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June 1979

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ACCOUNTING PRACTICES AND FINANCIAL REPORTING IN THE PETROLEUM INDUSTRY, A BIBLIOGRAPHY

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Note

This bibliography was assembled using a subfile of the SPIRES system operating at Stanford Linear Accelerator Center. It remains "up" and fully machine-searchable at the time of publication. Directions for its use are available from the first compiler though, of course, access to the password is strictly limited.
Introduction

The oil and gas industry has, through the years, presented a number of unique problems for accountants attempting to present useful information on economic activities in these companies. To understand the nature of the data submitted on the Financial Reporting System (FRS; EIA-28) schedules, it is necessary to understand the accounting methods employed. The purpose of this bibliography is to provide a guide to the areas of controversy in oil and gas accounting through a survey of the relevant literature.

The bibliography has been designed to cite as many articles, books papers and other materials as possible. Recognizing that there are numerous duplications in the discussions on certain issues, the bibliographers have abstracted only those references which are considered most representative of the issues under discussion. Other references which duplicate the points raised or which deal with topics of relatively minor interest are cited but not abstracted. This approach should enable users of the bibliography to direct their attention to the most important reference work.

Structure of the Bibliography

The bibliography is arranged topically to enable a user to obtain the necessary literature for a specific segment of the industry with a minimum of searching. The topic sections are:

I. General Works

II. Exploration and Development Accounting
III. Production Accounting
IV. Transfer Pricing
V. Natural Gas Costs and Pricing
VI. Joint Costing
VII. Refinery Accounting
VIII. Transportation Accounting
IX. Taxation of Oil and Gas Income

It appears that several of these topic areas have been of interest in different time periods. The period 1969 to date has seen an intense interest in exploration and production accounting with relatively little interest in other segments of the industry. The period 1930-1950 saw a great deal of attention focused on refinery accounting with little interest in other topics. More recent topics are easier to research in bibliographic data banks while older topics of interest must be researched manually. As a result, the bibliography contains a substantial number of items on exploration accounting and relatively few on transportation, refining and natural gas processing. However, each topic area contains some representative and comprehensive discussions of the topic area.

The taxation section has focused on more recent tax literature. Changes in tax law make older discussions obsolete. Usually a review of some general literature which covers taxes provides a sufficient background on the overall taxation theories and principles. This general discussion should be followed with a study of the relevant articles in the taxation section.

Limitations of the Bibliography

While the search has been a thorough one, the literature identified has been limited to those items that were located through computer searching.
and manual searching of bibliographic sources as well as by the researchers' familiarity with the literature. It is not possible for such a search to be exhaustive. Therefore, updating and extension of the bibliography may be required as time goes on. However, the bibliography is comprehensive and provides the most complete identification of the relevant literature that was possible. Initials in parentheses identify the author of each abstract; objectivity may vary, depending on whether the abstract was written by the author of the original work or someone else.
American Gas Association.


American Petroleum Institute.


American Petroleum Institute.


American Petroleum Institute. Committee on Reserves and Productive Capacity.


Anderson, C.C.


Arrington, J.R.


Arthur Andersen and Co.


Balachandran, Sarojini


A slightly dated but otherwise excellent bibliography on the subject of energy statistics, arranged topically. (ljs).
Batt, R.E.

Bennett, E.D.

Berndt, E.R.

Bollinger, Everett Richard, Jr.

Brock, Horace R.

This chapter defines natural resources and then examines some of the principal accounting problems peculiar to companies engaged in extracting natural resources. Most of these accounting problems relate to the large capital outlays necessary to find and develop natural resource deposits and can be examined in the following sequence: (1) accounting for the acquisition and development of property, (2) depletion and amortization and depreciation of capitalized costs, and (3) special property interests. Other accounting problems of lesser significance are briefly covered. (bk).

An annual.

Bybee, W. Cecil

Oil and Finding Costs in the United States. Dallas, Society of
2 p.


Financial results for the year ending 1977 may be found in vol. 2, no. 4, pp. 1-4, April, 1978. Those for the first quarter of 1978 appear in vol. 2, no. 6, pp. 14, June, 1978. Similar data may be found in later issues of this periodical. (ljs).

Connolly, Hugh
Research Accounting in an Oil Company. By Hugh Connolly.

Council of Petroleum Accountants Societies of North America.
COPAS Accounting Bulletins. Denton, Texas, Professional Development Institute, College of Business Administration, North Texas State University, 1976?
428 p. Exhibits, flowcharts, forms.

Coutts, W.B.
Accounting problems in the Oil and Gas Industry. By W.B. Coutts.
Toronto, Canadian Institute of Chartered Accountants, 1963.

De Chazeau, Melvin G.

Deakin, Edward B.
78 p.

Presents a comprehensive survey of the industry and various segments within it. The paper examines the types of companies using alternative accounting methods, the participation of each type of company in exploratory drilling, production, offshore lease bidding, in the acquisition of other companies, and in the raising of debt and equity capital on securities markets. (ebd).

Deakin, Edward B.
(Forthcoming).
An overview of the accounting and reporting issues in the extractive industries. Covers recent topics related to reserve recognition accounting and latest tax regulations. (ebd).

Deakin, Edward B.

Desprairies, P.

In view of the difficulties of estimating ultimate world-wide resources of crude oil, a Delphi-type poll of world experts was carried out in 1976-77 to obtain the basic data necessary for making an estimate of such resources. The poll covered conventional petroleum reserves (onshore and offshore at water depths of less than 200 meters), and also of deep offshore and polar petroleum. The conclusions drawn are that ultimate world-wide conventional petroleum reserves will be around 250 to 300 GT (gigatons?). Discovery costs are likely to increase substantially between now (1977) and 1985/90, but there will be a significantly smaller increase in the costs of developing deposits when discovered. Petroleum recovered from deposits will increase from 25% (1977) to 40% by the year 2000. The increasing contribution of enhanced recovery to the annual increase in reserves (55% of the gross increase in reserves in the year 2000) is likely to result in the re-evaluation of oil deposits. (bk).

Dobias, R.S.

Dobias, R.S.
Published annually.

Eckbo, P.L.

Eggleston, W.S.

An introduction to the identification and definition of petroleum reserves. Provides a background of the engineer's approach to reserve estimation at various stages in the economic cycle of a petroleum reservoir. (ebd).

Elting, W.W.

Erickson, Edward Walter

Fetzer, Joseph Baer

Financial Accounting Standards Board.

Financial Accounting Standards Board.

Financial Accounting Standards Board.

Suspends the effective date of Financial Accounting Standard No. 19 and revises some of the provisions of that standard. (ebd).

Financial Times, London.

This reference book is chiefly a compilation of basic facts about oil and gas companies, combining the type of financial information typically found in Standard & Poor's Corporation Records with information about properties, production, well completions, reserves, refineries, pipe-lines, transportation, etc. It is international in scope, with entries varying from a few lines to three or four pages. Privately or closely-held corporations are included, but information about them is minimal. (ljs).

Flaim, Theresa

Foster Associates.

Garrett, Ray

Green, E.A.

Grow, G.C., Jr.

The author examines some recent estimates of U.S. natural gas reserves and concludes that abundant resources of natural gas can be made available as a continuing source of energy. At present rates of annual production (19 trillion cu. ft.), the gas supply consists of 215 trillion cu. ft. of probable gas, 363 trillion cu. ft. of possible gas and 345 to 395 trillion cu. ft. of speculative gas, with a life index of about 42 to 62 years. Additional gas is available from abandoned wells which could become economically viable at higher gas prices. (bk).

Halverson, James T.
Analysis of the Oil and Natural Gas Reserve Reporting Problem: The Government's Need to Know vs. the Private Company's Need to Protect the Confidentiality of Its Sensitive Business. By James


The risks to investors in oil drilling funds are greater because of increased costs of pipe and rigs as well as labor and drilling properties, uncertainty about prices, tax reforms, and IRS audits.


The finance submodel produces industry-wide income statements for the oil and gas producing industries, which permit PIES results to be translated into detailed schedules of oil and gas industry capital requirements. This report describes the finance submodel in terms of its logic, input data, and output format. (bk).


Maps showing worldwide oil flow, refining capacity, worldwide reserves and production are presented. Also included are an index of fields, major oil and gas fields, world energy requirements, drilling outlook, well completions, offshore rigs, production outlook and production tables, world reserves, enhanced recovery, refining outlook, refinery capacity tables, survey of sulfur plants, crude oil movements, pipeline outlook, tankers, lay barges, gas processing, exploration and geophysical data,
conversion tables, world petroleum companies, and a list of relevant governmental agencies. (bk).

Irving, Robert H.

Jeffrey, S.J.

Natural gas price trends are analyzed in connection with other energy sources. The problems of financing and billing in utilities are discussed and the impact of higher prices on consumption is calculated. (bk).

Jones, Donald P.

Kahn, Alfred E.

Karg, Robert Lawrence

Keeler, A.G.

Keplinger, H.F.

Klingstedt, John P.
Korsmeyer, E.W.

Lehman, Edward Richard

Leigon, Walter A.

Lourens, Roy

Maass, Randal Oscar

Mackay, I.H.

MacKenzie, W.D.C.

Manes, Rene Pierre

Matteotti, Dennis A.
The Energy Policy and Conservation Act of 1975 and Its Implications for GAO. By Dennis A. Matteotti and Mark E. Gebicke.

The five titles of the Energy Policy and Conservation Act of 1975 (EPCA) are briefly summarized, followed by a detailed discussion of the implications for the GAO. The major GAO responsibility is to make verification examinations of the books and records of (1) vertically integrated oil companies, (2) any person engaged in producing, processing, refining, transporting by pipeline or distributing an energy resource, and (3) any person required to submit energy information to the FEA, Interior Dept. or the FPC.

Miller, Daniel E.

Discusses the relationship between replacement cost accounting under SEC Accounting Series Release 190 and accounting for natural resources which, by definition, are irreplaceable. (ebd).

Mitchell, Edward J.

Mossavar-Ramani, B.

If recent trends continue, the price of crude oil will be a strong driving force in changing the practice of energy conversion. This paper discusses the price elasticity of crude oil reserves. An overview of historical crude oil prices at the well-head and proved reserves is given, followed by an examination of correlations between average well-head price and proved reserves. Within a given range, bound by natural and geological constraints, the inventory of proved reserves is price elastic. A market-induced increase in price, unrelated to rising costs, provides further incentives for the exploration of oil, finances improved engineering research and practices, permits greater average well depth, increases the total number of producing wells drilled, and enhances quantities of commercially accessible oil in the wells. Thus, upward movement of price can serve to augment, and in a special sense, to generate recoverable oil. (bk).

Nathan Associates, Inc.
1975. 7 charts.

Analysis shows that it costs a great deal more to find, develop, and produce oil today than ever in the past. If this nation is serious about reducing dependence on oil imported from insecure sources, it will have to pay sufficient prices to cover the true economic costs of exploration, discovery, development, and production.

National Petroleum Council.

National Petroleum Council.

Nehring, Richard

New York State Society of Certified Public Accountants. Committee on Petroleum Industry Accounting.

Norby, William C.

Ogunsola, Olaogun Oyekola

Organization for Economic Cooperation and Development.

The present publication is the first in a new quarterly series. Its aim is to provide rapid, accurate and detailed statistics on oil supply and demand in the OECD area. The main components of the system include 1) complete balances of production, trade, refinery intake and output, final consumption, stock levels and changes, 2) separate data for crude oil, NGL, feedstocks, and nine
product groups, 3) separate trade data for main product groups, LPG, and naphtha, 4) imports for 41 origins, 5) exports for 29 destinations, 6) marine bunkers and deliveries to international civil aviation by product group, 7) aggregates of quarterly data to annual totals, and 8) natural gas supply and consumption. (bk).

Pearce, David William, ed.
1 v.

An annual.


Porter, Stanley P.
x, 557 p. Illus., append.

This book provides a comprehensive introduction to accounting practices in the U.S. petroleum industry. There are chapters on accounting for pre-drilling exploration costs, undeveloped properties, drilling and development operations, production operations, natural gas processing, rail transportation, pipeline operations, marine transportation, crude-oil purchasing and storage, refining, petrochemical operations, and marketing. Each of these chapters is preceded by a chapter describing the nature of the operations being accounted for. In addition, there is a chapter which summarizes all aspects of petroleum accounting, and chapters on special topics in production and development accounting, natural gas regulation, the disposition of petroleum finding costs, and income tax allocation. (cjb).

Quirin, G.D.

Oil and natural gas prices received by Canadian producers have more than doubled since 1973. Such a price rise would be expected to stimulate investment in the petroleum industry, but this has not happened. The proportion of industry cash flow devoted to exploration and development fell from 1972 to 1975. These trends reflect insufficient average returns on investment in relation to higher replacement costs, and increasing government taxes. The authors attempt to quantify this risk and find that the required after-tax return to producers to promote increased investment is about 19 percent, which compares unfavorably with available
returns to new investment of about 14 percent. They conclude that a sufficiency of return on new investment requires a reduction in government royalty taxes, even if oil and gas prices do escalate. (bk).

Reed, Randal W.

The article discusses the three factors that have shaped the petroleum industry's views of financial accounting. First, the petroleum industry has very large capital requirements. Second, the petroleum-producing business has an exceptionally high risk element. Third, the petroleum industry shares with other extractive industries a substantial number of differences in accounting for corporate reporting to stockholders and accounting for tax purposes. Using these three factors, the article examines the problem that arises because discovery costs usually bear little or no predictable relationship to the eventual market value of the oil deposits found. The article concludes that the petroleum industry, through the American Petroleum Institute, has mounted a sustained program toward promoting sound financial reporting and accounting practices. (ns).

Ritchie, Stark

Schnepper, Jeff A.

Seidler, Lee J.

Sellers, David Henry Aikins

Simiar, Farhad
Starratt, P.E.
A staff analysis prepared at the request of Henry M. Jackson pursuant to Senate Resolution 45, A National Fuels and Energy Policy Study.

Stewart, Charles A.

Sunder, Shyam

Taher, Abdulhady Hassan

U.S. Congress. Senate. Committee on Finance.

U.S. Dept. of Energy.


U.S. Federal Energy Administration.


Prepared for the Chairman, Special Subcommittee on Integrated Oil Operations, Committee on Interior and Insular Affairs, U.S. Senate, pursuant to Senate Resolution 45, the National Fuels and Energy Policy Study.

The survey is intended to provide basic descriptive material related to the structure of the petroleum industry. The survey requested information from 89 companies in the petroleum industry regarding directorate affiliations, acquisitions and mergers, ownership, subsidiary holdings, association with legal, financial and accounting groups, joint activities in oil and gas exploration, production, refining and transportation, marketing, and operations in coal and uranium. The questionnaire and a discussion of methodology are in appendix A. Sixty-three companies, including the 20 largest, responded. These companies, as well as those not responding, are described in appendix B. The survey includes approximately 3 million data entries. (bk).

Uhler, R.S.

Vogely, William A., ed.

Vogt, George R.

There are four major sections to this article: (1) the nature of wasting assets, (2) cost and valuation, (3) depletion and amortization, and (4) financial statements, records and audits. In the first section, definitions are given. In section two, the subjects covered include: the cost of depletible assets, elements of acquisition cost, accounting for exploration costs, development of properties, valuation of depletible assets, considerations in purchase or exchange of economic interests, discovery value, recognition of current value in lieu of cost, accretion, and decline in value. In section three, depletion and amortization, the nature of depletion, omission of depletion, computing cost
depletion, illustrative computations, and liquidating dividends in wasting asset industries are covered. In the final section, the balance sheet, income statement, and accounting records for wasting assets and audits of wasting assets are discussed. (bk).

Waller, Robert E.

Welsch, Glenn A.

The American Petroleum Institute sponsored a study to determine the most appropriate way to communicate the impact of changing prices and costs on the value of and costs to discover and produce oil and gas reserves. The study examined alternative methods and concluded that the most important piece of information was the value of oil and gas reserves. A method for comparable reporting of such values was developed and included in the report. (ebd).

Williams, Howard H.

Wollen, R.W.

Yost, S.W.

Youngs, F.A.

Zraly, A.J.
Soaring profits of U.S.-based oil giants have brought to light a great diversity of bookkeeping methods within the industry. Profits generated by increased inventory values between time of purchase or production and time of sale were finally acknowledged. Some companies, such as Texaco, account for oil inventories on a first in - first out (FIFO) basis. Costs in this procedure will be entered at older, lower prices during inflationary periods. Texaco attributes 44% of its $589-million net income for the quarter to inventory profits in its U.S. and foreign operations. Gulf Oil, on the other hand, uses last in - first out (LIFO) accounting for almost all its operations except those in Canada. Other companies fall in-between. Many European countries insist on FIFO accounting because it gives them more to tax. Current talks with Arab states have brought about lower reported profits for the quarter as companies tried to allow for retroactive effect of negotiations.

Alfredson, F.K.


In light of the energy crisis, oil companies are going to have to
spend more money and work harder at finding oil in hard-to-find places. They are going to have to spend billions. How they spend it, and how successfully, are going to determine their profitability for years to come. It is becoming harder and harder to compare one company's earnings with another's—especially Texaco's with those of the rest of the industry. It has been suggested that Texaco was inflating its earnings. The implication was that Texaco was underdepreciating and thus overstating earnings by almost 80%. According to John P. Klingstedt of the University of Oklahoma, Texaco is counting apples while its rivals count oranges. Texaco's methodology makes meaningful comparisons with the others impossible. (bk).

Arthur Andersen and Co.
ii, 31 p.

Arthur Andersen and Co.
Accounting for Oil and Gas Exploration Costs. Chicago, Arthur Andersen and Co., 1963.
An exposition of full-cost accounting. (Field).

Arthur Andersen and Co.

Arthur Andersen and Co.

Australian Society of Accountants and the Institute of Chartered Accountants in Australia.

Baker, C. Richard

The full cost method matches the costs of dry holes, which produce no future benefit, against revenues from producing wells. If the markets are efficient, no capital inflow should result from the increase in earnings achieved through the adoption of the full
cost method. Full cost can alter income between periods by allowing the company to capitalize exploration costs and yet not begin subjecting these capitalized charges to depletion until exploration has been completed. Capitalized costs pertaining to abandoned leases may be retained on the books indefinitely. The successful efforts method defines as assets only those items that have clearly discernible future benefit. It is conservative because it minimizes the measurement of assets and it recognizes losses when incurred. It avoids capitalizing the estimated 80 percent of wildcat wells drilled which result in failure to discover hydro carbons in commercial quantities.

Bankston, G.C.

Bartram, John G.

A good discussion of the problems of relating exploration costs to discoveries and suggestions for evaluation of exploration department results. (Field).

Bass, Jarman

Bee, J. Kevin

Bierman, Harold

Bowles, John T., et al.

Widely used in Canada, full cost accounting could suffer a setback if the AICPA Accounting Principles Board findings are negative. This analysis is based on a Canadian submission to the APE. The full cost concept of accounting for exploration and development costs in the oil and gas industry was introduced ten years ago.
Adoption has been heavy, and it is considered the dominant practice in Canada. Primary motivation was dissatisfaction with the conventional method of accounting. One sound study had shown that companies' earnings were higher after the switch-over to full costing. In addition, effective depletion rates, reserve data, and land holdings and cash-flows are monitored to evaluate progress of the companies in the industry--full costing has provided a measure of comparability not previously available.

Brock, Horace R.

The results of a survey on accounting for exploration and development costs and disposition of capitalized costs. (Field).

Calhoun, F.

Castleberry, Jack C.
Author also cited as Castleberg.

Challa, Krishna


Cole, J.F.

Collins, Daniel W.
Equations, tables.
Includes references. Eskew's Reply appears on pp. 240-246 of the
same issue.

Studies concerned with the market consequences of alternative accounting methods typically rely on some forms of the capital asset pricing model and test for price effects or information content under the (explicitly or implicitly) maintained hypothesis of market efficiency. A careful reading of Eskew's research hypothesis and subsequent analysis and interpretation of results suggest that he may have confused the two issues. His research hypothesis would appear to be aimed at a test of market efficiency. Yet his association methodology is clearly more appropriate for addressing questions of information content. Eskew states that Collins and O'Connor should have argued that studies concerned with market consequences of accounting alternatives must rely on some model of market equilibrium. As Fama (1976) notes, the capital asset pricing model is only one model of market equilibrium.

Collins, Daniel W.

The SEC's proposal to eliminate full cost accounting in the oil and gas industry tries to shift investor's emphasis away from the published income statements toward a statement that expenses outlays for exploration immediately and treats the estimated value of resulting discoveries as current income. This shift in emphasis will have an adverse effect on the securities market and will make it more difficult for full cost companies to obtain funds in the capital market. This change from full cost to successful efforts accounting could: (1) alter management's exploration, production, and investment strategies, (2) impose certain costs on affected companies that could lower the value of these firms, (3) increase the cost firms will have to bear in obtaining external financing, and (4) have significant implications for national energy exploration.

Collins, S.

A lay introduction to the definition of reserves and the problems in reserve identification and estimation. (ebd).

Connor, Joseph E.

Presents the initial discussion of the need for a discovery value
approach to the accounting for oil and gas exploration and
development activities. Points out the shortcomings of
traditional accounting measures in the industry. Lays out the
theoretical support and the basic methodology for value accounting
in this industry. (ebd).

Copp, E. Anthony
Technical Change and Petroleum Drilling Costs. By E. Anthony

Cox, James C.
The Determinants of Investment in Petroleum Reserves and Their
Implications for Public Policy. By James C. Cox and Arthur W.
1976.

Davis, R.E.
of Petroleum Technology, pp.18-21, September, 1956.

Provides an introduction to the engineering approach to the
evaluation of reserves of natural gas. The method is also
applicable to crude oil reserves. (ebd).

Davis, Warren B.
Enigma of Oil and Gas Finding Costs. By Warren B. Davis. In
Accounting Papers of the 18th Annual Conference of Accountants,
University of Tulsa, pp. 11-34, 1964.

Deakin, Edward B.
A Comparison of Nonmajor Oil Companies Using Full Cost and
Successful Efforts Methods. By Edward B. Deakin. The Accounting
(Forthcoming).

As a result of the allegations made about differences between
companies using alternative accounting methods for oil and gas
exploration, a study was conducted to evaluate companies using
alternate methods. The results suggest that there are no
substantive differences between nonmajor companies using each
method except that full cost companies tend to have higher debt
levels. It did not appear that the debt proceeds were directed to
exploration in greater proportions than for successful efforts
companies. (ebd).

Detlefsen, W.K.
Full Cost Accounting in the Oil and Gas Industry. By W.K.
Detlefsen. Canadian Chartered Accountant, vol. 92, pp.273-276,
April, 1968.

Dougherty, Elmer L.

Dubois, Donald A.

The change to full cost accounting and the resulting change in net income for the petroleum industry was measured and compared with changes in stock prices. As indicated by the efficient market hypothesis, the changes in profit are not reflected in stock prices in the short or long-run.

Duckworth, Patricia Lynch

Dunn, J.F.

Dutton, Granville

Model accounting procedures will continue to increase in usefulness and importance as joint operations become more a significant portion of the petroleum industry's activities. The Council of Petroleum Accountants Societies has devised a standard form applicable to a great variety of situations with a minimum of option elections and alterations. The standard forms and procedures constitute contracts under which millions of dollars are exchanged annually. The comprehensive nature of the forms provides a basis for negotiating solutions to the disputes which arise. Although some of the controversies arise out of imprecise language in the model form, the principles are adequately presented and sufficiently broad to suggest a compromise solution for nearly every dispute. COPAS-68 is an accounting procedure which facilitates and enhances the operating agreements under which most of our major oil and gas operations are conducted. (bk).
Elmadfai, A.O.D.

A normative approach is sought to laying down a feasible basis for formulating an accounting theory that provides a neutral solution with respect to all conflicting interest groups in the accounting methodology. Business sciences are considered to include the best description of the environment within which the accounting function must operate. Some relevant parts of these sciences were carefully investigated and generalizations made. These generalizations are used to derive a set of basic integrated accounting concepts which are used to formulate a normative operating objective for accounting as well as to formulate a set of related accounting propositions that are required to guide and evaluate contemporary accounting practices. It was concluded that the lease is the most appropriate cost center with which the pre-production costs of an oil producer should be identified and accumulated. (author).

Eskew, Robert K.

The purpose of accounting is to provide information for users who make informed judgments and decisions regarding the allocation of scarce resources. If accounting information is not useful for or is counterproductive to sound decision-making, then it is not fulfilling its intended purpose. The purpose of this study is to examine the interaction between accounting information and one set of users, investors. Previous published empirical research in this area has examined the reactions of investors to changes in accounting methods. The results of these studies have indicated that investors in the aggregate perceive correctly the effect of changes in accounting methods. This study examines the long-term response of investors to the use of two different accounting methods for reporting similar economic events. The environment in which this study is set is the extractive petroleum industry. (author).

Eskew, Robert K.
An Examination of the Association Between Accounting and Share Price Data in the Extractive Petroleum Industry. By Robert K.

In this study two groups of comparable extractive petroleum firms are utilized to examine the relative effect of the field or successful efforts and full costing methods on the expense and profit streams. The results provide additional empirical evidence that the accounting alternative adopted by a firm does not appear to have the capability of affecting security returns. If investors use the accounting information to predict future levels of market risk measure, the field costing method appears, on the basis of these results, to be superior to the full costing method. These conclusions do not imply that there are no uses for which accounting data prepared on the full costing basis would not be superior to data prepared using the field costing method. Questions about the form of the relationship between accounting information and share price and security returns are still unanswered. (author).

Esposito, Pasquale L.

This article reviews the role of the General Accounting Office (GAO) in conducting verification examinations of financial and energy information in the petroleum industry. An historical review of accounting principles used by the industry is given, including a discussion of successful efforts versus full cost accounting and the roles of the SEC, APB, FASB, FPC and Congress in developing standard accounting practices. The important issues yet to be resolved are: (1) how to develop appropriate industry accounting practices, (2) what alternative practices are possible, (3) what intentions the Congress has and what information it needs, and (4) how capable the industry is in complying with Section 503, Title V, of the Energy Policy and Conservation Act of 1975. (bk).


Field, Robert E.
xiv, 184 p. (AICPA. Accounting Research Study, No.11)

This study concludes that the common accounting problems of the extractive industries are best solved by adherence to the traditional concepts of realization and matching. Because of the
risks involved, a conservative approach is suggested in the application of these concepts. The key to the application of the traditional concepts of realization and matching to extractive operations is found in the similarity of minerals in the ground to inventories. From this basic orientation, the study recommends accounting practices which, if adopted, would narrow alternative accounting practices. The principal conclusion of this study is that the 'successful efforts' approach is more useful than 'full cost accounting' in the extractive industries. (author/bk).

Field, Robert E.

Field, Robert E.
Includes an updated version of the author's survey of joint cost accounting literature.

Fieldman, A.

Many natural gas utilities have found it necessary to engage in direct pursuit of supplemental gas supplies, raising unanticipated regulatory issues. A local regulatory policy may have the opposite effect from what it appears. One form of above-the-line treatment is not equivalent to all other such forms and may be more adverse to inducing exploration than an outright below-the-line rate-making policy. The author reviews how exploration funding is financed and how gas is distributed if the exploratory venture is successful. The regulatory aspects of some cases are discussed, and the author concludes that it is desirable for distributors to have some sort of formal understanding on rate-making treatment with their state regulators before exploration and development funds are committed. (bk).


A comprehensive discussion of the issues involved in accounting for the current costs and values of oil and gas reserves. (ebd).


FASB Statement No. 19 requires oil and gas companies to use a form of the successful efforts method in accounting for their exploration, development, and production activities. The successful efforts method allows only the costs of successful drilling efforts to be capitalized and charged against the producing wells. Each well is treated as a separate cost center with this method rather than an entire field or large geographic areas, as is the case using the full cost method. Both the successful efforts method and the full cost method have been the topic of much controversy and discussion within and outside of the accounting profession. An AICPA research study published in 1969 supported the successful efforts method. The greatest impact of FASB Statement No. 19 will be on those producers using the full cost method.

Franzen, A.B.

Ginsburg, Feldman and Bress, Attorneys for Ad Hoc Committee (Petroleum Companies).

Goodson, J.A.

This article describes the types and forms of jointly owned oil and gas ventures, and some of the accounting problems which arise in conjunction with such joint ventures. Income taxes, standard forms, the joint venture agreement, and the necessary accounting records are discussed. Other topics include fieldwide units, carried interests, net profits interests, forced pooling, operations by less than all parties, taking production in kind, and salvage value of repressuring materials. The article also includes discussions of pipeline joint ventures, gasoline plant joint ventures, and audits. (bk).

Gruy, Henry J.

Hagerman, Robert L.

A critique of an article by Dubois. The author points out that the credibility of the study suffers due to errors of omission in research techniques. (ljs).

Harpster, Wayne W.

Reviews advantages and disadvantages of successful cost vs. full cost accounting methods in petroleum exploration. Provides an analysis of the methodology, advantages, and disadvantages of the full cost accounting procedures. (tr).
Hawkins, David F.

An examination of the interrelationship of the FASB's principles with macroeconomic aspects of national growth.

Heazlewood, C.T.


The question of full-costing versus successful-efforts accounting approaches needs to be settled in the issue of search costs for gas and oil. Details Texaco's problems in attempting to change methods.

Huckaba, William A.

Johnson, Robert T.

Provides a theoretical discussion of the importance of oil and gas reserves in financial statements. Concludes that determining oil and gas reserves can significantly influence the level of reported income. Consequently, CPAs should examine the reasonableness of reported reserves as a normal part of the auditing process. (tr).

Johnson, Robert T.

Measures income over a ten-year period for two hypothetical companies, one which uses full cost accounting and the other which uses the conventional successful efforts method. It also compares final balance sheets and income statements under the two methods. The author shows that financial statements for full cost methods can result in much more encouraging statements, thus affecting stock values, since full cost results in a higher net present value for the firm. He concludes that full cost methods result in more reasonable statements and that, without these benefits, small
companies would have difficulty in spreading risk by limiting the flow of external capital into small companies. The author thinks that the method should be used by all firms. (tr).

Kalter, Robert J.

Kaplan, Robert S.

Keplinger, H.F.

Klingstedt, John P.

Examines the pros and cons of full cost vs. successful cost methods in petroleum accounting. Uses survey data to compare the quantitative impact of full costing. Finds that a switch to full costing results in higher earnings, from between ten and several hundred percent. In addition to increasing income in most cases, the change resulted in income smoothing. The author also examines retroactive application of full cost methodology and concludes that the differences are cosmetic and thus do not offset the lack of comparability arising from adoption of the full cost method. (tr).

Koons, R.L.

Criticizes Robert T. Johnson's article, 'Full Cost vs. Conventional Accounting in the Petroleum Industry.' The present author states that biases in Johnson's model make his conclusions about the superiority of full costing methodology questionable. (tr).

Larue, J.D.
Houston, TX, Exxon Co., March 10, 1976.

Lay, David W.

Loosley, Edwin H.

Lourens, Roy

Reviews the major methods of cost accounting used in the extractive industries and explains the applicability of each. Provides a list of 25 technical recommendations for the standardization of accounting practices in Australia's extractive industries. (tr).

Lovejoy, Wallace F.

Mannino, R.C.
162 p. (Pub. No. 78-08915)
Thesis, Ph.D., University of Colorado, Boulder.

Megill, R.E.
159 p.

Exploration accounting is a strange mixture of engineering economics, mathematics and statistics, probability theory, geology, and geophysics. This book is a starting point for studying the economics of the search for hydrocarbons. Intended to be truly introductory, it is basically a resume of practical evaluating knowledge written especially for the working explorer and the student geologist. The major areas covered are regulation, definition of terms, cash flows, present value concepts, risk analysis, and setting up an exploration evaluation. (bk).
Miranada, Albert N., Jr.
Valuation of Oil and Gas Properties. By Albert N. Miranada, Jr.
In Proceedings, 18th Tulane Tax Institute, pp.285-301. New

Moody, Graham B., ed.

Morris, R.C.
The Comparability of Oil Company Accounts: A Comment. By R.C.
Morris. Accounting and Business Research, vol. 6, no. 21, pp.
70-78, Winter, 1975.

This article explores in general terms the particular problems of
financial reporting for firms operating in the extractive
industries. The major topics covered are profit recognition
criteria, the valuation of reserves, the impact of
diversification, the value of supplementary information to
analysts, tax aspects, and implications for dividend policy. The
conclusions are that oil company financial statements represent an
incomplete picture—not that the capitalization/expense policies
differ. The only satisfactory solution would seem to be for firms
operating in the extractive industries to adopt a discovery value
approach, with management periodically giving details of the
estimated value of the business or its reserves, in supplementary
statements. (bk).

Most, Kenneth S.
A Comparative Study of the Accounts of Seven Major Oil Companies.
By Kenneth S. Most. Accounting and Business Research, vol. 4,

After reviewing various methods of accounting practices from a
theoretical standpoint, Most analyses whether companies using
different accounting methods actually produce reports which are
not comparable. He examines the accounts of seven major oil
companies for 1972, and concludes that, despite the use of
disparate accounting principles, the accounts are at least loosely
comparable. He finds that differences in accounting procedures
regarding purchasing, operating expenses, and taxes were much more
significant than differences arising from using successful vs.
full cost methods. (tr).

Most, Kenneth S.
Financial Reporting by the Oil and Gas Industry in Europe: a
Survey Based on 1975 Annual Reports. By Kenneth S. Most. Miami,
School of Business and Organizational Sciences, Florida
International University, 1977.
65 p.
Most, Kenneth S.
A rebuttal to Trueman's article, 'Oil Company Accounts: Not So Comparable?,' which was a reply to Most's original article.

Most reiterates his conclusion that the full cost versus successful efforts controversy is fundamentally trivial and provides data from the 1974 Texaco Inc. Annual Report to support this contention. The Texaco report presents a comparative study of the effects of accounting for exploratory costs on its modified full costing basis with the effects of expensing these costs, including all dry holes. Most presents a table illustrating the Texaco results and also discusses the differing interpretations he and Trueman put on the notes in oil company financial statements. (bk).

Most, Kenneth S.

The expansion and diversification of the operations of oil and gas corporations bring a need for improved methods of financial and managerial accounting. From the viewpoint of managerial reporting, the system of accounts described in this article lends itself to a greater precision of decision-making and permits the evaluation of operating efficiencies in relation to the decisions made. The analysis of profitability by property units, which is the strong feature of the traditional approach, is allied to the analysis of profitability of product units, which is the virtue of the full-cost method. The slight loss of flexibility which accompanies such a transformation is more than compensated by gains in the area of long-range projection and total company planning. (ebd).

Myers, John H.

Naggar, Ali

A contemporary view of accounting as an information system requires that published financial statements convey a useful message to those who are interested in making investments in corporate stock. The FASB set forth the standards for: (1) the
expensing or capitalizing of exploration and development costs for oil and gas, (2) the disposition of the amounts capitalized, and (3) the disclosure of reserves, capitalized cost, and the costs incurred in oil and gas producing activities. The FASB chose the successful efforts costing method which capitalizes costs of successful ventures and charges to expense the cost attached to unsuccessful ones. Abandoned properties are charged to expense when abandoned, not when acquired. Costs of exploratory drilling are deferred pending determination of success or failure. (ljs).

Nethercott, L.J.

The article explores full cost accounting methods and their effect upon financial reports used by companies in the mining industry. It reviews U.S. policies and findings regarding the use of full cost accounting. It provides a theoretical discussion of the benefits and criticisms of using the full cost method, and it concludes that such methods are undesirable because they do not provide investors with enough information to evaluate the efficacy of an investment. The author advocates the use of successful cost accounting, which gives investors a better indication of a company's exploration successes. (tr).

Nethercott, Leslie J.

Explores the use of 'discovery value accounting,' a type of current valuation scheme, as a viable alternative to the more familiar full cost and successful cost methods currently being used in the petroleum industry. This method takes into account the estimated value of reserves at the time of discovery. The author claims that this new method is more useful than the so-called historical methods, which include the two standard methods above, during times of rapid and unpredictable inflationary rates. Use of discovery values raises questions concerning the objectivity and reliability of the reserve estimates if they are used as a basis for financial reporting. (tr).

Nethercott, Leslie J.

Norby, William C.
In the extractive industries, argument has raged over whether costs of an unsuccessful exploratory effort should be expensed immediately, or capitalized, and amortized over several periods. The Financial Analysts Federation's Financial Accounting Policy Committee (FAPC) has issued a position paper favoring the successful efforts method. (bk).

Norby, William C.

Norby, William C.

In August 1978 the SEC proposed a current value system of accounting, 'reserve recognition accounting,' for oil and gas reserves. The 3 main elements of this proposed reporting system are: (1) disclosure of reserve quantities and changes thereof, (2) calculation of net present value of these reserves, and (3) presence of an earnings statement accounting for the results of exploratory and producing activities during the year. The SEC ruling calls for reserve recognition accounting to be reported by oil and gas producers as supplemental information to their financial statements for the fiscal years 1979-81. After evaluation of these reports, the SEC will determine if this reporting system should be adopted for primary financial statements. (ljs).

Norr, David

This article traces the profitability in the linear production process of oil. It examines production, refining, transportation, and wholesaling vs. revenues. Each sector is examined under a variety of hypothetical situations regarding the supply and demand for the sector's services. The author concludes that, despite historical variability in sales, alternative indicators show a projected increase in ultimate profitability. (tr).


There is great difficulty in assessing profitability of oil companies. Replacement-cost accounting would help, even if the figures are estimates.
The Numbers Game--Will the Oil Companies Try to Hide Their Profits?

There was a time when full costing oil companies would report lower earnings because of write-offs of capitalized drilling expense that exceeded the fair market-value of the oil in the ground. There have been numerous instances in the past where companies have exceeded this ceiling and written it off in a lump sum. But under today's price structure, it is very unlikely that they're going to exceed the ceiling. It is obvious that oil company earnings will receive close inquiry this year. In some cases their present accounting methods may be hurting them--particularly if they liquidate low-cost inventories. If anything is going to happen, it's going to be that companies are going to be more conservative in their valuation of assets and transactions.

Oien, M.B.
127 p. (Pub. no. 77-1840)
Thesis, Ph.D., University of Oklahoma, Norman.

The main objective is to apply the GNP implicit price deflator, specific price indexes, and discounted cash flow methodology to the actual revenues of a division of a major petroleum company and to analyze the differences in the results obtained by each. Actual accounting data are utilized as well as other relevant information provided by one of the major integrated petroleum companies. The exploration and production phases of operations in the United States from 1969 through 1974 were studied. The conclusion reached was that for this company the value methodology utilizing discounted future cash flows of underground reserves appears to be the best for financial-statement purposes. The method also appears to be in accordance with the intent of the Securities and Exchange Commission in their issuance of Accounting Series Release no. 190. (author).

Paschall, Robert H.

Patz, Dennis H.

Presents the result of a study designed to assess the effect on security price behavior of actions taken by the Accounting Principles Board (APB). In the latter part of 1971, the Board
took a significant step towards narrowing the accounting alternatives available to the oil and gas industry. The authors investigate the circumstances surrounding this action to see whether the market attaches importance to (a) accounting alternatives, and (b) the APB's opinion. They tentatively conclude that market valuation was not significantly affected by the APB's opinion on the type of accounting principles used, thus reinforcing the efficient market hypothesis. (tr).

Paul, Paine

Pearson, E.V.

Peat, Marwick, Mitchell & Co.
Principles and Presentation: Oil and Gas. New York, 1977. 1 v. (various pagings)

Review of 1976 annual reports to shareholders. Prior issues conduct similar surveys for then-current reports. (ebd).

Pergt, Jack

Perlo, Victor

Porter, Stanley P.

Porter, Stanley P.

Price Waterhouse & Co.
Published annually. Prior issues conduct similar surveys for then-current topics. (ebd).

Priebe, E.P.

Reed, Joel L.

The key to measuring the value of an oil producing company's assets and its operating success is the value of oil and gas reserves in the ground. The financial statements of oil and gas producing companies have omitted these assets or substituted historical acquisition costs for these values. In analyzing the investment opportunities presented by oil and gas companies, an analyst should recognize the shortcomings of some financial statements and explore beyond traditional sources to arrive at relevant predictive information about the company. An investor should realize that: (1) current prices differ from well to well, and future prices of production over the life of a well are unpredictable, (2) the judgment of geologists familiar with an area is more important than elaborate mathematical computations, and (3) financial statements may not contain information about contingencies and other significant happenings since the balance sheet date, but the footnotes will.

Rose, P.S.

Shakin, Bernard

Smith, C. Aubrey

Smith, C.G.
Staats, E.B.

A survey was made of accounting practices to show how they relate to cost and other financial information of two companies engaged in the domestic production of oil and natural gas. The two companies were Shell Oil Company, a major integrated oil company which uses the 'successful efforts' concept of accounting, and Houston Oil and Minerals corporation, an independent producer of oil and natural gas which uses the 'full cost' concept of accounting. The accounting procedures used by these firms were studied to gain an understanding of the effects and rationale of the accounting procedures for accumulating financial data. The accounting issues regarding allocation of revenue and expenditures through time and among products are discussed.


Sunder, Shyam

Sunder, Shyam

This article presents a technical analysis of the relative efficacy of using successful efforts costing vs. full costing practices in the petroleum industry. It attempts to analyze the effects of each method on various accounting variables, not to judge which method is best, but to help those who must choose between the two. (tr).

Symonds, Edward

Symonds, Edward
Symonds, Edward

The use of reserve recognition accounting suggested by the SEC would add the current value of estimated future income from oil and gas reserves to company assets. (bk).

Symonds, Edward

Tellini, William P.

Trueman, J.W.H.
A reply to Kenneth Most's article, 'A Comparative Study of the Accounts of Seven Major Oil Companies'.

Presents an evaluation of Kenneth Most's conclusion that the use of different accounting methods by seven major oil companies does not make their data incomparable. Trueman examines the comparability of accounts for exploration and development costs of oil production operations for eight oil companies. Trueman finds that different accounting treatment makes comparative analysis 'exceptionally difficult' which contradicts Most's results. (tr).

Tsumura, A.

U.S. Congress. Office of Technology Assessment.

U.S. Dept. of the Interior.
U.S. General Accounting Office.
Report to the Congress.

U.S. General Accounting Office.
Report to the Congress.

Wooddy, L. Dale, Jr.


The new SEC rule concerning oil and gas industry accounting could confuse and even seriously mislead investors. The FASB in Opinion 19 had said only successful efforts accounting would be acceptable from now on. Then the SEC announced that the commission found both successful efforts and full cost accounting inadequate and that Reserve Recognition Accounting (RRA) should be used. The business of an oil company is to find and produce reserves. Its financial results should be based on the value, today, of the reserves it discovers and produces. Full cost and successful efforts are based both upon classifying the historical costs of finding and producing reserves, and on whether those costs are considered assets or expenses. As an idea, RRA makes sense, but unethical managements can hype their stocks by manipulating their earnings. (ljs).

Youngquist, Walter
Section III  Production Accounting

Allred, John Burnis
Accounting for the Oil Producing Industry. By John Burnis Allred.

American Institute of Certified Public Accountants. Oil and Gas Reserve
Data Committee.
Exposure Draft: Proposed Audit and Accounting Guide, Oil and Gas
Reserve Information Required by Regulation S-X. New York, AICPA,
April 13, 1979.

This proposed guide discusses the auditing procedures to be
applied to oil and gas reserve information that is required by the
SEC to be included in the notes to the financial statements of
entities with oil and gas producing activities. The proposed
guide originally was developed because of FASB Statement No. 19
requirements and amendments to Regulation S-X by the Securities

Armer, M.J.
Royalty Verification of Oil and Gas Accounting. By M.J. Armer.
In Proceedings of the 51st International School of Hydrocarbon
Measurement, pp. 357-360. Norman, OK, University of Oklahoma,
1976.

Errors found in the development of oil and gas royalty
verification systems are discussed. Verifying oil and gas income,
testing royalty receipts, types of errors, and elimination of
errors are also discussed. (bk).

Arthur Andersen and Co.
Intangible Development Costs Applicable to Productive Oil and Gas
Properties. In their Accounting and Reporting Problems of the

Bell, Charles R.
Carried Working Interest vs. Net Profit Interest. By Charles R.
Bell. In Tulane Tax Institute [Papers], Tulane University, pp.
185-191, 1951.

Bradley, Paul G.
The Economics of Crude Petroleum Production. By Paul G. Bradley.

Campbell, John M.
Oil Property Evaluation. By John M. Campbell. Englewood Cliffs,
523 p.

Coffey, C.W.
Features of Accounting for the Oil Production Industry. By C.W.


The Federal Energy Administration (FEA), other government agencies, Congress and industry are affected by the mandate of the Federal Government to provide for prices that reflect the true replacement cost of oil and gas. The Office of Oil and Gas has contracted for a series of studies on oil and gas replacement cost. The study projected the development and production costs for twenty four geographical regions and six well depths for the years 1980, 1985, and 1990. The identification and collection of reliable and consistent historical series is essential to the generation of accurate forecasts of replacement costs. A clear delineation is drawn between the cost of drilling and completing development wells and the cost of operating producing wells. Development well costs are projected on a cost per foot basis. Operating costs of producing wells are projected on a cost per month basis.


The 'base method' of inventory valuation is favored over FIFO in raw materials accounting because it is more realistic when stocks fluctuate rapidly.
Hotelling, Harold
The Economics of Exhaustible Resources. By Harold Hotelling.

Keplinger, C.H., et al.
Accounting Papers of the 7th Annual Conference of Accountants,
University of Tulsa, pp.31-41, 1953.

Lafferty, George W.
Accounting Aspects of Oil and Gas Production. By George W.
Lafferty. New York Certified Public Accountant, vol. 24,

Maw, Arthur
Some Notes on Oil Production Accounting. By Arthur Maw. Canadian

Miller, Kenneth G.
Lease Costs. By Kenneth G. Miller. In his Oil and Gas Federal

Mut, S.C.
Development and Production of Crude Oil and Natural Gas. By S.C.
Prepared for the API Seminar on Reserves and Productive Capacity.

North Sea Costs Escalation Study. London, Her Majesty's Stationery
131 p. (Energy Paper No. 7)

In June 1975 an urgent and confidential study of the escalation of
costs of developing North Sea oil and gas was commissioned. The
extent and causes of escalation are reviewed and its effects are
examined (bk).

Parker, Foster
Accounting for Crude Oil Reserves. By Foster Parker. Arthur

Peppers, A.
How New Accounting Methods Affect Production Payments. By A.

Under new accounting rules, loans which are to be paid from the
proceeds of sales of oil and gas when and if produced are to be
recorded as other loans. Previously these 'production payments'
were accounted for in a variety of ways including no recognition
of the payment liability in the accounts. This latter method had
been justified on the grounds that the loan was only payable from production of the pledged property. No other recourse was available to the lender. (ebd).

Phelps, Charles E.

Pindyck, R.S.

This paper describes an econometric policy model of the natural gas industry. Differences between this model and its predecessor are examined in the context of recent data for gas and oil prices, exploratory activity, reserve additions, and production. The model is used to forecast the regional effects of higher prices on the industry, as proposed by the Federal Power Commission. (bk).

Powell, Douglas H.

Practising Law Institute, New York.

Richardson, P.

Simpson, J.J.

Smith, Alan F.

Failure to consider industry characteristics in an accounting audit may make financial reports useless. The oil industry is used as an example of this.

Smith, C. Aubrey
536 p. Illus.

Smyrk, Albert V.
Cost of Producing Crude Petroleum. By Albert V. Smyrk. New York

Solow, R.M.
Extraction Costs in the Theory of Exhaustive Resources. By R.M.

Stauffer, Thomas R.
Economic Cost of U.S. Crude Oil Production. By Thomas R.
Stauffer. Journal of Petroleum Technology, pp.643-658, June,

Stormonth, S.G.
Petroleum Exploration Accounting. By S.G. Stormonth. Chartered

Tannery, Fladger F.
Joint Operations Accounting for the Petroleum Industry. By
Fladger F. Tannery. Texas Certified Public Accountant, vol. 31,
pp.7-12, Nov., 1958.

Thomas, Wayne W.
Appraising Profit in the Crude Oil Producing Industry. By Wayne
1961.

U.S. Congress. Office of Technology Assessment.
Analysis of the Feasibility of Separating Exploration from
Production of Oil and Gas on the Outer Continental Shelf.
Springfield, Va., National Technical Information Service, May,
1975.

U.S. Congress. Senate. Committee on Interior and Insular Affairs.
Estimates of the Economic Cost of Producing Crude Oil.
v, 435 p. Graphs. (Serial No. 94-27 (92-117))
Printed ... pursuant to Sen. Res. 45, a National Fuels and Energy
Policy Study.

Engineering Cost Study of Development Wells and Profitability
Analysis of Crude Oil Production, by T.M. Garland and W.D.

Review of Royalty Accounting System for Onshore Oil and Gas
Leases, Geological Survey. Reston, VA, Conservation Division,

Serious defects in the government's system for handling royalty payments from companies holding oil and gas leases are resulting in a significant loss of royalties, according to reviewers from the Interior Department's Office of Audit and Investigation. Royalties are not being collected in full, late payments are causing the government to incur added interest costs, and accommodations to lessees in meeting reporting requirements are burdening the government by creating added workloads. Special statements which provided a check on the actual amount of production reported by a lessee are not being received because 'demands for the statements have not been made.' Reviewers recommend that lease terms be enforced and that royalty payments be 'maximized within the legal constraints that apply.' In addition, they urge that all royalty payments be collected promptly and that any accommodation to lessees result in at least equal payments to the government. (bk).

Uren, Lester Charles

Uren, Lester Charles

Yeager, B.R.

Zaffarano, R.F.

Zeid, M.

In order to buy production, industry has to properly evaluate all factors. The company has to think positively and look at the plus factors involved, while weighing them against the existing negative factors. The main function of engineers engaged in property acquisitions should be to try to make the trade based
upon the best technical and economic basis. During the past several years the main purchasers of producing oil and gas properties have been fully integrated major or large independent oil and gas companies, large producing independent oil companies, various trusts and estates, independent oil companies formed for the precise purpose of buying production (with either foreign or domestic capitalization), and limited partnership income funds either within established companies or newly formed companies. (bk).
Section IV Transfer Pricing

Abdel-Khalik, A. Rashad

Bailey, Andrew D., Jr.

Greer, Howard C.

This article discusses the three methods commonly employed in establishing interdepartmental transfer prices, namely (a) cost, (b) market, and (c) negotiation. Observing that no one of the three is wholly acceptable as a measure of departmental performance, a combination of diverse approaches is suggested to provide more useful evaluation and motivation criteria. This combination consists of crediting the producing unit with the cost or market price, whichever is higher, and charging the receiving unit with the cost or market price, whichever is lower. The difference is identified as the cost to the company of compelling two divisions to do business with each other. (bk).

Onsi, M.

Ronen, Joshua

Schwab, R.J.

Transfer pricing is a difficult problem for which no universal solution is adequate. When competitive markets do not exist or a firm chooses not to enter them, market price cannot provide a valid transfer price. In this case contribution marginal price is the next best solution. To calculate the contribution marginal price, the total standard variable costs incurred to produce and sell each product must be determined, based on a standard cost system and a variance analysis segregated by departments. The total contribution margin of each product line is equal to the difference between the selling price and the total variable cost of production. The ratio of the overall contribution margin to
the total standard variable cost is applied to the standard variable cost added in each department to yield a 'value-added' transfer price. (bk).

Sharav, Itzhak

This article provides a review of the factors that determine whether transfer prices should be cost-based or market-oriented, or a combination of both. The definition of transfer prices is given as 'intracompany charges at which goods or services are sold by one organizational unit to another in the same company,' and includes intercompany transfers between affiliates. The section on 'recent emphasis' on transfer prices includes a discussion of their use in evaluating a company for sale, for protection of minority interests, to provide greater disclosures in financial reporting, for tax considerations and as a basis for strategies for multinational corporations. Other topics include the scarcity of empirical data, cost-based transfer price, market-oriented transfer prices, and transfer prices and the courts. The article concludes that the multiplicity of corporate goals will force compromises in which several different types of transfer prices will be necessary within a company. (bk).

U.S. Federal Energy Administration.

Watson, David J.H.

This paper represents an attempt to place the solutions proposed by the mathematical programming models as well as other traditional solutions to the problem of transfer pricing in an appropriate context. Since the transfer pricing problem only arises within a recognizable social system (be it an organization or a socialist economy), the paper considers the solutions in a social system context. The paper suggests that the management accountant needs to consider organizational differentiation as a constraint in designing the management accounting system. The transfer pricing mechanism, being part of the management accounting system, can be used to enhance organizational differentiation and to facilitate organizational integration. Formula pricing mechanisms may well be used to achieve differentiation, while negotiated pricing seems to be the
appropriate transfer price mechanism for facilitating integration. (bk).
Section V  Natural Gas Costs and Pricing

Arthur Andersen and Co.
362 p. (Cases in Public Accounting Practice, vol. 9)

Badger, Ralph E.
Fair Return for Natural Gas Companies. By Ralph E. Badger.

Camm, Frank A., Jr.
xi, 58 p. Graphs, appendix. (Rand Rept No R-2282-DOE)
Written for the U.S. Dept. of Energy.

Corey, Gordon R.

Davidson, Sidney
163 p. (Michigan Business Studies, vol. 11, no. 1)

Demme, Roy D.

Eckstein, Otto
Natural Gas and Patterns of Regulation. By Otto Eckstein.

Erickson, Edward Walter

Fiske, Leland E.

Fiske, Leland E.

FPC Proposes Accounting Changes for R & D Expenditures. Journal of
Natural gas firms have fared reasonably well in recent years. If business risk has increased, it is due to uncertainties surrounding availability and adequacy of future supplies. Financial risk has not changed substantially, and the common stocks of natural gas firms are less risky than the market in general. The annual total returns for twenty-four natural gas firms have been higher than the returns for the Standard & Poor's 500 companies in recent years. For electric companies, business risk has increased substantially because of lower quality incomes and earnings due to heavy reliance on the allowance for funds during construction and the use of flow-through accounting procedures. From the standpoint of the impact of broad stock market movements on the common stocks of electric utilities, these stocks are still less risky than the market. (ebd).
Moorehead, C.G.
Coordination of Accounting Procedure for Gas Purchased and Sales.

National Gas Survey (USA). Technical Advisory Committee on Finance.
156 p.

An overview is given of the gas industry and its financial problems, which have worsened over the past several years. Actions to attract capital and regulatory reforms which are needed are discussed, and causes of inflation are examined. Information on anticipated capital expenditures of the gas industry are surveyed and evaluated, with gas production, transmission, and distribution sectors considered separately. (bk).

Nissel, Hans E.

Pierson, E.W.

Pierson, E.W.

Schwartz, A.V.

Sternberger, E.A.

Trant, J.M.
4 p., mimeographed

Trebilcott, J.J.


A detailed discussion of the methodology employed to estimate the price of natural gas required to earn producers an allowable return. (ebd).


This edition contains parts 201 and 204 of the Federal Power Commission's rules and regulation in subchapter f, comprising the Uniform Systems of Accounts prescribed for natural gas companies in effect as of May 29, 1974. These systems of accounts are applicable in principle to all natural gas companies subject to the provisions of the Natural Gas Act, 15 U.S.C. 717 et seq. Transmittal sheet number 1 reflecting changes in the Uniform Systems Accounts in June 1975 is also included. (bk).

Wolf, Jordan B.
Section VI Joint Costing

Anthony, Robert L.

Brock, Horace R.

Feller, Robert E.

Perhaps the real reason for the lack of a practical solution to the complex problem of joint cost allocation is the attempt by most persons to solve the problem in a single step or with minimum additional effort. Since Phase IV price controls required a cost justification for price increases, perhaps it is time to try to agree on a uniform method of allocating cost to refined products. The volume-oriented cost allocator will have a long-run equalizing effect among the various products since the new prices will be based on volumes rather than the relative values of the products. The higher-priced products will have a slight tendency to reduce in price and the lower-price products to increase in price. Any change in the revenue barrel, either total or in product-mix, would cause a change in all costs. Two important variables, technology and time lags, are ignored. (author).

Griffin, C.H.

The author discusses the problem of multiple product costing for a refining industry in which a single raw material is used to produce a variety of finished products. The discussion includes descriptions of the sales realization method, the by-products methods, the replacement value method, the barrel-gravity method, and the gravity-heat unit method. The author concludes that no one method is likely to gain universal acceptance. (dn).

National Association of Cost Accountants.
Costing Joint Products. New York, National Association of Cost Accountants, 1957. (Research series no.31)

Where different products are necessarily produced in combination they are joint products with joint costs. To the extent that costs are joint, individual products in a combination have no objectively determinable separate costs. This study defines the field and explores the nature of joint costs. It also attempts to show how useful costs can be developed for joint products. A
distinction is made between by-products and co-products. Accounting methods appropriate to each of these types of joint products are described. Attention is given to methods both for financial reporting and for management decision analysis. Several of the examples used are drawn from the petroleum industry.

(cjb).

Nelson, W.L.

Nelson, W.L.

Price Waterhouse & Co.

Raub, Elizabeth B.

Smith, Langford Wheaton, Jr.
Bell, A.R., Jr.
Refinery Costs. By A.R. Bell, Jr. In Accounting Papers of the Sixth Annual Conference of Accountants, University of Tulsa, pp. 31-36, 1952.

Berlowitz, Charles

After a brief introduction, the author discusses the more important methods whereby refinery operating costs are distributed to products produced--the joint product method, the by-product method, the replacement value method, the barrel-gravity method, and the gravity-heat unit method. In his opinion, the replacement value method offers the best solution to the problem. (dn).

Berman, Norman D.

Blough, Carman G., ed.

Bumgarner, John C.

Farries, Allan C.

Fox, John L.

Certain practices and problems in three areas of refinery accounting (cost accounting, inventory valuation and inventory control) are discussed. Cost accounting stresses the determination of unit costs for processing operations and the use of such costs in aiding management decision making in buy, sell or process-further opportunities. Because refining involves a classic case of joint true costs, any allocation of crude cost to products is necessarily arbitrary and useful only for determining
inventory carrying amounts for financial statement purposes. A variety of inventory valuation methods for oil and oil products were used by the 53 companies surveyed. Companies use the sales realization method to allocate joint crude and refining costs among products for inventory purposes. Inventory control stresses production planning and control. The refinery production statement is the accountant's chief tool for controlling refinery throughput. (author).

Fox, John L.

Institute of Internal Auditors. Research Committee.

Marquart, S.E.

Nelson, W.L.

Nelson, W.L.

This brief article introduces the general problems in allocating refinery costs and explains why it is not possible to devise any entirely realistic way to allocate the total operating cost of a refinery to the several products being made. This situation arises because some of the products, such as liquid propane gas, refinery fuel gas, and residual fuel oil, sell at prices which are lower than the price of the crude used to produce these products. Other products sell at a price high enough to make up for the losses involved in the sale of the low-price products. Simply allocating the total operating cost according to the price received for each product (the product-price method) would be inadequate because low-price products would be charged less than the actual cost of production. (bk).

Nelson, W.L.

This article is a continuation of a discussion on allocating
refinery costs ('Questions on Technology: 1') but uses actual quantities, prices and operating costs to show there is no adequate way to allocate the refinery operating costs of the various products. The two methods usually discussed in the accounting literature are (1) the use of the same manufacturing cost for all products or (2) allocation of cost in proportion to the sales value of each product (product-price method). (bk).

Points, A.J.

Russell, Orpha B.

Spinning, H. M.

Sproles, Lyle R.


U.S. Federal Energy Administration.

Wehner, E.L.

White, J.S.
Accountant Looks at Refinery Costs. By J.S. White. In Accounting
Youngs, F.A.

The 'realization' method of allocating the total cost of production from a refinery to the various products has been abandoned by the Esso Standard Oil Company for refinery operating accounting and analysis purposes, and standard unit costs, based on the replacement concept, are used instead. The replacement costs computed are intended to represent the average cost of producing each product. It is believed this method gives a better indication of the relative costs of production than the realization method. (bk).
Section VIII  Transportation Accounting


Bierman, Sheldon L.

Callen, J.L.

The Averch-Johnson-Wellisz hypothesis as it applies to the interstate natural gas transmission industry is investigated and the impact on the industry of rate-of-return regulation is analyzed. Four optimization models are used to simulate the industry's input-output decisions. The constrained revenue-maximizing model is shown to make the best predictions in comparison with the constrained profit-maximizing and profit-maximizing models. Regulation is shown to have modified industry behavior. The social-welfare benefits from marginal cost pricing are analyzed and found to be positive. (bk).

Frankel, P.H.

Graber, Paul J., ed.

Hajnal, T.E.

Hale, D.

According to Pipeline and Gas Journal's survey of U.S. pipeline
construction, some 5600 miles of mainlines and gathering lines will be completed in 1977 of the total 20,400 miles proposed, planned, and under way in natural gas, crude oil, refined products, and coal slurry pipelines. Contractors will install about 1300 miles of cross country gas transmission lines and 950 miles of gas gathering lines. Specific data on the company, mileage, diameter, route, cost and contractor for each of the planned and proposed projects are included. (bk).

Hunter, P.H.

Lister, J.P.

Mason, K.D.

Miller, R.H.

Papageorges, D.

Powell, J.J., Jr.

Rabold, B.S., Jr.

Rau, R.J.

Segars, A.B.

Trebilcott, J.J.

U.S. Federal Energy Administration.


Total aggregate pipeline and compressor station construction expenditures reported in fiscal 1973 were 18.5% below those reported in fiscal 1972. Average cost per mile of transmission pipeline construction were generally comparable to costs reported in recent years. For offshore pipelines the average costs per mile were considerably higher than costs reported in 1972. For reciprocating compressors the average cost per horsepower installed as reported in 1973 was higher than that reported in 1972 for new compressor stations, and lower for additions to existing transmission compressor stations as related to the average cost reported during the past several years. Projects included construction of 134 onshore and 17 offshore construction projects with a total of 1530 miles of pipelines and 503,163 compressor horsepower, and expenditures of $392,609,776. (bk).


Van Ardenne, C.B.
15 p. (IGU/D-1-73)

Wolnik, M.A.

Examination of the Tax Reform Act of 1976 indicates that the impact on incentives for investment in oil and gas drilling programs will be minimal. Major features are to reduce tax shelters for investors in many industries while increasing the record keeping requirements. Prior to 1969, the oil and gas industries enjoyed favored-activity status to encourage investments through such tax incentives as intangible drilling and development cost (IDC) deductions and percentage depletions to allow for high risks. The 1969 Act reduced the percentage depletion 50 to 22 percent, set a minimum tax rate for long-term capital gains, and set a 50 percent ceiling on earned income taxes. Major changes in 1975 repealed the percentage depletion allowance for major companies. The 1976 Act limits the investor's risk if the venture should fail, reduces the tax benefit of IDC, and increases the portion of return to unearned income so that total tax payments are larger. (bk).

Bennett, C.

The Tax Reform Act of 1976 severely restricted the tax exemptions for oil and gas reserves. This will require that oil and gas companies practice careful tax planning.

Beveridge, John Wendell

Bolch, B.

Brady, George J.

Brannon, Gerard M.

Brannon, Gerard M.
Bravenec, L.L.
Author is 'The Editor' who can indirectly be found to be Bravenec.

Breeding, C.W.

Presents a comprehensive guide to the theories and legislation on accounting for natural resources. Surveys the relevant regulations and court decisions, thus providing a fairly recent, thorough introduction to this topic. (ebd).

Cox, James C.

Day, Emmett B.


Doblin, Clair P.

The United Nations Economic and Social Council together with the International Organization of Supreme Audit Institutions are attempting to solve some of the problems of countries in which they operate. Complaints range from the exporting of jobs and tax evasion from the base countries to control over national economic policies, restrictive business practices and tax evasion in the host countries. Solutions to the problems will be sought by allowing the Supreme Audit Institutions to audit tax collections, public related enterprises such as oil or utilities, purchases and contracts. Also, the Supreme Audit Institutions will act as an arbitrator in disputes. The two major problems in implementing these solutions will be dealing with the variety of national taxation systems and the monopolistic activities of some businesses and industries.
Englebrecht, T.D.

An in-depth review of the hows and whys of oil and gas depletion allowances is presented in this article. There are certain circumstances when larger allowances may be taken.

Erickson, Edward Walter

Financial Accounting Standards Board.

Flaim, Silvio J.

Glickman, David G.

Hallman, William P., Jr.

Hammermann, John, Jr.

Hart, Ralph A.

Hassell, L.
Benefits of Percentage Depletion Modified Somewhat by Tax Reform
Changes in the depletion allowance will affect businesses that qualify and could result in some oil and gas companies receiving refunds.

Hoy, William A.

Hughes, Vester T., Jr.

Jenkins, Glen P.

Johnson, Bruce H.

Johnson, Lowell C.

Kahn, Alfred E.

Katten, Melvin L.

Larason, Timothy M.

The special accounting features of oil and gas partnership agreements give separate accounts for each partner. The Tax Reform Act of 1976 provides that partnership income and deductions will not be recognized if the allocation 'does not have
substantial economic effect.' The partner who benefits from a special allocation of tax deductions must bear the entire economic cost (burden) of such deductions. The typical oil industry partnership arrangement is a co-ownership where each partner owns a specified fractional undivided interest subject to an operating agreement naming one of the owners as operator for the joint account which is referred to as a 'joint venture' or a mining partnership. This avoids classification as an association taxable as a corporation only by each owner's retention of the right to take production in kind.

Leftwich, Robert B.

McDonald, Stephen L.

Miller, Kenneth G.

Miller, Kenneth G., ed.

Moyers, Donald P.


Peck, J. Lane
Income Tax Problems Involved in Unitization of Oil and Gas Properties. By J. Lane Peck. Oil & Gas Taxes, section 2019,

Rabkin, Jacob

Contains samples of contract forms used in oil and gas ventures with commentary on tax implications. Refer to the index volume under 'Oil and gas' for a list of available forms. (cjb).

Rise and Fall of Oil Payment. Oil & Gas Tax Quarterly, vol. 21,
pp.74-78, December, 1972.

Rosenman, James
Types of Oil and Gas Interests and Their Tax Treatment: an
Introductory Survey. By James Rosenman. In American University

Seidler, Lee J.
Impacts of Percentage Depletion Repeal on Oil and Gas Companies.
By Lee J. Seidler. Accounting Issues, Bear Stearns & Co., p.1-5,
April 29, 1975.

Shaw, T.T., ed.
Rental Payments in Acquisition of Oil and Gas Leases: Tax Clinic.
By T.T. Shaw, ed. Journal of Accountancy, vol. 109, p.82,
March, 1960.

Simon, Stanley C.
La Gloria Decision Shifts Depletion But Doesn't Say Where
Manufacturing Begins. By Stanley C. Simon. Journal of Taxation,

Steiner, Peter O.
Percentage Depletion and Resource Allocation. By Peter O.

Thomas, R.C.
Taxation of Intangible Drilling Costs under the 1976 Tax Reform
R.C. Thomas. Taxes, the Tax Magazine, vol.56, no.6, pp.358-371,

Congress, in the Tax Reform Act of 1976, legislated reforms that
would severely dampen incentives for oil and gas exploration.
This is disturbing in light of increasing U.S. oil imports and
decreasing domestic exploration and development efforts. (ljs).

Townsend, P.S.
Appraisal of Petroleum Storage and Distribution Centers. By P.S.
Townsend. Appraisal Journal, vol.46, no.2, pp.165-175, April,
1978.

When an appraiser values a petroleum storage and distribution
center, he encounters unusual types of assets and site
considerations. These and other features unique to such centers
are discussed. (ljs).

Treatment of Losses on Oil and Gas Properties. Oil & Gas Tax Quarterly,
vol. 21, pp.79-84, Dec., 1972.


Welsch, Godfrey W.  

Examination of the Tax Reform Act of 1976 indicates that the impact on incentives for investment in oil and gas drilling programs will be minimal. Major features are to reduce tax shelters for investors in many industries while increasing the record keeping requirements. Prior to 1969, the oil and gas industries enjoyed favored-activity status to encourage investments through such tax incentives as intangible drilling and development cost (IDC) deductions and percentage depletions to allow for high risks. The 1969 Act reduced the percentage depletion 50 to 22 percent, set a minimum tax rate for long-term capital gains, and set a 50 percent ceiling on earned income taxes. Major changes in 1975 repealed the percentage depletion allowance for major companies. The 1976 Act limits the investor's risk if the venture should fail, reduces the tax benefit of IDC, and increases the portion of return to unearned income so that total tax payments are larger. (bk).


Soaring profits of U.S.-based oil giants have brought to light a great diversity of bookkeeping methods within the industry. Profits generated by increased inventory values between time of purchase or production and time of sale were finally acknowledged. Some companies, such as Texaco, account for oil inventories on a first in - first out (FIFO) basis. Costs in this procedure will be entered at older, lower prices during inflationary periods. Texaco attributes 44% of its $589-million net income for the quarter to inventory profits in its U.S. and foreign operations. Gulf Oil, on the other hand, uses last in - first out (LIFO) accounting for almost all its operations except those in Canada. Other companies fall in-between. Many European countries insist on FIFO accounting because it gives them more to tax. Current talks with Arab states have brought about lower reported profits for the quarter as companies tried to allow for retroactive effect of negotiations.

Abdel-Khalik, A. Rashad
Transfer Pricing--a Synthesis. By A. Rashad
Alfredson, F.K.

Allred, John Burnis

American Gas Association.

American Institute of Certified Public Accountants. Oil and Gas Reserve Data Committee.

This proposed guide discusses the auditing procedures to be applied to oil and gas reserve information that is required by the SEC to be included in the notes to the financial statements of entities with oil and gas producing activities. The proposed guide originally was developed because of FASB Statement No. 19 requirements and amendments to Regulation S-X by the Securities and Exchange Commission (ASR nos. 253 and 257). (author).

American Institute of Certified Public Accountants.
Accounting Principles Board.

American Institute of Certified Public Accountants.
Accounting Principles Board. Committee on Extractive Industries.

American Petroleum Institute.


In light of the energy crisis, oil companies are going to have to spend more money and work harder at finding oil in hard-to-find places. They are going to have to spend billions. How they spend it, and how successfully, are going to determine their profitability for years to come. It is becoming
harder and harder to compare one company's earnings with another's—especially Texaco's with those of the rest of the industry. It has been suggested that Texaco was inflating its earnings. The implication was that Texaco was underdepreciating and thus overstating earnings by almost 80%. According to John F. Klingstedt of the University of Oklahoma, Texaco is counting apples while its rivals count oranges. Texaco's methodology makes meaningful comparisons with the others impossible. (bk).

Armer, M.J.

Errors found in the development of oil and gas royalty verification systems are discussed. Verifying oil and gas income, testing royalty receipts, types of errors, and elimination of errors are also discussed. (bk).

Arrington, J.R.

Arthur Andersen and Co.

Arthur Andersen and Co.

Arthur Andersen and Co.
Accounting for Oil and Gas Exploration Costs. Chicago, Arthur Andersen and Co., 1963.

An exposition of full-cost accounting. (Field).

Arthur Andersen and Co.
Arthur Andersen and Co.  
FPC Rulemaking on Accounting for Gas and Oil 
Exploration and Development Costs. Chicago, Arthur 
362 p. (Cases in Public Accounting Practice, vol. 9)

Arthur Andersen and Co.  
Intangible Development Costs Applicable to Productive 
Oil and Gas Properties. In their Accounting and 
Reporting Problems of the Accounting Profession, pp. 

Australian Society of Accountants and the Institute of 
Chartered Accountants in Australia.  
Accounting for the Extractive Industries: Statement of 
Accounting Standards DS 12. The Australian 

Average Freight Rate Said Reasonable Gauge for Determining 
Interaffiliate Charges for Shipping Crude. Petroleum 
Intelligence Weekly, vol. 16, no.49, p.8, Dec. 5, 
1977.

Bad Effects of FASB Statement 19 Denied. CA [Chartered 
1978.

Badger, Ralph E.  
Fair Return for Natural Gas Companies. By Ralph E. 
832-842, Dec. 4, 1952.

Bailey, Andrew D., Jr.  
Goal and Resource Transfers in the Multigoal 
Organization. By Andrew D. Bailey, Jr. and Warren J. 

Baker, C. Richard  
Defects in Full Cost Accounting in the Petroleum 
Includes references.

The full cost method matches the costs of dry holes, 
which produce no future benefit, against revenues from 
producing wells. If the markets are efficient, no 
capital inflow should result from the increase in 
earnings achieved through the adoption of the full 
cost method. Full cost can alter income between 
periods by allowing the company to capitalize
exploration costs and yet not begin subjecting these capitalized charges to depletion until exploration has been completed. Capitalized costs pertaining to abandoned leases may be retained on the books indefinitely. The successful efforts method defines as assets only those items that have clearly discernible future benefit. It is conservative because it minimizes the measurement of assets and it recognizes losses when incurred. It avoids capitalizing the estimated 80 percent of wildcat wells drilled which result in failure to discover hydrocarbons in commercial quantities.

Balachandran, Sarojini
1 v.

A slightly dated but otherwise excellent bibliography on the subject of energy statistics, arranged topically. (ljs).

Bankston, G.C.

Bartram, John G.

A good discussion of the problems of relating exploration costs to discoveries and suggestions for evaluation of exploration department results. (Field).

Bass, Jarman

Batt, R.E.

Bee, J. Kevin

Bell, A.R., Jr.
Refinery Costs. By A.R. Bell, Jr. In Accounting Papers of the Sixth Annual Conference of Accountants, University of Tulsa, pp. 31-36, 1952.

Bell, Charles R.

Bennet, E.D.

Bennett, C.

The Tax Reform Act of 1976 severely restricted the tax exemptions for oil and gas reserves. This will require that oil and gas companies practice careful tax planning.

Berlowitz, Charles

After a brief introduction, the author discusses the more important methods whereby refinery operating costs are distributed to products produced—the joint product method, the by-product method, the replacement value method, the barrel-gravity method, and the gravity-heat unit method. In his opinion, the replacement value method offers the best solution to the problem. (dn).

Berman, Norman D.
Berndt, E.R.
Technology, Prices, and the Derived Demand for Energy.
By E.R. Berndt and D. Wood. Review of Economics and

Beveridge, John Wendell
Intangible Drilling Costs. By John Wendell Beveridge.
In his Federal Taxation of Income from Oil and Gas

Bierman, Harold
Harold Bierman, Roland E. Dukes and Thomas R. Dyckman.
Journal of Accountancy, vol. 138, no. 4, pp. 58-64,

Bierman, Sheldon L.
Oil Tank Ships: Their Ownership and Control. Report
to the National Science Foundation. By Sheldon L.
(Mimeographed).

Blough, Carman G., ed.
Classification by Oil Companies of Materials,
Supplies, and Equipment: Current Accounting and
Auditing Problems. By Carman G. Blough, ed. Journal

Bolch, B.
Depletion Allowance and Vertical Integration in the

Bollinger, Everett Richard, Jr.
Management Information from Accounting Reports for
Liquefied Petroleum Marketers. By Everett Richard

Bowles, John T., et al.
Full Costing for Petroleum Exploration. By John T.

Widely used in Canada, full cost accounting could
suffer a setback if the AICPA Accounting Principles
Board findings are negative. This analysis is based
on a Canadian submission to the APB. The full cost
concept of accounting for exploration and development
costs in the oil and gas industry was introduced ten
years ago. Adoption has been heavy, and it is considered the dominant practice in Canada. Primary motivation was dissatisfaction with the conventional method of accounting. One sound study had shown that companies' earnings were higher after the switch-over to full costing. In addition, effective depletion rates, reserve data, and land holdings and cash-flows are monitored to evaluate progress of the companies in the industry--full costing has provided a measure of comparability not previously available. (mh).

Bradley, Paul G.

Brady, George J.

Brannon, Gerard M.

Brannon, Gerard M.

Bravenec, L.L.
Continued Availability of Percentage Depletion on Oil and Gas. By L.L. Bravenec. Oil and Gas Tax Quarterly, vol. 23, no. 4, pp. 204-232, June, 1975. Author is 'The Editor' who can indirectly be found to be Bravenec.

Breeding, C.W.

Presents a comprehensive guide to the theories and legislation on accounting for natural resources. Surveys the relevant regulations and court decisions, thus providing a fairly recent, thorough introduction to this topic. (ebd).

Brock, Horace R.
Brock, Horace R.

This chapter defines natural resources and then examines some of the principal accounting problems peculiar to companies engaged in extracting natural resources. Most of these accounting problems relate to the large capital outlays necessary to find and develop natural resource deposits and can be examined in the following sequence: (1) accounting for the acquisition and development of property, (2) depletion and amortization and depreciation of capitalized costs, and (3) special property interests. Other accounting problems of lesser significance are briefly covered. (bk).

Brock, Horace R.

The results of a survey on accounting for exploration and development costs and disposition of capitalized costs. (Field).


Bumgarner, John C.

Bybee, W. Cecil


Calhoun, F.
Arguments Mustered Against Oil-Firm Accounting Shift.
Callen, J.L.

The Averch-Johnson-Wellisz hypothesis as it applies to the interstate natural gas transmission industry is investigated and the impact on the industry of rate-of-return regulation is analyzed. Four optimization models are used to simulate the industry's input-output decisions. The constrained revenue-maximizing model is shown to make the best predictions in comparison with the constrained profit-maximizing and profit-maximizing models. Regulation is shown to have modified industry behavior. The social-welfare benefits from marginal cost pricing are analyzed and found to be positive. (bk).

Camm, Frank A., Jr.
Written for the U.S. Dept. of Energy.

Campbell, John M.

Castleberry, Jack C.

Challa, Krishna

Financial results for the year ending 1977 may be found in vol. 2, no. 4, pp. 1-4, April, 1978. Those for the first quarter of 1978 appear in vol. 2, no. 6, pp. 1-4, June, 1978. Similar data may be found in later issues of this periodical. (ljs).


Coffey, C.W.

Cole, J.F.

Collins, Daniel W.

Studies concerned with the market consequences of alternative accounting methods typically rely on some forms of the capital asset pricing model and test for price effects or information content under the (explicitly or implicitly) maintained hypothesis of market efficiency. A careful reading of Eskew's research hypothesis and subsequent analysis and interpretation of results suggest that he may have confused the two issues. His research hypothesis would appear to be aimed at a test of market efficiency. Yet his association methodology is clearly more appropriate for addressing questions of information content. Eskew states that Collins and O'Connor should have argued that studies concerned with market consequences of accounting alternatives must rely on some model of market equilibrium. As Fama (1976) notes, the capital asset pricing model is...
only one model of market equilibrium.

Collins, Daniel W.

The SEC's proposal to eliminate full cost accounting in the oil and gas industry tries to shift investor's emphasis away from the published income statements toward a statement that expenses outlays for exploration immediately and treats the estimated value of resulting discoveries as current income. This shift in emphasis will have an adverse effect on the securities market and will make it more difficult for full cost companies to obtain funds in the capital market. This change from full cost to successful efforts accounting could: (1) alter management's exploration, production, and investment strategies, (2) impose certain costs on affected companies that could lower the value of these firms, (3) increase the cost firms will have to bear in obtaining external financing, and (4) have significant implications for national energy exploration.

Collins, S.

A lay introduction to the definition of reserves and the problems in reserve identification and estimation. (ebd).

Connolly, Hugh

Connor, Joseph E.

Presents the initial discussion of the need for a discovery value approach to the accounting for oil and gas exploration and development activities. Points out the shortcomings of traditional accounting measures in the industry. Lays out the theoretical
support and the basic methodology for value accounting in this industry. (ebd).

Copp, E. Anthony

Corey, Gordon R.


Coutts, W.B.

Cox, James C.

Cox, James C.

Crandall, John R., et al.

Davidson, Sidney
Plant Accounting Regulations of the Federal Power Commission--a Critical Analysis. By Sidney Davidson. Ann Arbor, School of Business Administration,
Davis, R.E.

Provides an introduction to the engineering approach to the evaluation of reserves of natural gas. The method is also applicable to crude oil reserves. (ebd).

Davis, Warren B.

Day, Emmett B.

De Chazeau, Melvin G.

Deakin, Edward B.

As a result of the allegations made about differences between companies using alternative accounting methods for oil and gas exploration, a study was conducted to evaluate companies using alternate methods. The results suggest that there are no substantive differences between nonmajor companies using each method except that full cost companies tend to have higher debt levels. It did not appear that the debt proceeds were directed to exploration in greater proportions than for successful efforts companies. (ebd).

Deakin, Edward B.
Research, University of Texas at Austin, May, 1978, 78 p.

Presents a comprehensive survey of the industry and various segments within it. The paper examines the types of companies using alternative accounting methods, the participation of each type of company in exploratory drilling, production, offshore lease bidding, in the acquisition of other companies, and in the raising of debt and equity capital on securities markets. (ebd).

Deakin, Edward B.

An overview of the accounting and reporting issues in the extractive industries. Covers recent topics related to reserve recognition accounting and latest tax regulations. (ebd).

Deakin, Edward B.

Demme, Roy D.

Desprairies, P.

In view of the difficulties of estimating ultimate world-wide resources of crude oil, a Delphi-type poll of world experts was carried out in 1976-77 to obtain the basic data necessary for making an estimate of such resources. The poll covered conventional petroleum reserves (onshore and offshore at water depths of less than 200 meters), and also of deep offshore and polar petroleum. The conclusions drawn
are that ultimate world-wide conventional petroleum reserves will be around 250 to 300 GT (gigatons?). Discovery costs are likely to increase substantially between now (1977) and 1985/90, but there will be a significantly smaller increase in the costs of developing deposits when discovered. Petroleum recovered from deposits will increase from 25% (1977) to 40% by the year 2000. The increasing contribution of enhanced recovery to the annual increase in reserves (55% of the gross increase in reserves in the year 2000) is likely to result in the re-evaluation of oil deposits. (bk).

Detlefse, W.K.


Doblas, R.S.

Doblas, R.S.

Doblin, Clair P.

The United Nations Economic and Social Council together with the International Organization of Supreme Audit Institutions are attempting to solve some of the problems of countries in which they operate. Complaints range from the exporting of jobs and tax evasion from the base countries to control over national economic policies, restrictive business practices and tax evasion in the host countries. Solutions to the problems will be sought by allowing the Supreme Audit Institutions to audit tax collections, public related enterprises such as oil or utilities, purchases and contracts. Also, the Supreme Audit Institutions will act as an arbitrator in
disputes. The two major problems in implementing these solutions will be dealing with the variety of national taxation systems and the monopolistic activities of some businesses and industries.

Dougherty, Elmer L.

Dubois, Donald A.

The change to full cost accounting and the resulting change in net income for the petroleum industry was measured and compared with changes in stock prices. As indicated by the efficient market hypothesis, the changes in profit are not reflected in stock prices in the short or long-run.

Duckworth, Patricia Lynch

Dunn, J.F.

Dutton, Granville

Model accounting procedures will continue to increase in usefulness and importance as joint operations become more a significant portion of the petroleum industry's activities. The Council of Petroleum Accountants Societies has devised a standard form applicable to a great variety of situations with a
minimum of option elections and alterations. The standard forms and procedures constitute contracts under which millions of dollars are exchanged annually. The comprehensive nature of the forms provides a basis for negotiating solutions to the disputes which arise. Although some of the controversies arise out of imprecise language in the model form, the principles are adequately presented and sufficiently broad to suggest a compromise solution for nearly every dispute. COPAS-68 is an accounting procedure which facilitates and enhances the operating agreements under which most of our major oil and gas operations are conducted. (bk).

Eckbo, P.L.

Eckstein, Otto

Eggleston, W.S.

An introduction to the identification and definition of petroleum reserves. Provides a background of the engineer's approach to reserve estimation at various stages in the economic cycle of a petroleum reservoir. (ebd).

Elmadfai, A.O.D.
263 p. (Pub. no. 76-28800)
Thesis, Ph.D.

A normative approach is sought to laying down a feasible basis for formulating an accounting theory that provides a neutral solution with respect to all conflicting interest groups in the accounting methodology. Business sciences are considered to include the best description of the environment within which the accounting function must operate. Some
relevant parts of these sciences were carefully investigated and generalizations made. These generalizations are used to derive a set of basic integrated accounting concepts which are used to formulate a normative operating objective for accounting as well as to formulate a set of related accounting propositions that are required to guide and evaluate contemporary accounting practices. It was concluded that the lease is the most appropriate cost center with which the pre-production costs of an oil producer should be identified and accumulated. (author).

Elting, W.W.  

Englebrecht, T.D.  

An in-depth review of the hows and whys of oil and gas depletion allowances is presented in this article. There are certain circumstances when larger allowances may be taken.

Erickson, Edward Walter  

Erickson, Edward Walter  

Erickson, Edward Walter  
The purpose of accounting is to provide information for users who make informed judgments and decisions regarding the allocation of scarce resources. If accounting information is not useful for or is counterproductive to sound decision-making, then it is not fulfilling its intended purpose. The purpose of this study is to examine the interaction between accounting information and one set of users, investors. Previous published empirical research in this area has examined the reactions of investors to changes in accounting methods. The results of these studies have indicated that investors in the aggregate perceive correctly the effect of changes in accounting methods. This study examines the long-term response of investors to the use of two different accounting methods for reporting similar economic events. The environment in which this study is set is the extractive petroleum industry. (author).

Eskew, Robert K.

In this study two groups of comparable extractive petroleum firms are utilized to examine the relative effect of the field or successful efforts and full costing methods on the expense and profit streams. The results provide additional empirical evidence that the accounting alternative adopted by a firm does not appear to have the capability of affecting security returns. If investors use the accounting information to predict future levels of market risk measure, the field costing method appears, on the basis of these results, to be superior to the full costing method. These conclusions do not imply that there are no uses for which accounting data prepared on the full costing basis would not be superior to data prepared using the
field costing method. Questions about the form of the relationship between accounting information and share price and security returns are still unanswered. (author).

Esposito, Pasquale L.

This article reviews the role of the General Accounting Office (GAO) in conducting verification examinations of financial and energy information in the petroleum industry. An historical review of accounting principles used by the industry is given, including a discussion of successful efforts versus full cost accounting and the roles of the SEC, APB, FASB, FPC and Congress in developing standard accounting practices. The important issues yet to be resolved are: (1) how to develop appropriate industry accounting practices, (2) what alternative practices are possible, (3) what intentions the Congress has and what information it needs, and (4) how capable the industry is in complying with Section 503, Title V, of the Energy Policy and Conservation Act of 1975. (bk).

Farries, Allan C.
Date also cited as 1954.


Feller, Robert E.
Equations, charts.

Perhaps the real reason for the lack of a practical solution to the complex problem of joint cost allocation is the attempt by most persons to solve the problem in a single step or with minimum additional effort. Since Phase IV price controls required a cost justification for price increases, perhaps it is time to try to agree on a uniform method of allocating cost to refined products. The volume-oriented cost
allocator will have a long-run equalizing effect among the various products since the new prices will be based on volumes rather than the relative values of the products. The higher-priced products will have a slight tendency to reduce in price and the lower-price products to increase in price. Any change in the revenue barrel, either total or in product-mix, would cause a change in all costs. Two important variables, technology and time lags, are ignored. (author).

Fetzer, Joseph Baer

Field, Robert E.

This study concludes that the common accounting problems of the extractive industries are best solved by adherence to the traditional concepts of realization and matching. Because of the risks involved, a conservative approach is suggested in the application of these concepts. The key to the application of the traditional concepts of realization and matching to extractive operations is found in the similarity of minerals in the ground to inventories. From this basic orientation, the study recommends accounting practices which, if adopted, would narrow alternative accounting practices. The principal conclusion of this study is that the 'successful efforts' approach is more useful than 'full cost accounting' in the extractive industries. (author/bk).

Field, Robert E.

Field, Robert E.
1 v. (various pagings)
Includes an updated version of the author's survey of joint cost accounting literature.

Fieldman, A.

Many natural gas utilities have found it necessary to engage in direct pursuit of supplemental gas supplies, raising unanticipated regulatory issues. A local regulatory policy may have the opposite effect from what it appears. One form of above-the-line treatment is not equivalent to all other such forms and may be more adverse to inducing exploration than an outright below-the-line rate-making policy. The author reviews how exploration funding is financed and how gas is distributed if the exploratory venture is successful. The regulatory aspects of some cases are discussed, and the author concludes that it is desirable for distributors to have some sort of formal understanding on rate-making treatment with their state regulators before exploration and development funds are committed. (bk).

Financial Accounting Standards Board.
1 v. (various pagings)

Financial Accounting Standards Board.
20 p.

Financial Accounting Standards Board.
128 p.

Suspends the effective date of Financial Accounting Standard No. 19 and revises some of the provisions of that standard. (ebd).


A comprehensive discussion of the issues involved in accounting for the current costs and values of oil and gas reserves. (ebd).


This reference book is chiefly a compilation of basic facts about oil and gas companies, combining the type of financial information typically found in Standard & Poor's Corporation Records with information about properties, production, well completions, reserves, refineries, pipe-lines, transportation, etc. It is international in scope, with entries varying from a few lines to three or four pages. Privately or closely-held corporations are included, but information about them is minimal. (ljs).


Finnell, Jack C.
Full Costing in the Oil and Gas Producing Industry.
By Jack C. Finnell, Leland G Ayer and Frank B. Harris.

Fisher, Franklin M.

Fisher, Franklin M.

Fiske, Leland E.

Fiske, Leland E.

Flaim, Silvio J.

Flaim, Theresa

Flory, Steven M.

FASB Statement No.19 requires oil and gas companies to use a form of the successful efforts method in
accounting for their exploration, development, and production activities. The successful efforts method allows only the costs of successful drilling efforts to be capitalized and charged against the producing wells. Each well is treated as a separate cost center with this method rather than an entire field or large geographic areas, as is the case using the full cost method. Both the successful efforts method and the full cost method have been the topic of much controversy and discussion within and outside of the accounting profession. An AICPA research study published in 1969 supported the successful efforts method. The greatest impact of FASB Statement No. 19 will be on those producers using the full cost method.

Ford, Presley, Jr.
Accounting for Unitized Oil and Gas Operations. By Presley Ford, Jr.. In Accounting Papers of the 6th Annual Conference of Accountants, University of Tulsa, pp. 69-78, 1952.

Foster Associates.

Foster, George J.

Fox, John L.

Certain practices and problems in three areas of refinery accounting (cost accounting, inventory valuation and inventory control) are discussed. Cost accounting stresses the determination of unit costs for processing operations and the use of such costs in aiding management decision making in buy, sell or process-further opportunities. Because refining involves a classic case of joint true costs, any allocation of crude cost to products is necessarily arbitrary and useful only for determining inventory carrying amounts for financial statement purposes. A variety of inventory valuation methods for oil and oil products were used by the 53 companies surveyed. Companies use the sales realization method to allocate joint crude and refining costs among products for
inventory purposes. Inventory control stresses production planning and control. The refinery production statement is the accountant's chief tool for controlling refinery throughput. (author).

Fox, John L.


Francis, Charles I.

Frankel, P.H.

Franzen, A.B.

Frazier, Charles H.

Garrett, Ray

Gibson, Lloyd C.

Ginsburg, Feldman and Bress, Attorneys for Ad Hoc Committee

Glickman, David G.

Goodson, J.A.

This article describes the types and forms of jointly owned oil and gas ventures, and some of the accounting problems which arise in conjunction with such joint ventures. Income taxes, standard forms, the joint venture agreement, and the necessary accounting records are discussed. Other topics include fieldwide units, carried interests, net profits interests, forced pooling, operations by less than all parties, taking production in kind, and salvage value of repressuring materials. The article also includes discussions of pipeline joint ventures, gasoline plant joint ventures, and audits. (bk).

Graber, Paul J., ed.

Green, E.A.

Greer, Howard C.

This article discusses the three methods commonly employed in establishing interdepartmental transfer prices, namely (a) cost, (b) market, and (c)
negotiation. Observing that no one of the three is wholly acceptable as a measure of departmental performance, a combination of diverse approaches is suggested to provide more useful evaluation and motivation criteria. This combination consists of crediting the producing unit with the cost or market price, whichever is higher, and charging the receiving unit with the cost or market price, whichever is lower. The difference is identified as the cost to the company of compelling two divisions to do business with each other. (bk).

Griffin, C.H.
The author discusses the problem of multiple product costing for a refining industry in which a single raw material is used to produce a variety of finished products. The discussion includes descriptions of the sales realization method, the by-products methods, the replacement value method, the barrel-gravity method, and the gravity-heat unit method. The author concludes that no one method is likely to gain universal acceptance. (dn).

Grow, G.C., Jr.
The author examines some recent estimates of U.S. natural gas reserves and concludes that abundant resources of natural gas can be made available as a continuing source of energy. At present rates of annual production (19 trillion cu. ft.), the gas supply consists of 215 trillion cu. ft. of probable gas, 363 trillion cu. ft. of possible gas and 345 to 395 trillion cu. ft. of speculative gas, with a life index of about 42 to 62 years. Additional gas is available from abandoned wells which could become economically viable at higher gas prices. (bk).

Gruy Federal, Inc.
The Federal Energy Administration (FEA), other government agencies, Congress and industry are affected by the mandate of the Federal Government to provide for prices that reflect the true replacement cost of oil and gas. The Office of Oil and Gas has contracted for a series of studies on oil and gas replacement cost. The study projected the development and production costs for twenty four geographical regions and six well depths for the years 1980, 1985, and 1990. The identification and collection of reliable and consistent historical series is essential to the generation of accurate forecasts of replacement costs. A clear delineation is drawn between the cost of drilling and completing development wells and the cost of operating producing wells. Development well costs are projected on a cost per foot basis. Operating costs of producing wells are projected on a cost per month basis.

Gruy, Henry J.

Hagerman, Robert L.

A critique of an article by Dubois. The author points out that the credibility of the study suffers due to errors of omission in research techniques. (ljs).

Hajnal, T.E.
Author also cited as Jajnal.

Hale, D.

According to Pipeline and Gas Journal's survey of U.S. pipeline construction, some 5600 miles of mainlines and gathering lines will be completed in 1977 of the total 20,400 miles proposed, planned, and under way in
natural gas, crude oil, refined products, and coal slurry pipelines. Contractors will install about 1300 miles of cross country gas transmission lines and 950 miles of gas gathering lines. Specific data on the company, mileage, diameter, route, cost and contractor for each of the planned and proposed projects are included. (bk).

Hallman, William P., Jr.

Halverson, James T.

Hammermann, John, Jr.

Hardy, D.W.

The 'base method' of inventory valuation is favored over FIFO in raw materials accounting because it is more realistic when stocks fluctuate rapidly.

Harpster, Wayne W.

Reviews advantages and disadvantages of successful cost vs. full cost accounting methods in petroleum exploration. Provides an analysis of the methodology, advantages, and disadvantages of the full cost accounting procedures. (tr).

Hart, Ralph A.
Hassell, L.


Changes in the depletion allowance will affect businesses that qualify and could result in some oil and gas companies receiving refunds.

Hawkins, David F.


An examination of the interrelationship of the FASB's principles with macroeconomic aspects of national growth.

Heazlewood, C.T.


Hershman, A.


The risks to investors in oil drilling funds are greater because of increased costs of pipe and rigs as well as labor and drilling properties, uncertainty about prices, tax reforms, and IRS audits.

Hoy, William A.

Deducting the Cost for Unproven Royalties. By William A. Hoy. Oil & Gas Tax Quarterly, vol. 21, pp.133-159,

Huckaba, William A.

Hughes, Vester T., Jr.

Hunter, E.E.

Hunter, E.E.

Hunter, P.H.

ICF, Inc.

ICF, Inc.

The finance submodel produces industry-wide income statements for the oil and gas producing industries,
which permit PIES results to be translated into
detailed schedules of oil and gas industry capital
requirements. This report describes the finance
submodel in terms of its logic, input data, and output
format. (bk).

Institute of Internal Auditors.
Systems Auditability & Control Report. Altamonte
3 v. Flowcharts, graphs, tables.
Researched by Stanford Research Institute.

Institute of Internal Auditors. Research Committee.
Petroleum Refining. In its Journal Auditing in

International Petroleum Encyclopedia. Tulsa, OK, Petroleum
478 p.
An annual.
Maps showing worldwide oil flow, refining capacity,
worldwide reserves and production are presented.
Also included are an index of fields, major oil and
gas fields, world energy requirements, drilling
outlook, well completions, offshore rigs, production
outlook and production tables, world reserves,
enhanced recovery, refining outlook, refinery capacity
tables, survey of sulfur plants, crude oil movements,
pipeline outlook, tankers, lay barges, gas processing,
exploration and geophysical data, conversion tables,
world petroleum companies, and a list of relevant
governmental agencies. (bk).

Irving, Robert H.
Accounting Practices in the Petroleum Industry. By
Robert H. Irving and Verden R. Draper. New York,

Jeffrey, S.J.
Changing Economics of the Gas Industry. By S.J.
Jeffrey. American Gas Assoc., Operating Sect.
(Arlington, Va.), Proceedings, no. 76-D-44, p. VP,
1976.
Presented at the American Gas Association Conference,
Natural gas price trends are analyzed in connection
with other energy sources. The problems of financing
and billing in utilities are discussed and the impact
of higher prices on consumption is calculated. (bk).
Jenkins, Glen P.

Johnson, Bruce H.

Johnson, Lowell C.

Johnson, Robert T.

Provides a theoretical discussion of the importance of oil and gas reserves in financial statements. Concludes that determining oil and gas reserves can significantly influence the level of reported income. Consequently, CPAs should examine the reasonableness of reported reserves as a normal part of the auditing process. (tr).

Johnson, Robert T.

Measures income over a ten-year period for two hypothetical companies, one which uses full cost accounting and the other which uses the conventional successful efforts method. It also compares final balance sheets and income statements under the two methods. The author shows that financial statements for full cost methods can result in much more encouraging statements, thus affecting stock values, since full cost results in a higher net present value for the firm. He concludes that full cost methods result in more reasonable statements and that, without these benefits, small companies would have difficulty in spreading risk by limiting the flow of external capital into small companies. The author thinks that the method should be used by all firms. (tr).
Jones, Donald P.

Kahn, Alfred E.

Kahn, Alfred E.

Kalisch, R.B.

Kalter, Robert J.

Kaplan, Robert S.

Karg, Robert Lawrence

Katten, Melvin L.

Keeler, A.G.
Citizen's Oil Factbook: What Every Citizen Should

Keplinger, C.H., et al.

Keplinger, H.F.

Keplinger, H.F.

Klingstedt, John P.

Examines the pros and cons of full cost vs. successful cost methods in petroleum accounting. Uses survey data to compare the quantitative impact of full costing. Finds that a switch to full costing results in higher earnings, from between ten and several hundred percent. In addition to increasing income in most cases, the change resulted in income smoothing. The author also examines retroactive application of full cost methodology and concludes that the differences are cosmetic and thus do not offset the lack of comparability arising from adoption of the full cost method. (tr).

Klingstedt, John P.

Koons, R.L.

Criticizes Robert T. Johnson's article, 'Full Cost vs. Conventional Accounting in the Petroleum Industry.'
The present author states that biases in Johnson's model make his conclusions about the superiority of full costing methodology questionable. (tr).

Kornfeld, Joseph A.
Natural Gas Economics. By Joseph A. Kornfeld.
Dallas, Transportation Press, 1949.
261 p.

Korsmeyer, E.W.
Interpretation of Earnings Changes in an Oil Company.

Lafferty, George W.

Larason, Timothy M.

The special accounting features of oil and gas partnership agreements give separate accounts for each partner. The Tax Reform Act of 1976 provides that partnership income and deductions will not be recognized if the allocation 'does not have substantial economic effect.' The partner who benefits from a special allocation of tax deductions must bear the entire economic cost (burden) of such deductions. The typical oil industry partnership arrangement is a co-ownership where each partner owns a specified fractional undivided interest subject to an operating agreement naming one of the owners as operator for the joint account which is referred to as a 'joint venture' or a mining partnership. This avoids classification as an association taxable as a corporation only by each owner's retention of the right to take production in kind.

Larue, J.D.

Lay, David W.
Petroleum Industry Accounting Reform on the Way. By
David W. Lay. CA Magazine [Chartered Accountants], vol. 110, pp. 31-34, Dec., 1977.

Leftwich, Robert B.

Lehman, Edward Richard

Leigon, Walter A.

Lister, J.P.

Loosley, Edwin H.

Lourens, Roy

Lourens, Roy

Reviews the major methods of cost accounting used in the extractive industries and explains the applicability of each. Provides a list of 25 technical recommendations for the standardization of accounting practices in Australia's extractive industries. (tr).
Lovejoy, Wallace F.

Maass, Randal Oscar

Mackay, I.H.

MacKenzie, W.D.C.

Manes, Rene Pierre

Mannino, R.C.

Marquart, S.E.

Mason, K.D.
Role of Transportation in the Effective Use of Hydrocarbons: Effective Use of Hydrocarbon Resources Conference. By K.D. Mason and D.M. Debney. Adelaide,
The five titles of the Energy Policy and Conservation Act of 1975 (EPCA) are briefly summarized, followed by a detailed discussion of the implications for the GAO. The major GAO responsibility is to make verification examinations of the books and records of (1) vertically integrated oil companies, (2) any person engaged in producing, processing, refining, transporting by pipeline or distributing an energy resource, and (3) any person required to submit energy information to the FEA, Interior Dept. or the FPC.

Maw, Arthur

McDonald, Stephen L.

Megill, R.E.

Exploration accounting is a strange mixture of engineering economics, mathematics and statistics, probability theory, geology, and geophysics. This book is a starting point for studying the economics of the search for hydrocarbons. Intended to be truly introductory, it is basically a resume of practical evaluating knowledge written especially for the working explorer and the student geologist. The major areas covered are regulation, definition of terms, cash flows, present value concepts, risk analysis, and setting up an exploration evaluation. (bk).

Melicher, Ronald W.
Risk and Return in the Electric Utility and Natural Gas Industries. By Ronald W. Melicher. MSU Business
Natural gas firms have fared reasonably well in recent years. If business risk has increased, it is due to uncertainties surrounding availability and adequacy of future supplies. Financial risk has not changed substantially, and the common stocks of natural gas firms are less risky than the market in general. The annual total returns for twenty-four natural gas firms have been higher than the returns for the Standard & Poor's 500 companies in recent years. For electric companies, business risk has increased substantially because of lower quality incomes and earnings due to heavy reliance on the allowance for funds during construction and the use of flow-through accounting procedures. From the standpoint of the impact of broad stock market movements on the common stocks of electric utilities, these stocks are still less risky than the market. (ebd).

Miller, Daniel E.
Discusses the relationship between replacement cost accounting under SEC Accounting Series Release 190 and accounting for natural resources which, by definition, are irreplaceable. (ebd).

Miller, Kenneth G.

Miller, Kenneth G.

Miller, Kenneth G., ed.

Miller, R.H.

Miranada, Albert N., Jr.

Mitchell, Edward J.

Moody, Graham B., ed.

Moorehead, C.G.

Morris, R.C.

This article explores in general terms the particular problems of financial reporting for firms operating in the extractive industries. The major topics covered are profit recognition criteria, the valuation of reserves, the impact of diversification, the value of supplementary information to analysts, tax aspects, and implications for dividend policy. The conclusions are that oil company financial statements represent an incomplete picture—not that the capitalization/expense policies differ. The only satisfactory solution would seem to be for firms operating in the extractive industries to adopt a discovery value approach, with management periodically giving details of the estimated value of the business or its reserves, in supplementary statements. (bk).

Mossavar-Ramani, B.

If recent trends continue, the price of crude oil will be a strong driving force in changing the practice of energy conversion. This paper discusses the price elasticity of crude oil reserves. An overview of
historical crude oil prices at the well-head and proved reserves is given, followed by an examination of correlations between average well-head price and proved reserves. Within a given range, bound by natural and geological constraints, the inventory of proved reserves is price elastic. A market-induced increase in price, unrelated to rising costs, provides further incentives for the exploration of oil, finances improved engineering research and practices, permits greater average well depth, increases the total number of producing wells drilled, and enhances quantities of commercially accessible oil in the wells. Thus, upward movement of price can serve to augment, and in a special sense, to generate recoverable oil. (bk).

Most, Kenneth S.

After reviewing various methods of accounting practices from a theoretical standpoint, Most analyses whether companies using different accounting methods actually produce reports which are not comparable. He examines the accounts of seven major oil companies for 1972, and concludes that, despite the use of disparate accounting principles, the accounts are at least loosely comparable. He finds that differences in accounting procedures regarding purchasing, operating expenses, and taxes were much more significant than differences arising from using successful vs. full cost methods. (tr).

Most, Kenneth S.

Most, Kenneth S.
Oil Company Accounting: Not So Comparable? A Reply. By Kenneth S. Most. Accounting and Business Research, vol. 6, no. 21, pp. 67-69, Winter, 1975. A rebuttal to Trueman's article, 'Oil Company Accounts: Not So Comparable?,' which was a reply to Most's original article.
Most reiterates his conclusion that the full cost versus successful efforts controversy is fundamentally trivial and provides data from the 1974 Texaco Inc. Annual Report to support this contention. The Texaco report presents a comparative study of the effects of accounting for exploratory costs on its modified full costing basis with the effects of expensing these costs, including all dry holes. Most presents a table illustrating the Texaco results and also discusses the differing interpretations he and Trueman put on the notes in oil company financial statements. (bk).

Most, Kenneth S.

The expansion and diversification of the operations of oil and gas corporations bring a need for improved methods of financial and managerial accounting. From the viewpoint of managerial reporting, the system of accounts described in this article lends itself to a greater precision of decision-making and permits the evaluation of operating efficiencies in relation to the decisions made. The analysis of profitability by property units, which is the strong feature of the traditional approach, is allied to the analysis of profitability of product units, which is the virtue of the full-cost method. The slight loss of flexibility which accompanies such a transformation is more than compensated by gains in the area of long-range projection and total company planning. (ebd).

Moyers, Donald P.

Mut, S.C.
Prepared for the API Seminar on Reserves and Productive Capacity.

Myers, John H.
A contemporary view of accounting as an information system requires that published financial statements convey a useful message to those who are interested in making investments in corporate stock. The FASB set forth the standards for: (1) the expensing or capitalizing of exploration and development costs for oil and gas, (2) the disposition of the amounts capitalized, and (3) the disclosure of reserves, capitalized cost, and the costs incurred in oil and gas producing activities. The FASB chose the successful efforts costing method which capitalizes costs of successful ventures and charges to expense the cost attached to unsuccessful ones. Abandoned properties are charged to expense when abandoned, not when acquired. Costs of exploratory drilling are deferred pending determination of success or failure.


Analysis shows that it costs a great deal more to find, develop, and produce oil today than ever in the past. If this nation is serious about reducing dependence on oil imported from insecure sources, it will have to pay sufficient prices to cover the true economic costs of exploration, discovery, development, and production.


Where different products are necessarily produced in combination they are joint products with joint costs. To the extent that costs are joint, individual products in a combination have no objectively determinable separate costs. This study defines the field and explores the nature of joint costs. It also attempts to show how useful costs can be developed for joint products. A distinction is made between by-
products and co-products. Accounting methods appropriate to each of these types of joint products are described. Attention is given to methods both for financial reporting and for management decision analysis. Several of the examples used are drawn from the petroleum industry. (cjb).


An overview is given of the gas industry and its financial problems, which have worsened over the past several years. Actions to attract capital and regulatory reforms which are needed are discussed, and causes of inflation are examined. Information on anticipated capital expenditures of the gas industry are surveyed and evaluated, with gas production, transmission, and distribution sectors considered separately. (bk).


Joint-Product costing: Methods Accountants Suggest.  

Nelson, W.L.  

Nelson, W.L.  

This brief article introduces the general problems in allocating refinery costs and explains why it is not possible to devise any entirely realistic way to allocate the total operating cost of a refinery to the several products being made.  This situation arises because some of the products, such as liquid propane gas, refinery fuel gas, and residual fuel oil, sell at prices which are lower than the price of the crude used to produce these products.  Other products sell at a price high enough to make up for the losses involved in the sale of the low-price products.  Simply allocating the total operating cost according to the price received for each product (the product-price method) would be inadequate because low-price products would be charged less than the actual cost of production.  (bk).

Nelson, W.L.  

This article is a continuation of a discussion on allocating refinery costs ('Questions on Technology: 1') but uses actual quantities, prices and operating costs to show there is no adequate way to allocate the refinery operating costs of the various products.  The two methods usually discussed in the accounting literature are (1) the use of the same manufacturing cost for all products or (2) allocation of cost in proportion to the sales value of each product (product-price method).  (bk).

Nethercott, L.J.  
The article explores full cost accounting methods and their effect upon financial reports used by companies in the mining industry. It reviews U.S. policies and findings regarding the use of full cost accounting. It provides a theoretical discussion of the benefits and criticisms of using the full cost method, and it concludes that such methods are undesirable because they do not provide investors with enough information to evaluate the efficacy of an investment. The author advocates the use of successful cost accounting, which gives investors a better indication of a company's exploration successes. (tr).

Nethercott, Leslie J.

Explores the use of 'discovery value accounting,' a type of current valuation scheme, as a viable alternative to the more familiar full cost and successful cost methods currently being used in the petroleum industry. This method takes into account the estimated value of reserves at the time of discovery. The author claims that this new method is more useful than the so-called historical methods, which include the two standard methods above, during times of rapid and unpredictable inflationary rates. Use of discovery values raises questions concerning the objectivity and reliability of the reserve estimates if they are used as a basis for financial reporting. (tr).

Nethercott, Leslie J.

New York State Society of Certified Public Accountants.

Nissel, Hans E.

Norby, William C.
In the extractive industries, argument has raged over whether costs of an unsuccessful exploratory effort should be expensed immediately, or capitalized, and amortized over several periods. The Financial Analysts Federation's Financial Accounting Policy Committee (FAPC) has issued a position paper favoring the successful efforts method. (bk).

Norby, William C.

Norby, William C.

Norby, William C.

In August 1978 the SEC proposed a current value system of accounting, 'reserve recognition accounting,' for oil and gas reserves. The 3 main elements of this proposed reporting system are: (1) disclosure of reserve quantities and changes thereof, (2) calculation of net present value of these reserves, and (3) presence of an earnings statement accounting for the results of exploratory and producing activities during the year. The SEC ruling calls for reserve recognition accounting to be reported by oil and gas producers as supplemental information to their financial statements for the fiscal years 1979-81. After evaluation of these reports, the SEC will determine if this reporting system should be adopted for primary financial statements. (ljs).

Norr, David

This article traces the profitability in the linear production process of oil. It examines production, refining, transportation, and wholesaling vs.
revenues. Each sector is examined under a variety of hypothetical situations regarding the supply and demand for the sector's services. The author concludes that, despite historical variability in sales, alternative indicators show a projected increase in ultimate profitability. (tr).


In June 1975 an urgent and confidential study of the escalation of costs of developing North Sea oil and gas was commissioned. The extent and causes of escalation are reviewed and its effects are examined (bk).


There is great difficulty in assessing profitability of oil companies. Replacement-cost accounting would help, even if the figures are estimates.


There was a time when full costing oil companies would report lower earnings because of write-offs of capitalized drilling expense that exceeded the fair market-value of the oil in the ground. There have been numerous instances in the past where companies have exceeded this ceiling and written it off in a lump sum. But under today's price structure, it is very unlikely that they're going to exceed the ceiling. It is obvious that oil company earnings will receive close inquiry this year. In some cases their present accounting methods may be hurting them--particularly if they liquidate low-cost inventories. If anything is going to happen, it's going to be that companies are going to be more conservative in their valuation of assets and transactions.


Ogunsola, Olaogun Oyekola
An Integrated Theory of Corporate Simulation Models: a Case Study of a Hypothetical Oil Company. By Olaogun Oyekola Ogunsola. Ann Arbor, University Microfilms
Oien, M.B.
127 p. (Pub. no. 77-1840)
Thesis, Ph.D., University of Oklahoma, Norman.

The main objective is to apply the GNP implicit price deflator, specific price indexes, and discounted cash flow methodology to the actual revenues of a division of a major petroleum company and to analyze the differences in the results obtained by each. Actual accounting data are utilized as well as other relevant information provided by one of the major integrated petroleum companies. The exploration and production phases of operations in the United States from 1969 through 1974 were studied. The conclusion reached was that for this company the value methodology utilizing discounted future cash flows of underground reserves appears to be the best for financial-statement purposes. The method also appears to be in accordance with the intent of the Securities and Exchange Commission in their issuance of Accounting Series Release no. 190. (author).

Oansi, M.
A Transfer Pricing System Based on Opportunity Cost.

Organization for Economic Cooperation and Development.

The present publication is the first in a new quarterly series. Its aim is to provide rapid, accurate and detailed statistics on oil supply and demand in the OECD area. The main components of the system include 1) complete balances of production, trade, refinery intake and output, final consumption, stock levels and changes, 2) separate data for crude oil, NGL, feedstocks, and nine product groups, 3) separate trade data for main product groups, LPG, and naphtha, 4) imports for 41 origins, 5) exports for 29 destinations, 6) marine bunkers and deliveries to international civil aviation by product group, 7) aggregates of quarterly data to annual totals, and 8)
natural gas supply and consumption. (bk).

Papageorges, D.
In French.

Parker, Foster

Paschall, Robert H.

Patz, Dennis H.

Presents the result of a study designed to assess the effect on security price behavior of actions taken by the Accounting Principles Board (APB). In the latter part of 1971, the Board took a significant step towards narrowing the accounting alternatives available to the oil and gas industry. The authors investigate the circumstances surrounding this action to see whether the market attaches importance to (a) accounting alternatives, and (b) the APB's opinion. They tentatively conclude that market valuation was not significantly affected by the APB's opinion on the type of accounting principles used, thus reinforcing the efficient market hypothesis. (tr).

Paul, Paine

Pearce, David William, ed.
1 v.

Pearson, E.V.
Reporting Underground Hydrocarbon Reserves. By E.V. Pearson. Paper read at the 10th Annual Oil and Gas Accounting Institute, Southwestern Legal Foundation,
Dallas, Sept. 18, 1974.

Peat, Marwick, Mitchell & Co.
1 v. (various pagination)

Review of 1976 annual reports to shareholders. Prior issues conduct similar surveys for then-current reports. (ebd).

Peck, J. Lane

Peppers, A.

Under new accounting rules, loans which are to be paid from the proceeds of sales of oil and gas when and if produced are to be recorded as other loans. Previously these 'production payments' were accounted for in a variety of ways including no recognition of the payment liability in the accounts. This latter method had been justified on the grounds that the loan was only payable from production of the pledged property. No other recourse was available to the lender. (ebd).

Pergt, Jack

Perlo, Victor


Phelps, Charles E.  
Petroleum Regulation, the False Dilemma of Decontrol.  
By Charles E. Phelps and Rodney T. Smith. Santa  
91 p.  (R-1951-RC)

Pierson, E.W.  
Accounting Problems of Natural Gas Companies under FPC  
Regulation. By E.W. Pierson. Arthur Andersen  

Pierson, E.W.  
Current Problems of the Independent Producer of  
Natural Gas. By E.W. Pierson. Arthur Andersen  

Pindyck, R.S.  
Higher Energy Prices and the Supply of Natural Gas.  
By R.S. Pindyck. Energy Syst. Policy, vol. 2, no. 2,  

This paper describes an econometric policy model of  
the natural gas industry. Differences between this  
model and its predecessor are examined in the context  
of recent data for gas and oil prices, exploratory  
activity, reserve additions, and production. The  
model is used to forecast the regional effects of  
higher prices on the industry, as proposed by the  

Points, A.J.  
Multiple-Product Operating Statements in an Oil  
Refinery. By A.J. Points. N.A.A. Bulletin, vol. 43,  

Porter, Stanley P.  
'Full Cost' Accounting: the Problem It Poses for the  
Extractive Industries. By Stanley P. Porter. New  
38 p. Graphs.  
Based on a presentation before the Accounting  
Principles Board of the American Institute of  
Certified Public Accountants.

Porter, Stanley P.  
x, 557 p. Illus., append.

This book provides a comprehensive introduction to  
accounting practices in the U.S. petroleum industry.
There are chapters on accounting for pre-drilling exploration costs, undeveloped properties, drilling and development operations, production operations, natural gas processing, rail transportation, pipeline operations, marine transportation, crude-oil purchasing and storage, refining, petrochemical operations, and marketing. Each of these chapters is preceded by a chapter describing the nature of the operations being accounted for. In addition, there is a chapter which summarizes all aspects of petroleum accounting, and chapters on special topics in production and development accounting, natural gas regulation, the disposition of petroleum finding costs, and income tax allocation. (cjb).

Porter, Stanley P.

Powell, Douglas H.

Powell, J.J., Jr.

Practising Law Institute, New York.

Price Waterhouse & Co.

Price Waterhouse & Co.
Published annually. Prior issues conduct similar surveys for then-current topics. (ebd).

Priebe, E.P.

Quirin, G.D.

Oil and natural gas prices received by Canadian producers have more than doubled since 1973. Such a price rise would be expected to stimulate investment in the petroleum industry, but this has not happened. The proportion of industry cash flow devoted to exploration and development fell from 1972 to 1975. These trends reflect insufficient average returns on investment in relation to higher replacement costs, and increasing government taxes. The authors attempt to quantify this risk and find that the required after-tax return to producers to promote increased investment is about 19 percent, which compares unfavorably with available returns to new investment of about 14 percent. They conclude that a sufficiency of return on new investment requires a reduction in government royalty taxes, even if oil and gas prices do escalate. (bk).

Rabkin, Jacob
22 v.

Contains samples of contract forms used in oil and gas ventures with commentary on tax implications. Refer to the index volume under 'Oil and gas' for a list of available forms. (cjb).

Rabold, B.S., Jr.
Thesis.
Rau, R.J.
Additional Considerations for Offshore Measurement.

Raub, Elizabeth B.

Reed, Joel L.
Exploring for Information on Oil and Gas Companies.

The key to measuring the value of an oil producing company's assets and its operating success is the value of oil and gas reserves in the ground. The financial statements of oil and gas producing companies have omitted these assets or substituted historical acquisition costs for these values. In analyzing the investment opportunities presented by oil and gas companies, an analyst should recognize the shortcomings of some financial statements and explore beyond traditional sources to arrive at relevant predictive information about the company. An investor should realize that: (1) current prices differ from well to well, and future prices of production over the life of a well are unpredictable, (2) the judgment of geologists familiar with an area is more important than elaborate mathematical computations, and (3) financial statements may not contain information about contingencies and other significant happenings since the balance sheet date, but the footnotes will.

Reed, Randal W.

The article discusses the three factors that have shaped the petroleum industry's views of financial accounting. First, the petroleum industry has very large capital requirements. Second, the petroleum-producing business has an exceptionally high risk element. Third, the petroleum industry shares with other extractive industries a substantial number of differences in accounting for corporate reporting to stockholders and accounting for tax purposes. Using these three factors, the article examines the problem that arises because discovery costs usually bear
little or no predictable relationship to the eventual market value of the oil deposits found. The article concludes that the petroleum industry, through the American Petroleum Institute, has mounted a sustained program toward promoting sound financial reporting and accounting practices. (ns).

Richardson, P.


Ritchie, Stark

Ronen, Joshua

Rose, P.S.

Rosenman, James

Russell, Orpha B.

Schnepper, Jeff A.

Schwab, R.J.
Transfer pricing is a difficult problem for which no universal solution is adequate. When competitive markets do not exist or a firm chooses not to enter them, market price cannot provide a valid transfer price. In this case contribution marginal price is the next best solution. To calculate the contribution marginal price, the total standard variable costs incurred to produce and sell each product must be determined, based on a standard cost system and a variance analysis segregated by departments. The total contribution margin of each product line is equal to the difference between the selling price and the total variable cost of production. The ratio of the overall contribution margin to the total standard variable cost is applied to the standard variable cost added in each department to yield a 'value-added' transfer price. (bk).

Schwartz, A.V.  
Accounting for the Underground Storage of Natural Gas.  

Segars, A.B.  

Seidler, Lee J.  

Seidler, Lee J.  

Sellers, David Henry Aikins  

Shakin, Bernard  
Sharav, Itzhak
Transfer Pricing--Diversity of Goals and Practices.

This article provides a review of the factors that determine whether transfer prices should be cost-based or market-oriented, or a combination of both. The definition of transfer prices is given as 'intra-company charges at which goods or services are sold by one organizational unit to another in the same company,' and includes intercompany transfers between affiliates. The section on 'recent emphasis' on transfer prices includes a discussion of their use in evaluating a company for sale, for protection of minority interests, to provide greater disclosures in financial reporting, for tax considerations and as a basis for strategies for multinational corporations. Other topics include the scarcity of empirical data, cost-based transfer price, market-oriented transfer prices, and transfer prices and the courts. The article concludes that the multiplicity of corporate goals will force compromises in which several different types of transfer prices will be necessary within a company. (bk).

Shaw, T.T., ed.

Siami, Farhad

Simon, Stanley C.

Simpson, J.J.

Smith, Alan F.

Failure to consider industry characteristics in an accounting audit may make financial reports useless. The oil industry is used as an example of this.

Smith, C. Aubrey

Smith, C. Aubrey

Smith, C.G.

Smith, Langford Wheaton, Jr.

Smyrk, Albert V.

Solow, R.M.

Spinning, H. M.
Petroleum Research Committee, December 11, 1952.
(Bulletin no. 18)

Sproles, Lyle R.

Staats, E.B.

A survey was made of accounting practices to show how they relate to cost and other financial information of two companies engaged in the domestic production of oil and natural gas. The two companies were Shell Oil Company, a major integrated oil company which uses the 'successful efforts' concept of accounting, and Houston Oil and Minerals corporation, an independent producer of oil and natural gas which uses the 'full cost' concept of accounting. The accounting procedures used by these firms were studied to gain an understanding of the effects and rationale of the accounting procedures for accumulating financial data. The accounting issues regarding allocation of revenue and expenditures through time and among products are discussed.

Starratt, P.E.
A staff analysis prepared at the request of Henry M. Jackson pursuant to Senate Resolution 45, A National Fuels and Energy Policy Study.


Stauffer, Thomas R.

Steiner, Peter O.
Percentage Depletion and Resource Allocation. By

Sternberger, E.A.
*Original Cost Depreciation Versus Replacement Cost.*

Stewart, Charles A.
*Oil Industry Accounting Practices: a Brief Description of Oil Industry Accounting for the Businessman.*

Stormonth, S.G.
*Petroleum Exploration Accounting.*

Sunder, Shyam

Sunder, Shyam
*Oil Industry Profits.*

Sunder, Shyam
*Properties of Accounting Numbers under Full Costing and Successful Efforts Costing in the Petroleum Industry.*

This article presents a technical analysis of the relative efficacy of using successful efforts costing vs. full costing practices in the petroleum industry. It attempts to analyze the effects of each method on various accounting variables, not to judge which method is best, but to help those who must choose between the two. (tr).

Symonds, Edward
*Agonizing Verdict.*

Symonds, Edward


The use of reserve recognition accounting suggested by the SEC would add the current value of estimated future income from oil and gas reserves to company assets. (bk).

Symonds, Edward


Taher, Abdulhady Hassan


Tannery, Fladger F.


Tellini, William P.


Thomas, R.C.


Congress, in the Tax Reform Act of 1976, legislated reforms that would severely dampen incentives for oil and gas exploration. This is disturbing in light of increasing U.S. oil imports and decreasing domestic exploration and development efforts. (ljs).

Thomas, Wayne W.

Townsend, P.S.


When an appraiser values a petroleum storage and distribution center, he encounters unusual types of assets and site considerations. These and other features unique to such centers are discussed. (ljs).

Trant, J.M.

4 p., mimeographed


Trebilcott, J.J.


Trueman, J.W.H.

A reply to Kenneth Most's article, 'A Comparative Study of the Accounts of Seven Major Oil Companies'.

Presents an evaluation of Kenneth Most's conclusion that the use of different accounting methods by seven major oil companies does not make their data incomparable. Trueman examines the comparability of accounts for exploration and development costs of oil production operations for eight oil companies. Trueman finds that different accounting treatment makes comparative analysis 'exceptionally difficult' which contradicts Most's results. (tr).

Tsumura, A.

General Factors to be Taken into Account in Estimating Capital Requirements for Exploration and Exploitation of Oil and Gas Resources. By A. Tsumura. In


Total aggregate pipeline and compressor station construction expenditures reported in fiscal 1973 were
18.5% below those reported in fiscal 1972. Average cost per mile of transmission pipeline construction were generally comparable to costs reported in recent years. For offshore pipelines the average costs per mile were considerably higher than costs reported in 1972. For reciprocating compressors the average cost per horsepower installed as reported in 1973 was higher than that reported in 1972 for new compressor stations, and lower for additions to existing transmission compressor stations as related to the average cost reported during the past several years. Projects included construction of 134 onshore and 17 offshore construction projects with a total of 1530 miles of pipelines and 503,163 compressor horsepower, and expenditures of $392,609,776. (bk).


A detailed discussion of the methodology employed to estimate the price of natural gas required to earn producers an allowable return. (ebd).


Uniform System of Accounts Prescribed for Natural Gas Companies (Classes A, B, C, and D): Subject to the provisions of the Natural Gas Act in effect on May 29,
This edition contains parts 201 and 204 of the Federal Power Commission's rules and regulation in subchapter f, comprising the Uniform Systems of Accounts prescribed for natural gas companies in effect as of May 29, 1974. These systems of accounts are applicable in principle to all natural gas companies subject to the provisions of the Natural Gas Act, 15 U.S.C. 717 et seq. Transmittal sheet number 1 reflecting changes in the Uniform Systems Accounts in June 1975 is also included. (bk).

U.S. General Accounting Office.
Report to the Congress.

U.S. General Accounting Office.
Report to the Congress.


Serious defects in the government's system for handling royalty payments from companies holding oil and gas leases are resulting in a significant loss of royalties, according to reviewers from the Interior Department's Office of Audit and Investigation. Royalties are not being collected in full, late payments are causing the government to incur added interest costs, and accommodations to lessees in meeting reporting requirements are burdening the government by creating added workloads. Special statements which provided a check on the actual amount of production reported by a lessee are not being received because 'demands for the statements have not been made.' Reviewers recommend that lease terms be enforced and that royalty payments be 'maximized
within the legal constraints that apply. In addition, they urge that all royalty payments be collected promptly and that any accommodation to lessees result in at least equal payments to the government. (bk).


The survey is intended to provide basic descriptive material related to the structure of the petroleum industry. The survey requested information from 89 companies in the petroleum industry regarding directorate affiliations, acquisitions and mergers, ownership, subsidiary holdings, association with legal, financial and accounting groups, joint activities in oil and gas exploration, production, refining and transportation, marketing, and operations in coal and uranium. The questionnaire and a discussion of methodology are in appendix A. Sixty-three companies, including the 20 largest, responded. These companies, as well as those not responding, are described in appendix B. The survey includes approximately 3 million data entries. (bk).


15 p. (IGU/D-1-73)

Vogely, William A., ed.

Vogt, George B.

There are four major sections to this article: (1) the nature of wasting assets, (2) cost and valuation, (3) depletion and amortization, and (4) financial statements, records and audits. In the first section, definitions are given. In section two, the subjects covered include: the cost of depletable assets, elements of acquisition cost, accounting for exploration costs, development of properties, valuation of depletable assets, considerations in purchase or exchange of economic interests, discovery value, recognition of current value in lieu of cost, accretion, and decline in value. In section three, depletion and amortization, the nature of depletion, omission of depletion, computing cost depletion, illustrative computations, and liquidating dividends in wasting asset industries are covered. In the final section, the balance sheet, income statement, and accounting records for wasting assets and audits of wasting assets are discussed. (bk).

Waller, Robert E.

Watson, David J.H.
Has a bibliography with 19 citations.

This paper represents an attempt to place the solutions proposed by the mathematical programming models as well as other traditional solutions to the problem of transfer pricing in an appropriate context. Since the transfer pricing problem only arises within a recognizable social system (be it an organization or
a socialist economy), the paper considers the solutions in a social system context. The paper suggests that the management accountant needs to consider organizational differentiation as a constraint in designing the management accounting system. The transfer pricing mechanism, being part of the management accounting system, can be used to enhance organizational differentiation and to facilitate organizational integration. Formula pricing mechanisms may well be used to achieve differentiation, while negotiated pricing seems to be the appropriate transfer price mechanism for facilitating integration. (bk).

Wehner, E.L.

Welsch, Glenn A.

The American Petroleum Institute sponsored a study to determine the most appropriate way to communicate the impact of changing prices and costs on the value of and costs to discover and produce oil and gas reserves. The study examined alternative methods and concluded that the most important piece of information was the value of oil and gas reserves. A method for comparable reporting of such values was developed and included in the report. (ebd).

Welsch, Godfrey W.

White, J.S.

Williams, Howard R.
Wolf, Jordan B.
Compliance Reporting under Amended FPC Regulations.

Wollen, R. W.
Author also cited as Woollen.

Wolnik, M. A.

Wooddy, L. Dale, Jr.

Yeager, B. R.

Yost, S. W.


The new SEC rule concerning oil and gas industry accounting could confuse and even seriously mislead investors. The FASB in Opinion 19 had said only successful efforts accounting would be acceptable from now on. Then the SEC announced that the commission found both successful efforts and full cost accounting inadequate and that Reserve Recognition Accounting (RRA) should be used. The business of an oil company is to find and produce reserves. Its financial results should be based on the value, today, of the reserves it discovers and produces. Full cost and
successful efforts are based both upon classifying the historical costs of finding and producing reserves, and on whether those costs are considered assets or expenses. As an idea, BRA makes sense, but unethical managements can hype their stocks by manipulating their earnings. (ljs).

Youngquist, Walter

Youngs, F.A.

The 'realization' method of allocating the total cost of production from a refinery to the various products has been abandoned by the Esso Standard Oil Company for refinery operating accounting and analysis purposes, and standard unit costs, based on the replacement concept, are used instead. The replacement costs computed are intended to represent the average cost of producing each product. It is believed this method gives a better indication of the relative costs of production than the realization method. (bk).

Youngs, F.A.

Zaffarano, R.F.

Zeid, M.

In order to buy production, industry has to properly evaluate all factors. The company has to think
positively and look at the plus factors involved, while weighing them against the existing negative factors. The main function of engineers engaged in property acquisitions should be to try to make the trade based upon the best technical and economic basis. During the past several years the main purchasers of producing oil and gas properties have been fully integrated major or large independent oil and gas companies, large producing independent oil companies, various trusts and estates, independent oil companies formed for the precise purpose of buying production (with either foreign or domestic capitalization), and limited partnership income funds either within established companies or newly formed companies. (bk).

Zraly, A.J.
This report was done with support from the Department of Energy. Any conclusions or opinions expressed in this report represent solely those of the author(s) and not necessarily those of The Regents of the University of California, the Lawrence Berkeley Laboratory or the Department of Energy.

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