

DAFTAR ISI

LEMBAR PENGESAHAN	ii
PERNYATAAN KEASLIAN KARYA ILMIAH	iii
HALAMAN PERSEMBAHAN	iv
PRAKATA	v
RINGKASAN.....	vi
<i>ABSTRACT</i>.....	vii
DAFTAR ISI.....	viii
DAFTAR GAMBAR	xii
DAFTAR TABEL.....	xiv
DAFTAR LAMPIRAN.....	xvi
DAFTAR SINGKATAN DAN LAMBANG.....	xvii
BAB I. PENDAHULUAN	1
I.1. Latar Belakang.....	1
I.2. Maksud.....	1
I.3. Tujuan.....	1
I.4. Rumusan Masalah.....	2
I.5. Metodologi.....	2
I.6. Sistematika Penulisan.....	5
BAB II. TINJAUAN LAPANGAN.....	6
II.1. Geologi Regional.....	6
II.2. Statigrafi Regional.....	8
II.2.1. Batuan Dasar.....	8
II.2.2. Formasi Lama.....	9
II.2.3. Formasi Benua.....	9
II.2.4. Formasi Gabus Bawah.....	9
II.2.5. Formasi Keras.....	9
II.2.6. Formasi Gabus Atas.....	9
II.2.7. Formasi Barat.....	9
II.2.8. Formasi Arang.....	10

DAFTAR ISI (Lanjutan)

II.2.9. Formasi Muda.....	10
II.3. <i>Petroleum System</i>	11
II.3.1. Batuan Induk.....	11
II.3.2. Batuan Reservoir & <i>Seal</i>	11
II.3.3. <i>Trap</i> & Migrasi Hidrokarbon.....	11
II.3.4. <i>Hydrocarbon Play</i>	11
BAB III. DASAR TEORI.....	13
III.1. <i>Coring</i> & Analisa <i>Core</i>	13
III.2. <i>Wireline Log</i>	13
III.2.1. <i>Lithology Tools</i>	13
III.2.1.1. <i>Gamma Ray Log</i>	14
III.2.1.2. <i>Caliper Log</i>	15
III.2.2. <i>Resistivity Tools</i>	15
III.2.2.1. <i>Lateral Log</i>	15
III.2.2.2. <i>Microresistivity Log</i>	16
III.2.3. <i>Porosity Tools</i>	16
III.2.3.1. <i>Density Log</i>	16
III.2.3.2. <i>Neutron Log</i>	18
III.3. <i>Environmental Correction</i>	19
III.3.1. Koreksi Terhadap <i>Gamma Ray Log</i>	20
III.3.2. Koreksi Terhadap <i>Resistivity Log</i>	21
III.3.4. Koreksi Terhadap <i>Density Log</i>	21
III.3.4. Koreksi Terhadap <i>Neutron Log</i>	22
III.4. Analisa Log.....	23
III.4.1. Analisa Kualitatif.....	23
III.4.1.1. Identifikasi Lapisan Porus dan Permeabel.....	23
III.4.1.2. Interpretasi Adanya Hidrokarbon.....	23
III.4.2. Analisa Kuantitatif.....	23
III.4.2.1. Perhitungan <i>Volume Shale</i>	24

DAFTAR ISI (Lanjutan)

III.4.2.2. Perhitungan Porositas.....	24
III.4.2.2.1. Porositas Densitas.....	25
III.4.2.2.2. Porositas Neutron.....	25
III.4.2.2.3. Porositas Neutron-Densitas.....	26
III.4.2.3. Penentuan Distribusi <i>Shale</i>	26
III.4.2.3.1. <i>Laminated Shale</i>	26
III.4.2.3.2. <i>Dispersed Shale</i>	26
III.4.2.3.3. <i>Structural Shale</i>	27
III.4.2.4. Penentuan Resistivitas Air.....	27
III.4.2.5. Perhitungan Saturasi Air.....	27
III.4.2.5.1. Metode <i>Simandoux</i>	28
III.4.2.5.2. Metode <i>Indonesian</i>	29
III.4.2.5.3. Metode <i>Dual Water</i>	30
III.5. Penentuan <i>Cut Off</i>	30
III.6. <i>Reservoir Lumping</i>	31
III.7. Perhitungan <i>Original Gas In Place</i> (OGIP).....	31
BAB IV. PENGOLAHAN DATA.....	32
IV.1. Ketersediaan Data.....	32
IV.2. <i>Environtmental Correction</i>	32
IV.2.1. Koreksi Terhadap <i>Gamma Ray Log</i>	33
IV.2.2. Koreksi Terhadap <i>Resistivity Log</i>	33
IV.2.3. Koreksi Terhadap <i>Density Log</i>	34
IV.2.4. Koreksi Terhadap <i>Neutron Log</i>	34
IV.3. Analisa Kualitatif.....	34
IV.4. Analisa Kuantitatif.....	36
IV.4.1. Perhitungan <i>Volume Shale</i>	36
IV.4.2. Perhitungan Porositas.....	37
IV.4.2.1. Porositas Densitas.....	37
IV.4.2.2. Porositas Neutron.....	38

DAFTAR ISI (Lanjutan)

IV.4.2.3. Porositas Neutron-Densitas.....	39
IV.4.2.4. Validasi Porositas Log dengan Porositas <i>Core</i> ..	39
IV.4.3. Penentuan Distribusi <i>Shale</i>	42
IV.4.4. Penentuan R_t , R_w , dan R_{sh}	42
IV.4.5. Perhitungan Saturasi Air.....	43
IV.4.5.1. Metode <i>Simandoux</i>	44
IV.4.5.2. Metode <i>Indonesian</i>	45
IV.4.5.3. Metode <i>Dual Water</i>	46
IV.4.5.3. Validasi Saturasi Air Dengan S_w <i>Core</i>	47
IV.5. <i>Cut Off</i> Data.....	48
IV.6. <i>Reservoir Lumping</i>	49
IV.7. Perhitungan OGIP.....	50
BAB V. PEMBAHASAN.....	52
BAB VI. KESIMPULAN.....	59
DAFTAR RUJUKAN.....	60
LAMPIRAN.....	62