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SEISMIC INTERPRETATION, RIVERSLEA FIELD,  
SURAT BASIN, SOUTHEAST QUEENSLAND, AUSTRALIA

Samuel W. Allen

1986

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## ABSTRACT

Riverslea field is located on the southwestern flank of the Surat basin, southeastern Queensland, Australia. Oil production at the field occurs from fluvial channel sandstone reservoirs of the Boxvale and Lower Evergreen Members of the Lower Jurassic Evergreen Formation. The Boxvale Member is interpreted as a "valley-fill" sequence that was deposited in response to a global sea level drop and subsequent sea level rise during Early Jurassic time (175 mya). The sequence contains meander belt point bar and braided stream sandstones as well as overbank siltstones and flood plain shales. The Boxvale scours into the underlying Lower Evergreen fluvial sequence.

Reflection seismic data may be capable of delineating Boxvale reservoir where channel superposition occurs within the valley-fill sequence and sufficient acoustic impedance exists between the Boxvale and adjacent units.

Subsurface and seismic mapping indicate that basement structures influenced Lower Jurassic sedimentation. Boxvale valley deflection by large basement structures, i.e. "Annabelle", provides the likelihood of Boxvale stratigraphic traps in flank positions.

## TABLE OF CONTENTS

Abstract .....	iii
Table of Contents .....	iv
List of Figures .....	v
List of Tables .....	viii
List of Plates .....	ix
Acknowledgements .....	x
Introduction .....	1
Geological Studies .....	3
Bowen and Surat Basins .....	3
Riverslea Area Exploration .....	3
Structure .....	6
Stratigraphy .....	7
Boxvale Depositional Model .....	9
Seismic Data Analysis .....	14
Seismic Reprocessing .....	14
Seismic Modeling .....	28
Structural Model .....	28
Stratigraphic Model .....	29
Seismic Interpretation .....	39
Structural Interpretation .....	39
Stratigraphic Interpretation .....	46
Seismic Resolution Limits .....	53
Future Work .....	61
Geologic Investigations .....	61
Seismic Investigations .....	61
Riverslea Area Exploration .....	62
Conclusions .....	63
Geology .....	63
Seismic Processing .....	64
Seismic Modeling .....	64
Seismic Interpretation .....	65
Riverslea Area Exploration .....	66
References Cited .....	67

## LIST OF FIGURES

Figure 1:	Riverslea field location map .....	2
Figure 2:	Regional structure contour map, top of basement .....	4
Figure 3:	Riverslea area stratigraphic column .....	5
Figure 4:	Riverslea area top of Evergreen Formation structure contour map (C.I. 25') .....	8
Figure 5:	Valley fill depositional model .....	10
Figure 6:	Surat Basin sedimentary cycles and their relation to global sea level changes .....	12
Figure 7:	Amplitude spectra, shot 484 .....	16
Figure 8A:	Shot record 484, before vs after F-K filtering .....	17
Figure 8B:	Amplitude spectra, shot 484, after F-K filtering .....	18
Figure 8C:	HSB-912, stack section before vs after F-K filtering ....	19
Figure 9A:	Shot record 484, before vs after deconvolution .....	20
Figure 9B:	Amplitude spectra, shot 484, after deconvolution and bandlimiting .....	21
Figure 9C:	HSB-912, stack section before vs after deconvolution ....	22
Figure 10:	HSB-2010, stack section, before vs after migration.....	23
Figure 11A:	Original processing, Samari Plains survey line HSB-913 ..	24
Figure 11B:	Reprocessing, Samari Plains survey line HSB-913 .....	25
Figure 12A:	Original processing, Melaleuca survey line HSB-2002 .....	26
Figure 12B:	Reprocessing, Melaleuca survey line HSB-2002 .....	27
Figure 13:	Structural cross section used in modeling .....	30
Figure 14:	Detail view of structural cross section .....	31
Figure 15:	Synthetic seismic cross section .....	32

Figure 16:	Detail view of synthetic seismic cross section .....	33
Figure 17:	Stratigraphic model- depth view .....	35
Figure 18:	Stratigraphic model- synthetic seismic section .....	36
Figure 19:	Amplitude versus offset profile, Boxvale reservoir .....	37
Figure 20:	Amplitude versus offset profile, Boxvale nonreservoir ...	38
Figure 21A:	Calibration of HSB-2010 (migrated section) to synthetic from Annabelle #1 .....	40
Figure 21B:	Calibration of HSB-913 (migrated section) to synthetics from Riverslea #2 .....	41
Figure 22:	Riverslea area time-structure contour map, top Evergreen Formation (c.i. 10 ms) .....	42
Figure 23:	Riverslea area time-structure contour map, top of basement (c.i. 10 ms) .....	43
Figure 24A:	Annabelle structure, strike view HSB-2002 .....	44
Figure 24B:	Annabelle structure, dip view HSB-2010 .....	45
Figure 25:	Drape, onlap and differential compaction across Annabelle structure HSB-2010 .....	47
Figure 26A:	Riverslea structure, strike view HSB-913 .....	48
Figure 26B:	Riverslea structure, dip view HSB-912 .....	49
Figure 27:	Interpreted fault on Riverslea structure, HSB-2001 .....	50
Figure 28:	Riverslea area isochron map, top Evergreen Formation - top Basement interval(c.i. 10 ms) .....	52
Figure 29:	Qualitative Boxvale amplitude variations superimposed over top Evergreen to top basement isocron map .....	54
Figure 30:	Limits of seismic resolution; pinch-out of thin bed, "boxcar" impedance model .....	56
Figure 31:	Limits of seismic resolution; pinch-out of thin bed, "step" impedance model .....	57

Figure 32: Reflection amplitude vs the ratio between bed thickness  
and the temporal breadth of the seismic .....59



LIST OF TABLES

Table 1: Minimum resolvable bed thickness of prospective intervals .....60

## LIST OF PLATES

Plate 1 :	RAP structure seismic section, line HSB-912	Back Pocket
Plate 2 :	RAP migration seismic section, line HSB-912	"
Plate 3 :	RAP structure seismic section, line HSB-913	"
Plate 4 :	RAP migration seismic section, line HSB-913	"
Plate 5 :	RAP structure seismic section, line HSB-2001	"
Plate 6 :	RAP migration seismic section, line HSB-2001	"
Plate 7 :	RAP structure seismic section, line HSB-2002	"
Plate 8 :	RAP migration seismic section, line HSB-2002	"
Plate 9 :	RAP structure seismic section, line HSB-2010	"
Plate 10:	RAP migration seismic section, line HSB-2010	"
Plate 11:	Structural cross section, Riverslea area	"
Plate 12:	Stratigraphic cross section, Riverslea area	"

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