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Evolution of Gas, Oil and Coal (1975-1983)

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ABSTRACT

The theory that fuels (gas, oil and coal) were made from fossils has gone unchallenged for almost 150 years. This fossil fuels theory (FFT) was formulated in the 1830's on the basis of three observations common to 100 coal mines. During the 1920's, the theory was enhanced by the concept of petroleum being created from marine organisms. Over the years, a significant amount of subtle, yet substantial evidence that argues against the validity of the FFT has accumulated in the literature. These arguments have been condensed into six critical points that simultaneously render strong support to the new theory of fuels formation by natural laws of physics and chemistry. The new energy fuels theory (EFT) explains the formation of fuels (and all known matter) by the logical progression of the transformation of energy particles into atoms, into gaseous molecules, then into liquid and solids via molecular chain-building processes. The intimate relationships of gas, oil and coal, are illustrated by five facts that render additional strong support to the EFT. The immense ramifications of the new concept that appears destined to replace the FFT are briefly discussed.

1. INTRODUCTION

The theory that fuels were made from fossils is a concept that is proving to be one of the most tragic myths of our time. The tap root of the energy crisis of the 1970's can be traced back some 150 years, when William E. Logan first formulated this Fossil Fuels Theory (FFT). Now this notion is being seriously challenged by the valid scientific concept of creating fuels by natural laws of physics and chemistry.

The trauma of the energy crisis of the 1970's lingers into the 1980's. We remember the years 1973-1976 when the price of oil tripled. We remember the shortages of fuels that resulted in long lines at gasoline pumps. Then, in May of 1977, President Carter expressed his alarm to a national TV audience, declaring the moral equivalent of war on the energy situation. By 1979, oil prices had nearly tripled again, with devastating effects on the economy.

Car manufacturers, air and freight lines, utility companies, and their customers all struggled against the tide of rising prices, subsequent inflation and soaring interest rates. There were predictions that gasoline prices would climb as high as \$5.00 per gallon. OPEC seemed in complete control. It was a time when a genuine, though irrational, fear existed: that we would run out of fuel supplies within a few short years.

The situation now is reversed. We have a glutted fuels market. The prices of petroleum products are dropping. Inflation has been stopped, and interest rates have dropped to almost reasonable levels. Survivors in industry are now in stronger positions. OPEC, if not dead, is certainly struggling to stay alive. The pervasive, traumatic fear of running out of fuels has subsided.

So, during the past ten years we have gone through a devastated inflationary economy based on the fear of running out of fuels. Now we find ourselves in a stabilizing period, secure in the realization that our fuel supplies are far more plentiful than we were led to believe. Why were there such drastic changes within this ten-year period?

2. THE FOSSIL FUELS THEORY (FFT)

To answer some questions, let's start at the beginning and explore the most important aspect of the energy crisis: fuels. During the 1830's, William E. Logan, a graduate of Edinburgh University, managed his uncle's coal and smelting interests in Wales. Logan's great interest in the origin of coal led him to study some 100 coal beds and seams. In every case, he made note of three observations:

- * A bed of bleached clay lay under each coal bed.
- * Within the clay beds were tangled masses of long, slender fibrous root systems with a thin coating of carbonaceous matter.
- * Well-preserved imprints of ferns and other plants were scattered throughout the coal.

Logan surmised that plants, specifically the *Stigmaria fiocoides*, had turned into coal. He concluded that "in *Stigmaria fiocoides* we have the plant to which the earth is mainly indebted for those vast stores of fossil fuels."

Stigmaria structures, some microscopic, some huge (whole branches and trunks), were found in the coal. There no longer seemed any doubt to Logan and his group of scientific observers that coal was produced from ancient swamps. "My facts I now consider established beyond controversy," Logan wrote. He reasoned, logically for his time and evidence, that the plants had died and decayed, were compacted, heated, then converted into coal. His concept became known as the Fossil Fuels

Theory (FFT) for the origin of coal.

In the 1920's, a biochemist named Haldane added to this concept by theorizing that petroleum was created from tiny marine organisms. It was then logical to conclude that natural gas was a product of decomposition of plants and animals. Thus, the FFT became well entrenched in scientific literature, seemingly secure in its supportive logic and apparent evidence. It went unchallenged for nearly 140 years after Logan's initial presentation to the scientific community.

The FFT is basically responsible for the belief that our fuel supplies are very limited. It can even be described as the basic foundation of the energy crisis. But it is a myth.

Over the years, a significant amount of subtle evidence that argues against the validity of the FFT has accumulated. Through intensive library searches, this evidence has been gleaned and condensed into six critical points:

- * The tremendous volumes and extreme depths of fuels (especially gas) contradict, rather than enhance, the FFT.
- * The patterns of distribution, sizes and thicknesses of coal beds do not fit the FFT.
- * No multi-layers of root systems are found in coal beds; roots are found only in the under-bed clay.
- * Plants yield vegetable oils; coal and petroleum are mineral-oil based.
- * Peat, credited as a transition stage of some plant-to-coal processes, actually turns into black dirt that retains no imprints of *Stigmaria fiocoides*.
- * The structural integrity of plant imprints can be preserved only through encapsulation of live plants (before decay sets in).

This last point represents the strongest argument. However, a close study of each point reveals substantial evidence against the FFT while simultaneously rendering strong support for a new concept of the origin of fuels aptly named the Energy Fuels Theory (EFT).

Today we know that a fossil trapped in rock material was still in its original life form when encased. The fossil did not create the rock; the rock material encased the fossil, solidified around it, and preserved the imprint for future observers.

The Fossil Fuels Theory is based on the supposition that plants died and became a mass of compacted, decayed vegetable matter during the initial stages of coal formation. If this were true, the original structural integrity of the plants could not have been retained. Yet, perfect fern fossil imprints are found throughout coal beds and veins. Such imprints can retain the integrity of the live plants' original structural details only through the process of encapsulation before any decay

sets in. After decay begins, the structural details deteriorate rapidly. Therefore, the ideal situation for preserving perfect imprints of plants is to encapsulate the original life forms of plants in a preservative compound that later solidifies.

Just as the fossil did not create the rock, fossils did not create the coal. More logically, a liquid "coal" encased the fossils while they were alive and growing, thereby preserving their shapes for modern mankind to unearth and study. And not only fern imprints, but imprints of limbs, tree trunks, and even animal creatures have been found preserved by the then liquid "coal" that encased them while they were alive.

3. THE ENERGY FUELS THEORY (EFT)

With this background, let us take another look at how these "fossil" fuels were created through the eyes of the more logical EFT, a concept that predicts almost unlimited fuels within Planet Earth.

Two natural phenomena should be kept in mind while formulating a logical theory: (1) like water flowing downhill, energy always flows in the hot-to-cold direction, and (2) nature always starts with the simplest atoms and molecules as building blocks to construct more complicated molecules of matter. These are basic facts of evolution in any realm of nature.

Recent literature offers proof of vast new fuel supplies in the earth's crust. Scientific American (June, 1980) published an article entitled The Deep-Earth-Gas Hypothesis, by Thomas Gold and Steve Soter, which presented much evidence indicating that earthquakes and volcanoes release gases from deep in the earth's mantle, and such gases may include methane of a non-biological origin. Reader's Digest (April, 1981) published the article Bonanza 1 America Strikes Gas, which tells of geologists hitting field after field of natural gas deep within the nation's bedrock.

Also, the literature, when properly interpreted, can teach us that gas, oil and coal are strongly related substances; they are actually different forms of the same fuel; i.e., they are three different stages of energy fuels. We know that coal can be converted into its original oils and gases; these gases can be reduced to their original molecules and atoms which, in turn, can be split to release their nuclear energies. Man thereby reverses Nature's processes of creation of fuels.

In actuality, nature starts with the nuclear energy particles and transforms them into atoms which combine into molecules that form all matter of our planet, even of the universe. For

example, two hydrogen atoms combine with one oxygen atom to create a molecule of water. In this manner, all the oceans of earth were created over eons of time.

In the case of fuels, one carbon atom combines with four hydrogen atoms to form one molecule of methane (natural gas). Countless numbers of such molecules were created in this manner. These molecules combined with each other by a process known as molecular chain-building, (MCB), thereby forming heavier gases and oils and, finally, coal. By this MCB process, nature builds all its molecules, which in their more sophisticated forms can consist of thousands of atoms in a single molecule.

Again, from the literature, we can glean five known facts that show the close relationships of these fuelsC gas, oil and coal:

- * All wet gases contain lightweight oils (condensate), illustrating the first transitional stage via MCB from gas to oil.
- * All petroleum oils contain gases in varying amounts proportional to the degree of MCB.
- * All crude oils contain tiny particles of coal, illustrating the second transitional stage via MCB from oil to coal.
- * Gummy coals (hogshead and cannel) can be classified as either petroleum or coal. They illustrate advanced second transitional stages via MCB.
- * Every lump of coal contains oils and gases, showing the various stages of MCB and cross-linking of these fuels and their close relationships.

A close study of the evidence leaves little doubt that gas, oil and coal represent the first, second and third stages of fuels formation.

With this additional background, let's take another look at Logan's three observations, and continue developing the new theory of energy fuels formation, (EFT).

3.1. Creating Coal from Oil

When Logan saw the bleached clay under every bed of coal, he might have questioned why it was bleached. Bleaching is usually accomplished by a combination of high heat and certain chemical combinations. Imagine what might occur if oil gushed from the ground under thousands of pounds of pressure and at very high temperatures. Such a familiar gusher happened recently (1979) in the Gulf of Mexico when an oil well flowed threateningly for nine months before it was forcibly closed off.

Such hot oil erupting on land hundreds of millions of years ago filled all the low spots (such as swamps) within its reach. It inundated all low-lying areas where *Stigmara* was the dominant plant. It bleached the earth, seeping into crevices and penetrating down the root system of *Stigmara*, thus

preserving the "tangled mass of long, slender fibrous casts with a thin coating of carbonaceous matter" in its original form. That carbonaceous matter was oil. The bleached clay beds were a by-product of the severe conditions.

Ferns, branches, and even tree trunks were scattered, suspended throughout the sea of viscous oil. They were thus preserved in situ, later to leave their imprints within the mass as the oil thickened, solidified, cross-linked, and polymerized into solids. Time, temperature and increasing pressures inevitably changed the exposed oil channels and deep ponds into coal veins and coal beds, some as much as hundreds of feet thick.

Much of the original oil was forced, by the tremendous pressures, into crevices between rocks, into sand formations, and into shale rocks and other porous strata. Not all of it converted into coal; much of it remains today as oil at many different depths throughout the earth's crust, even as shale oil and tar sands.

Thus, our world's coals were created when extremely hot gases and oils from the interior of the Earth poured out over the lands, burying the plants and bleaching the land before solidifying into beds of solid rock coal.

3.2. The Order of the Energy Fuels

Coal is found on or near the surface of the earth, while petroleum is found at lower (medium) depths. Drilling deeper results in higher ratios of natural gas to petroleum. These layers of gas-to-liquid-to-solid fuels are arranged in ascending order from the earth's interior to its surface by natural laws of physics and chemistry.

Earth's core is still extremely hot, dense energy particles where no elements can exist. Where the core meets the surrounding magma, the elements emerge as atoms. Countless hydrogen and carbon atoms combine to form methane gas. (All earth's crust was similarly created; as previously stated, countless other atoms of hydrogen and oxygen combined to create water, for example).

The methane gases are forced up through the paths of least resistance until trapped beneath impenetrable barriers. Here, the slow process of molecular chain-building forms heavier gases and oils. These oil molecules gradually cross-link to form heavier oils and branch-chain solids. Tiny particles of such coals are always found in crude oils. Under proper conditions, the ratio of coal-to-oil increases until very soft, gummy coals (cannel and bogshead) are formed. In time, such coals may

be compacted into drier types, progressing through the lignite and bituminous stages into anthracite coal.

Of course, these fuels are generally found in various combinations of their transitional stages. For example, coal, as mentioned earlier, always contains oil and gas, which can be easily converted back into their original free states. Oil and gas are constant companions in oil wells; the original gas has been only partially converted (by molecular chain-building) into petroleum oils. The degrees of conversion are the results of pressures, temperatures, contaminants, and time, to which the gas and oil molecules are subjected during their transformation within the earth by natural molecular chain-building processes. Thus, coal becomes the product of a natural chain that begins with energy particles and moves through gaseous, liquid and solid states.

Examples of all stages of these transformation processes are known to humankind. Scientists know that many types of gases and oils exist in a variety of thicknesses and viscosities; coal may be found in an equal number of stages. Coals exist in states ranging from very soft to very hard, from soggy to almost dry. There are certain bituminous coals (bogshead and cannel coals) which are difficult to classify as coal rather than petroleum, and vice versa. Such a close chemical relationship can only be explained by a closely related origin.

3.3. Evolution of Oil from Gas

Petroleum crude oil usually contains numerous miscellaneous substances, both organic and inorganic. Microscopic studies reveal fragments of petrified wood, spores, algae, insect scales, tiny shells and fragments. These substances are contaminants that were trapped in the oil; they did not create the oil.

Nature creates petroleum by the process of molecular chain-building, i.e., the methane (gas) molecules are used as chain links that are joined together by natural processes into larger molecules man calls oils. These changes occur within Earth's crust where the methane is trapped for a long time under impervious rocks. The high heat and tremendous pressures initiate and sustain the molecular chain-building processes that change methane into petroleum oils. For example, when five methane molecules combine, the first and lightest weight oil product, pentane, is formed.

Crude oils usually contain tiny particles of lignite and coal, many metals, and salts. The

presence of lignite and coal points to the logical conclusion that the oil has begun its transition into coal. The many metals and salts remain in the coal during and after its transition from crude oil. Science reverses the process when it changes the coal back into oil, gas and chemicals, atoms, and finally, atomic energy.

3.4. The Energy Fuels Theory

Time, temperature, and pressure work their transformations on energy particles, making them atoms, then molecules, then gases and oils. Each fuel product is a result of these molecular chain building processes. Huge quantities of the oils were forcibly spilled out over the low lands, bleaching the landscape they buried, encasing the plants they covered, (be they land or swamp plants), and finally solidifying into coals. True energy fuels that were mistakenly called "fossil" fuels.

Today, scientific evidence, logic and time weigh heavily in favor of the new Energy Fuels Theory (EFT). It is an idea whose time has come, a concept that is destined to shake the foundation of scientific thought concerning creation of matter. When proven more conclusively, it will cast new perspectives on the gas, oil and coal industries, greatly altering the world's economic outlook for many generations to come.

Scientists are gradually providing substantial support to the concept that nature starts with the simplest of elements as building blocks to construct ever larger molecules. A number of trials in laboratory experiments that simulate earth's primitive atmosphere (methane, nitrogen, and water vapor) have yielded all five of the bases that make up the more sophisticated building blocks of the genetic code.

Four of these bases - cytosine, guanine, thymine, and adenine - form DNA, the double-helix that spells out the instructions for all living things. The fifth critical base, uracil, substitutes for thymine to make RNA, which acts as a master slave to carry out the DNA's orders.

The key point here is that these life chemicals are formed easily by duplicating nature's primitive conditions, so that the process of chemical evolution was a relatively simple one. In turn, this lends strong credibility to the EFT that all matter is built with basic building blocks of atomic elements under conditions of time, temperature and pressure specific to the matter in question.

As the case for chemical evolution grows stronger, scientists are realizing that all matter

(inanimate and animate) evolves in a stepwise fashion from energy particles to atoms to molecules of inorganic matter to organic matter to biological systems.

The next most significant question concerns the locale of nature's manufacturing plant for all the elements. Current theory teaches that all the elements of Earth were created in distant stars; the EFT teaches that each planet creates elements from its interior source of energy particles, and then uses these as building blocks for all its matter.

4. FUEL FOR ALL

In the future, the question may not concern where to drill for oil so much as how deeply to drill. Many companies, including General Motors, American Standard, and Coors, have already successfully drilled their own private supplies of these fuels, further substantiating this energy fuels concept as first examined in a pamphlet entitled Fuels: A New Theory (1975). Colleges and municipalities are also warming to the idea. In the future almost every large city will have its own gas well. This trend is destined to continue until anyone who can afford to drill deeply enough for fuels (gas primarily) will do so with an excellent chance of success.

Many exciting reports are coming from the pages of leading publications. Time Magazine (December 22, 1980), in its article Backyard Fuel, opened many eyes and gave even more validity to the truth about abundant fuels in earth's crust. It tells of nearly 200 companies that have entered the do-it-yourself scramble for fuels beneath their own yards, and it describes how even the nuns of Mount Saint Benedict's Priory in Erie, Pennsylvania, successfully drilled for gas on their one hundred acres. The drilling took four days and cost \$105,000.

An article in Wall Street Journal gave another interesting account of a successful drilling, this time on the campus of Wells College in Aurora, New York, a 500-student liberal arts school for women. Natural gas was found at a depth of 2,600 feet and at a pressure of about 600 pounds in the well.

In September, 1981, government scientists began analyzing metal-bearing chunks spewed out of an undersea volcano 270 miles west of Oregon. H.E. Clifton, chief of U.S. Geological Survey's Pacific Branch of Marine Geology, reported that "new earth crust is actually being made" by the volcano.

The evidence of huge quantities of natural gases, fuels, metals, water and other matter begins to mount overwhelmingly in favor of the new theory that these fuels (and other matter) were created

within Planet Earth. As the facts accumulate in the literature, the sound logic of this new theory of evolution of gas, oil and coal emerges more and more clearly. The fossil fuels theory as formulated by Dr. Logan in the 1830's is being revealed as a fallacy. It may well prove to be among the greatest fairy-tale conclusions of all time that altered the course of both economics and science, and contributed to a world trauma over energy supply shortages.

But as the new energy fuels theory becomes better recognized by scientists and the general public, trauma will subside. Energy prices will stabilize, and perhaps even retreat to lower levels. It would not be unreasonable to expect future gasoline prices of less than \$1.00 per gallon if reasonable political controls are exercised and taxing does not become excessive.

Most scientists recognize that matter was, and is indeed, transformed from energy particles. But it will be some time before they agree that earth created its own atmosphere and crust with atoms made within its own interior nuclear furnace, much in the manner that Jupiter is revealing to scientists today. And in forming that crust, Earth created (and probably still is creating) its own energy fuels beginning with hydrogen and methane, then higher gases that formed oils, some of which inundated low lands, then cross-linked and solidified into coals. Since these events occurred worldwide, it is reasonable to expect that such fuels can be found almost anywhere in the world if one drills deep enough.

The possibilities of finding future energy fuels may be almost unlimited. Indeed, man probably will become extinct before energy fuels are exhausted.

5. NEW VISTAS OPENED IN INFINITE RESOURCES AND RAMIFICATIONS

In view of the new concept of creation of coal and its predecessors, oil and gas, whole new energy avenues have been opened to mankind. The probability that such energy fuels might not have the limitations of "finite fossil fuels" has worldwide ramifications. When proven more conclusively, the EFT will cast new perspectives on the fuel industries while greatly altering the world's economic and political outlooks for many centuries to come.

Our supply of energy fuels is nearly endless. This notion is a certain deathblow to OPEC, and attendant high fuel prices. In the near future, private gas wells will be drilled by corporations, universities and municipalities across the country. In the long term, the most popular sources of energy should be natural gas and nuclear fusion. (Coal and oil, both less plentiful and more slowly

renewable than gas, should not be burned, but utilized for more sophisticated ends: the manufacture of chemicals, or the insurance of transportation.) Certainly the fear of running out of fuel would be forgotten. The notion of "fossil" fuels is itself a fossil of antiquated thinking, the relic of an outdated concept.