Noise in land seismic data?

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challenging land data
challenging land data
unique data features

➢ fine sampling
geophone group

single sensors
9

10m with grouping

1.25m single sensor
unique data features

- fine sampling
- near offsets
What is this pattern?
digital sweep

chirp signal

near offset
digital sweep

near offset

harmonic distortion
digital sweep

near offset
unique data features

- fine sampling
- near offsets
- continuous recording
ambient recording:
1 hour
ambient recording:
1 hour
ambient recording:
1 minute
ambient recording:
1 minute
ambient recording:
5 seconds
ambient recording: 5 seconds
summary

• land seismic data are severely undersampled
• “noise” represents slowly propagating waves
• source generated noise is complex and non-stationary
• the ambient seismic signal cannot be viewed as white noise
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