



**DEPARTMENT OF BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA
CAWANGAN PERAK
KAMPUS SERI ISKANDAR**

**SOIL INVESTIGATION & JKR/ MACKINTOSH PROBE
at
MASJID SEBERANG JELAI, KUALA LIPIS, PAHANG**

**NURHAZWANINAJWA BINTI RUSLAN
(2015899762)
DIPLOMA IN BUILDING SURVEYING**

**PRACTICAL TRAINING REPORT
MARCH – JULY 2018**

DECLARATION:

I hereby admit that this report is the result of my own efforts, except for the certain parts that are attached from sources that specified in reference chapter.

Prepared By:

.....
(NURHAZWANINAJWA BT RUSLAN)

Date:

Approved By:

.....
(PUAN ALIA BT ABDULLAH SALEH)

Date:

TABLE CONTENTS

Table Contents.....	i-ii
List Of Figure.....	iii
List Of Table.....	iii
List Of Chart.....	iv
Acknowledgement.....	v

CHAPTER 1 : INTRODUCTION

1.1 Company Background.....	2-3
1.2 Vision and Mision.....	4
1.3 Organization Chart.....	5
1.4 Scope of Work.....	6-12
1.5 Location Plan.....	13-14

CHAPTER 2 : THEORETICAL STUDY/ LITERATURE REVIEW

SOIL INVESTIGATION

2.1 Introduction.....	16
2.2 Classification of Soil Investigation.....	17-23
2.3 Method Statement.....	24-27

JKR/ MACKINTOSH PROBE

2.4 Introduction.....	28-29
2.5 Classification of Jkr/Mackintosh Probe.....	30
2.6 Method Statement.....	31
2.7 Summary.....	32

CHAPTER 3 : CASE STUDY

SOIL INVESTIGATION

3.1 Introduction.....	33-34
3.2 Classification of Soil Investiagation.....	35-38
3.3 Method Statement.....	39-45

LIST OF FIGURE

LIST OF FIGURE	PAGES
CHAPTER 1	
Figure 1.1 : Pejabat Jabatan Kerja Raya Kuala Lipis	2
Figure 1.5 : Location Plan of JKR Kuala Lipis	13
Figure 1.5 : Site Plan of JKR Kuala Lipis	13
Figure 1.5 : Geography map of JKR Kuala Lipis	14
CHAPTER 2	
Figure 2.2.1.1 : Types of augers	19
Figure 2.2.1.1 : Mechanical Augering	19
Figure 2.2.2.2 : Percussion Boring	20
Figure 2.2.2.4 : Rotary Drilling	21
Figure : 2.2.2.3 : Wash Boring	23
Figure 2.6 : Process of JKR / Mackintosh Probe	31
CHAPTER 3	
Figure 3.2.1 : Boring Machine At Bh 1	37
Figure 3.2.1 : Open Standpipe At Bh 1	37
Figure 3.2.1 : Boring Machine At Bh 2	38
Figure 3.2.1 : Open Standpipe At Bh 2	38
Figure 3.3.2 : Disturbed Sample From Bh 1 (Depth 3.0m)	40
Figure 3.3.2 : Disturbed Sample From Bh 1 (Depth 9.0m)	41
Figure 3.3.2 : Disturbed Sample From Bh 2 (Depth 1.5m)	41
Figure 3.3.2 : Disturbed Sample From Bh 2 (Depth 9.0m)	42
Figure 3.3.3 : Rockcore From Bh 1	44
Figure 3.3.3 : Rockcore From Bh 2	44
Figure 3.5 : Mackintosh Probe 1	49
Figure 3.6 : Mackintosh Probe 2	50
Figure 3.6 : Mackintosh Probe 3	50

LIST OF TABLE

LIST OF FIGURE	PAGES
CHAPTER 1	
Table 1.4 : Scope of work	6-12
CHAPTER 4	
Table 4.2 : Problems and Recommendations	53

ACKNOWLEDGEMENT

I am really gratefully because me as a group manage to complete my Practical Training within the time that given to me by our lecture, Sr. Mohd Nurfaizal Baharuddin. I'm also want to says a lot of thank you to Encik Fizarul Syamin Bin Ibrahim who help me to finish my Practical Training at Jabatan Kerja Raya Daerah Lipis and also for Jabatan Kerja Raya Daerah Lipis because give me a chance for me to find an experience on work. Last but not list, I would like to express my gratitude to our friends and respondents for the support and willingness to spend some time help us.

After nearly 4 months of Industrial Training commencing 1st March 2018 and ending on 29th June 2018, I have gained many useful experiences, knowledge and exposure. All the rewards gained have made me aware of increasing self-esteem to face the ever-increasing challenges of life. Practical is a complement to the learned knowledge or theory. This is clear with the concept of knowledge and charity, where knowledge learned without practicing it will disappear and will not give any impression. That is, if we practice without knowledge, there will always be problems in terms of always changing grip and stand.

As long as I undergo industrial training, there are many changes to my own. However, there are some weaknesses that can be improved in the future. So I can conclude that the industrial training program benefits many students even though there are small disadvantages that are a bit of a problem, so that these weaknesses can be improved in the future. From the learning environment, the environment and the association of fellow colleagues. It can directly increase his dedication and be rational to myself.