



a Robert D. Grace Company

GRACE, SHURSEN, MOORE & ASSOCIATES, INC.

A Professional Team of Registered Consulting Petroleum Engineers

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RESUME

KEITH A. SELINGER

PERSONAL:

Date of Birth:	October 3, 1939
Marital Status:	Married, Three children
Health:	Excellent

EDUCATION:

1964 - 1965	University of Wyoming, Bachelor of Science - Petroleum Engineering
1962 - 1964	University of Arizona, Master of Science - Geology
1957 - 1962	University of Tulsa, Bachelor of Science - Geology

EXPERIENCE:

1986 - PRESENT

GRACE, SHURSEN, MOORE & ASSOCIATES, INC. – Vice-President, Consulting Reservoir Engineer, and Environmental Specialist. Responsible for oil and gas property evaluation, reserves determinations, expert witness in civil lawsuits and before state oil and gas commissions. Other work assignments include the evaluation of field operations and remedial work in addition to evaluating pressure buildup, drawdown, core analysis and drillstem tests. Recommend completion methods, workover procedures, fracture and acidizing treatments, compression requirements, deliverability and gas availability studies, and evaluate resistivity, neutron-density, microlog, imaging, photoelectric, and sonic well logs. Prepared engineering reports with recommendations to KomiQuest joint venture group concerning the South and West Vozey water injection projects in Usinsk, Russia. Reviewed field data and prepared engineering reports with suggestions and recommendations to improve the performance of the Bombay High Field, Bombay, India. This field supplies approximately 64% of India's hydrocarbon production. Instructor for GSM course entitled "Reservoir Engineering Principles for Horizontal Wells". Involved with permitting, drilling, completing, and testing non-hazardous disposal wells and H₂S injection wells. Prepared pressure front calculations for injection and disposal wells in Oklahoma and Texas. Make recommendations relative to environmental liability and risk assessment involving hazardous waste contamination. Design and implement remediation for environmental cleanup operations.

1980 - 1986

PIONEER PRODUCTION CORPORATION - Responsible for compiling, studying, analyzing and interpreting data to make recommendations concerning workovers, remedial work and production practices. Conducted engineering and geological studies of wells and reservoirs and made recommendations relative to drilling prospects, workovers, methods of producing, shutdowns and plugging and abandoning and/or converting wells. Directed logging and coring operations on new wells, analyzed logs, drillstem tests and core data; prepared graphs, geological maps, analyzed producing rate versus time plots, pressure decline plots, and performed material balance studies and gas availability/deliverability study's to forecast oil, gas, and water production on properties owned by Pioneer Production in the Continental United States, the Gulf of Mexico, and in the North Sea. Prepared evidence and exhibits and testified before state oil and gas regulatory agencies. Conducted detailed geological, reservoir and economic studies for both onshore and offshore properties. Evaluated offshore blocks and recommended bids for offshore lease sales. Evaluated properties from an economic standpoint and made recommendations as to drill, participate, go non-consent, or farmout companies' interest. Also wrote and presented the In-House Reservoir Engineering and Economic School (October, 1984) for Pioneer Production Corporation.

1970 - 1980

MIDCON CORPORATION - Supervised six reservoir engineers, six reservoir technicians, one production clerk and two secretaries. Approved field evaluations originated by staff reservoir engineers, worked with FERC on offshore filings and directly involved with take-or-pay negotiations with producing companies. Supplied reserve and availability estimates for contractual proceedings such as reserve redeterminations and negotiated daily contract quantities. Personally, prepared annual reserve and deliverability studies for thirty-five onshore/offshore properties and Gulf of Mexico offshore state and federal blocks. Responsible for form 15 filings with the FERC (formerly the FPC) for all of the Gulf Coast onshore/offshore fields supplying gas to the natural gas pipeline system. Evaluate well logs, drillstem test, pressure buildup, drawdown tests, pressure and production data, producing rate versus time plots, water-oil ratio curves, pressure decline plots, and performed material balance studies to determine oil and gas reserves in primary, secondary, and tertiary recovery projects. Developed in-house computer programs to evaluate gas flow tests and compression needs.

1969 - 1970

C.A.G.C. (CONOCO) - Prepared field studies, evaluate reserves, and make availability gas projections in both developed and developing C.A.G.C. owned offshore blocks in the Louisiana Gulf of Mexico area. Recommended logging programs and completion zones for wells. Evaluated reservoirs using pressure drawdown, build up and drillstem test data along with both open hole and cased hole logs. Picked target zones for directional wells and followed progress on a day-to-day basis. Evaluated normal and abnormal pressure environments from well logs and drilling characteristics, prepared pore pressure plots, worked with Conoco in-house personnel to develop overpressure prediction techniques, make deliverability projections for new gas wells and new gas fields. Prepared geological maps (i.e., structure, isopach, isobaric, and production maps), prepared drilling rate vs. time plots and directional well plots from single and multi-shot directional surveys.

1965 - 1969

PHILLIPS PETROLEUM COMPANY - From analysis of reservoir structure, production data, well test, bottomhole pressures and water/oil ratios, determined extent of field, nature of producing zone, type of drive, probable oil and gas reserves, recoveries to be expected by various producing methods, number and spacing of wells, approximate date artificial lift would be required, operations procedures to improve production on individual wells and reconditions of wells. Supervise well logging operations and evaluate resistivity, microlog, sonic, SNP – density, and radioactive logs in shallow (2500') to deep (19,000') wells in the Western Oklahoma, Texas-Oklahoma Panhandle, Kansas, South Texas, Louisiana, Arkansas, Mississippi, Alabama and Texas-Louisiana offshore Gulf Coast areas. Interpret pressure build up, drawdown and drillstem tests on gas and oil wells. Oversee and monitor the Herring Water Injection Project and the West Pampa Waterflood Unit. Designed and supervised fracture and acid treatments on Panhandle Brown Dolomite and Hugoton Dolomite wells. Pick water injection and disposal zones from well logs. Prepared exhibits and testified as an expert witness before state oil and gas regulatory agencies. Presented, as an instructor, the reservoir engineering portion of the April 26-29, 1968 in-house Petroleum Engineering training program. Presented, as an instructor, the gas well testing portion for the 1969 in-house Field Training Program.

OTHER ACCOMPLISHMENTS:

- Listed in Who's Who Among Students in American Universities and Colleges, University of Tulsa
- Engineering Club Vice President, University of Tulsa
- President, Geology Club, University of Tulsa
- President of Sigma Gamma Epsilon (Honorary Geology Society), University of Tulsa
- Dean's Honor Roll, University of Tulsa
- Dean's Honor Roll, University of Arizona
- President's Honor Roll, University of Tulsa

AFFILIATIONS:

- Member of the following organizations:
- Society of Petroleum Engineers (A.I.M.E.)
- Society of Petroleum Well Log Analysts
- Licensed Professional Engineer (Petroleum) - State of Texas, Serial Number 29700
- Society of Petroleum Evaluation Engineers
- Licensed Professional Geoscientist (Geology) – State of Texas, License Number 6583
- Licensed Professional Engineer (Petroleum) – State of Kansas, Serial Number 19327