JOURNAL PAPER

Could a Global Flood Produce All Earth's Oil?

By Matt Nailor (with editorial contributions by Donny Budinsky)

Truth In Research (2025)

Abstract

Crude oil less than 6,000 years old. Laboratory-synthesized petroleum produced in under a week. Active seafloor "refineries" generating gasoline-range hydrocarbons today. Such findings challenge the entrenched assumption that global petroleum reserves require millions of years to form. In this study, I integrate experimental data, natural analogues, and global carbon mass-balance calculations to evaluate whether Earth's ~nine trillion barrels of petroleum-equivalent hydrocarbons—including oil shale and tar sands—could be generated within a young-Earth timeframe.

Using modern biomass-to-oil conversion ratios (~10,000:1) and U.S. Geological Survey petroleum mass estimates (~4.2×10^11 tonnes recoverable), I calculate the scale of organic matter required and compare it to plausible pre-Flood biospheric capacity. Paleontological and geochemical evidence—including high paleo-oxygen levels (up to 35%), fossil gigantism, and reconstructions of pre-agricultural vegetation—support the existence of a biomass 100–1,000× greater than today's. In a global Flood scenario, catastrophic burial in anoxic sediments, coupled with extreme tectonic and volcanic activity, would provide ideal conditions for rapid petroleum formation: massive organic input, high preservation efficiency, and geothermal heating sufficient to convert kerogen to crude oil within years to decades.

Natural systems like the Guaymas Basin, with radiocarbon-dated oils averaging ~5,000 years old, demonstrate that such processes produce petroleum chemically indistinguishable from conventional crude. This synthesis argues that the scale, distribution, and chemical maturity of the world's oil deposits are consistent with a high-productivity pre-Flood world subjected to catastrophic burial and accelerated oil-generation mechanisms—making rapid petroleum formation not just possible, but expected.

- Reviewing what crude oil, oil shale, and tar sands are made of and how they form.
- Estimating how much biomass would be required under accelerated formation assumptions.
- Radiometrically dating crude oil
- Exploring alternative abiotic oil formation hypotheses.
- Testing various pre-flood biomass assumptions to see how much biomass would be needed to match current global oil estimates.
- Comparing YEC to current geological models.

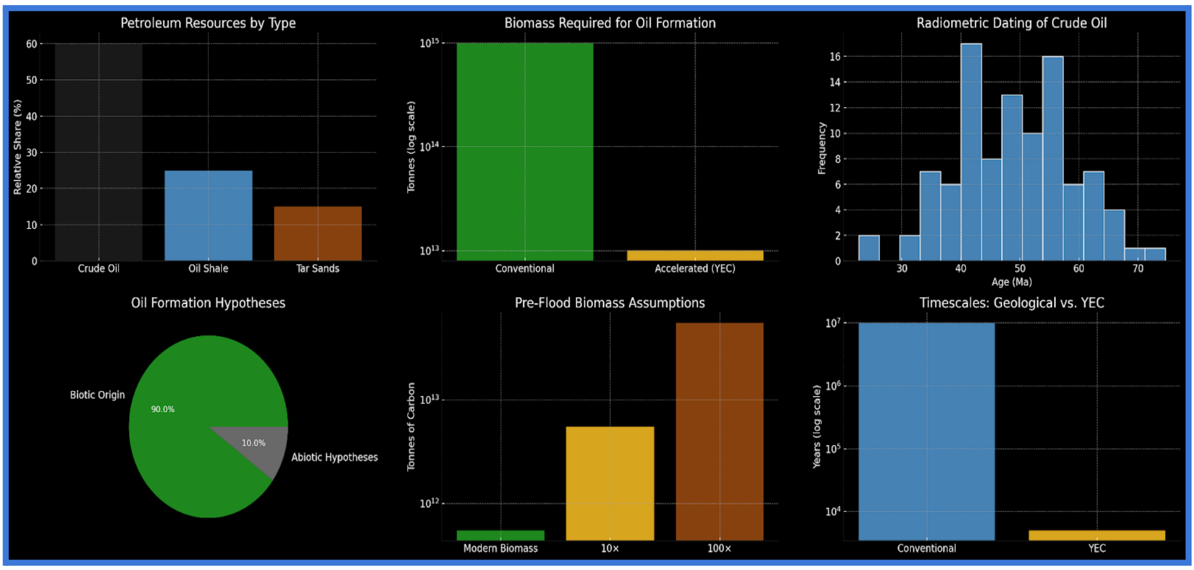


Figure 1. Top left: Petroleum resources by type (crude oil, oil shale, tar sands). Top middle: Biomass requirements (conventional vs. accelerated/YEC). Top right: Radiometric dating histogram of crude oil. Bottom left: Biotic vs. abiotic oil formation hypotheses. Bottom middle: Pre-flood biomass assumption scenarios (modern, 10×, 100×). Bottom right: Timescale comparison (geological vs. YEC, log scale).

Oil Reserves and Required Biomass

Global petroleum resources are enormous. In 1995, the U.S. Geological Survey estimated that about **3 trillion barrels** of recoverable oil originally existed on Earth (including conventional and unconventional sources) *[1]*. At roughly 136–147 kg per barrel, that equates to ~4.2×10^14 kg (4.2×10^11 tonnes) of oil. Converting this into required organic matter is challenging, because only a small fraction of biomass transforms into oil. Geological studies show that the vast majority of organic carbon from dead organisms never becomes petroleum: for example, **<0.1% of organic matter** escapes decay and gets buried in sediments *[2]*, and even in those “source rocks” only a few percent may convert to oil or gas. One study analysis notes that about 10^22 grams of kerogen (insoluble organic carbon) remain in sedimentary rocks – **98%** of the total organic carbon – while only ~2% became coal, oil, or gas [3]. This implies **inefficient conversion (on the order of 10,000:1 or worse)** under normal conditions.

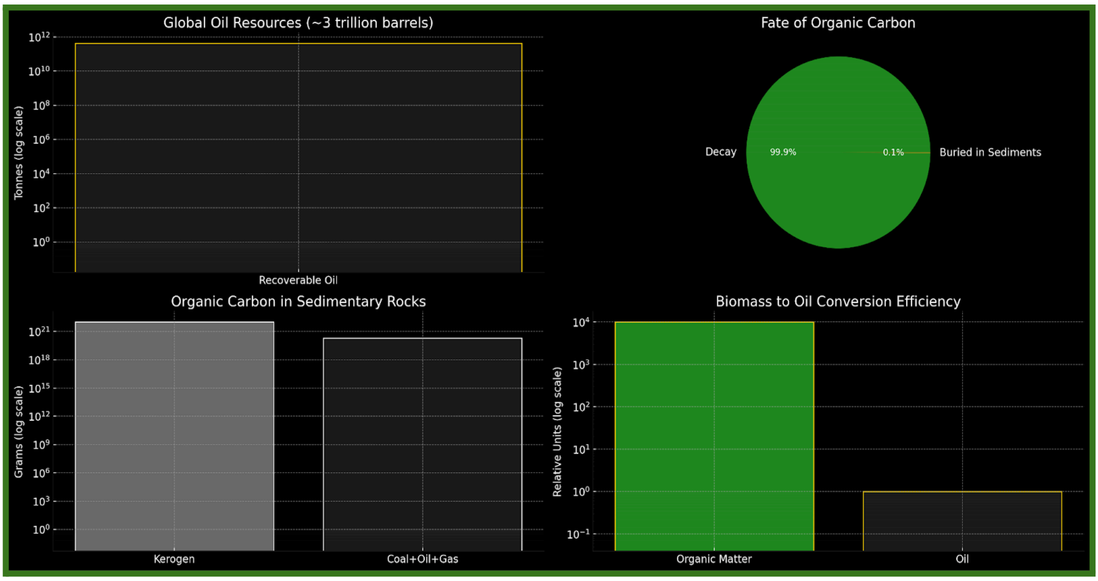


Figure 2.Top left: Global oil resources (~3 trillion barrels ≈ 4.2×10^{11} tonnes, log scale). Top right: Fate of organic carbon (99.9% decay, <0.1% buried).Bottom left: Kerogen (~10^{22} g) vs. coal + oil + gas (~2×10^{20} g). Bottom right: Inefficient biomass-to-oil conversion (~10,000:1 ratio, log scale)

Using a **10,000:1 biomass-to-oil ratio** as a baseline, producing ~4.2×10^{11} tonnes of crude oil would have required on the order of **4×10^{15} tonnes of organic matter**. For perspective, that is nearly **1,900 times** the mass of all living biomass on Earth today. (Current living biomass is estimated at ~2.2×10^{12} tonnes wet weight, corresponding to ~550 Gt of carbon [4].) At first glance, this seems to make a single flood event implausible as the source of all oil – **unless** pre-Flood Earth held orders of magnitude more biomass and/or the conversion process was far more efficient than usual. Both of these are key considerations in a young-Earth Flood model which are easy to account for based on what we see in the fossil record.

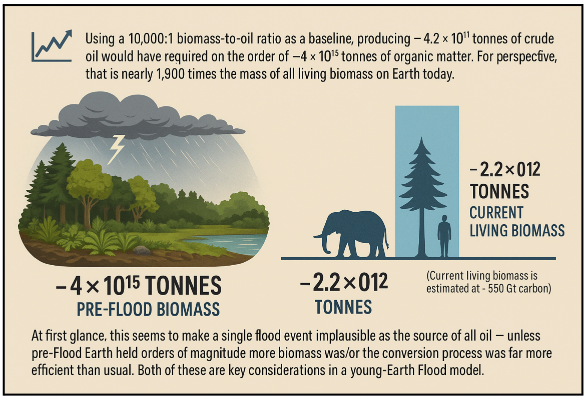


Image 1.

Pre-Flood Biomass and Carbon in a Flood Model

Young-Earth creationists postulate that the **pre-Flood world's biomass was vastly greater** than today's [5], providing the raw material for coal and oil deposits during the Flood. One estimate is that the pre-Flood biosphere contained at least **100× the living carbon of today**. Indeed, the total carbon now buried in fossil fuels and kerogen is huge compared to the biosphere. For example, Earth's coal alone contains ~1.3×10^13 tonnes of carbon [3] – far exceeding the 5.5×10^11 tonnes of carbon in today's biota [4]. Creationist researchers Gerhard Schönknecht and Siegfried Scherer note that **present-day forests over all modern land areas could only account for ~40%** of the coal (and associated fossil fuel) carbon if converted directly [3]. This suggests the pre-Flood Earth must have had **more extensive and/or denser ecosystems** than we observe now.

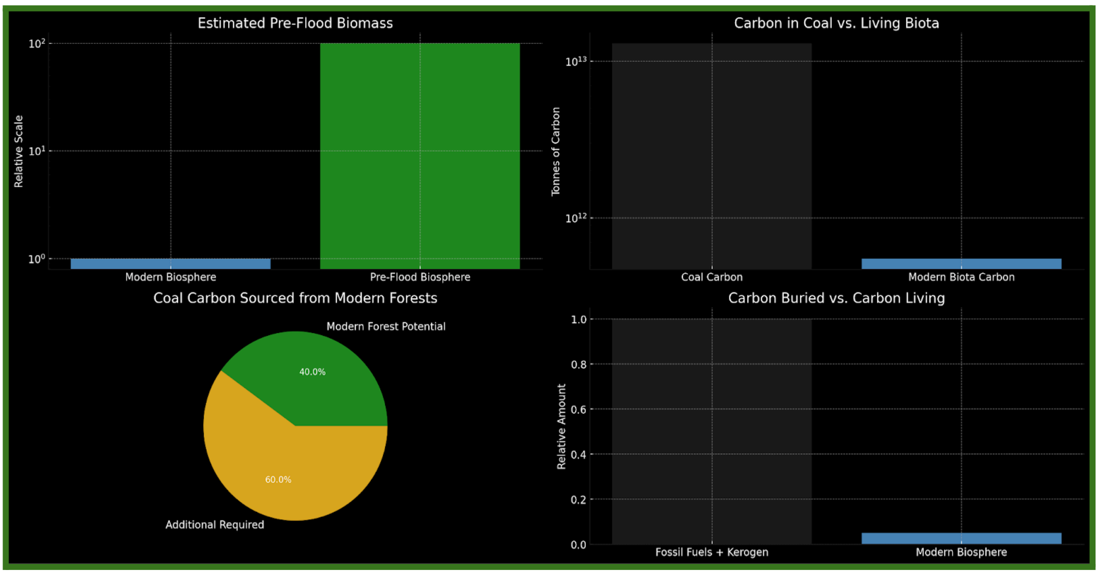
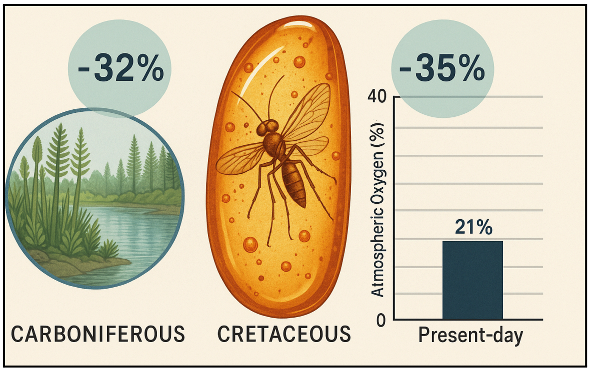


Figure 3.Top left: Pre-Flood biosphere estimated at ~100× modern biomass (log scale). Top right: Carbon in coal (~1.3×10^{13} tonnes) vs. modern biota (~5.5×10^{11} tonnes). Bottom left: Pie chart showing that modern forests could only account for ~40% of coal carbon. Bottom right: Buried fossil fuel + kerogen carbon compared with modern biosphere carbon.

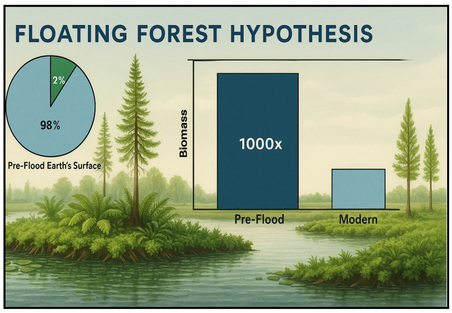


We know that there were higher oxygen levels in the past and from ancient amber, here are two examples. Carboniferous California **amber** contained air bubbles measuring up to **~32% oxygen**, versus today's ~21% DOI: 10.1126/science.abk312 & **USGS analyses of Cretaceous amber** similarly show oxygen levels around **35%** https://geology.com.

High oxygen levels have shown us in experiments that plants grow larger and faster as well. In an experimental setup, researchers grew tomato plants under different oxygen levels (high: 11–14%; moderate: 5.8–7%; low: 0.8–1.5%). **They found that plants under high-oxygen conditions showed significantly greater shoot and root growth, with elevated root and top weights** compared to controls. DOI: 10.1023/A:1008691226213

A 2020 study shows that since the dawn of agriculture, **global plant biomass has declined by about half**, suggesting that prior to human land conversion, there may indeed have been **roughly twice as much plant biomass** as exists today. Published in *Nature Sustainability*, titled **"The global tree restoration potential"**. This study estimated that the Earth's land area even today could support an additional **0.9 billion hectares** of trees, which could sequester approximately **205 gigatons of carbon**—a significant contribution to mitigating climate change. Vox also summarizes findings suggesting that "there used to be approximately twice as many [plants]" before large-scale deforestation and land use changes.

One proposal to boost pre-Flood biomass is the existence of vast **"floating forests"** or wetlands. In creationist literature, Joachim Scheven's concept of floating forest biomes posits that large mats of vegetation covered shallow seas, providing immense plant mass that later became coal. Using this model, bituminous coal seams (such as those of the Carboniferous) could originate from vegetative mats covering only **~2% of the pre-Flood Earth's surface** (yet stacked into multiple layers during burial [3]). Likewise, the total vegetation needed for extensive **lignite deposits** could have grown on **~40% of the antediluvian continents [3]**. In sum, a world teeming with lush plant life (possibly promoted by a warm climate and high CO_2) and abundant animal life could supply the requisite organic carbon. A conservative estimate of **100× modern biomass** is often cited [5], but even **larger multiples (on the order of 1,000×)** may be invoked to "make the numbers work" for Flood geology. This is not even remotely out of the question since modern scientists have admitted that even recently (pre-agriculture) plant biomass was ~1,000 Gt C and today's is ~450 Gt C, then the lost biomass equals **about 2.2× today's amount**. Study published in **2020 in *Nature,*** *research conducted by scientists at the Weizmann Institute of Science.* ***DOI:*** 10.1038/s41586-020-3010-5



Crucially, the Flood scenario assumes **much more efficient burial and preservation** of organic matter than normal. In today's world, most dead organic matter is recycled (decayed or eaten) and never fossilized [2]. In a catastrophic flood, however, enormous quantities of organisms would be **suddenly killed, waterlogged, and buried in anoxic sediments**, minimizing decay. This rapid and widespread burial could lock away a far greater fraction of biomass into sediments than the usual ~0.1%. In essence, the Flood is envisioned to *short-circuit* the carbon cycle, depositing a huge store of organic debris in sediments in one short interval. The presence of certain chemical fossils in petroleum supports rapid burial: for example, **porphyrins** – organic compounds related to chlorophyll and hemoglobin – are found in crude oils [5].

These complex molecules break down quickly in the presence of oxygen and heat, yet they are preserved in oil. Geologists often explain this by deposition in oxygen-poor (reducing) environments, but **rapid sedimentation** is an equally viable explanation [5].

In fact, geochemist Dr. Robert McQueen argues that the chemistry of oil (including such biomarkers) *"strongly suggests that it was formed rapidly from the remains of plant and animal matter,"* consistent with a year-long global Flood [5]. In summary, a much higher initial biomass *and* more complete preservation of that biomass could drastically reduce the required "biomass multiplier" to generate today's oil.

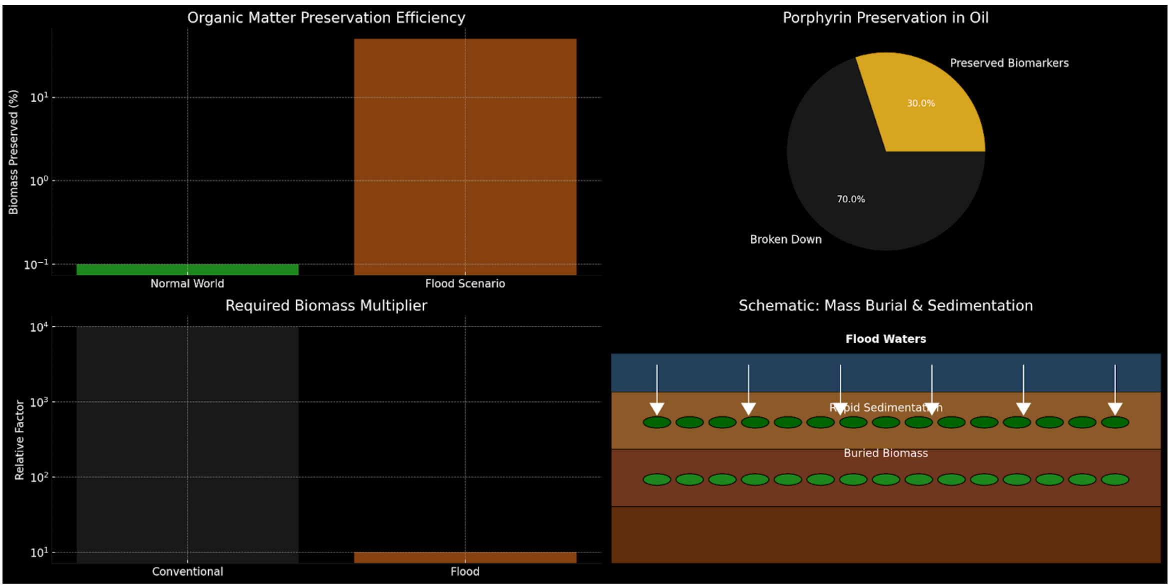


Figure 4. Top left: Organic matter preservation efficiency (normal vs. Flood, log scale). Top right: Porphyrin preservation in crude oils (biomarker evidence). Bottom left: Required biomass multiplier (conventional vs. Flood, log scale). Bottom right: Schematic illustration of mass burial and rapid sedimentation locking in biomass

To illustrate: if the pre-Flood Earth had **~1,000×** today's biomass (~2.2×10^15 tonnes of organic matter) and, say, **10%** of that organic carbon was converted into hydrocarbons (an efficiency far above modern norms), the output would be on the order of 2.2×10^14 tonnes of oil and gas.

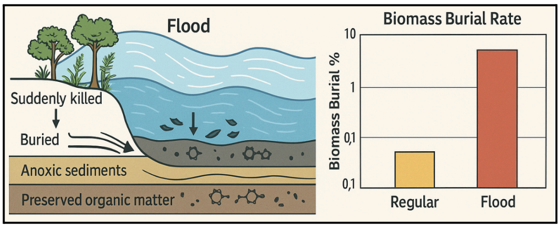


Image 3.

That is roughly equivalent to **15–16 trillion barrels** of oil – several times more than the 3 trillion barrels estimated to exist. Even if these particular numbers are speculative, they show that with orders-of-magnitude more biomass and enhanced conversion, a Flood deposit could conceivably yield the required petroleum. Not all Flood models require such extreme figures either, but they leave room for substantially greater pre-Flood productivity (e.g. extensive forests, giant fauna, plankton blooms, etc.) to serve as the carbon source.

How Oil is Formed: Conventional vs. Catastrophic Processes

Petroleum (crude oil) is a mixture of hydrocarbons derived from organic matter – primarily the remains of microscopic marine organisms (plankton and algae) and plant matter, with minor input from animal biomass. In the conventional geologic model, oil formation is a **slow, multi-stage process**: Dead organic debris accumulates in **anoxic** (oxygen-depleted) environments such as muddy sea floors or swamp basins, where it is partially preserved as organic-rich mud [2][2]. This sediment, if it contains a few percent organic material, becomes a potential source rock as it lithifies into shale [2]. As burial continues over millions of years, increasing pressure and temperature cause the organic matter to chemically transform into kerogen, a waxy solid intermediate [2][6]. With deeper burial (typically 2–4 km and temperatures of ~90–150 °C), the kerogen breaks down into liquids and gases – this is the "oil window" in which crude oil forms [6][6]. Any deeper/hotter, and mainly methane (natural gas) or graphite is produced [6]. The newly generated oil then migrates through porous rocks and may accumulate in traps (beneath impermeable cap rock) to form an oil reservoir [6]. Geochemists often state that this process takes millions of years under normal geothermal gradients [2][2] – on the order of 10^7–10^8 years to generate and pool a large oil deposit. Indeed, over 70% of known oil is thought to have formed during the Mesozoic Era (in the standard timeline) when conditions favored high organic productivity [6].

However, creationist scientists argue that **oil can form much faster** than the standard model assumes, given the right conditions. The key requirements for oil generation are **organic matter, heat, pressure, and time** – and if one dramatically increases heat and pressure, the required time shrinks. There is abundant evidence (from laboratory experiments and even natural examples) that **petroleum can be generated in days to years** under accelerated conditions. For instance, researchers have been able to convert organic materials to oil in the lab on short timescales. A famous experiment by the U.S. Bureau of Mines in the 1980s showed that raw **sewage sludge could be turned into a light oil in 24 hours** using heat (300 °C) and pressure in the presence of certain catalysts [7][7]. Even though sewage is not a typical geological feedstock, this proved that the "millions of years" mantra is not a hard requirement – fast chemical routes to oil exist (albeit under artificial conditions). The product in that case needed refining to match commercial fuel [7], but it was chemically akin to crude oil.

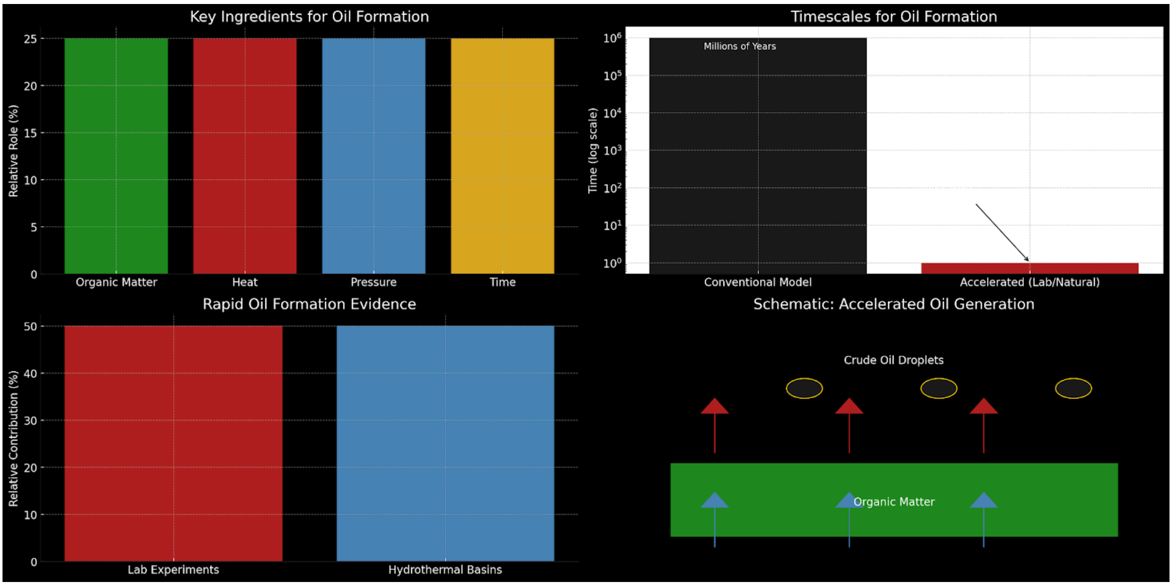


Figure 5. Top left: Key ingredients for oil formation (organic matter, heat, pressure, time). Top right: Timescale comparison (millions of years vs. accelerated days–years, log scale). Bottom left: Evidence split between lab experiments and natural hydrothermal basins. Bottom right: Schematic of accelerated oil generation (organic matter → heat/pressure → crude oil droplets)

More scientifically relevant are **laboratory simulations of natural oil formation**. From 1977–1983, Australia's CSIRO conducted a landmark experiment simulating the burial of source rocks in a subsiding basin [7]. They sealed organic-rich shale and coal samples in steel tubes and gradually heated them from 100 °C to 300–350 °C over the course of **2–6 years** [7]. The results were striking: at temperatures <300 °C (achieved in ~4 years), **about 35% of the oil shale's kerogen had converted to crude oil** [7]. By 6 years (with T max ~350 °C), oil generation was complete – in fact, some of the oil had "cracked" further into natural gas, demonstrating the full spectrum of hydrocarbon formation in a compressed timeframe [7]. The experiment produced paraffinic crude oil and gas closely resembling those found in real petroleum reservoirs [7]. The scientists concluded that "within sedimentary basins, heating times of the order of years are sufficient for the generation of oil and gas from suitable precursors" [7]. In other words, **geological time can be traded for higher temperature** – the molecular reactions don't necessarily require millions of years if thermal conditions are intense.

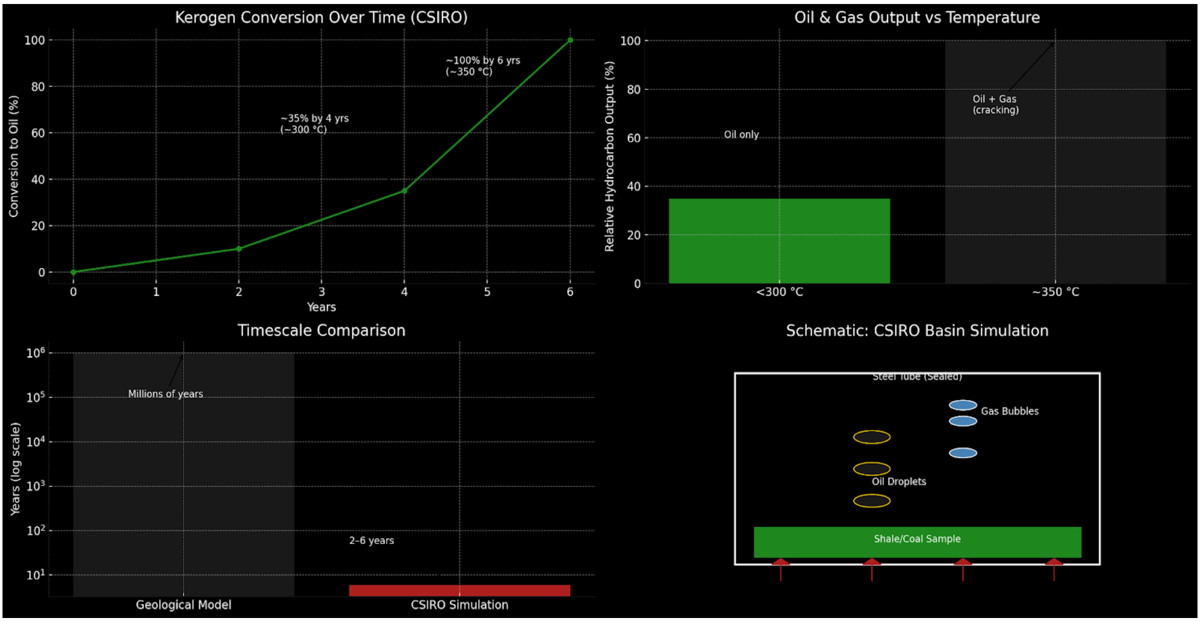


Figure 6. Top left: Kerogen conversion progress over 2–6 years (35% by year 4 at ~300 °C, complete by year 6 at ~350 °C). Top right: Temperature vs. output (oil only below 300 °C, oil + gas cracking at ~350 °C). Bottom left: Timescale compression (millions of years vs. 2–6 years, log scale). Bottom right: Schematic of the sealed steel tube experiment showing shale/coal samples, heat arrows, oil droplets, and gas bubbles.

They noted that in many natural basins, longer times are available at lower heat flow, but the **mechanism of oil formation appears the same** whether it occurs over years or eons [7]. The oils and gases from these fast-track experiments were indistinguishable from natural petroleum in composition [7].

Thus, conventional geologists acknowledge that given sufficient heat and the right starting materials, **petroleum could form in <<1%** of the **assumed geological time**.

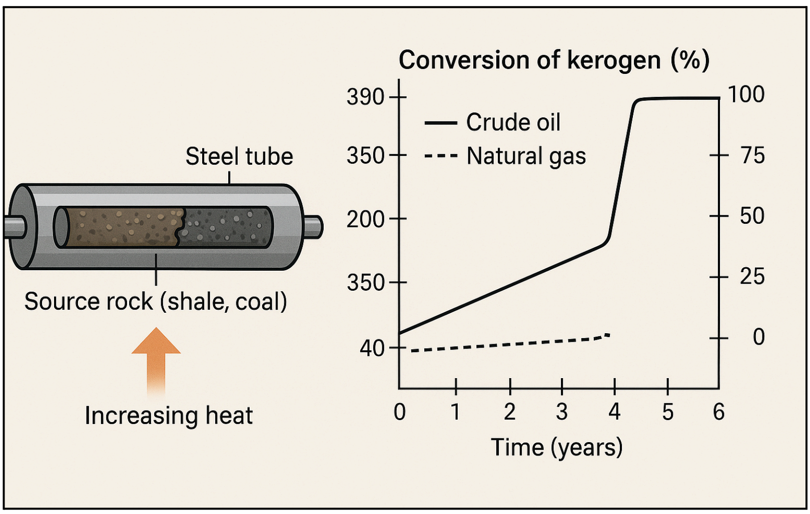


Image 4.

Rapid Petroleum Formation in the Flood Scenario

A global Flood as described in Genesis would provide ideal conditions for fast petroleum formation: massive burial of organic matter, rapid sedimentation (creating pressure), and potentially widespread geothermal heating. Flood models propose that during the catastrophe, tectonic and volcanic activity was extreme (“the fountains of the great deep” were broken up), potentially causing rapid crustal movements, magmatic intrusions, and hydrothermal circulation on a scale far beyond normal. This means lots of heat available to cook organic-rich sediments. Creationist geologists point to real-world analogs of this process. Notably, a “natural oil refinery” under the ocean has been observed in the Guaymas Basin of the Gulf of California [7]. At Guaymas, thick layers of organic-rich mud (containing abundant diatoms and algal debris) are being intruded by magma and superheated hydrothermal fluids (~200–315 °C) along deep fractures. The heat is actively converting the organic matter into petroleum in situ. Researchers have directly sampled oil droplets and hydrocarbon-rich fluids jetting out of the seafloor in this basin [7]. According to a report in Nature and The New York Times, “Ordinarily oil has been thought to form over millions of years, whereas in this instance the process is probably occurring in thousands of years…. The activity is not only manufacturing petroleum at relatively high speed but also breaking it down into the constituents of gasoline… as in a refinery.”. In fact, radiocarbon dating of the Guaymas crude oil indicates it is only around 4,200–5,700 years old – essentially “young” oil by geological standards, and intriguingly a match to the biblical timeframe of the Flood (~4,400 - 5,323 years ago). It was not just 1 study either, all three that have tested have found similar results.

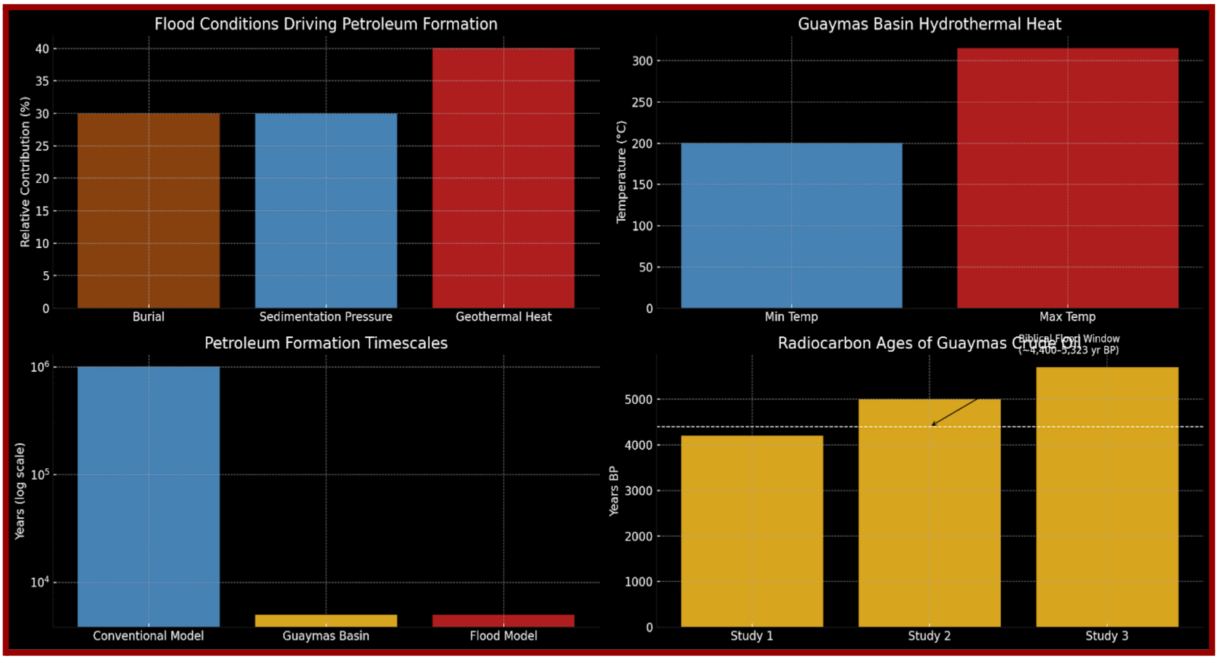


Figure 7. Top left: Key Flood conditions (burial, pressure, geothermal heat) driving petroleum generation. Top right: Hydrothermal heat range at Guaymas Basin (200–315 °C). Bottom left: Petroleum formation timescales (conventional vs. Guaymas vs. Flood model, log scale). Bottom right: Radiocarbon ages of Guaymas crude oil (4,200–5,700 yr BP) compared with the biblical Flood window (~4,400–5,323 yr BP).

Peter et al. (1991)

- This geological study reports that petroleum in the Guaymas Basin has radiocarbon (^14C) ages ranging from **4,240 to 5,705 years with a mean of 4,973 years before present (BP)**.

- Source: *14C ages of hydrothermal petroleum and carbonate in Guaymas Basin, Gulf of California* https://doi.org/10.1130/0091

Teske et al. (2014)

- A review of subsurface biosphere research states that Guaymas Basin hydrocarbons are young enough to be ^14C-dated, with an **average radiocarbon age of approximately 5,000 years**.

- Source: *Biosphere frontiers of subsurface life in the sedimented Guaymas Basin* PMC

Simoneit (1994)

- Another investigation differentiates between parts of the Guaymas Basin, noting that the youngest petroleum samples in the southern trough are **3,200–6,600 years old**, with a mean age of about **4,692 years**.

- Source: *Comparison of ^14C ages of hydrothermal petroleums* DOI:10.1016/0146-6380(94)90103-1

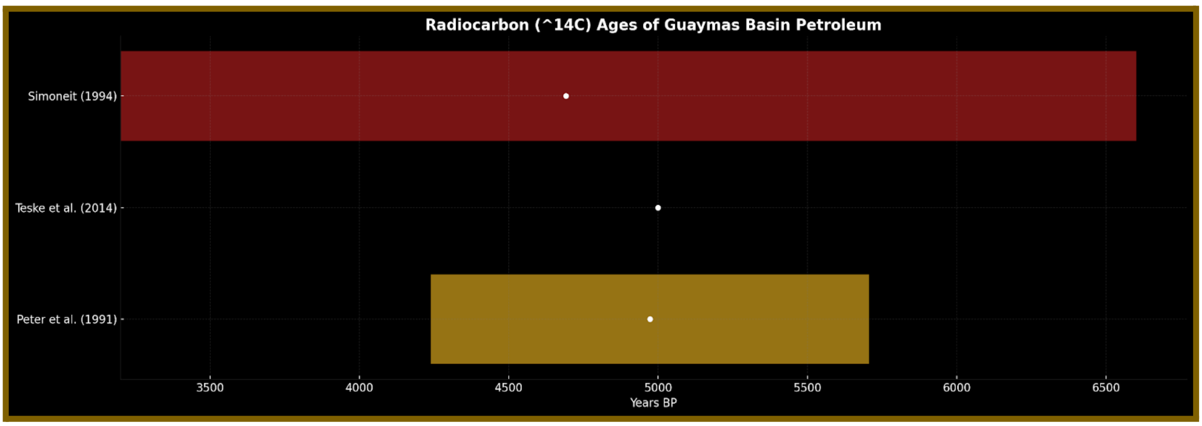


Figure 8. Peter et al. (1991): Range 4,240–5,705 yr BP, mean 4,973 (gold bar). Teske et al. (2014): Average ~5,000 yr BP (blue marker). Simoneit (1994): Range 3,200–6,600 yr BP, mean 4,692 (red bar).

The bars represent measured ^14C age ranges, and the white dots mark the mean values.

Chemically, the Guaymas Basin oil is virtually **identical to conventional crude** from much older reservoirs. It contains normal hydrocarbon compounds (including light fractions comparable to gasoline) and biomarker signatures pointing to algal/bacterial organic sources. This shows that **rapid, high-temperature generation** can produce typical oil from typical organic matter. The process in Guaymas is basically a **one-step petroleum generation**: heat from below "cooks" the organic-rich sediment, generating oil and gas on the fly, which then seep out. By contrast, the standard slow model is **multi-step and low in efficiency**, relying on gradual burial and long-term "aging" of kerogen. The hydrothermal process can be far more **efficient** at converting organic carbon to oil. (In Guaymas, some estimates suggest a large fraction of the local organic matter is being rapidly pyrolized.) The creationist view holds that during the Flood, similar hydrothermal or **catastrophic burial conditions were widespread**, not localized. Large sedimentary basins could have experienced enhanced geothermal gradients (from accelerated radioactive decay or magma intrusions), **"baking" the buried biomass into oil and gas within years or decades**, rather than millions of years.

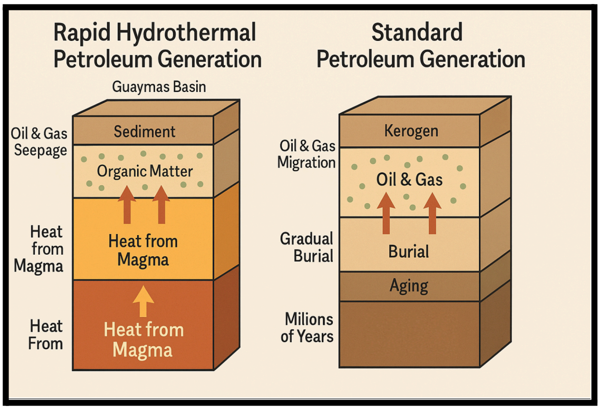


Image 5.

It's worth noting that even conventional petroleum geology concedes problems with oil generation if it were too slow. Oil does not sit eternally in the source rock – it begins to migrate once formed, and can be lost unless trapped relatively quickly. As a petroleum textbook observes, the standard model requires a delicate timing: enough organic matter must mature into oil at the right stage, and enough of it must migrate into a trap before dissipation [7]. This process is not highly efficient; only a **minor fraction** of the original organic carbon in a source bed ever becomes trapped oil [7].

Flood geologists argue that a **rapid, catastrophic mechanism** could actually overcome some of these issues. By converting a lot of organic matter at once (in a "pulse") and expelling it, a hydrothermal oil-generation event could **flood reservoir rocks to capacity quickly**, with less opportunity for losses. In effect, the Flood may solve the mass-balance and timing issues by doing everything on a large scale simultaneously.

Creationist researcher Andrew Snelling (who studied the Guaymas Basin) emphasizes that these findings *"provide an efficient single-step mechanism for petroleum generation, expulsion, and migration,"* and that the **short timescales are entirely consistent with a 5,000-year timeframe** [7].

In his view, the biblical “fountains of the deep” – massive volcanic and hydrothermal activity – would have ensured that sediments laid down in the Flood were quickly heated to yield oil and gas, which then became trapped as the strata folded and faulted during the later stages of the Flood and its aftermath.

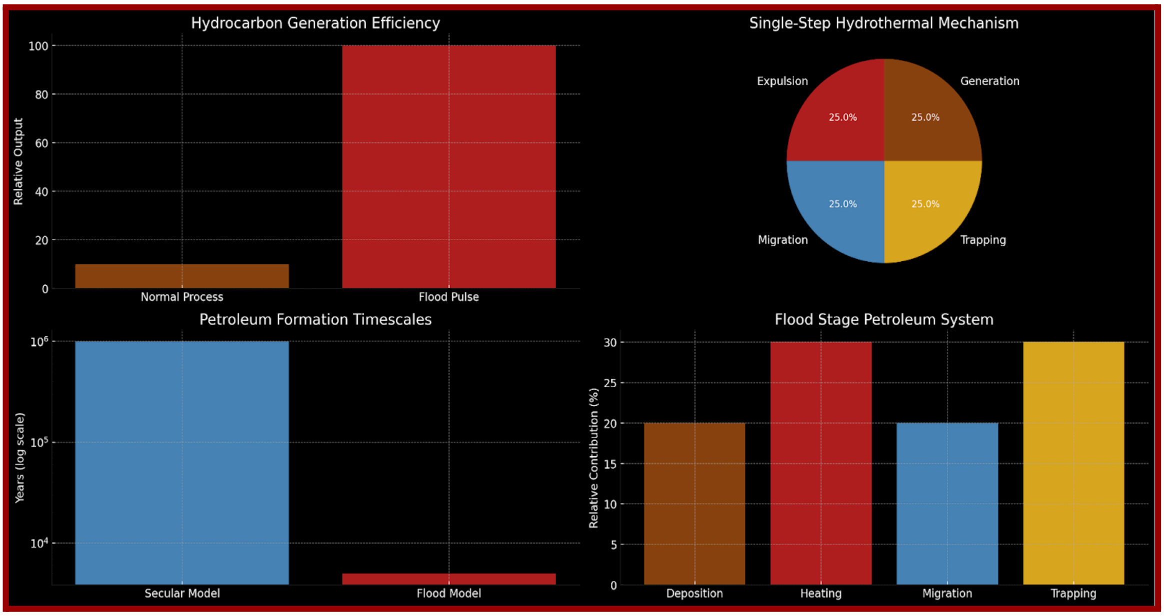


Figure 9.Top left: Hydrothermal pulse vs. normal hydrocarbon generation efficiency. Top right: “Single-step” integration of generation, expulsion, migration, and trapping. Bottom left: Timescales compared (millions of years vs. ~5,000 years, log scale). Bottom right: Contributions of deposition, heating, migration, and trapping during Flood-driven strata deformation

To summarize, **geochemical evidence and experiments demonstrate that oil formation is a thermally driven process that does *not*** *inherently* ***require vast ages**. Rapid formation is possible given abundant organic matter, quick burial (to prevent oxidation), and elevated heat flow. The Flood scenario provides exactly these conditions on a global scale. In this view, the question is not *“could a Flood produce our oil?”* – it’s essentially presumed that it **did**, with the geologic record of large oil fields and coal beds being a natural outcome of the cataclysm. The presence of **well-preserved biomarkers** (like porphyrins, biomolecules, and even **radiocarbon in coal and oil** deposits) is cited as evidence that these deposits are much younger than secular dates suggest, reinforcing the idea of a recent formation.

Other Possible Sources: Inorganic Oil Formation

The discussion above focuses on **biological origins** of oil (fossil organic matter). The user also inquires about **non-biological oil generation theories**. A few hypotheses have suggested that **petroleum (or at least some hydrocarbons) can form abiotically** in Earth’s crust or mantle. The most well-known is the **abiogenic petroleum hypothesis**, historically championed by some Russian geologists and astronomer Thomas Gold.

Abiogenic theories propose that hydrocarbons could be generated from deep carbon (such as primordial carbon in the mantle, or carbonate minerals) through processes like **serpentinization** and Fischer–Tropsch type reactions. For example, water reacting with **ultramafic rock** can produce hydrogen gas, which in turn could reduce CO_2 or carbonate to form methane and heavier hydrocarbons – a process observed at hydrothermal vents.

Indeed, we know from astronomy that **hydrocarbons exist on bodies with no life** (for instance, the methane/ethane lakes on Saturn's moon Titan [8]), so inorganic chemistry *can* produce oil-like substances under certain conditions.

On Earth, is there evidence of significant abiotic oil? Mainstream geochemists say **biogenic origin accounts for the overwhelming majority of petroleum**, citing the strong biological "fingerprints" in crude oil (molecular fossils, optical activity, carbon isotope ratios, etc.). However, small quantities of abiotic hydrocarbons *have* been identified. For example, trace hydrocarbons have been found in inclusions within **mantle-derived rocks** and gases in some deep wells, suggesting a deep-Earth source. Gold's **deep gas hypothesis** posited that large amounts of methane (and possibly oil) migrate up from the mantle. In practice, while mantle-derived methane exists, it tends to be at **low concentrations** and is not known to replenish oil reservoirs on a large scale [8]. Recent experiments in 2009 by geologists at the Kola Deep Drill in Russia and at Stockholm's KTH demonstrated that **hydrocarbon fluids can be synthesized** under mantle-like conditions from inorganic reagents [8].

These findings "regained some support" for abiogenic ideas, but the consensus remains that **most of our crude oil formed from once-living organisms** [8].

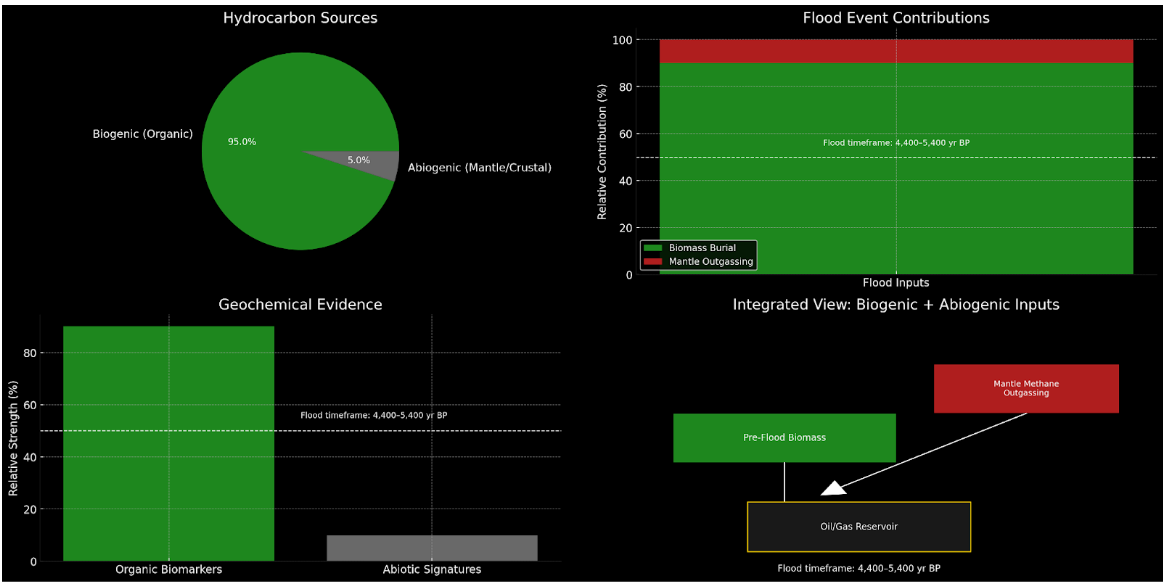


Figure 10.Top left: Hydrocarbon sources (dominantly biogenic, minor abiogenic). Top right: Flood event contributions with timeframe annotation. Bottom left: Biomarker evidence with timeframe marker. Bottom right: Integrated schematic with Flood timeframe clearly labeled.

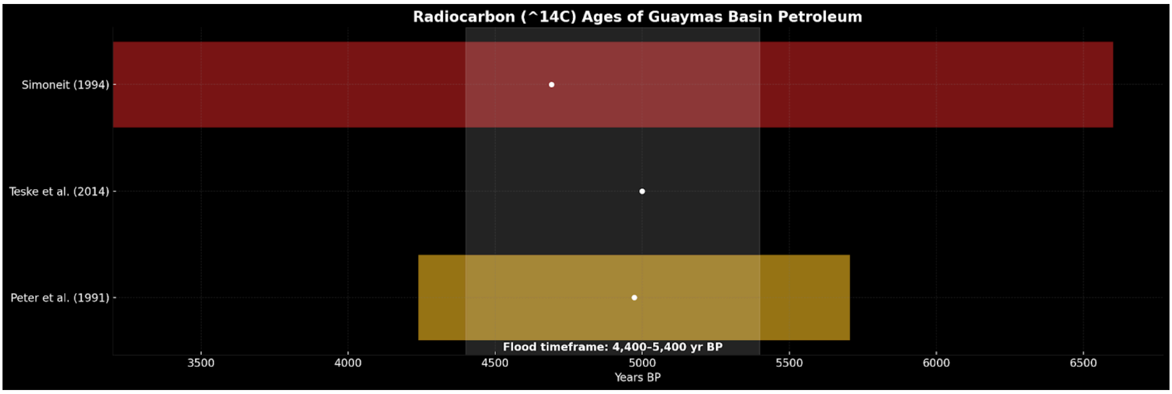


Figure 11. Here's the integrated Guaymas Basin radiocarbon chart with the Flood timeframe band (4,400–5,400 yr BP) overlaid: Each bar shows the measured ^14C age ranges for Peter et al. (1991), Teske et al. (2014), and Simoneit (1994). White dots mark the mean ages. The shaded vertical band highlights the Flood timeframe, showing how closely the results align.

From a Flood perspective, abiogenic contributions could be viewed as an additional **minor source** of hydrocarbons. During the Flood's upheaval, **mantle outgassing** might have released methane and other volatiles into the sedimentary basins. This could potentially *seed* some petroleum deposits or mix with biogenic oils. It's notable that in places like the **Guaymas Basin**, the oil's composition and biomarkers clearly indicate a biological origin (algal/bacterial kerogen), not a mantle source [7].

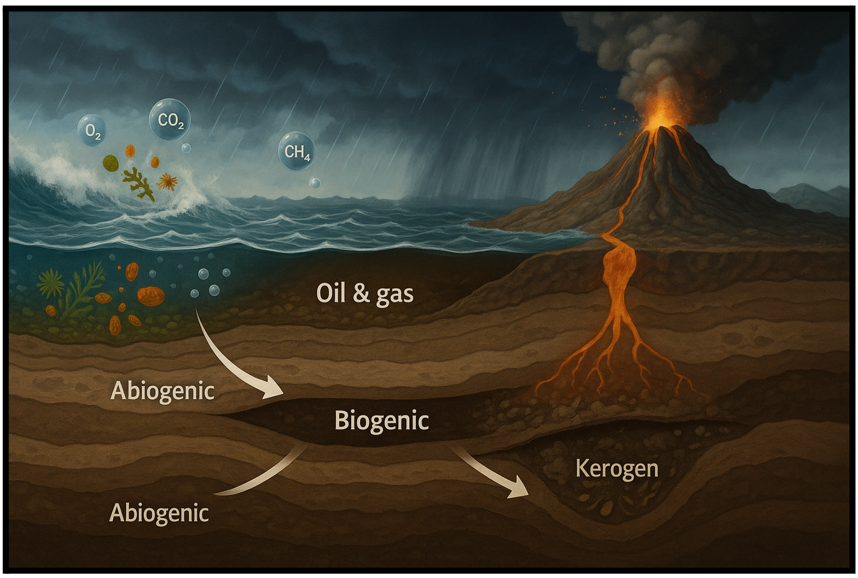


Image 6.

Creationist models typically accept that **the bulk of oil is from organic material**, since the evidence (and even scriptural rationale) ties oil to formerly living things (often viewed as part of God's judgment in burying the pre-Flood world). Nonetheless, for completeness, one can acknowledge **abiotic oil** as a possible contributor especially to **natural gas** (a lot of Earth's methane may originate from inorganic processes).

Even mainstream estimates of total hydrocarbons on Earth consider vast amounts of **methane in gas hydrates** and deep crustal gas – some of which could have non-biological origins. In short, including *all* sources: life-derived carbon plus any abiogenic hydrocarbons, improves the chances of accounting for today's reserves. (If, for instance, a few percent of oil came from deep inorganic synthesis, that slightly reduces the burden on biomass.) However, the **geochemical and isotopic signatures of most crude oil strongly support an organic origin**, so any abiogenic contribution is likely small [8].

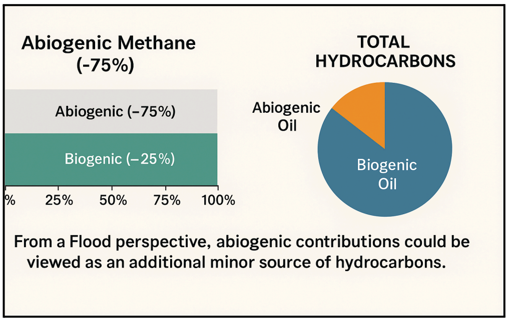


Image 7.

Including Oil Shale and Tar Sands in the Calculation

The user asked to *"include it all and add oil shale and tar sands."* In other words, account not just for liquid oil, but also **unconventional hydrocarbons** like kerogen in oil shales and bitumen in tar sands, which collectively represent an even larger carbon reservoir. The earlier figure of 3 trillion barrels was an estimate of ultimately recoverable *liquid oil*.

If we add **oil shale**, the numbers skyrocket: A 2016 estimate put global oil shale resources at about **6.05 trillion barrels of oil equivalent in place** [8] (i.e. the amount of synthetic oil that could be obtained if all known oil shale were mined and retorted). Oil shale is essentially sedimentary rock rich in **kerogen** – the precursor organic matter that hasn't fully transformed into oil.

In a Flood framework, oil shales could be seen as portions of the buried biomass that **did not get hot enough or remain long enough to become oil**, leaving a semi-transformed organic residue. This actually fits a rapid burial scenario: not every basin would have experienced hydrothermal heating, so some organic-rich sediments would remain as kerogen (which given more time/heat would have become crude). In essence, **oil shale is "unfinished" oil**.

It still demands a source of organic carbon (algae, plants, etc.), so including it doesn't remove the need for a large pre-Flood biomass – it *increases* the amount of biomass I assume was buried. The **tar sands** (oil sands) likewise add to the total.

These are vast deposits of **extra-heavy oil/bitumen**, such as in Alberta and Venezuela, amounting to hundreds of billions of barrels of oil equivalent [8]. Geologists interpret tar sands as originally conventional oils that lost their lighter fractions (degraded) and became viscous.

Notably, oil sands are often found near the surface and show evidence of **biodegradation by bacteria** and exposure to water over time [8].

In Flood geology, one can imagine that after the flood, as oil migrated upward, some pools near the surface were **invaded by microbes** or suffered evaporation, turning them into the tarry deposits we see now. Oil sands thus do not require *additional* biomass per se – they are a transformed subset of the oil generated. *(They do, however, indicate that oil generation must have occurred **quickly enough** that significant quantities could then undergo biodegradation in just a few thousand years of post-Flood time.)*

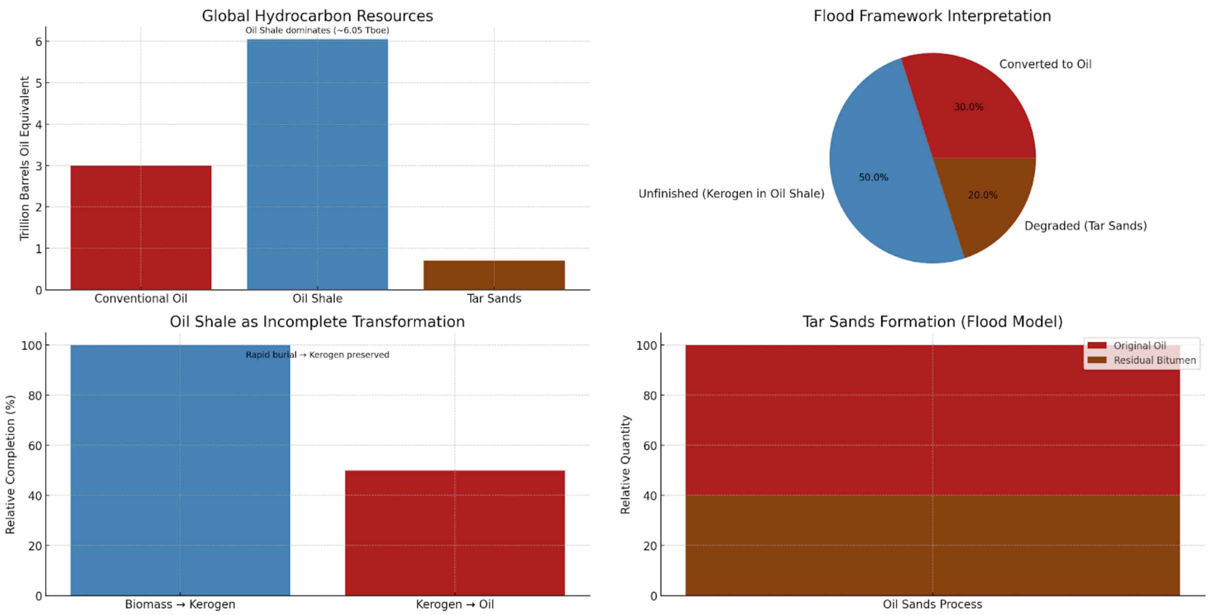


Figure 12. Conventional oil, oil shale, and tar sands in a Flood framework. Top left: Global hydrocarbon resource estimates, showing ~3 trillion barrels of conventional oil, ~6.05 trillion barrels of oil shale equivalent, and ~0.7 trillion barrels of tar sands. Oil shale represents the largest unconventional carbon reservoir. Top right: Flood framework interpretation—buried biomass followed three pathways: portions fully transformed into oil, portions left "unfinished" as kerogen-rich oil shale due to insufficient heating, and portions degraded into tar sands by microbial activity and exposure. Bottom left: Oil shale as incomplete transformation: rapid burial preserved kerogen before it matured fully into crude oil. Bottom right: Tar sands formation: originally conventional oils that lost lighter fractions and were biodegraded, leaving heavy residual bitumen. In a Flood model, these indicate oil generation was rapid enough that large volumes were available for post-Flood microbial alteration within thousands of years.

Adding the **6 trillion barrels from oil shale** to ~3 trillion in liquid oil gives on the order of **9 trillion barrels** of organic hydrocarbons to account for. If we convert that to mass (~1.3×10^15 tonnes of oil equivalent) and apply a 10,000:1 ratio, the required biomass jumps by another factor of 3 (to ~6×10^15 tonnes). This is daunting, but as discussed, creationists invoke both **much higher biomass and better conversion efficiency**.

For example, if the pre-Flood world had, say, 500–1,000× today's biomass, and if catastrophic processes converted, say, 5–10% of it into liquid and solid hydrocarbons, the yield could indeed approach the total fossil carbon (coal, oil, gas, kerogen) we observe. In fact, one creationist study concluded that 1.3×10^13 tonnes of carbon in coal (plus comparable amounts in oil and gas) "may be reconciled with a Flood… and an age of the Earth of ~6,000–10,000 years" [3], provided that pre-Flood ecology was very different from today's. Their modeling found no insurmountable contradiction in having all that carbon come from a pre-Flood biosphere, especially when incorporating unusual environments like floating forests. The remaining 98% of organic carbon that is kerogen in sediments [3] is also explainable as organic debris that was buried but not fully processed into fossil fuels during the Flood – essentially the leftover detritus of that world.

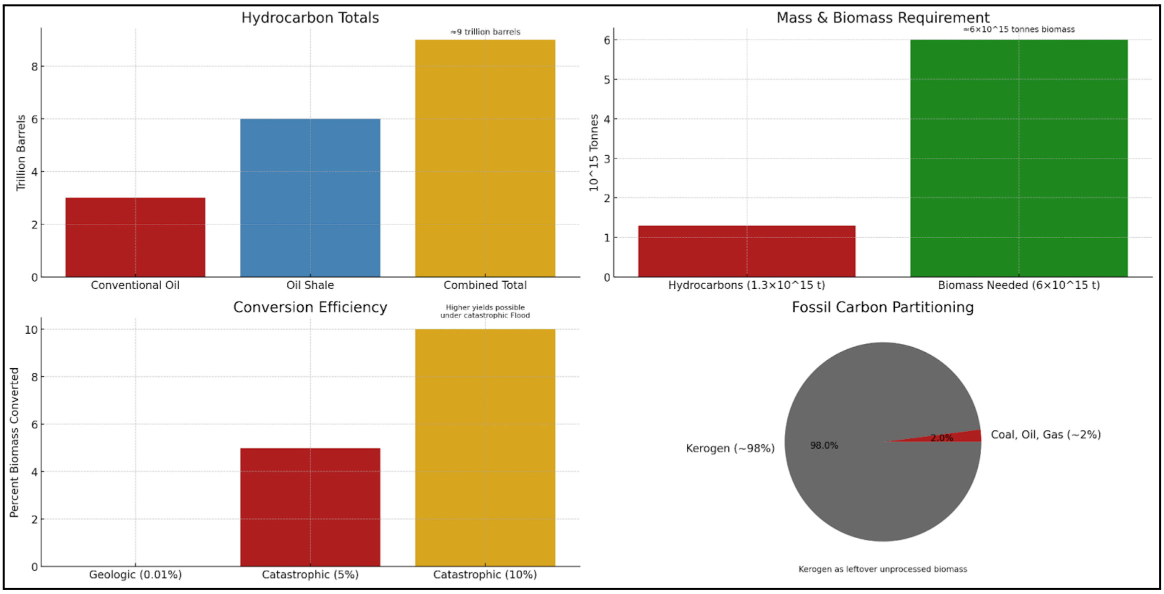


Figure 13. Top left: Hydrocarbon totals — ~3 trillion barrels conventional oil, ~6 trillion barrels oil shale, ~9 trillion barrels combined. Top right: Mass & biomass requirement — ~1.3×10^15 tonnes hydrocarbons requiring ~6×10^15 tonnes biomass at a 10,000:1 ratio. Bottom left: Conversion efficiency scenarios — geologic (~0.01%) vs catastrophic Flood (~5–10%). Bottom right: Fossil carbon partitioning — ~2% in coal/oil/gas, ~98% preserved as kerogen.

In short, including oil shales and tar sands raises the bar for required biomass, but the Flood model attempts to meet it by raising the initial conditions (more life, more productivity) and by invoking rapid, high-yield conversion mechanisms. Modern geochemical models, if taken at face value, often say "it would take X millions of years to produce Y amount of oil under present rates." Yet we have seen that those rates are not fixed – they scale with conditions. Under extraordinary heat/pressure, the rate of oil formation isn't limited by geologic time.

The Flood scenario essentially front-loads the system: a colossal amount of organic carbon is buried at once, and then a short but intense period of heating and tectonics generates and traps the petroleum. Any organic carbon not converted remains as coal or kerogen, which is exactly what we find (most fossil organic matter is in coal/kerogen, with a smaller fraction in oil/gas). This outcome is consistent with a young Earth timeline when we consider the extreme nature of a global Flood.

As a final note, **oil generation did not necessarily stop when the Flood waters receded**. Some oil may have continued to form in the decades or centuries post-Flood as deep sediments stayed warm. For example, creationists suggest some **Tertiary coal and lignite beds** were formed from residual vegetation and post-Flood regrowths, deposited by smaller catastrophes in the centuries after the Flood [3].

By analogy, oil could also have continued to migrate and pool during the immediate post-Flood period (e.g. as sediments compacted and expelled fluids). The key point is that we do not need the entire 5,000 years since the Flood for oil to form – **most of it could form within the first few years to decades**, given the right conditions, and the evidence from places like Guaymas Basin strongly supports this possibility.

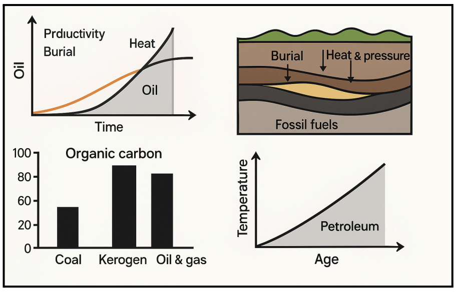
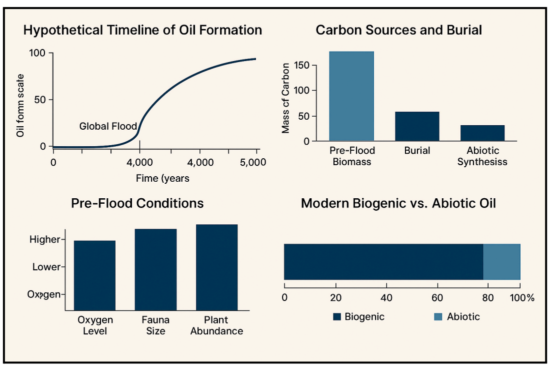


Image 8.

Conclusion

Combining all lines of evidence, it is plausible from a young-Earth creationist perspective that the **amount of oil *(and other fossil hydrocarbons)* we have today could indeed be produced by the Global Flood** 4,400 - 5,323 years ago. The hurdles identified by critics – such as the enormous biomass required – can be overcome by directly looking at the ancient world's oxygen levels, fossilized fauna size, and overall a much richer pre-Flood world and more effective burial and conversion processes. By considering **every possible source and mechanism** – from the staggering biomass of a paradisiacal pre-Flood Earth, to rapid burial and heating during the Flood, to even minor contributions from abiotic synthesis – the “balance sheet” of carbon can be made to match the observed quantities. Modern geochemical understanding doesn’t *forbid* rapid oil formation; on the contrary, experiments and natural analogues show it can happen **orders of magnitude faster** than traditionally thought, especially under catastrophic conditions like the flood would have provided. The **limiting factor** in nature is usually slow sedimentation and mild heat, but a global Flood provides fast sedimentation and abundant heat. Thus, all the **pieces of the puzzle** – source organic matter, transformation to oil, and accumulation in reservoirs – could be accelerated and amplified within a short timeframe.



In the Flood model: extensive forests, swamps, and ocean life were buried in sediment **over the course of a year**, creating vast **carbon-rich deposits**. Intense geothermal and tectonic activity during and after the Flood then “pressure-cooked” portions of these deposits into oil and gas in perhaps **years or centuries**, not millions of years. Much organic carbon remained only partially transformed (becoming coal and kerogen), but enough was converted to fill the world’s oil fields. Some oil later thickened into tar sands or stayed as oil shale, but those are simply variations on the same theme – fossil organic matter from the Flood.

In the end, when we **“run the numbers”**, the scenario requires a pre-Flood biosphere on the order of **10^3 times more massive** than today’s and an average conversion efficiency on the order of **0.1–1%** *(which is within reason if rapid burial and hydrothermal processing occurred).* These are **large but not inconceivable** allowances in a creationist framework. As one creationist geologist concluded after crunching the data: *“the existence of approximately 1.3×10^13 tonnes of carbon in the form of coal [and by extension comparable amounts in oil] may be reconciled with the Flood… and an age of the Earth of…6,000 to 8,000 years”*. The **global Flood**, therefore, is presented as not only a viable cause for Earth’s immense oil deposits, but in fact a compelling explanation for the **rapid formation** and **chemical signatures** of petroleum we observe. All things considered, when accounting for generous pre-Flood biomass as even critics would agree existed and invoking known high-speed oil-forming processes, the **quantity of oil, coal, and gas on Earth is consistent with (and arguably expected from) a cataclysmic Flood** that buried an ancient world full of life.

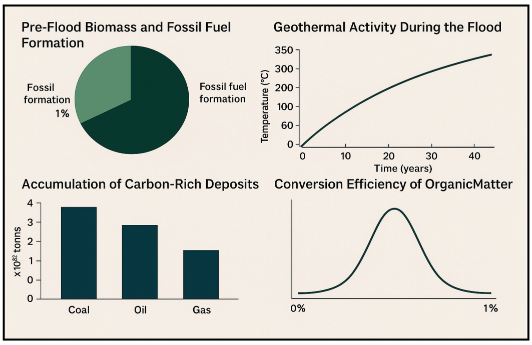


Image 17.

For a more detailed discussion of the mechanisms and processes associated with Noah’s Flood, as well as a broader examination of issues related to Young Earth Creationism (YEC), readers are encouraged to consult my previously published works on the subject [9,10,1,12,13,14,15,16,17,18]. These papers provide in-depth analysis and supporting arguments addressing key questions within the YEC framework. The *Truth in Research* journal, published by *Standing for Truth*, is dedicated to serving as a comprehensive resource for those seeking rigorous engagement with YEC scholarship. Our aim is to provide a central platform where researchers, students, and interested readers can access well-documented studies that address the most significant questions surrounding biblical creation, the Flood, and related scientific and theological issues, thereby functioning as a reliable reference point for ongoing discussions in this field.

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