688	0	0	2450	2537	1688	349	1.3	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-209-6-R2	Satanic Mills	23486	8/03	19:12	5	2450	2537	1688	-1	-1	2449	2536	1688	349	1.3	Hydrothermal Talus/ Breccia/ Grab	Relict, altered/weathered sulfide. Much textural and mineralogical info. not preserved. From base of chimney complex.
J2-209-6-R3	Satanic Mills	23538	8/03	19:20	5	2450	2537	1688	-2	1	2448	2538	1688	349	1.3	Relict Sulfide Chimney/ Grab	Inactive "Palmate" sulfide chimney w/ complex outer sulfide textures. Is a frond from top of palm-like branching chimney.

J2-209-6-Mkr5	Satanic Mills	23569	8/03	19:22	5	2450	2537	1688	1	-1	2451	2536	1688	349	1.3	Marker [Satanic Mills]	Marker #5 in proximity (~1 m) to small triple-spined chimney edifice. Directly on volcanic substrate.
J2-209-7-R1	Satanic Mills	23880	8/03	21:01		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Active Sulfide Chimney/ Grab	Small tip (cpy-lined) from black smoker chimney at periphery of large smoker complex.
J2-209-7-T1	Satanic Mills	238911	8/03	21:07		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Temperature Measurement	Jason T probe. 271 °C. From orifice of sampled chimney (209-7-R1).
J2-209-7-R2	Satanic Mills	23980	8/03	21:14		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Relict Sulfide Chimney/ Grab	Piece of cpy-rich multi-conducted, relict spire from base of the same smoker complex.
J2-209-7-R3	Satanic Mills	24001	8/03	21:21		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Relict Sulfide Chimney/ Grab	Cpy-lined, small relict spire from talus pile at base of chimney complex
J2-209-7-R4	Satanic Mills	24017	8/03	21:21		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Relict Sulfide Chimney/ Grab	Cpy-lined, small relict spire from talus pile at base of chimney complex
J2-209-7-R5	Satanic Mills	24080	8/03	21:31		2464	2572	1689	0	-2	2464	2570	1689	020	0.7	Relict Sulfide Chimney/ Grab	Cpy-lined, Zn-Fe-rich relict spire from talus pile at base of chimney complex.
J2-209-8-R1	Satanic Mills	24136	8/03	21:49		2464	2549	1688	0	1	2464	2550	1688	256	2.2	Hydrothermal Talus/ Breccia/ Grab	Large breccia of grey clastic altered volcanic lava cemented between Cu-rich and Qtz veins.
J2-209-9-R1	Satanic Mills	24242	8/03	22:26		2427	2495	1689	3	0	2430	2495	1689	296	1.8	Volcanic Rock/ Grab	Glassy, aphyric, lobate flow w/ minor surface staining from heavily sedimented terrain.
J2-210-1-T1	Snowcap	25010	8/04	12:20	6	2147	2427	1643	0	-3	2147	2424	1643	201	1.1	Temperature Measurement	Jason T probe. 107 °C. Clear fluid discharging from crack at mid-point of large chimney complex.
J2-210-1-W1-IGT8	Snowcap	25022	8/04	12:31	6	2147	2427	1643	0	-3	2147	2424	1643	201	1.1	IGT water sample	Clear fluid sample from same locale as temperature meas. T (max) 120 °C.
J2-210-1-W2-IGT5	Snowcap	25058	8/04	12:39	6	2147	2427	1643	0	-3	2147	2424	1643	201	1.1	IGT water sample	Replicate fluid sample. T (max) 152 °C. Snorkle came away from orifice during sample.
J2-210-1-W3-M2	Snowcap	25084	8/04	12:49	6	2147	2427	1643	0	-3	2147	2424	1643	201	1.1	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-210-1-Mkr6	Snowcap	25108	8/04	12:58	6	2147	2427	1643	-1	-2	2146	2425	1643	201	1.1	Marker [Snowcap]	Marker #6 at base of chimney complex sampled for fluids and inactive sulfides.
J2-210-1-R1	Snowcap	25134	8/04	13:00	6	2148	2424	1643	-2	1	2146	2425	1643	253	1.9	Relict Sulfide Chimney/ Grab	Relict, Zn-sulfide spire tip from periphery of large sulfide chimney complex.
J2-210-2-R1	Snowcap	25190	8/04	13:25		2156	2422	1642	-2	-1	2154	2421	1642	088	2.8	Sulfur/ Grab	Predominantly amorphous sulfur (dark grey). Forms vein within 2-R2 type rock
J2-210-2-R2	Snowcap	25284	8/04	13:51		2150	2420	1643	1	-3	2151	2417	1643	150	3.5	Volcanic Rock/ Grab	Fresh, sparsely phyrlic (plg?) volcanic lava. Isolated and loose from slope of sedimented ridge w/ bacterial mats.
J2-210-3-R1	Snowcap	25520	8/04	15:08		2209	2398	1635	2	4	2211	2402	1635	209	0.1	Sediment/ Scoop	Sediment scoop of white sediment material from top of ridge. Recovered only coarse gravel.
J2-210-4-W1-IGT2	Fenway	25881	8/04	17:18		2490	2376	1716	1	-2	2491	2374	1716	354	2.6	IGT water sample	Fluid sample fired in seawater. No T measurement.
J2-210-4-R1	Fenway	25930	8/04	17:36		2491	2376	1716	0	-1	2491	2375	1716	354	2.6	Collapsed Chimney/ Grab	Inactive (Cu-rich central; Zn-rich external) relict spire from larger chimney complex next to sampled fluids.
J2-210-5-R1	Fenway	26104	8/04	18:15		2514	2394	1701	1	0	2515	2394	1702	007	2.5	Volcanic Rock/ Grab	Fractured volcanic lava, moderately surface staining. Colonized w/ extensive mussel and alvinellid populations.
J2-210-5-T1	Fenway	26141	8/04	18:18		2514	2394	1701	-1	-1	2513	2393	1702	000	2.6	Temperature Measurement	Jason T probe. 5.5°C. Measurement at surface of lava where biology is extensive
J2-210-5-T2	Fenway	26157	8/04	18:21		2514	2394	1701	-2	-1	2512	2393	1702	000	2.6	Temperature Measurement	Jason T probe. 20.5 °C. Measurement of fluids at depth 15 cm beneath seafloor.
J2-210-5-T3	Fenway	26164	8/04	18:25		2514	2394	1701	-4	-2	2510	2392	1702	000	2.6	Temperature Measurement	Jason T probe. 8.2°C. At surface in dense patch of alvinellid worms.
J2-210-5-T4	Fenway	26172	8/04	18:27		2514	2394	1701	-4	-2	2510	2392	1702	000	2.6	Temperature Measurement	Jason T probe. 12.9°C. Inserted into sediment beneath community of alvinellid.
J2-210-6-R1	Fenway	26270	8/04	18:56		2513	2411	1699	0	1	2513	2412	1699	220	1.4	Sediment/ Scoop	Scoop at top of ridge. Recovered clastic sediment of angular lava, pumice, Pele's Hair and FeOOH platey precipitates.

J2-210-6-T1, T2	Fenway	26315	8/04	19:05		2517	2409	1698	-1	3	2516	2412	1699	222	1.7	Temperature Measurement	Jason T probe. 3.0 °C (surface); 11.4 °C (inserted) into sediment on top of ridge.
J2-210-7-R1	Fenway	26442	8/04	19:44		2489	2383	1710	1	0	2490	2383	1710	319	4.1	Inactive Sulfide Chimney Tip/ Grab	Tip of small Py, Sph (Wtz?) sulfide chimlet from base of larger complex. Fresh, but no flow apparent (sealed tip, active chimney).
J2-210-7-R2	Fenway	26465	8/04	19:53		2490	2383	1710	0	0	2490	2383	1710	319	4.1	Active Sulfide Chimney/ Grab	Mid-section of larger, active part of same chimney as 7-R1. Flow started once sampled. Colonized with <i>Alvin</i> . snails.
J2-210-7-W1-IGT1	Fenway	26560	8/04	20:17		2490	2383	1710	0	0	2490	2383	1710	319	4.1	IGT water sample	Grey-Clear fluid from opened orifice at base of chimney which sampled for sulfide. PAIR sample. T (max) 296, T (avg) 280 °C.
J2-210-7-W2-M4	Fenway	26580	8/04	20:26		2490	2383	1710	0	0	2490	2383	1710	319	4.1	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-210-7-R3	Fenway	26639	8/04	20:38		2490	2383	1710	0	0	2490	2383	1710	319	4.1	Relict Sulfide Chimney/ Grab	Talus of former sulfide chimney. Py and Sph, two-layer wall.
J2-210-N1	Fenway	26786	8/04	21:26		2427	2388	1698	0	0	2427	2388	1698	115	3.0	NISKIN water sample	In water column at top of scarp.
J2-210-N2	Fenway	26795	8/04	21:27		2427	2388	1698	0	0	2427	2388	1698	115	3.0	NISKIN water sample	In water column at top of scarp.
J2-210-8-R1	Fenway	26916	8/04	22:08		2459	2367	1717	3	3	2462	2370	1717	211	0.9	Massive Anhydrite/ Grab	Euhedral, massive anhydrite exposed on seafloor at/near base of sedimented scarp/ slope.
J2-210-8-R2	Fenway	26944	8/04	22:14		2459	2367	1717	3	3	2462	2370	1717	211	0.9	Massive Anhydrite/ Grab	Euhedral, massive anhydrite exposed on seafloor at/near base of sedimented scarp/ slope.
J2-210-8-R3	Fenway	26950	8/04	22:17		2459	2367	1717	5	0	2464	2367	1716	211	0.9	Relict Sulfide Chimney/ Grab	Highly weathered and altered, Fe-oxide-rich relict sulfide exposed on sedimented slope w/ abundant massive anh(?); next to 8-R1, 8-R2.
J2-210-9-T1	Fenway	26989	8/04	22:28		2462	2356	1708	1	0	2463	2356	1708	169	3.3	Temperature Measurement	Jason T probe. 190°C. Tip of ~ 1 cm diameter chimlet venting black smoker fluids. Entraining seawater.
J2-210-9-R1	Fenway	27005	8/04	22:34		2462	2356	1708	2	0	2464	2356	1708	169	3.3	Active Sulfide Chimney/ Grab	~ 1 cm diameter, extremely small (~20 g) sample of Cpy-lined open conduit chimlet.
J2-210-10-Mkr7	Fenway	27067	8/04	22:51	7	2462	2357	1708	2	-3	2464	2354	1708	167	3.3	Marker [Fenway]	Marker #7 at base of newly discovered, highly active, high temperature sulfide chimney complex.
J2-210-10-T1	Fenway	27200	8/04	23:25	7	2462	2353	1705	2	-3	2464	2350	1706	033	4.5	Temperature Measurement	Jason T probe. 353°C. Inserted into orifice encased in thick black smoke; phase separating fluid.
J2-211-1-T1	Tsukushi	27520	8/05	10:24		1861	2238	1658	-1	2	1860	2240	1658	167	1.8	Temperature Measurement	Jason T probe. 26°C. Flow between cracks from oxide encrusted debris near relict chimney field on volcanic (?) mound.
J2-211-2-T1	Tsukushi	27800	8/05	12:02		1838	2237	1660	2	0	1840	2237	1660	274	0.9	Temperature Measurement	Jason T probe. 59°C. Flow from crack from oxide coated sulfidic mound.
J2-211-2-W1-IGT7	Tsukushi	27856	8/05	12:12		1838	2237	1660	1	0	1839	2237	1660	274	0.9	IGT water sample	Fluid from cracks in sulfide mound. T (max) 61 °C.
J2-211-2-W2-IGT6	Tsukushi	27889	8/05	12:26		1838	2237	1660	1	0	1839	2237	1660	274	0.9	IGT water sample	Replicate fluid sample. T (max) 62 °C.
J2-211-2-R1	Tsukushi	27932	8/05	12:42		1838	2237	1660	-1	0	1837	2237	1660	274	0.9	Sediment/ Grab	Piece of ~1 cm thick ferrihydrite exterior layer from mound; coated w/ colloform Mn-oxide.
J2-211-2-R2	Tsukushi	27956	8/05	12:47		1838	2237	1660	-1	-1	1837	2236	1660	274	0.9	Volcanic Rock/ Grab	Fresh pillow lava fragment exposed at surface at base of mound.
J2-211-3-R1	Tsukushi	28173	8/05	14:10		1805	2440	1626	0	0	1805	2440	1626	307	0.6	Volcanic Rock/ Grab	Mostly fresh, glassy to aphanitic lava from top of a [volcanic] dome.
J2-211-4-R1	Snowcap	28650	8/05	17:25		2139	2428	1639	0	0	2139	2428	1640	083	3.8	Inactive Sulfide Chimney/ Grab	Tip of relict spire from apex of large chimney edifice. Some active, shimmering flow from complex.
J2-211-4-R2	Snowcap	28698	8/05	17:40		2139	2428	1639	0	0	2139	2428	1639	083	3.8	Inactive Sulfide Chimney/ Grab	Adjacent non-venting spire from the same chimney complex. Flow commenced upon sampling sulfide. Later paired to fluids.
J2-211-4-T1	Snowcap	28745	8/05	18:03		2139	2428	1639	0	0	2139	2428	1639	083	3.8	Temperature Measurement	Jason T probe. 173°C. From orifice 4-R2.
J2-211-4-T2	Snowcap	28769	8/05	18:09		2139	2428	1639	0	0	2139	2428	1639	083	3.8	Temperature Measurement	Jason T probe. 177°C. From orifice 4-R1.
J2-211-5-R1	Snowcap	28870	8/05	18:37		2140	2414	1646	-2	0	2138	2414	1646	073	0.2	Sulfur / Grab	Native sulfur from flow exposed on seafloor. Mostly amorphous (grey), some ortho (yellow).



J2-211-6-R1	Snowcap	28989	8/05	19:02		2143	2421	1645	0	1	2143	2422	1645	171	0.9	Volcanic Rock/ Grab	bedded, looks like hyaloclastite
J2-211-7-T1	Snowcap	29170	8/05	19:59		2111	2385	1651	0	-1	2111	2384	1651	355	1.4	Temperature Measurement	Jason T probe. 63°C. Shimmering water at base of Sulfide chimney complex
J2-211-7-R1	Snowcap	29190	8/05	20:04		2111	2385	1651	-1	-1	2110	2384	1651	355	1.4	Relict Sulfide Chimney/ Grab	Inactive sulfide spire from base of same sulfide complex.
J2-211-8-R1	Snowcap	29250	8/05	20:35		2097	2400	1649	1	0	2098	2400	1649	290	0.7	Volcanic Rock/ Grab	Weathered volcanic substratum from variably sedimented and Fe-oxide coated ridge.
J2-211-9-W1-IGT4	Snowcap	29758	8/05	23:23		2143	2440	1639	0	0	2143	2440	1639	160	4.6	IGT water sample	Clear fluid from open conduit; PAIR to sulfide 211 4-R2. T (max) 180 °C.
J2-211-9-W2-IGT3	Snowcap	29779	8/05	23:34		2143	2440	1639	0	-1	2143	2439	1639	160	4.6	IGT water sample	Replicate fluid sample. T (max) 174 °C.
J2-211-9-W3-M4	Snowcap	29816	8/05	23:46		2143	2440	1639	0	0	2143	2440	1639	160	4.6	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-212-1-R1	Fenway	30414	8/06	13:10	7	2466	2349	1706	-3	3	2463	2352	1706	047	3.6	Active Sulfide Chimney/ Grab	Exterior ~ 5 cm, Py-Anh-rich piece from side of large Fenway chimney complex. From "Big Papi" black smoker spire.
J2-212-1-T1	Fenway	30420	8/06	13:16	7	2466	2349	1706	-3	3	2463	2352	1706	047	3.6	Temperature Measurement	Jason T probe. 353 °C. Interior open conduit orifice from "Big Papi"
J2-212-2-W1-IGT8	Fenway	30519	8/06	14:26	7	2465	2349	1707	4	0	2469	2349	1707	294	3.2	IGT water sample	Fluid from small orifice from side of chimney complex venting black smoke. T (max) 329 °C.
J2-212-2-W2-IGT5	Fenway	30599	8/06	14:42	7	2465	2349	1707	4	0	2469	2349	1707	291	3.7	IGT water sample	Replicate fluid sample. T (max) 343 °C.
J2-212-2-W3-M4	Fenway	30630	8/06	14:51	7	2465	2349	1707	4	0	2469	2349	1707	291	3.7	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-212-2-R1	Fenway	30681	8/06	15:02	7	2465	2349	1707	4	0	2469	2349	1708	313	2.9	Active Sulfide Chimney/ Grab	Small exterior piece of black smoker chimney spire from Fenway chimney complex. No fluid pairs.
J2-212-2-R2	Fenway	30708	8/06	15:12	7	2465	2349	1707	4	0	2469	2349	1707	313	2.9	Active Sulfide Chimney/ Grab	2nd piece. Similar to 2-R1. From same chimney; Exterior piece.
J2-212-3-R1	Fenway	30771	8/06	15:43		2471	2356	1706	3	0	2474	2356	1708	224	5.8	Relict Sulfide Chimney/ Grab	Sealed spire from adjacent to a clear (145 °C) smoker at base of large sulfide edifice. Marker 7 visible in camera.
J2-212-3-R2	Fenway	30790	8/06	15:46		2471	2356	1706	3	0	2474	2356	1709	224	5.8	Relict Sulfide Chimney/ Grab	Replicate solid sample.
J2-212-4-R1	Fenway	30869	8/06	16:18		2458	2353	1712	-1	-3	2457	2350	1712	107	3.4	Hydrothermal Talus/ Breccia/ Grab	Cpy+Anh-rich talus from base of the main Fenway vent field.
J2-212-5-R1	Fenway	30950	8/06	16:51		2471	2366	1716	-1	1	2470	2367	1716	226	1.7	Hydrothermal Talus/ Breccia/ Grab	Second Cpy+Anh talus piece from NE area beneath base of the main active mound.
J2-212-6-W1-IGT2	Fenway	31083	8/06	17:34		2464	2354	1706	-1	-1	2463	2353	1706	075	5.1	IGT water sample	Fluid from vigorous black smoker; encased in thick particle cloud. T (max) 358 °C
J2-212-6-W2-IGT1	Fenway	31123	8/06	17:48		2464	2354	1706	-1	-1	2463	2353	1706	075	5.1	IGT water sample	Replicate fluid sample. T (max) 356 °C.
J2-212-6-W3-M2	Fenway	31160	8/06	18:05		2464	2354	1706	-1	-1	2463	2353	1706	075	5.1	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-212-6-R1	Fenway	31192	8/06	18:13		2464	2354	1706	-1	-1	2463	2353	1706	075	5.1	Active Sulfide Chimney/ Grab	Py-Anh-Cpy broken fragments from exterior of large (> 15 cm diameter) black smoker chimney where fluids sampled. No interior section. No true fluid-sulfide pair.
J2-212-6-R2	Fenway	31220	8/06	18:18		2464	2354	1706	-1	-1	2463	2353	1706	075	5.1	Active Sulfide Chimney/ Grab	Second exterior section of massive sulfide chimney wall; next to 213-6-R1.
J2-212-7-R1	Fenway	31345	8/06	18:54		2457	2351	1712	-1	1	2456	2352	1712	138	3.1	Massive Anhydrite/ Grab	Massive anhydrite intergrown w/ sulfide talus from scarp base of Fenway mound.
J2-212-8-T1, T2	Fenway	31402	8/06	19:08		2457	2348	1711	-1	1	2456	2349	1711	144	2.6	Temperature Measurement	Jason T probe. 17.6 °C (surface), 42°C (inserted). In soft, sedimented and microbially coated mound.
J2-212-8-R1	Fenway	31430	8/06	19:21		2457	2348	1711	-1	1	2456	2349	1711	144	2.6	Sediment/ Scoop	Scoop bag of sediment from atop microbial-rich mound.
J2-212-9-R1	Fenway	31480	8/06	19:41		2459	2352	1710	0	0	2459	2352	1710	108	3.3	Relict Sulfide Chimney/ Grab	Tip of small Zn-Fe-rich sulfide spire; periphery/ parasitic spire from larger white diffuser complex.
J2-212-9-T1	Fenway	31520	8/06	19:50		2459	2352	1710	0	0	2459	2352	1708	108	3.3	Temperature Measurement	Jason T probe. 241 °C. From white spire venting clear fluid at top of the diffuser complex.

J2-212-9-R2	Fenway	31560	8/06	19:58		2462	2350	1708	0	0	2462	2350	1709	108	5.4	Active Sulfide Chimney/ Grab	Large, active spire w/ exterior microbial coating. Venting 241 °C fluid. Top of diffuser oomplex.
J2-212-10-R1	Fenway	31795	8/06	21:16		2533	2367	1717	2	-1	2535	2366	1717	304	1.8	Relict Sulfide Chimney/ Grab	Relict "toadstool" sulfide to E of Fenway. Sph (+ Gal?) bse w/ Ba-rich flange.
J2-212-11-N1	Fenway	32218	8/06	23:44		2242	2380	1633	0	-4	2242	2376	1633	184	1.9	NISKIN water sample	Bottom water from NW of Fenway field. Ambient T = 2.4 °C; Eh = 50 mV
J2-212-misc	Fenway	-	8/06	-		-	-	-			-	-	-	-	-	Active Sulfide Chimney/ Volunteer	Piece of (likely) active Py-rich chimney that fell into basket from adjacent spire during sampling.
J2-213-1-R1	Roman Ruins	32620	8/07	12:36		2730	3137	1682	0	-2	2730	3135	1682	321	3.3	Hydrothermal Talus/ Breccia/ Grab	Piece of loose talus/ altered rock from slope of rugged, broken volcanic terrain.
J2-213-1-R2	Roman Ruins	32639	8/07	12:39		2730	3137	1682	-2	-3	2728	3134	1682	321	3.3	Volcanic Rock/ Grab	Fresh volcanic flow; from same locale as 213-1-R1.
J2-213-2-R1	Roman Ruins	32747	8/07	13:20	4	2709	3169	1667	-1	-3	2708	3166	1667	309	1.3	Active Sulfide Chimney/ Grab	Tip of Cpy-lined, active black smoker; from top of ~2 m tall single conduit (?) smoker.
J2-213-3-R1	Roman Ruins	32883	8/07	14:22		2722	3162	1660	-7	-6	2715	3156	1660	187	9.2	Active Sulfide Chimney/ Grab	Cpy-lined black somoker spire; from side of larger chimney complex. PAIR to three fluids (station 3).
J2-213-3-W1-IGT7	Roman Ruins	32922	8/07	14:25		2722	3162	1660	-7	-6	2715	3156	1660	187	9.2	IGT water sample	From exposed orifice, discharging black smoke, after sampling 213-3-R1. T (max) 276 °C. Aborted mid-sampling due to Jason motion.
J2-213-3-W2-IGT6	Roman Ruins	32939	8/07	14:38		2722	3162	1660	-7	-6	2715	3156	1660	187	9.2	IGT water sample	Replicate fluid sample. T (max) 278 °C.
J2-213-3-W3-M4	Roman Ruins	32976	8/07	14:49		2722	3162	1660	-7	-6	2715	3156	1660	187	9.2	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-213-4-R1	Roman Ruins	33071	8/07	15:26		2707	3189	1683	-3	-1	2704	3188	1683	258	2.0	Volcanic Rock/ Grab	Slightly weathered volcanic piece from base next to inactive sulfide mound (stump).
J2-213-5-R1	Roman Ruins	33194	8/07	16:12		2706	3201	1688	-8	-7	2698	3194	1688	294	0.9	Volcanic Rock/ Grab	Altered rock from Fe-oxide and microbially stained volcanic outcrop/wall.
J2-213-6-R1	Rogers Ruins	33420	8/07	17:33	8	2669	3430	1709	-2	-10	2667	3420	1710	258	3.7	Active Sulfide Chimney/ Grab	Two conduit spire w/ Cpy and Wtz from large off-shoot from top of large, actively venting black smoker edifice. PAIR to three fluids.
J2-213-6-W1-IGT3	Rogers Ruins	33496	8/07	17:59	8	2668	3430	1709	-1	-10	2667	3420	1710	234	5.3	IGT water sample	Fluid pair to active black smoker sulfide chimney. T (max) 320 °C.
J2-213-6-W2-IGT4	Rogers Ruins	33542	8/07	18:10	8	2668	3430	1709	-1	-10	2667	3420	1710	234	5.3	IGT water sample	Replicate fluid sample. T (max) 320 °C.
J2-213-6-W3-M2	Rogers Ruins	33589	8/07	18:24	8	2668	3430	1709	-1	-10	2667	3420	1710	234	5.3	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-213-6-Mkr8	Rogers Ruins	33619	8/07	18:34	8	2671	3430	1710	-2	-6	2669	3424	1710	261	5.2	Marker [Rogers Ruins]	Marker #8 at base of very large active chimney complex where sampled for fluids and solids (pairs).
J2-213-7-R1	Rogers Ruins	33690	8/07	18:48		2673	3427	1714	-1	-4	2672	3423	1714	251	2.7	Inactive Sulfide Chimney/ Grab	White "diffuser" spire from bse of the chimney complex; close to marker 8.
J2-213-7-T1	Rogers Ruins	33730	8/07	19:00		2673	3427	1714	-1	-4	2672	3423	1714	251	2.7	Temperature Measurement	Jason T probe. 202 °C. From orifice exposed after 213-7-R1 was sampled.
J2-214-1-T1	Satanic Mills	34780	8/08	10:18		2450	2603	1682	-3	0	2447	2603	1682	050	1.4	Temperature Measurement	Jason T probe. 279 °C. From grey smoker, sampled for solids and fluids at station 3.
J2-214-2-R1	Satanic Mills	34927	8/08	10:55		2463	2549	1688	1	-3	2464	2546	1688	253	3.2	Hydrothermal Talus/ Breccia/ Grab	Altered and prevalently veined (Cpy-rich) stockwork from exposed surface at base of largely inactive chimney complex.
J2-214-2-R2	Satanic Mills	34960	8/08	11:05		2463	2549	1688	0	-3	2463	2546	1688	253	3.2	Hydrothermal Talus/ Breccia/ Grab	2nd piece of altered stockwork.
J2-214-3-W1-IGT8	Satanic Mills	35161	8/08	12:26		2452	2601	1682	-3	2	2449	2603	1682	022	1.3	IGT water sample	Small, low-lying chimney complex, a top volcanics. Orifice of grey smoker, exposed after spire was broken off. T (max) 281 °C.
J2-214-3-W2-IGT5	Satanic Mills	35177	8/08	12:34		2452	2601	1682	-3	2	2449	2603	1682	022	1.3	IGT water sample	Replicate fluid sample. T (max) 288 °C.
J2-214-3-W3-M4	Satanic Mills	35213	8/08	12:46		2452	2601	1682	-3	2	2449	2603	1683	044	0.8	MAJOR water sample	Replicate fluid sample. No T measurement. Hard to see tell-tale sign of flow.
J2-214-3-R1	Satanic Mills	35240	8/08	12:54		2452	2601	1682	-3	2	2449	2603	1683	041	0.7	Active Sulfide Chimney/ Grab	Base of grey smoker chimney broken prior to fluid sampling. PAIR to three fluids at station 3.

J2-214-4-W1-IGT1	Fenway	35459	8/08	14:24		2490	2382	1710	0	1	2490	2383	1711	244	7.3	IGT water sample	Fluid from black smoker orifice. This should be fluid and solid PAIR to samples taken earlier dive 210, station 7. T (max) 329 °C.
J2-214-5-R1	Snowcap [Transit]	35568	8/08	14:56		2434	2360	1709	0	0	2434	2360	1709	245	2.8	Clastic rock/ Grab	Crust of clastic rock of tube pumice and Pele's hair w/ Mn-oxide coating. Slope of Fe-, Mn-oxide and microbial mats.
J2-214-6-R1	Snowcap [Transit]	35610	8/08	15:13		2432	2360	1707	3	0	2435	2360	1708	255	3.5	Volcanic Rock/ Grab	Massive lava. Glassy w/ incipient alteration, from same outcrop as 214-5-R1.
J2-214-7-R1	Snowcap	35790	8/08	16:18		2286	2314	1667	4	-3	2290	2311	1668	247	5.5	Volcanic Rock/ Grab	Massive lava. Aphyric; moderately vesicular; stretched vesicles. From pervasively sedimented slope.
J2-214-8-R1	Snowcap [South Crater]	35915	8/08	17:06		2127	2273	1660	6	-14	2133	2259	1660	343	-	Volcanic Rock/ Grab	Massive lava from interior floor of crater. Cooling cracks and incipient alteration along cracks.
J2-214-9-R1	Snowcap [Transit]	36002	8/08	17:44		2138	2337	1660	4	1	2142	2338	1660	322	-	Volcanic Rock/ Grab	Exterior of possibly volcanic bomb (sub-spherical vesicles; onion-skin cooling cracks). Slightly scoracious on exterior.
J2-214-10-R1	Snowcap	36140	8/08	18:42		2152	2419	1643	-2	0	2150	2419	1644	030	1.3	Volcanic Rock/ Grab	Hyaloclastite exposed on fractured and blocky flow. Cementing clasts is native S; locally abundant.
J2-214-10-R2	Snowcap	36185	8/08	19:05		2152	2422	1644	-3	0	2149	2422	1644	69	1.7	Volcanic Rock/ Grab	2nd piece. Hyaloclastite from same outcrop.
J2-214-11-R1	Snowcap	36231	8/08	19:25		2148	2419	1646	2	2	2150	2421	1646	215	0.2	Clastic rock/ Grab	Polymictic clastic rock (altered larger volcanic clasts and smaller sulfidic clasts). Clasts cemented by sulfide, sulfate and native sulfur?
J2-214-11-R2	Snowcap	36265	8/08	19:40		2148	2419	1646	2	2	2150	2421	1646	215	0.2	Volcanic Rock/ Grab	Massive lava w/ irregular, frothy, scoracious surface textures. Some cementation w/ S.
J2-214-12-N1, N2	Snowcap	36450	8/08	21:04		2206	2425	1636	0	-3	2206	2422	1636	168	3.5	NISKIN water sample.	Bottom water at Snowcap. T (ambient) 2.4 °C.
J2-214-13-R1	Snowcap	36489	8/08	21:22		2183	2402	1640	1	3	2184	2405	1640	216	1.5	Volcanic Rock/ Grab	Clastic rock OR strongly fractured massive volcanic rock. Orth native S wetting cracks.
J2-214-14-W1-IGT2	Tsukushi	36647	8/08	22:33		1841	2240	1660	-2	-3	1839	2237	1660	244	0.2	IGT water sample	Diffuse flow. From same Fe-oxide mound and crack as dive 211, station 2. T (max) 55 °C.
J2-214-14-W2-M2	Tsukushi	36693	8/08	22:50		1841	2240	1660	-2	-3	1839	2237	1660	244	0.2	MAJOR water sample	Replicate fluid sample. No T measurement. Pair to fluids 211-2 and 214-14.
J2-214-14-R1	Tsukushi	36715	8/08	22:57		1841	2240	1660	-2	-3	1839	2237	1660	244	0.2	Sediment/ Grab	Fe-oxide deposit from mound surrounding ~60 °C flow. Mn-oxide surface coating. PAIR to fluids 211-2 and 214-14.
J2-214-14-R2	Tsukushi	36715	8/08	23:01		1841	2240	1660	-2	-3	1839	2237	1660	244	0.2	Sediment/ Grab	2nd piece. Fe-oxide deposit.
J2-214-15-R1	Tsukushi	36794	8/08	23:21		1867	2234	1656	-2	0	1865	2234	1656	68	1.6	Relict Sulfide Chimney/ Grab	Relict spire from eastern collapsed chimney cluster at Tsukushi.
J2-215-1-R1	Roman Ruins	38052	8/9	17:29		2694	3172	1670	0	0	2694	3172	1670	198	0.9	Hydrothermal Talus/ Breccia/ Grab	Talus/sulfidic mass from surface of heavily coated (Fe-oxide; microbial S)
J2-215-2-R1	Roman Ruins [NE]	38393	8/9	20:37		3929	4028	1663	0	0	3929	4028	1663	295	2.0	Volcanic Rock/ Grab	Surficially altered (oxide stained?) volcanic rock from area of shimmering hydrothermal activity. Rich Fe-oxide surface coatings on mounds and ridges.
J2-216-1-R1	Fenway	39046	8/10	10:47		2462	2356	1709	-4	3	2458	2359	1712	138	2.4	Massive Anhydrite/ Grab	Massive anh protruding from beneath small active chimney complex.
J2-216-2-T1	Fenway	39092	8/10	10:59		2462	2356	1709	-2	-1	2460	2355	1710	138	3.6	Temperature Measurement	Jason T probe. 264 °C. Interior orifice of grey smoker from nr base of active edifice.
J2-216-2-R1	Fenway	39113	8/10	11:05		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	Active Sulfide Chimney/ Grab	Small exterior piece (single piece of chimney wall) of tip of grey smoker. PAIR to three fluids (216-2-W1, W2, W3)
J2-216-2-T2	Fenway	39124	8/10	11:09		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	Temperature Measurement	Jason T probe. 279 °C. Interior orifice of grey smoker after removing piece..

J2-216-2-W1-IGT7	Fenway	39144	8/10	11:15		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	IGT water sample	From grey smoker orifice. T (max) 283 °C. Pair to a sulfide sample.
J2-216-2-T3	Fenway	39161	8/10	11:19		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	Temperature Measurement	Jason T probe. 7 - 10 °C. Exterior surfaces.
J2-216-2-W2-IGT6	Fenway	39173	8/10	11:24		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	IGT water sample	Replicate fluid sample. T (max) 284 °C.
J2-216-2-W3-M2	Fenway	39225	8/10	11:43		2462	2355	1710	-2	0	2460	2355	1710	078	3.4	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-216-3-T1	Fenway	39297	8/10	12:12	10	2464	2358	1709	-1	1	2463	2359	1709	108	1.7	Temperature Measurement	Jason T probe. 62 °C. Inserted into exterior surface of slope of diffuse flow beneath "Big Papi" sulfide complex.
J2-216-3-T2	Fenway	39317	8/10	12:17	10	2464	2358	1709	-1	1	2463	2359	1709	108	1.7	Temperature Measurement	Jason T probe. 83 °C. Inside of crack of diffuse flow from same slope.
J2-216-3-Mkr10	Fenway	39322	8/10	12:18	10	2464	2358	1709	-1	1	2463	2359	1709	108	1.5	Marker [Fenway]	Marker #10 from slope of diffuse flow between upper and lower terraces of Fenway active mound.
J2-216-4-T1	Fenway	39384	8/10	12:40		2469	2355	1710	0	-1	2469	2354	1710	327	2.1	Temperature Measurement	Jason T probe. 280 °C. Inserted into surface of sulfidic surface discharging black smoke directly from small fissures.
J2-216-4-T2	Fenway	39393	8/10	12:44		2469	2355	1710	0	-1	2469	2354	1710	330	0.9	Temperature Measurement	Replicate temperature measurement. T (max) 284 °C.
J2-216-4-R1	Fenway	39447	8/10	13:03		2469	2355	1710	4	-3	2473	2352	1712	330	0.9	Sediment/ Scoop	Scoop of sulfidic sediment from which black smoke fluids are discharging.
J2-216-5-W1-IGT4	Fenway	39549	8/10	13:38	10	2464	2358	1709	0	3	2464	2361	1710	099	1.7	IGT water sample	From crack discharging clear fluid; at marker 10 location on mound. T (max) 78 °C.
J2-216-5-W2-IGT3	Fenway	39598	8/10	13:55	10	2464	2358	1709	0	3	2464	2361	1710	095	1.8	IGT water sample	Replicate fluid sample. T (max) 80 °C.
J2-216-5-W3-M4	Fenway	39660	8/10	14:20	10	2464	2358	1709	0	3	2464	2361	1710	111	1.1	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-216-5-R1	Fenway	39670	8/10	14:28	10	2464	2358	1709	-2	2	2462	2360	1710	108	3.0	Massive Anhydrite/ Grab	Massive Anh (possibly Ba?); w/ Ba or Gypsum rosettes on outer surface? Need confirmation.
J2-216-6-T1	Fenway	39720	8/10	14:40		2464	2355	1710	-1	-1	2463	2354	1710	094	1.1	Temperature Measurement	Jason T probe. 115 °C. Further T meas. from sediment of upper terrace slope.
J2-216-6-R1	Fenway	39731	8/10	14:45		2464	2355	1710	-1	-1	2463	2354	1710	094	1.1	Sediment/ Scoop	2nd scoop from slope of sulfide-sulfate rich sediment at base of upper terrace.
J2-216-7-R1	Fenway	39887	8/10	15:47		2475	2332	1723	0	-1	2475	2331	1723	342	2.9	Sulfide Mound Piece/ Grab	Altered and slightly oxidised sulfide talus from base of Fenway mound.
J2-216-8-R1	Fenway	40023	8/10	16:25		2475	2340	1716	1	0	2476	2340	1716	300	6.3	Sulfide Mound Piece/ Grab	Barite-Sulfide rich talus piece from base of blocky, old sulfide pile [top of scarp?]
J2-216-9-R1	Fenway	40157	8/10	17:17		2467	2348	1712	0	0	2467	2348	1712	056	7.0	Sulfide Mound Piece/ Grab	Altered and exposed relict sulfide mass from outcrop.
J2-216-10-R1	Fenway	40400	8/10	19:04		2486	2338	1726	0	-1	2486	2337	1726	223	2.8	Volcanic Rock/ Grab	Incipiently altered volcanic lava from basal Fe-oxide coated and sedimented slope.
J2-216-11-R1	Fenway	40474	8/10	19:33		2492	2356	1724	0	-1	2492	2355	1725	331	2.3	Volcanic Rock/ Grab	Incipiently altered volcanic lava from basal Fe-oxide coated and sedimented slope.
J2-216-11-R2	Fenway	40480	8/10	19:37		2492	2358	1723	1	0	2493	2358	1724	331	2.3	Volcanic Rock/ Grab	Piece of clastic stockwork. Clasts show gradation of alteration extent or type. Cemented w/ veined sulfides.
J2-216-11-T1	Fenway	40525	8/10	19:52		2490	2363	1722	0	0	2490	2363	1720	358	2.0	Temperature Measurement	Jason T probe. 24 °C. In Sediment from where volcanics sampled.
J2-216-12-R1	Fenway	40679	8/10	20:53		2450	2366	1716	1	-1	2451	2365	1716	224	0.2	Massive Anhydrite/ Grab	Massive anhydrite (barite?) w/ disseminated sulfide; exposed on flanks of sedimented slope.
J2-216-13-R1	Fenway	40865	8/10	22:15		2460	2410	1704	0	1	2460	2411	1705	001	1.3	Volcanic Rock/ Grab	Somewhat altered volcanic lava w/ Mn-oxide coating. Lying on patch of sediment w/ rich microbial S.
J2-216-14-R1	Fenway	41017	8/10	23:11		2480	2360	1717	2	-1	2482	2359	1717	273	1.2	Massive Anhydrite/ Grab	Massive anhydrite (barite?) w/ disseminated sulfide; exposed on flanks of sedimented slope.

J2-216-15-R1	Fenway	41102	8/10	23:43		2464	2354	1705	0	1	2464	2355	1705	214	5.4	Active Sulfide Chimney/ Grab	Fragile, spindly black smoker spire from upper terrace [nr "Big Papi" smoker?]
J2-216-16-R1	Fenway	41128	8/10	23:52		2464	2354	1705	0	1	2464	2355	1704	214	5.4	Active Sulfide Chimney/ Grab	Cpy-rich multi-conduit black smoker chimney from close to 216-15-R1.
J2-217-1-T1	Suzette	41353	8/12	12:20		3329	4829	1520	0	-3	3329	4826	1520	002	2.0	Temperature Measurement	Jason T probe. 75 °C. Shimmering, diffuse flow from fissure in sedimented basement.
J2-217-2-T1	Suzette	41461	8/12	12:56		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	Temperature Measurement	Jason T probe. 302 °C. Grey smoker fluid venting out of Cpy-lined orifice.
J2-217-2-T2	Suzette	41466	8/12	12:59		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	Temperature Measurement	Jason T probe. 13 °C. On exterior wall of grey-smoker chimney.
J2-217-2-R1	Suzette	41477	8/12	13:02		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	Active Sulfide Chimney/ Grab	~ 1 cm thick, Cpy-lined open conduit smoker. PAIR to three fluids at station 2.
J2-217-2-W1-IGT8	Suzette	41519	8/12	13:21		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	IGT water sample	Fluid from Cpy-lined grey smoker chimney. T (max) 302 °C.
J2-217-2-W2-IGT5	Suzette	41540	8/12	13:30		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	IGT water sample	Replicate fluid sample/ T (max) 303 °C.
J2-217-2-W3-M2	Suzette	41562	8/12	13:38		3323	4846	1504	0	-3	3323	4844	1504	059	4.2	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-217-2-R2	Suzette	41590	8/12	13:51		3323	4846	1504	0	-3	3323	4844	1504	062	2.6	Relict Sulfide Chimney/ Grab	Inactive sulfide chimney [stump] from base of large grey smoker complex.
J2-217-2-R3	Suzette	41668	8/12	14:23		3322	4847	1503	1	-4	3323	4844	1504	126	5.1	Active Sulfide Chimney/ Grab	Cpy-Py rich active chimney piece from the same structure as -2-R1 and -2-R2.
J2-217-3-R1	Suzette	41860	8/12	15:25		3277	4818	1502	-5	-3	3272	4815	1503	040	1.9	Active Sulfide Chimney/ Grab	[Probably] active, large multi-spired sulfide chimney piece from center of apex of active chimney complex.
J2-217-3-T1	Suzette	41908	8/12	15:42		3277	4818	1502	-5	-3	3272	4815	1503	040	1.4	Temperature Measurement	Jason T probe. 280°C. From orifice exposed by sampling of sulfide -3-R1.
J2-217-4-T1	Suzette	41993	8/12	16:09		3289	4808	1495	1	-2	3290	4806	1495	303	8.4	Temperature Measurement	Jason T probe. 290 °C. Large open conduit smoker from top of tall sulfide chimney. Prevalent biology (scaleworms; shrimp)
J2-217-4-T2	Suzette	42012	8/12	16:12		3289	4808	1495	1	-2	3290	4806	1495	303	8.4	Temperature Measurement	Jason T probe. 288 °C. Smaller grey smoker orifice from same chimney; adjacent to 217-4-T1.
J2-217-5-T1	Suzette	42084	8/12	16:40		3237	4837	1503	-1	1	3236	4838	1504	203	1.9	Temperature Measurement	Jason T probe. 76 °C. Shimmering flow from sediment at boundary to sulfide mound.
J2-217-6-R1	Suzette	42223	8/12	17:20		3188	4875	1490	-3	-8	3185	4867	1489	018	1.3	Volcanic Rock/ Grab	Altered volcanic lava exposed on Fe-oxide rich sediment.
J2-217-7-R1	Suzette	42432	8/12	18:14		3011	4928	1501	5	1	3016	4929	1503	031	4.6	Active Sulfide Chimney/ Volunteer	Volunteer sample from top of tall, active white diffuser-type spire.
J2-217-7-T1	Suzette	42642	8/12	18:24		3011	4928	1501	5	0	3016	4928	1502	050	4.6	Temperature Measurement	Jason T probe. 296 °C. Inserted ~15 cm into the main stack of diffuser spire; for -7-R1.
J2-217-8-T1	Suzette	42560	8/12	18:44		2996	4936	1489	-3	3	2993	4939	1489	250	6.8	Temperature Measurement	Jason T probe. 250 °C. Clear/Grey smoker fluid from fissure in sulfide complex. Lots of biological activity ( <i>Hydromedusa</i> ).
J2-217-9-R1	Suzette	42686	8/12	19:24		2998	4957	1493	-6	-1	2992	4956	1493	275	5.2	Active Sulfide Chimney/ Grab	Small tip of Cpy-lined spire from clear smoker chimney orifice.
J2-217-10-T1	Suzette	42381	8/12	19:58		2994	4958	1488	0	-2	2994	4956	1488	291	6.0	Temperature Measurement	Jason T probe. 276 °C. Inserted ~ 6 cm into beehive, prior to crumbling.
J2-217-10-R1	Suzette	42940	8/12	20:40		2988	4959	1488	6	-3	2994	4956	1488	265	6.3	Active Sulfide Chimney/ Grab	Small tip of Cpy-lined spire from clear smoker chimney orifice; venting 275 °C fluids. PAIR to three fluids.
J2-217-10-W1-IGT1	Suzette	43015	8/12	20:59		2987	4960	1488	7	-4	2994	4956	1488	269	7.6	IGT water sample	Clear fluid from sampled orifice. T (steady) 274 °C.
J2-217-10-W2-IGT2	Suzette	43074	8/12	21:17		2987	4960	1488	7	-4	2994	4956	1488	269	7.6	IGT water sample	Replicate fluid sample. T (max) 272 °C.
J2-217-10-W3-M4	Suzette	43119	8/12	21:29		2983	4958	1488	11	-2	2994	4956	1488	267	6.3	MAJOR water sample	Replicate fluid sample. No T measurement.

J2-217-11-R1	Suzette	43204	8/12	21:56		3043	4975	1498	-1	-4	3042	4971	1498	69	2.0	Relict Sulfide Chimney/ Grab	Sulfide (unidentified mineralogy); altered and oxidized surface. From sedimented outcrop.
J2-217-11-R2	Suzette	43235	8/12	22:06		3043	4975	1498	0	-2	3043	4973	1497	69	2.0	Sediment/ Grab	Partial, mixed volcanogenic clastic rock and indurated sulfide sand?
J2-217-12-R1	Suzette	43346	8/12	22:36		3068	4971	1496	1	-2	3069	4969	1496	226	1.5	Hydrothermal Talus/ Breccia/ Grab	Massive sulfide talus pieces. Coated in Fe-oxide and unidentified vibrant green ppt (Atacamite? Antlerite?). Minor Enargite and pyrite?
J2-217-13-T1	Suzette	43410	8/12	23:01	11	3046	4997	1487	0	1	3046	4998	1487	151	1.7	Temperature Measurement	Jason T probe. 220 °C. Tip of Py-rich active clear smoker tip inhabited by abundant snails.
J2-217-13-R1	Suzette	43467	8/12	23:17	11	3046	4997	1487	0	1	3046	4998	1488	151	1.7	Active Sulfide Chimney/ Grab	Friable pieces of Py-rich sulfide from tip of clear smoker.
J2-217-13-T2	Suzette	43480	8/12	23:21	11	3046	4997	1487	0	1	3046	4998	1488	151	1.7	Temperature Measurement	Jason T probe. 226 °C. Duplicate measurement in same orifice after removing sulfide sample.
J2-217-13-Mkr13	Suzette	43504	8/12	23:28	11	3047	4997	1487	0	3	3047	5000	1488	158	2.0	Marker [Suzette]	Marker #11. Benchmark of station 13. Marker is ~1m to E of sampled white chimney.
J2-218-1-T1	NE Paul	44156	8/13	13:11		4807	4582	1879	4	1	4811	4583	1879	070	0.7	Temperature Measurement	Jason T probe. 31 °C. From surface of sediment w/ patchy, thick microbial (Fe-) oxide precipitates.
J2-218-2-R1	NE Paul	44480	8/13	15:15		4875	4568	1880	-1	2	4874	4570	1880	036	1.3	Relict Sulfide Chimney/ Grab	Top of lone spire coated with thick Fe, Mn-oxide and patchy yellow, amorphous precipitates. Spire grown directly out of basement.
J2-218-3-T1	NE Paul	44545	8/13	15:35		4864	4565	1880	-2	1	4862	4566	1879	255	0.8	Temperature Measurement	Jason T probe. 30.4 °C. Flow from fissure in basement inhabited by dense <i>ffr.</i> and <i>Alv.</i> snail community.
J2-218-4-R1	NE Paul	44715	8/13	16:42		4897	4601	1875	-1	-5	4896	4596	1875	083	0.9	Volcanic Rock/ Grab	Ropey folded lava; fresh except for minor surficial staining with Mn-oxide.
J2-218-5-R1	NE Paul	44765	8/13	16:52		4901	4600	1875	0	0	4901	4600	1875	197	1.7	Volcanic Rock/ Grab	Black lava w/ taffy stretched surface appearance on exterior and smooth walled cavity on underside.
J2-218-6-N1,2	NE Paul	44842	8/13	17:19		4948	4398	1856	0	200	4948	4598	1857	158	13.6	NISKIN water sample	Bottom water from NE Paul region.
J2-218-7-R1	NE Paul	44995	8/13	18:33		5031	4573	1868	0	0	5031	4573	1868	191	4.0	Volcanic Rock/ Grab	Crudely triangular, prismatic massive lava w/ hackly surface texture from crater pit.
J2-218-8-T1,2	NE Paul	45150	8/13	19:40		4800	4585	1879	0	0	4800	4585	1879	349	1.5	Temperature Measurement	Jason T probe. 30 °C within shimmering flow; 35 °C from within oxide sediment from mound w/ flow.
J2-218-8-W1-IGT3	NE Paul	45180	8/13	10:56		4800	4585	1879	0	0	4800	4585	1879	349	1.5	IGT water sample	Diffuse flow (from fissure) within oxide mound. T (steady) 33 °C.
J2-218-8-W2-IGT4	NE Paul	45190	8/13	20:07		4800	4585	1879	0	0	4800	4585	1879	349	1.5	IGT water sample	Replicate fluid sample. 35 °C.
J2-218-8-W3-M4	NE Paul	45210	8/13	20:18		4800	4585	1879	0	0	4800	4585	1879	349	1.5	MAJORS water sample	Replicate fluid sample. No T measurement.
J2-218-8-R1	NE Paul	45225	8/13	20:48		4800	4585	1879	0	0	4800	4585	1879	349	1.5	Sediment/ Scoop	Cohesive, primarily clay-like sediment material w/ minor oxide material from sediment surface.
J2-218-9-R1	NE Paul	45363	8/13	23:38		5544	5459	1915	1	-1	5545	5458	1915	054	0.7	Volcanic Rock/ Grab	Incipiently altered volcanic fragment w/ minor Mn-oxide surficial staining.
J2-219-1-R1	Suzette	45859	8/14	9:43		2527	4808	1607	-7	-7	2520	4801	1607	179	1.9	Relict Sulfide [Flange]/ Grab	Highly degraded sulfide-sulfate knob from cap rock/ pavement in proximity to multiple fissures. Abundant microbial mats.
J2-219-1-R2	Suzette	45898	8/14	9:52		2527	4808	1607	-7	-7	2520	4801	1607	179	1.9	Relict Sulfide Flange/ Grab	2nd piece. Flange-like piece from edge of pavement feature.
J2-219-1-R3	Suzette	45945	8/14	10:12		2527	4808	1607	-8	-6	2519	4802	1607	179	1.9	Sediment/ Scoop	Clay-rich sediment collected w/ push core. To be sampled for organic content (Seewald, WHOI).
J2-219-2-R1	Suzette	46210	8/14	11:40		2729	4725	1552	-1	0	2728	4725	1552	112	5.0	No Recovery	Active, friable beehive structure that disintegrated in transit to surface.
J2-219-2-T1	Suzette	46230	8/14	11:45		2729	4725	1552	-1	0	2728	4725	1552	112	5.0	Temperature Measurement	Jason T probe. 283 °C. Inserted into clear smoker orifice sampled for beehive sulfide.
J2-219-2-T2	Suzette	46243	8/14	11:50		2729	4725	1552	-1	0	2728	4725	1552	112	5.0	Temperature Measurement	Jason T probe. 16 °C. Exterior wall at base of beehive structure.

J2-219-2-W1-IGT7	Suzette	46262	8/14	11:56		2729	4725	1552	-1	0	2728	4725	1552	112	5.0	IGT water sample	Clear focused flow from (former) beehive edifice. 282 (max) °C.
J2-219-2-W2-IGT6	Suzette	46277	8/14	12:03		2729	4725	1552	0	0	2729	4725	1552	112	5.0	IGT water sample	Replicate fluid sample. T (max) 290 °C.
J2-219-2-W3-M2	Suzette	46302	8/14	12:25		2729	4725	1552	0	0	2729	4725	1552	112	5.0	MAJOR water sample	Sample did not fire.
J2-219-2-R2	Suzette	46374	8/14	12:40		2729	4725	1552	0	0	2729	4725	1552	112	5.0	Active Sulfide Chimney/ Grab	~ 5 cm thick exterior Cpy. Py rich wall from top if large active grey smoker chimney.
J2-219-2-Mkr12	Suzette	46405	8/14	12:46		2729	4725	1552	0	0	2729	4725	1552	112	5.0	Marker [Suzette]	Marker #12 placed atop large chimney sampled for active spire -2-R1.
J2-219-2-R3	Suzette	46458	8/14	13:02		2729	4727	1555	0	0	2729	4727	1555	090	2,7	Relict Sulfide Chimney/ Grab	Top ~ 30 cm of large relict sulfide spire. Small Cpy(Py?)-lined conduits in Zn-Fe solid matrix. Chimney is next to Marker 12.
J2-219-3-T1	Suzette	46526	8/14	13:28		2736	4727	1550	0	-1	2736	4726	1550	152	4.5	Temperature Measurement	Jason T probe. 281 °C. Flow from "Cathedrale"; multi-spined active chimney complex venting clear grey smoker fluids.
J2-219-3-T2	Suzette	46534	8/14	13:31		2736	4727	1550	0	-1	2736	4726	1550	152	4.5	Temperature Measurement	Jason T probe. 294 °C. From orifice adjacent to 3-T1.
J2-219-3-R1	Suzette		8/14	13:59		2737	4725	1550	-1	1	2736	4726	1551	134	5.1	Active Sulfide Chimney/ Grab	Cpy-lined open conduit smoker; 294 °C fluid venting.
J2-219-3-T3	Suzette		8/14	14:07		2737	4725	1550	-1	1	2736	4726	1550	134	5.1	Temperature Measurement	Jason T probe. 280 °C. Re-inserted into orifice after sample removed.
J2-219-4-R1	Suzette		8/14	14:39		2837	4721	1543	-1	1	2836	4722	1543	132	5.1	Hydrothermal Talus/ Breccia/ Grab	Massive Py w/ minor Anh/ From exposed sulfide outcrop nr. base of sedimented slope.
J2-219-5-R1	Suzette		8/14	15:38		2920	4774	1516	-3	1	2917	4775	1516	106	3.5	Hydrothermal Talus/ Breccia/ Grab	Massive Cpy w/ surficial oxidation to peacock ore minerals. From massive sulfide exposed outcrop.
J2-219-5-R2	Suzette		8/14	15:43		2920	4774	1516	-3	1	2917	4775	1517	106	3.5	Hydrothermal Talus/ Breccia/ Grab	2nd piece. Massive Cpy. Cap to massive sulfide sample 5-R1.
J2-219-6-R1	Suzette		8/14	18:06		3102	4996	1521	-5	-4	3097	4992	1521	047	0.3	No Recovery	Push core of sediment that did not endure recovery No sample.
J2-219-7-T1,T2	Suzette		8/14	18:29		3148	5012	1509	-5	2	3143	5014	1509	142	3.2	Temperature Measurement	Jason T probe. 132 °C. Clear, focused flow from nr. base of copri-form beehive spire.
J2-219-8-T1	Suzette	47519	8/14	18:52		3150	5030	1506	-1	-3	3149	5027	1506	016	3.9	Temperature Measurement	Jason T probe. 194 °C. Flow from under flange growing out from side of bulbous sulfide mound.
J2-219-9-T1	Suzette	47700	8/14	19:49		3148	5047	1510	0	0	3148	5047	1509	250	2.4	Temperature Measurement	Jason T probe. 233 °C. From orifice exposed by breaking [Cpy-lined?] chimney conduit. Sulfide piece crumbled.
J2-219-10-R1	Suzette	47869	8/14	20:36		3118	5046	1505	-1	1	3117	5047	1505	293	3.1	Active Sulfide Chimney/ Grab	Porous, friable Fe(+Cu-?) rich spire encased in white, microbial S. Sample crumbled to several pieces. PAIR to two fluids.
J2-219-10-W1-IGT8	Suzette	47971	8/14	20:59		3118	5046	1505	-1	1	3117	5047	1505	293	3.1	IGT water sample	Clear, focused flow to pair to solid. T (max) 229 °C.
J2-219-10-W1-IGT5	Suzette	48001	8/14	21:07		3118	5046	1505	-1	1	3117	5047	1505	293	3.1	IGT water sample	Replicate fluid sample. T (max) 227 °C.
J2-219-11-R1	Suzette	48312	8/14	22:54		3195	4940	1509	0	0	3195	4940	1509	234	0.5	Volcanic Rock/ Grab	Relatively fresh volcanic rock; phenocrysts; from crust of large, broken pillow flow.
J2-219-12-T1	Suzette	48389	8/14	23:16		3226	4916	1500	2	1	3228	4917	1500	239	1.0	Temperature Measurement	Jason T probe. 80 °C. Flow emanating from underneath cracked "pavement" w/ abundant microbial matting.
J2-219-12-T2	Suzette	48405	8/14	23:25		3226	4916	1500	2	1	3228	4917	1500	239	1.0	Temperature Measurement	Jason T probe. 125 °C. Flow from ~ 20 cm lateral to 12-T1.
J2-219-12-R1	Suzette	48440	8/14	23:30		3226	4916	1500	2	1	3228	4917	1500	239	1.0	Relict Sulfide Chimney/ Grab	Small relict knob grown up from top surface of cracked pavement.
J2-220-1-N1	Desmos	48737	8/15	10:00		2045	2269	2078	0	0	2045	2269	2078	353	3.3	NISKIN water sample	Fired at bottom, within depression at SE quadrant of Osen vent field.
J2-220-2-R1	Desmos	48868	8/15	10:53		1800	2455	1995	1	-3	1801	2452	1995	342	3.3	Volcanic Rock/ Grab	Aphyric, ~ 10 % vesicular, fresh, glassy lava from lightly sedimented pillow outcrop

J2-220-3-R1	Desmos	49179	8/15	12:35		1430	2723	1914	3	0	1433	2723	1917	272	0.8	Volcanic Rock/ Grab	Pervasively bleached; advanced argillic alteration, hard but brittle. Sulfur veining and filling of vesicles obvious. From hyaloclastite outcrop.
J2-220-4-T1	Desmos	49390	8/15	13:43		1363	2786	1907	4	0	1367	2786	1911	183	1.8	Temperature Measurement	Jason T probe. 83 - 112 (max) °C. Thick, turbid white smoker fluid from fissure in sulfur-rich basement.
J2-220-4-T2	Desmos	49466	8/15	14:08		1364	2787	1909	0	1	1364	2788	1909	233	1.0	Temperature Measurement	Jason T probe. 112 °C. From second fissure in same suite of outcrops.
J2-220-5-T1	Desmos	49541	8/15	14:35		1361	2790	1908	0	0	1361	2790	1908	218	2.2	Temperature Measurement	Jason T probe. 117 °C. White, smokey fluid from more focused flow (underneath) forming flange-
J2-220-5-T2	Desmos	49561	8/15	14:37		1361	2790	1908	0	0	1361	2790	1908	218	2.2	Temperature Measurement	Jason T probe. 94 °C. From upper surface of [over-flowing] ledge.
J2-220-5-W1-IGT1	Desmos	49577	8/15	15:00		1361	2790	1908	0	0	1361	2790	1908	245	2.2	IGT water sample.	Thick, smokey white fluid discharging pervasively across pavement flange structure. T (max) 113 °C
J2-220-5-W2-IGT2	Desmos	49603	8/15	15:16		1361	2790	1908	0	0	1361	2790	1908	245	2.2	IGT water sample.	Replicate fluid sample. 117 °C. Relicabrated from 129°C.
J2-220-5-W3-M4	Desmos	49635	8/15	15:32		1361	2790	1908	0	0	1361	2790	1908	245	2.2	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-220-5-R1	Desmos	49703	8/15	15:45		1361	2790	1908	0	0	1361	2790	1908	245	2.2.	Volcanic Rock/ Grab	Mostly fresh volcanic lava w/ some surficial alteration. Cracks and cavities filled w/ abundant
J2-220-5-R2	Desmos	49727	8/15	16:00		1361	2790	1908	0	0	1361	2790	1908	256	2.2	Sulfur/ Scoop	Predominantly native/ elemental sulfur scooped from surface of flow.
J2-220-6-T1	Desmos	49785	8/15	16:16		1355	2794	1908	2	1	1357	2795	1908	251	2.8	Temperature Measurement	Jason T probe. 72 °C. From clear, shimmering flow out of porous [bacterial] elemental sulfur and Fe-oxide rich surficial
J2-220-6-R1	Desmos	49846	8/15	16:20		1355	2794	1908	2	0	1357	2794	1908	252	2.6	Volcanic Rock/ Grab	From surface w/ T measurement. Relatively fresh w/ stainings and encrustations of whitish-yellow S and rusty Fe-oxide.
J2-220-7-R1	Desmos	50002	8/15	17:36		1437	3025	1894	1	-2	1438	3023	1894	341	3.6	Volcanic Rock/ Grab	Slightly stained and altered volcanic lava from rubbly, broken flow. Sulfur present in light-grey altered areas - early argillic?
J2-220-8-R1	Desmos	50150	8/15	18:20		1478	3054	1862	3	-4	1481	3050	1863	322	7.7	Volcanic Rock/ Grab	Lava with argillaceous alteration (light-grey - to - cream); soft and friable. Py + ba(?) disseminated within matrix.
J2-220-9-R1	Desmos	50176	8/15	18:31		1483	3049	1892	-1	-2	1482	3047	1892	010	3.5	Volcanic Rock/ Grab	Pervasively altered (brown interior; light-brown/ cream exterior), brittle and hard rock. Base of [fault] w/ small talus pile.
J2-220-10-R1	Desmos	50409	8/15	20:07		1449	2814	1914	-23	8	1426	2822	1915	006	1.3	Volcanic Rock/ Grab	Fresh, glassy lava w/ irregularly folded and stretch upper surface. Rich Fe-oxide coatings orginally on surface.
J2-220-11-R1	Desmos	50524	8/15	20:54		1368	2791	1918	0	1	1368	2792	1918	234	2.7	Volcanic Rock/ Grab	Altered (bleached) volcanic lava. Micro-vesicular; white to pale-grey. Mostly soft. Disseminated, trace black, opaque grains. Sulfur along internal fractures. Lava dome?
J2-220-12-R1	Desmos	50637	8/15	21:27		1360	2776	1905	0	3	1360	2779	1905	335	2.3	Sulfur/ Grab	Very friable native sulfur. Several distinct and interesting textures. From highly fissured volcanic
J2-220-12-R2	Desmos	50660	8/15	21:51		1360	2776	1905	-2	2	1358	2778	1905	268	2.5	Sulfur-cemented clastic rock/ Grab	Mixed sulfur and (glassy) broken volcanics from a sharp faulted ridge S of the Onsen field.
J2-220-13-R1	Desmos	50776	8/15	22:27		1346	2778	1900	2	0	1348	2778	1901	260	0.7	Volcanic Rock/ Grab	Surficially stained (FeOx), incipiently altered volcanic pillow from edge of vertical wall.
J2-220-14-R1	Desmos	50880	8/15	22:53		1371	2732	1903	1	-1	1372	2731	1903	259	4.0	Volcanic Rock/ Grab	Aphyric, vesicular lava from field of altered hyaloclastite. Sooty, sulfur-sulfate that is very soft and rubs off.
J2-220-14-R2	Desmos	50912	8/15	22:57		1371	2732	1903	1	-1	1372	2731	1903	259	4.0	Volcanic Rock/ Grab	Massive, hyaloclastitic lava from talus field. Incipient alteration on surfaces.



J2-220-14-R3	Desmos	50932	8/15	22:59		1371	2732	1903	1	-1	1372	2731	1903	259	4.0	Volcanic Rock/ Grab	Aphanitic, vesicular (~ 40 % porosity) rock; also from rugged, broken hyaloclastite field.
J2-220-15-W1-IGT4	Desmos	51028	8/15	23:42		1356	2785	1908	1	1	1357	2786	1908	254	2.3	IGT water sample.	Diffuse, clear flow from Fe-oxide rich broken lavas w/ bacterial sulfur in interstices. T (max) 70 °C.
J2-220-15-W2-IGT3	Desmos	51053	8/15	23:50		1356	2785	1908	1	1	1357	2786	1908	254	2.3	IGT water sample.	Replicate fluid sample. T (max) 69 °C.
J2-220-15-W3-M2	Desmos	51072	8/15	23:57		1356	2785	1908	1	2	1357	2787	1908	254	2.3	MAJOR water sample	Replicate fluid sample. No T measurement.
J2-221-1-T1	North Su	51714	8/16	12:33		3756	3552	1263	0	0	3756	3552	1263	087	1.1	Temperature Measurement	Jason T probe. 272 °C. Cloudy, white smoker type fluid emanating from sediments with molten sulfur
J2-221-1-T2	North Su	51746	8/16	12:45		3756	3552	1263	0	0	3756	3552	1263	087	1.1	Temperature Measurement	Jason T probe. 284 °C. Same location Cloudy, white fluid from sediments.
J2-221-2-T1	North Su	51808	8/16	13:05		3749	3573	1267	0	1	3749	3574	1257	090	2.3	Temperature Measurement	Jason T probe. 20 °C. White smoke from collapsed roof of pillow. FeOx and microbial mat staining on upper surfaces.
J2-221-3-T1	North Su	51880	8/16	13:26		3719	3581	1253	5	8	3724	3589	1253	49	3.4	Temperature Measurement	Jason T probe. 46 °C. From fissure, microbial mat, at base of blocky scarp (fallen talus, rubble?)
J2-221-3-W1-IGT8	North Su	51905	8/16	13:30		3719	3581	1253	5	8	3724	3589	1253	050	3.4	IGT water sample	Clear fluid from crack in blocky scarp. T (max) 47 °C.
J2-221-3-W2-IGT7	North Su	51927	8/16	13:37		3719	3581	1253	5	8	3724	3589	1253	050	3.4	IGT water sample	Replicate fluid sample. T variable between 36 and 48 °C.
J2-221-3-W3-M4	North Su	51961	8/16	13:51		3719	3581	1253	5	8	3724	3589	1253	050	3.4	MAJOR water sample	Replicate fluid samples. No T data. No good tell-tale flow evident.
J2-221-4-R1	North Su	52072	8/16	14:33		3744	3558	1261	-1	-3	3743	3555	1261	034	4.4	Clastic Rock/ Grab	Polymictic breccia from base of volcanic slump; S slope. Abundant white smoker activity up slope.
J2-221-4-R2	North Su	52087	8/16	14:34		3744	3558	1261	-1	-3	3743	3555	1261	034	4.4	Clastic Rock/ Grab	Brecciated volcanic rock from same outcrop. Trace Py disseminated?
J2-221-5-R1	North Su	52156	8/16	14:41		3751	3553	1257	0	0	3751	3553	1259	065	1.6	Clastic Rock/ Grab	Polymictic clastic rock w/ trace dissem. sulfur and py? From area of intense acidic, cloudy flow.
J2-221-5-W1-IGT6	North Su	52181	8/16	14:57		3751	3553	1257	0	0	3751	3553	1259	053	1.4	IGT water sample	Vigorous white smoker fluid from rubbly volcanic terrain. T (max) 206 °C.
J2-221-5-W2-IGT5	North Su	52244	8/16	15:15		3751	3553	1257	0	0	3751	3553	1259	053	2.1	IGT water sample	Replicate fluid sample. T (max) 215 °C.
J2-221-5-W3-M2	North Su	52263	8/16	15:23		3751	3553	1257	0	0	3751	3553	1259	053	1.5	MAJOR water sample	Replicate fluid sample. No T data.
J2-221-6-R1	North Su	52408	8/16	16:25		3770	3621	1202	-2	-2	3768	3619	1203	047	7.4	Clastic Rock/ Grab	Monomictic breccia w/ porphyritic (plg+ cpx) clasts and sulfur/sulfide + clay matrix. From steep faced wall.
J2-221-7-R1	North Su	52516	8/16	17:08		3757	3657	1192	0	0	3757	3657	1192	105	8.7	Clastic Rock/ Grab	Hyaloclastite, friable, several pieces. From edge of volcanic flow. Sulfur matrix. No sulfide.
J2-221-8-R1	North Su	52620	8/16	17:42		3795	3653	1164	3	0	3798	3653	1164	053	4.6	Volcanic Rock/ Grab	Glassy, porphyritic lava coated w/ well-developed Fe-oxide staining and ocherous matter.
J2-221-9-T1	North Su	52710	8/16	18:03		3818	3692	1161	-15	-30	3803	3662	1161	295	2.3	Temperature Measurement	Jason T probe. 302 °C. Small black smoker chimney from active, larger complex.
J2-221-9-R1	North Su	52727	8/16	18:26		3818	3692	1161	-18	-28	3800	3664	1161	289	2.5	Inactive Sulfide Chimney/ Grab	Wide, multi-conduit inactive cpy-lined chimney. In complex of several small active black smokers.
J2-221-9-R2	North Su	52905	8/16	18:36		3818	3692	1161	-17	-27	3801	3665	1161	083	3.8	Active Sulfide Chimney/ Grab	Mostly sealed (recently inactive?) , cpy-lined chimney from same complex. More vigorous BS activity after sampling.
J2-221-9-T2	North Su	52944	8/16	18:42		3818	3692	1161	-17	-27	3801	3665	1161	083	3.8	Temperature Measurement	Jason T probe. 286 °C. From exposed orifice after sampling 211-9-R2.

J2-221-10-R1	North Su	53050	8/16	19:08		3804	3692	1154	4	0	<b>3808</b>	<b>3692</b>	<b>1154</b>	<b>238</b>	<b>1.4</b>	Inactive Sulfide Flange/ Grab	Sulfidic (or possible volcanic??) origin. Crust or flange from sedimented (S and Fe-oxide) slope beneath chimneys.
J2-221-11-R1	North Su	53200	8/16	19:48		3804	3698	1158	1	0	<b>3805</b>	<b>3698</b>	<b>1158</b>	<b>201</b>	<b>0.9</b>	Sediment/ Scoop	Scoop to determine the nature of the sediment piles. Sulfide?
J2-221-12-R1	North Su	53309	8/16	19:58		3801	3691	1154	1	0	<b>3802</b>	<b>3691</b>	<b>1154</b>	<b>227</b>	<b>1.1</b>	Clastic Rock/ Grab	Coarse-grained sandy, laminated and cross-bedded mineralised sediment structure?? Formed ledge overhang w/ flow from under.
J2-221-12-T1	North Su	53359	8/16	20:08		3801	3691	1154	1	0	<b>3802</b>	<b>3691</b>	<b>1154</b>	<b>227</b>	<b>1.1</b>	Temperature Measurement	Jason T probe. 68 °C. Flow from underneath laminated overhang.
J2-221-13-T1	North Su	53498	8/16	20:55		3876	3606	1217	0	0	<b>3876</b>	<b>3606</b>	<b>1217</b>	<b>357</b>	<b>1.2</b>	Temperature Measurement	Jason T probe. 71 °C. From cloudy flow emanating out of crusty surface (chimney?) formations.
J2-221-13-R1	North Su	53502	8/16	20:59		3876	3606	1217	0	0	<b>3876</b>	<b>3606</b>	<b>1217</b>	<b>357</b>	<b>1.2</b>	Sulfur/ Grab	Native S w/ botryoidal lime-green sulfur on exterior. From crust of 70 °C flow.
J2-221-13-R2	North Su	53555	8/16	21:16		3876	3606	1217	0	0	<b>3876</b>	<b>3606</b>	<b>1217</b>	<b>357</b>	<b>1.4</b>	Clastic Rock/ Grab	Altered, breccia containing (plg) clasts in minor sulfide matrix, but likely mostly volcanic. Minor sulfur in voids.
J2-221-14-R1	North Su	53625	8/16	21:33		3836	3614	1208	0	-1	<b>3836</b>	<b>3613</b>	<b>1208</b>	<b>360</b>	<b>2.1</b>	Clastic Rock/ Grab	Highly altered rubbly piece from S slope on FeOx and bact. Mat-rich sediment. Volcanic breccia-tpe sample.
J2-221-15-R1	North Su	54019	8/16	23:33		3750	3551	1260	-5	-4	<b>3745</b>	<b>3547</b>	<b>1262</b>	<b>085</b>	<b>1.5</b>	Volcanic Rock/ Grab	Massive lava pillow, plg-crysts (1 - 4 mm). Mostly fresh; superficial staining.
J2-221-16-R1	North Su	54047	8/16	23:40		3748	3553	1260	-2	-2	<b>3746</b>	<b>3551</b>	<b>1260</b>	<b>083</b>	<b>1.6</b>	Volcanic Rock/ Grab	Plg-cpx phytic, vesicular lava. 15 - 20 % phenocrysts. From mostly fresh rubbly lava flow.
J2-221-16-R2	North Su	54047	8/16	23:40		3748	3553	1260	-2	-2	<b>3746</b>	<b>3551</b>	<b>1260</b>	<b>083</b>	<b>1.6</b>	Volcanic Rock/ Grab	2nd piece from same outcrop. Sparse-plg phenocrysts. Possibly surface of flow w/ ropey outer surface.
J2-222-1-R1	Rogers Ruins	54563	8/17	10:54	8	2663	3428	1710	0	1	<b>2663</b>	<b>3429</b>	<b>1710</b>	<b>148</b>	<b>4.5</b>	Active Sulfide Chimney/ Grab	Base of tall Zn-rich active tall (> 1 m), thin spire. Pipe-like structure. Complex of several active spires. PAIR to three fluids.
J2-222-1-T1	Rogers Ruins	54649	8/17	11:08	8	2663	3428	1710	0	1	<b>2663</b>	<b>3429</b>	<b>1710</b>	<b>174</b>	<b>3.2</b>	Temperature Measurement	Jason T probe. 268 °C. From exposed stump of sampled chimney.
J2-222-1-W1-IGT4	Rogers Ruins	54671	8/17	11:13	8	2663	3428	1710	0	1	<b>2663</b>	<b>3429</b>	<b>1710</b>	<b>174</b>	<b>3.2</b>	IGT water sample	From orifice exposed from sampling chimney. T (max) 130 °C. Pair to solid sample.
J2-222-1-W2-IGT3	Rogers Ruins	54697	8/17	11:22	8	2663	3428	1710	0	1	<b>2663</b>	<b>3429</b>	<b>1710</b>	<b>174</b>	<b>3.2</b>	IGT water sample	Replicate fluid sample. T (max) 274 °C.
J2-222-1-W3-M2	Rogers Ruins	54718	8/17	11:28	8	2663	3428	1710	0	1	<b>2663</b>	<b>3429</b>	<b>1710</b>	<b>174</b>	<b>3.2</b>	MAJOR water sample	Replicate fluid sample. No T data.
J2-222-1-R2	Rogers Ruins	54783	8/17	11:40	8	2663	3428	1710	-1	1	<b>2662</b>	<b>3429</b>	<b>1711</b>	<b>178</b>	<b>3.1</b>	Inactive Sulfide Chimney/ Grab	Relict, thin spire; in same complex. Next to active sample. Base piece taken.
J2-222-2-R1	Rogers Ruins	54870	8/17	12:04		2632	3379	1714	1	0	<b>2633</b>	<b>3379</b>	<b>1714</b>	<b>237</b>	<b>2.3</b>	Volcanic Rock/ Grab	Glassy rubble flow, from large steep flow front of coulee.
J2-222-3-T1	Roman Ruins	54964	8/17	12:42	20	2699	3295	1702	-1	-1	<b>2698</b>	<b>3294</b>	<b>1702</b>	<b>056</b>	<b>1.2</b>	Temperature Measurement	Jason T probe. 88 °C. Clear fluid venting from oxide mound
J2-222-3-Mkr20	Roman Ruins	54992	8/17	12:50	20	2698	3295	1701	0	0	<b>2698</b>	<b>3295</b>	<b>1702</b>	<b>056</b>	<b>2.6</b>	Marker [Roman Ruins]	Marker #20 on top of rubbly volcanic mound/ ridge coated w/ Fe-oxide.
J2-222-4-R1	Roman Ruins	55350	8/17	14:50	18	2763	3261	1680	1	2	<b>2764</b>	<b>3263</b>	<b>1680</b>	<b>202</b>	<b>2.7</b>	Active Sulfide Chimney/ Grab	Tip of active, black smoker Cpy-lined chimney from periphery of (> 12 m) massive sulfide edifice. PAIR to fluid.
J2-222-4-W1-IGT2	Roman Ruins	55391	8/17	15:05	18	2763	3261	1680	1	2	<b>2764</b>	<b>3263</b>	<b>1681</b>	<b>202</b>	<b>2.7</b>	IGT water sample	To pair to solid sample. T (max) 339 °C.
J2-222-4-W2-IGT1	Roman Ruins	55431	8/17	15:13	18	2763	3261	1680	1	2	<b>2764</b>	<b>3263</b>	<b>1681</b>	<b>202</b>	<b>2.7</b>	IGT water sample	Replicate fluid sample. T (max) 341 °C
J2-222-4-W3-M4	Roman Ruins	55460	8/17	15:22	18	2763	3261	1680	1	2	<b>2764</b>	<b>3263</b>	<b>1681</b>	<b>202</b>	<b>2.7</b>	MAJOR water sample	Replicate fluid sample. No T data.

J2-222-4-R2	Roman Ruins	55492	8/17	15:30	18	2763	3261	1680	1	3	2764	3264	1679	202	2.7	Inactive Sulfide Chimney/ Grab	Inactive chimney spire; cpy-rich. From same complex; next to active sample.
J2-222-5-R1	Roman Ruins	55680	8/17	16:37		2719	3273	1695	0	0	2719	3273	1695	137	3.5	Oxide Crust/ Grab	TWO pieces of Fe-Mn-oxide rich crust from rugged and ropery surface lava flows and relict sulfide chimneys? One piece given to Nautilus
J2-222-6-R1	Roman Ruins	55730	8/17	16:58		2727	3228	1682	0	2	2727	3230	1683	176	3.0	Volcanic Rock/ Grab	Aphyric, aphanitic lava w/ crumbly and botryoidal Fe-Mn-oxide coatings from side of steep scarp face.
J2-222-7-R1	Roman Ruins	55831	8/17	17:18		2750	3211	1678	0	1	2750	3212	1678	200	1.8	Active Sulfide Flange/ Grab	Outer ~ 5 cm edge of active flange w/ porous, open dendritic lamellae. No temp.
J2-222-8-R1	Roman Ruins	55983	8/17	18:15		2734	3185	1678	0	7	2734	3192	1678	005	3.1	Inactive Sulfide Chimney/ Grab	Thin, perfect pipe-like sealed conuit spire. Former Copy-lined conduit < 1 cm wide; filled w/ Wtz. ZnS exterior layer.
J2-222-8-R2	Roman Ruins	56049	8/17	18:36		2734	3185	1677	0	7	2734	3192	1677	008	4.4	Active Sulfide Chimney/ Grab	Lightly, active, grey smoker Cpy-lined small spire from outer base of larger complex.
J2-222-8-T1	Roman Ruins	56060	8/17	18:40		2734	3185	1677	0	7	2734	3192	1677	008	4.4	Temperature Measurement	Jason T probe. 254 °C. From orifice exposed on left hand side of vacated space.
J2-222-8-T2	Roman Ruins	56070	8/17	18:44		2734	3185	1677	0	7	2734	3192	1677	008	4.4	Temperature Measurement	Jason T probe. 288 °C. From orifice exposed on right hand side or vacated space.
J2-222-9-R1	Roman Ruins	56127	8/17	19:03		2725	3182	1678	4	-5	2729	3177	1678	228	0.8	Volcanic Rock/ Grab	Aphyric, aphanitic lava w/ few stretched vesicles. Sub-part displays pervasive clay (greenish) alteration.
J2-222-9-R2	Roman Ruins	56134	8/17	19:05		2725	3182	1678	4	-4	2729	3178	1678	228	0.8	Volcanic Rock/ Grab	2nd piece. Same outcrop of rubbly, and fallen lava flows.
J2-222-10-N1,N2	Roman Ruins [SW]	56303	8/17	20:14		2503	3330	1711	1	1	2504	3331	1709	229	6.0	NISKIN water sample	In bottom water; volcanic terrain. Removed from vigorous hydrothermal activity.
J2-222-11-R1	Roman Ruins [SW]	56453	8/17	21:18		2488	3096	1671	-2	-1	2486	3095	1671	054	2.7	Volcanic Rock/ Grab	Mostly fresh, volcanics from ropery, rugged small flow ridge.
J2-222-12-R1	Roman Ruins [SW]	56696	8/17	23:00		2374	2894	1651	0	-2	2374	2892	1651	338	2.5	Volcanic Rock/ Grab	Fresh, aphyric lava block from top of volcanic knoll.
J2-223-1-R1	North Su	56972	8/18	10:35		3802	3665	1157	0	0	3802	3665	1157	110	7.7	Active Sulfide Chimney/ Grab	Top of parasitic spire grown from side of larger (10 m) edifice. Cpy-lined. PAIR to three fluids.
J2-223-1-T1	North Su	57051	8/18	10:50		3802	3665	1157	0	0	3802	3665	1157	110	7.7	Temperature Measurement	Jason T probe. 288 °C. From central orifice of remaining spire (sampled piece)
J2-223-1-W1-IGT8	North Su	57074	8/18	10:56		3802	3665	1157	0	0	3802	3665	1157	110	7.7	IGT water sample	Black smoker fluid from basal piece of sampled spire. T (max) 299 °C.
J2-223-1-W2-IGT7	North Su	58092	8/18	11:04		3802	3665	1157	0	0	3802	3665	1157	110	7.7	IGT water sample	Replicate fluid sample. T (max) 300 °C.
J2-223-1-W3-M2	North Su	57116	8/18	11:13		3802	3665	1157	0	0	3802	3665	1157	110	7.7	MAJOR water sample	Replicate fluid sample. No T data. Good tell-tale discharge through sampler.
J2-223-2-T1	North Su	57267	8/18	11:56		3798	3693	1156	0	1	3798	3694	1156	176	2.0	Temperature Measurement	Jason T probe. 90 °C. Clear fluid venting from fissure at base of large flange structure. Should have sampled from here.
J2-223-2-T2	North Su	57283	8/18	12:00		3798	3693	1156	0	1	3798	3694	1156	176	1.5	Temperature Measurement	Jason T probe. 54 °C. Inserted into white mat coated sediment ~5 cm away from hole.
J2-223-3-R1	North Su	57414	8/18	12:37		3850	3705	1170	0	1	3850	3706	1170	173	1.9	Volcanic Rock/ Grab	Volcanic rock from rubble, at base of blocky, steep sided lava flow (possibly a dike?)
J2-223-4-T1	North Su	57511	8/18	13:08		3853	3771	1200	-3	3	3850	3774	1200	123	2.3	Temperature Measurement	Jason T probe. 32 °C. Diffuse flow from large snail populus at crest of small volcanic ridge (a slump feature?)
J2-223-4-T2	North Su	57550	8/18	13:24		3859	3773	1202	2	-1	3861	3772	1202	192	2.2	Temperature Measurement	Jason T probe. 23 °C. From fissure/crack in volcanic substratum; colonized by juvenile snails.
J2-223-5-R1	North Su	57694	8/18	14:20		3893	3667	1198	1	0	3894	3667	1198	285	5.3	Volcanic Rock/ Grab	Exterior of lava flow from prominent escarpment/ faulted mound.
J2-223-6-T1	North Su	57855	8/18	15:12		3845	3672	1166	-1	-2	3844	3670	1165	005	8.4	Temperature Measurement	Jason T probe. 59 °C. From fissure in upper surface of large volcanic mound coated w/ extensive Fe-oxide and [bacterial] sulfur.

J2-223-6-R1	North Su	57875	8/18	15:15		3845	3672	1166	-1	-1	<b>3844</b>	<b>3671</b>	<b>1166</b>	<b>004</b>	<b>8.1</b>	Clastic Rock/ Grab	Altered breccia w/ volcanic clasts and native sulfur veins; from exposed side of mound below fissures.
J2-223-7-R1	North Su	57939	8/18	15:41		3818	3688	1159	1	1	<b>3819</b>	<b>3689</b>	<b>1159</b>	<b>253</b>	<b>4.2</b>	Clastic Rock/ Grab	Dominantly volcanic clasts; matrix is poorly preserved but possibly barite and black sulfur. Some barite rosettes visible. Top of elongate volcanic mound.
J2-223-8-R1	North Su	58030	8/18	16:02		3796	3709	1162	0	0	<b>3796</b>	<b>3709</b>	<b>1162</b>	<b>041</b>	<b>0.9</b>	Clastic Rock/ Grab	Sulfur/oxide crust from unconsolidated debris flow at base of low-lying ridge.
J2-223-9-R1	North Su	58140	8/18	16:50		3812	3764	1190	-3	-4	<b>3809</b>	<b>3760</b>	<b>1190</b>	<b>106</b>	<b>8.7</b>	Sulfur / Grab	Friable, ropey flow of native sulfur. Colors metallic grey to yellow-green. Side of large elongate volcanic mound.
J2-223-9-R2	North Su	58173	8/18	16:59		3812	3764	1190	-3	-4	<b>3809</b>	<b>3760</b>	<b>1190</b>	<b>106</b>	<b>8.3</b>	Volcanic Rock/ Grab	Plg-cpx-phyric volcanic rock; moderately vesicular. Patchy, thin deposits of Py along cracks/veins and vesicle walls.
J2-223-10-R1	North Su	58259	8/18	17:25		3858	3771	1198	-2	1	<b>3856</b>	<b>3772</b>	<b>1198</b>	<b>228</b>	<b>1.9</b>	Volcanic Rock/ Grab	Three pieces, volcanic talus from slope of area of ~ 30 °C fluid flow. Encrusted in juvenile snails.
J2-223-11-T1	North Su	58358	8/18	18:01		3791	3782	1206	2	1	<b>3793</b>	<b>3783</b>	<b>1206</b>	<b>228</b>	<b>2.0</b>	Temperature Measurement	Jason T probe. 102 °C. Clear fluid from small crack hosting locally abundant bacterial mats. On thin crust volcanic pavement on rubbly basement.
J2-223-11-T2	North Su	58384	8/18	18:09		3791	3782	1206	2	1	<b>3793</b>	<b>3783</b>	<b>1206</b>	<b>228</b>	<b>2.0</b>	Temperature Measurement	Jason T probe. 125 °C. Adjacent crack; same environment.
J2-223-11-W1-IGT5	North Su	58448	8/18	18:45		3791	3782	1204	-2	-1	<b>3789</b>	<b>3781</b>	<b>1204</b>	<b>206</b>	<b>2.3</b>	IGT water sample	Flow emanating from thicker, friable white sediment. Smoke black to grey in color. T (max) 241 °C.
J2-223-11-W2-IGT6	North Su	58606	8/18	19:26		3791	3782	1204	-2	-1	<b>3789</b>	<b>3781</b>	<b>1204</b>	<b>206</b>	<b>2.3</b>	IGT water sample	Fluid from a similar low porosity zone in sediments. Not the exact same flow. T (steady) 203 °C.
J2-223-11-R1	North Su	58735	8/18	19:34		3791	3782	1204	-2	-1	<b>3789</b>	<b>3781</b>	<b>1204</b>	<b>206</b>	<b>2.3</b>	Clastic Rock or Cust/ Grab	Mixed sulfide-sulfate-oxide crust ~ 2 cm thick overlying diffuse, high temperature flows.
J2-223-11-R2	North Su	58771	8/18	19:44		3791	3782	1204	-2	-1	<b>3789</b>	<b>3781</b>	<b>1205</b>	<b>206</b>	<b>2.3</b>	Sediment / Scoop	Larger scoop of the overlying sediment. Collecting sediment and crust.
J2-223-12-T1	North Su	58847	8/18	20:10		3778	3784	1209	-1	2	<b>3777</b>	<b>3786</b>	<b>1209</b>	<b>100</b>	<b>3.8</b>	Temperature Measurement	Jason T probe. 89 °C. Extensive clear flows from fissures in sediments and volcanic flow fronts and ledges.
J2-223-12-R1	North Su	58946	8/18	20:38		3778	3784	1209	0	0	<b>3778</b>	<b>3784</b>	<b>1209</b>	<b>100</b>	<b>3.8</b>	Active Sulfide Flange/ Grab	Mixed, major Py, minor clastic (?) frag held in Pyritic matrix from leading edge of altered volcanic ledge (small fissure scarp)
J2-223-12-R2	North Su	58961	8/18	20:40		3778	3784	1209	0	0	<b>3778</b>	<b>3784</b>	<b>1209</b>	<b>100</b>	<b>3.8</b>	Volcanic Rock/ Grab	Altered volcanic lava with dense sulfide (Py?) vein network. Sulfides sometimes in preserved vesicles.
J2-223-13-R1	North Su	59011	8/18	21:02		3751	3790	1225	0	-4	<b>3751</b>	<b>3786</b>	<b>1225</b>	<b>106</b>	<b>2.0</b>	Active Sulfide Chimney/ Grab	Sulfide (ZnS) flange and protruding chimney meshed together from another fissure area of active flow.
J2-223-13-T1	North Su	59050	8/18	21:13		3751	3790	1225	-1	-4	<b>3750</b>	<b>3786</b>	<b>1225</b>	<b>106</b>	<b>2.0</b>	Temperature Measurement	Jason T probe. 212 °C. From next to 223-13-R1, but not necessarily associated w/ it.
J2-223-14-T1	North Su	59149	8/18	21:43		3768	3766	1207	-2	1	<b>3766</b>	<b>3767</b>	<b>1207</b>	<b>133</b>	<b>2.1</b>	Temperature Measurement	Jason T probe. 89 - 102 °C. Cracks in rubbly volcanic flow hosting Fe-oxide stainings and bacterial mats. Base of fissure?
J2-223-14-R1	North Su	59160	8/18	21:49		3768	3766	1207	-1	0	<b>3767</b>	<b>3766</b>	<b>1207</b>	<b>133</b>	<b>2.1</b>	Volcanic Rock/ Grab	Vesicular, mostly fresh volcanic lava w/ outer Fe-oxide and white microbial stainings.
J2-223-15-T1	North Su	59317	8/18	22:35		3747	3700	1182	-1	1	<b>3746</b>	<b>3701</b>	<b>1182</b>	<b>134</b>	<b>3.3</b>	Temperature Measurement	Jason T probe. 315 °C. Vigorously venting black smoker orifice. Flashing; phase separated?
J2-223-15-W1-M4	North Su	59338	8/18	22:44		3747	3700	1182	-1	1	<b>3746</b>	<b>3701</b>	<b>1182</b>	<b>134</b>	<b>3.3</b>	MAJOR water sample	From the black smoker orifice. No T data; Good tell-tale flow from sampler.

J2-223-15-R1	North Su	59360	8/18	22:54		3747	3700	1182	-1	1	3746	3701	1182	134	3.3	Active Sulfide Chimney/ Grab	Multiple piece of thin, friable Zn-Pb-rich sulfide (thin wall or flange crust?) that fell into basket whilst sampling fluids.
J2-223-15-R2	North Su	59383	8/18	22:57		3747	3700	1182	-1	1	3746	3701	1182	134	3.3	Active Sulfide Chimney/ Grab	Friable, thin walled, multiple conduit Zn-Pb rich sulfide wall from side of large sulfide edifice.
J2-223-16-R1	North Su	50508	8/18	23:58		3736	3651	1207	0	-1	3736	3650	1208	056	4.8	Volcanic Rock/ Grab	Piece of large talus rubble. Mostly fresh interior; but with Fe-oxide staining and wispy microbial organic matter coating surface.
J2-224-1-R1	South Su	59852	8/19	10:08		4131	2853	1352	14	8	4145	2861	1357	188	5.2	Volcanic Rock/ Grab	Highly altered, bleached, soft volcanic rock from rugged outcrop. Locally abundant microbial (?) mats
J2-224-2-R1	South Su	60210	8/19	12:52		4115	2830	1340	-9	-9	4106	2821	1340	192	1.9	Volcanic Rock/ Grab	Bleached rock, from steep sided volcanic outcrop or slope. Suspected advanced argillic alteration
J2-224-3-R1	South Su	60585	8/19	15:19		4016	2690	1348	-2	1	4014	2691	1349	125	3.1	Volcanic Rock/ Grab	Volcanic outcrop. Piece collected from exposed surface. Has significant brecciation, mineralization and Fe-oxide surface staining.
J2-224-4-T1	South Su	60776	8/19	16:14		4108	2712	1317	4	-3	4112	2709	1317	059	0.9	Temperature Measurement	Jason T probe. 17 °C. Diffuse flow from Summit of gently-sloping, sedimented ridge. Patchy, abundant bacterial mats; mussels and shrimp on exposed volcanics.
J2-224-4-T2	South Su	60835	8/19	16:36		4140	2695	1315	-28	14	4112	2709	1317	058	1.6	Temperature Measurement	Jason T probe. 25 °C. Second measurement of diffuse flow from same general area.
J2-224-5-R1	South Su	60923	8/19	17:10		4245	2676	1308	5	6	4250	2682	1309	214	2.6	Relict Sulfide Chimney/ Grab	Degraded ~ 1 m tall sulfide chimney from field of multiple slender, small inactive spires.
J2-224-5-R2	South Su	60955	8/19	17:21		4245	2676	1308	5	2	4250	2678	1309	227	2.9	Inactive Sulfide Chimney/ Grab	Zn-rich tip of inactive spire. From small complex adjacent to relict spire -5-R1.
J2-224-6-R1	South Su	61001	8/19	17:35		4259	2681	1307	-2	0	4257	2681	1307	185	3.1	Active Sulfide Chimney/ Grab	Large spire from active complex. Single central porous conduit w/ Zn-rich (+enargite? tennantite?) sulfide. Lamellae reminiscent of beehive textures. Broken. PAIR to three fluids.
J2-224-6-T1	South Su	61041	8/19	17:39		4259	2681	1307	-2	0	4257	2681	1309	182	3.1	Temperature Measurement	Jason T probe. 267 °C. From exposed conduit from base of broken spire.
J2-224-6-W1-IGT4	South Su	61130	8/19	18:05		4259	2681	1307	-2	0	4257	2681	1308	175	3.7	IGT water sample	From open conduit orifice, exposed after sampling. T (max) 265 °C. Dropped to 225 °C during sampling.
J2-224-6-W2-IGT3	South Su	61165	8/19	18:15		4259	2681	1307	-2	0	4257	2681	1308	186	3.7	IGT water sample	Replicate fluid sample. T (max) 271 °C.
J2-224-6-W3-M2	South Su	61182	8/19	18:28		4259	2681	1307	-2	0	4257	2681	1308	229	3.7	MAJOR water sample	Replicate fluid sample. No T data.
J2-224-7-T1-T4	South Su	61230	8/19	18:45		4257	2767	1309	2	-89	4259	2678	1309	321	2.2	Temperature Measurement	Jason T probe. Measurements from around flange on side of sulfide scarp. 11 - 25 °C around flange; 241 °C in flange pool
J2-224-7-R1	South Su	61250	8/19	18:52		4257	2767	1309	2	-89	4259	2678	1309	321	2.2	Active Sulfide Flange/ Grab	Zn-rich bud protruding from top of active flange.
J2-224-7-R2	South Su	61288	8/19	19:05		4257	2767	1309	2	-89	4259	2678	1309	321	2.2	Active Sulfide Flange/ Grab	Zn-rich, ~ 3 cm thick outer edge of active flange
J2-224-7-T5	South Su	61297	8/19	19:10		4257	2767	1309	2	-89	4259	2678	1309	321	2.2	Temperature Measurement	Jason T probe. 293 °C. Clear-grey fluid from beneath flange after sampling.
J2-224-8-T1	South Su	61360	8/19	19:27		4270	2682	1308	1	-3	4271	2680	1307	040	3.6	Temperature Measurement	Jason T probe. 284 °C. Thin-walled, open conduit grey smoker
J2-224-8-R1	South Su	61376	8/19	19:33		4270	2682	1308	1	-3	4271	2680	1307	040	3.6	Active Sulfide Chimney/ Grab	Extremely friable, thin walled (cpy/py?) smoker w/ interior porous abundant black, acicular anh.
J2-224-9-R1	South Su	61547	8/19	20:43		4335	2792	1330	-2	-3	4333	2789	1330	187	1.5	Volcanic Rock/ Grab	Altered volcanic rock from exposed "pinnacle" on slope of dominantly volcanic ridge.
J2-224-10-N1	South Su	61635	8/19	21:21		4265	2776	1364	100	2	4365	2778	1364	206	2.7	NISKIN water sample	Niskin bottle fired from above ropey, broken, mostly flat lava flows.
J2-224-10-R1	South Su	61647	8/19	21:25		4335	2776	1364	33	4	4368	2780	1365	222	1.7	Volcanic Rock/ Grab	Fresh, vesicular lava from broken flows.

J2-224-11-T1	South Su	61911	8/19	23:03		4298	2640	1329	0	-4	4297.8	2636	1329	016	4.2	Temperature Measurement	Jason T probe. 279 °C. Open conduit w/ clear flow. Porous, v. friable white diffuser type spire. Not sampled.
J2-224-12-R1	South Su	61934	8/19	23:13		4300	2642	1327	0	-4	4300	2639	1327	341	3.2	Active Sulfide Chimney/ Grab	Base of active beehive chimney. No beehive structure preserved; only basal piece. Large friable Fe-Zn sulfide. PAIR to three fluids.
J2-224-12-W1-IGT1	South Su	61997	8/19	23:25		4300	2642	1327	0	-4	4300	2639	1327	341	3.2	IGT water sample	Black smoker fluid, venting vigorously from exposed open conduit. T (max) 288 °C
J2-224-12-T1	South Su	62010	8/19	23:29		4300	2642	1327	0	-4	4300	2639	1327	341	3.2	Temperature Measurement	Jason T probe. 11 °C. From exterior wall of remaining stump. Not a good measure of the samples chimney.
J2-224-12-W2-IGT2	South Su	62025	8/19	23:34		4300	2642	1327	0	-4	4300	2639	1327	341	3.2	IGT water sample	Replicate fluid sample from black smoker. T (max) 287 °C.
J2-224-12-W3-M4	South Su	62057	8/19	23:45		4300	2642	1327	0	-4	4300	2639	1327	341	3.2	MAJOR water sample	Replicate fluid sample. No T data. Good tell-tale sign of flow through sampler.
J2-226-1-R1	Suzette	62450	8/21	08:38		3312	4864	1517	5	-2	3317	4862	1521	235	1.0	Hydrothermal Talus/ Breccia/ Grab	Cpy-rich talus block; minor external weathering. Exposed on sediment slope, away from proximal hydrothermal activity. Sampled previously?
J2-226-2-T1	Suzette	63100	8/21	13:08	9	3243	4910	1500	4	-1	3247	4909	1500	259	1.3	Temperature Measurement	Jason T probe. 147 °C. Clear flow from "turtle" pavement; flow from under edge of sulfide pavement.
J2-226-2-T2	Suzette	63110	8/21	13:16	9	3243	4910	1500	4	-1	3247	4909	1500	259	1.3	Temperature Measurement	Jason T probe. 153 °C. Same flow from adjacent sulfide flange.
J2-226-2-W1-IGT6	Suzette	63159	8/21	13:36	9	3243	4910	1500	4	-1	3247	4909	1500	259	1.3	IGT Water sample	Sample of clear flow from outcrop. T (max) 157 °C; but was variable (down to 60 °C) during sampling.
J2-226-2-W2-IGT5	Suzette	63190	8/21	13:48	9	3243	4910	1500	4	-1	3247	4909	1500	259	1.3	IGT Water sample	Replicate fluid sample. T increased from 189 to 249 °C during sampling.
J2-226-2-W3-M2	Suzette	63220	8/21	14:00	9	3243	4910	1500	4	-1	3247	4909	1500	259	1.3	MAJOR water sample	Replicate fluid sample. No T data.
J2-226-2-Mkr9	Suzette	63244	8/21	14:06	9	3235	4911	1500	12	-2	3247	4909	1500	215	1.3	Marker [Suzette]	Marker #9 placed at the "turtle back" cracked pavement at N. Suzette.
J2-226-2-R1	Suzette	63272	8/21	14:16	9	3244	4911	1500	3	-2	3247	4909	1500	259	1.3	Active Sulfide Flange/ Grab	Fe-oxide and microbial sulfur stained ZnS flange from edge of pavement and ~ 30 cm away from shimmering flows.
J2-226-3-R1	Suzette	63420	8/21	15:12		3018	4939	1505	-5	4	3013	4943	1506	211	2.6	Sediment / Grab	Heavily cemented sand(+sulfide?) from surface, cracked blocks.
J2-226-4-T1	Suzette	63840	8/21	17:38		2673	4751	1569	26	-8	2699	4743	1570	302	1.0	Temperature Measurement	Jason T probe. 210 °C (max). Clear/grey smoker fluid diffusing from cracks in layered (flange) sulfide mound.
J2-226-4-R1	Suzette	63976	8/21	18:00		2673	4751	1569	23	-3	2696	4748	1571	131	1.4	Active Sulfide Chimney/ Grab	White "diffuser-type" spire venting fluids from sides and summit of spire. Broke into several pieces (c.f. 4-R2 and 4-R3). Zn-rich w/ Fe-oxide and sulfur staining.
J2-226-4-W1-IGT7	Suzette	63950	8/21	18:24		2673	4751	1569	23	-3	2696	4748	1570	131	1.4	IGT Water sample	Exposed orifice from remaining stump of spire collected as 4-R1, R2 and R3. T (max) 226 °C.
J2-226-4-W2-IGT8	Suzette	63994	8/21	18:43		2673	4751	1569	23	-3	2696	4748	1570	131	1.4	IGT Water sample	Replicate fluid sample. T (max) 225 °C.
J2-226-4-W3-M4	Suzette	64030	8/21	18:55		2673	4751	1569	23	-3	2696	4748	1570	132	1.4	MAJOR water sample	Replicate fluid sample. No T data.
J2-226-4-R2	Suzette	64045	8/21	19:05		2673	4751	1569	23	-3	2696	4748	1570	131	1.4	Active Sulfide Chimney/ Grab	Pick of broken pieces from spire sampled from top of layered/flange-like sulfide mound. Same as 4-R1. Possibly basal piece.
J2-226-4-R3	Suzette	64050	8/21	19:05		2673	4751	1569	23	-3	2696	4748	1570	132	1.4	Active Sulfide Chimney/ Grab	Pick of broken pieces from spire sampled from top of layered/flange-like sulfide mound. Same as 4-R1. Possibly tip piece.
J2-226-4-R4	Suzette	64062	8/21	19:10		2673	4751	1569	21	-1	2694	4750	1570	139	1.5	Active Sulfide Flange/ Grab	Ba-Zn-rich flange w/ large dendrite textures from basal, periphery of mound.
J2-226-5-R1	Suzette	64159	8/21	19:51		2524	4809	1607	34	-27	2558	4782	1607	225	1.0	Relict Sulfide Flange/ Grab	Largely cemented (Silica, barite?), relict sulfide flange. Some interior (dendritic) textures preserved. Also from pavement-type edifice.

J2-226-6-R1	Suzette	64205	8/21	20:10		2523	4806	1608	33	-28	2556	4778	1606	257	1.1	Relict Sulfide Flange/ Grab	Less degraded sulfide flange piece; somewhat similar to -6-R1. From another low-lying surface mound w/ flange.
J2-226-7-R1	Suzette	64285	8/21	20:33		2519	4801	1609	28	-25	2547	4776	1609	094	3.3	Inactive Sulfide Mound/ Grab	Mixed (cpy, ZnS, tennantite?) sulfide block from outer hanging ledge of irregularly shaped sulfide mound.
J2-226-8-R1	Suzette	64429	8/21	21:28		2775	4588	1591	1	6	2776	4594	1591	011	1.5	Hydrothermal Talus/ Breccia/ Grab	Zn-(+ minor Cu) massive sulfide talus piece w/ exterior Fe-oxide and Atacamite staining; from block, rubble (partly sed.) slope.
J2-226-8-R2	Suzette	64444	8/21	21:33		2775	4588	1591	0	6	2775	4594	1591	010	1.6	Volcanic Rock/ Grab	Mostly fresh, vesicular volcanic rock from same slope as 8-R1.
J2-227-1-R1	South Su [West]	64939	8/22	10:35		3600	2010	1549	2	-3	3602	2007	1549	018	1.2	Volcanic Rock/ Grab	Fresh, superficially stained volcanic talus from faulted scarp
J2-227-1-R2	South Su [West]	65020	8/22	10:40		3600	2010	1549	3	-2	3603	2008	1549	018	1.2	Sediment/ Grab	Muddy sediment from faulted scarp w/ abundant volcanic clasts.
J2-227-2-R1	South Su [West]	65206	8/22	12:25	15	3243	2356	1642	-4	-8	3239	2348	1641	094	0.9	Volcanic Rock/ Grab	Small piece of bleached volcanic rock. Altered exterior; fresh interior.
J2-227-2-R2	South Su [West]	65265	8/22	12:30	15	3243	2356	1642	-4	-8	3239	2348	1641	159	1.9	Volcanic Rock/ Grab	Fresh volcanic lava from incipiently sedimented rubbly lava flow.
J2-227-2-R3	South Su [West]	65285	8/22	12:33	15	3243	2356	1642	-3	-8	3240	2348	1642	158	1.7	Volcanic Rock/ Grab	Small piece of bleached volcanic rock from rubbly outcrop.
J2-227-2-Mkr15	South Su [West]	65293	8/22	12:37	15	3243	2356	1632	-3	-8	3240	2348	1642	159	1.5	Marker [Surprise; W of Su]	Marker #15 placed at exposed, broken volcanic talus and rubble.
J2-227-3-T1	South Su [West]	65790	8/22	15:57		4262	2521	1369	0	-2	4262	2519	1369	350	2.1	Temperature Measurement	Jason T probe. 45 °C. From crack in crusty sediment. Some (sulfidic?) rugged outcrops in proximity.
J2-227-4-R1	South Su	65830	8/22	16:15		4219	2531	1365	2	-2	4221	2529	1365	329	3.3	Volcanic Rock/ Grab	Fresh volcanic lava from rugged and fissured prominent volcanic mound. Mussels in cracks.
J2-227-5-R1	South Su	65864	8/22	16:24		4218	2543	1363	0	-1	4218	2542	1363	022	2.3	Volcanic Rock/ Grab	Fresh volcanic lava from exposed, flat outcrop above sediment.
J2-227-5-R2	South Su	65864	8/22	16:24		4218	2543	1363	0	-1	4218	2542	1363	022	2.3	Clastic Rock/ Grab	Native sulfur-cemented crust with volcanic clasts; from beneath sample 5-R1.
J2-227-6-R1	South Su	65951	8/22	16:49		4276	2563	1366	1	-1	4277	2562	1366	302	3.2	Sulfur/Oxide Crust/ Grab	Native sulfur and Fe-oxide rich "crust" (highly altered?) from collapsed, broken volcanic flows.
J2-227-6-R2	South Su	65970	8/22	16:52		4276	2563	1366	1	-1	4277	2562	1366	302	3.2	Sulfur/Oxide Crust/ Grab	2nd piece. Similar mineralogy/composition from same outcrop.
J2-227-7-R1	North Su	66184	8/22	19:04		3751	3697	1190	0	0	3751	3697	1190	063	4.4	Active Sulfide Chimney/ Grab	Py(+Cpy) lined, thin platey, chimney wall from 300 °C black smoker; mid-section, periphery of large edifice.
J2-227-7-R2	North Su	66200	8/22	19:06		3751	3697	1190	0	0	3751	3697	1190	063	4.4	Massive Anhydrite/ Grab	Massive Anh sampled from base of edifice, above volcanic pillows.
J2-227-8-W1-IGT4	North Su	66264	8/22	19:27		3752	3698	1183	0	0	3752	3698	1183	112	7.0	IGT water sample	Black smoker fluid; phase separated. Opposite side of edifice to station #7. T (max) 325 °C.
J2-227-8-W2-IGT3	North Su	66325	8/22	19:46		3752	3698	1183	0	0	3752	3698	1183	112	7.0	IGT water sample	Replicate fluid sample. T (steady) 325 °C.
J2-227-8-W3-M4	North Su	66351	8/22	19:54		3752	3698	1183	0	0	3752	3698	1183	112	7.0	MAJOR water sample	Replicate fluid sample. No T data. Good tell-tale flow prior to sampling.
J2-227-8-R1	North Su	66410	8/22	20:17		3752	3698	1183	0	0	3752	3698	1184	112	7.0	Active Sulfide Chimney/ Scoop	Scoop of the extremely friable black smoker orifice from 324 °C vent.
J2-227-9-R1	North Su	66490	8/22	20:31		3758	3686	1186	-1	0	3757	3686	1185	106	5.5	Relict Sulfide Chimney/ Grab	Inactive, Zn-rich sulfide tip from larger conical spire. Beehive textures. From just E of 324 °C vent.
J2-227-10-R1	North Su	66600	8/22	21:01		3807	3686	1153	-6	-1	3801	3685	1154	141	3.5	Active Sulfide Chimney/ Grab	Two pieces. Tip and bulk of spire at Py-rich, "diffuser"-type spires.
J2-227-10-W1-IGT2	North Su	66703	8/22	21:22		3807	3686	1153	-6	-1	3801	3685	1155	141	3.5	IGT water sample	Fluid collected from orifice at base of the sampled chimney. T (max) 299 °C.
J2-227-10-W2-IGT1	North Su	66730	8/22	21:29		3807	3686	1153	-6	-1	3801	3685	1154	141	3.5	IGT water sample	Replicate fluid sample. T (max) 296 °C.
J2-227-10-W3-M2	North Su	66777	8/22	21:40		3807	3686	1153	-6	-1	3801	3685	1154	141	3.5	MAJOR water sample	Replicate fluid sample. Trigger depressed and no good tell-tale, but bottle fired.

J2-227-10-R2	North Su	66832	8/22	21:52		3805	3685	1153	-2	1	<b>3803</b>	<b>3686</b>	<b>1154</b>	<b>104</b>	<b>2.4</b>	Relict Sulfide Chimney/ Grab	Relict, Cpy-Py-lined sealed conduit smoker from base of the sulfide complex.
J2-227-11-R1	North Su	66888	8/22	22:04		3822	3691	1159	1	-1	<b>3823</b>	<b>3690</b>	<b>1159</b>	<b>283</b>	<b>1.5</b>	Volcanic Rock/ Grab	Mostly fresh, surficially stained vesicular rock from interior of summit mound.
J2-227-12-R1	North Su	66990	8/22	22:42		3765	3692	1185	0	1	<b>3765</b>	<b>3693</b>	<b>1183</b>	<b>156</b>	<b>3.3</b>	Volcanic Rock/ Grab	Volcanic talus piece - relatively fresh - from base of black smoker complex
J2-227-13-R1	North Su	67179	8/22	23:47		3865	3509	1229	1	2	<b>3866</b>	<b>3511</b>	<b>1229</b>	<b>201</b>	<b>2.1</b>	Volcanic Rock/ Grab	Small clast from sediment-hosted ridge on SE flank of Su mound.
J2-227-13-N1	North Su	67199	8/22	23:51		3865	3509	1229	2	3	<b>3867</b>	<b>3512</b>	<b>1229</b>	<b>199</b>	<b>3.7</b>	NISKIN water sample	Fired at bottom. Station #13. Prior to leaving bottom.
J2-228-1-R1	Umbo	68250	8/28	20:12		6523	6006	1818	0	0	<b>6523</b>	<b>6006</b>	<b>1818</b>	<b>258</b>	<b>0.9</b>	Volcanic Rock/ Grab	Fresh, plg-olv phyric, vesicular lava from summit of Umbo mound.
J2-228-2-R1	Umbo	68560	8/28	23:08		8063	5492	2100	0	0	<b>8063</b>	<b>5492</b>	<b>2100</b>	<b>312</b>	<b>3.0</b>	Volcanic Rock/ Grab	Concentrically-layered mostly fresh lava from top of fault wall; lots of talus rubble.
J2-228-3-W1-M4	Umbo	68662	8/28	23:40		8197	5385	2100	0	0	<b>8197</b>	<b>5385</b>	<b>2100</b>	<b>121</b>	<b>4.2</b>	MAJOR water sample	Bottom water. ~4 m off seafloor. Eastern extent of Umbo mound. No hydrothermal activity (anywhere).