

**ANALYSIS OF IRRIGATION SUB-SYSTEM OF WEST  
WADASLINTANG PRIMARY CANAL IN PURING SUB-DISTRICT,  
KEBUMEN DISTRICT, CENTRAL JAVA PROVINCE**

**FINAL PROJECT**

**By:**

**VALENTINE BEMOS NIPPRISTIRA GULING**

**Student No. : 08 13 13013**



**INTERNATIONAL CIVIL ENGINEERING  
FACULTY OF ENGINEERING  
UNIVERSITAS ATMA JAYA YOGYAKARTA**

**2012**

**APPROVAL**

**Final Project**

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**(J. Januar Sudjati, ST, MT)**

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**Chairperson : Anastasia Yunika, ST, M.Eng**

**Member : Ir. Peter F. Kaming, M.Eng, Ph.D**

**Member : Ir. John Tri Hatmoko, M.Sc**

Signature

Date

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15/8/2012  
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15/8/12  
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16/8/12  
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## **PLAGIARISM DECLARATION SHEET**

I declare that the final project titled:

**ANALYSIS OF IRRIGATION SUB-SYSTEM OF WEST  
WADASLINTANG PRIMARY CANAL IN PURING SUB-DISTRICT,  
KEBUMEN DISTRICT, CENTRAL JAVA PROVINCE**

is my own work and not a result of plagiarism from other people's work. The ideas, research data, and direct or indirect citations sourced from someone's paper or idea are written in this final project. If one day this final project proven as the result of plagiarism, my certificate will be canceled and I will return it back to Rector of Universitas Atma Jaya Yogyakarta.

Yogyakarta, August 14, 2012



(Valentine Bemos Nipristira Guling)

## **PREFACE**

First and foremost, I would like to thank God for His blessing given to me, so that I could finish this final project report. This report is arranged to finish Bachelor degree of Civil Engineering, Engineering Faculty, Universitas Atma Jaya Yogyakarta. In this final project, I analyze the irrigation sub-system of West Wadaslintang Primary Canal in Puring Sub-District, Kebumen District, Central Java Province and I would like to express my appreciation to:

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17. **All of my friends** who have supported me.

I realized that there might be some mistakes in this final project report. Some advices are needed to improve this report. I hope this report could give some advantages to the readers.

Yogyakarta, August 14, 2012

Valentine Bemos Nipristira Guling

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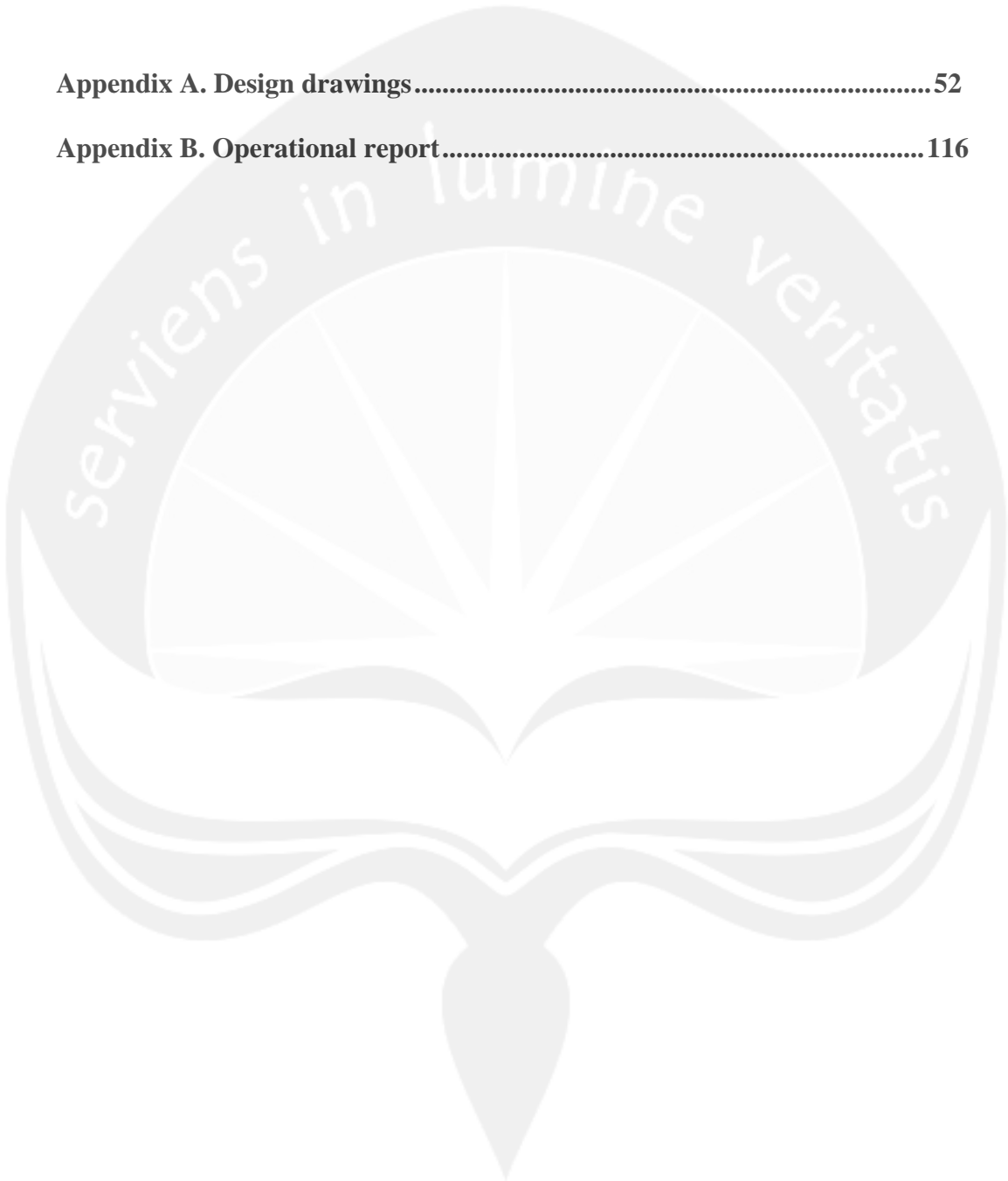
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## ABSTRACT

**ANALYSIS OF IRRIGATION SUB-SYSTEM OF WEST WADASLINTANG PRIMARY CANAL IN PURING SUB-DISTRICT, KEBUMEN DISTRICT, CENTRAL JAVA PROVINCE**, Valentine Bemos Nippristira Guling, Student No. 08.13.13013, 2012, Hydro, International Civil Engineering, Engineering Faculty, Universitas Atma Jaya Yogyakarta.

The S.15 Ka (166 ha) and S.16 Ka (157 ha) fields are part of service area of Kedungsamak Irrigation Network. Those fields are located in Siti Adi Village, Purwoharjo Village, and Tukung Gedong Village in Puring Sub-district. Lack of water happened in those fields especially at growing season II whereas the farmers rely on their harvest as their main income.

Interview and field observation are done to consider ensure it is truly a problem. The interview was held on 11<sup>th</sup> February 2012 with M. Machasin as the Head of Crop and Horticulture, Agricultural Department, Kebumen, Budijono as Head of UPTD SDA Kedungsamak, and Kuwatno as the officer in UPTD SDA Kedungsamak.

By reviewing the existing condition (field work) and comparing it to the original design, the deviations are found such as water availability, canal slope, and cracks. From the discussion, the water availability is identified as the root cause.

**Keyword :** *Kedungsamak Irrigation Network, lack of water, water availability, canal slope, cracks.*