

DINNER MEETING-APRIL 13, 1986

JOEL W. HENNESSY and L. P. KNAUTH

Biographical Sketch

Joel W. Hennessy, a Geologist with Exxon in Oklahoma City, received his MS from Arizona State University after years of pleading, plodding, and plotting. Joe's thesis on Icy Tope Geology was completed under the close scrutiny of Paul Knauth, ASU geology professor and department head. High on Paul's list of accomplishments was getting Joel thru school and into the work force.

DOLOMITE CONCRETIONS OF THE MONTEREY: EXTRATERRESTRIAL ORIGIN?

Isotopic analysis of dolomite concretions from the Miocene Monterey Formation of California yields pure 0-16 dolomite, suggesting that these concretions were created during the last great supernova explosion millions and millions of light years from earth. During the Miocene, these cosmic intergalactic travellers reached the earth, raining down terrible meteor showers off the coast of California, killing billions upon billions of innocent foraminifera residing in the warm, -1 ‰ (SMOW) ocean water. The dolomite meteors plunged into the soft sediment of what is now the Monterey formation of California, bending the sediment around the concretions into the familiar "pinch and swell" structure. Many other concretions the world over contain pure 0-16 dolomite, suggesting that a cosmic origin for all carbonate concretions is a distinct possibility. It is obvious that the concretions say nothing of the early diagenesis of terrestrial sediments, but rather are records of processes that the human mind cannot possibly understand.