UNION OIL ALUMNI MEETING -SOUTHERN CALIFORNIA

Wednesday, September 19th, 2018 (No host bar opens at 11:15 am)

STEVENS STEAK and SEAFOOD HOUSE 5332 E. Stevens Place, City of Commerce, Ca (323) 723-9856

Speaker: Mike Utt – Unocal Alumnus and former Manager, Deepwater Technology. In 1974 he began at Union Oil's Research Center, in the Reservoir, Ocean & Arctic group. He worked at Brea from 1974 through 1995, when he moved to Sugar Land, Texas with the Production Technology group. He retired from Unocal in 2004, but continues to do consulting work, some of it for Chevron.

Mike's presentation will be on Alternative Energy. An outline of his talk can be seen on the following page (2) of this document.

SIT DOWN LUNCHEON - \$25.00 (Includes tax and tip)

Robert E. Wright – 310 738-7665

SEND YOUR RESERVATION IN EARLY

MAIL CHECK (PAYABLE T	JUNION OI	L ALUMNI CLU	B) AND FORM
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BELOW TO: Jim Abbott - Treasurer 8530 San Adriano Way Buena Park, CA 90620 (714) 828-8425

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UNION OIL ALUMNI MEETING, September 19th, 2018 Luncheon reservations are \$25.00 each. Please enter the number of reservations you are making and the amount of the check you are enclosing. The reservation fee is refundable upon request by calling Jim Abbott at the above number on or before September 17th, 2018.

# of meals	\$	NAME	/ Guest
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Check here if you prefer Fish _____ (Please print)

_Add : \$15 For the 2019 annual Membership Renewal

Alternative Energy Sources Mike Utt

Until about 150 years ago, the main source of energy was muscles, either of humans or draft animals. This presentation will track the progress of energy sources from wood, to coal, to petroleum and natural gas.

We will review the sources of energy that provide power to our electrical grid, including the newer renewable options. But, transportation needs special sources of energy, which provide more energy density – more horsepower-hours per pound. Mike will review our current options for transportation fuels.

What is in our energy future? What sources will power the electrical grid, and which ones will supply the energy for transportation? Mike will offer his informed opinions, and then provide some cautionary notes on how much faith you should put in his predictions (or anyone's.)