

December 1, 2025

## News and notes



November 29, 2025 - [Portage Model Railroad Club](#) display at a Community Event

I've been busy with lots of things, so for this week we just will look at some news items I thought were interesting. The picture above is from a display that my son's club put on for a community event this past weekend.

If you enjoy my blogs, bookmark the site and check on Mondays rather than relying on social media postings which can get lost in the shuffle. For my news items, I try to stick to open access papers.

## Comments

If anyone has comments on any of my postings, please leave a comment on the LinkedIn page for the posting or email me at [raymondreichelt@gmail.com](mailto:raymondreichelt@gmail.com).

## Geopolitics

- Venezuela:
  - [Will Trump invade Venezuela — and what comes after?](#)
  - [Trump maintains pressure campaign on Venezuela, saying its airspace should be considered closed.](#)
- [Japan Won't Quit Russian Oil and Gas.](#)
- [Sanctioned Russia-Bound Oil Tanker At Risk Of Sinking After Mine Strike.](#)
- [Tensions between China, Australia explode over iron ore.](#)
- Column: [Balochistan and the new international chessboard of critical minerals.](#)
- [11 Countries That Will Likely to Collapse by 2040.](#)

## Research and News

- [Structural Control on the Complex Platform to Basin Transition of a Mississippian Carbonate Platform in the Southern East Irish Sea Basin, UK.](#)
- [A Review of the Spatiotemporal Evolution of the High Arctic Large Igneous Province, and a New U-Pb Age of a Mafic Sill Complex on Svalbard.](#)
- 11/28 [Global distribution, hierarchical clustering classification, and significance of Holocene braid deltas.](#)
- [The Paleoproterozoic Two-Mica Granites of the West African Craton: A Petrological and Geochemical Study of the Ferké Batholith and Associated Plutons, Ivory Coast.](#)
- [Petrographic and Geochemical Characterization of Metaluminous to Peraluminous Granitoids from Goueygoudoum-Fianga \(Southwestern Chad\): Insights into Magma Sources and Tectonic Setting.](#)
- [Multi-sample detrital zircon provenance variation within a single turbidite complex – The Ordovician Puna Turbidite Complex in the Puna retroarc foreland basin of northwestern Argentina.](#)
- More turbidites: [Megabeds in the Marsili Basin, Tyrrhenian Sea.](#)
- [Mapping and Descriptive Analysis of Surface Sediments at the Mouth of the Sassandra River \(Southwest Côte d'Ivoire\).](#)

- [Expanding the Tephrochronological Record in the Alps: Discovery of the Laacher See Tephra in Lake Plansee \(Austria\).](#)
- [Characteristics of Fluorescent Inclusions in Quartz Crystals Hosted by Organic-Rich Black Limestone in Sakawa Town, Kochi Prefecture, Southern Shikoku, Japan.](#)
- [Element mobilities during serpentinization: Insights from the Ronda Massif, Spain.](#)
- [Nitrogen solubility in Fe-bearing bridgmanite and its implications for nitrogen segregation in Earth's deep magma ocean.](#)
- [Fulgurites: the Earth's minute melts and their interaction with the atmosphere.](#)
- [Rapakivi K-Feldspar Megacrysts in Monzogranitic Porphyry: Evidence for Magma Recharge and Mush Rejuvenation.](#)
- [Decoupled monazite and garnet petrochronology reveals short-duration, high-temperature Acadian metamorphism in the Manhattan Schist, New York City, USA.](#)
- Basin and range province: [Accommodation of opposite vergency between two detachments: Insights from the thermal history of the El Jaralito batholith \(Mexico\).](#)

## Bad Science

- Elsevier: [The fall of a prolific science journal exposes the billion-dollar profits of scientific publishing.](#)
- [We Need to Talk About the Billion-Dollar Industry Holding Science Hostage.](#)
- [Global Study Exposes Massive Fraud in Mathematics Publishing;](#) detailed proposal [here](#).
- [Springer Nature flags paper with fabricated reference to article \(not\) written by our cofounder.](#)

## Planetary Geology

- [High precision Al-Mg dating of NWA 15118 challenges a primary anorthositic crust on Vesta.](#)
- [Boiling oceans and compressional tectonics on emerging ocean worlds.](#)

## Plate Tectonics

- [Miocene N-MORB-type diabase dike in the Himalayan terrane attests the incomplete tearing of Indian continental slab.](#)
- [Influence of Structural Maturity on the Rupture Morphology of the Northern Alpine Fault, Aotearoa New Zealand.](#)
- [3D Petro-Structural Evolution of the High Pressure-Low Temperature Phyllite-Quartzite Nappe Pile in Southern Peloponnese, Greece.](#)
- [Synthesis of the Laboratory Frictional Properties of a Major Shallow Subduction Zone: The Nankai Trough, Offshore SW Japan.](#)

- [Restoring the Missing Late Cretaceous Arc of Iran.](#)
- [Intraplate volcanism induced by magmatic solitary waves ascending from the mantle transition zone.](#)
- [Origin of the King's Trough Complex \(North Atlantic\): Interplay Between a Transient Plate Boundary and the Early Azores Mantle Plume.](#)
- [Li isotopic compositions of the Cocos Ridge segment subducting along the Middle America Trench and implications for the sub-arc geological process.](#)
- [Arc-related subalkaline magmas at the Los Tuxtlas volcanic complex and its relation to the tectonic evolution in southern México.](#)

## Paleontology

- [Re-evaluation of a soft crested Edmontosaurin, with implications for hadrosaurid life appearance and diversity.](#)
- [Upper Jurassic dinosaur tracks from the Majala Formation in the Huatacondo area \(Tarapacá Basin, Chile\): reappraisal of known localities and new tracksite discoveries.](#)
- [Elemental Mapping Reveals Selective Dolomitization in Tonian Stromatolites: Implications for Early Diagenesis and Paleoenvironmental Proxies.](#)
- [Mandibular form and function is more disparate in amniotes than in non-amniote tetrapods from the late Palaeozoic.](#)
- [Biostratigraphy, mineralogy and paleoenvironmental analysis of the Miocene Gaj Formation from the Dwarka Basin, western India.](#)
- [Resistance of cervical vertebrae in response to muscular stresses in pterosaurs: implications for foraging habits and skeletal pneumatization.](#)
- [Track by Track: Revealing Sauropod Turning and Lateralised Gait at the West Gold Hill Dinosaur Tracksite \(Upper Jurassic, Bluff Sandstone, Colorado\).](#)
- Evolution: [Rare microbial relict sheds light on an ancient eukaryotic supergroup](#); Science Alert summary [here](#).

## Ore and Petroleum Geology

- [Decoding ore-forming fluids evolution through multi-stage scheelites: Insights from the first Neoproterozoic Jianzidong W deposit in the western Yangtze, South China.](#)
- Petroleum geology: [Hidden Potential: The Impact of Seismic Tuning on Gas Volumes Estimation: Case Study of a Tertiary Reservoir, Onshore Niger Delta.](#)
- [Predicting the preservation of buried ore deposits using deep-time landscape evolution modeling.](#)

## Mining and Energy

- [Gold price to reach new highs in 2026: Goldman poll.](#)
- Titanium and vanadium: [MHA Encouraged by Major Mineral Discovery in Labrador.](#)
- [Yttrium Panic? What WIRED Gets Right-and Wrong-About China's Rare Earth Pressure Valve.](#)
- Ooh, shiny: [Miners discover a 37.4 carat diamond that is half pink and half colorless.](#)
- [World's largest lithium deposit, valued at \\$1.5 trillion, lies under a supervolcano in the U.S.](#)
- [Fluorspar mine restart makes Newfoundland the only North American producer of critical mineral.](#)
- [Manitoba signs onto Ontario-led proposal to create national energy grid.](#)
- China: ['Supergiant' Gold Deposits Could Be Worth Over US\\$80 Billion.](#)
- [UK Court Lets North Sea Drilling Hopes Live Another Day.](#)
- [Carney signs major energy agreement with Alberta, laying out conditions for new oil pipeline.](#)
- Hydrogen: ["Pink gold" surfaces behind the Gulf - Millions of tons under coal fields could spark a new rush.](#)
- Elliot Lake ON: [Power One strikes gold in historic uranium territory.](#)
- [Karnalyte touts 70-year potash mine in Canada.](#)
- [Dominica to commission 10-megawatt geothermal plant in December 2025, operations set for March 2026.](#)
- Carbon capture and enhanced oil recovery : [This North Sea oil field is being repurposed to store millions of tonnes of CO2 beneath the seabed.](#)
- [The IEA Is Not Wrong About Oil Demand.](#)
- [US Army microreactors set to boost wider nuclear industry](#)

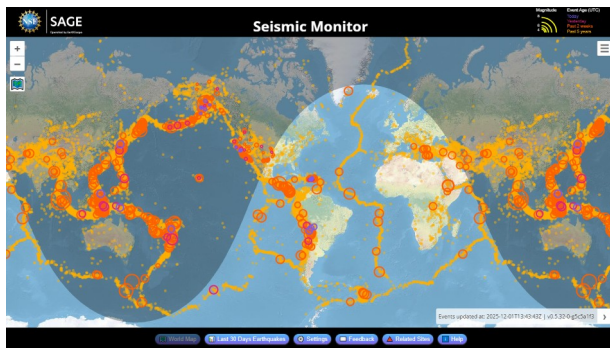
## Environmental Geology and Hydrogeology

- [Study discovers wells containing 40,000-year-old groundwater, warns of taking too much water.](#)
- Arsenic in groundwater: ['There were eight of us, only two are alive': the growing crisis of arsenic in Argentina's water.](#)
- [Seismic shifts in the geochemical and microbial composition of a Yellowstone aquifer](#); Phys.org summary [here](#).
- Remediation: [EPA Completes Historic Oil Removal at Dunsmuir Railyard, Restores Sacramento River Shoreline.](#)

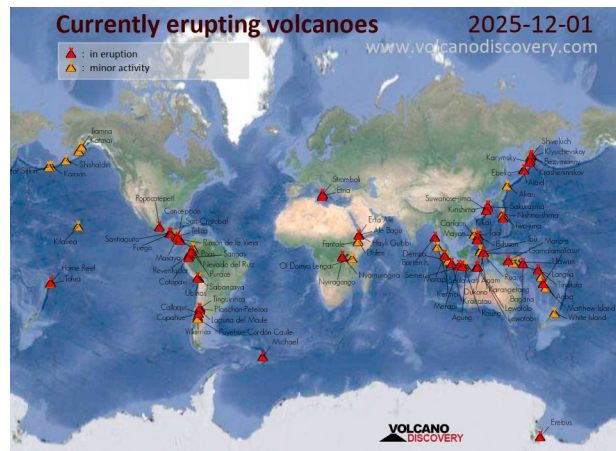
## Glaciers and Climate Change

- [Velocity and calving response of a major Greenland ice stream to a lake drainage event.](#)
- [Topographically-controlled contribution of avalanches to glacier mass balance in the 21st century](#); Phys.org summary [here](#).
- [In a new documentary, UW researchers investigate when Greenland was ice-free.](#)

## Volcanoes, Earthquakes and Geohazards



[Seismic Monitor](#)



[Active Volcano Map](#)

## Volcanoes

- [Smithsonian / USGS Weekly Volcanic Activity Report.](#)
- United States Geological Survey (USGS) Volcano Observatories:
  - Yellowstone Caldera Chronicles: [Patterns of earthquakes over time in Yellowstone highlight the complexity of seismic swarms.](#)
  - [Cascades Volcano Observatory Weekly Update.](#)
  - Volcano Watch: [The legacy of the 1975 earthquake: 50 years of study at Kilauea's south flank.](#)
  - Hawaiian Volcano Observatory: [Photo Video Chronology November 25, 2025 Kilauea summit eruption episode 37.](#)
- 11/25 [The world's little-known volcanoes pose the greatest threat.](#)

## Earthquakes and Tsunami

- [Euro-Mediterranean Seismological Centre \(EMSC\).](#)
- [Earthquakes Monitoring Live Worldwide.](#)

- [Magnitude 6 Susitna Earthquake Shakes Up Thanksgiving](#); USGS summary [here](#).
- [M6.6 earthquake strikes Sunda subduction zone offshore Sumatra](#); USGS summary [here](#).
- [SWOT Satellite Altimetry Observations and Source Model for the Tsunami from the 2025 M 8.8 Kamchatka Earthquake](#); Phys.org summary [here](#).
- [New research shows artificial intelligence earthquake tools forecast aftershock risk in seconds](#).

## Free Geology Books and Other Stuff

Free geology books can be downloaded from these sites:

- [OreZone Readers and Experts Telegram Channel](#); the Ore Zone channel also shows employment opportunities for geologists.
- [The Groundwater Project](#) has many groundwater geology books for free download together with free online courses, listed [here](#).
- Free Groundwater Modeling Course – [HydroGeoCenter](#).
- From Western Australia: [Carbonatite, lamprophyre and host rocks in the northern Aileron Province](#).
- Two volumes of Geology of Indonesia now can be accessed for [FREE/GRATIS](#). The books can be accessed from: vol 1 <https://lnkd.in/eH6Gcka4>; vol 2 <https://lnkd.in/egTYmpjk>.
- Brett Davis' book on veins in a deforming rock mass: "[The Veining Bible](#)"; also at [this site](#).
- From the Mineralogical Society of America: [Handbook of Mineralogy](#).

## Upcoming Events

- I'll be at the [Saskatchewan Geological Open House, December 1 to 3, 2025, Delta Bessborough Hotel, Saskatoon](#).
- [Groundwater Week 2025, December 9-11, 2025 in New Orleans](#).
- [Feb. 16-18, 2026, Inaugural Mineralogical Society of America Annual Meeting, Tuscon AZ](#)
- [GAC-MAC 2026 St. John's NL, St. John's Convention Center, May 25-28, 2026](#).
- [PEG2026: 11th International Symposium on Granitic Pegmatites; 16th–19th August 2026, in Perth, Western Australia](#).
- [14-18 September 2026 , IAH 2026, 53rd Congress of the International Association of Hydrogeologists; Budapest Congress Center](#).
- [Society of Petroleum Engineers Distinguished Lecturer Schedule](#).
- [American Geophysical Union List of Upcoming Meetings](#).
- The Geological Society: [Events & Courses](#).

- [International Union of Geological Sciences calendar of geoscience events.](#)
- [“Geology Hour” Online](#), evenings on the 3rd Monday of the Month from the Geological Society of the Oregon Country.
- [Canadian Energy Geoscience Association Upcoming Events.](#)



Credit: [Samantha Dillinger, The 28 Funniest Deer Memes That Will Make You Laugh](#)

## Standard Caveat

### [J. Robert Oppenheimer on freedom and scientific inquiry](#)

The purpose of my weblog postings is to spark people's curiosity in geology. Don't entirely believe me until you've done your own research and checked the evidence. If I have sparked your curiosity in the subject of this posting, follow up with some of the links provided here. If you want to, go out into the field and examine some rocks on your own with the help of a good field guide. Follow the evidence and make up your own mind.

In science, the only authority is the evidence.