

## Blake Outer Ridge dataset

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### ABSTRACT

Blake Outer Ridge dataset

**Raw Data** /data/2d\_real/blake\_outer\_ridge/cmeps-tp.HH

**Velocity Model** N/A

**Stack** N/A

**Zero-offset Migration** N/A

**Usage** AVO/methan hydrates: (Matsumoto et al., 1996; Ecker and Lumley, 1993, 1994; Ecker, 1994, 1995, 1997; Ecker et al., 1997; Ecker, 1998; Mora and Biondi, 1999), imaging/velocity estimation (Biondi and Sava, 1999; Clapp and Biondi, 1999; Sinha and Biondi, 1999; Fomel, 1999)

**Geometry**

```
/data/2d_real/blake_outer_ridge/cmeps-tp.HH: in="stdin" expands to
in="stdin" esize=4 n1=625 n2=48 n3=1105 n4=1 33150000 elem 132600000
bytes d1=0.004 d2=-0.1 d3=0.05 d4=1 Warning: d2 is negative. Legal,
but risky. o1=4 o2=3.825 o3=0 o4=0 label1=Time label2=Trace-record
number label3=
```

Non-linear cable group spacing: 100 m at near offsets and 50 m at far offsets.

**Problem** N/A

**History of Data** The data were recorded at the Blake Outer Ridge, offshore Florida and Georgia. A map of the region is shown in Figure 1, highlighting the area of known hydrate distribution as mapped from seismic bottom simulating reflectors (BSR). The part of the seismic line is marked by the rectangular, and extends both from the hydrate region into an area without hydrate. The data were provided by USGS (Keith Kvenvolden, Myung Lee, and Bill Dillon).

**Preprocessing** N/A

**Proprietary Considerations** N/A

### REFERENCES

Biondi, B., and Sava, P., 1999, Wave-equation migration velocity analysis: SEP-100, 11-34.

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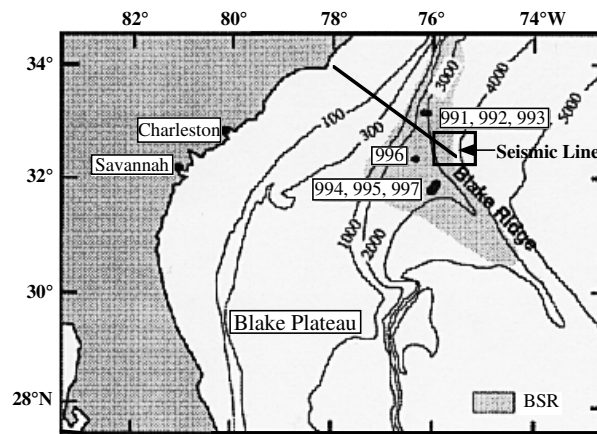


Figure 1: Map of the region after Matsumoto et al. (1996). `blake-outer-ridge-map2` [NR]

- Clapp, R. G., and Biondi, B., 1999, Preconditioning tau tomography with geologic constraints: SEP-100, 35–50.
- Ecker, C., and Lumley, D., 1993, AVO analysis of methane hydrate seismic data: SEP-79, 161–176.
- Ecker, C., and Lumley, D. E., 1994, Seismic AVO analysis of methane hydrate structures: SEP-80, 277–292.
- Ecker, C., Dvorkin, J., and Nur, A., 1997, Estimating the amount of gas hydrate and free gas from surface seismic: SEP-95, 173–194.
- Ecker, C., 1994, Methane hydrate rock physics models for the Blake Outer Ridge: SEP-80, 293–310.
- Ecker, C., 1995, Velocity structure of the methane hydrate formation at the Blake Outer Ridge: SEP-84, 109–124.
- Ecker, C., 1997, Characterization of a hydrate reservoir: SEP-94, 1–15.
- Ecker, C., 1998, Seismic characterization of methane hydrate structures: Ph.D. thesis, Stanford University.
- Fomel, S., 1999, Velocity continuation in migration velocity analysis: SEP-100, 59–70.
- Matsumoto, R., Paull, C., Wallace, P., and the Leg 164 Scientific party, 1996, Gas hydrate sampling on the Blake Ridge and Carolina Rise: ODP Leg 164 Preliminary Report.
- Mora, C., and Biondi, B., 1999, Seismic attribute sensitivity to velocity uncertainty: SEP-102, 157–176.
- Sinha, M., and Biondi, B., 1999, Comparing Kirchhoff with wave equation migration on a hydrate region: SEP-100, 135–140.

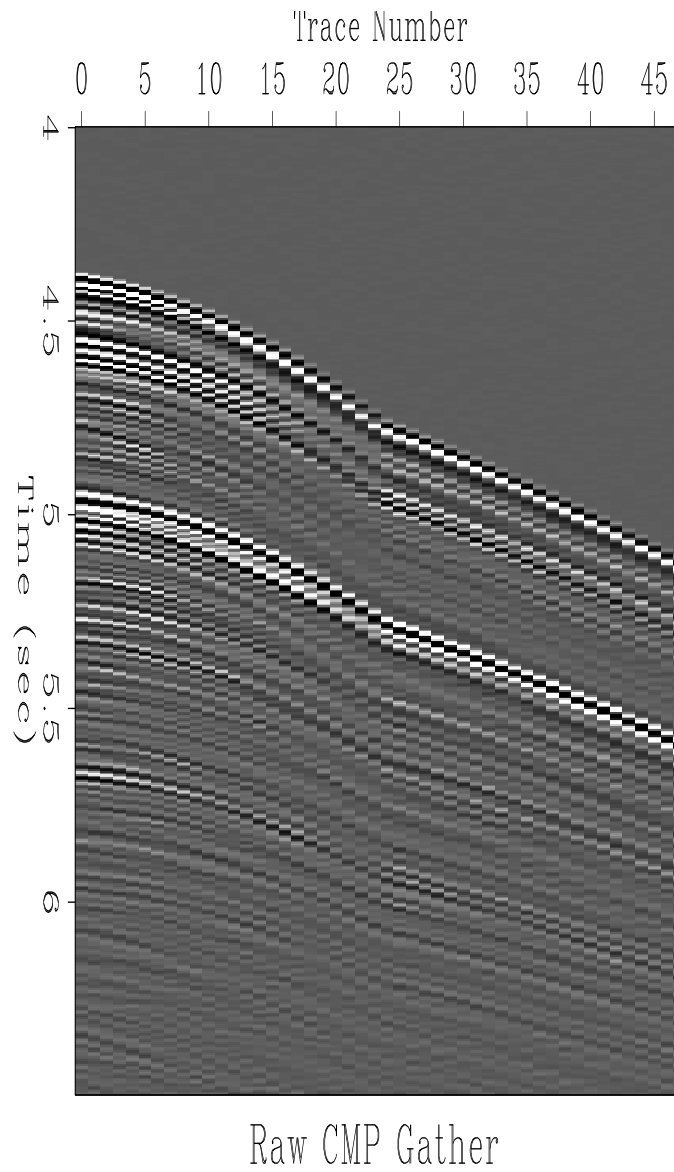
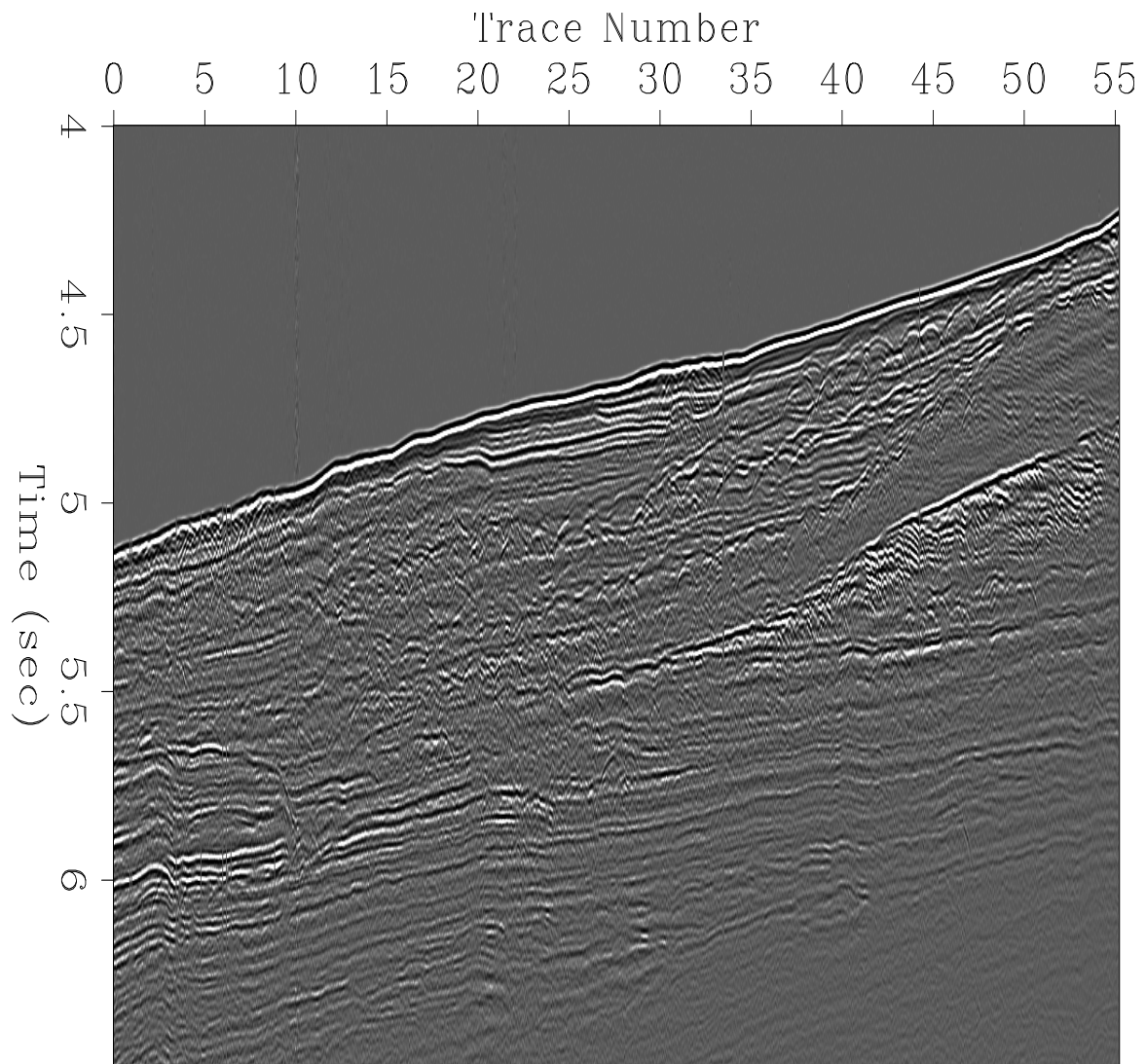


Figure 2: CMP gather. `blake-outer-ridge-cmp` [ER]



## Near Offset Section

Figure 3: Near offset gather. `blake-outer-ridge-nearoff` [ER]

