

PRAKLA-SEISMOS INFORMATION No.12

The Hydraulic Hammer

A New Tool in Seismic Prospecting



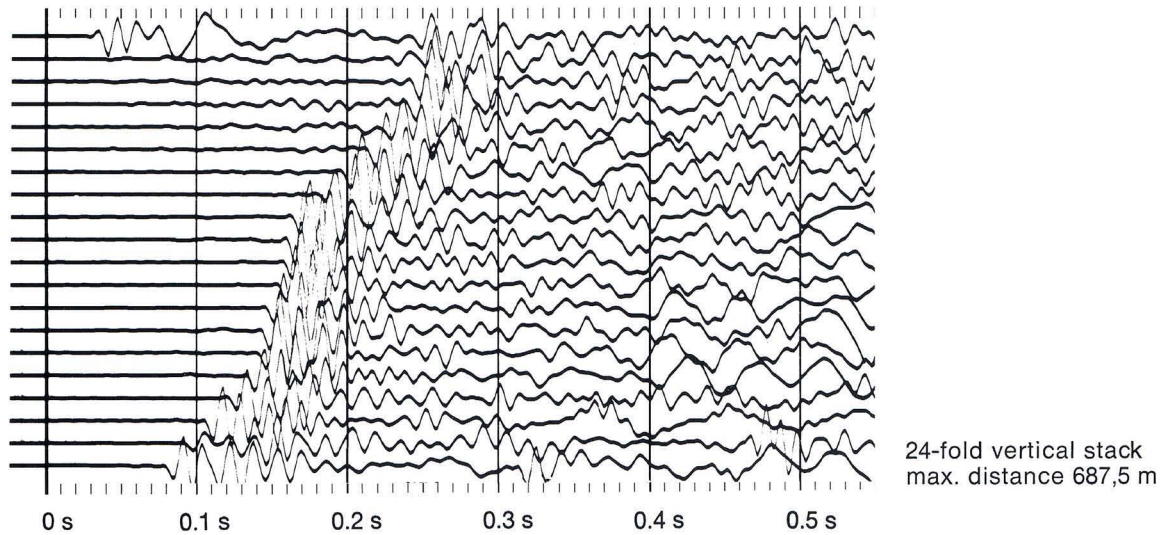
Hydraulic Hammers
in working position



The Hydraulic Hammer as a Non-Dynamite Energy Source for:

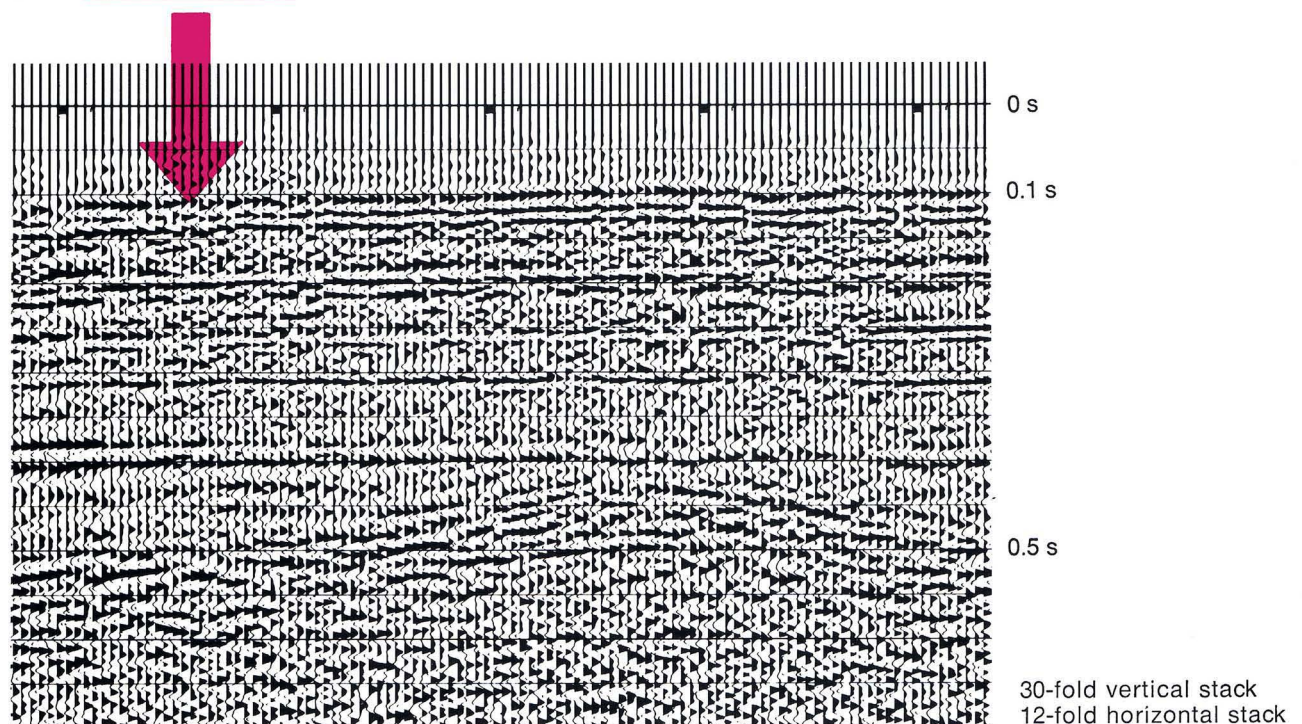
Short-Refraction Surveys

- for static corrections

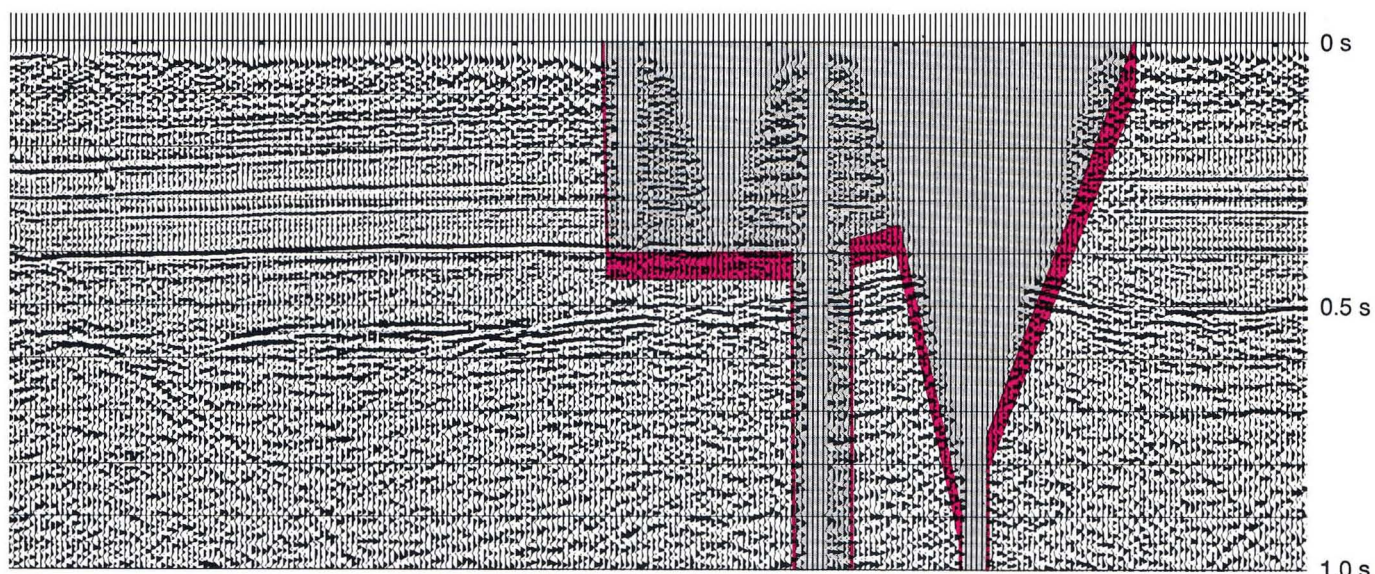


Shallow- to Medium-Range Reflection Surveys

- as an autonomous method
- for recording of a **reference horizon** for static corrections

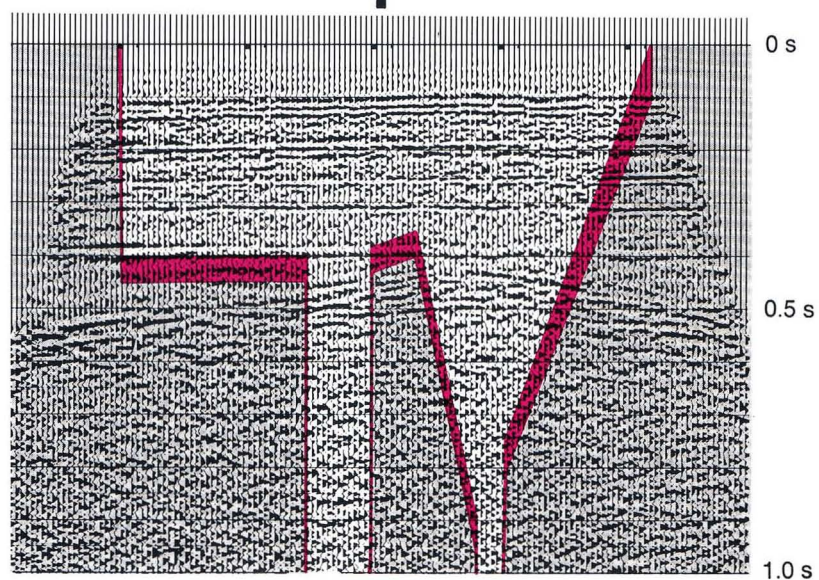


- for filling in gaps left by conventional dynamite seismics



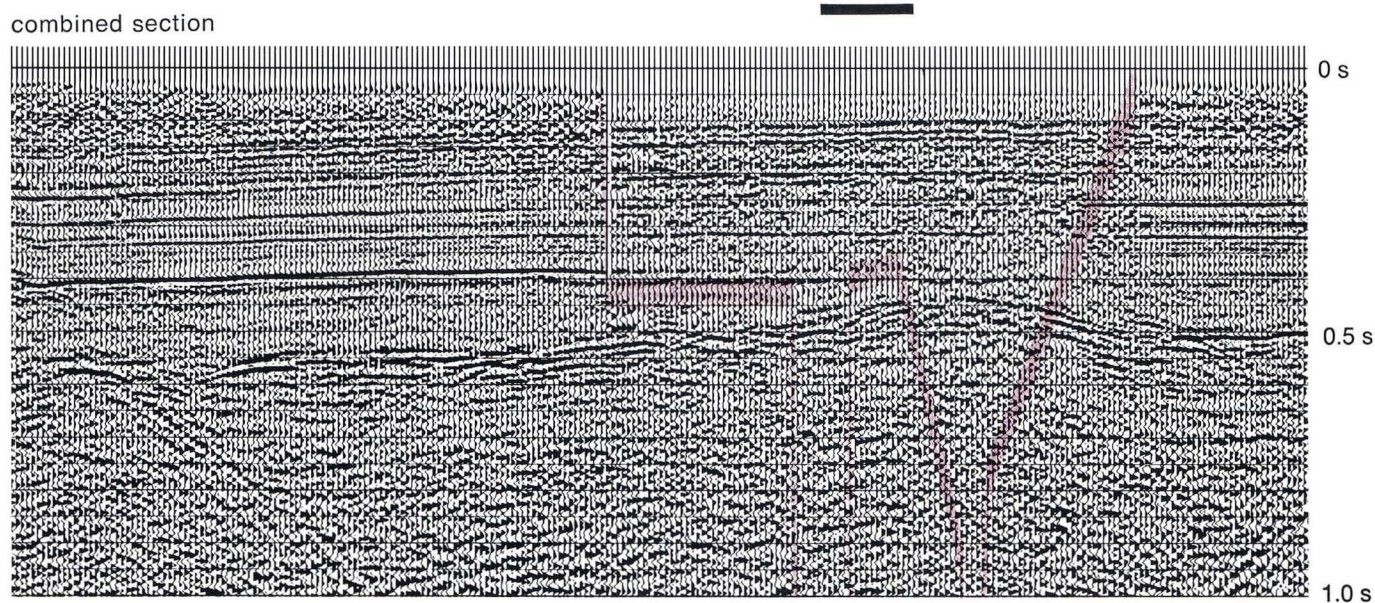
conventional section
24-fold stack

+



„hammer“ section
30-fold vertical stack
12-fold horizontal stack

=



combined section

Specification and Description

The Hydraulic Hammer is mounted on a Mercedes-Benz Unimog chassis. The blows are triggered by remote control from the recording truck.

Hammer-type	: HM 600 Krupp
Weight	: 485 kg
Weight of piston	: 50 kg
Piston-stroke	: ~120 mm
Oil pressure	: 130–150 bar
Energy of one blow	: ~200 kgm
Possible blow sequence	: 6–8 blows per second

Total weight (truck + hammer) : 5170 kg

Hammer in lifted position

The troughs on both sides of the hammer can be filled with heavy material to enhance the ground-coupling of the system.



Hammer in working position

The geophone fixed to the base-plate provides the time-break signal.



PRAKLA-SEISMOS GMBH · HAARSTRASSE 5 · P.O.B. 4767 · D-3000 HANNOVER 1
PHONE: 8 07 21 · TELEX: 9 22 847 · CABLE: PRAKLA · GERMANY

© Copyright PRAKLA-SEISMOS GMBH, Hannover 1978