

APPENDICES

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APPENDIX A: AGENDA
NATURAL GAS R&D CONTRACTORS REVIEW MEETING

TUESDAY, APRIL 18, 1989

7:00 a.m. Registration, Ballroom Foyer
7:30 a.m. Coffee and Danish, Ballroom Foyer
Speakers Briefing, Coffee and Danish, Ballrooms 1-5

KEYNOTE SESSION

Chairperson: Hugh Guthrie

8:15 a.m. Welcome -- Augustine Pitrolo, Director
Morgantown Energy Technology Center
8:30 a.m. *Assessment of U.S. Natural Gas Resource Base*
William Fisher
University of Texas
9:30 a.m. BREAK

SESSION 1 -- GAS AND RELATED RESEARCH

Chairperson: Charles A. Komar

9:50 a.m. 1.1 *Technical Challenges and Opportunities in Methane
Conversion*
George Huff
AMOCO
10:15 a.m. 1.2 *Secondary Natural Gas Recovery: Targeted Technology
Applications for Infield Reserve Growth*
Robert J. Finley
University of Texas at Austin

10:40 a.m.	1.3	<i>The Geopressured-Geothermal Research Program: An Overview</i> Allan Jelacic DOE/HQ/Conservation and Renewable Energy
11:05 a.m.	1.4	<i>Natural Gas Processing Research</i> Howard S. Meyer Gas Research Institute
11:30 a.m.	1.5	<i>Hydrocarbon Geoscience Research in the Office of Basic Energy Sciences</i> George Kolstad DOE/Office of Basic Energy Sciences
12:00 p.m.		LUNCH (Reflections)

SESSION 2A -- EASTERN GAS RESEARCH

Chairperson: Albert B. Yost II

1:30 p.m.	2a.1	<i>Recovery Efficiency Test (Horizontal Well in the Devonian Shale)</i> William K. Overbey, Jr. BDM Engineering Services Corporation
2:00 p.m.	2a.2	<i>Upcoming Plans for the DOE/SPDC/GRI Slant Well Project</i> Gery Muncey Sterling Drilling and Production Company
2:30 p.m.	2a.3	<i>An MWD System for Air Drilling</i> William H. Harrison Geoscience Electronics Corporation
3:00 p.m.		BREAK
3:20 p.m.	2a.4	<i>Multiple Zone Completion Opportunities</i> Gregory Koziar Columbia Gas System Service Corporation
3:50 p.m.	2a.5	<i>Horizontal Well Prospectus - Eastern Gas Shales</i> Anthony Zammerilli Morgantown Energy Technology Center

4:20 p.m. 2a.6 *Application of Remote Geologic Analysis to
Exploration of Gas in Naturally Fractured
Reservoirs in West Virginia*
Thomas H. Mroz
Morgantown Energy Technology Center and
Michael Foley
Pacific Northwest Laboratory

SESSION 2B -- GAS TO LIQUIDS RESEARCH

Chairperson: Rodney D. Malone

1:35 p.m. 2b.1 *Hydrocarbon Chemicals from Natural Gas*
Anthony Lee
Institute of Gas Technology

2:00 p.m. 2b.2 *The Partial Oxidation Reactions of Methane and Oxygen*
Michael W. Droege
Lawrence Livermore National Laboratory

2:25 p.m. 2b.3 *Methane to Methanol Conversion*
Wayne C. Danen
Los Alamos National Laboratory

2:50 p.m. 2b.4 *Oxidative Coupling Research for the Conversion of
Natural Gas to Liquid Fuels*
Abolghasem Shamsi
Morgantown Energy Technology Center

3:15 p.m. BREAK

3:35 p.m. 2b.5 *Economics of Natural Gas Conversion to Gasoline*
Hsue-Peng Loh
Morgantown Energy Technology Center

4:00 p.m. 2b.6 *Catalytic Conversion of Light Alkanes*
James Lyons
Sun Refining and Marketing Company

4:25 p.m. 2b.7 *Direct Conversion of Light Hydrocarbon Gases to
Liquid Fuels*
V. Udaya Rao
Pittsburgh Energy Technology Center

POSTER SESSION

Chairperson: Charles W. Byrer

5:00-7:00 p.m. University Hall

- PS1 *Development and Demonstration of Arctic and Offshore Research Information System (AORIS)*
Laura C. Zuber
Science Applications International Corporation
- PS2 *Interactions of Massive Ice Features with Offshore Oil Production Platforms in the Arctic*
William M. Sackinger
University of Alaska Fairbanks
- PS3 *The Synthesis, Characterization, and Catalytic Reactions of Metal Silicate Catalysts for the Partial Oxidation of Methane*
Lucy M. Hair
Lawrence Livermore National Laboratory
- PS4 *Application of Remote Geologic Analysis to Exploration of Gas in Naturally Fractured Reservoirs in West Virginia*
Thomas H. Mroz
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Michael Foley
Pacific Northwest Laboratory
- PS5 *Predictive Modeling of Horizontal Wells in Devonian Shale*
Anthony Zammerilli and Abbie Layne
Morgantown Energy Technology Center
- PS6 *Horizontal Well Production Type Curves*
James C. Mercer
Morgantown Energy Technology Center
- PS7 *Production Systems Analysis of Low Permeability Natural Gas Formations*
Scott Klara
Morgantown Energy Technology Center
- PS8 *Oxidative Coupling of Methane: Phenomenological Modeling as a Guide to Experimentation*
Steven S. Miller
Morgantown Energy Technology Center

- PS9 *Stress-Strain Behavior of Geological Materials Containing Gas Hydrates*
Hema J. Siriwardane
West Virginia University
- PS10 *Natural Gas Research*
Charles A. Komar
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- PS11 *Rocky Mountain 1 - Structure and Results of a Cooperative Industry/Government Project in Underground Coal Gasification*
Joseph W. Martin
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- PS12 *Effect of Sodium Promoters on the Oxidative Coupling Reaction of Methane Over Metal Oxide and Mixed Metal Oxide Catalysts*
Ranjani V. Siriwardane
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- PS13 *Natural Gas Recovery/Utilization SBIR Program*
Harold D. Shoemaker
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- PS14 *Eastern Overthrust*
Douglas Patchen
West Virginia Geological Survey
- PS15 *Deep Source Gas Research*
William J. Gwilliam
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WEDNESDAY, APRIL 19, 1989

- 7:00 a.m. Registration, Ballroom Foyer
- 7:30 a.m. Coffee and Danish, Ballroom Foyer
- Speakers Briefing, Coffee and Danish, Ballrooms 1-3

KEYNOTE SESSION

Chairperson: Hugh Guthrie

- 8:10 a.m. Introduction -- Hugh Guthrie
- 8:15 a.m. *Role of Geosciences in Natural Gas Research*
Donald Juckett
DOE/HQ/Office of Geoscience Research
- 8:50 a.m. Break into Sessions

SESSION 3A -- WESTERN GAS RESEARCH

Chairperson: Karl-Heinz Frohne

- 9:00 a.m. 3a.1 *Gas Resource Estimates for Tight Gas Sandstones in the Greater Green River Basin*
Charles Spencer
U.S. Geological Survey
- 9:30 a.m. 3a.2 *Multiwell Experiment Summary*
David A. Northrop
Sandia National Laboratories
- 10:00 a.m. 3a.3 *Geologic and Production Characteristics of the Tight Mesaverde: Piceance Basin, Colorado*
F. Richard Myal
CER Corporation
- 10:30 a.m. BREAK
- 10:50 a.m. 3a.4 *Re-Analysis of the MWX Fracture Stimulation Data From the Mesaverde Formation*
William K. Miller II
NSI Technologies, Inc.
- 11:20 a.m. 3a.5 *Reservoir Analysis of Blanket Sands Using a Numerical Multi-Mechanistic Model*
Michael A. Adewumi
Pennsylvania State University
- 11:45 a.m. LUNCH (University Hall)

SESSION 3B -- HYDRATES/DEEP GAS RESEARCH

Chairperson: William J. Gwilliam

- 9:00 a.m. 3b.1 *Deep Investigative Geophysical Studies*
W. D. Stanley
U.S. Geological Survey
- 9:25 a.m. 3b.2 *Deep Seismic Reflection Study Across Southwestern
Washington*
Daniel D. Hollis, William Schneider, Thomas McEvelly
Geophysical Systems Corporation
- 10:00 a.m. 3b.3 *Thermal History Modeling of Geological Basins*
Ann Grunow
Columbia University
- 10:30 a.m. BREAK
- 10:50 a.m. 3b.4 *Geologic Interrelations Relative to Gas Hydrates
Within the North Slope of Alaska*
Timothy S. Collett
U.S. Geological Survey
- 11:20 a.m. 3b.5 *Evaluation of Geological Relationships to Gas Hydrate
Formation and Stability*
Patrick Finley
Geoexplorers International Inc.
- 12:00 p.m. LUNCH (University Hall)

SESSION 4A -- WESTERN GAS RESEARCH

Chairperson: Karl-Heinz Frohne

- 1:30 p.m. 4a.1 *Systems Analysis of Low-Permeability Natural Gas
Formations*
John Duda
Morgantown Energy Technology Center
- 2:00 p.m. 4a.2 *Geotechnology of Low-Permeability Gas Reservoirs*
Norm R. Warpinski
Sandia National Laboratories

- 2:30 p.m. 4a.3 *Rock Matrix and Fracture Analysis of Flow in Western Tight Gas Sands*
Norman R. Morrow
New Mexico Institute of Technology
- 3:00 p.m. BREAK
- 3:20 p.m. 4a.4 *Development of Core Analysis Procedures Using X-Ray Computerized Tomography*
John Sharer
TerraTek
- 3:50 p.m. 4a.5 *Two-Phase Flow in Tight Sands*
Prasan Chowdiah
Institute of Gas Technology
- 4:20 p.m. 4a.6 *Application of Stratified Random Sampling to Estimating Gas Reserves*
Allan Smith
Morgantown Energy Technology Center

SESSION 4B -- ARCTIC GAS RESEARCH

Chairperson: Harold D. Shoemaker

- 1:30 p.m. 4b.1 *Laboratory Experiments for Gas Hydrate Production: Development of Alaskan Gas Hydrate Resources*
Vidyadhar A. Kamath
University of Alaska Fairbanks
- 2:00 p.m. 4b.2 *Development of the Arctic and Offshore Research Information System (AORIS)*
Laura C. Zuber
Science Applications International Corporation
- 2:30 p.m. 4b.3 *Recent Ice Island Creation Events, Drift Laws and Recurrence Intervals, Mechanical Properties, and Interactions with Offshore Oil Production Structures*
William M. Sackinger
University of Alaska Fairbanks
- 3:00 p.m. BREAK

3:20 p.m. 4b.4 *SEMS Technology: Recent Hardware Improvements and
Developments*
Richard Traeger
Sandia National Laboratories

3:50 p.m. 4b.5 *Observations and Findings: National Research
Council's Assessments of the Uses of the EEZ Seabed*
Donald Perkins
Marine Board

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