

Sample # (Dive#_Stn#_Type)		Vvan #	Date	Time (UTC)	Marker#	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		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		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	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	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	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		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		3310	5776	2482	014	2.7	Collapsed Chimney/ Grab	Tip of one spire [multi-spired] from large (>10 m) collapsed chimney
J2-200-7-R2	Vienna Woods	1658	7/22	23:47		3310	5778	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		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	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	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		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		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		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		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		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		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		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		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		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		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	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		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		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	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		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		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		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		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		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	6467	2484	333	1.7	Relict Sulfide Chimney/ Grab	Spire from ~ 1m chimney within cmplex of multiple sulfide edifices
J2-201-8-R1	Tufar 2	3592	7/24	11:37		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		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		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		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	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		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		3678	6417	2482	342	3.4	Relict Sulfide Chimney/ Grab	Top-half of ~ 60 cm relict sulfide chminey atop sulfide basal mound ~ 1 m tall/diameter
J2-201-15-R1	Tufar 2	4199	7/24	14:34		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		3664	6423	2477	185	3.5	Relict Sulfide Chimney/ Grab	Large parasitic spire from side of ~3 m tall chimney; field of many relict chmineys. Navigation questionable.
J2-201-17-R1	Tufar 2	4347	7/24	15:15		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		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		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		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		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		3763	6440	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		3770	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		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		3738	6486	2482	14	1.8	Relict Sulfide Chimney/ Grab	Tip from one of many, single spired <2 m chimneys upon sedimented mound.
J2-202-2-R1	Vienna Woods	5651	7/25	10:09		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		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		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		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		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		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		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		3159	5854	2487	209	1.4	Relict Sulfide Chimney/ Grab	Inactive spire piece from base of small (broken) chimney
J2-202-11-R1	Vienna Woods	6460	7/25	13:12		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		3104	5831	2487	245	1.4	Relict Sulfide Chimney/ Grab	Exterior piece from side of lone, partially broken sulfide chimney
J2-202-15-R1	Vienna Woods	7731	7/25	21:25		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		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		3214	5665	2467	074	7.0	Relict Sulfide Chimney/ Grab	Top (~30 cm) of protruding spire from large (~8 m) inactive chimney
J2-203-3-R1	Bronze Age Fort	9076	7/26	17:16		5634	8286	2436	205	4.0	Relict Sulfide Chimney/ Grab	Tip of ~ 4-5 m chimney from extinct sulfide field (> 10 large-ish spires).
J2-203-5-R1	Bronze Age Fort	9682	7/26	21:24		5653	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	8306	2444	326	2.0	Relict Sulfide Chimney/ Grab	Complete sample of 1 m tall Zn-rich relict chimney.
J2-204-1-R1	Tufar 3	10938	7/27	14:37		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		12440	11722	2569	096	1.8	Active Sulfide Chimney/ Grab	Active, juvenile chimney (194 C); distance ~ 1 m from inactive 1-R1.
J2-206-3-R1	Un-named Vienna Woods	15820	7/29	19:30		20666	15332	2621	002	3.4	Hydrothermal Talus/ Breccia/ Grab	Altered brecciated clasts (volcanic? Perlitic textures) cemented by minor sulfide (Py)

J2-207-1-R1	Vienna Woods	16970	7/30	15:08		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.
J2-207-2-R1	Vienna Woods	17164	7/30	15:59		3334	5781	2474	017	8.3	Active Sulfide Chimney/ Grab	Tip of peripheral spire from heavily colonized (snails), tall (~ 8 m?) chimney
J2-207-3-R1	Vienna Woods	17445	7/30	17:18		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.
J2-207-5-R1	Vienna Woods	17781	7/30	18:50		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	5868	2485	028	1.4	Relict Sulfide/ Grab	2nd piece from adjacent section of relict sulfide.
J2-207-8-R1	Vienna Woods	18200	7/30	20:35		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	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-R1	Roman Ruins	19311	8/02	12:51	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-R2	Roman Ruins	19422	8/02	13:03	2	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-R4	Roman Ruins	19461	8/02	13:11	2	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-W3-M2	Roman Ruins	19778	8/02	15:04	1	2808	3232	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	2808	3232	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	2807	3231	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	2808	3232	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	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?]
J2-208-3-R1	Roman Ruins	19962	8/02	15:56		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		2751	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		2747	3187	1681	040	1.5	Relict Sulfide Chimney/ Grab	Tip of spire from relict ~1.5 m chimney next to sample 4-R2.

J2-208-9-R1	Roman Ruins	21177	8/02	20:54		2719	3217	1681	104	2.8	Active Sulfide Chimney/ Grab	Exterior ~3 cm skin of [active] sulfide chimney. Heavy surface microbial deposits. Several pieces.
J2-208-10-R1	Roman Ruins	21447	8/02	22:11		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.
J2-209-1-R1	Satanic Mills	22110	8/03	11:47	3	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-R2	Satanic Mills	22220	8/03	12:25	3	2447	2574	1685	188	3.2	Relict Sulfide Chimney/ Grab	Tall, relict sulfide spindle; close to 209-1-R1. Cpy w/ oxidation products.
J2-209-5-R1	Satanic Mills	23103	8/03	17:22		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	2449	2536.5	1689	349	1.3	Active Sulfide Chimney/ Grab	Multi-conduit, large active Fe-Zn spire. PAIR to two fluids.
J2-209-6-R2	Satanic Mills	23486	8/03	19:12	5	2449	2536.5	1689	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	2449	2536.5	1689	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.
J2-209-7-R1	Satanic Mills	23880	8/03	21:01		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-R2	Satanic Mills	23980	8/03	21:14		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	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	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	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	2550	1688	256	2.2	Hydrothermal Talus/ Breccia/ Grab	Large breccia of grey clastic altered volcanic lava cemented between Cu-rich and Qtz veins.
J2-210-1-R1	Snowcap	25134	8/04	13:00	6	2146	2425	1643	253	1.9	Relict Sulfide Chimney/ Grab	Relict, Zn-sulfide spire tip from periphery of large sulfide chimney complex.
J2-210-4-R1	Fenway	25930	8/04	17:36		2491	2376	1716	354	2.6	Relict Sulfide Chimney/ Grab	Inactive (Cu-rich central; Zn-rich external) relict spire from larger chimney complex next to sampled fluids.
J2-210-7-R1	Fenway	26442	8/04	19:44		2490	2382	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	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-R3	Fenway	26639	8/04	20:38		2489	2383	1710	319	4.1	Relict Sulfide Chimney/ Grab	Talus of former sulfide chimney. Py and Sph, two-layer wall.

J2-210-8-R3	Fenway	26950	8/04	22:17		2464	2367	1716	211	0.9	Relict Sulfide Chimney/ Grab	Highly weathered and altered, Fe-oxide-rich sulfide talus from sedimented slope; next to 8-R1, 8-R2.
J2-210-9-R1	Fenway	27005	8/04	22:34		2464	2356	1708	169	3.3	Active Sulfide Chimney/ Grab	~ 1 cm diameter, extremely small (~20 g) sample of Cpy-lined open conduit chimlet.
J2-211-4-R1	Snowcap	28650	8/05	17:25		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	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.
J2-211-7-R1	Snowcap	29190	8/05	20:04		2110	2384	1651	355	1.4	Relict Sulfide Chimney/ Grab	Inactive sulfide spire from base of same sulfide complex.
J2-212-1-R1	Fenway	30414	8/06	13:10	7	2463	2351	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.
J2-212-2-R1	Fenway	30681	8/06	15:02	7	2469	2346	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	2470	2346	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		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	1709	224	5.8	Relict Sulfide Chimney/ Grab	Replicate solid sample.
J2-212-4-R1	Fenway	30869	8/06	16:18		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		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-R1	Fenway	31192	8/06	18:13		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		2462	2352	1706	075	5.1	Active Sulfide Chimney/ Grab	Second exterior section of massive sulfide chimney wall; next to 213-6-R1.
J2-212-9-R1	Fenway	31480	8/06	19:41		2457	2353	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-R2	Fenway	31560	8/06	19:58		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		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-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	3135	1682	321	3.3	Hydrothermal Talus/ Breccia/ Grab	Piece of loose talus/ altered rock from slope of rugged, broken volcanic terrain.

J2-213-2-R1	Roman Ruins	32747	8/07	13:20	4	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		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).
J2-213-6-R1	Rogers Ruins	33420	8/07	17:33	8	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.
J2-213-7-R1	Rogers Ruins	33690	8/07	18:48		2672	3423	1714	251	2.7	Inactive Sulfide Chimney/ Grab	White "diffuser" spire from bse of the chimney complex; close to marker 8.
J2-214-2-R1	Satanic Mills	34689	8/08	10:55		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	2547	1688	253	3.2	Hydrothermal Talus/ Breccia/ Grab	2nd piece of altered stockwork.
J2-214-3-R1	Satanic Mills	35240	8/08	12:54		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.
J2-214-15-R1	Tsukushi	36794	8/08	23:21		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	198	0.9	Hydrothermal Talus/ Breccia/ Grab	Talus/sulfidic mass from surface of heavily coated (Fe-oxide; microbial S)
J2-216-2-R1	Fenway	39113	8/10	11:05		2461	2355	1710	078	3.4	Active Sulfide Chimney/ Grab	Small exterior piece (single piece of chimney wall) of tip of gey smoker. PAIR to three fluids (216-2-W1, W2, W3)
J2-216-7-R1	Fenway	39887	8/10	15:47		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		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	056	7.0	Sulfide Mound Piece/ Grab	Altered and exposed relict sulfide mass from outcrop.
J2-216-15-R1	Fenway	41102	8/10	23:43		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	2355	1704	214	5.4	Active Sulfide Chimney/ Grab	Cpy-rich multi-conduit black smoker chimney from close to 216-15-R1.
J2-217-2-R1	Suzette	41477	8/12	13:02		3323	4843.5	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-R2	Suzette	41590	8/12	13:51		3323	4843.5	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		3323	4843.5	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		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.
J2-217-7-R1	Suzette	42432	8/12	18:14		3016	4929	1503	031	4.6	Active Sulfide Chimney/ Volunteer	Volunteer sample from top of tall, active white diffuser-type spire.
J2-217-9-R1	Suzette	42686	8/12	19:24		2992	4956	1493	275	5.2	Active Sulfide Chimney/ Grab	Small tip of Cpy-lined spire from clear smoker chimney orifice.

J2-217-10-R1	Suzette	42940	8/12	20:40		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.
J2-217-12-R1	Suzette	43346	8/12	22:36		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-R1	Suzette	43467	8/12	23:17	11	3047	4998	1488	151	1.7	Active Sulfide Chimney/ Grab	Friable pieces of Py-rich sulfide from tip of clear smoker.
J2-218-2-R1	NE Paul	44480	8/13	15:15		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.
J2-219-1-R1	Suzette	45859	8/14	9:43		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		2520	4801	1607	179	1.9	Relict Sulfide Flange/ Grab	2nd piece. Flange-like piece from edge of pavement feature.
J2-219-2-R2	Suzette	46374	8/14	12:40		2729	4726	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-R3	Suzette	46458	8/14	13:02		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-R1	Suzette		8/14	13:59		2736	4726	1551	134	5.1	Active Sulfide Chimney/ Grab	Cpy-lined open conduit smoker; 294 °C fluid venting.
J2-219-4-R1	Suzette		8/14	14:39		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		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		2917	4776	1517	106	3.5	Hydrothermal Talus/ Breccia/ Grab	2nd piece. Massive Cpy. Cap to massive sulfide sample 5-R1.
J2-219-10-R1	Suzette	47869	8/14	20:36		3118	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.
J2-219-12-R1	Suzette	48440	8/14	23:30		3229	4918	1500	239	1.0	Relict Sulfide Chimney/ Grab	Small relict knob grown up from top surface of cracked pavement.
J2-221-9-R1	North Su	52727	8/16	18:26		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		3801	3666	1161	083	3.8	Active Sulfide Chimney/ Grab	Mostly sealed (recently inactive?) , cpy-lined chimney from same complex. More vigorous BS activity after sampling.
J2-221-10-R1	North Su	53050	8/16	19:08		3808	3692	1154	238	1.4	Inactive Sulfide Flange/ Grab	Sulfidic (or possible volcanic??) origin. Crust or flange from sedimented (S and Fe-oxide) slope beneath chimneys.
J2-222-1-R1	Rogers Ruins	54563	8/17	10:54	8	2664	3429	1710	148	4.5	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-R2	Rogers Ruins	54783	8/17	11:40	8	2662	3426	1711	178	3.1	Inactive Sulfide Chimney/ Grab	Relict, thin spire; in same complex. Next to active sample. Base piece taken.
J2-222-4-R1	Roman Ruins	55350	8/17	14:50	18	2764	3263	1680	202	2.7	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-R2	Roman Ruins	55492	8/17	15:30	18	2764	3265	1679	202	2.7	Inactive Sulfide Chimney/ Grab	Inactive chimney spire; cpy-rich. From same complex; next to active sample.
J2-222-7-R1	Roman Ruins	55831	8/17	17:18		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	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	3192	1677	008	4.4	Active Sulfide Chimney/ Grab	Lightly, active, grey smoker Cpy-lined small spire from outer base of larger complex.
J2-223-1-R1	North Su	56972	8/18	10:35		3802	3664.6	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.
J2-223-11-R1	North Su	58735	8/18	19:34		3788	3782	1204	206	2.3	Clastic Rock or Cust/ Grab	Mixed sulfide-sulfate-oxide crust ~ 2 cm thick overlying diffuse, high temperature flows.
J2-223-12-R1	North Su	58946	8/18	20:38		3778	3784	1209	100	3.8	Active Sulfide Flange/ Grab	Mixed , major Py, minor clastic (?) frag held in Pyritic matrix from leading edge of altered volcanic ledge (small fissure scarp)
J2-223-13-R1	North Su	59011	8/18	21:02		3751	3786	1225	106	2.0	Active Sulfide Chimney/ Grab	Sulfide (ZnS) flange and protruding chimney meshed together from another fissure area of active flow.
J2-223-15-R1	North Su	59360	8/18	22:54		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		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.
J2-224-5-R1	South Su	60923	8/19	17:10		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		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		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.
J2-224-7-R1	South Su	61250	8/19	18:52		4258	2681	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		4259	2677	1309	321	2.2	Active Sulfide Flange/ Grab	Zn-rich, ~ 3 cm thick outer edge of active flange
J2-224-8-R1	South Su	61376	8/19	19:33		4271	2680	1307	040	3.6	Active Sulfide Chimney/ Grab	Extremely friable, thin walled (cpy/py?) smoker w/ interior porous abundant black, acicular anh.
J2-224-12-R1	South Su	61934	8/19	23:13		4300	2638.5	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.

J2-226-1-R1	Suzette	62450	8/21	08:38		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-R1	Suzette	63272	8/21	14:16	9	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.
J2-226-4-R1	Suzette	63976	8/21	18:00		2698	4747	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-R2	Suzette	64045	8/21	19:05		2695	4750	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		2695	4750	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		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		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		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		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		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.
J2-227-6-R1	South Su	65951	8/22	16:49		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		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	063	4.4	Active Sulfide Chimney/ Grab	Py(+Cpy) lined, thin platy, chimney wall from 300 °C black smoker; mid-section, periphery of large edifice.
J2-227-8-R1	North Su	66410	8/22	20:17		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		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		3802	3686	1154	141	3.5	Active Sulfide Chimney/ Grab	Two pieces. Tip and bulk of spire at Py-rich, "diffuser"-type spires.
J2-227-10-R2	North Su	66832	8/22	21:52		3804	3686	1154	104	2.4	Relict Sulfide Chimney/ Grab	Relict, Cpy-Py-lined sealed conduit smoker from base of the sulfide complex.