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UNCONVENTIONAL GAS RESOURCES: AVAILABLE PUBLICATIONS LISTING

U.S. Department of Energy
Morgantown Energy Technology Center
Morgantown, West Virginia

May 1983

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Prepared for

U.S. Department of Energy
Morgantown Energy Technology Center
Morgantown, West Virginia

C. A. Komar, Editor

By

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FOREWORD

The Unconventional Gas Resources: Available Publications Listing is a bibliography containing 1,728 citations on the following unconventional gas sources:

- Devonian Shale
- Coalbeds
- Western Tight Sands
- Geopressured Aquifers
- Novel Resources (Gas Hydrates and Deep Source Gas)

The selected citations in this bibliography refer to books, reports, journal articles, and conference/symposia papers. Patents and foreign language works are not included.

The bibliography provides a listing of important documents published between 1975 and 1983. Literature published before 1975 may be found and reviewed in published bibliographies referenced in this document. However, some of the most significant documents published before 1975 for the Novel Resources (gas hydrates and deep source gas) are included to provide a thorough representation of the literature available on the resource.

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USER'S GUIDE

USER'S GUIDE

This Unconventional Gas Resources: Available Publications Listing is a bibliography on unconventional gas resources; Devonian Shale, Coalbeds, Western Tight Sands, Geopressured Aquifers, and Novel Resources.

The citations in the bibliography have been selected and compiled to provide a source document for publications dealing with unconventional gas resources. This document provides an interested reader and researcher with information on what literature is available and where it can be accessed.

The Unconventional Gas Resources: Available Publications Listing is comprised of four parts:

- Part I: Bibliography—contains 935 citations of reports, journal articles, and papers arranged by availability (where the user can access a copy of the document).
- Part II: Conferences and Proceedings—contains a listing of 793 papers on unconventional gas resources from 29 conferences.
- Part III: Appendices—contains a NTIS price list and a list of publication contacts.
- Part IV: Indices—contains a subject, personal author, and corporate author index for the bibliography and conferences parts.

Each of these parts and their use is explained in the following.

Part I. Bibliography

The first part of the available publications listing consists of 935 individual citations on each of the unconventional gas resources, as follows:

	Number of Citations
— Unconventional/General	44
— Devonian Shale	286
— Coalbeds	141
— Western Tight Sands	137
— Geopressured Aquifers	153
— Novel Gas (Hydrates and Deep Source)	174
Total	935

These citations, distributed among resources as shown above, cover work published primarily since 1975. Important documents published before 1975 and some foreign works in the area of novel gas have been included in this bibliography because of the limited number of publications available on the resource and to provide a listing that adequately represents the resource.

Patents and foreign language publications are not included. Maps and charts are also not included. However, bibliographies that cover pre-1975 publications, patents, maps, charts and foreign language articles are cited in the available publications listing and should be referred to for a detailed search of the literature.

Within each resource, the citations are arranged by availability in the following order:

- National Technical Information Service (NTIS)
- State Sources
- U.S. Geological Survey (USGS)
- U.S. Bureau of Mines (US BOM)
- Society of Petroleum Engineers (SPE)
- Miscellaneous

Citations are referenced only once. Thus, even if an article is available from two sources, it is only listed under the first of the sources following the ranking of availability in the preceding list (i.e., if a report is obtainable both through NTIS and the USGS, it will only be listed in the NTIS section).

To assist the reader in using this Unconventional Gas Resources: Available Publications Listing, the upper corner of each page has a heading indicating the unconventional gas resource and the source of availability.

Each of the citations has been coded for topic and availability using the following key:

Topic

- Unconventional/General — U
- Devonian Shale — D
- Coalbeds — C
- Western Tight Sands — T
- Geopressured Aquifers — G
- Novel — N
- Conferences — P

Availability

- National Technical Information Service (NTIS) — 1
- State Sources — 2
- U.S. Geological Survey (USGS) — 3
- U.S. Bureau of Mines (US BOM) — 4
- Society of Petroleum Engineers (SPE) — 5
- Miscellaneous — 6

Thus, an article on Devonian Shale available from NTIS would have the code:

D1-xx

where the xx is a number attributed consecutively to articles, starting with the oldest one. This classification scheme will allow periodical updating of the available publications listing by consecutively numbering supplements and incorporating the additions into the indices.

A. National Technical Information Service (NTIS)

The example below illustrates the format used for National Technical Information Service citations:

CITATION NO. REPORT NO. PUBLICATION TITLE

U1-05 (SAND—77-1992) ENHANCED GAS RECOVERY PROGRAM. SECOND ANNUAL REPORT, OCTOBER 1976 THROUGH SEPTEMBER 1977. Northrop, D.A.; Schuster, C.L. (Sandia Labs., Albuquerque, NM) Apr 1978. Contract EY-76-C-04-0789. 90p. NTIS, PC A05/MF A01.

AUTHOR(S) NO. OF PAGES NTIS PRICE CODE AUTHOR AFFILIATION DATE OF PUBLICATION CONTRACT NO.

The price codes and corresponding prices (as of April 1983) for each NTIS entry are defined in Appendix I. Note that these prices are effective January 1983 and will change periodically. Thus, before ordering a document, the price should be checked through NTIS.

The addresses and telephone numbers for placing NTIS orders are found in Appendix II.

B. State Sources

The sections containing publications available from various state geological surveys are first arranged by state, alphabetically, and then by the type of publication (i.e., circulars, reports of investigations, etc.). The following example illustrates the format used for state sources:

CITATION NO. REPORT NO. PUBLICATION TITLE

G2-04 (GC 76-3) GEOTHERMAL RESOURCES—FRIO FORMATION, UPPER TEXAS GULF COAST. Bebout, D.G.; Loucks, R.G.; Bosch, S.C.; Dorfman, M.H. (Texas Bureau of Economic Geology, Austin, TX) 1976. 47p. 52 figs. $1.50.

AUTHOR(S)

STATE SOURCE DATE OF PUBLICATION NO. OF PAGES NO. OF FIGURES COST

Addresses and phone numbers for ordering state source publications are found in Appendix II. Some state sources do not allow copies of their publications to be circulated and have them available for viewing only. Therefore, contact the state source office for detailed information on obtaining the desired publication.

C. U.S. Geological Survey (USGS)

The following is an example of the format used for publications available from the U.S. Geological Survey:

CITATION NO. REPORT NO. PUBLICATION TITLE

D3-03 (OF81-0240) STRUCTURED COBOL PROGRAM TO RETRIEVE, EDIT, AND LIST EASTERN GAS SHALES PROJECT SAMPLE DATA. Hessel, P.J.; Dyman, T.S.; Wilcox, L.A. 1981. 54p.

AUTHOR(S)

DATE OF PUBLICATION NO. OF PAGES

Many USGS publications are available only from certain branch offices as explained in Appendix II. The branch offices' full addresses and telephone numbers, and the types of USGS publications available at each office are listed in Appendix II under U.S. Geological Survey.

Although some entries have a price quote, this is not a fixed cost and may change with time. All costs should be verified before ordering. If no price quote is listed, contact the USGS to verify whether the document is available for purchase. Also, some publications may only be viewed at their library facilities.

D. U.S. Bureau of Mines (US BOM)

Publications available from the U.S. Bureau of Mines include reports, conference papers, and journal articles. Contact the U.S. Bureau of Mines (by obtaining the appropriate telephone number and address from Appendix II) for details on acquiring specific publications.

An example of the format used for U.S. Bureau of Mines citations is as follows:

CITATION NO. REPORT NO. PAPER TITLE

C4-38 (RI 8025) COMMERCIAL-QUALITY GAS FROM A MULTIPURPOSE BOREHOLE LOCATED IN THE PITTSBURGH COALBED. Fields, H.H.; Perry, J.H.; Deul, M. 1975. 14p.

AUTHOR(S)

DATE OF PUBLICATION NO. OF PAGES

E. Society of Petroleum Engineers (SPE)

The Society of Petroleum Engineers citations are formatted as follows:

CITATION NO. PAPER NO. PAPER TITLE

T5-11 (SPE 7746) THE TECHNOLOGY AND ECONOMICS OF GAS RECOVERY FROM TIGHT SANDS. Elkins, L.E. 1978. 9p.

AUTHOR(S) DATE OF PUBLICATION NO. OF PAGES

The citations include SPE papers, *Society of Petroleum Engineers Journal* and *Journal of Petroleum Technology* articles which are all available from SPE. All publications can be acquired through the SPE in Dallas, Texas (see Appendix II for address and telephone number).

F. Miscellaneous

Miscellaneous publications include journal articles, books, conference papers, and reports available from a variety of sources. A sample format follows:

CITATION NO. PUBLICATION TITLE

N6-120 GAS HYDRATES OCCURRING IN NATURE, A BIBLIOGRAPHY 1968-1978. Library Services Committee of the American Gas Association. (Arlington, VA) Jan 1979. Catalog No. H544979. Available from the American Gas Association.

CORPORATE AUTHOR AVAILABILITY DATE

Citations where a specific availability is not indicated should be located through an appropriate library listed in Appendix II.

Part II. Conferences

The second part of the available publications listing contains a listing of 793 symposia papers involving unconventional gas resources given at 29 major conferences.

In keeping with the guidelines of not repeating references, these conference papers are not included in Part I—Bibliography. However, under each of the appropriate resources, there is a reference to any relevant conference listed in Part II.

The conferences are organized first by availability, and where possible, by resource in the same order as in Part I. There is one major exceptions to this rule:

— Many conferences, particularly those sponsored jointly by the Society of Petroleum Engineers and the U.S. Department of Energy (SPE/DOE), address more than one of the unconventional data resources. These conferences are listed in the P-5 and the P-6 sections.

The following example illustrates the format used for conferences:

CONFERENCE CITATION NO. REPORT NO. CONFERENCE TITLE

P1-01 (MERC/SP—77/50) THE FIRST EASTERN GAS SHALES SYMPOSIUM. U.S Department of Energy, Morgantown Energy Technology Center (Morgantown, WV) 17-19 Oct 1977. 785p. NTIS, PC A99/MF A01.

SPONSORING AGENCY NO. OF PAGES DATE OF CONFERENCE NTIS PRICE CODE

Those conferences not available from NTIS are available from SPE or the sponsoring organization referenced.

The availability of each conference proceeding is indicated in the citation listing. Refer to Appendix II for addresses and telephone numbers for the place of availability listed.

To assist the user in identifying the resource, the heading of conference and the availability are repeated in the upper corner of the page.

Part III. Appendices

The third part of this document consists of two appendices. Appendix I is a NTIS price code listing with current (effective January 1983) prices. Note, however, the NTIS issues a new price list periodically. Verify price codes with NTIS before ordering any publication.

Appendix II is a list of addresses with telephone numbers for organizations active in the study of unconventional gas resources, and where reports, articles, and symposia papers presented in the Unconventional Gas Resources: Available Publications Listing are available. These organizations are arranged alphabetically. Libraries with large collections of publications on unconventional gas resources are also listed.

Part IV. Indices

Three indices are provided for identifying and locating literature cited in the available publications listing:

A. Subject Index

The detailed subject index is based on the use of subject descriptors and qualifiers (subheadings), as presented in the following format:

DEVONIAN SHALES	(Subject Descriptor)
GEOCHEMISTRY	(Qualifier)

The subject descriptors are arranged alphabetically and are generally the names of specific materials, objects, or processes. To the extent possible, a qualifier is selected to describe the properties of, or processes applied to, the subject terms. Pertinent cross references are included. Instructions on how to use the subject index may be found at the beginning of the index.

B. Personal Author Index

Authors' surnames are indexed alphabetically in the form appearing in the citation in the bibliography, with given names reduced to initials. For publications with multiple authors, an author entry is provided for each.

A description of how to use the personal author index precedes the index.

C. Corporate Author Index

Citations are indexed in the corporate author index under the name of the institution or organization responsible for issuing the report, listed alphabetically. A description of how to use the corporate author index precedes the index.

UNCONVENTIONAL/GENERAL

NATIONAL TECHNICAL INFORMATION SERVICE

U1-01 (FE—2271-1) NATURAL GAS FROM UNCONVENTIONAL GEOLOGIC SOURCES. National Academy of Sciences, National Research Council, Board on Mineral Resources. (Washington, D.C.) 1976. Contract E(49-18)-2271. 255p. NTIS, PC A12/MF A01.

U1-02 (METC/SP—79/4) SEMI-ANNUAL REPORT FOR THE UNCONVENTIONAL GAS RECOVERY PROGRAM. COVERING PERIOD ENDING SEPTEMBER 1978. Atkinson, C.H.; Wise, R.L. (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) 1978. 232p. NTIS, PC A15/MF A01.

U1-03 (PB—292314) STUDY ON DEVONIAN SHALE, COAL SEAMS, AND SIMILAR SPECIAL APPALACHIAN GAS ENERGY PROSPECTS AND OPPORTUNITIES. FINAL REPORT. Berger Associates. (Harrisburg, PA) 1978. Contract ARC-77-2/CO-5246. 406p. NTIS, PC A18/MF A01.

U1-04 (DOE/EDP—23) ENVIRONMENTAL DEVELOPMENT PLAN (EDP). ENHANCED GAS RECOVERY, FY 1977. U.S. Department of Energy. (Washington, D.C.) 1978. 104p. NTIS, PC A06/MF A01.

U1-05 (SAND—77-1992) ENHANCED GAS RECOVERY PROGRAM. SECOND ANNUAL REPORT, OCTOBER 1976 THROUGH SEPTEMBER 1977. Northrop, D.A.; Schuster, C.L. (Sandia Labs., Albuquerque, NM) Apr 1978. Contract EY-76-C-04-0789. 90p. NTIS, PC A05/MF A01.

U1-06 (DOE/FERC) NONCONVENTIONAL NATURAL GAS RESOURCES. U.S. Department of Energy, Federal Energy Regulatory Commission, National Gas Survey. (Washington, D.C.) Jun 1978. 120p. NTIS, PC A06/MF A01.

U1-07 (SAND—78-0941) COST OF UCG RELATIVE TO OTHER UNCONVENTIONAL GAS SOURCES. Hayoz F.P.; Cowles, J.O. (TRW Energy Systems, McLean, VA) Jun 1978. pp 171-176.
From Fourth Underground Coal Conversion Symposium; Steamboat Springs, CO (17 Jul 1978).

U1-08 (GRI—78/0001) OVERVIEW OF RESEARCH AND DEVELOPMENT ACTIVITIES IN UNCONVENTIONAL NATURAL GAS RECOVERY. Booz-Allen Applied Research, Inc. (Chicago, IL) Aug 1978. 41p. NTIS, PC A03/MF A01.

U1-09 (DOE/TIC—10026) COMMERCIALIZATION FOCUS GROUP INTERVIEW: GAS FROM UNCONVENTIONAL SOURCES. SUMMARY REPORT. Elrick and Lavidge, Inc. (San Francisco, CA) Aug 1978. Contract EV-78-C-01-6457. 11p. NTIS, PC A02/MF A01.

U1-10 (DOE/ERD—0011) ENVIRONMENTAL READINESS DOCUMENT: ENHANCED GAS RECOVERY. COMMERCIALIZATION PHASE III PLANNING. U.S. Department of Energy. (Washington, D.C.) Sep 1978. 23p. NTIS, PC A02/MF A01.

U1-11 (HCP/T2705—01) ENHANCED RECOVERY OF UNCONVENTIONAL GAS. EXECUTIVE SUMMARY. VOLUME I (OF 3 VOLUMES). Kuuskraa, V.A.; Brashear, J.P.; Doscher, T.M.; Elkins, L.E. (Lewin and Associates, Inc., Washington, D.C.) Oct 1978. Contract EF-77-C-01-2705. 60p. NTIS, PC A04/MF A01.

U1-12 (HCP/T2705—02) ENHANCED RECOVERY OF UNCONVENTIONAL GAS. VOLUME II. THE PROGRAM. Kuuskraa, V.A.; Brashear, J.P.; Doscher, T.M.; Elkins, L.E. (Lewin and Associates, Inc., Washington, D.C.) Oct 1978. Contract EF-77-C-01-2705. 578p. NTIS, PC A25/MF A01.

U1-13 (HCP/T2705—03) ENHANCED RECOVERY OF UNCONVENTIONAL GAS. VOLUME III. THE METHODOLOGY. Kuuskraa, V.A.; Brashear, J.P.; Doscher, T.M.; Elkins, L.E. (Lewin and Associates, Inc., Washington, D.C.) Feb 1979. Contract EF-77-C-01-2705. 407p. NTIS, PC A18/MF A01.

U1-14 (METC/SP—79/8) UNCONVENTIONAL GAS RECOVERY PROGRAM. SEMI-ANNUAL REPORT FOR THE PERIOD ENDING MARCH 31, 1979. Wise, R.L. (ed.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) Aug 1979. 375p. NTIS, PC A16/MF A01.

U1-15 (GRI—79/0010) UNCONVENTIONAL GAS SOURCES: CHARACTERIZATION AND ASSESSMENT. FINAL REPORT FOR 1979. Bechtel National, Inc. (San Francisco, CA) Oct 1979. 180p. NTIS, PC A09/MF A01.

U1-16 (CONF-800525) FIRST ANNUAL SYMPOSIUM ON UNCONVENTIONAL GAS RECOVERY. Society of Petroleum Engineers of AIME (Dallas, TX) 1980. 377p. NTIS, PC A17/MF A01.

From SPE/DOE Symposium on Unconventional Gas Recovery; Pittsburgh, PA. (18 May 1980).

(Refer to listing of papers in Conference section.)

U1-17 (LA—8155-C) ALTERNATIVE GAS WORKSHOP. FINAL REPORT. Cremer, G. (Los Alamos Scientific Lab., NM) Mar 1980. Contract W-7405-ENG-36. 58p. (CONF-7909133) NTIS, PC A04/MF A01.

From Alternative Gas Workshop; Los Alamos, NM (5 Sep 1979).

U1-18 (DOE/METC/SP—2) UNCONVENTIONAL GAS RECOVERY PROGRAM. SEMI-ANNUAL REPORT FOR THE PERIOD ENDING SEPTEMBER 30, 1979. Manilla, R.D. (ed.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) Apr 1980. 477p. NTIS, PC A21/MF A01.

U1-19 (BNL—51208) LONG-RANGE ASSESSMENT OF R AND D POLICY FOR GAS-RELATED CONVERSION TECHNOLOGIES AND UNCONVENTIONAL NATURAL GAS RESOURCES. Kydes, A.S.; Rabinowitz, J. (Brookhaven National Lab., Upton, NY) Apr 1980. Contract AC02-76CH00016. 134p. NTIS, PC A07/MF A01. Order Number DE81030143.

U1-20 (PNL-SA-8641) POTENTIAL BARRIERS TO INCREASED PRODUCTION OF NATURAL GAS FROM UNCONVENTIONAL SOURCES. Riedel, E.F.; Rotariu, G.A.; Goldberg, A.J. (Battelle Pacific Northwest Labs., Richland, WA; U.S. Congress, Office of Technology Assessment, Washington, D.C.; U.S. Department of Energy, Office of Technology Impacts) Jun 1980. Contract AC06-76RL01830. 14p. (CONF-800610-11) NTIS, PC A02/MF A01.

From American Institute of Chemical Engineering Conference; Philadelphia, PA (8 Jun 1980).

U1-21 ENVIRONMENTAL EFFECTS AND CONTROLS ASSOCIATED WITH EXTRACTION OF UNCONVENTIONAL GAS. Krickenberger, K.R.; Trudeau, P.N. (The MITRE Corp., McLean, VA) Jun 1980. NTIS, PC A99/MF A01.
From Second DOE Environmental Control Symposium; Reston, VA (17 Mar 1980).

U1-22 (DOE/METC/SP—80/12) SEMI-ANNUAL REPORT FOR THE UNCONVENTIONAL GAS RECOVERY PROGRAM, PERIOD ENDING MARCH 31, 1980. Manilla, R.D. (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) Jun 1980. 501p. NTIS, PC A22/MF A01.

U1-23 (DOE/METC/SP—80/22) SEMI-ANNUAL REPORT FOR THE UNCONVENTIONAL GAS RECOVERY PROGRAM, PERIOD ENDING SEPTEMBER 30, 1980. Manilla, R.D. (ed.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) Nov 1980. 370p. NTIS, PC A22/MF A01.

U1-24 (DOE/EML—385) REVIEW OF ^{222}Rn IN NATURAL GAS PRODUCED FROM UNCONVENTIONAL SOURCES. Gogolak, C.V. (U.S. Department of Energy, Environmental Measurements Lab., New York, NY) Nov 1980. 38p. NTIS, PC A03/MF A01.

U1-25 (DOE/TIC—11417) UNCONVENTIONAL GAS SOURCES. EXECUTIVE SUMMARY. National Petroleum Council (Washington, D.C.) Dec 1980. 50p. NTIS, PC A03/MF A01.

U1-26 (PB—81-222309) ENVIRONMENTAL RESEARCH PLAN FOR GAS SUPPLY TECHNOLOGIES. VOLUME I. EXECUTIVE SUMMARY. FINAL REPORT. Tipton, L.M.; Junkin, P.D. (TRW, Inc., McLean, VA) May 1981. 78p. NTIS, PC A05/MF A01.

U1-27 (PB—81-227951) ENVIRONMENTAL RESEARCH PLAN FOR GAS SUPPLY TECHNOLOGIES. VOLUME IIII: APPENDICES. FINAL REPORT. Tipton, L.M.; Junkin, P.D. (TRW, Inc., McLean, VA) May 1981. 259p. NTIS, PC A12/MF A01.

U1-28 (MTR—81W77) UNCONVENTIONAL RESOURCES. Jul 1981. p. 605-636. NTIS, PC A99/MF A01.
From Health and Environmental Effects of Oil and Gas Technologies: Research Needs.

U1-29 (CONF-820524) UNCONVENTIONAL GAS RECOVERY SYMPOSIUM. Society of Petroleum Engineers of AIME (Dallas, TX); U.S. Department of Energy (Washington, D.C.) May 1982. 615p. NTIS, PC A99/MF A01.
From SPE/DOE Symposium on Unconventional Gas Recovery; Pittsburgh, PA. (16 May 1982).
(Refer to listing of papers in Conference section.)

U1-30 (CONF-820323—2) UNCONVENTIONAL NATURAL GAS RESOURCES. Doherty, M.G. (Institute of Gas Technology, Chicago, IL) 1982. 17p. NTIS, PC A99/MF A01.
From 61st Annual Convention of the Gas Processors Association; Dallas, TX (15 Mar 1982).

U1-31 (PNL—4158) UNCONVENTIONAL GAS RECOVERY: STATE-OF-KNOWLEDGE DOCUMENT. Geffen, C.A. (Pacific Northwest Lab., Richland, WA) 1982. Contract AC06-76RL01830. 87p. NTIS, PC A05/MF A01. Order No. DE82010602.

U.S. GEOLOGICAL SURVEY

U3-01 (USGS-OFR—78-188) NATURAL GAS: A PERSPECTIVE ON RESOURCE AVAILABILITY. Masters, C.D. (U.S. Geological Survey, Reston, VA) 1978. 18p. From Society of Petroleum Engineers Meeting; Pittsburgh, PA (27 Oct 1977).

MISCELLANEOUS

U6-01 NATURAL GAS: UNITED STATES HAS IT IF THE PRICE IS RIGHT. Maugh, T.H. II. *Science*; V. 191: No. 4227, pp. 549-550 (13 Feb 1976).

U6-02 VAST POTENTIAL HELD BY FOUR "UNCONVENTIONAL" GAS SOURCES. Kuuskraa, V.A.; Brashear, J.P.; Doscher, T.M.; Elkins, L.E. (Lewin and Associates, Inc., Washington, D.C.) *Oil and Gas Journal*; V. 76: No. 24, pp. 47-54 (12 Jun 1978).

U6-03 UNCONVENTIONAL SOURCES OF GAS. Institute of Gas Technology. (Chicago, IL) 1979. 31p. (NP—24465). Available from Institute of Gas Technology.

U6-04 GAS RECOVERY FROM UNCONVENTIONAL SOURCES. Pitrolo, A.A.; Schrider, L.A.; Overbey, W.K.; Wise, R.L. (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) *Energy Technology:* V. 6; pp. 483-494 (1979). From Sixth Energy Technology Conference and Exposition; Washington, D.C. (26 Feb 1979).

U6-05 UNCONVENTIONAL NATURAL GAS RESOURCES: RESEARCH SEEKS TO VERIFY THE PROMISE. Doucette, D.B. *Energy Research Reports;* V. 5: No. 6, pp. 1-4 (19 Mar 1979).

U6-06 (NP—1902699) UNCONVENTIONAL GAS SOURCES. VOLUME I. EXECUTIVE SUMMARY. National Petroleum Council. (Washington, D.C.) 1980. 51p. Available from National Petroleum Council.

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G5-17 TECHNOLOGY AND ECONOMICS OF METHANE PRODUCTION FROM GEOPRESSURED AQUIFERS. Doscher, T.M.; Osborne, R.H.; Wilson, T.; Rhee, S.; Cox, D.; Kuuskraa, V. (University of Southern California, Los Angeles, CA) *Journal of Petroleum Technology*; 31: No. 12, pp. 1502-1514 (Dec 1979).

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P1-02 (METC/SP—78/6) THE SECOND EASTERN GAS SHALES SYMPOSIUM. Schott, G.L.; Overbey, W.K. Jr.; Hunt, A.E.; Komar C.A. (eds.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) Oct 1978 NTIS, PC A99/ MF A01.

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P1-04 (DOE/METC/SP-80/23) WESTERN LIMITS OF DETACHMENT AND RELATED STRUCTURES IN THE APPALACHIAN FORELAND. Wheeler, R.L.; Dean, C.S. (eds.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV and Southeastern Section, Geographic Society of America, Chattanooga, TN) Apr 1978. 177p. (Oct 1980) NTIS, PC A09/MF A01.

Possible Interaction Between Thin-Skinned and Basement Tectonics in the Appalachian Basin and Its Bearing on Exploration for Fractured Reservoirs in the Devonian Shale. Dean,C.S.; Overbey,W.K.,Jr. 27p.

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West-to-East (Break-Back) Imbrication of the Alleghenian Allochtron in the Southern Appalachian Plateau and Valley and Ridge. Milici,R.C. 12p.

P1-05 (MERC/SP-76/2) DEVONIAN SHALE PRODUCTION AND POTENTIAL, SEVENTH ANNUAL APPALACHIAN PETROLEUM SYMPOSIUM. Shumaker, R.C.; Overbey, W.K. Jr. (eds.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV; West Virginia Geological Survey, Morgantown, WV; and West Virginia University, Morgantown, WV) Mar 1976. NTIS, PC A12/MF A01.

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P1-11 (CONF—7903148) WORKSHOP ON SUBSURFACE DISPOSAL OF GEOPRESSURED FLUIDS, GULF COAST. Bachman, A.L. (ed.) (U.S. Department of Energy, Division of Geothermal Energy, Washington, D.C.; Louisiana Department of Natural Resources, Baton Rouge, LA; Louisiana State University, Baton Rouge, LA) 6-7 Mar 1979. NTIS, PC A09/MF A01.

The Texas Regulatory Framework. Singletary,G. 4p.

The Louisiana Regulatory Framework. Deville,W. 3p.

The Federal Regulatory Framework. Browning,L. 4p.

Geopressured Resource Development Scenarios. Smith,C.G. 4p.

Hydrogeologic Factors

Gulf Coast Geopressured-Geothermal Resources as Related To Hydrogeologic Characteristics of the Subsurface System for Disposal of Spent Brines. Wallace,R.H. 22p.

Operational Factors

Salt Water Disposal Operations: North Markham—North Bay City Field, Matagorda County, Texas. Corbell,H.C. 20p.

Programmatic and Technical Aspects of Subsurface Brine Disposal: Experiences of the Strategic Petroleum Reserve (SPR). Hahn,H.F.; Smith,R.E. 2p.

Programmatic Aspects. Smith,R.E. 5p.

Technical Aspects. Hahn,W.F. 13p.

Fluid/Formation Compatibility

Subsurface Disposal of Brines from Geopressured Reservoirs. Donaldson,E.C. 50p.

Fluid Migration

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Fluid Migration: The Texas Experience. Singletary,G. 2p.

The Federal Regulatory Framework for the Fluid Migration Problem. Browning,L. 4p.

Louisiana Regulations on Disposal of Geopressured Fluids (Appendix A) 3p.

Discussion Topics (Appendix B) 2p.

P1-12 (DOE/METC/82-49) METHANE HYDRATES WORKSHOP. Malone,R.D. (ed.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) 29-30 Mar 1982. NTIS, PC A06/MF A01.

The Occurrence and Magnitude of Methane Hydrate Accumulations. Zielinski,R.E.; McIver,R.D. 10p.

The Thermodynamics of Production of Naturally Occurring Gas Hydrates. Holder,G.D. 2p.

Calorimetric Studies of Clathrate Hydrates. Callanan,J.E.; Sloan,E.D. 10p.

Progress and Problems in Hydrate Studies at Rice University. Schroeter,J.P.; Song,K.Y.; Kobayashi,R. 10p.

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P1-13 (DOE/METC/82-50) DEEP SOURCE GAS WORKSHOP. Gwilliam, W.J. (ed.) (U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV) 3-4 May 1982. NTIS, PC A09/MF A01.

Abiogenic Origin of Deep Source Gas

The Many Origins of Natural Gas. MacDonald,G.J. 31p.

Theoretical Proof for Worldwide Deep Source Non-Biogenic Petroleum. Giardini,A.A.; Melton,C.E. 14p.

Experimental Proof for Worldwide Deep Source Non-Biogenic Petroleum. Giardini,A.A.; Melton,C.E. 24p.

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Deep Sedimentary Basin Gas

Prospects for Gas in Deep Sedimentary Basins. Claypool, G. 3p.

Deep Source Gas Associated With Tectonic Processes at Convergent Margins

Subducted Organic Origin Gas Hypothesis for Deep Source Methane. Gwilliam,W.J. 18p.

Tectonic Guidelines to Deep Source Gas. Thompson,T.L. 3p.

Deep Source Gas Workshop Agenda (Appendix A) 6p.

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P5-01 THE FIRST ANNUAL SYMPOSIUM ON UNCONVENTIONAL GAS RECOVERY. Society of Petroleum Engineers of AIME, (Dallas, TX); U.S. Department of Energy (Washington, D.C.) Held in Pittsburgh, PA 18-20 May 1980. Available from the Society of Petroleum Engineers of AIME.

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In the Personal Author Index, authors' surnames are indexed alphabetically in the form appearing in the citation. Given names are reduced to initials. Each author entry gives the citation number of the entry in Part I (Bibliography) and the conference number in Part II (Conferences). For documents with multiple authors, an author entry is provided for each. If an author has two or more papers presented at a conference, the conference citation is given only once.

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