

Seismic site conditions of RESNOM network.

Supplementary material

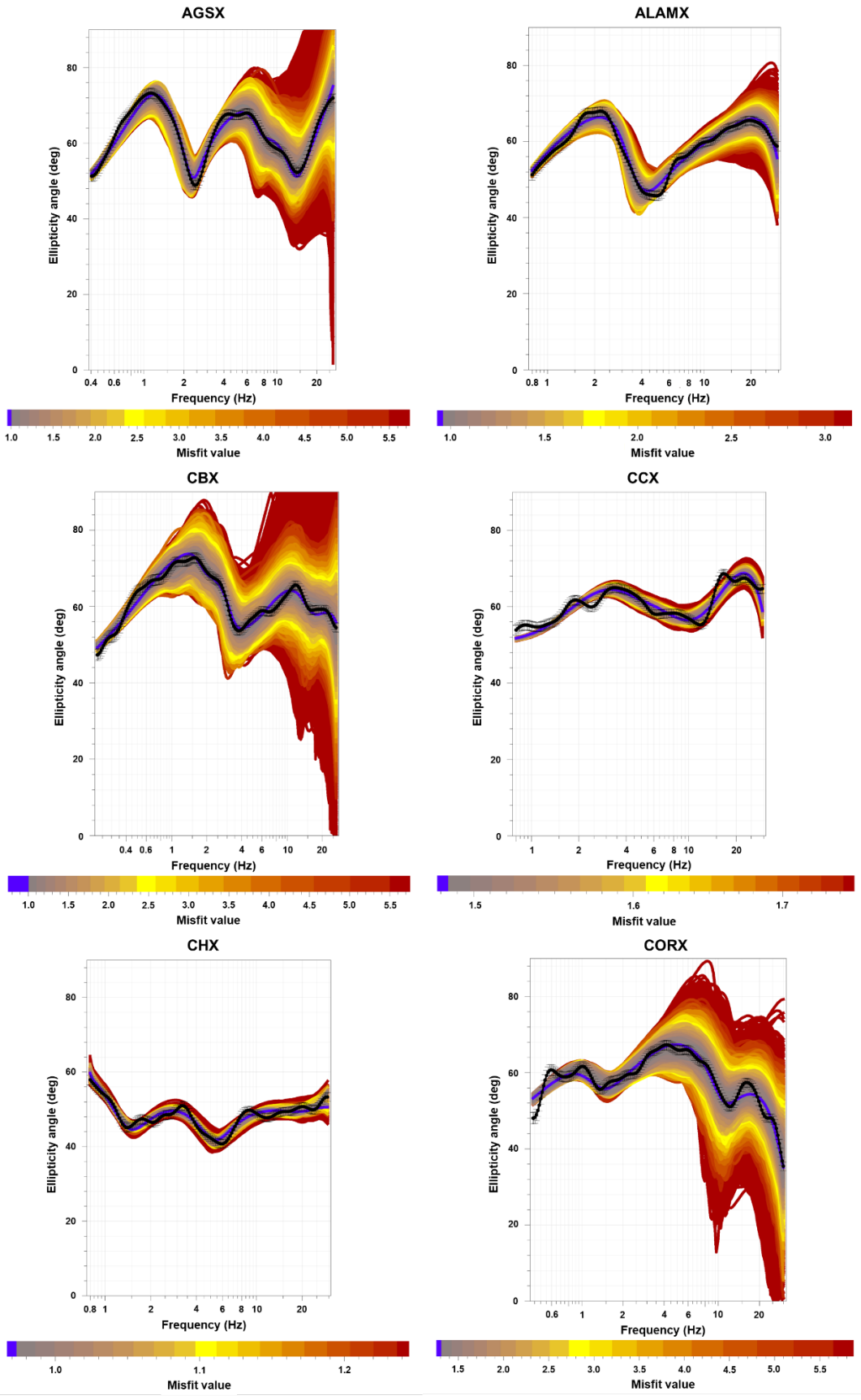
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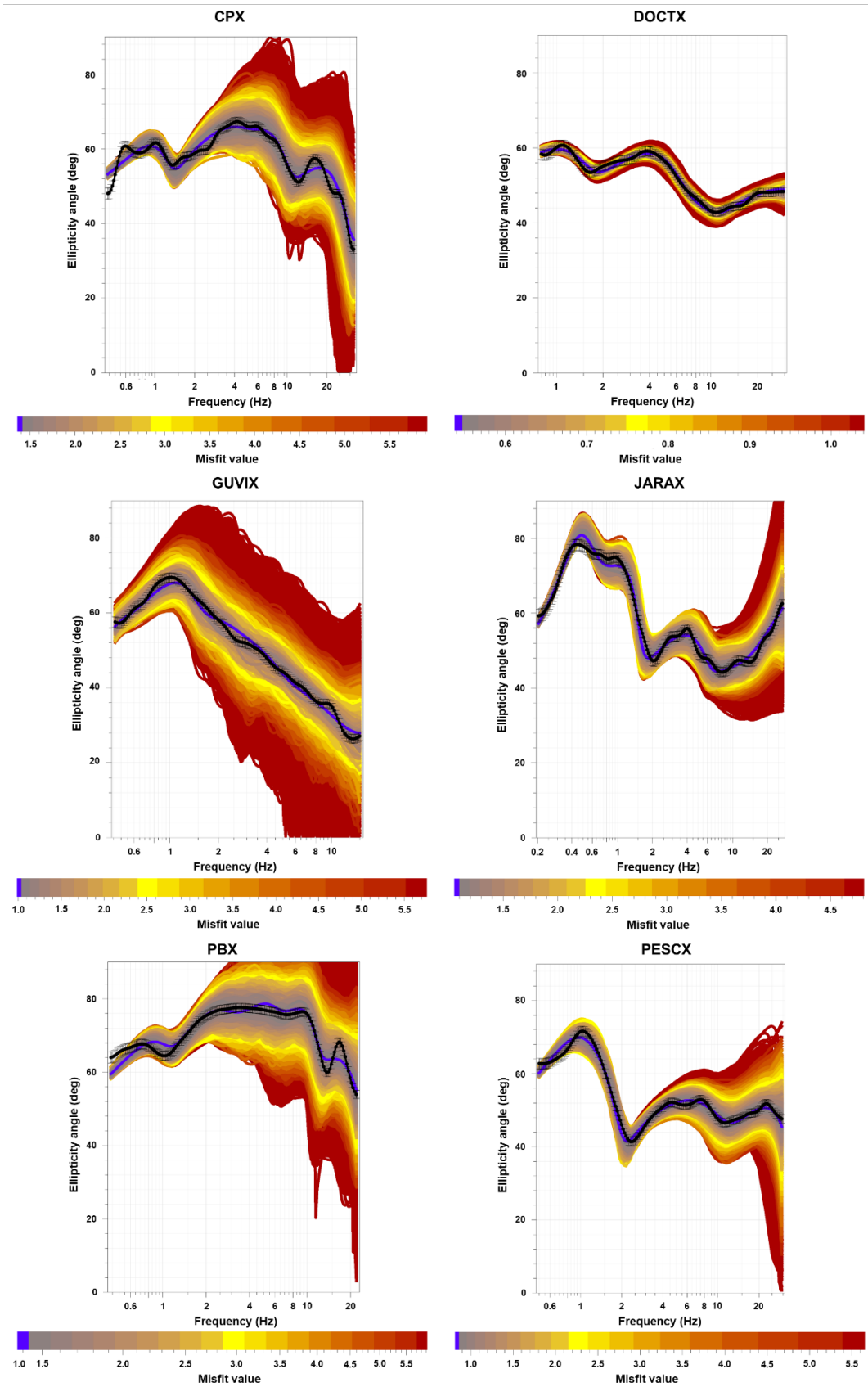
Table S1. List of the RESNOM broad-band stations and site geology according to INEGI (2023)*. SPIG station belongs to the SSN network (SSN, 2023). All stations are sampled at 100 samples per second (sps).

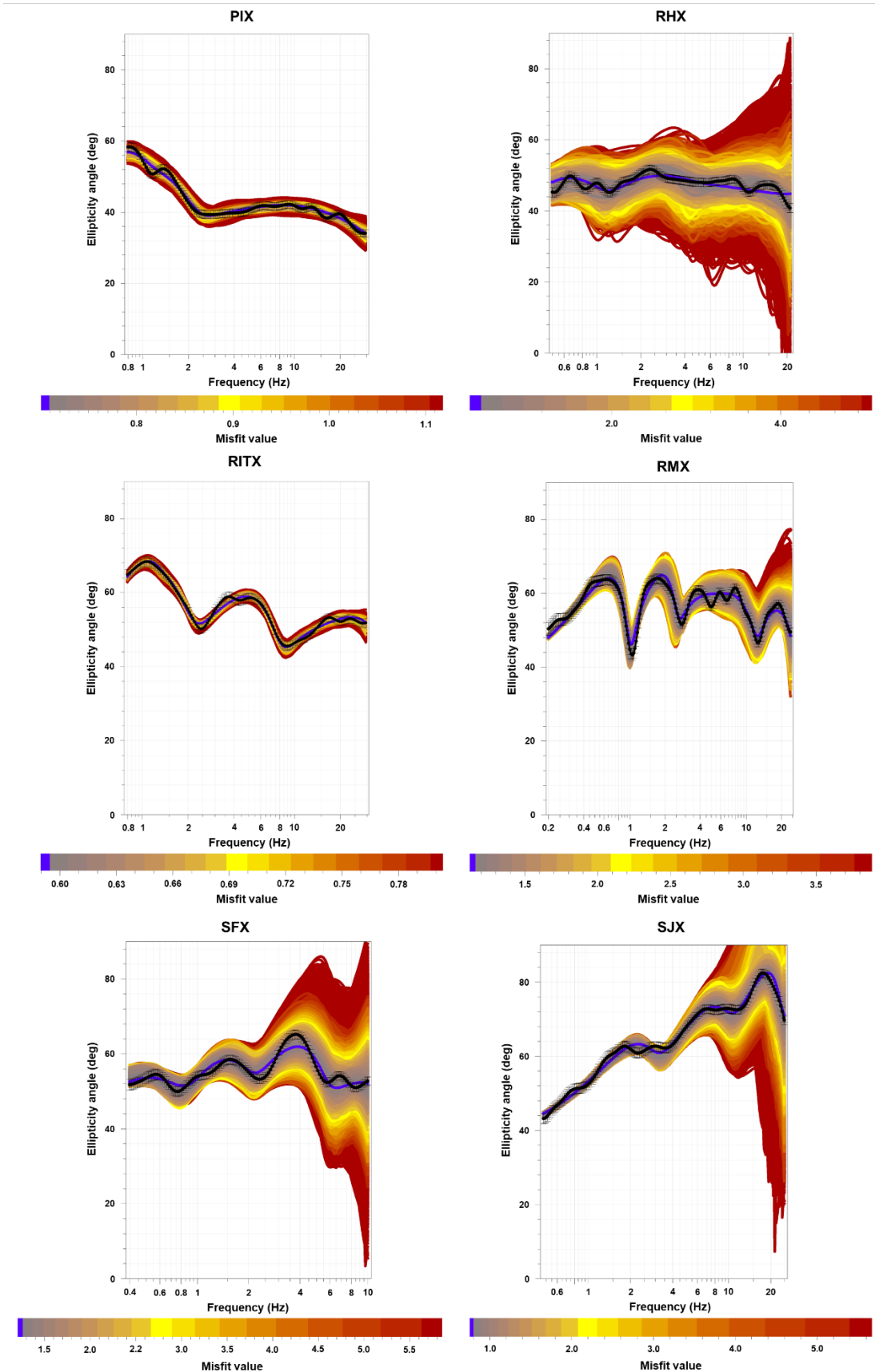
Station	Latitude	Longitude	Elevation (m)	Dynamic range @100sps	Seismometer Frequency response	Geology
AGSX	32.2658	-115.1606	0	138 dB	120 s to 50 Hz	Soil
ALAMX	32.0076	-115.708	317	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
CBX	32.3131	-116.663	1,238	138 dB	30 s to 50 Hz	Intrusive igneous intermediate rock
CCX	31.868	-116.664	40	138 dB	120 s to 50 Hz	Concrete base sited on extrusive igneous intermediate rock
CHX	31.4721	-115.052	40	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
CORX	32.4152	-117.2481	76	142 dB	120 s to 50 Hz	Extrusive igneous intermediate rock
CPX	32.417	-115.304	194	138 dB	120 s to 50 Hz	Extrusive igneous basic (volcanic Rock)
DOCTX	31.9594	-114.745	13	138 dB	120 s to 50 Hz	Soil
GUVIX	32.3029	-115.076	10	138 dB	120 s to 50 Hz	Soil
JARAX	32.537	-115.581	11	138 dB	120 s to 50 Hz	Soil
PBX	31.7414	-116.725	351	138 dB	120 s to 50 Hz	Extrusive igneous intermediate rock
PESCX	32.433	-114.964	14	138 dB	120 s to 50 Hz	Soil

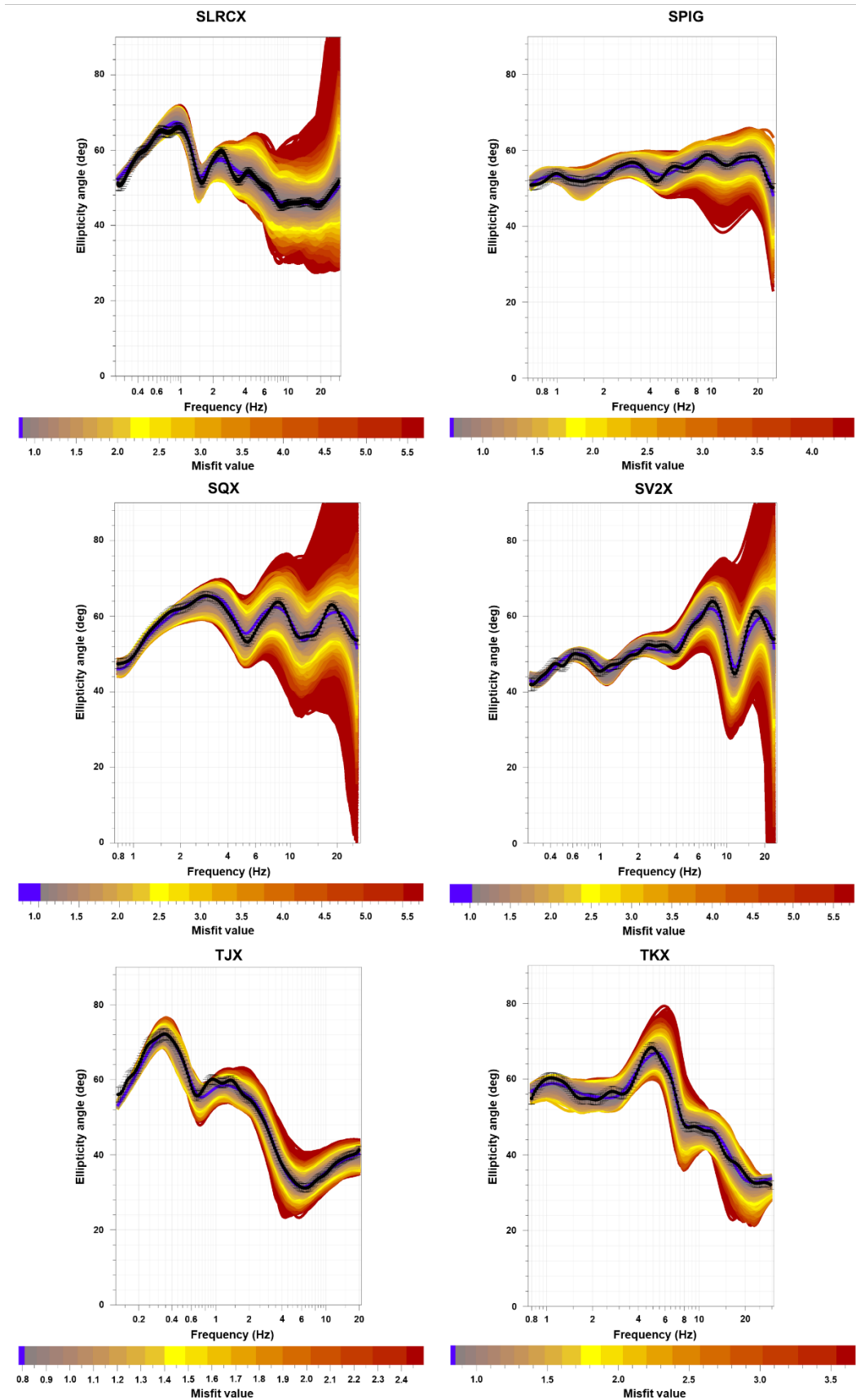
PIX	31.5629	-113.46	79	138 dB	120 s to 50 Hz	Metamorphic gneiss rock
RHX	32.135	-115.284	8	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
RITX	32.1659	-114.961	15	138 dB	120 s to 50 Hz	Soil
RMX	32.602	-116.078	1290	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
SFX	31.0376	-114.851	36	138 dB	120 s to 50 Hz	Metamorphic metasedimentary rock
SJX	32.0048	-115.948	1,618	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
SLRCX	32.4585	-114.706	47	138 dB	120 s to 50 Hz	Soil
SPIG (SSN)	31.0459	-115.4660	2,835	147-148 dB	120 s to 50 Hz	Metamorphic gneiss
SQX	30.5762	-115.876	105	138 dB	120 s to 50 Hz	Conglomerate sedimentary rock
SV2X	31.3398	-116.2384	135	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
TJX	32.5102	-117.054	223	138 dB	120 s to 50 Hz	Soil
TKX	32.5387	-116.607	549	138 dB	120 s to 50 Hz	Intrusive igneous acid rock
TL2X	32.448	-115.059	11	138 dB	30 s to 50 Hz	Soil
UABX	32.6316	-115.45	44	138 dB	120 s to 50 Hz	Soil
VTX	31.3914	-115.784	750	138 dB	120 s to 50 Hz	Soil
YUC2X	32.6054	-115.094	23	138 dB	120 s to 50 Hz	Soil

* Scale: 1:250,000.









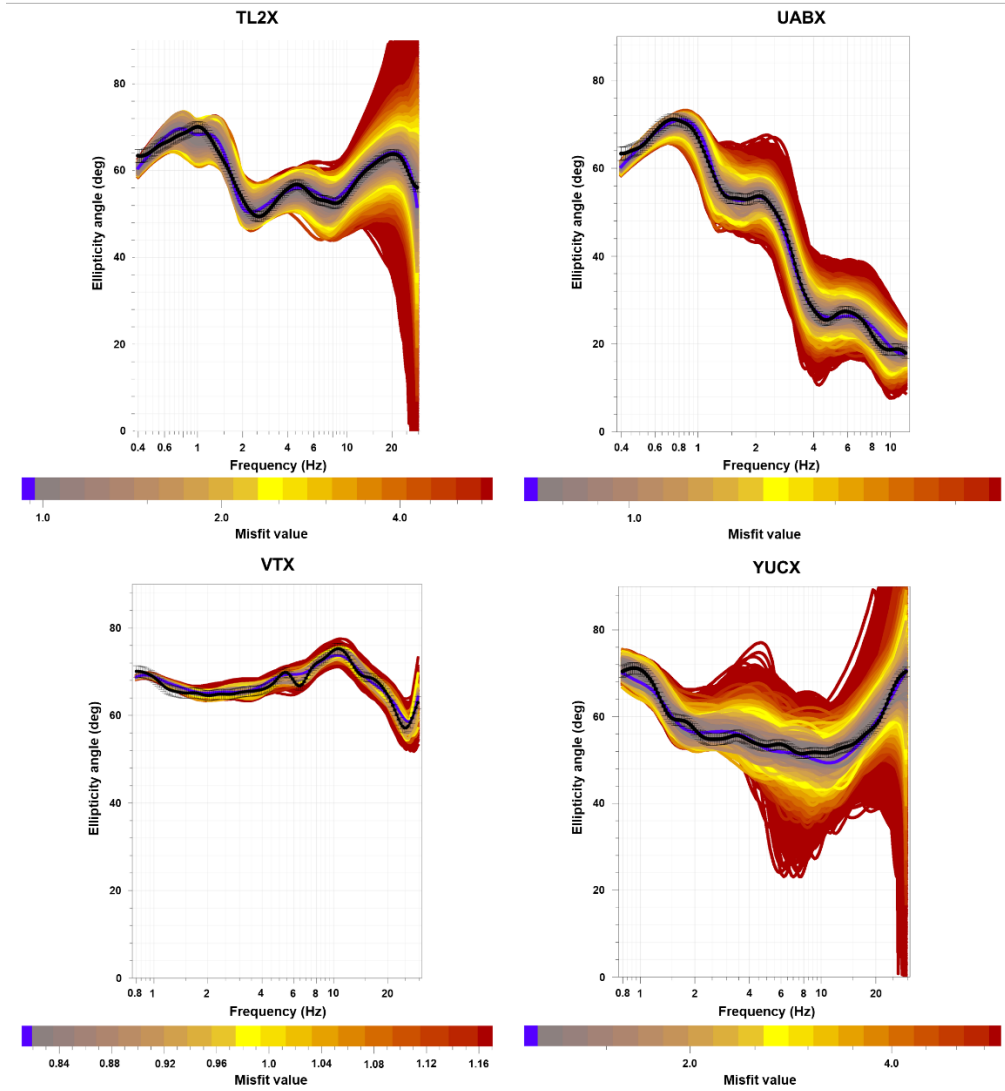
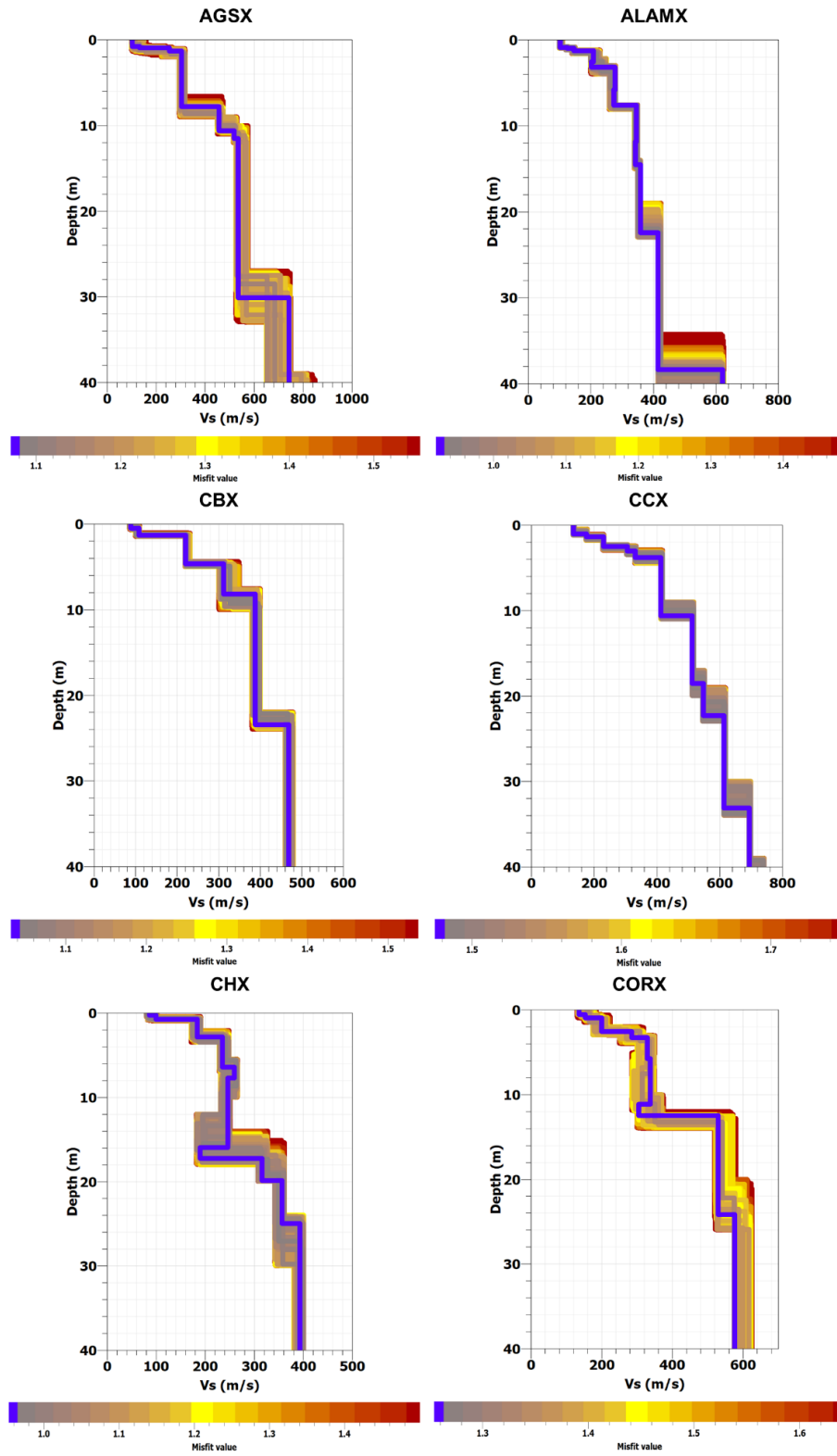
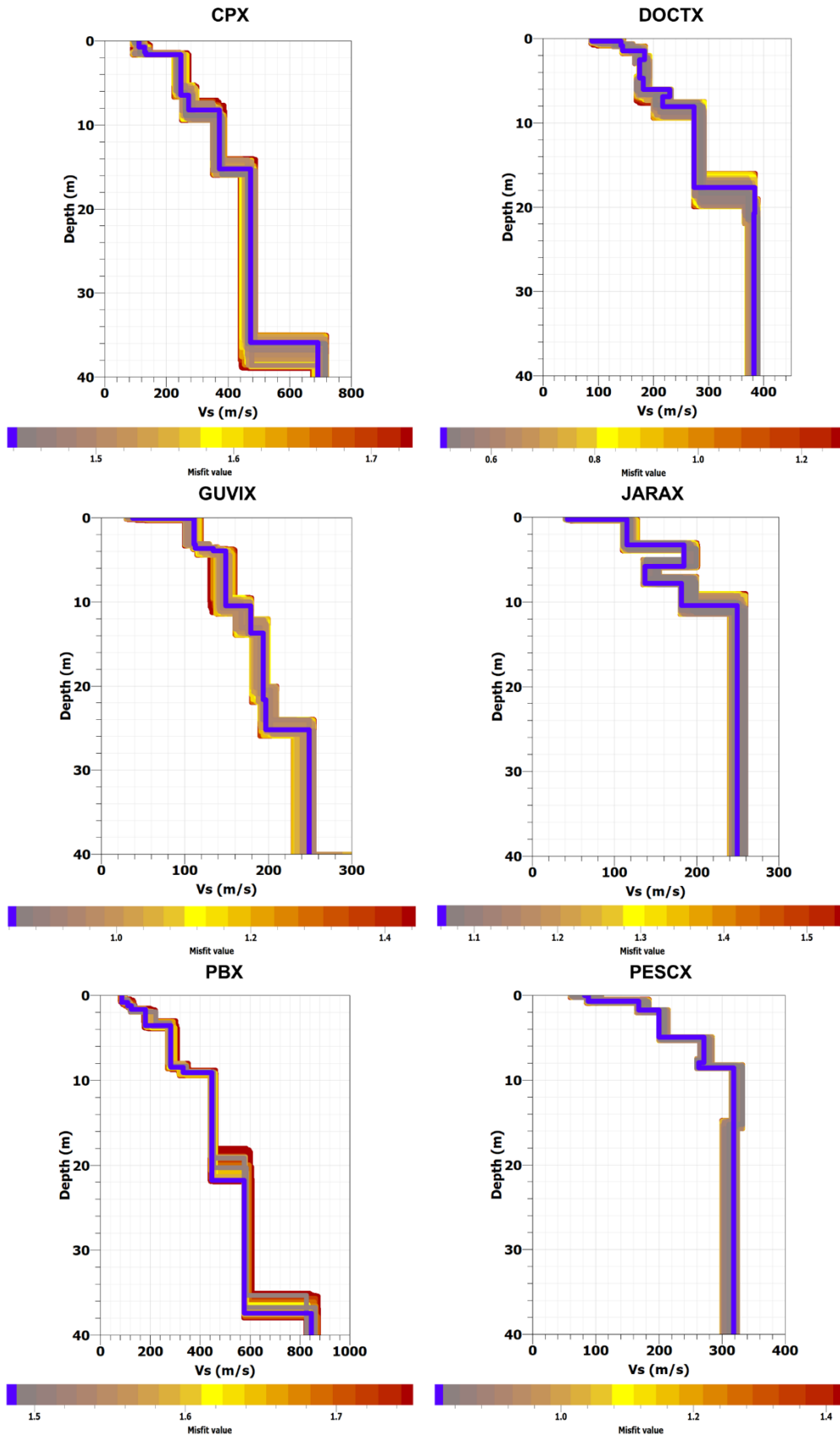
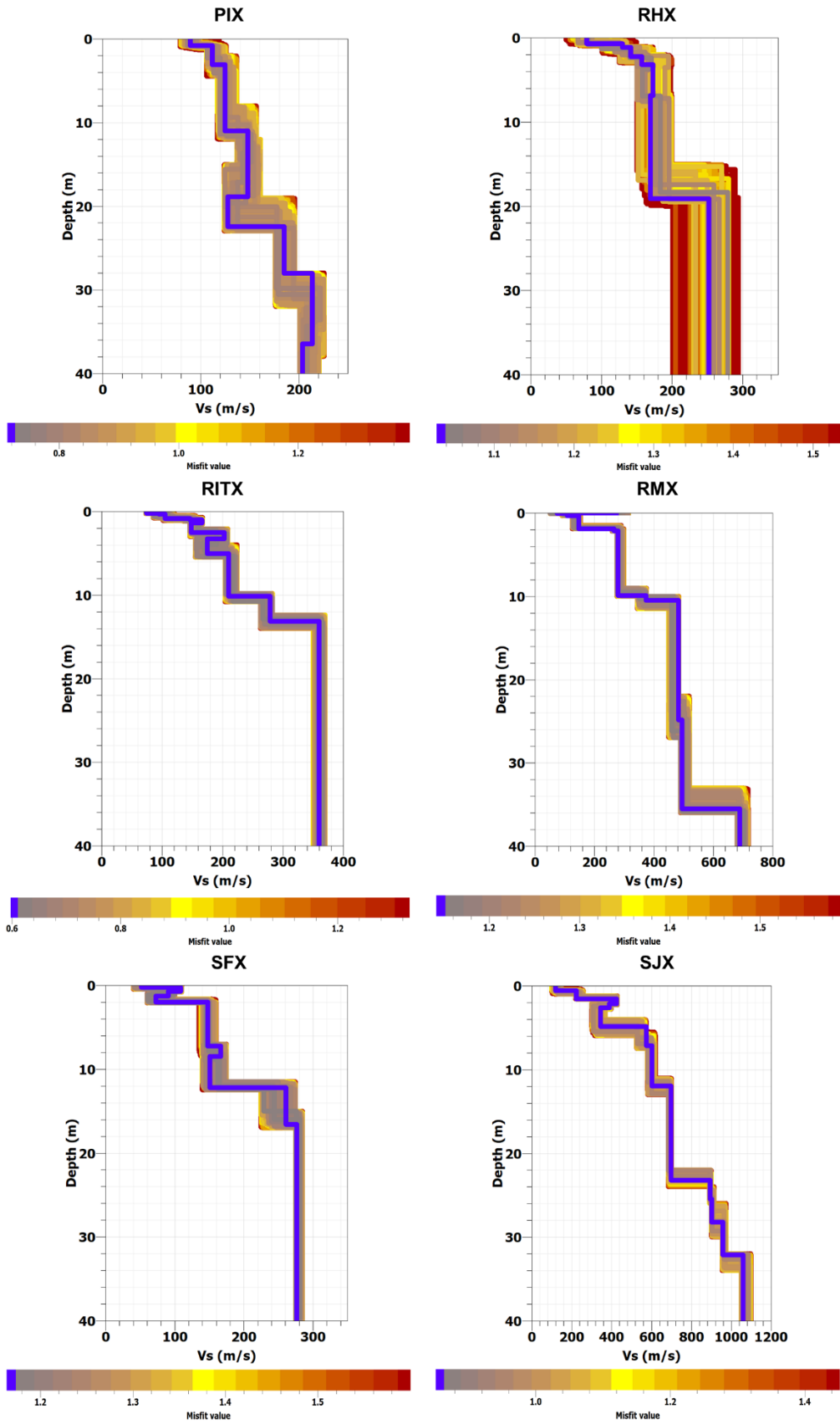
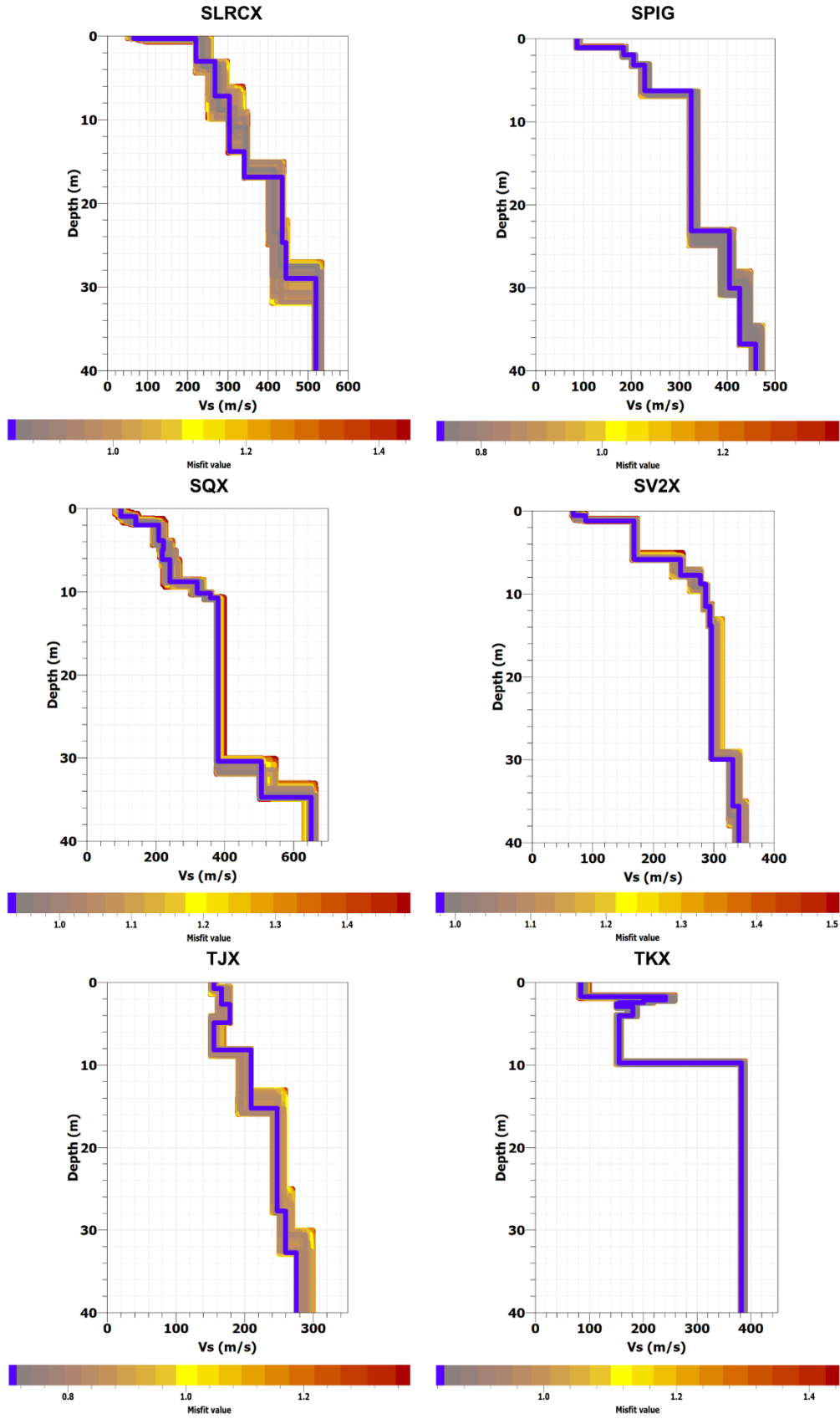


Figure S1. Fit for each station, in solid black line the average of the observed HVSR curves and the colored lines the HVSR curves of each inverted model. The color scale corresponds to the misfit between the synthetic ellipticity curve from each mode and the observed ellipticity curve (i.e., HVSR curve). The blue line indicates the velocity profile with the smallest misfit.









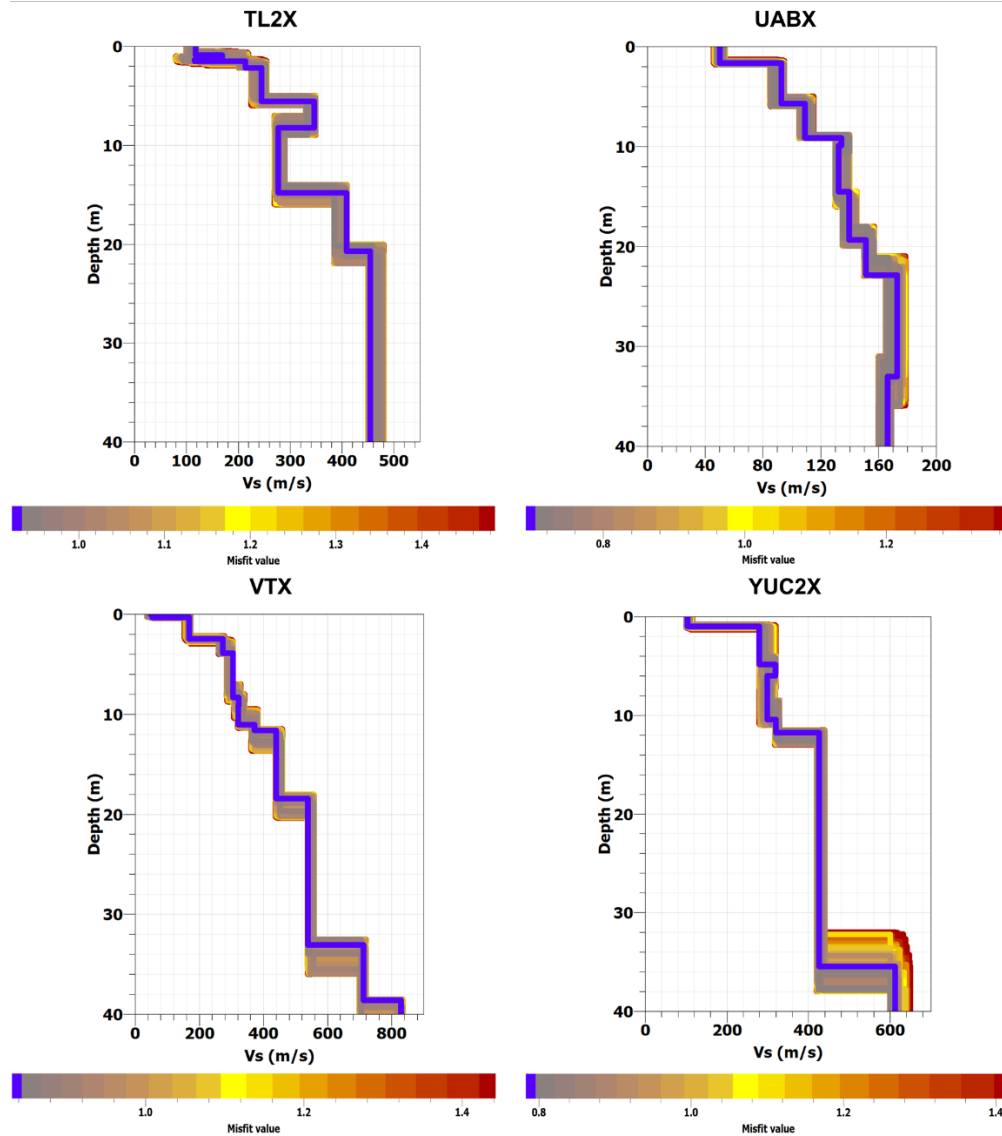


Figure S2. Inverted shear wave velocity profiles, V_s , from the surface down to 40 m for each RESNOM station. The color scale corresponds to the misfit between the synthetic ellipticity curve from each mode and the observed ellipticity curve (i.e., HVSR curve). The blue line indicates the velocity profile with the smallest misfit.