

## DAFTAR ISI

SKRIPSI .....	i
HALAMAN JUDUL .....	ii
HALAMAN PENGESAHAN .....	iii
HALAMAN PERNYATAAN .....	iv
HALAMAN PERSEMBAHAN .....	v
KATA PENGANTAR .....	vi
DAFTAR ISI.....	viii
DAFTAR GAMBAR.....	xi
DAFTAR TABEL .....	xiii
DAFTAR LAMPIRAN.....	xiv
INTISARI .....	xv
ABSTRACT .....	xvi
BAB I PENDAHULUAN .....	17
1.1 Latar Belakang .....	17
1.2 Rumusan Masalah .....	18
1.3 Tujuan Penelitian.....	19
1.4 Batasan Masalah.....	19
1.5 Manfaat Penelitian.....	21
BAB II TINJAUAN PUSTAKA .....	22
2.1 Tinjauan Geologi Regional.....	22
2.1.1 Fisiografi Cekungan Kutai .....	22
2.1.2 Struktur Geologi Cekungan Kutai.....	22
2.1.3 Stratigrafi Cekungan Kutai .....	25
2.1.4 Petroleum System Cekungan Kutai .....	28
2.2 Tinjauan Geofisika Terdahulu .....	31
BAB III DASAR TEORI .....	42
3.1. Konsep Dasar Seismik Refleksi .....	42
3.2. Komponen Seismik Refleksi .....	42
3.2.1 <i>Trace</i> Seismik.....	42
3.2.2 Impedansi Akustik.....	43
3.2.3 Koefisien Refleksi.....	44

3.2.4	Polaritas dan Fase.....	44
3.2.5	<i>Tuning Thickness</i> .....	45
3.2.6	<i>Wavelet</i> .....	46
3.2.7	Sintetik Seismogram .....	47
3.3	Survei <i>Checkshot</i> .....	48
3.4	<i>Well Logging</i> .....	48
3.4.1	<i>Log Gamma Ray</i> (GR).....	49
3.4.2	<i>Log Densitas</i> (RHOB).....	49
3.4.3	<i>Log P-Impedance</i> .....	50
3.5	Parameter Fisika Batuan.....	50
3.5.1	Atribut Seismik .....	50
3.5.2	Volume <i>Shale</i> .....	57
3.5.3	Porositas .....	58
3.6	Metode Seismik Multitribut .....	60
3.6.1	Seismik Multiatribut .....	60
3.6.2	Multiatribut <i>Linear Regression</i> (MLR).....	61
3.6.3	Metode <i>Step-Wise Regression</i> .....	62
3.6.4	<i>Cross Validasi</i> .....	63
BAB IV METODE PENELITIAN .....		65
4.1	Data dan Lokasi Penelitian.....	65
4.1.1	Data Sumur .....	65
4.1.2	Data Seismik .....	65
4.1.3	Marker Geologi .....	66
4.2	Diagram Alir.....	66
4.3	Perangkat Penelitian .....	67
4.3.1	Perangkat Keras atau <i>Hardware</i> .....	67
4.3.2	Perangkat Lunak ( <i>Software</i> ) .....	68
4.4	Pengolahan Data.....	68
4.4.1	<i>Crossplot</i> ( <i>Sensitivity Analysis</i> ) .....	68
4.4.2	<i>Tuning Thickness Analysis</i> .....	68
4.4.3	Ekstraksi <i>Wavelet</i> .....	69
4.4.4	<i>Well to Seismic Tie</i> .....	71

4.4.5	<i>Picking Horizon dan Fault</i> .....	72
4.4.6	<i>Time Structure Map</i> .....	72
4.4.7	<i>Multi-Attribute Process</i> .....	72
4.4.8	<i>Slice</i> .....	73
BAB V HASIL DAN PEMBAHASAN .....		74
5.1	<i>Crossplot (Sensitivity Analysis)</i> .....	74
5.1.1	<i>Analisis Crossplot Log Volume Shale vs Log Density</i> .....	75
5.1.2	<i>Analisis Crossplot Log Effective Porosity vs Log Density</i> .....	76
5.2	<i>Tuning Thickness Analysis</i> .....	77
5.3	<i>Analisis Ekstraksi Wavelet</i> .....	77
5.4	<i>Analisis Well to Seismic Tie</i> .....	78
5.5	<i>Interpretasi Horizon dan Fault</i> .....	79
5.6	<i>Analisis Time Structure Map</i> .....	80
5.6.1	<i>Analisis Time Structure Map A-25</i> .....	81
5.6.2	<i>Analisis Time Structure Map C-13</i> .....	82
5.7	<i>Analisis Hasil Multi-Attribute Process</i> .....	82
5.7.1	<i>Prediksi Volume Shale (Vsh)</i> .....	83
5.7.2	<i>Prediksi Porositas Effektif (PHIE)</i> .....	85
5.8	<i>Slicing</i> .....	88
5.9	<i>Interpretasi</i> .....	90
BAB VI KESIMPULAN DAN SARAN .....		93
6.1	<i>Kesimpulan</i> .....	93
6.2	<i>Saran</i> .....	94
REFERENSI .....		95
LAMPIRAN .....		98