

STATION INFORMATION

Station code: 3

Model: Geobox

Sensor: SARA SS45 (external 4.5 Hz sensors)

Notes: -

PLACE INFORMATION

Place ID: Podere Santa Teresa

Address: Canneto - Monteverdi

Latitude: 43.219293

Longitude: 10.727217

Coordinate system: WGS84

Elevation: 151 m s.l.m.

Weather: sun

Notes: HV2

PHOTOGRAPHIC REFERENCES



SIGNAL AND WINDOWING

Sampling frequency: 100 Hz

Recording start time: 2018/02/01 16:27:46

Recording length: 21.13 min

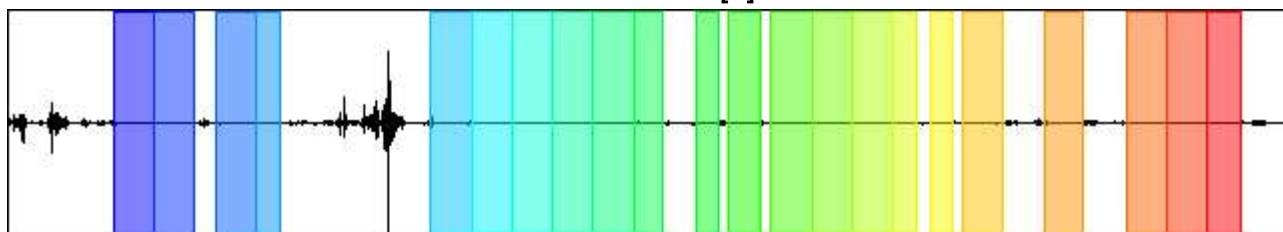
Windows count: 22

Average windows length: 35.51

Signal coverage: 61.61%

11481 Counts

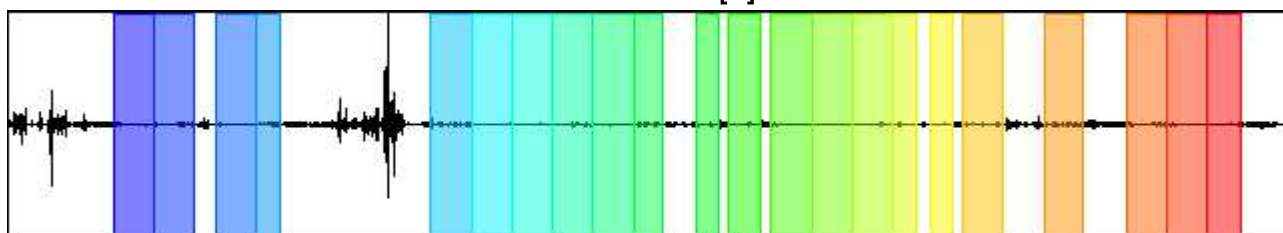
CHANNEL #1 [V]



-17717 Counts

20979 Counts

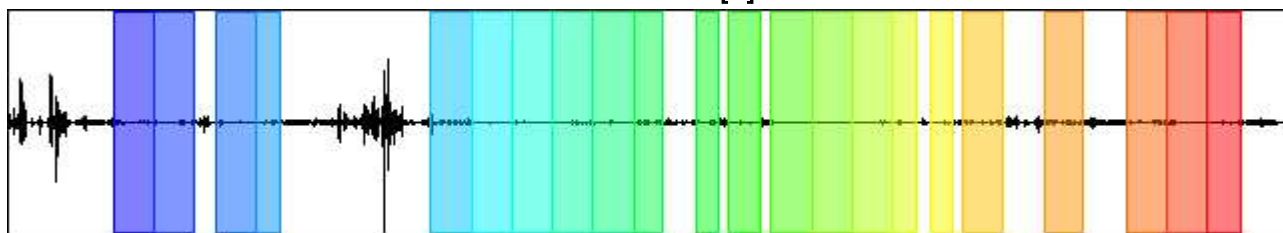
CHANNEL #2 [N]



-13746 Counts

10903 Counts

CHANNEL #3 [E]



-19010 Counts

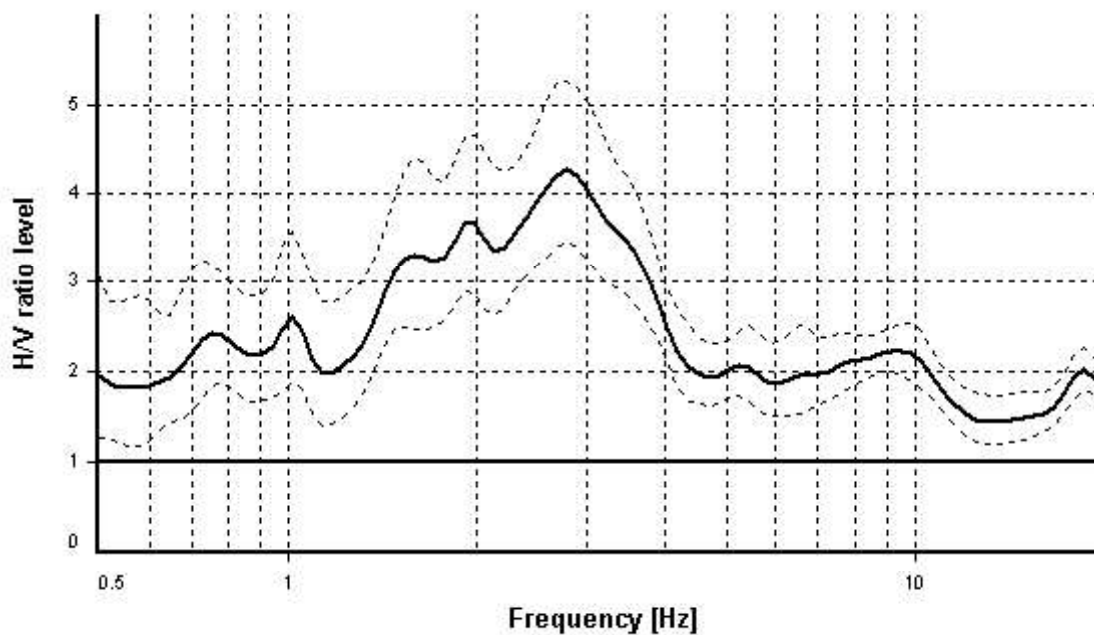
HVSR ANALYSIS

Tapering: Disabled

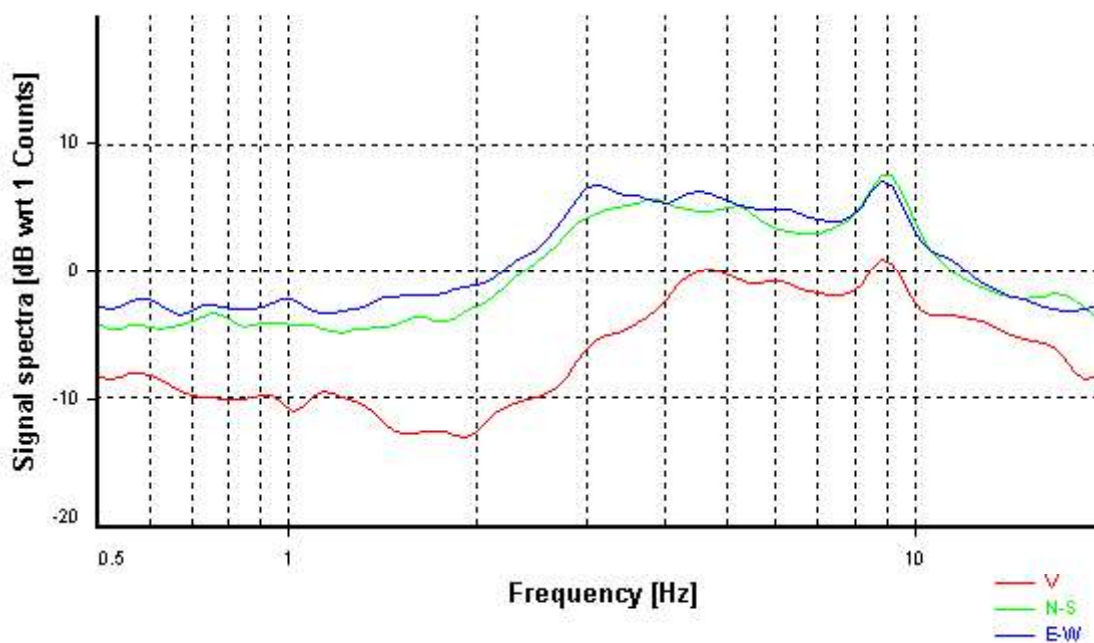
Smoothing: Konno-Ohmachi (Bandwidth coefficient = 40)

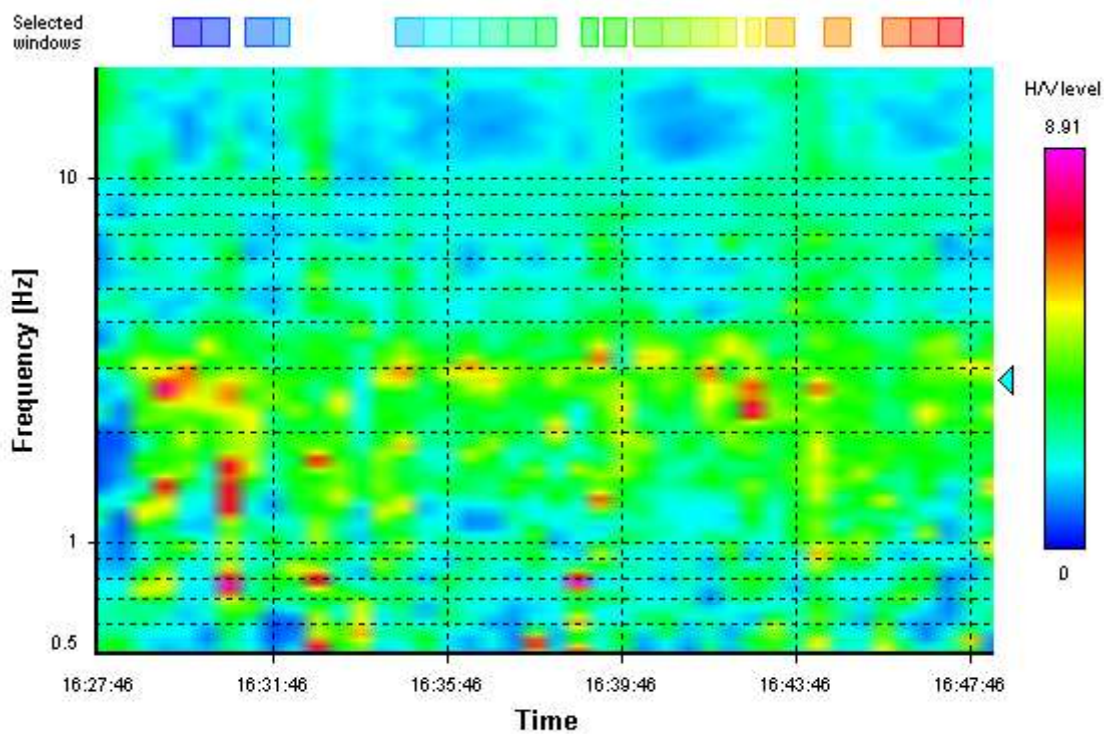
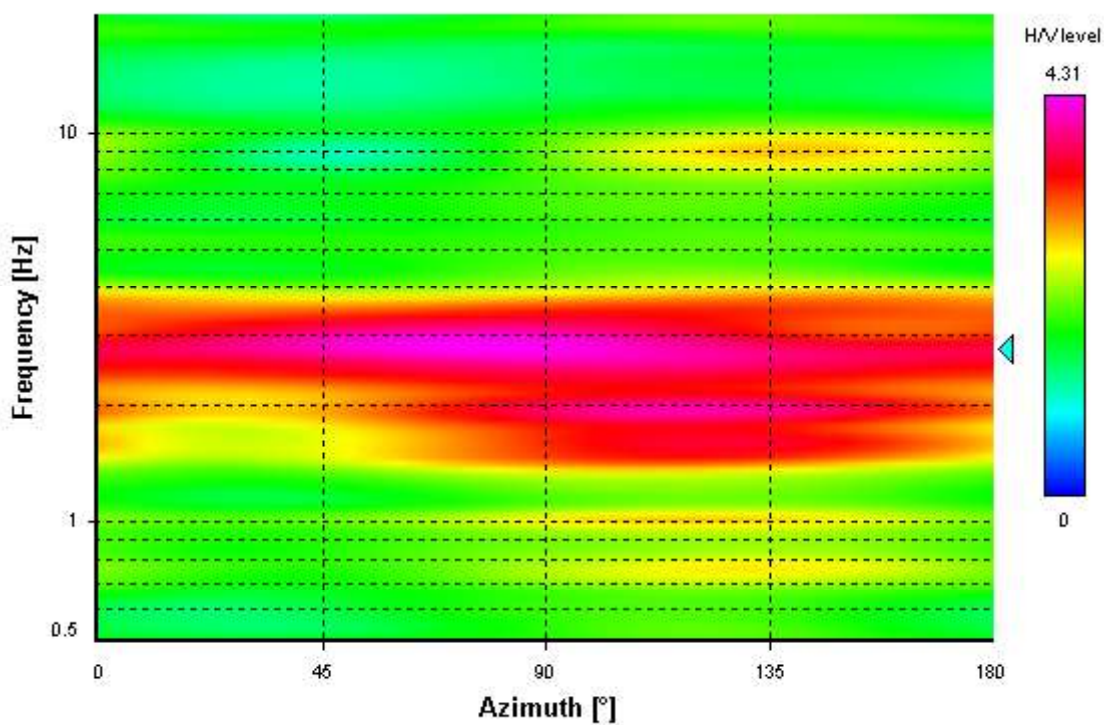
Instrumental correction: Disabled

HVSR average



Signal spectra average



HVSR time-frequency analysis (30 seconds windows)**HVSR directional analysis**

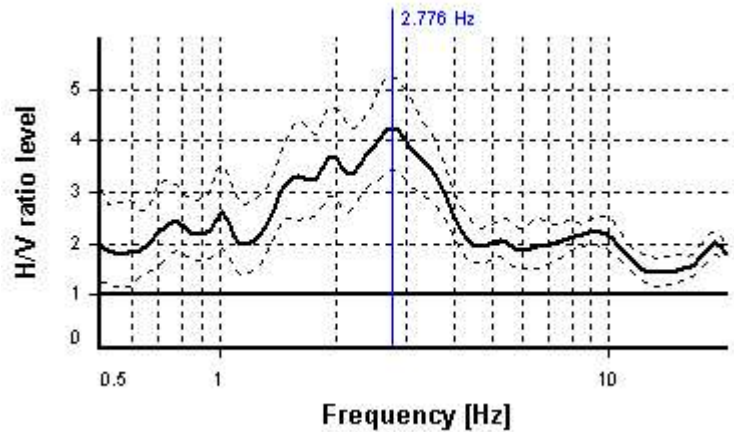
SESAME CRITERIA

Selected f_0 frequency

2.776 Hz

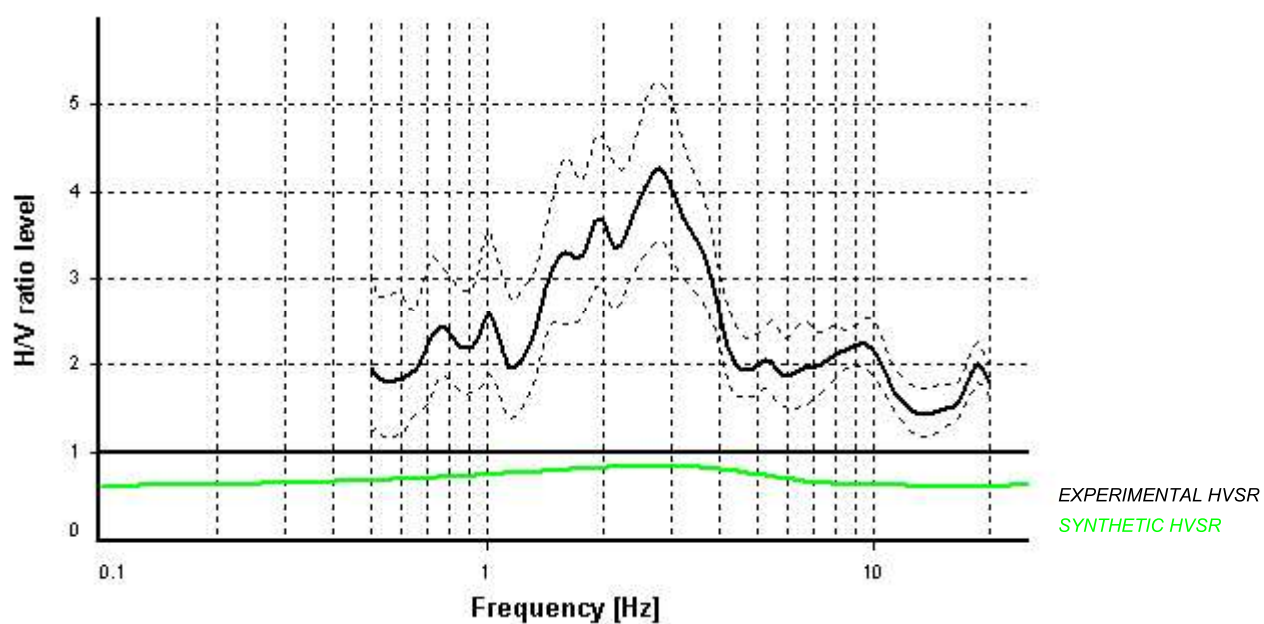
A_0 amplitude = 4.261

Average f_0 = 2.686 ± 0.473

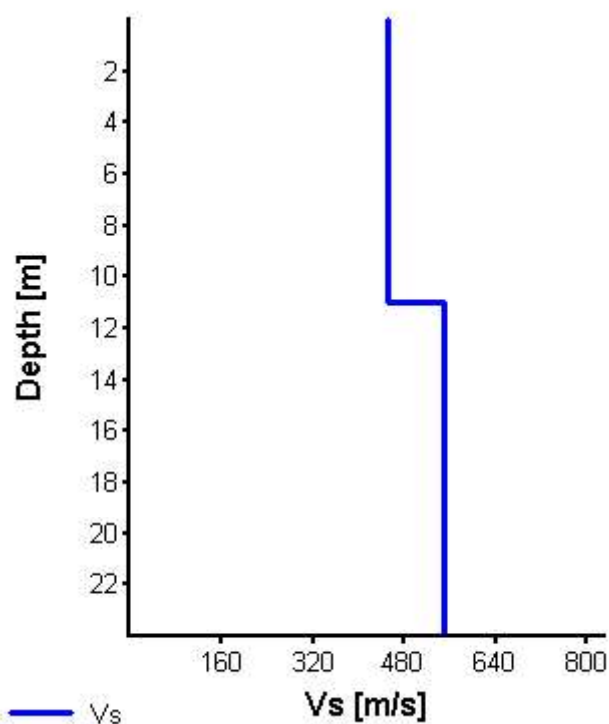


HVSR curve reliability criteria		
$f_0 > 10 / L_w$	22 valid windows (length > 3.6 s) out of 22	OK
$n_c(f_0) > 200$	2168.41 > 200	OK
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$	Exceeded 0 times in 37	OK
HVSR peak clarity criteria		
$\exists f \text{ in } [f_0/4, f_0] \mid A_{H/V}(f) < A_0/2$	1.22278 Hz	OK
$\exists f^+ \text{ in } [f_0, 4f_0] \mid A_{H/V}(f^+) < A_0/2$	4.34061 Hz	OK
$A_0 > 2$	4.26 > 2	OK
$f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	0% <= 5%	OK
$\sigma_f < \varepsilon(f_0)$	0.47333 >= 0.13878	NO
$\sigma_A(f_0) < \theta(f_0)$	1.23306 < 1.58	OK
Overall criteria fulfillment		OK

Synthetic HVSR modelling



H [m]	D [m]	Vp [m/s]	Vs [m/s]	ρ [kg/m ³]
11	11	900	450	1800
19	30	1600	550	1900
-	> 30	1900	700	2100



Vs 30 = 509 m/s (Offset = 0 m)