

**Campbell & Associates, Inc.** is an established petroleum engineering consulting firm headquartered in Norman, Oklahoma. The firm was founded and is directed by Mr. Robert A. Campbell who is a registered professional engineer in the State of Oklahoma. An important associate of the firm is Dr. John M. Campbell, Sr., who is available for consultation with Corporate Executives and heads of state on a limited basis. Another important associated is Dr. John M. Campbell, Jr. who is available for consultation in areas of economic analysis and decision methods. In addition, Campbell & Associates has an ongoing working relationship with renowned professionals throughout the world who provide services as their particular expertise is required.

Robert Campbell is a recognized consultant and author who has written numerous technical articles and manuals but is particularly proud of his contribution as co-author of five industry textbooks. His three volume, 869 page treatise titled Mineral Property Economics is an industry standard in the field of reservoir evaluation. Mr. Campbell is a co-author of the manuscripts titled Analyzing & Managing Risky Investments, and it's predecessors Analysis and Management of Risky Investments and Analysis and Management of Petroleum Investments: Risks, Taxes and Time. He was also a contributing author to the reference book titled Petroleum Evaluation for Financial Disclosures. Mr. Campbell is also the original author of an exciting new concept in economic modeling commonly referred to as Strategic Investment Value (SIV) and is presently working on a treatise and associated software dealing with project analysis and reservoir management..

In addition to his engineering consulting activities, Robert Campbell is an adjunct professor at the University of Oklahoma and teaches adult training programs dealing with the reservoir characteristics and economic aspects of Project Analysis and reservoir management. He has presented these courses in South America, the Middle East, Trinidad, SE Asia, Canada and Europe. These courses are also conducted as in-house programs for companies such as British Petroleum, Amoco and UNOCAL. Mr. Campbell conducted a series of two week seminars for the U.S. Geological Survey (now MMS) throughout the country for the purpose of formulating procedures and policies for management of the nation's offshore natural resources.

Dr. John M. Campbell, Sr. is a distinguished professional with unique credentials. He is considered as one of the fathers of the evaluation industry due to his authorship of the first petroleum evaluation reference book titled Oil Property Evaluation. He wrote the first reservoir manual for Conoco and taught the first courses for them in the mid 1950's. He has designed production systems for clients throughout the world and has served as an engineering counselor and strategist for operations in the North Sea, Persian Gulf, Saudi Arabia, Kuwait, Iraq, Iran and Indonesia. Dr. Campbell was also involved in the conceptual design of offshore production facilities in both the northern and southern sectors of the North Sea (particularly in Forties, Piper and Claymore Fields), offshore Abu Dhabi and the sea water utilization system in Saudi Arabia. In addition, Dr. Campbell served as a member of American Arbitration Association as an arbitrator in oil and gas field utilization and unitization studies.

Dr. John M. Campbell, Jr. holds a Ph.D. in economics from the University of Oklahoma. His background includes professorships at Florida State University, University of Chicago, and the University of Houston. He is recognized throughout the oil and gas industry for his contributions to project analysis and for his contributions as an author and lecturer. He is known throughout the industry for his training courses in project evaluation, economics and decision methods. He has conducted these courses in Europe, Southeast Asia and the United States for most of the integrated oil companies.

Campbell & Associates and its associated companies are world renowned for their expertise in reservoir management, petroleum economics, project analysis, and reservoir engineering. The staff of Campbell & Associates possesses expertise on petroleum reservoirs and the technical aspects associated with petroleum reservoir management and project economics. The diversified background of the people of Campbell & Associates, Inc. creates an exciting association that allows access to distinguished professionals with varied technical backgrounds and experience. Through this association, there are few significant oil producing theaters, nations or companies where Campbell & Associates personnel have not been involved in either training or consulting.

## **Reservoir Engineering**

Campbell & Associates offers a complete line of reservoir engineering functions including field studies, reservoir management, corporate reservoir studies, log analysis, estate appraisals, prospect evaluation, bank studies, SEC reports, property acquisitions and divestitures, reservoir simulation, material balance studies, litigation support and determination of Fair Market Value. Our proprietary data base includes well records for thousands of wells. Campbell & Associates has state of the art computer facilities and affordable software that accesses public data bases. Our staff has experience with most active exploration and production areas throughout the United States and much of the world.

Mr. Robert Campbell and the staff of Campbell & Associates have made significant contributions to numerous important domestic and international engineering projects. The following represent but a few of these projects:

1. Preparation of the OPEC Condensate Agreement ratified at the November, 1988, Vienna Meeting. Acceptance of these guidelines made a significant contribution to the stabilization of worldwide oil prices.
2. Preparation of the Procedures Manual for implementation of the Condensate Agreement.
3. Prepared a feasibility study of artificial lift systems for the Umm Shaif Field located offshore Abu Dhabi.
4. Designed a feasibility study and plan of development and optimization for an offshore California secondary recovery unit operated by an integrated oil company producing approximately 50,000 BOPD of heavy (16 °API) oil and 450,000 BWPD for use in a legal proceeding. This program was based on increasing water injection to a peak of 900,000 BWPD while being sensitive to surface subsidence.
5. Prepared a feasibility study and three-dimensional reservoir simulation to design and unitize a gas injection/partial pressure maintenance retrograde gas-condensate project in Southern Oklahoma for a large independent oil company.
6. Prepared, designed and formed numerous enhanced recovery units within the State of Oklahoma.
7. Analyzed available well data and tests to evaluate an exploration prospect in Belize.

8. Have performed property acquisition appraisals for numerous property packages and prepared materials for divestiture packages.

The firm offers its clients "one stop shopping" by offering a complete line of industry functions - reservoir engineering, project analysis, operations management and supervision, geological analysis, computer services and management consulting services. We are constantly developing internal, proprietary software, provide data base management and customized computer applications through associated companies.

### **Operations**

Campbell & Associates, Inc. has the capability to take a project from "stake to tanks" with supervision by experienced engineers and field personnel. We are proud of our ability to provide quality operations at a reasonable cost. We also have the capability to recommend, design and supervise remedial workovers, recompletions or well conversions on your existing producing or shut-in wells. The firm can also arrange, if necessary, to provide contract operations for those clients who are not bonded to operate in the State of Oklahoma. We have full Joint Interest Billing and Revenue Disbursement capabilities. Our geological and engineering personnel have the capability to work independently or with your staff in reviewing and/or generating exploration programs.

### **Legal**

Mr. Robert Campbell and members of the staff of Campbell & Associates, Inc. have been recognized by the nation's courts as engineering and valuation experts. Campbell & Associates have provided engineering services for a wide spectrum of legal actions. A few of these cases are described briefly below:

1. Provided expert witness testimony in the California court system relative to the impact of Proposition 13 on the oil and gas industry.
2. The Firm was been retained by the U.S. Department of Justice for numerous projects pertaining to Fair Market Value in condemnation proceedings for undeveloped acreage in the Mississippi Sound, as well as, equity determination and value of the temporary loss of the right to drill undeveloped Federal Acreage in SE New Mexico.
3. Prepared a study of lost reservoir performance arising from failure to prudently development a project located in the coastal waters of California. This litigation had potential damages of approximately \$1.5 billion.
4. Prepared a study and related testimony on the value of undeveloped leases in and around (1) the WIPP site (nuclear waste dump) and (2) Carlsbad Caverns (Lechuguilla Cave area) for the BLM and Dept. of Justice.
5. The firm has provided expert witness services to major oil companies relating to petroleum engineering matters, production operations and well bore construction on numerous pollution cases.
6. The firm has provided expert witness services for numerous proceedings involving drainage issues and associated economic damages in the deep Anadarko Basin of Oklahoma

7. Provided expert witness services pertaining to reservoir geometry, performance and value for a major oil company involving an existing tertiary CO<sub>2</sub> project in Southern Oklahoma.
8. Provided services relative to gas measurement, artificial lift and economic issues for major gas purchaser.
9. Provided Fair Market Analysis involving litigation associated with the deep Arbuckle gas discoveries in the Wilburton Area of Eastern Oklahoma.
10. Have performed a large number of estate appraisals for both working interest and fee minerals.
11. Have given scores of presentations to state oil and gas regulatory bodies.

### **Regulatory Compliance**

In May, 2008, we acquired SPCC Plans, LLC from David Yard, P.E. Mr Yard is now one of our esteemed associates. SPCC Plans, LLC has prepared more than 12, 000 SPCC plans for over 700 clients since the early 1990's. We have 11 certified Field Agents that have passed a 200 questions exam and extensive field training. These agents cover the United States providing regulatory compliance with the EPA's Clean Water Act. Our plans have been reviewed by EPA staff members and represent the "gold standard" of spill plans.

Compliance is an ongoing process that only begins with a spill plan. We are delighted to provide our clients with updates in the law and assist with inspections that maintain their compliance at all times. Our agents can also assist with compliance of state and local regulations so that they can be responsible stewards of the land and respected members of their operating communities.

### **References**

A very brief listing of the clients for which our firm has provided professional services or training programs is as follows:

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|--------------------------------------|-------------------------------------|
| * Amoco                              | U.S. Department of Justice          |
| OPEC                                 | * Chevron, USA                      |
| * THUMS Long Beach                   | * Union Oil of California           |
| * Panhandle Royalty Company          | * Texaco Exploration & Production   |
| * Oryx (Sun Production Company)      | * Phillips Petroleum Company        |
| * Schlumberger/Dowell                | * Bureau of Land Management (U.S.). |
| * Exxon                              | * Internal Revenue Service          |
| Lucky Goldstar International (Korea) | GE Capital                          |
| Maraven (SA)                         | * BP (U.S. & International)         |
| <br>                                 |                                     |
| * Public Companies                   |                                     |

Please do not hesitate to inquire if you have any questions or if we may be of assistance with your oil and gas projects.

**CAMPBELL & ASSOCIATES,  
INC.**