



Detecting and using methane from other sectors

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Sustainable Energy & Environmental Systems

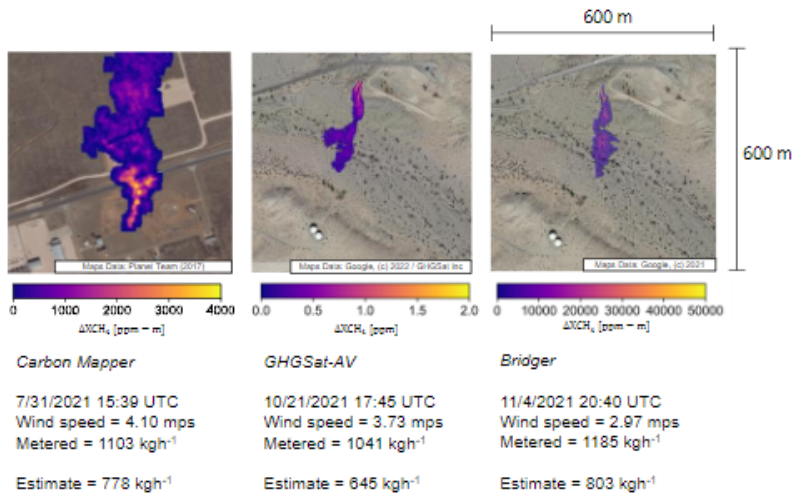
CH₄ Connections

October 5, 2023

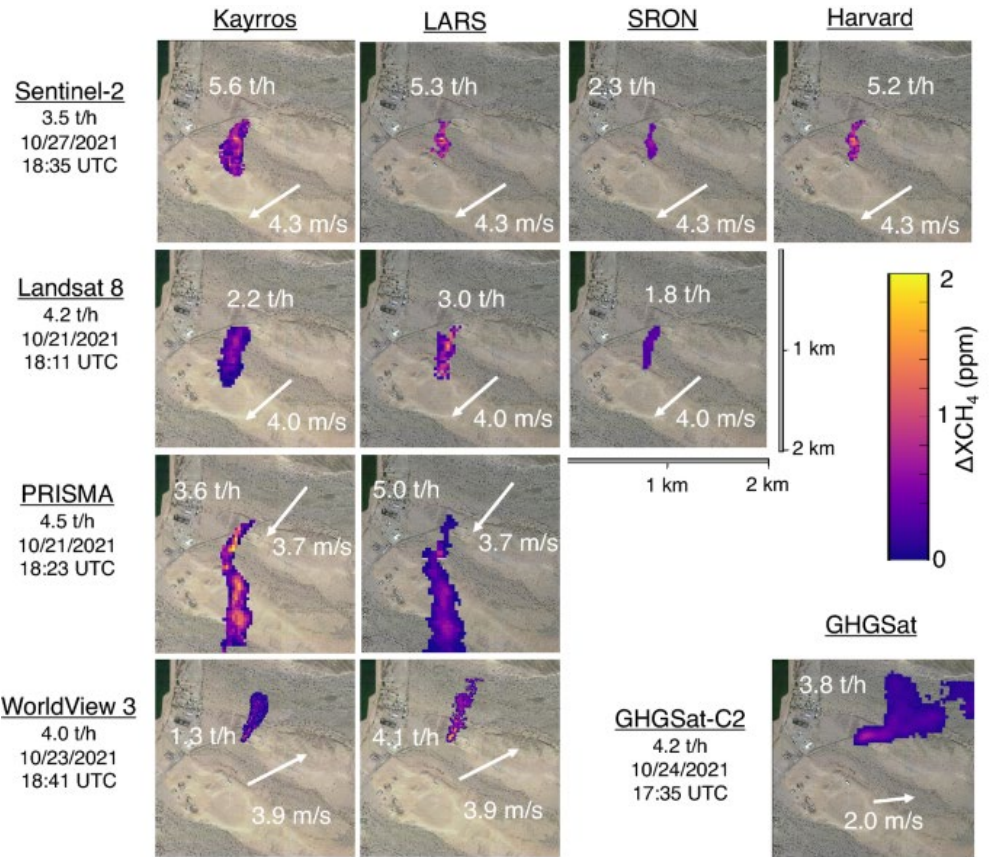


Methane remote sensing works

Aircraft



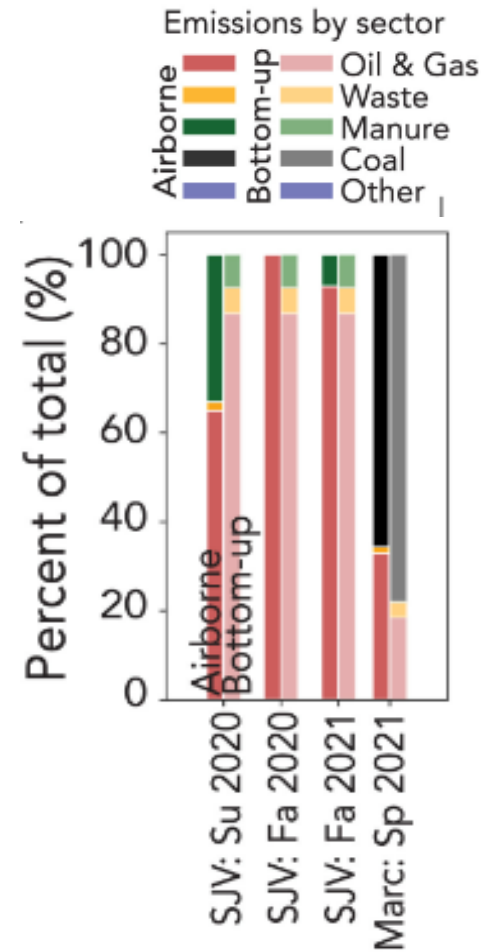
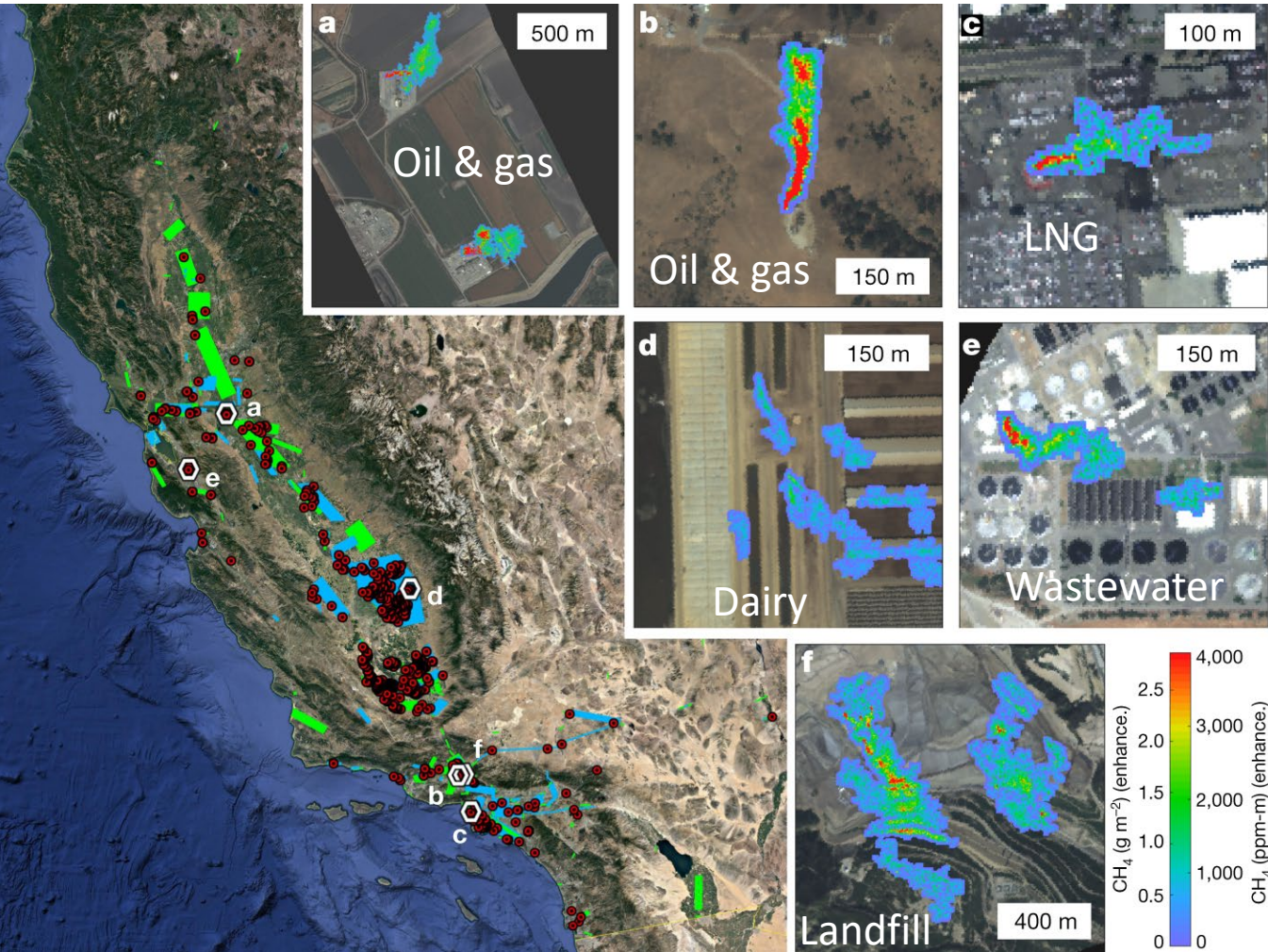
Satellites



How can it help beyond oil and gas?

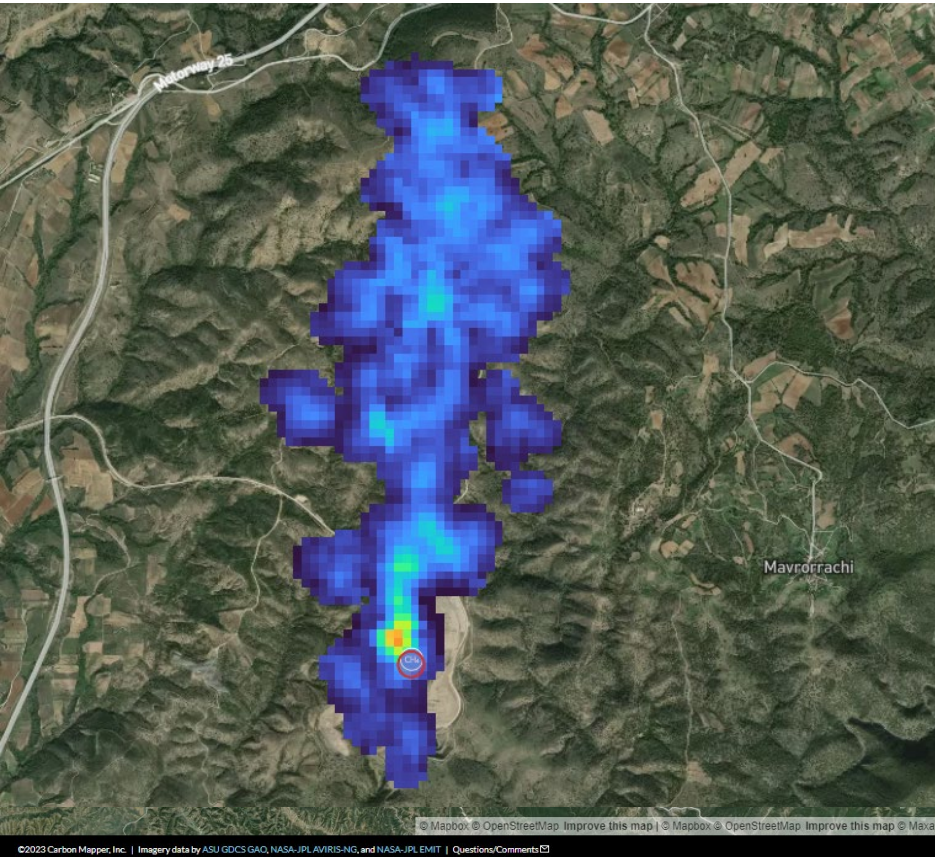
Sources: Rutherford et al. 2023, Sherwin et al. 2023

Hyperspectral aircraft find methane many places

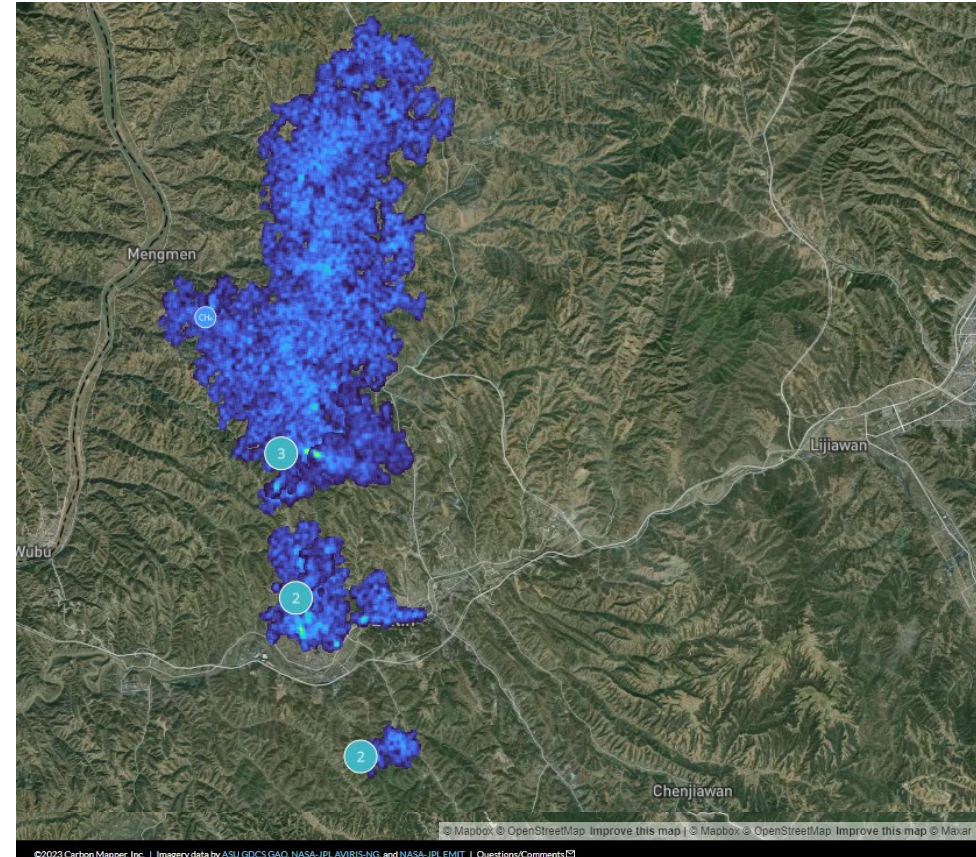


Satellites are finding emissions from multiple sectors

Landfill in Greece
2.3 +/-0.6 t/h



Coal mines in
Shanxi Province, China
Multiple t/h



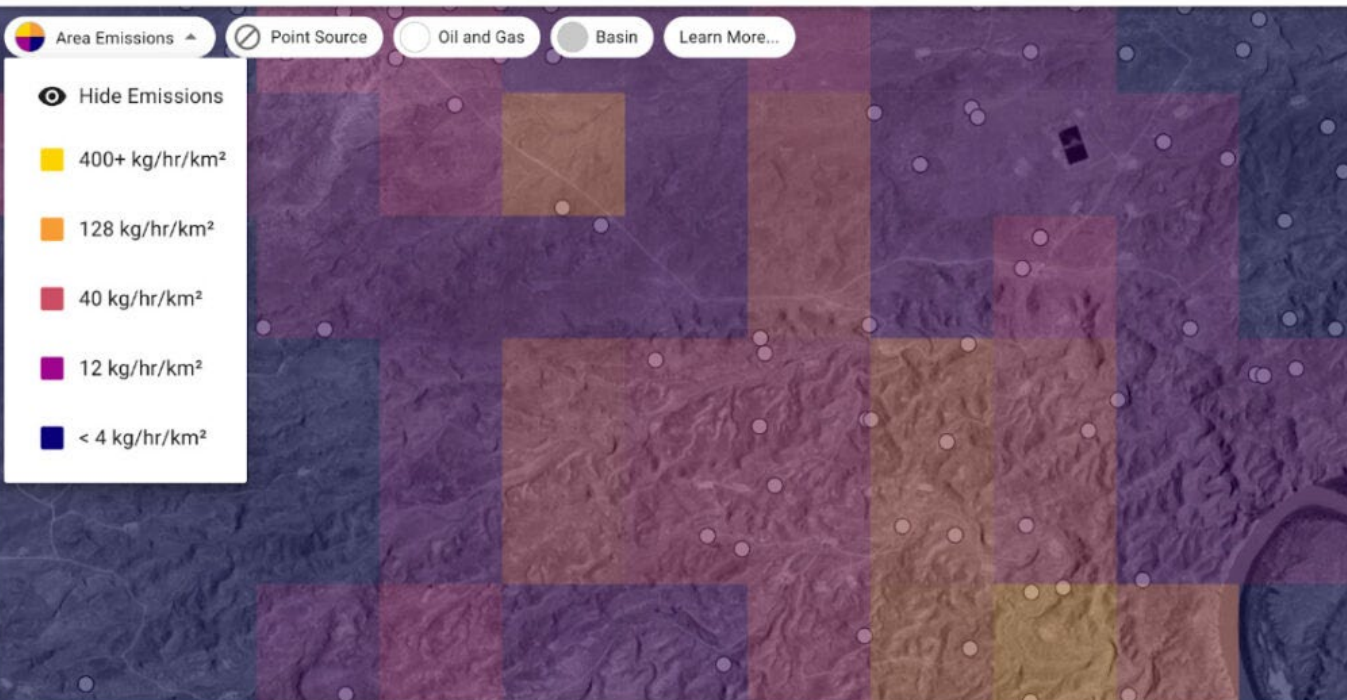
Carbon Mapper, using EMIT satellite

Smaller, more diffuse sources remain a challenge

MethaneSAT will help

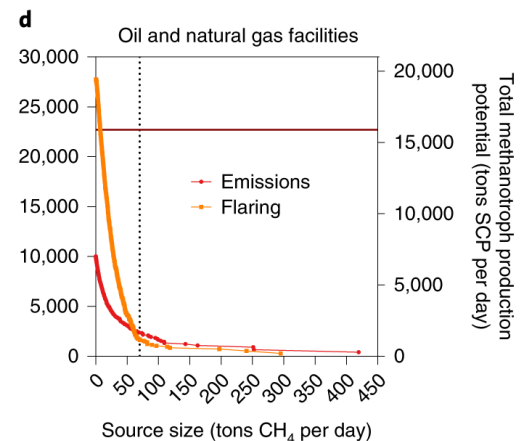
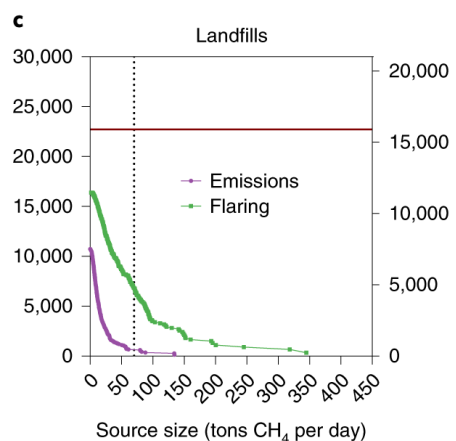
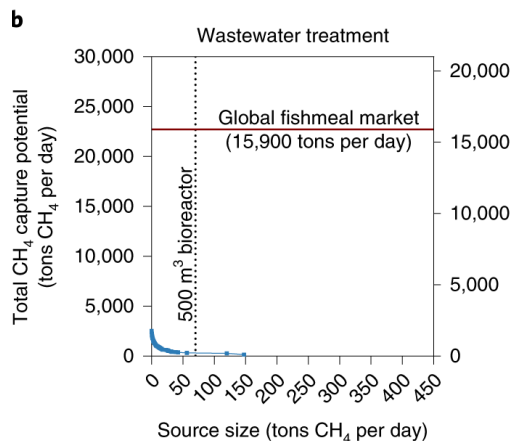
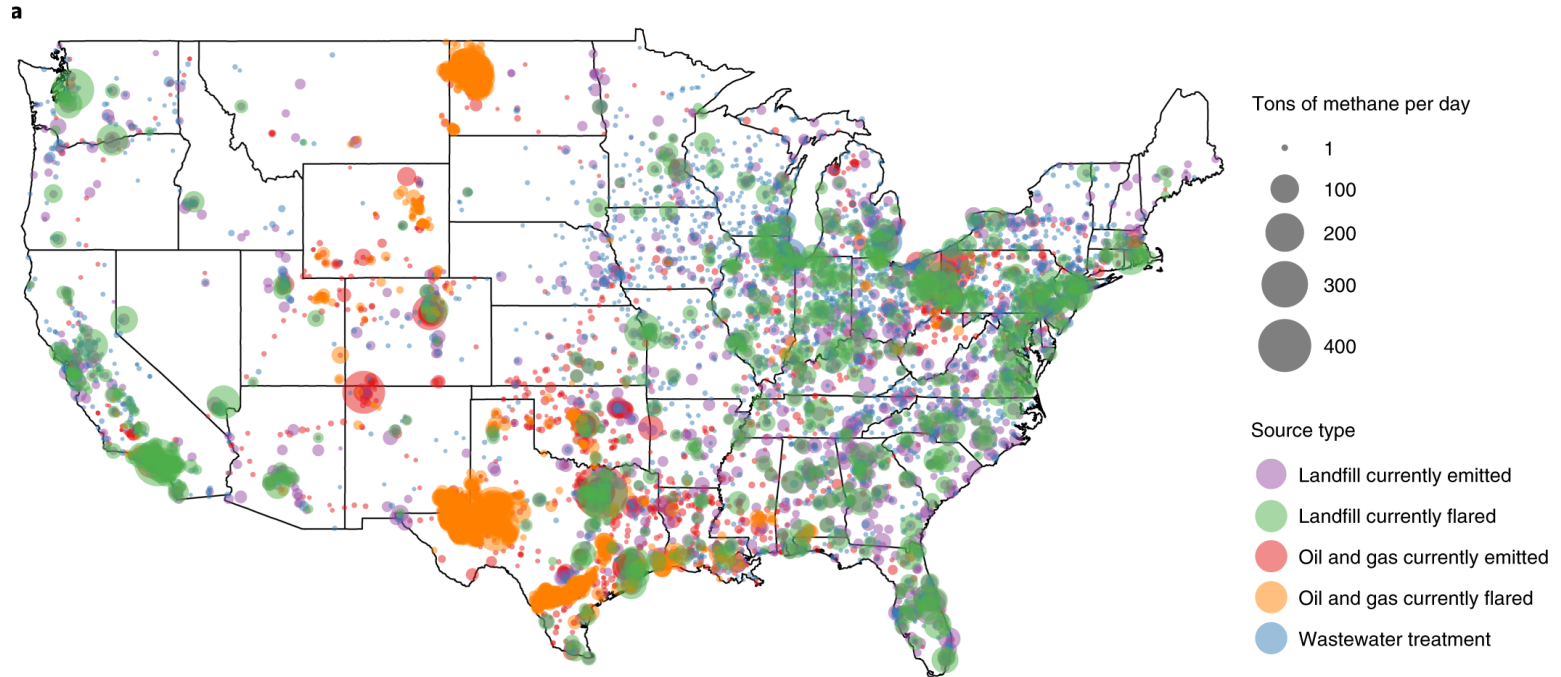


MethaneSAT



Sources: EDF,
<https://www.methanesat.org/project-updates/data-sneak-peek-an-inside-look-at-what-methanesat-will-measure/>

Stranded methane to fish food?



Acknowledgments

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Stanford | ENERGY
Strategic Energy Alliance
ExxonMobil

 **Rawhide**

Works cited

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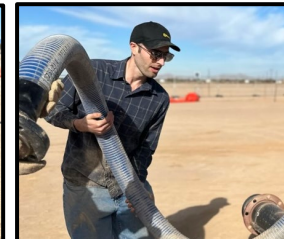
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