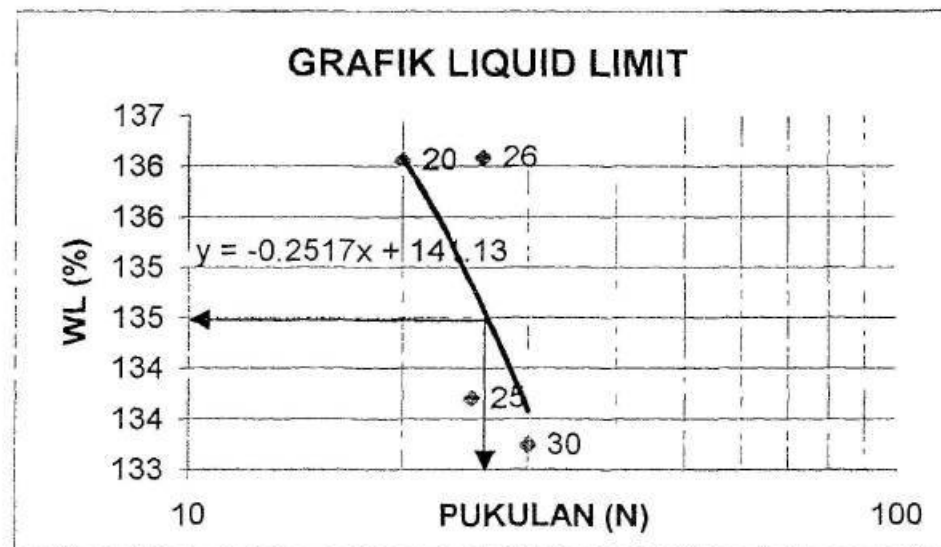


BATAS ATTERBERG

No Cwn.	Berat Cawan	Cwn +tnh basah	Cwn.+tnh kering	Brt. tnh kering	Berat air (gr)	Wp (%)	Rata-rata Wp (%)	PI (%)
17A	4.7	7.8	7.1	2.4	0.7	29.2	28.5	104.8
X7	9.8	12.1	11.6	1.8	0.5	27.8		

No.Cwn.	Berat Cawan	N	Cwn+tnh basah	Cwn+tnh kering	Berat tnh. kering	Berat air	W _N (%)	W _L (%)	WI(%)
L7	5.3	30	25.8	14.2	8.9	11.6	130.34	133.24	134.84
G3	9.1	20	31.4	18.4	9.3	13	139.78	136.06	
KA3	10	26	28.6	17.9	7.9	10.7	135.44	136.09	
G2	9.1	25	29.9	18	8.9	11.9	133.71	133.71	

$$PI = WI - Wp = 134.84 - 28.47 = 106.37\%$$



PROCTOR TEST

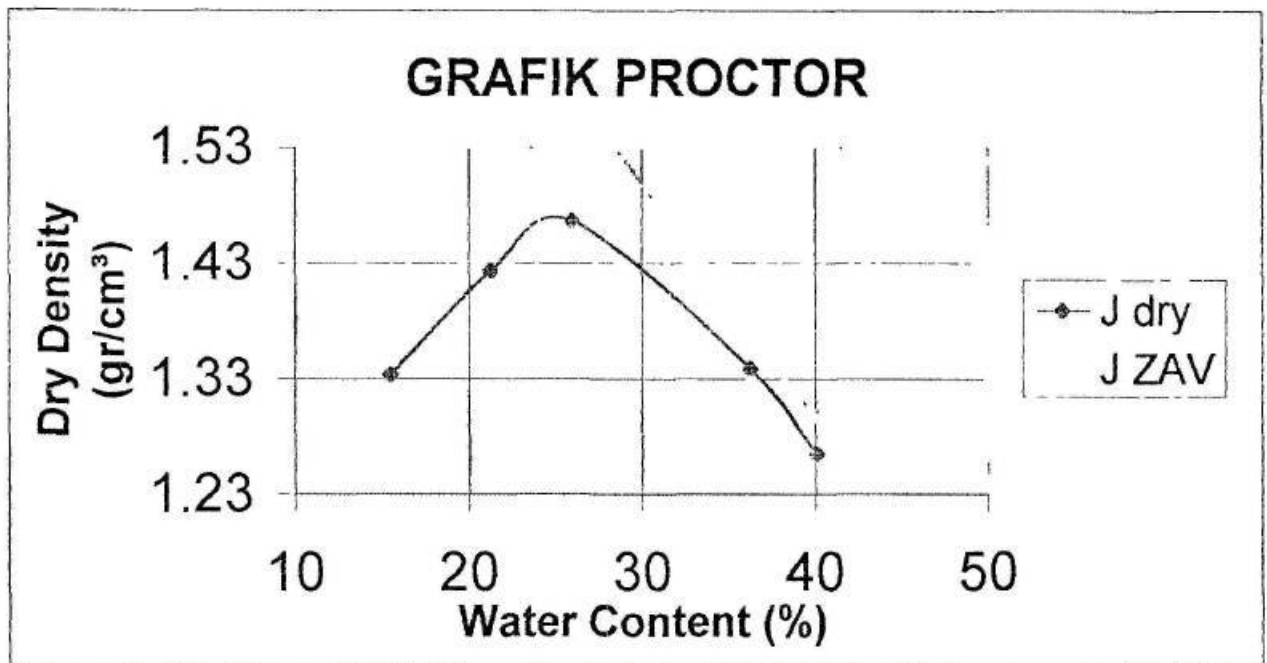
Sample	Brt Cawan	Berat cawan+tana h basah	Berat cawan+tanah kering	Brt tanah kering	Brt air	Kadar air (%)	Rata-rata WC (%)
I	10.1	26.2	24.1	14.0	2.1	15.00	15.50
	10.1	33.3	30.1	20.0	3.2	16.00	
II	8.6	44.1	37.9	29.3	6.2	21.16	21.27
	10.0	40.1	34.8	24.8	5.3	21.37	
III	9.5	28.8	24.9	15.4	3.9	25.32	25.95
	10.2	40.2	33.9	23.7	6.3	26.58	
IV	9.6	37.7	30.6	21.0	7.1	33.81	36.25
	7.5	30.8	24.3	16.8	6.5	38.69	
V	8.4	47.6	36.4	28.0	11.2	40.00	40.07
	8.4	29.7	23.6	15.2	6.1	40.13	

$G_s = 2.702$

Sample	Berat Tabung (mold)-gr	Volume tabung(m^3)	Wc(%)	Berat tanah+tabung	Berat tanah basah	Berat isi basah (γ_t)	Berat isi kering (γ_{dry})	γ_{zav}
I	1866.8	938.3	15.50	3311.9	1445.1	1.54	1.33	1.904
II	1866.8	938.3	21.27	3486.0	1619.2	1.73	1.42	1.716
III	1866.8	938.3	25.95	3600.3	1733.5	1.85	1.47	1.588
IV	1866.8	938.3	36.26	3578.5	1711.7	1.82	1.34	1.365
V	1866.8	938.3	40.07	3528.8	1662.0	1.77	1.26	1.297

Wc optimum = 25.95 %

Max dry density = 1.47 gr/cm^3



Tabel Specific Gravity

No.pik	Berat pik.(W1)	Berat pik.+ tanah(W2)	Berat pik. + air(W4)	Berat pik. + tanah + air(W3)	Berat tanah kering	Berat air	G S	Rata-rata GS
K1	54.7	65.8	154.3	161.3	11.1	4.1	2.707	2.702
K2	54.5	63.4	154.1	159.7	8.9	3.3	2.697	

HASIL PERCOBAAN TANPA TIRE-SOIL

proving no 12188

20 kg=242

MENIT KE	LOAD	LOAD P (kg)	SWELLING PRESSURE(kg/cm ²)	DIAL
	DIAL			
15	9	0.744	0.00744	3.5
30	10.5	0.868	0.00868	4.2
45	20	1.653	0.01653	4
60	24.5	2.025	0.02025	4.8
75	28	2.314	0.02314	5.3
90	29	2.397	0.02397	6
105	32.5	2.686	0.02686	5.2
120	36.5	3.017	0.03017	6.8
220	41	3.388	0.03388	5
240	43	3.554	0.03554	5
255	44	3.636	0.03636	5.5
270	47	3.884	0.03884	6.5
285	55	4.545	0.04545	11
300	60	4.959	0.04959	19
315	66	5.455	0.05455	20
1250	356	29.421	0.29421	208
1310	359	29.669	0.29669	213
1335	361	29.835	0.29835	217
1365	353	29.174	0.29174	220
1395	379	31.322	0.31322	224
1515	389	32.149	0.32149	228
1545	375	30.992	0.30992	228
1560	370	30.579	0.30579	227
1590	368	30.413	0.30413	227

HASIL PERCOBAAN DENGAN TIRE-SOIL

proving no 12191 20 kg=257

MENIT KE	LOAD	LOAD P (kg)	SWELLING PRESSURE(kg/cm ²)	DIAL
	DIAL			
15	10.5	0.817	0.00817	9.5
30	12.5	0.973	0.00973	12.5
45	14.5	1.128	0.01128	14.5
60	20.0	1.556	0.01556	16.0
75	26.0	2.023	0.02023	16.8
90	29.0	2.257	0.02257	17.8
105	33.5	2.607	0.02607	18.5
120	40.0	3.113	0.03113	20.0
135	45.0	3.502	0.03502	22.0
150	47.5	3.696	0.03696	24.0
200	51.0	3.969	0.03969	53.0
215	53.0	4.125	0.04125	56.0
230	60.0	4.669	0.04669	61.0
245	63.0	4.903	0.04903	63.0
260	67.0	5.214	0.05214	64.5
275	71.0	5.525	0.05525	65.0
290	75.0	5.837	0.05837	66.5
945	246.0	19.144	0.19144	93.0
975	248.0	19.300	0.19300	96.0
1005	250.0	19.455	0.19455	100.0
1035	253.0	19.689	0.19689	107.0
1065	255.0	19.844	0.19844	111.0
1095	258.0	20.078	0.20078	115.0
1125	256.5	19.961	0.19961	115.0
1175	255.0	19.844	0.19844	115.0
1205	249.5	19.416	0.19416	114.0
1235	245.0	19.066	0.19066	114.0

PENGEMBANGAN TANAH TANPA TIRE-SOIL

MENIT KE	KENAIKAN 1	KENAIKAN 2
	(mm)	(mm)
220	2	6
300	4	9
1250	12	14
1335	13	16
1365	13	16
1395	14	17
1515	14	17
1590	14	17

PENGEMBANGAN TANAH DENGAN TIRE-SOIL

MENIT KE	KENAIKAN 1	KENAIKAN 2
	(mm)	(mm)
90	1	3
150	2	6
215	3	8
975	11	14
1005	12	14
1065	12.5	14.5
1125	12.5	15
1175	13	15
1205	13	15.5
1235	13	15.5

KARAKTERISTIK TANAH SEBELUM PERCOBAANVOLUME MOLD 20.38 cm³

SAMPLE	BERAT MOLD	TANAH+ MOLD	BERAT CAWAN	CAWAN+ TNH BASAH	CAWAN+ TNH KERING	BERAT AIR	BERAT TNH KERING	Wc(%)	$\gamma_t(\text{gr/cm}^3)$	$\gamma_d(\text{gr/cm}^3)$	e
0	21	58	5.2	21.1	17.7	3.4	12.5	27.200	1.816	1.427	0.893
10	21	58.2	5.2	11.6	10.25	1.35	5.05	26.733	1.825	1.440	0.876
20	21	58.2	5.1	18.2	15.4	2.8	10.3	27.184	1.825	1.435	0.883
30	21	58.5	9.1	22	19.3	2.7	10.2	26.471	1.840	1.455	0.857

KARAKTERISTIK TANAH SETELAH PERCOBAAN TANPA TIRE-SOILVOLUME MOLD 20.38 cm³

SAMPLE	BERAT MOLD	TANAH+ MOLD	BERAT CAWAN	CAWAN+ TNH BASAH	CAWAN+ TNH KERING	BERAT AIR	BERAT TNH KERING	Wc(%)	$\gamma_t(\text{gr/cm}^3)$	$\gamma_d(\text{gr/cm}^3)$	e
0	17.2	48.5	9.7	23.4	17.4	6	7.7	77.922	1.536	0.863	2.130
10	21	55.2	9.9	20.3	16	4.3	6.1	70.492	1.678	0.984	1.745
20	21	55.4	5.2	19	14.1	4.9	8.9	55.056	1.688	1.089	1.482
30	21	55.9	4.9	25.2	20.5	4.7	15.6	30.128	1.712	1.316	1.053

KARAKTERISTIK TANAH SETELAH PERCOBAAN DENGAN TIRE-SOILVOLUME MOLD 20.38 cm³

SAMPLE	BERAT MOLD	TANAH+ MOLD	BERAT CAWAN	CAWAN+ TNH BASAH	CAWAN+ TNH KERING	BERAT AIR	BERAT TNH KERING	Wc(%)	$\gamma_t(\text{gr/cm}^3)$	$\gamma_d(\text{gr/cm}^3)$	e
0	17.2	48.9	9.1	23.3	17.6	5.7	8.5	67.059	1.555	0.931	1.902
10	21	55.6	9.8	25.8	19.6	6.2	9.8	63.265	1.698	1.040	1.598
20	21	55.7	8.1	21.5	17	4.5	8.9	50.562	1.703	1.131	1.389
30	21	56.2	10.3	22.9	20	2.9	9.7	29.897	1.727	1.330	1.032

UNCONFINED COMPRESSION TEST

Tinggi Sample : 7.6 cm

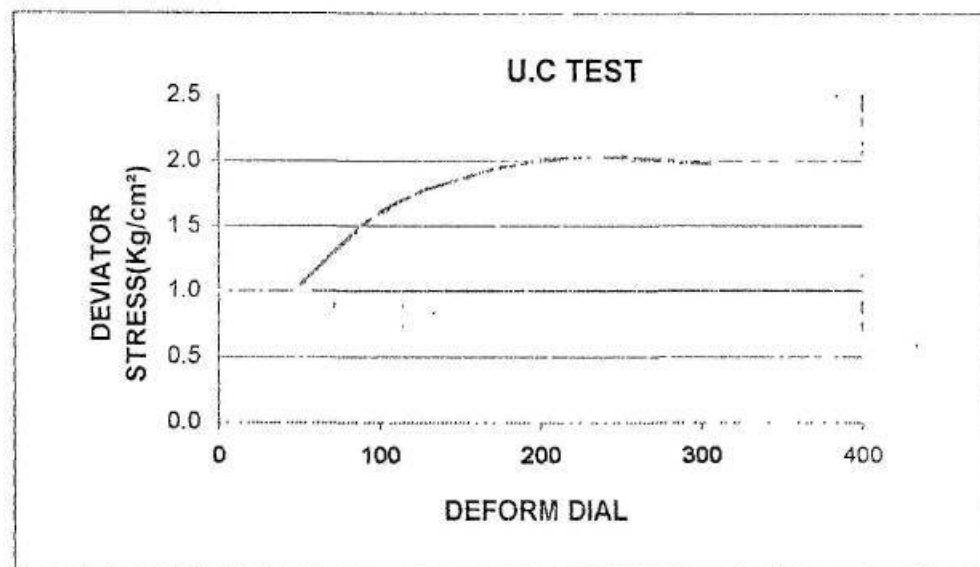
Dia. Sample : 3.8 cm

Luas Penamp. : 11.34 cm²

Volume : 86.19 cm³

Berat : 158.2gr

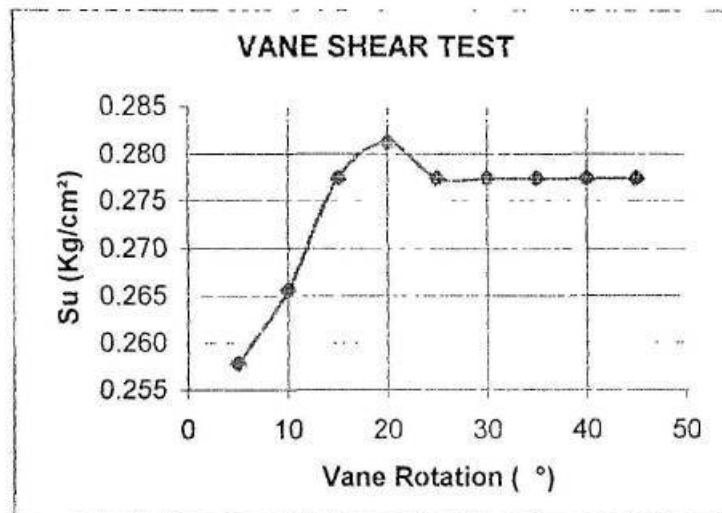
Deform Dial	Vertical Displac. (DV)(cm)	Load Dial	Load P Kg	Unit Strain (e)	Area Corr factor (1-e)	Corr Area A'	Deviator Stress (P/A')	qu (kg/cm ²)	C (kg/cm ²)
50	0.05	154.0	11.984	0.0066	0.993	11.416	1.050	2.027	1.014
100	0.10	237.0	18.444	0.0132	0.987	11.492	1.605		
150	0.15	277.0	21.556	0.0197	0.980	11.569	1.863		
200	0.20	300.0	23.346	0.0263	0.974	11.648	2.004		
250	0.25	305.5	23.774	0.0329	0.967	11.727	2.027		
300	0.30	301.0	23.424	0.0395	0.961	11.807	1.984		



VANE SHEAR TEST RESULT

Serial No. 541B

VANE ROTATION	SPORING DEFLECTION	TORQUE (Lbs.inch)	Su (Kg/cm ²)
5	33.0	0.258	0.258
10	34.0	0.266	0.266
15	35.5	0.277	0.277
20	36.0	0.281	0.281
25	35.5	0.277	0.277
30	35.5	0.277	0.277
35	35.5	0.277	0.277
40	35.5	0.277	0.277
45	35.5	0.277	0.277



GRAFIK SHRINKAGE DENGAN SUCTION MODULUS RATIO C_w
(Lily Susan & Chandra Irawan, 2000)

KADAR AIR (%)	ANGKA PORI
0	0.2791
10	0.4648
20	0.7181
30	1.0401
40	1.3126
50	1.6006
60	1.8434
70	1.9765
80	2.1844
90	2.4314
100	2.6776
110	2.9408
126	3.3470



LABORATORIUM MEKANIKA TANAH

UNIVERSITAS KRISTEN PETRA

Jl. Siwalankerto 121-131, SURABAYA 60236

Telp. (031) 813040 - Tremolpos 5304

CALIBRATION

CERTIFICATE

WF NO. 14120

Ring No. 12188

Capacity 200 kg

1 Division = .002 mm

LOAD	COMP	TENSION
Kilogram	Division	Division
0	0	
20	242	
40	489	
60	735	
80	984	
100	1235	
120	1488	
140	1742	
160	1998	
180	2255	
200	2513	

A copy of this certificate is retained at our works for reference and replacement purposes.

For and on behalf of

WYKEHAM FARRANCE ENG LTD.

Weston Road,

Date 23-9-1985

SLOUGH ENGLAND

Tel - 0753 - 71241



LABORATORIUM MEKANIKA TANAH

UNIVERSITAS KRISTEN PETRA

JL. SIWALANKERTO 121 - 131, SURABAYA

TELEPON 813040 - TROMOLPOS 5304

CALIBRATION CERTIFICATE

WF KO. 14120

Ring No. 121914

Capacity. 200KG

1 Division = .002 mm

LOAD	COMP	TENSION
KG	Division	Division
0	0	
20	257	
40	517	
60	779	
80	1043	
100	1310	
120	1578	
140	1848	
160	2121	
180	2395	
200	2671	

A copy of this certificate is retained at our
works for reference and replacement purposes.

For and on behalf of

PT. JAYA KAMANDI GPT. LTD.

Weston Road,

Date 23/9/85

SHOON. EITLAND

Tel - 0753 - 71241

.....

$$\bar{v} = \log h$$

WORKS CALIBRATION FIGURES

HARVEY MAIN & CO. LTD.

12th June, 1972

LABORATORY VANE APPARATUS

SERIAL NO. 541B

TORQUE IN LBS/INS

SPRING NUMBERS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
	<u>DEGREES</u>			
.25	31	16	10	7
.50	64	32	20	14
.75	97	49	29	21
1.00	130	67	38	27
1.25	163	84	47	34
1.50	195	100	57	40
1.75		117	66	47
2.00		134	75	53
2.25		151	85	60
2.50		167	94	66
2.75		184	103	73
3.00			112	80
3.25			121	86
3.50			130	93
3.75			140	100
4.00			149	106
4.25			158	113
4.50			167	119
4.75			176	125
5.00				132
5.25				138
5.50				144
5.75				150
6.00				157
6.25				163
6.50				170
6.75				176

WYKEHAM FARRANCE ENGINEERING LIMITED
WESTON ROAD, SLOUGH, BUCKS.



Los Angeles Machine



Tanah Setelah Pemadatan dalam Kotak Percobaan



Tanah sebelum percobaan tanpa Tire-Soil



Tanah setelah percobaan tanpa Tire-Soil



Tanah sebelum percobaan dengan Tire-Soil



Tanah setelah percobaan dengan Tire-Soil



**BERITA ACARA
PEMBIMBINGAN SKRIPSI**

<u>Nrp. Mahasiswa</u>	<u>Nama Mahasiswa</u>	<u>Nama Dosen Pembimbing</u>
1. 21498202	Hadı Subrata	DR.Ir. Indarto
2. 21498208	Hence Tommy	
Rencana Judul :		
PENGARUH PERKUATAN TIRE-SOIL TERHADAP PONDASI SETEMPAT YANG DILETAKKAN DI ATAS TANAH EKSPANSIF YANG MENGALAMI PEMBASAHAN		
Bimbingan dimulai sejak Semester [] Gasal [X] Genap tahun 2001/2002		
SK Pembimbingan No. tanggal		

Kegiatan Pembimbingan			
No.	Tanggal	Topik Pembimbingan	Paraf
1.	16-02-02	Pembahasan ide skripsi	
2.	20-02-02	Pengajuan judul skripsi	
3.	23-02-02	Penjelasan rencana skripsi	
4.	25-02-02	Pembuatan proposal skripsi	
5.	27-02-02	Revisi proposal skripsi	
6.	04-03-02	Penyerahan proposal skripsi	
7.	08-03-02	Sidang proposal	
8.	27-03-02	Pembahasan hasil tes di laboratorium	
9.	02-05-02	Penjelasan percobaan	
10.	06-05-02	Percobaan pondasi tanpa tire-soil	
11.	08-05-02	Pembahasan hasil percobaan	

12.	16-05-02	Percobaan pondasi dengan tire-soil	lu
13.	18-05-02	Pembahasan hasil percobaan	lu
14.	22-05-02	Penyusunan Bab I - V	lu
15.	24-05-02	Pembahasan paper skripsi dan revisi Bab I - V	lu
16.	27-05-02	Penyerahan paper skripsi	lu
17.	29-05-02	Pembahasan skripsi lengkap	lu
18.	03-06-02	Penyerahan buku laporan skripsi	lu