Association Française pour l'Etude des Eaux

DOCUMENT NON SELECTIONNE

Trop spécialisé ☐
Sans intérêt ☐
Pas de mon domaine ☐

NUMERO G 11468

NOM : Mme PONSODA

DATE ENVOI : 22/01/91

*AUTEURS .DACK W,ROSENSHEIN JS,SEABER PR
*TYPE .LIVRE
*TITRE .Hydrogeology, The geology of North America,Vol O-2
*SOURCE .BOULDER,GEOL SOC AM
*DATE .1988
*PAGES .324 P FIG P TABL P 3 CARTE HT
*COTE .G11468

25 JAN 1991
66172485

Nombre de Références

Auteur (s)

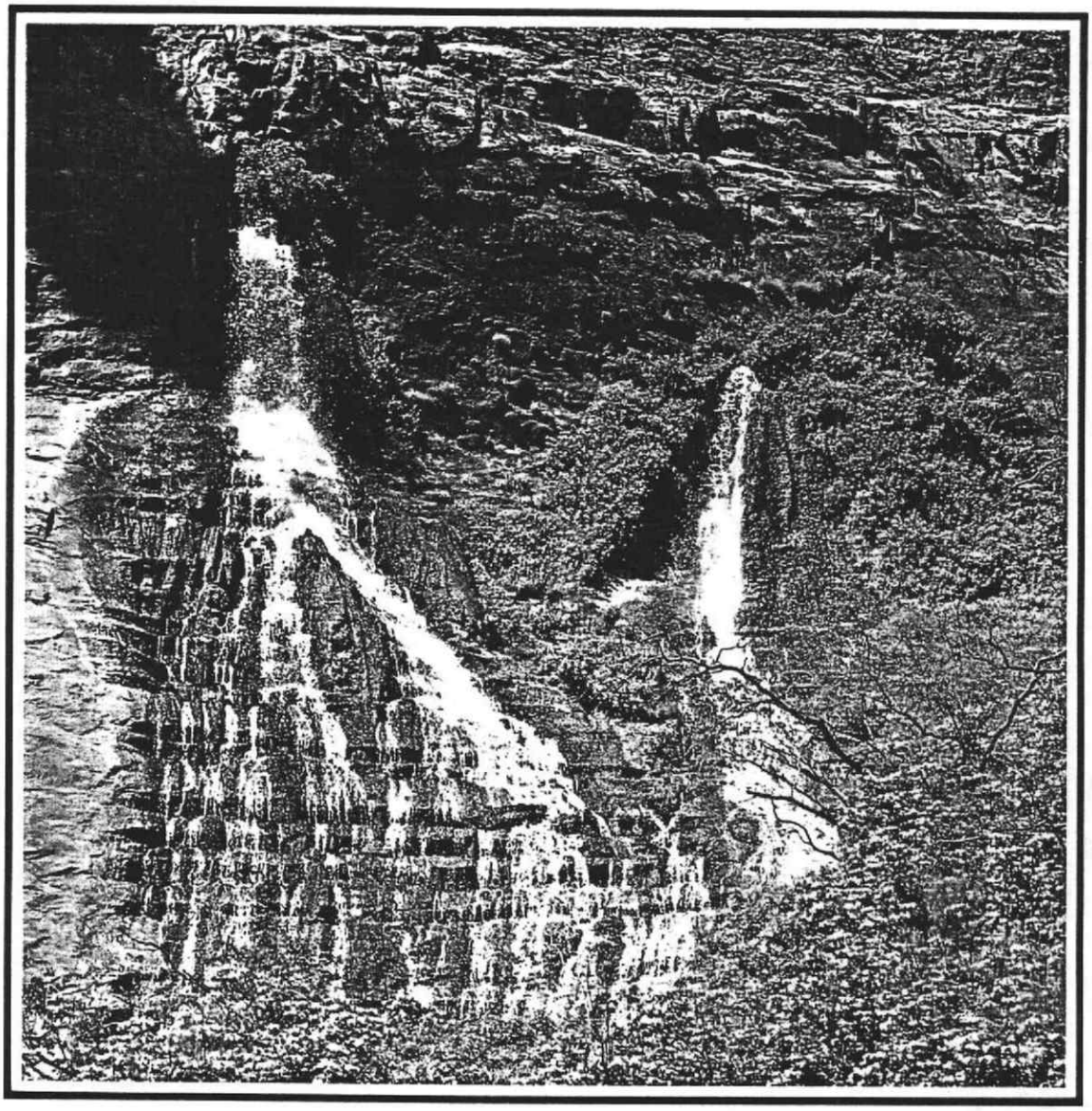
Y1 X1 X3 ← Bon document

Titre original :

L'hydrogéologie des Etats-Unis, du Canada et du Mexique. Synthèse sur les eaux souterraines, par régions avec données géologiques, climatiques, hydrologiques, géochimiques. Cartes, croquis et tableaux. G 11468.

66/72485

HYDROGEOLOGY



The Geology of North America

G11468

Contents

Preface vii

Foreword ix

I. INTRODUCTION

1. Historical perspective 1
Gerald Meyer, with contributions by George Davis
and P. E. LaMoreaux

2. Hydrostratigraphic units 9
Paul R. Seaber

II. HYDROGEOLOGIC REGIONS

3. Hydrogeologic setting of regions 15
Ralph C. Heath

Cordilleran Sector

4. Region 1, Western mountain ranges 25
Bruce L. Foxworthy, Debra L. Hanneman, Donald L. Coffin,
and E. Carl Halstead

5. Region 2, Columbia Lava Plateau 37
G. F. Lindholm and J. J. Vaccaro

6. Region 3, Colorado Plateau and Wyoming Basin 51
O. James Taylor and J. W. Hood

7. Region 4, Central Valley and Pacific Coast Ranges 59
C. D. Farrar and G. L. Bertoldi

8. Region 5, Great Basin 69
M. D. Mifflin

9. Region 6, Coastal Alluvial Basins 79
W. F. Hardt

10. Region 7, Central Alluvial Basins 81
T. W. Anderson, G. E. Welder, Gustavo Lesser, and A. Trujillo

11. Region 8, Sierra Madre Occidental 87
J. Joel Carrillo R.

12. Region 9, Sierra Madre Oriental 89
Juan M. Lesser and Gustavo Lesser

13. Region 10, Faja Volcanica Transmexicano 93
Ruben Chavez

14. Region 11, Sierra Madre del Sur 99
Ricardo Riva Palacio

Central Cratonic Sector

15. Region 12, Precambrian Shield 101
R. N. Farvolden, O. Pfannkuch, R. Pearson, and P. Fritz

16. Region 13, Western Glaciated Plains 115
D. H. Lennox, H. Maathuis, and D. Pederson

17. Region 14, Central Glaciated Plains 129
N. C. Krothe and J. P. Kempton

18. Region 15, St. Lawrence Lowland 133
R. N. Farvolden and J. A. Cherry

19. Region 16, Central Nonglaciated Plains 141
Donald G. Jorgensen, Joe Downey, Alan R. Dutton, and Robert W. Maclay

20. Region 17, High Plains 157
John B. Weeks and Edwin D. Gutentag

21. Region 18, Alluvial valleys 165
J. S. Rosenshein

Appalachian Sector

22. Region 19, Northeastern Appalachians 177
Allan D. Randall, Rory M. Francis, Michael H. Frimpter, and James M. Emery

23. Region 20, Appalachian Plateaus and Valley and Ridge 189
Paul R. Seaber, J. V. Brahana, and E. F. Hollyday

24. Region 21, Piedmont and Blue Ridge 201
Harry E. LeGrand

Coastal Plain Sector

25. Region 22, Atlantic and eastern Gulf Coastal Plain 209
Harold Meisler, James A. Miller, LeRoy L. Knobel, and Robert L. Wait

26. Region 23, Gulf of Mexico Coastal Plain 219
Hayes F. Grubb and J. Joel Carillo R.

27. Region 24, Southeastern United States 229
Richard H. Johnston and James A. Miller

28. Region 25, Yucatan Peninsula 237
Juan M. Lesser and A. E. Weidie

Island Sector

29. Region 26, West Indies 243
William Back

30. Region 27, Hawaiian Islands 255
Charles D. Hunt, Jr., Charles J. Ewart, and Clifford I. Voss

Permafrost

31. Region 28, Permafrost region 263
Charles E. Sloan and Robert O. van Everdingen

III. COMPARATIVE HYDROGEOLOGY

32. Nature of comparative hydrogeology 271
Stanley N. Davis

33. Alluvial aquifers along major rivers 273
John M. Sharp, Jr.

34. Western alluvial valleys and the High Plains 283
George H. Davis

35. Glacial deposits 301
D. A. Stephenson, A. H. Fleming, and D. M. Mickelson

36. Coastal Plain deposits 315
James A. Miller

37. Sandstones and shales 323
Stanley N. Davis

38. Carbonate rocks 333
J. V. Brahana, John Thrailkill, Tom Freeman, and W. C. Ward

39. Volcanic rocks 353
Warren W. Wood and Louis A. Fernandez

40. Plutonic and metamorphic rocks 367
Frank W. Trainer

IV. GROUNDWATER AND GEOLOGIC PROCESSES

41. Ground water as a geologic agent 381
P. A. Domenico

42. Landform development 383
Charles G. Higgins, Donald R. Coats, Victor R. Baker, William E. Dietrich, Thomas Dunne, Edward A. Keller, Robert M. Norris, Gerald G. Parker, Sr., Milan Pavich, Troy L. Péwé, James M. Robb, J. David Rogers, and Charles E. Sloan

43. Landform development; Karst 401
Derek C. Ford, Arthur N. Palmer, and William B. White

44. Ground water and clastic diagenesis 413
F. W. Schwartz and F. J. Longstaffe

45. The generation and dissipation of abnormal fluid pressures in active depositional environments 435
P. A. Domenico and V. V. Palciauskas

46. Ground water and fault strength 447
S. A. Rojstaczer and J. D. Bredehoeft

47. The role of ground-water processes in the formation of ore deposits 461
John M. Sharp, Jr., and J. Richard Kyle

48. Ground water and hydrocarbon migration 485
J. Tóth

V. OUTLINE FOR THE FUTURE

49. Scientific problems 503
Leonard F. Konikow and Stavros S. Papadopulos

50. Epilogue; Societal problems 509
J. S. Rosenshein and William Back

Index 511

Plates

Plate 1. Hydrogeologic map of North America showing the major rock units that underlie the surfical layer
R. Heath

Plate 2. Hydrogeologic map of North America showing the major units that comprise the surfical layer
R. Heath

Plate 3. Ground-water flow systems in the Great Basin
J. R. Harrill, J. S. Gates, and J. M. Thomas, with additions by M. Mifflin

Preface

The Geology of North America series has been prepared to mark the Centennial of The Geological Society of America. It represents the cooperative efforts of more than 1,000 individuals from academia, state and federal agencies of many countries, and industry to prepare syntheses that are as current and authoritative as possible about the geology of the North American continent and adjacent oceanic regions.

This series is part of the Decade of North American Geology (DNAG) Project which also includes eight wall maps at a scale of 1:5,000,000 that summarize the geology, tectonics, magnetic and gravity anomaly patterns, regional stress fields, thermal aspects, seismicity, and neotectonics of North America and its surroundings. Together, the synthesis volumes and maps are the first coordinated effort to integrate all available knowledge about the geology and geophysics of a crustal plate on a regional scale.

The products of the DNAG Project present the state of knowledge of the geology and geophysics of North America in the 1980s, and they point the way toward work to be done in the decades ahead.

In addition to the contributions from organizations and individuals acknowledged at the front of this book, major support has been provided to the editors of this volume by the Regional Aquifer Systems Analysis Program of the U.S. Geological Survey.

A. R. Palmer
General Editor for the volumes
published by The Geological Society
of America

J. O. Wheeler
General Editor for the volumes
published by the Geological
Survey of Canada