

Projects BATHOLITH-1 and BATHOLITH-2

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Data summaries

BATHOLITH-1

Project BATHOLITH-1 included three seismic profiles one of which recorded PNE BATHOLITH-1. Locations and the approximate lengths of the profiles are (Figures 1 and 2):

Profile 1: town Kolpashevo – Kudu-Kuel'; 2497 km; 35 chemical shot points;

Profile 2: river Chelonchen – Taas-Yuryakh; 251 km; 8 shot points;

Profile 3: river Chelonchen - Khornintsy; 367 km; 9 shot points;

PNE AGATE (Sultanov et al., 1999) was recorded by two of these lines (Figure 2). Note that for the PNE, profile 1 was laid out somewhat differently

Data were acquired by Center GEON in 1980.

Recording systems: Portable 3-component analogue systems TAIGA and CHEREPAKHA, 1-Hz sensors

BATHOLITH-2

Project BATHOLITH-2 included four seismic profiles one of which recorded PNE BATHOLITH-2. Locations and approximate lengths of the profiles are (Figures 1 and 2):

Profile 2: town Manash – town Karachanganak, 750 km, 15 shots;

Profile 2a: city Krasnodar – town Emba; 3690 km (with profile 2b), 26 chemical shot points;

Profile 2b: town Emba - town Kolpashevo; 38 shot points;

Profile 3: town Emba - city Orenburg; 725 km; 10 shot points;

PNE AGATE (Sultanov et al., 1999) was recorded by two of these lines (Figure 2). Note that for the PNE, profile 1 was laid out somewhat differently

Data were acquired by Center GEON in 1987.

Recording systems: Portable 3-component analogue systems TAIGA and
CHEREPAKHA, 1-Hz sensors

Data format

Data format is identical to that of DSS PNE records delivered earlier. The data are provided in standard SEGY format using IBM floating point representation of data values. Geographic

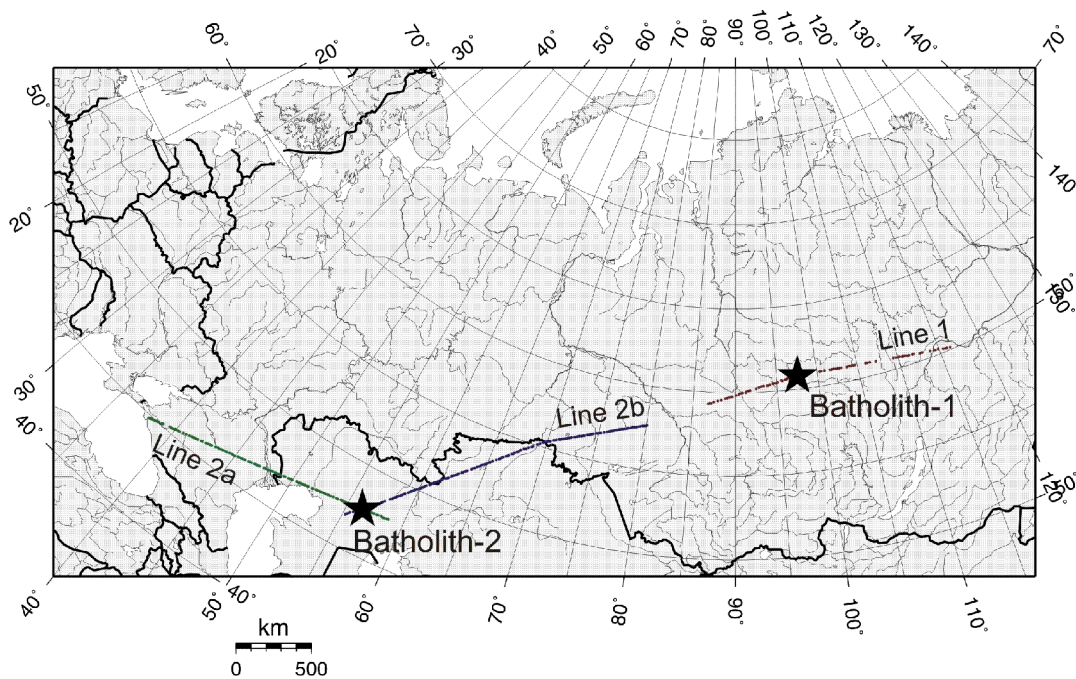


Figure 1. PNE lines of projects BATHOLITH-1 and 2. Stars are the PNEs. Triangles indicate the locations of three-component recorders.

coordinates of shots and receivers (in degrees), and offsets (in meters) are loaded in trace headers. Recording station numbers were loaded in SEGY headers as CHANNEL, and the FFIDs correspond to shot numbers. Each data file contains a single component of recordings from one shot.

For the PNEs, file names follow the following convention:

```
bath-<PNE_number>-<line_number>-<component_index>.seg
```

where `line_number` is the number of recording line (Figure 2). For chemical shots, the files are named as follows:

```
bath-<line_number>-<shot_number>-<component_index>.segy
```

where line numbers are shown in Figure 1, and shot numbers correspond to the number of the nearest receiver. The `component_index` is 'v' for the vertical (upward), 'r' for radial (directed away from the shot), and 't' for the transverse (directed to the right when looking away from the shot point).

On the CDs, chemical shot data from the different lines were placed into subdirectories `line-`

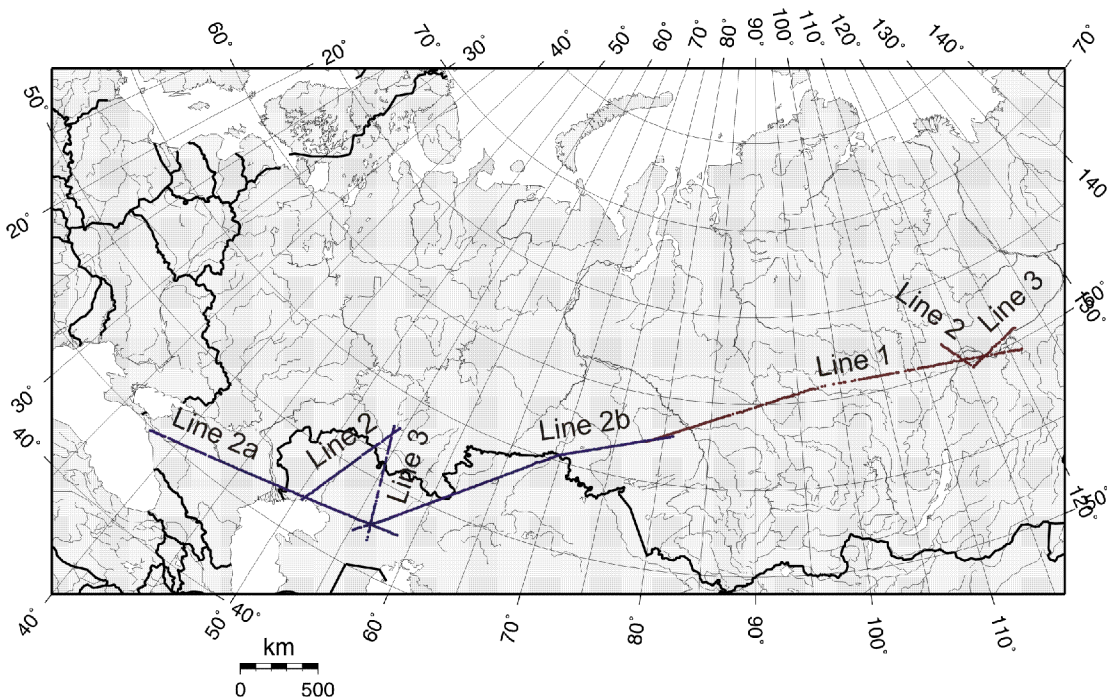


Figure 2. Chemical-explosion lines of projects BATHOLITH (eastern lines, red) 1 and 2 (blue).

1-1, line-1-2, etc., numbered according to the project and line numbers.

Reference

Sultanov, D. D., J. R. Murphy, and Kh. D. Rubinstein (1999). A seismic source summary for Soviet Peaceful Nuclear Explosions, *Bull. Seism. Soc. Am.*, 89, 640-647.