

GEOLOGY

Seek Origin of Oil

Shallow seas in northern Gulf of Mexico will be probed this summer for light on how oil pools formed millions of years ago.

► TO UNDERSTAND better the mysterious processes by which some hundreds of millions of years ago the world's oil reserves were formed, the University of California's Scripps Institution of Oceanography will send a group of scientists out to probe the shallow-water areas of the northern Gulf of Mexico this summer. Such processes presumably are also occurring today.

Under the leadership of Dr. Francis P. Shepard, professor of submarine geology, and Dr. Fred B. Phleger, associate professor of submarine geology, the scientists will be engaged in the first field work in what is expected to be a continuing, long-term project in marine sedimentology.

The work is being sponsored by the oil industry through the American Petroleum Institute. The industry's interest is an immediate one. It hopes to use the present as a key to unlock the past. Information as to how potential stratigraphic traps are being formed at the moment may be useful to the industry in locating such oil traps formed far back in time.

This will be the first large-scale investigation of the environment in areas where oil may be forming. Previous studies have largely had to be restricted to single aspects of the process.

Oil itself, scientists agree, is one end-

product of the alteration of myriads of marine plants and animals deposited with the sediments on the sea floor. Consequently, the project includes plans for studying not only the sediments which eventually form the rocks in which oil is found, but also the ocean water and the plants and animals that live in it. Since marine environments vary greatly, several types will be studied. These include lagoons, swamps, mud flats, barrier islands, barrier beaches, and open sea. Shelf areas of the ocean covered with sand, mud, and lime deposits will be investigated. Most of the work will be done on the shore side of the 10-fathom curve. Small boats will be chartered to make seasonal oceanographic surveys of the selected regions.

Field work will begin July 1 in contrasting environments, including the vicinity of San Antonio Bay, near Corpus Christi, Tex., and the area near the end of the Mississippi delta.

Laboratory work will be done chiefly at the Scripps Institution, both at the La Jolla campus and at the Scripps Field Activities on Point Loma.

The University of California will have the cooperation of numerous other institutions and individual scientists in the project.

Science News Letter, June 16, 1951



TINY RADIO—This baby radio transmitter sends rocket telemeter pick-ups over 20 to 100-mile range, depending upon its distance from ground.

RADIO

Tiny Radio Transmitter Sends Over 100-Mile Range

► Surer information concerning weather and other matters, picked up by telemeter instruments in speeding pilotless rockets high in the sky, will be received by ground-based stations as a result of a new tiny radio transmitter developed by the Applied Physics Laboratory of Johns Hopkins University at Silver Spring, Md.

The transmitter is about the size of a cigarette package and has a range of 20 to 100 miles depending upon its distance from the ground. The range is 20 miles at sea level, and 100 miles at elevations of 10,000 feet or more. It operates in the 200 megacycle band, has a power output of two watts, and has low distortion and high stability.

One advantage of this new tiny transmitter is the small space it will use in a rocket's nose, replacing larger types and making more space available for the instruments that pick up the information desired. Complicated electronic telemetering pick-ups in the rocket-powered aircraft gather many types of information ranging from weather conditions to flight characteristics of the craft itself. They are also used in cosmic-ray studies.

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The petrified logs of Arizona are composed largely of silica which penetrated the cells of fallen forest trees that remained buried under thousands of feet of earth for many ages.

DENTISTRY

Tooth Snatching Vetoed

► TOOTH SNATCHING, like tonsil snatching, has lost caste with scientific men in both dentistry and medicine.

If you have a tooth pulled now, it will be because the tooth is bad, not because pulling a tooth will cure your rheumatic aches and pains, your bad complexion or allergic skin rash, your sick kidneys or your ailing heart. And sick or well, if you need to be well nourished, you need your teeth.

This, in effect, is the American Dental Association's hail and farewell to the 40-year-old theory of "focal infection." According to this theory, many bodily diseases, particularly arthritis, were supposed to be due to a focus of infection in the teeth.

Countless thousands of teeth were, as a result, pulled unnecessarily. The patients often continued to suffer from the diseases for which the teeth were pulled.

In a special issue devoted entirely to a report on this subject, the AMERICAN

DENTAL ASSOCIATION JOURNAL (June) declares that there is little or no scientific evidence to support the theory that infected teeth are in themselves a major cause of arthritis, heart ailments, kidney diseases, eye disorders or skin diseases.

The importance of speedy removal of infections in the mouth by treatment or extraction of infected teeth is stressed. But extracting teeth in the hope of curing a disease of the rest of the body is called "merely clutching at a straw."

Before pulling teeth to treat a condition which has not yielded to other treatment, the association points out, "it should be recalled that if the nutrition is important to health and well-being, the preservation of teeth is important, too."

The report was prepared at the University of Michigan by 13 of its dental, medical and public health faculty members headed by Dr. Kenneth A. Easlick.

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