

## DAFTAR ISI

|                                                                                                  |             |
|--------------------------------------------------------------------------------------------------|-------------|
| <b>LEMBAR PENGESAHAN .....</b>                                                                   | <b>ii</b>   |
| <b>PERNYATAAN KEASLIAN KARYA ILMIAH.....</b>                                                     | <b>iii</b>  |
| <b>HALAMAN PERSEMBAHAN .....</b>                                                                 | <b>iv</b>   |
| <b>PRAKATA .....</b>                                                                             | <b>v</b>    |
| <b>ABSTRAK .....</b>                                                                             | <b>vi</b>   |
| <b>ABSTRACT .....</b>                                                                            | <b>vii</b>  |
| <b>DAFTAR ISI.....</b>                                                                           | <b>viii</b> |
| <b>DAFTAR GAMBAR.....</b>                                                                        | <b>xi</b>   |
| <b>DAFTAR TABEL .....</b>                                                                        | <b>xiv</b>  |
| <b>DAFTAR LAMPIRAN .....</b>                                                                     | <b>xvi</b>  |
| <b>DAFTAR SINGKATAN DAN LAMBANG .....</b>                                                        | <b>xvii</b> |
| <b>BAB I      PENDAHULUAN .....</b>                                                              | <b>1</b>    |
| I.1.    Latar Belakang.....                                                                      | 1           |
| I.2.    Rumusan Masalah.....                                                                     | 2           |
| I.3.    Tujuan .....                                                                             | 3           |
| I.4.    Hipotesis .....                                                                          | 3           |
| I.5.    Batasan Masalah .....                                                                    | 3           |
| I.6.    Lokasi Penelitian.....                                                                   | 4           |
| I.7.    Luaran Penelitian .....                                                                  | 4           |
| I.8.    Manfaat Penelitian .....                                                                 | 4           |
| <b>BAB II     TINJAUAN PUSTAKA DAN LANDASAN TEORI.....</b>                                       | <b>6</b>    |
| II.1.    Tinjauan Pustaka.....                                                                   | 6           |
| II.1.1.    Fisiografi Regional.....                                                              | 6           |
| II.1.2.    Stratigrafi Regional .....                                                            | 7           |
| II.1.3.    Geomorfologi Regional .....                                                           | 9           |
| II.1.4.    Struktur Daerah Penelitian .....                                                      | 9           |
| II.1.5.    Pengaruh Fluktuasi Muka Air Tanah terhadap Kestabilan Lereng<br>Batuan Berkekar ..... | 10          |
| II.2.    Landasan Teori .....                                                                    | 11          |
| II.2.1. <i>Rock Mass Rating</i> (RMR) .....                                                      | 11          |

|                |                                                                 |           |
|----------------|-----------------------------------------------------------------|-----------|
| II.2.2.        | Muka Air Tanah .....                                            | 15        |
| II.2.3.        | Analisis Kestabilan Lereng.....                                 | 17        |
| II.2.4.        | Metode <i>Morgenstern-Price</i> .....                           | 18        |
| II.2.5.        | Kriteria Keruntuhan <i>Generalized</i> Hoek-Brown .....         | 19        |
| II.2.6.        | Grafik Linearitas dan <i>Analysis of Variance</i> (ANOVA) ..... | 23        |
| <b>BAB III</b> | <b>METODOLOGI PENELITIAN .....</b>                              | <b>26</b> |
| III.1.         | Metode Penelitian.....                                          | 26        |
| III.2.         | Tahapan Penelitian .....                                        | 26        |
| III.2.1.       | Tahap Pendahuluan .....                                         | 26        |
| III.2.2.       | Tahap Akuisisi data .....                                       | 27        |
| III.2.3.       | Tahap Pengolahan Data.....                                      | 28        |
| III.2.4.       | Tahap Penyajian Data.....                                       | 29        |
| <b>BAB IV</b>  | <b>PENGOLAHAN DAN PENYAJIAN DATA.....</b>                       | <b>30</b> |
| IV.1.          | Pengolahan Data.....                                            | 30        |
| IV.1.1.        | Data Primer.....                                                | 30        |
| IV.1.2.        | Data Sekunder .....                                             | 40        |
| IV.2.          | Penyajian Data.....                                             | 41        |
| IV.2.1.        | Kondisi Geologi.....                                            | 41        |
| IV.2.2.        | <i>Material Properties</i> .....                                | 42        |
| <b>BAB V</b>   | <b>HASIL DAN PEMBAHASAN .....</b>                               | <b>43</b> |
| V.1.           | Geologi Daerah Penelitian.....                                  | 43        |
| V.1.1.         | Satuan batubara Tutut.....                                      | 43        |
| V.1.2.         | Satuan batulempung Tutut.....                                   | 44        |
| V.1.3.         | Satuan batupasir Tutut.....                                     | 44        |
| V.1.4.         | Material Timbunan .....                                         | 44        |
| V.2.           | Analisis Kestabilan Lereng.....                                 | 45        |
| V.2.1.         | Sayatan A-A' .....                                              | 46        |
| V.2.2.         | Sayatan B-B' .....                                              | 48        |
| V.2.3.         | Sayatan C-C' .....                                              | 50        |
| V.2.4.         | Sayatan D-D' .....                                              | 52        |
| V.2.5.         | Sayatan E-E' .....                                              | 54        |
| V.2.6.         | Sayatan F-F' .....                                              | 56        |
| V.3.           | Hubungan Kestabilan Lereng dan Muka Air Tanah.....              | 58        |

|                            |                                  |           |
|----------------------------|----------------------------------|-----------|
| <b>BAB VI</b>              | <b>KESIMPULAN DAN SARAN.....</b> | <b>61</b> |
| VI.1.                      | Kesimpulan.....                  | 61        |
| VI.2.                      | Saran.....                       | 61        |
| <b>DAFTAR PUSTAKA.....</b> |                                  | <b>63</b> |
| <b>LAMPIRAN.....</b>       |                                  |           |
|                            | .....                            | <b>65</b> |

