

Tap Oil T/47P 3D PSTM



SRME AND TAUP TEST
Sailline 1378P1002 (near cable)
Stack display

Processing Flow

- Reformat
- Navigation merge
- Trace edit
- Low cut filter 3Hz 18dB
- Deterministic de-phase filter to convert data to zero phase using far field signature
- Resample to 4ms using AA filter 110Hz 96dB
- System delay correction
- Spherical divergence correction $V*V*T$ using regional velocity
- Swell noise attenuation, threshold 2.25 and despiking; threshold 2.0
- Linear noise attenuation, Velocity -2500m/s to 2500m/s
- SRME and Tau-P Test

Test Summary

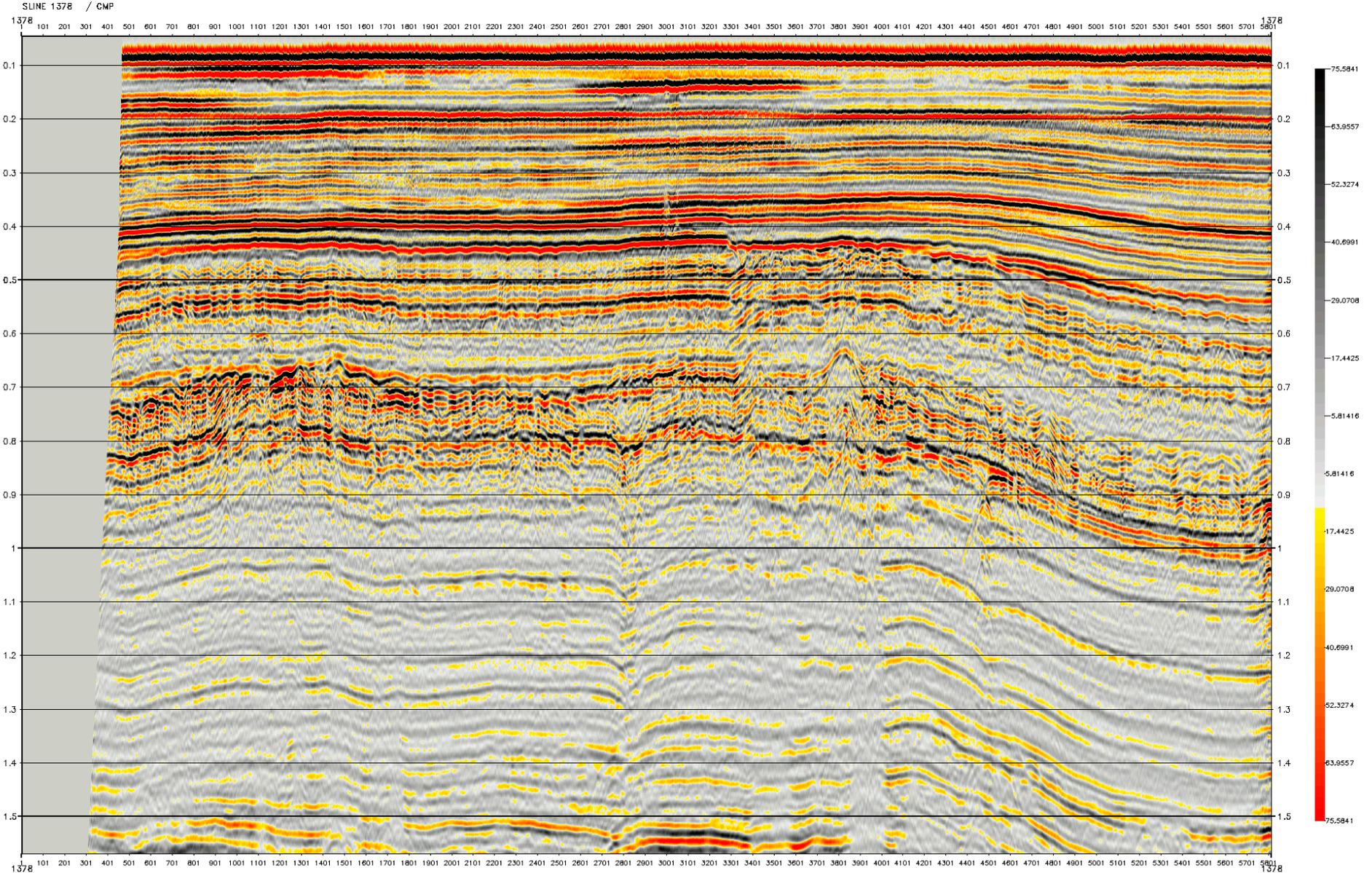
- Following combination of tests have been conducted to decide which process, SRME or Tau-P to be applied first.
- Input to the test is xrlin dataset
 - **Test 1:** Input → Tau-P
 - **Test 2:** Input → SRME
 - **Test 3:** Input → SRME → Tau-P
 - **Test 4:** Input → Tau-P → SRME

For Tau-P, Operator length is 240ms and gap is 24ms

For SRME, filter length 36ms and window length 512ms

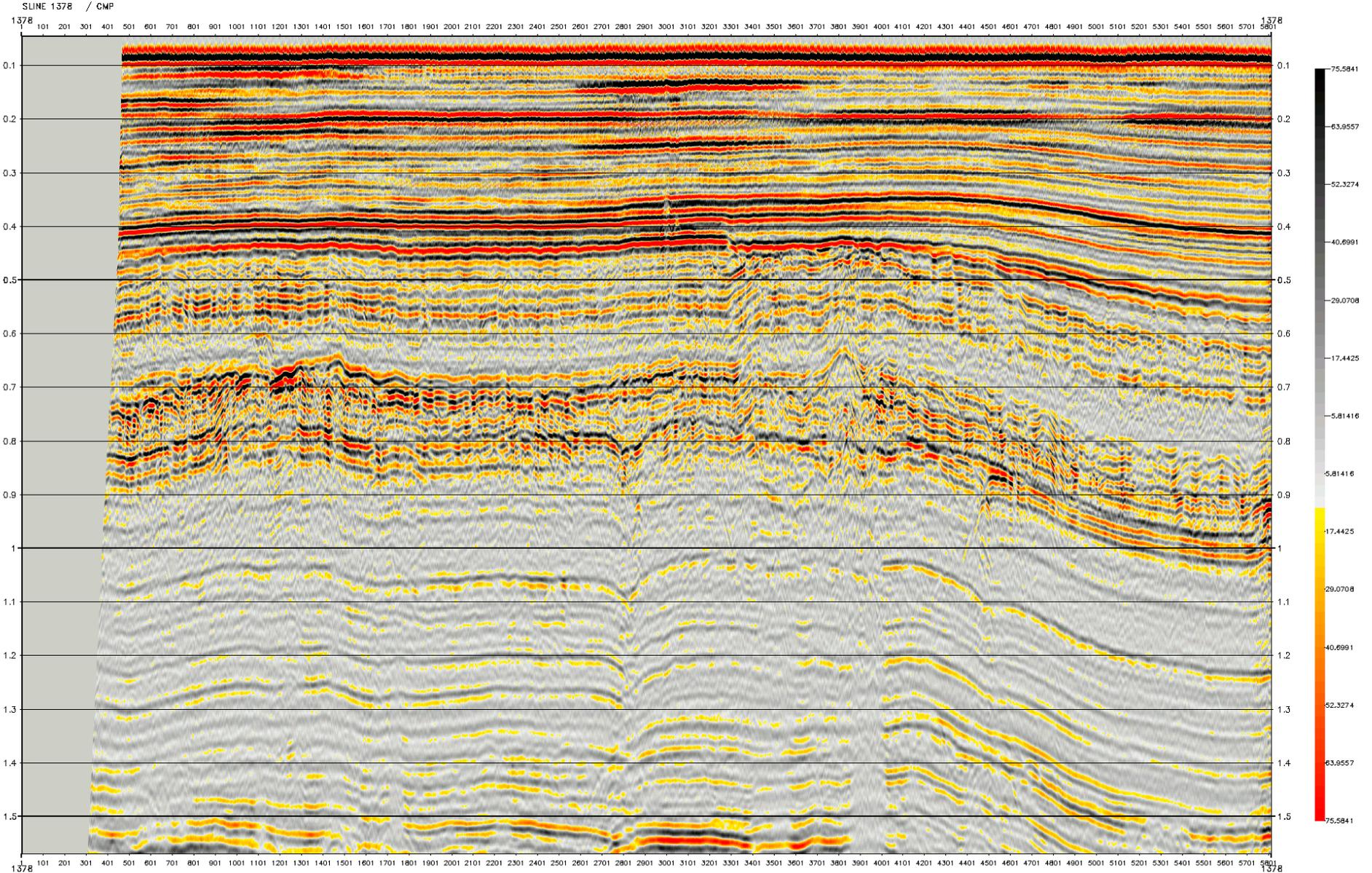
Input – Top View

Tango:vegas:spr224ws:s563lap:1378 notaup slk.1



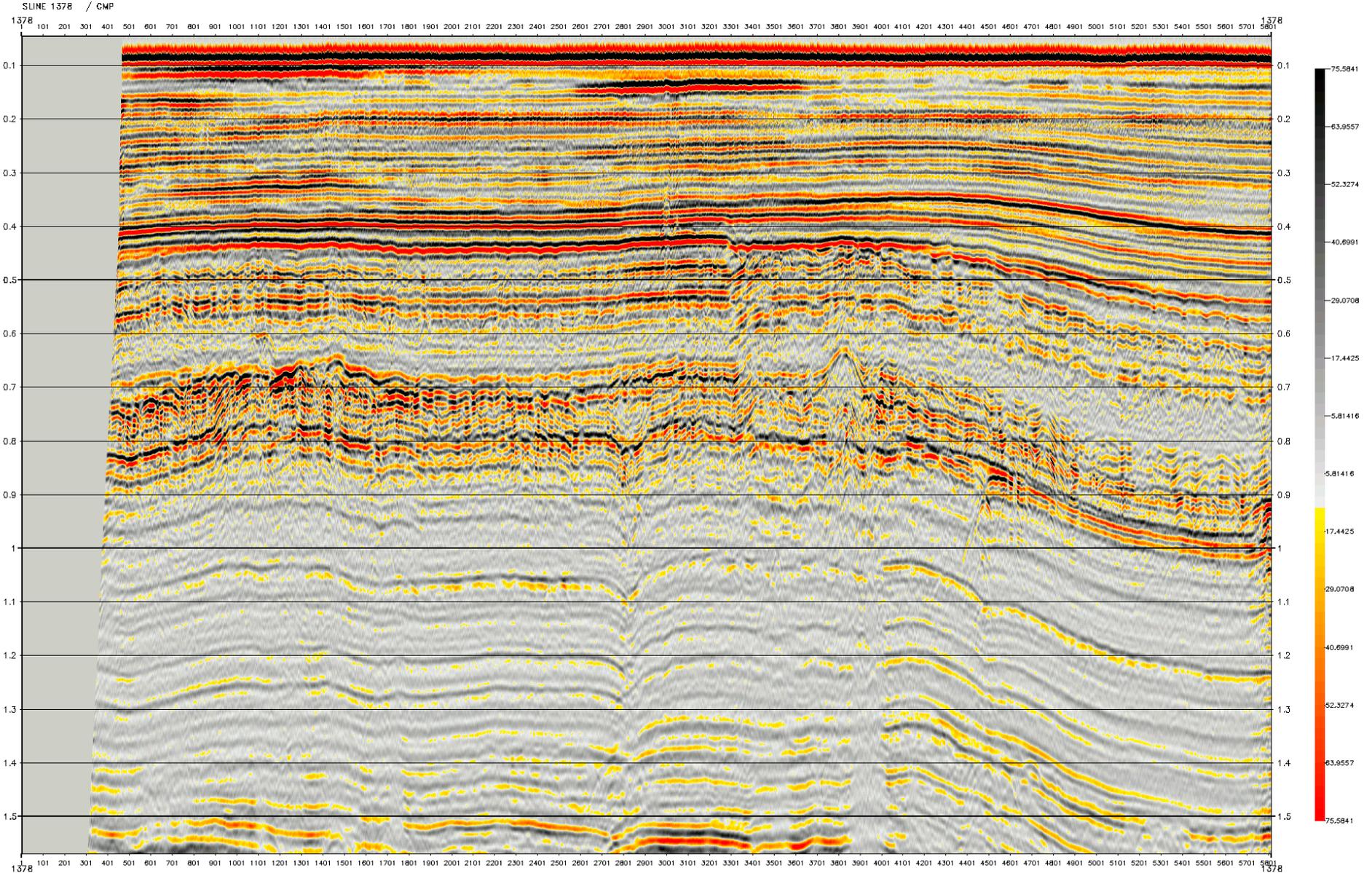
With Taup (test 1) – Top View

Tongo:vegas:spr224ws:s563lap:1378 Ip24 240skn.1



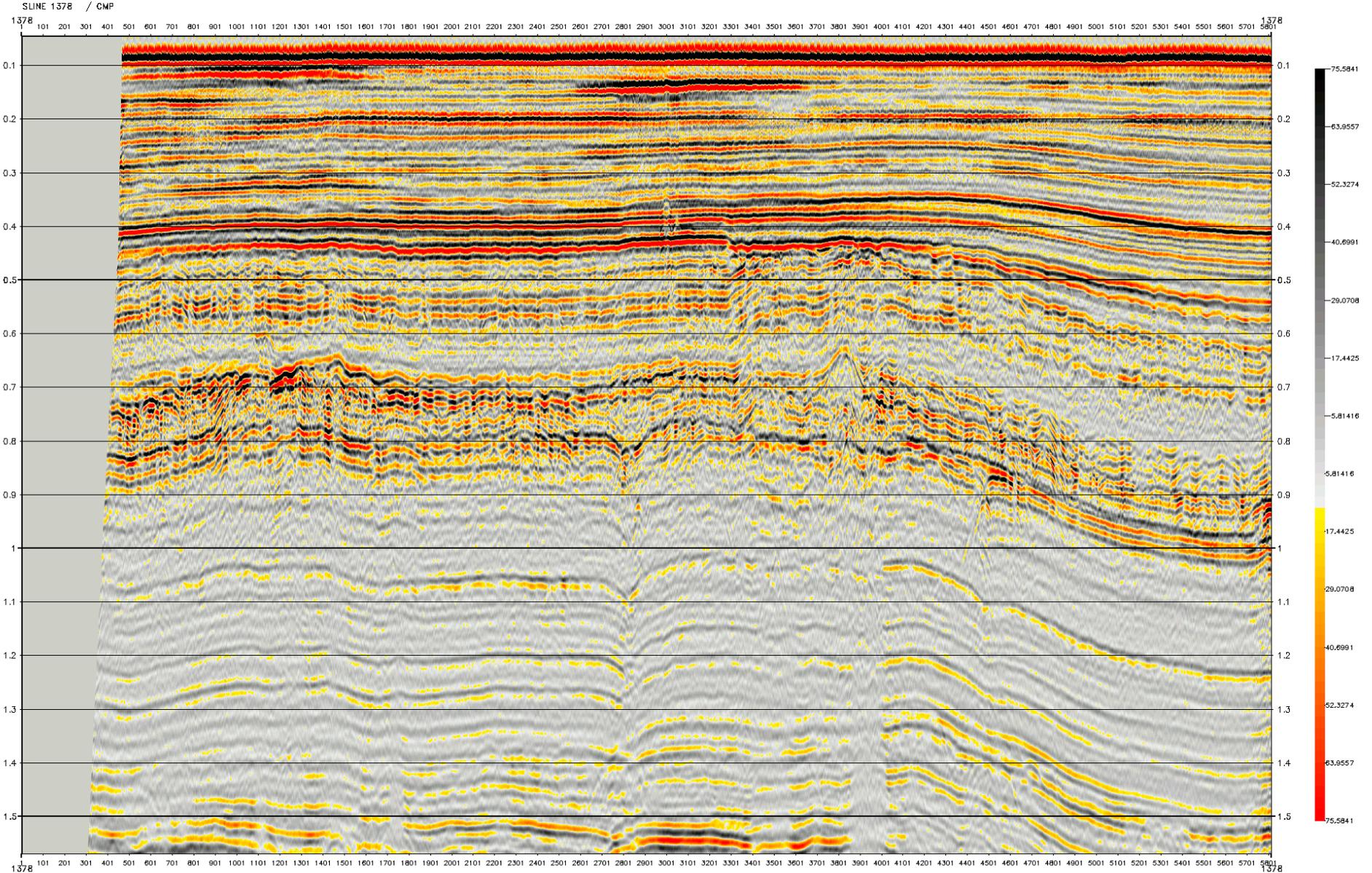
With SRME (test 2) – Top View

Tango:vegas:spr224ws:s563tap:1378 srme2 slk.1



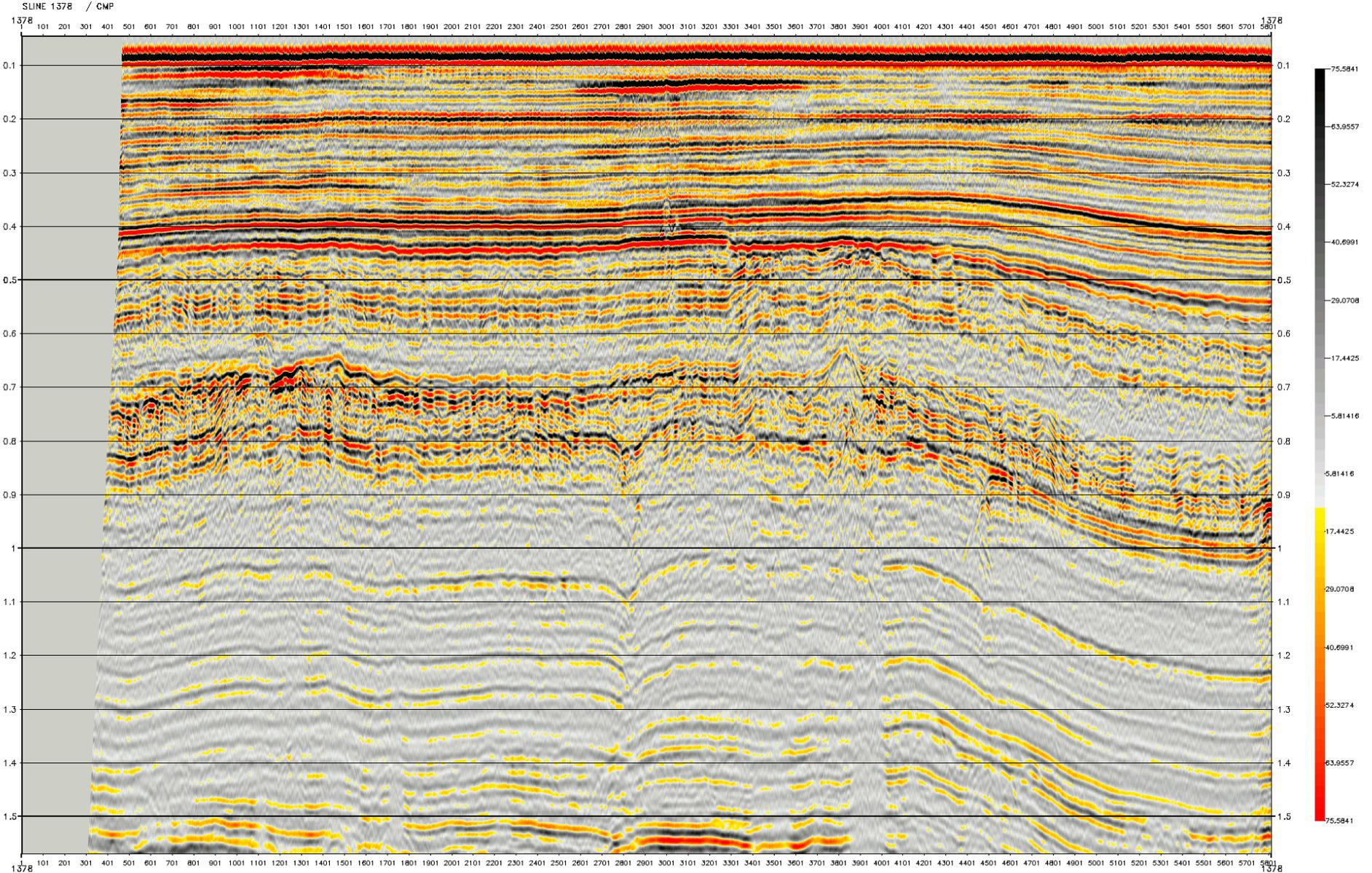
With SRME + Taup (test 3) – Top View

Tongo:vegas:spr224ws:s563lap:1378 srmelp24stkc.1



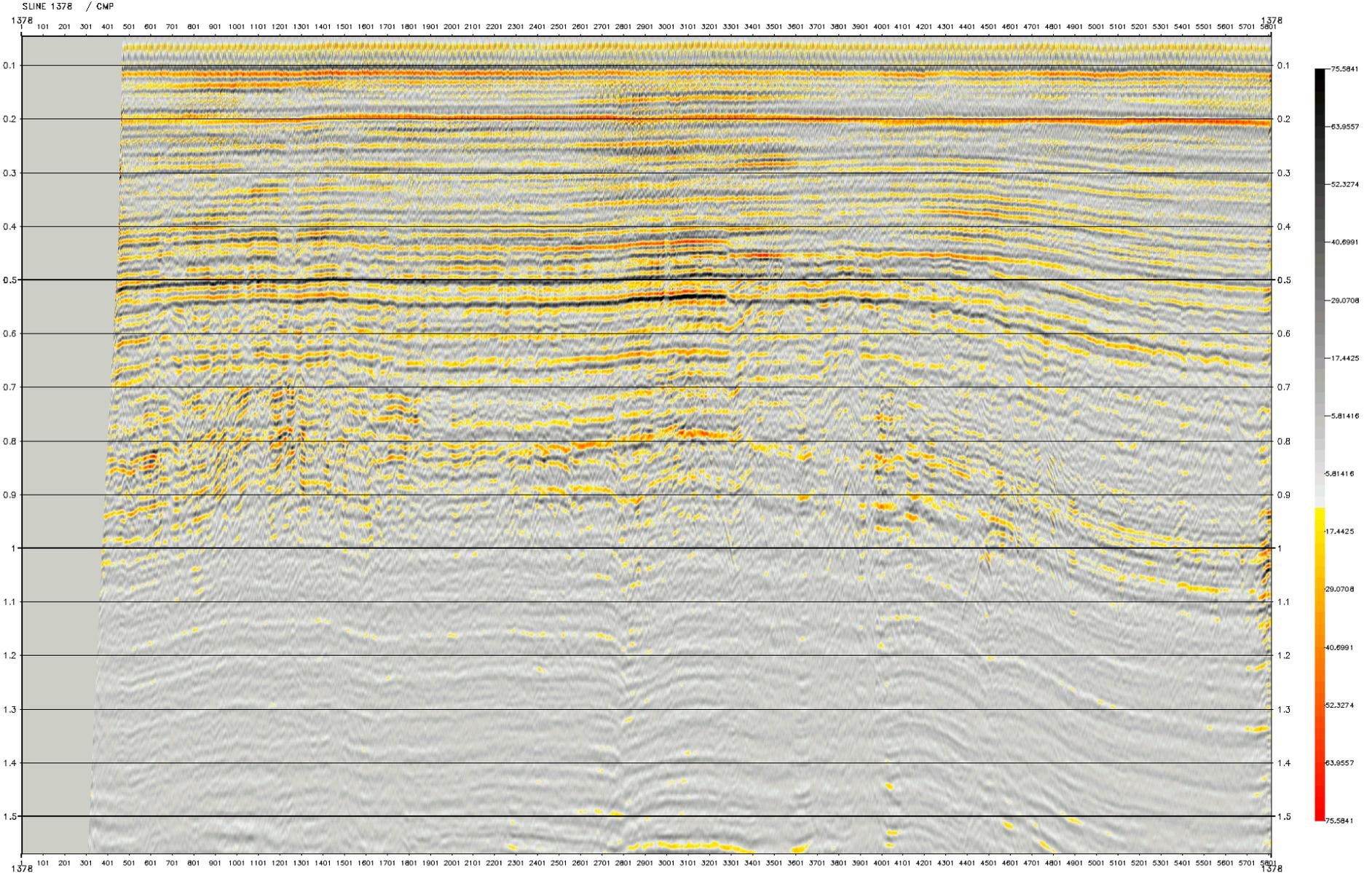
With Taup + SRME (test 4) – Top View

Tongo:vegas:spr224ws:s563lap:1378 Ipsrme2 slkc.1



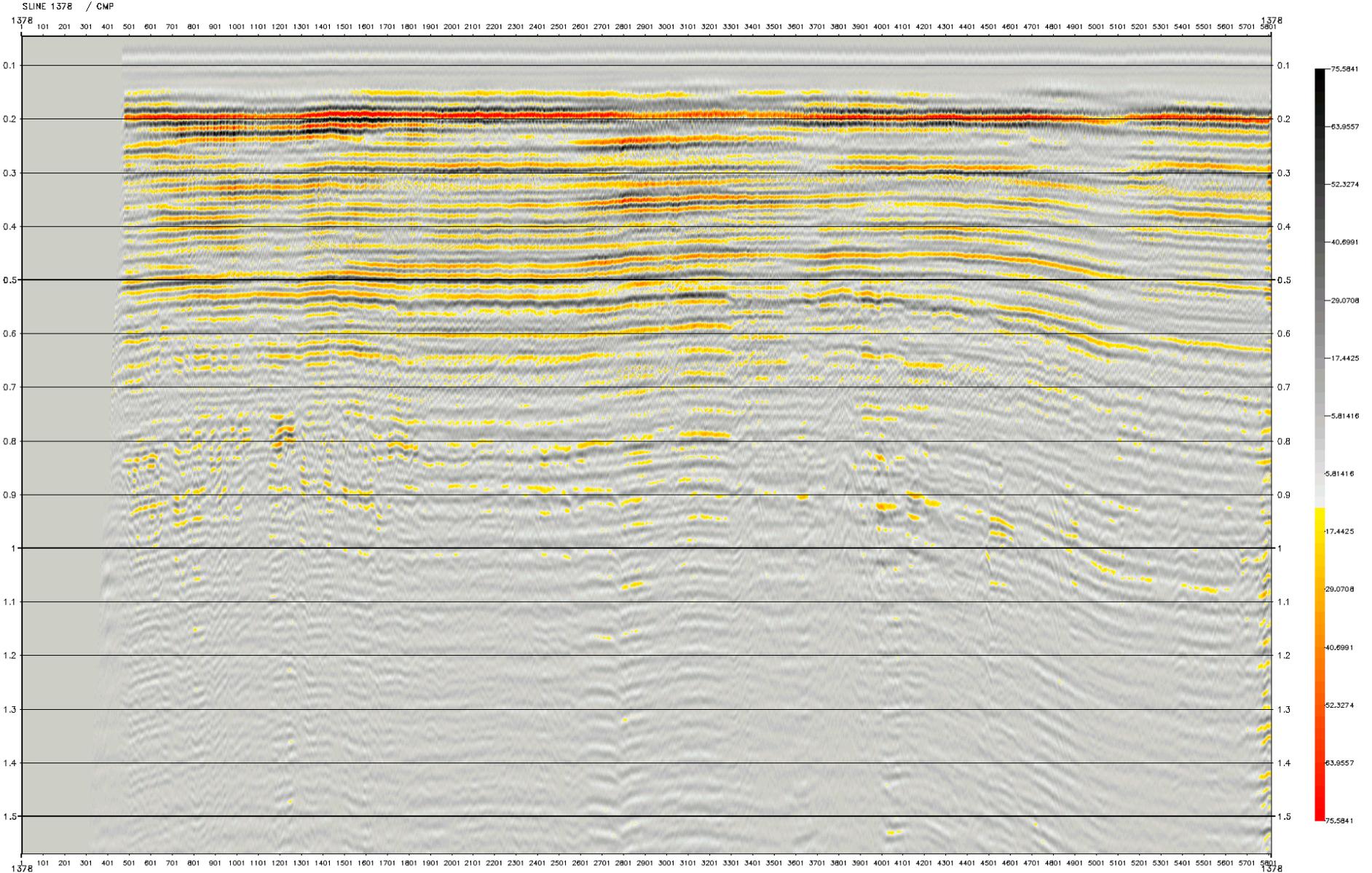
Difference display – Test 1 (Tau-P) – Top View

1378 notaup slk-1378 lp24 240slkn



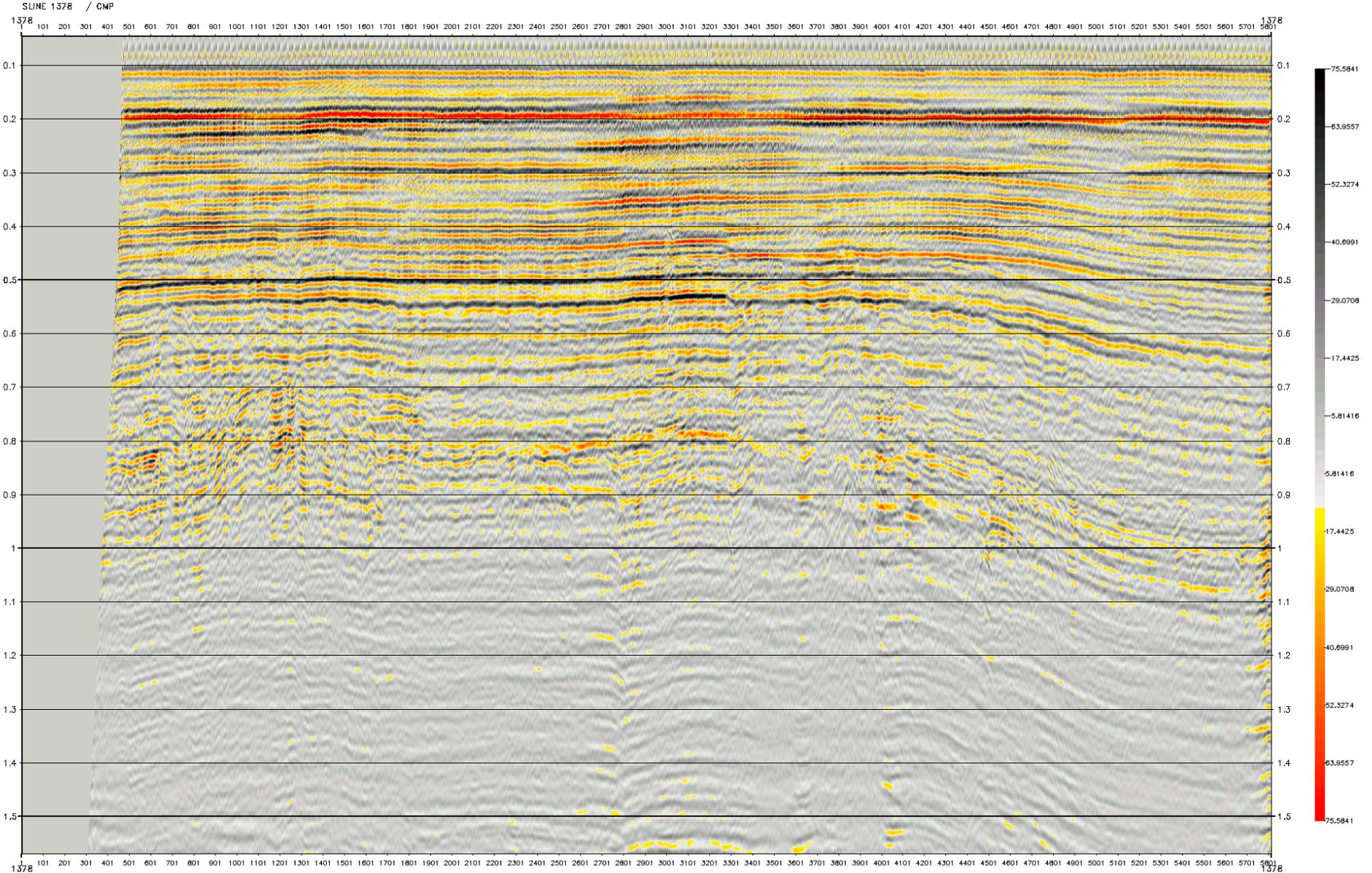
Difference display – Test 2 (only SRME) – Top View

1378 notaup stk-1378 srme2 stkc



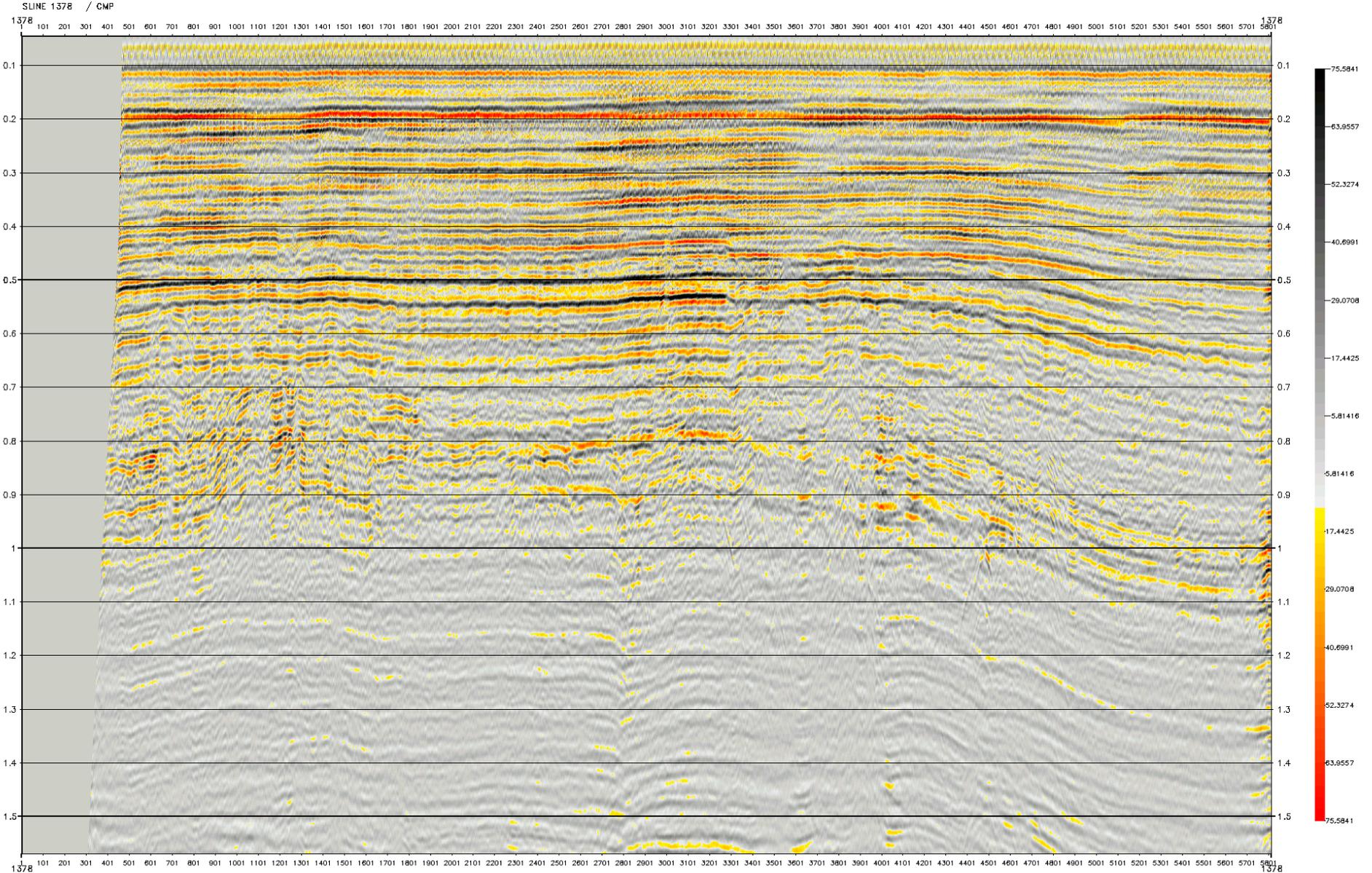
Difference display – Test 3 (SRME + Tau-P) – Top View

1378 notaup slk-1378 srmelp24slkc



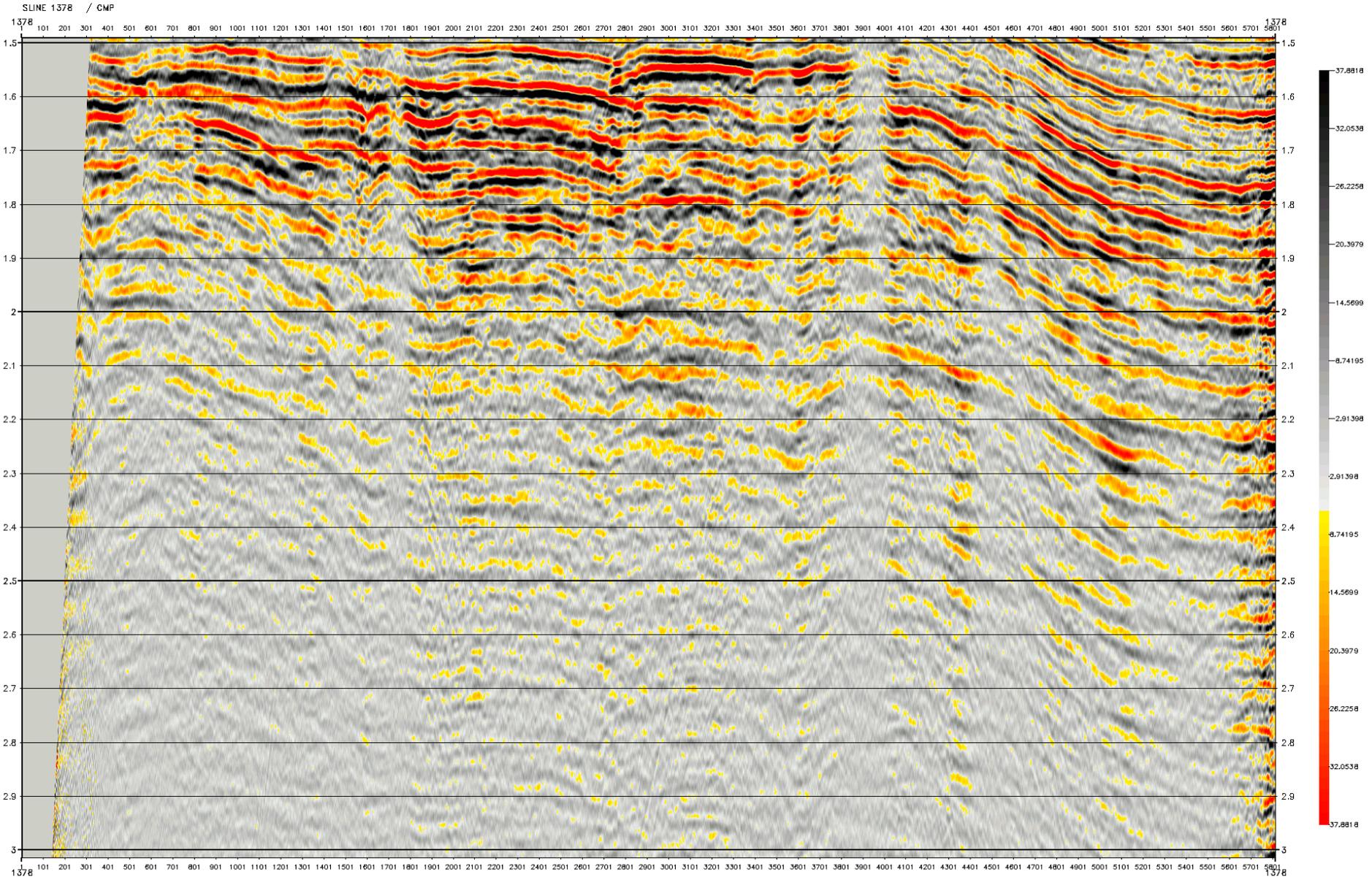
Difference display – Test 4 (Tau-P + SRME) – Top View

1378 notaup slk-1378 lperme2 slkc



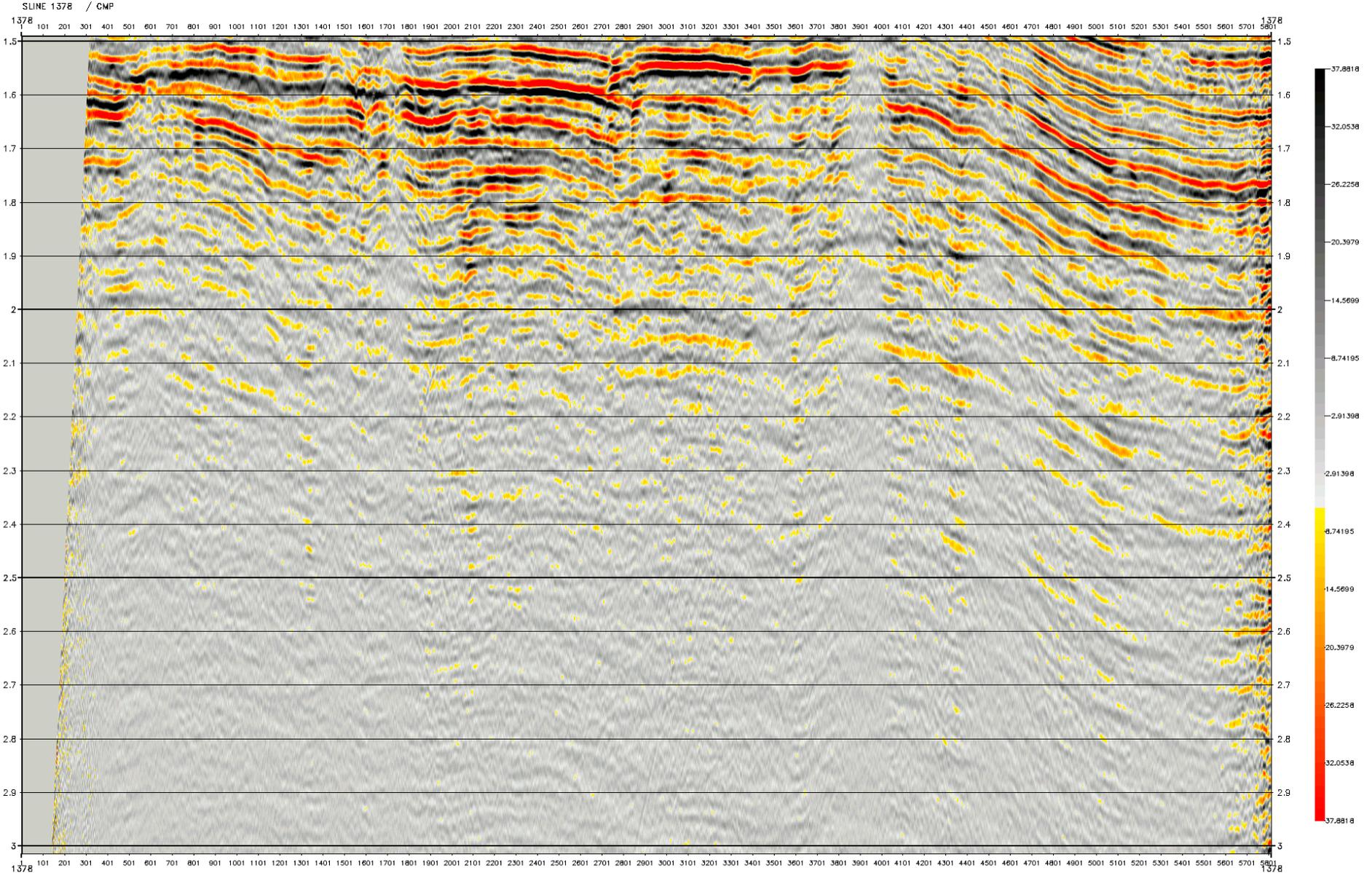
Input – Bottom View

Tango:vegas:spr224ws:s563lap:1378 notaup slk.1



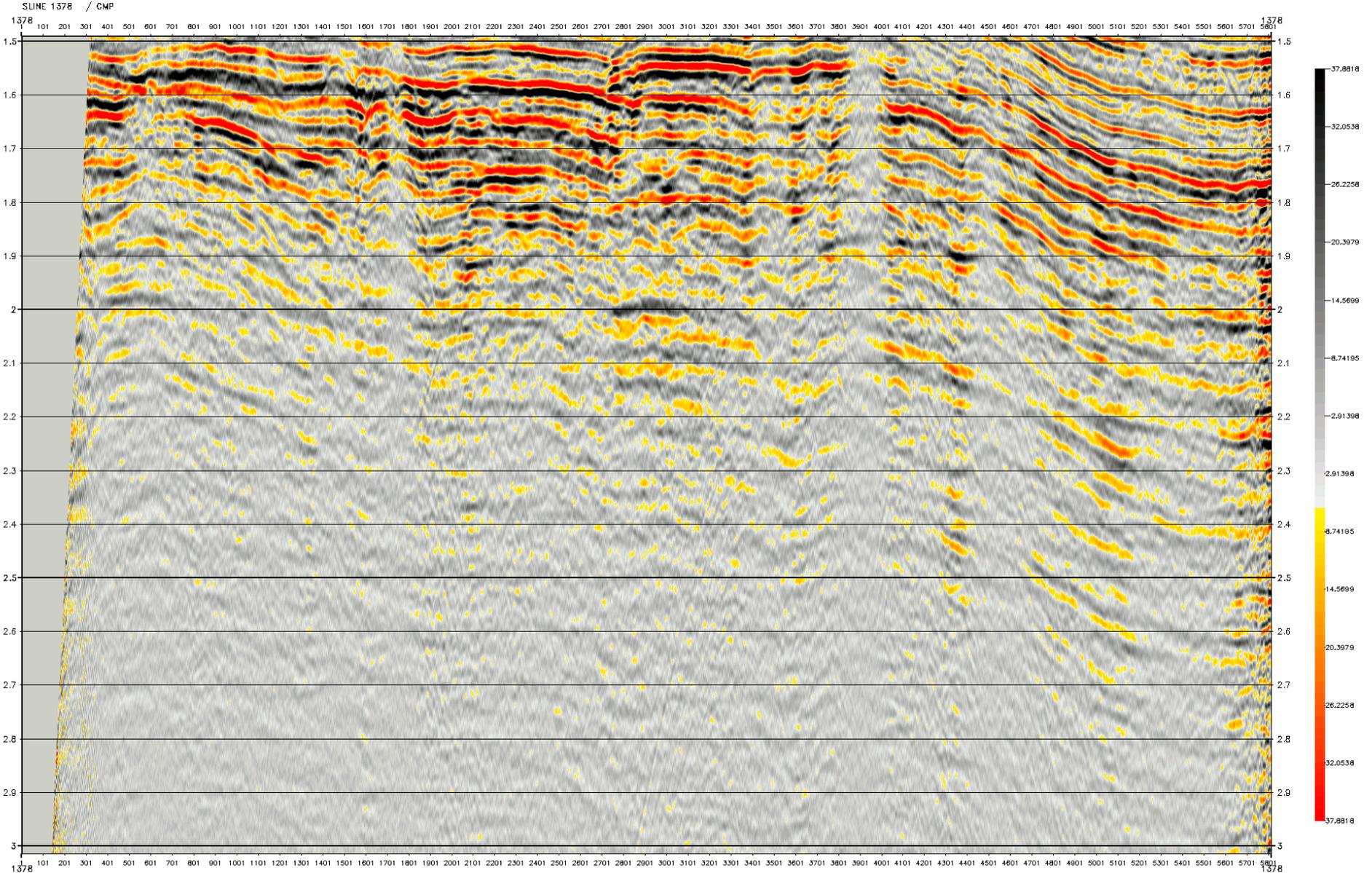
With Taup (test 1) – Bottom View

Tongo:vegas:spr224ws:s563tap:1378 Ip24 240skn.1



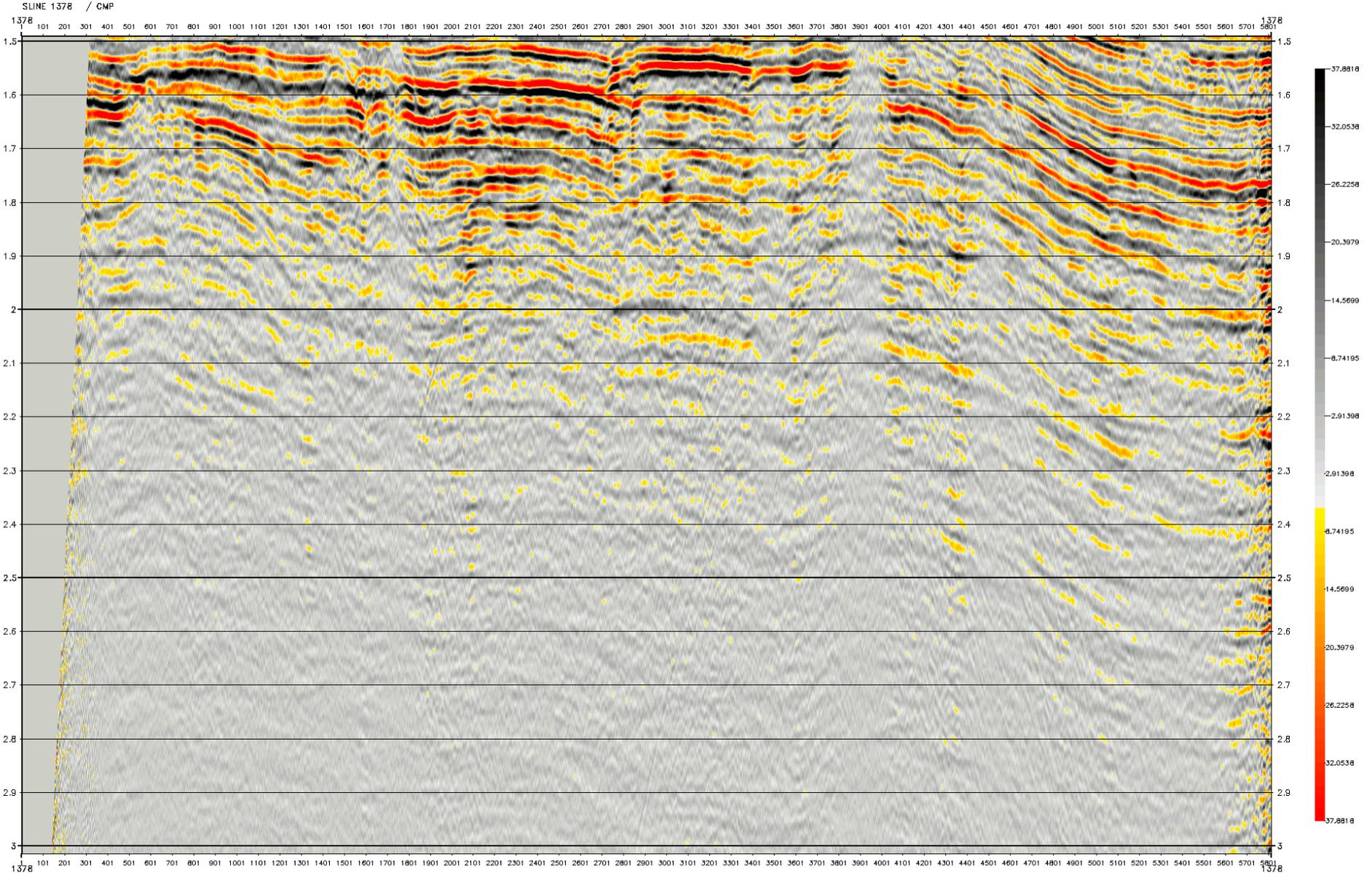
With SRME (test 2) – Bottom View

Tango:vegas:spr224ws:s5631ap:1378 srme2 slk.1



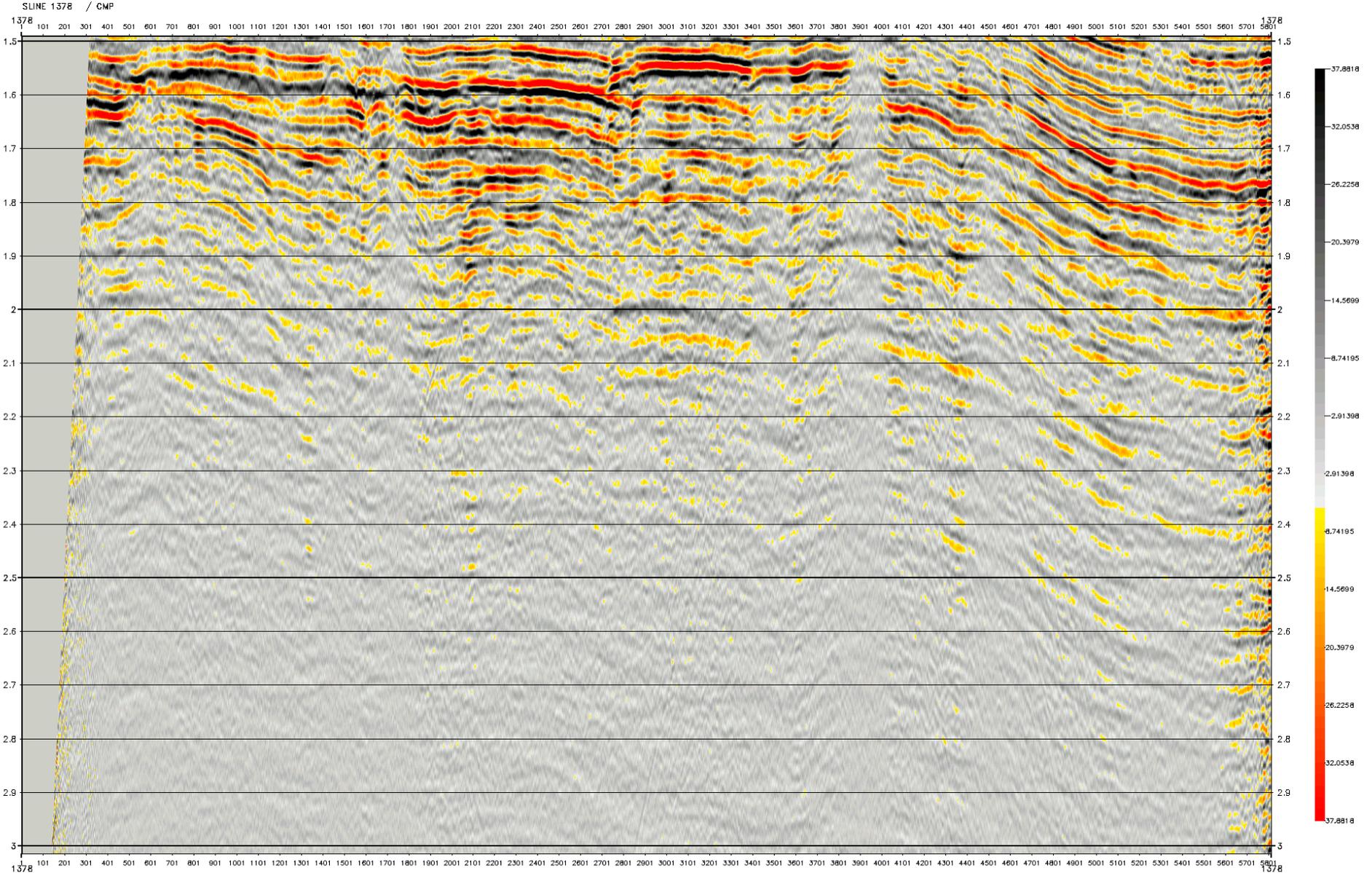
With SRME + Taup (test 3) – Bottom View

Tongo:vegas:spr224ws:s563tap:1378 srmelp24stkc.1



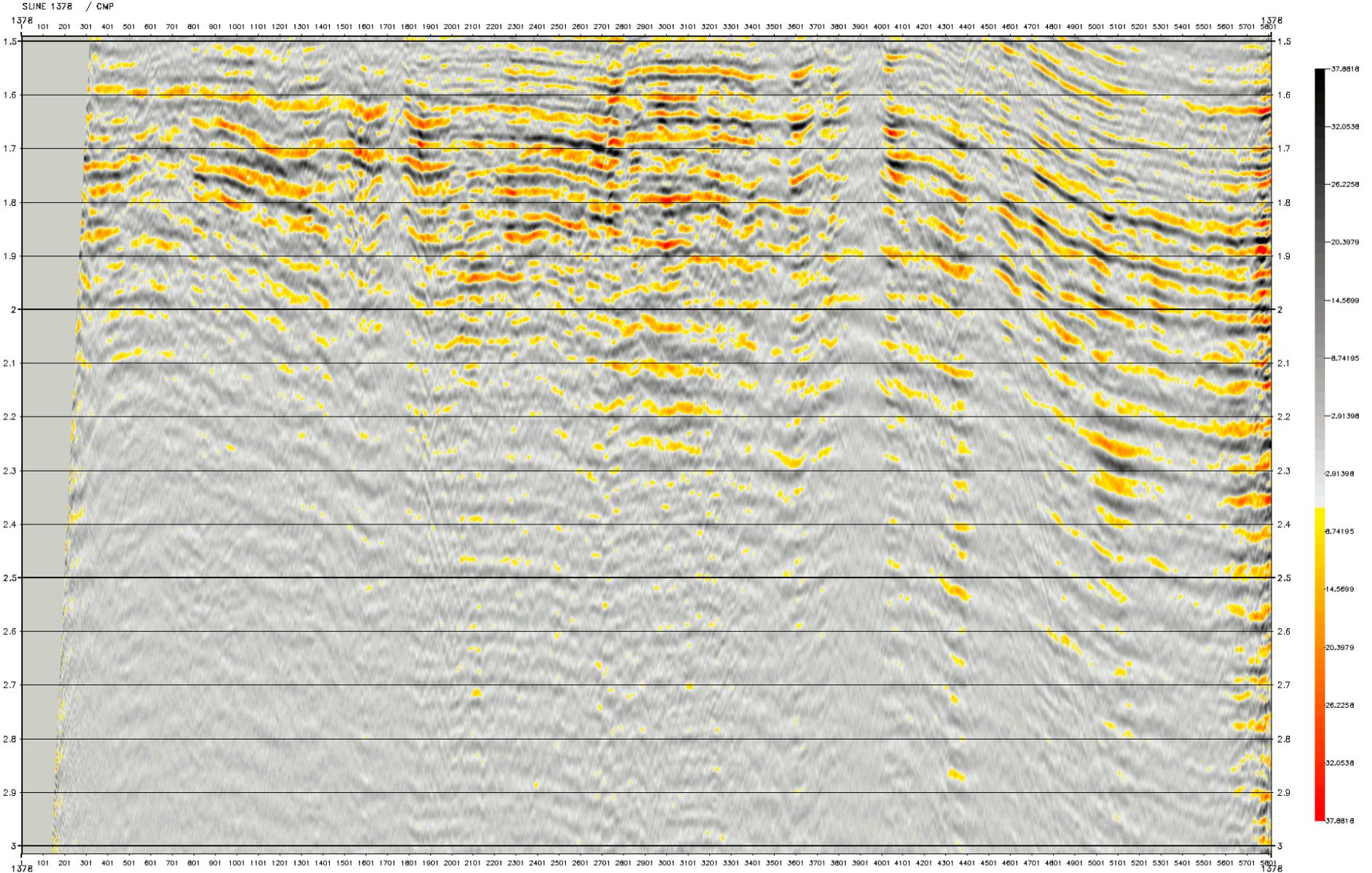
With Taup + SRME (test 4) – Bottom View

Tongo:vegas:spr224ws:s563tap:1378 Ipsrme2 slkc.1



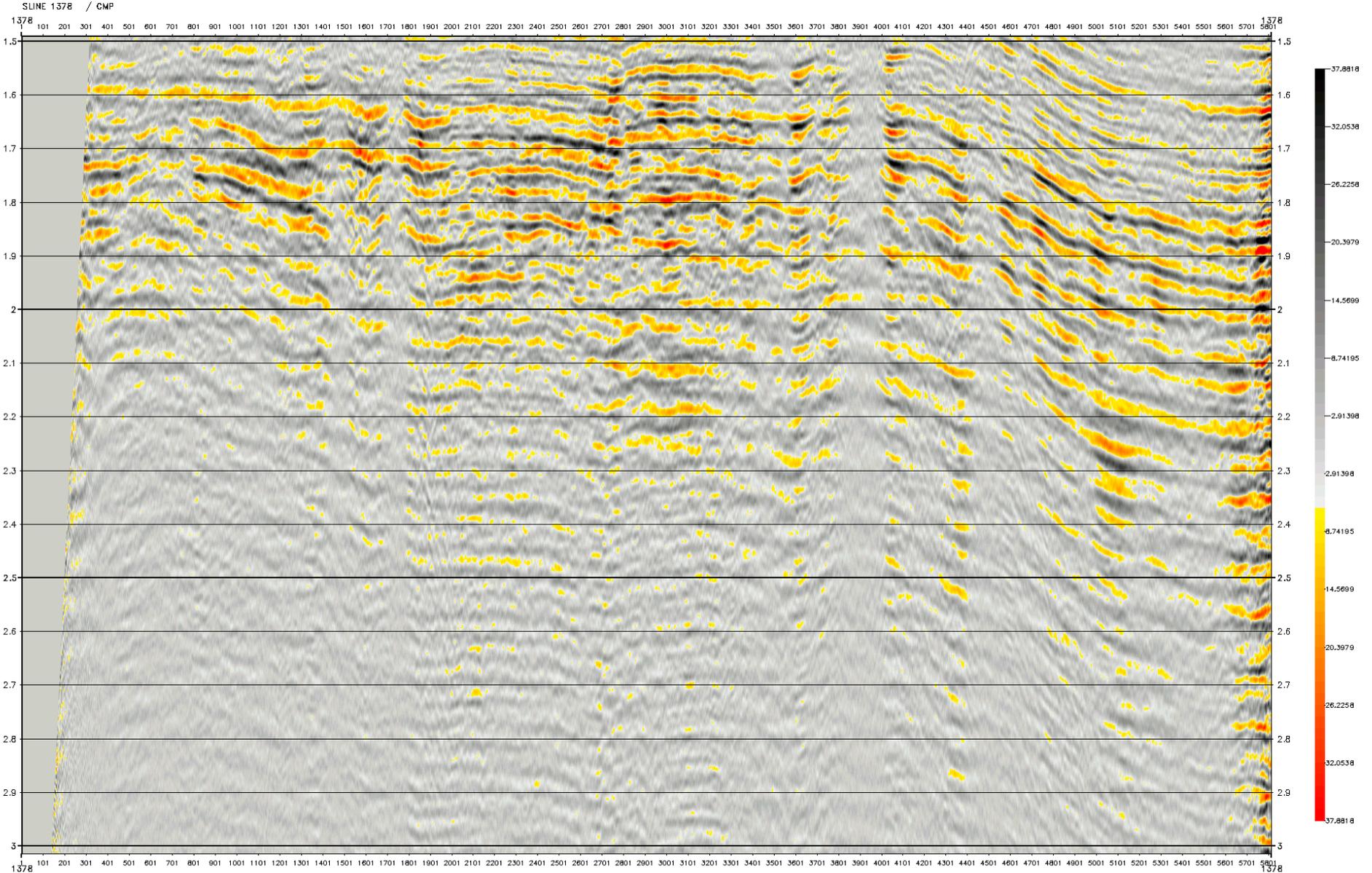
Difference display – Test 1 (Tau-P) – Bottom View

1378 notaup slk-1378 lp24 240slkn



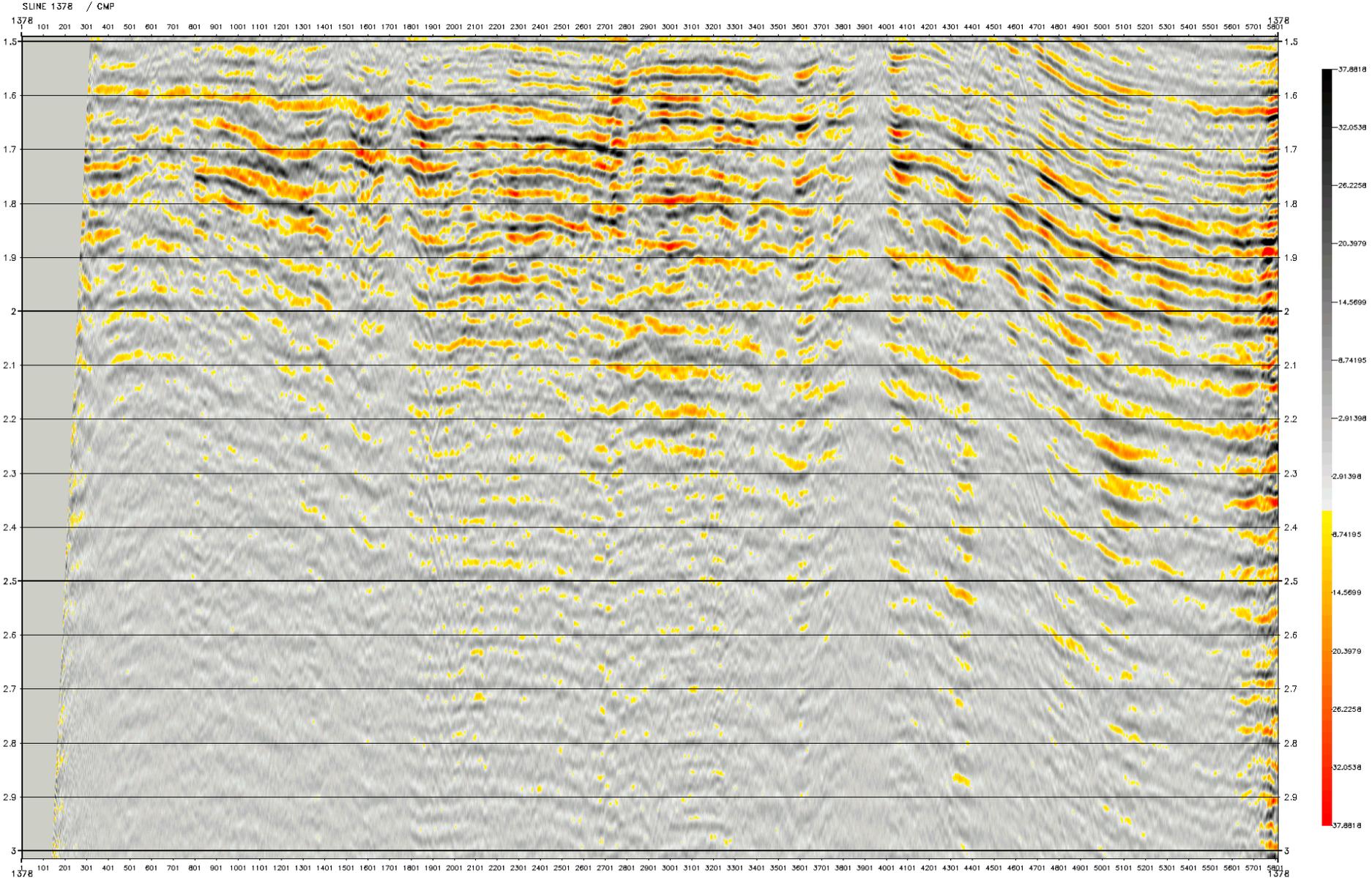
Difference display – Test 3 (SRME + Tau-P) – Bottom View

1378 notaup slk-1378 srmelp24slkc



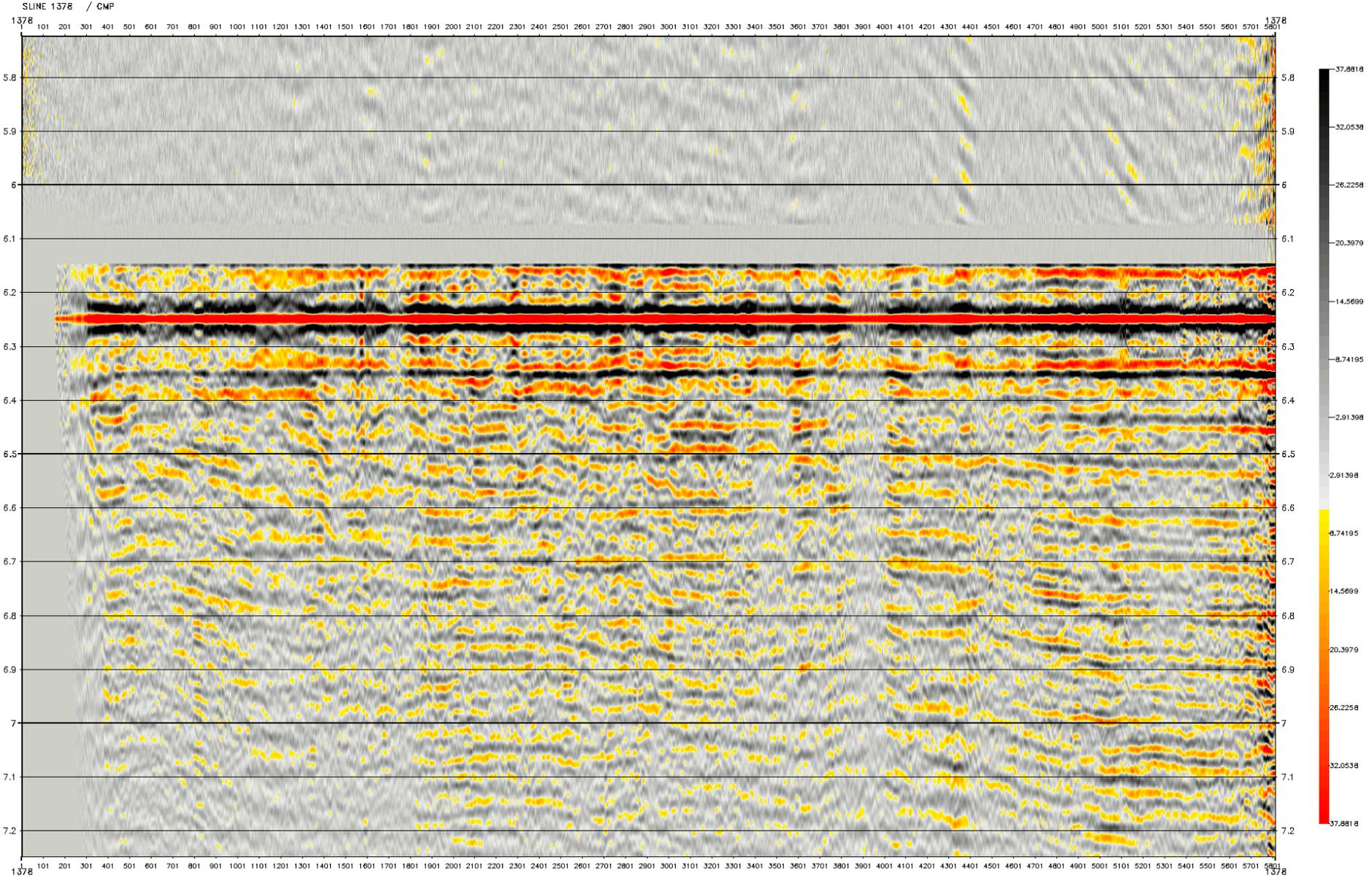
Difference display – Test 4 (Tau-P + SRME) – Bottom View

1378 notaup slk-1378 lperme2 slkc



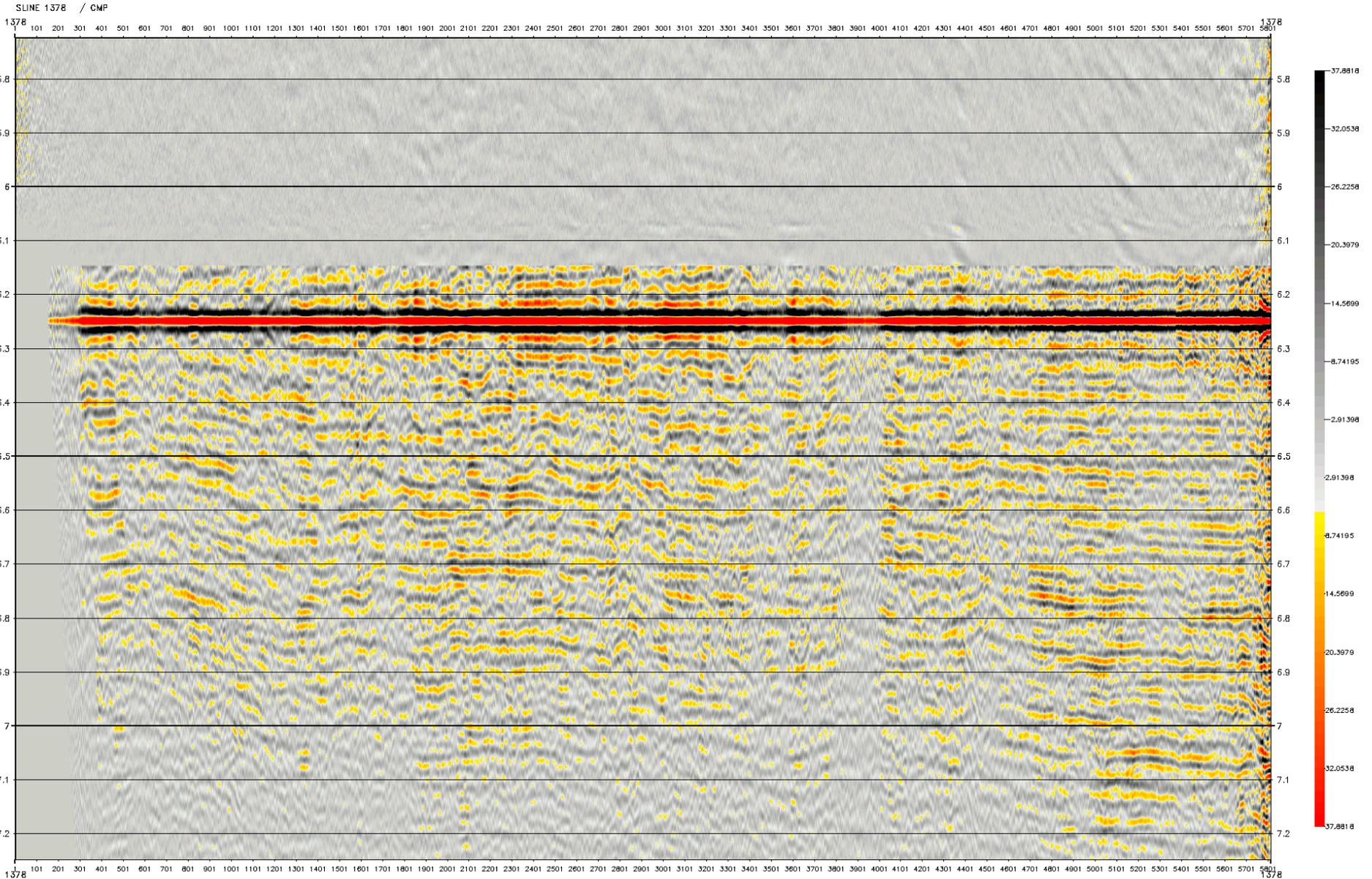
Input – Autocorrelation, window 1000 to 3000ms

Tango:vegas:spr224ws:s563lap:1378 notaup slk.1



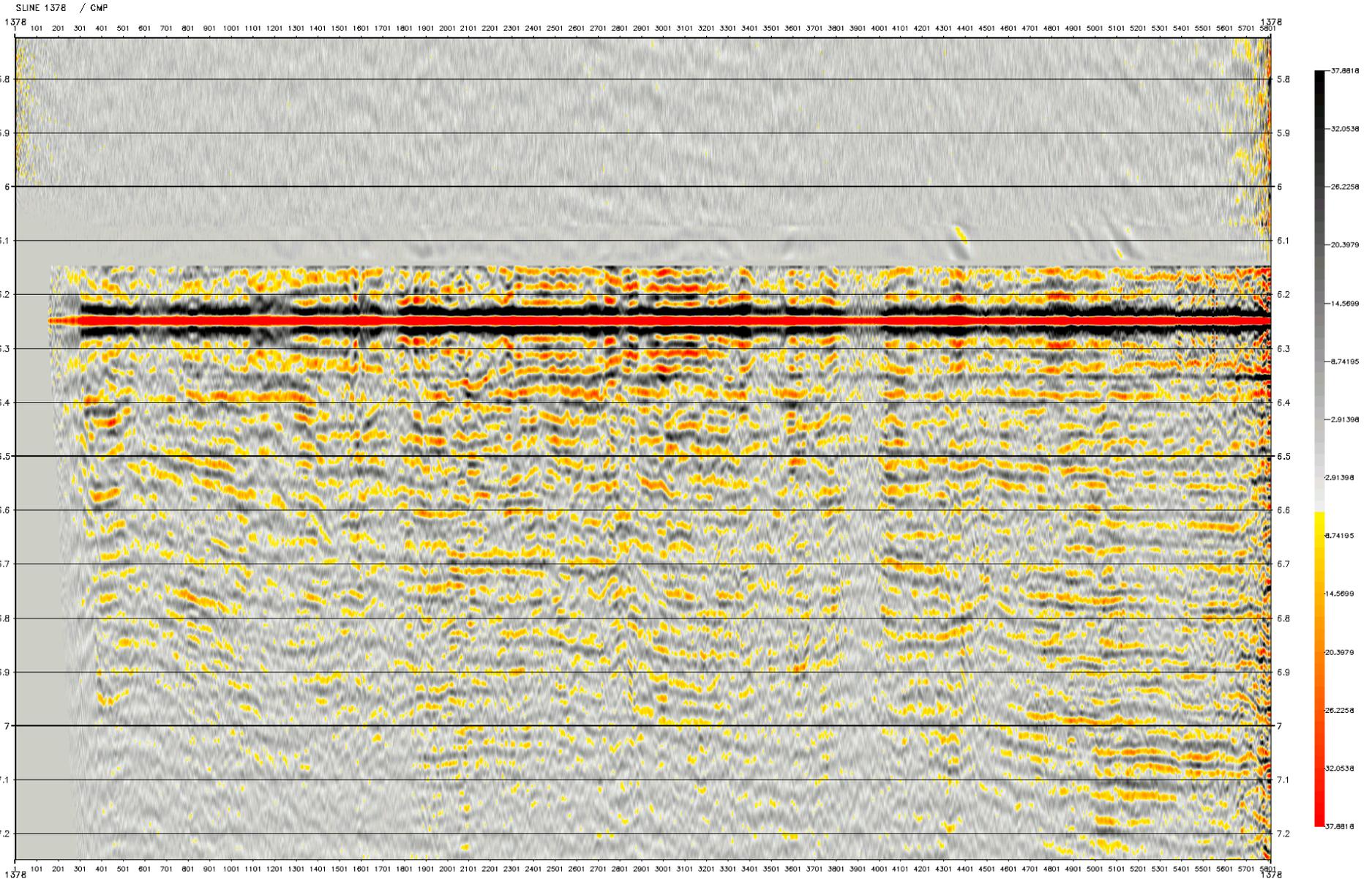
With Taup (test 1) – Autocorrelation, window 1000 to 3000ms

Tongo:vegas:spr224ws:s563tap:1378 Ip24 240skn.1



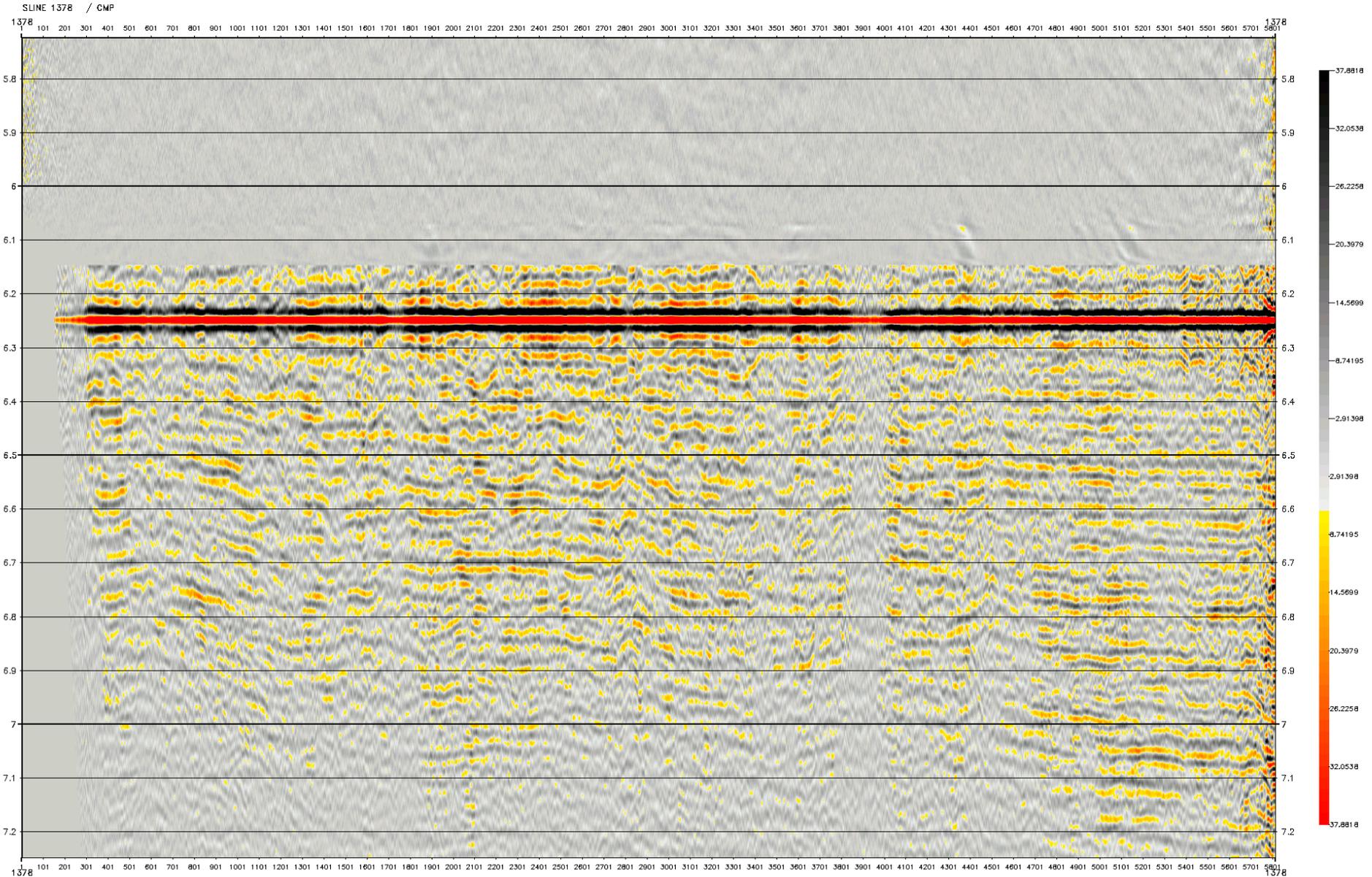
With SRME (test 2) – Autocorrelation, window 1000 to 3000ms

Tango:vegas:spr224ws:s563tap:1378 srme2 slk.1



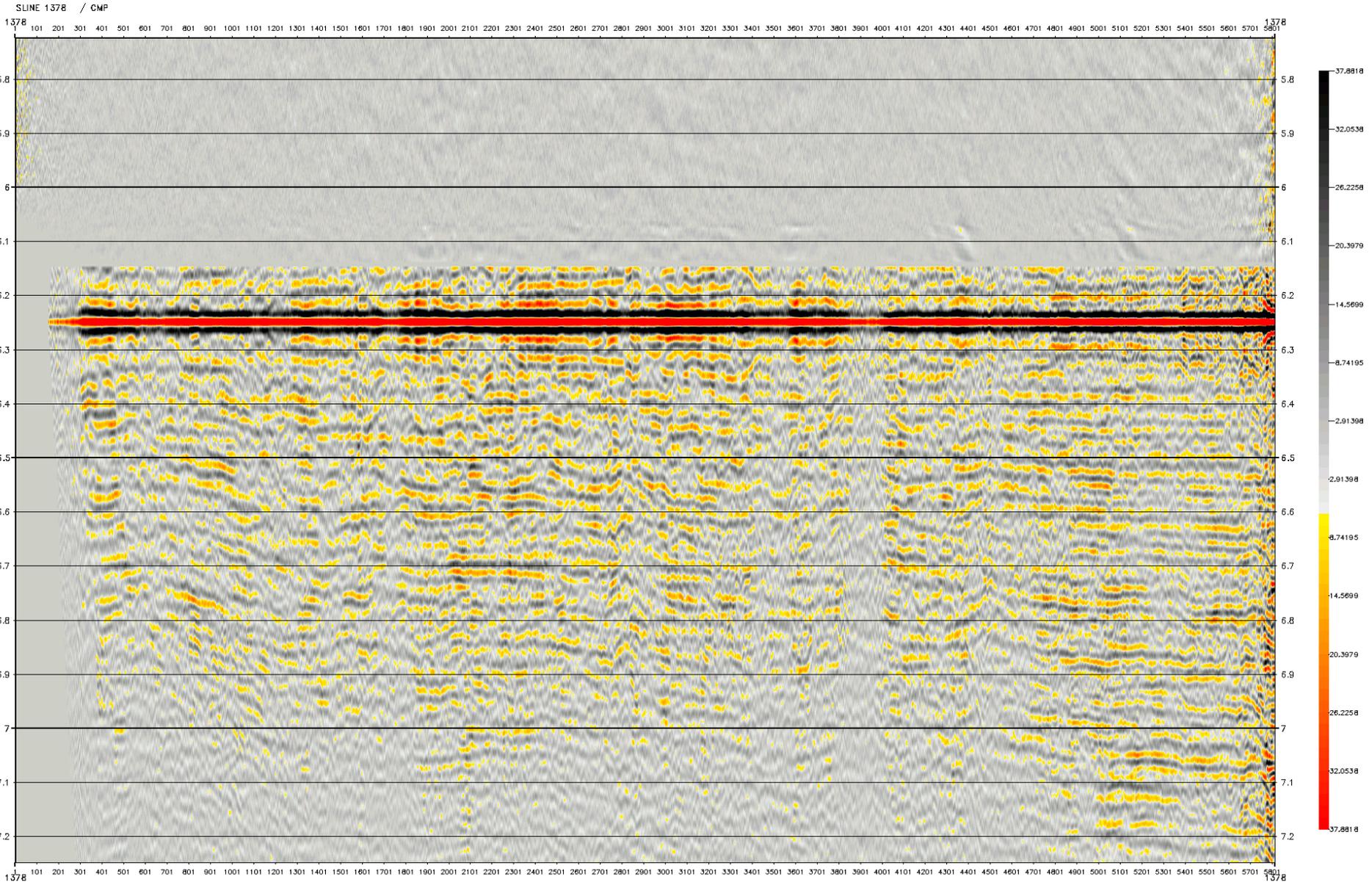
With SRME + Taup (test 3) – Autocorrelation, window 1000 to 3000ms

Tongo:vegas:spr224ws:s563tap:1378 srmelp24stkc.1



With Taup + SRME (test 4) – Autocorrelation, window 1000 to 3000ms

Tongo:vegas:spr224ws:s563tap:1378 lpsrme2 slkc.1



Recommendation

- Among the 4 combinations, Test 1 (only taup) and test 4 (taup + srme) looks better. It looks like, there is not much advantage of applying SRME on the data.