

DAFTAR ISI

| | |
|---|------|
| HALAMAN JUDUL | i |
| HALAMAN PENGESAHAN | ii |
| HALAMAN PERNYATAAN | iii |
| MOTTO | 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 | 1 |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 4 |
| 1.3 Tujuan Penelitian | 4 |
| 1.4 Batasan Masalah | 4 |
| 1.5 Manfaat Penelitian | 5 |
| 1.6 Keaslian Penelitian | 6 |
| BAB II TINJAUAN PUSTAKA DAN LANDASAN TEORI | 7 |

| | |
|--|----|
| 2.1 Tinjauan Pustaka | 7 |
| 2.1.1 Siklus Hidrologi | 7 |
| 2.1.2 Infiltrasi | 7 |
| 2.1.3 Air Tanah (<i>Groundwater</i>) | 8 |
| 2.1.4 Akuifer (<i>Aquifer</i>) | 10 |
| 2.1.4.1 Akuifer Tertekan (<i>Confined Aquifer</i>) | 10 |
| 2.1.4.2 Akuifer Bebas (<i>Unconfined Aquifer</i>) | 11 |
| 2.1.4.3 Akuifer Semi Tertekan | 12 |
| 2.1.4.4 Akuifer Semi Bebas | 10 |
| 2.1.5 Aliran air tanah ke sumur (<i>Groundwater radial flow to well</i>) | 12 |
| 2.2 Landasan Teori | 14 |
| 2.2.1 <i>Drawdown vs Built Up</i> | 14 |
| 2.2.1.1 Dupuit - Thiem | 14 |
| 2.2.1.2 Forchheimer (1930) | 15 |
| 2.2.1.3 Sunjoto (1988) | 16 |
| 2.2.2 <i>Shape Factor of Sunjoto</i> | 21 |
| 2.2.3 Hukum Darcy (<i>Darcy's Law</i> , 1856) | 22 |
| 2.2.4 <i>Steady Radial Flow to Well</i> | 23 |
| 2.2.5 <i>Unsteady Radial Flow to Well</i> | 26 |
| 2.2.6 <i>Radius of Influence (RoI)</i> | 35 |
| 2.3 Hipotesis | 37 |



| | |
|---|-----------|
| BAB III METODOLOGI PENELITIAN | 38 |
| 3.1 Lokasi Penelitian | 38 |
| 3.2 Sumber Data | 38 |
| 3.3 Metode Perhitungan | 38 |
| 3.4 Sistematika Penelitian | 42 |
| 3.5 Jadwal Penelitian | 43 |
| BAB IV HASIL PENELITIAN DAN PEMBAHASAN | 44 |
| 4.1 Hasil Penelitian | 44 |
| 4.1.1 Deskripsi Objek Penelitian | 44 |
| 4.1.2 Data Perhitungan | 46 |
| 4.1.3 Perhitungan | 48 |
| 4.2 Pembahasan | 62 |
| BAB V KESIMPULAN DAN SARAN | 69 |
| 5.1 Kesimpulan | 69 |
| 5.2 Saran | 70 |

DAFTAR PUSTAKA

LAMPIRAN