Australasian Petroleum Exploration Association Limited

APEA Journal
1985

Volume 25, Part 1

Technical Papers

1985 APEA Conference
Perth, 24th-27th March, 1985
ERRATA

The editors regret the following errors and omissions:

1) Facing page: APEA Telephone: (02) 27 9651


   The diagrams in Figs 6, 7, 9, 10, 11 & 13 are correctly labelled, but not positioned in correct stratigraphic sequence. The legends of Figs 6 & 9 are transposed.

3) Page 212: In the 5th paragraph after Tertiary, the following words are missing: “The similarity of the results for Mercury and Jupiter . . .”

4) Page 276: After Equation 3 for \( \Sigma \) read \( \emptyset \)
   After Equation 4 for \( T_D \) read \( t_D \)

5) Page 311: After reference to Fig. 1 the following words are missing: “Some of these projects . . .”

6) Page 313: ENVIRONMENTAL STUDIES — first sentence should read: “When the need arises, the legal requirements of an Environmental Impact Statement (EIS) or local equivalent such as the Environmental Review and Management Plan (ERMP) of Western Australia . . . etc.”

7) Plate 2 on page 314: caption should read angusta.

FRONT COVER:
North Rankin ‘A’ Platform (Photo Courtesy of Woodside Offshore Petroleum).

BACK COVER:
25 years ago — contents page of the first APEA Journal.
AUSTRALIAN PETROLEUM EXPLORATION ASSOCIATION LIMITED

An Association Not for Gain — Limited by Guarantee
(Incorporated under the Companies (New South Wales) Code)

SECRETARY AND REGISTERED OFFICE
4th Floor, 60 Pitt Street,
Sydney, N.S.W. 2000
(G.P.O. Box 3974, Sydney, N.S.W. 2001)
Telephone: (02) 27 6718, (02) 27 6874
Telex: AA 23033

APEA 1985 CONFERENCE CHAIRMAN
R. B. Mitchell

TECHNICAL PAPERS COMMITTEE
Chairman: J. C. Parry
Editor: D. N. Smith

The Journal is published under the direction of the Council of APEA, by the Conference Technical Papers Committee of the Australian Petroleum Exploration Association. Reproduction of material in whole or part requires customary acknowledgements and prior permission of the Association in writing.

ISSN W084-7534
<table>
<thead>
<tr>
<th>Page</th>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>J. C. Patterson</td>
<td>International Petroleum Investment — Why Australia?</td>
</tr>
<tr>
<td>34</td>
<td>W. G. Townson</td>
<td>The Subsurface Geology of the Western Officer Basin — Results of Shell’s 1980-1984 Petroleum Exploration Campaign</td>
</tr>
<tr>
<td>52</td>
<td>B. J. Phillips, A. W. James and G. M. Philip</td>
<td>The Geology and Hydrocarbon Potential of the North-Western Officer Basin</td>
</tr>
<tr>
<td>85</td>
<td>A. W. Nelson</td>
<td>Tectonics of the Jackson-Naccowlah Area, Cooper-Eromanga Basins, Southwest Queensland and Their Implications for Hydrocarbon Accumulation</td>
</tr>
<tr>
<td>107</td>
<td>K. J. Fagg</td>
<td>Gas Lift in Bass Strait</td>
</tr>
<tr>
<td>114</td>
<td>J. J. Hayes</td>
<td>Bass Strait Water Handling Developments</td>
</tr>
<tr>
<td>119</td>
<td>J. Wilmshurst</td>
<td>Use of Drag Reducer Chemical in the Bass Strait Crude Oil Producing System</td>
</tr>
<tr>
<td>123</td>
<td>B. Albers and H. Rose</td>
<td>Nitrogen/Helium Leak Detection Used on North Rankin ‘A’ Platform</td>
</tr>
<tr>
<td>129</td>
<td>W. R. Partridge</td>
<td>Conversion of Gas to Transportation Fuels</td>
</tr>
<tr>
<td>134</td>
<td>R. Bogan</td>
<td>Overseas Recruiting in the Oil and Gas Industry — A Case Study</td>
</tr>
<tr>
<td>154</td>
<td>E. Kopsen and G. McGann</td>
<td>A Review of the Hydrocarbon Habitat of the Eastern and Central Barrow — Dampier Sub-Basin, Western Australia</td>
</tr>
<tr>
<td>177</td>
<td>E. Veenstra</td>
<td>Rift and Drift in the Dampier Sub-Basin, A Seismic and Structural Interpretation</td>
</tr>
</tbody>
</table>
190  I. G. PERCIVAL and P. M. COONEY  
   PETROLEUM GEOLOGY OF THE MERLINLEIGH SUB-BASIN, WESTERN AUSTRALIA

204  A. C. COOK, M. SMYTH and R. G. VOS  
   SOURCE POTENTIAL OF UPPER TRIASSIC FLUVIO-DELTAIC SYSTEMS OF THE EXMOUTH PLATEAU

216  J. L. COSGROVE and W. G. MOGG  
   RECENT EXPLORATION AND HYDROCARBON POTENTIAL OF THE ROMA SHELF, QUEENSLAND

235  A. F. WILLIAMS and D. J. POYNTON  
   THE GEOLOGY AND EVOLUTION OF THE SOUTH PEPPER HYDROCARBON ACCUMULATION

248  R. ANGOVE  
   THE POINT TORMENT SEISMIC SURVEY: A SEMI-PORTABLE SEISMIC OPERATION

254  T. J. C. PRUDENCE and J. FLENTRI  
   VSP CASE HISTORY, KANPA 1A, THE WESTERN OFFICER BASIN

265  S. O. AJAM and V. E. RAHAL  
   APPLICATIONS OF THERMAL MULTIGATE DECAY PULSED NEUTRON LOGS IN UNUSUAL DOWNHOLE LOGGING ENVIRONMENTS

275  P. N. SAMSON, H. FLIGELMAN and C. BRAESTER  
   NEW PRESSURE ANALYSIS TECHNIQUE USING REPEAT FORMATION TESTER DATA

282  A. M. TAIT  
   A DEPOSITIONAL MODEL FOR THE DUPUY MEMBER AND THE BARROW GROUP IN THE BARROW SUB-BASIN, NORTHWESTERN AUSTRALIA

291  B. P. J. WILLIAMS, E. K. WILD and R. J. SUTTILL  
   PARAGLACIAL AEOLIANITES: POTENTIAL NEW HYDROCARBON RESERVOIRS, GIDGEALPA GROUP, SOUTHERN COOPER BASIN

311  W. H. BUTLER  
   MULTIPLE LAND USE — AN ESSENTIAL PART OF ENVIRONMENTAL PLANNING

316  C. M. LANE and R. J. WATSON  
   DEVELOPMENT OF THE WOODADA GAS FIELD

329  M. SABET and L. FRANKS  
   PALM VALLEY — A CASE FOR INTERPRETATION, 1965-1984

344  M. A. ETHERIDGE, J. C. BRANSON and P. G. STUART-Smith  
   EXTENSIONAL BASIN — FORMING STRUCTURES IN BASS STRAIT AND THEIR IMPORTANCE FOR HYDROCARBON EXPLORATION

   PRE-EOCENE STRATIGRAPHY, STRUCTURE, AND PETROLEUM POTENTIAL OF THE BASS BASIN

382  R. O. LINDSETH  
   TRENDS IN DATA ANALYSIS FOR PETROLEUM EXPLORATION AND DEVELOPMENT