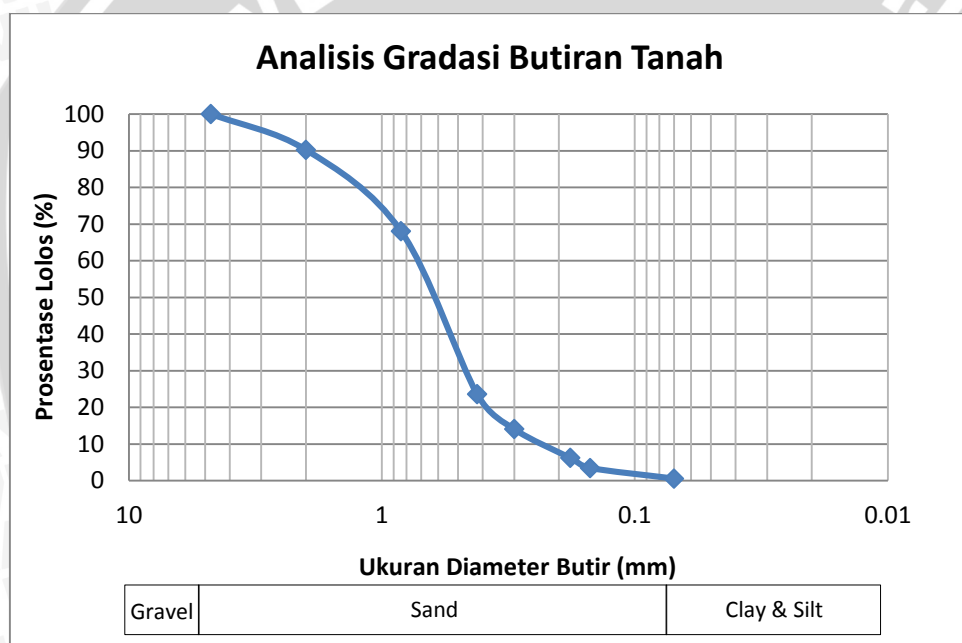


Lampiran 1

Hasil analisis gradasi butiran tanah

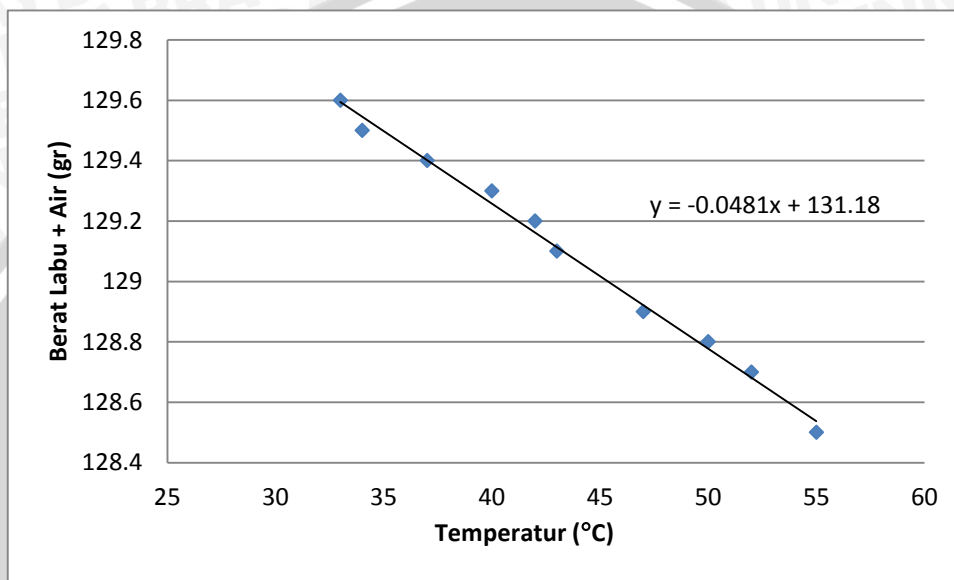
Diameter ayakan	Berat tertahan (gr)	Berat kumulatif (gr)	Persen tertahan (%)	Persen lolos (%)
4,75 mm (no. 4)	0.00	0	0.00	100.00
2,00 mm (no. 10)	48.8	48.8	9.76	90.24
0,84 mm (no. 20)	111	159.8	31.96	68.04
0,42 mm (no. 40)	222.4	382.2	76.44	23.56
0,30 mm (no.50)	47.5	429.7	85.94	14.06
0,18 mm (no. 80)	39.3	469	93.80	6.20
0,15 mm (no. 100)	13.7	482.7	96.54	3.46
0,07 mm (no. 200)	14.5	497.2	99.44	0.56
PAN	2.8	500	100.00	0.00



Lampiran 2

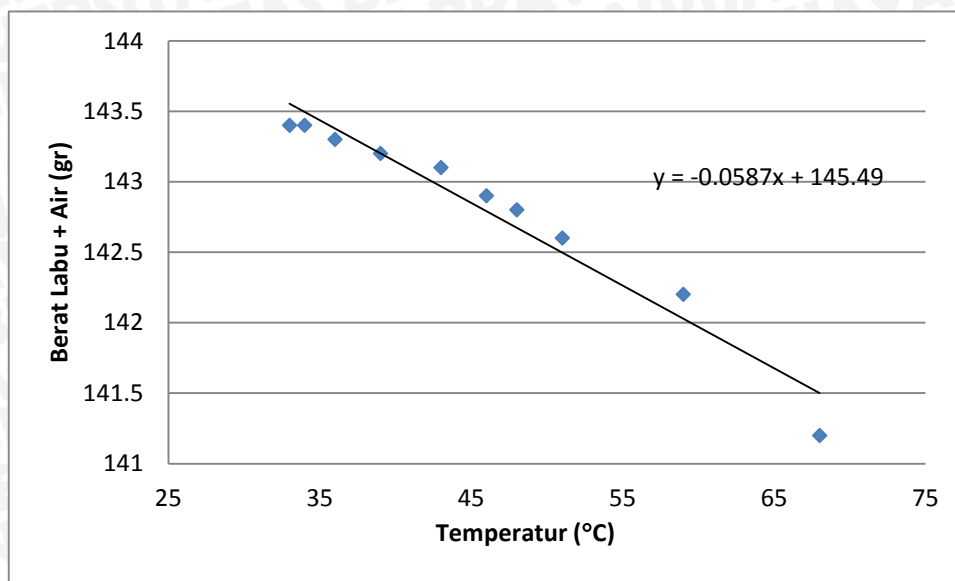
Hasil analisis *Spesific Gravity*

Labu ukur	A									
No.	1	2	3	4	5	6	7	8	9	10
Berat Labu + Air	128.5	128.7	128.8	128.9	129.1	129.2	129.3	129.4	129.5	129.6
Temperatur	55	52	50	47	43	42	40	37	34	33



Labu Ukur	A				
Berat labu ukur	gr	28.2			
Berat tanah kering (Ws)	gr	20			
Berat piknometer + air + tanah (W1)	gr	140.5	141.5	141.8	142
Temperatur	°C	68	49	43	39
Berat piknometer + air (W2)	gr	127.836	128.748	129.036	129.228
Spesific Gravity air (Gt)	-	0.9789	0.9885	0.9911	0.9926
Gs = (Ws*Gt)/(Ws-(W1-W2))	-	2.669	2.728	2.739	2.747
Gs rata-rata	-			2.709	

Labu ukur	B									
No.	1	2	3	4	5	6	7	8	9	10
Berat Labu + Air	141.2	142.2	142.6	142.8	142.9	143.1	143.2	143.3	143.4	143.4
Temperatur	68	59	51	48	46	43	39	36	34	33



Labu Ukur		B				
Berat labu ukur	gr	28.2				
Berat tanah kering (Ws)	gr	20				
Berat piknometer + air + tanah (W1)	gr	154.5	155.1	155.4	155.8	156.2
Temperatur	°C	66	47	41	38	34
Berat piknometer + air (W2)	gr	141.572	142.674	143.022	143.196	143.428
Spesific Gravity air (Gt)	-	0.98	0.989	0.9902	0.993	0.9944
Gs = (Ws*Gt)/(Ws-(W1-W2))	-	2.771	2.612	2.598	2.685	2.752
Gs rata-rata	-	2.684				

Lampiran 3

Hasil analisis kepadatan tanah (*compaction*)

Data :

Berat *mould* = 2560 gram

Diameter sampel = 15.5 cm

Tinggi sampel = 11.5 cm

Kadar Air

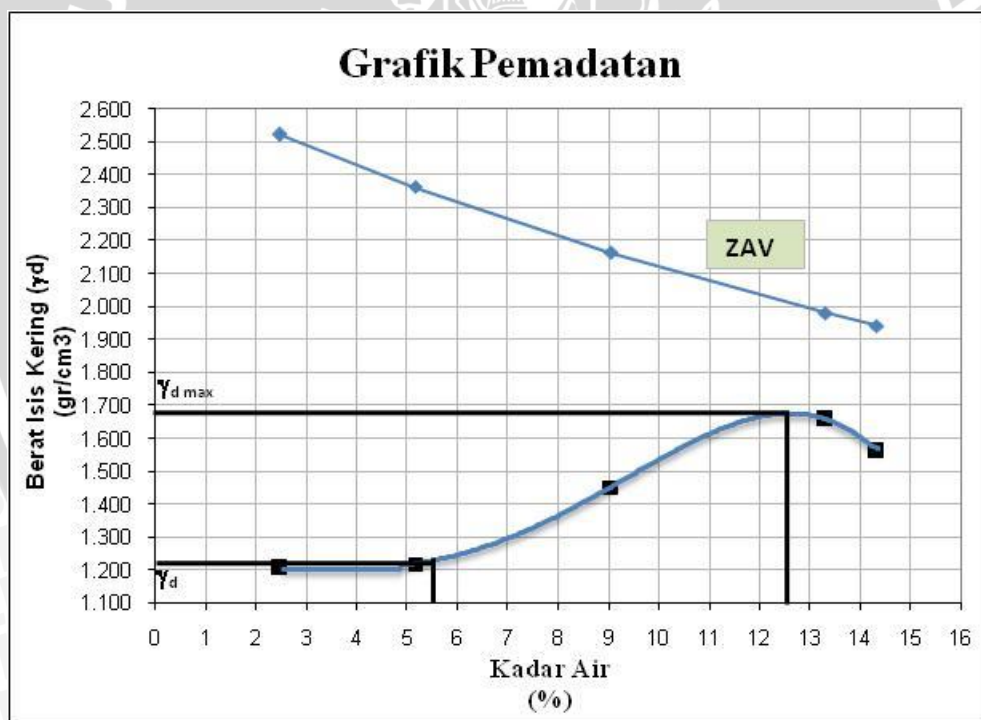
Penambahan Air	ml	100			200			300			400			500		
		atas	tengah	bawah	atas	tengah	bawah	atas	tengah	bawah	atas	tengah	bawah	atas	tengah	bawah
Berat cawan	gr	5.40	5.60	5.80	6.00	5.80	5.30	5.60	5.80	5.40	5.70	5.60	5.80	5.80	6.00	5.60
Berat tanah basah + cawan	gr	17.30	27.30	31.30	17.40	24.60	30.50	32.00	21.20	22.70	20.80	24.20	27.60	22.40	20.30	27.50
Berat tanah kering + cawan	gr	17.00	26.70	30.80	16.80	23.80	29.20	29.80	19.90	21.30	19.00	22.00	25.10	20.30	18.50	24.80
Berat air	gr	0.30	0.60	0.50	0.60	0.80	1.30	2.20	1.30	1.40	1.80	2.20	2.50	2.10	1.80	2.70
Berat tanah kering	gr	11.60	21.10	25.00	10.80	18.00	23.90	24.20	14.10	15.90	13.30	16.40	19.30	14.50	12.50	19.20
Kadar Air	%	2.59	2.84	2.00	5.56	4.44	5.44	9.09	9.22	8.81	13.53	13.41	12.95	14.48	14.40	14.06
Kadar air rata-rata	%		2.48			5.15		9.04				13.30			14.32	

Kepadatan

Penambahan air	ml	100	200	300	400	500
Berat cetakan	gr	2560	2560	2560	2560	2560
Berat tanah basah + cetakan	gr	5240	5340	5995	6635	6430
Berat tanah basah	gr	2680	2780	3435	4075	3870
Isi cetakan	cm ³			2170.8		
Berat isi basah	gr/cm ³	1.235	1.281	1.582	1.877	1.783
Berat isi kering	gr/cm ³	1.205	1.218	1.451	1.657	1.559

Zero Air Void

Penambahan air	ml	100	200	300	400	500
Kadar air	%	2.48	5.15	9.04	13.30	14.32
Gs				2.70		
Berat jenis air				1		
Berat jenis air (ZAV)		2.52756	2.367781	2.16798	1.98461	1.94544



Lampiran 4

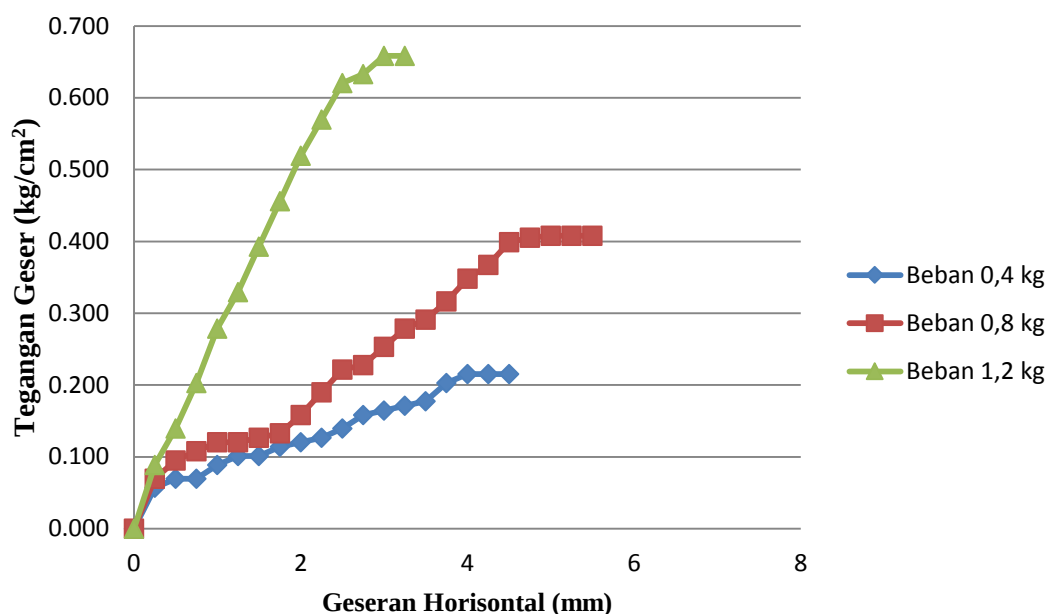
Hasil analisis geser langsung (*direct shear*)

Luas sampel	=	28.274	cm ²
Kalibrasi	=	0.358	
Diameter sampel	=	60	mm
Tinggi sampel	=	20	mm

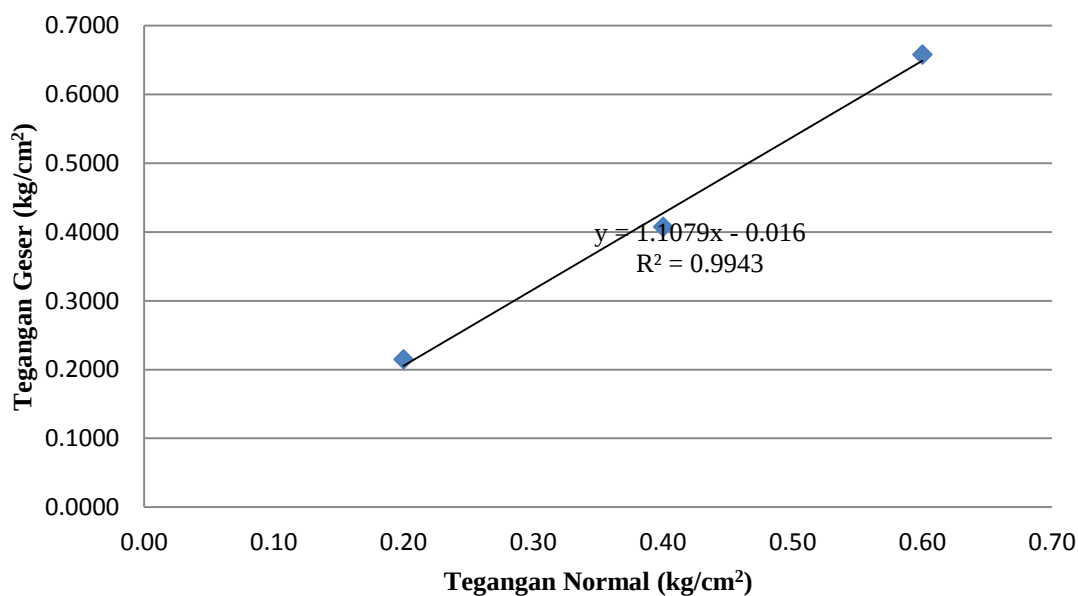
Lapisan 3

Gaya Normal		P ₁ =	0.4	kg	P ₁ =	0.8	kg	P ₁ =	1.2	kg
Tegangan Normal		σ ₁ =	0.20	kg/cm ²	σ ₁ =	0.40	kg/cm ²	σ ₁ =	0.60	kg/cm ²
Geseran Horizontal	Pembacaan Dial	Gaya Geser	Tegangan Geser	Pembacaan Dial	Gaya Geser	Tegangan Geser	Pembacaan Dial	Gaya Geser	Tegangan Geser	
0	0	0	0.000	0	0	0.000	0	0	0.000	
25	4.5	1.611	0.057	5.5	1.969	0.070	7	2.506	0.089	
50	5.5	1.969	0.070	7.5	2.685	0.095	11	3.938	0.139	
75	5.5	1.969	0.070	8.5	3.043	0.108	16	5.728	0.203	
100	7	2.506	0.089	9.5	3.401	0.120	22	7.876	0.279	
125	8	2.864	0.101	9.5	3.401	0.120	26	9.308	0.329	
150	8	2.864	0.101	10	3.58	0.127	31	11.098	0.393	
175	9	3.222	0.114	10.5	3.759	0.133	36	12.888	0.456	
200	9.5	3.401	0.120	12.5	4.475	0.158	41	14.678	0.519	
225	10	3.58	0.127	15	5.37	0.190	45	16.11	0.570	
250	11	3.938	0.139	17.5	6.265	0.222	49	17.542	0.620	
275	12.5	4.475	0.158	18	6.444	0.228	50	17.9	0.633	
300	13	4.654	0.165	20	7.16	0.253	52	18.616	0.658	
325	13.5	4.833	0.171	22	7.876	0.279	52	18.616	0.658	
350	14	5.012	0.177	23	8.234	0.291				
375	16	5.728	0.203	25	8.95	0.317				
400	17	6.086	0.215	27.5	9.845	0.348				
425	17	6.086	0.215	29	10.382	0.367				
450	17	6.086	0.215	31.5	11.277	0.399				
475	19			32	11.456	0.405				
500	19.5			32.2	11.5276	0.408				
525	20			32.2	11.5276	0.408				
550	22			32.2	11.5276	0.408				
575	22									
600	22									
625										
650										
675										
700										

Grafik Hubungan antara Tegangan Geser dan Geseran



Grafik Hubungan Tegangan Geser dan Tegangan Normal



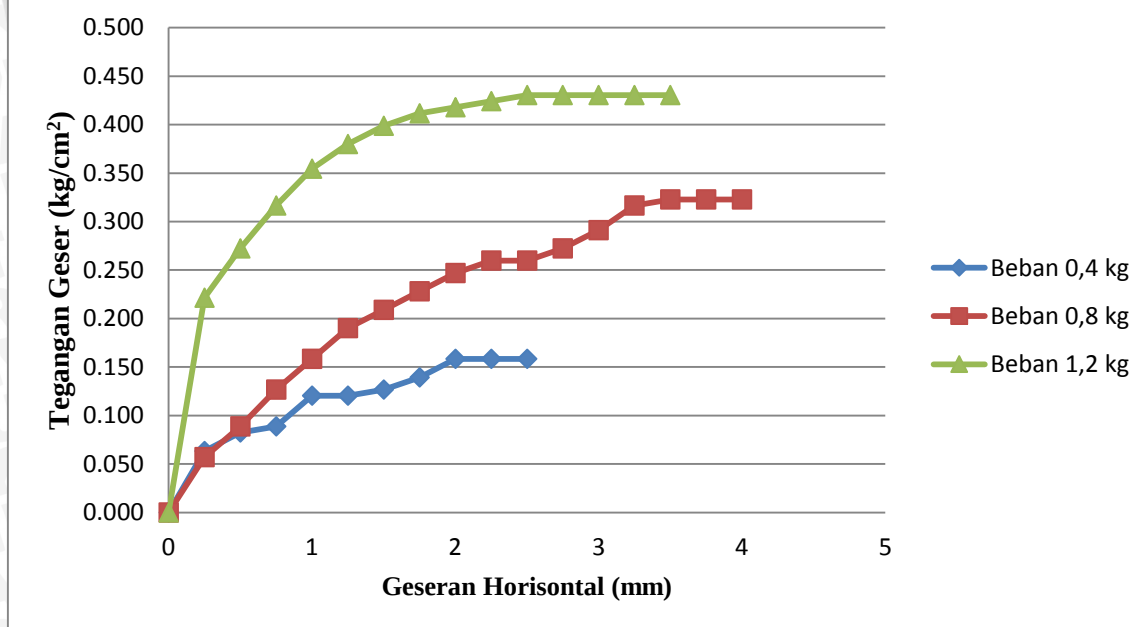
$$C = 0.0262 \text{ kg/cm}^2$$

$$\phi = 34.101^\circ$$

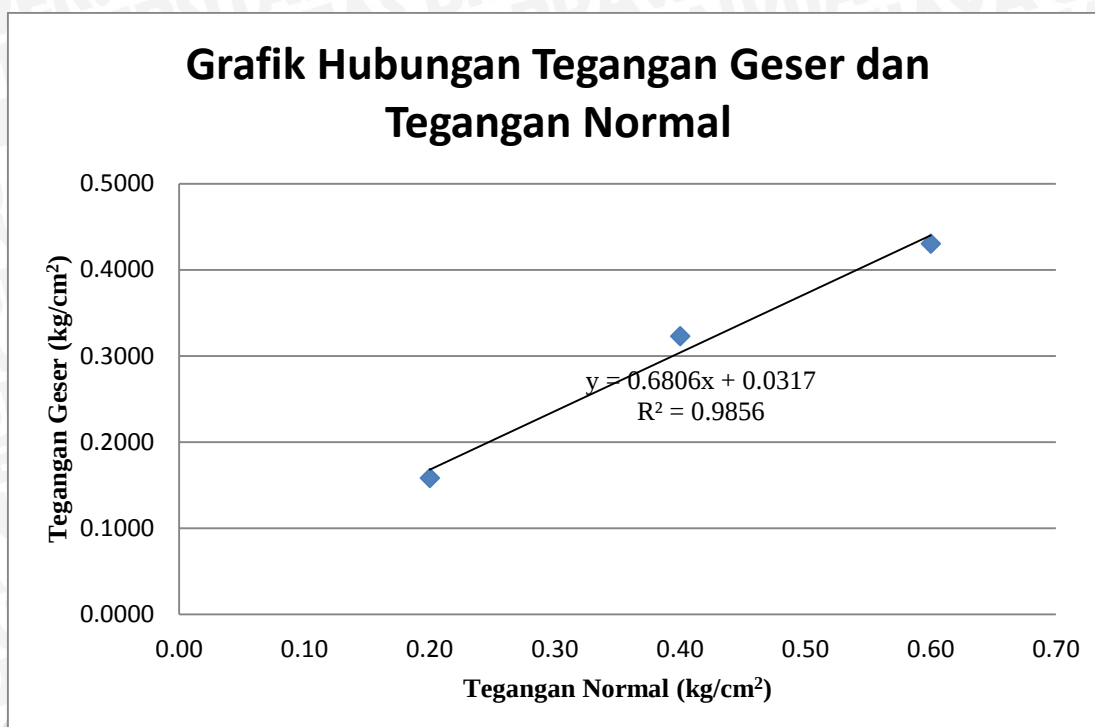
Lapisan 5

Gaya Normal Tegangan Normal	$P_1 = 0.4 \text{ kg}$			$P_1 = 0.8 \text{ kg}$			$P_1 = 1.2 \text{ kg}$		
	$\sigma_1 = 0.20 \text{ kg/cm}^2$			$\sigma_1 = 0.40 \text{ kg/cm}^2$			$\sigma_1 = 0.60 \text{ kg/cm}^2$		
Geseran Horizontal	Pembacaan Dial	Gaya Geser	Tegangan Geser	Pembacaan Dial	Gaya Geser	Tegangan Geser	Pembacaan Dial	Gaya Geser	Tegangan Geser
0	0	0	0.000	0	0	0.000	0	0	0.000
25	5	1.79	0.063	4.5	1.611	0.057	17.5	6.265	0.222
50	6.5	2.327	0.082	7	2.506	0.089	21.5	7.697	0.272
75	7	2.506	0.089	10	3.58	0.127	25	8.95	0.317
100	9.5	3.401	0.120	12.5	4.475	0.158	28	10.024	0.355
125	9.5	3.401	0.120	15	5.37	0.190	30	10.74	0.380
150	10	3.58	0.127	16.5	5.907	0.209	31.5	11.277	0.399
175	11	3.938	0.139	18	6.444	0.228	32.5	11.635	0.412
200	12.5	4.475	0.158	19.5	6.981	0.247	33	11.814	0.418
225	12.5	4.475	0.158	20.5	7.339	0.260	33.5	11.993	0.424
250	12.5	4.475	0.158	20.5	7.339	0.260	34	12.172	0.431
275				21.5	7.697	0.272	34	12.172	0.431
300				23	8.234	0.291	34	12.172	0.431
325				25	8.95	0.317	34	12.172	0.431
350				25.5	9.129	0.323	34	12.172	0.431
375				25.5	9.129	0.323			
400				25.5	9.129	0.323			

Grafik Hubungan antara Tegangan Geser dan Geseran



Grafik Hubungan Tegangan Geser dan Tegangan Normal



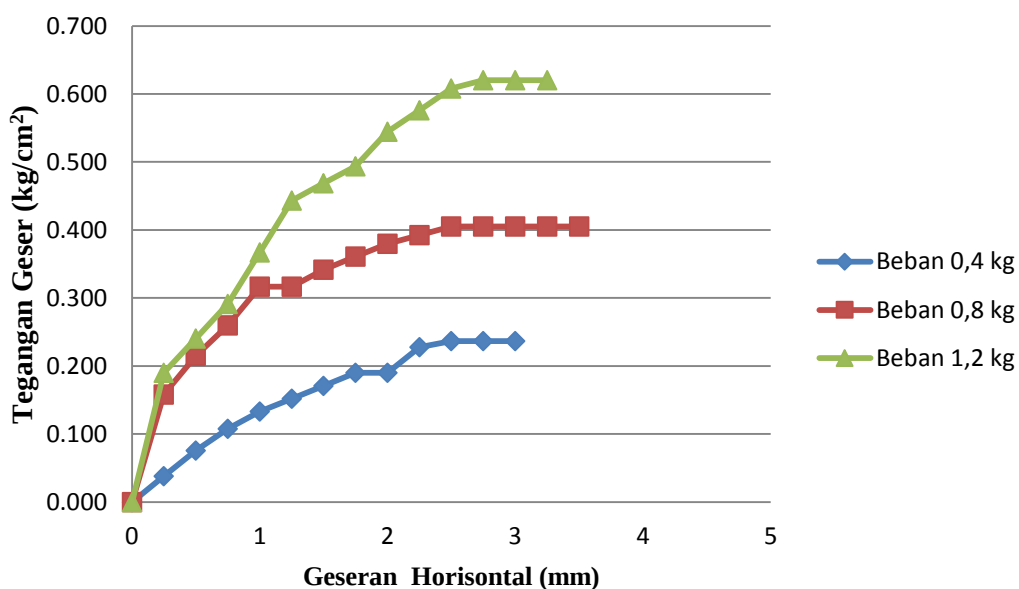
$$C = 0,0317 \text{ kg/cm}^2$$

$$\phi = 34,548^\circ$$

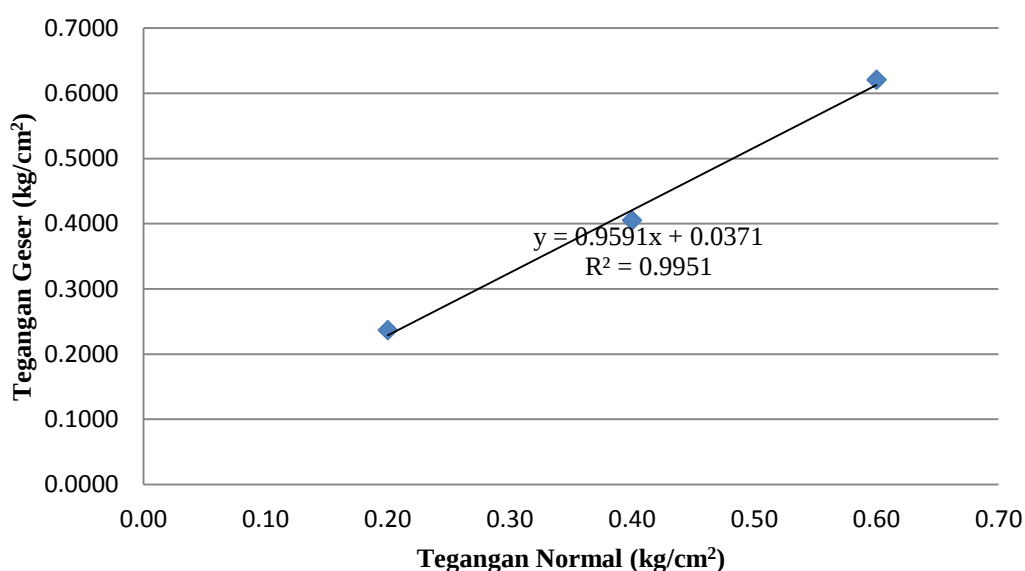
Lapisan 7

Gaya Normal Tegangan Normal	P ₁ = 0.4 kg			P ₁ = 0.8 kg			P ₁ = 1.2 kg		
	σ ₁ = 0.20 kg/cm ²			σ ₁ = 0.40 kg/cm ²			σ ₁ = 0.60 kg/cm ²		
Geseran Horizontal	Pembacaan dial	Gaya Geser	Tegangan Geser	Pembacaan dial	Gaya Geser	Tegangan Geser	Pembacaan dial	Gaya Geser	Tegangan Geser
0	0	0	0.000	0	0	0.000	0	0	0.000
25	3	1.074	0.038	12.5	4.475	0.158	15	5.37	0.190
50	6	2.148	0.076	17	6.086	0.215	19	6.802	0.241
75	8.5	3.043	0.108	20.5	7.339	0.260	23	8.234	0.291
100	10.5	3.759	0.133	25	8.95	0.317	29	10.382	0.367
125	12	4.296	0.152	25	8.95	0.317	35	12.53	0.443
150	13.5	4.833	0.171	27	9.666	0.342	37	13.246	0.468
175	15	5.37	0.190	28.5	10.203	0.361	39	13.962	0.494
200	15	5.37	0.190	30	10.74	0.380	43	15.394	0.544
225	18	6.444	0.228	31	11.098	0.393	45.5	16.289	0.576
250	18.7	6.6946	0.237	32	11.456	0.405	48	17.184	0.608
275	18.7	6.6946	0.237	32	11.456	0.405	49	17.542	0.620
300	18.7	6.6946	0.237	32	11.456	0.405	49	17.542	0.620
325				32	11.456	0.405	49	17.542	0.620
350				32	11.456	0.405			
375									
400									
425									
450									

Grafik Hubungan antara Tegangan Geser dan Geseran



Grafik Hubungan Tegangan Geser dan Tegangan Normal



$$C = 0,0371 \text{ kg/cm}^2$$

$$\phi = 34,982^\circ$$

Lampiran 5

Hasil analisis pemadatan lapangan (pengujian *sand cone*)

$\gamma_{d \text{ rencana}}: 1,23 \text{ gr/cm}^3 = 1230 \text{ kg/m}^3$

Luas boks : $0,98 \text{ m}^2$

Berat tanah untuk tinggi rencana 10 cm: $1230 \times 0,098 = 120,54 \text{ kg}$

Berat tanah untuk tinggi rencana 8,5 cm: $1230 \times 0,083 = 102,09 \text{ kg}$

Berat tanah untuk tinggi rencana 9 cm: $1230 \times 0,088 = 108,24 \text{ kg}$

Berat tanah untuk tinggi rencana 9,5 cm: $1230 \times 0,093 = 114,51 \text{ kg}$

Hasil Pengujian *Sand Cone*

Berat kerucut + tabung + pasir sebelum	gr	7020
Berat kerucut + tabung + pasir sesudah	gr	6613
Berat tanah yang digali	gr	500
Berat isi kering maksimum di laboratorium	gr/cm ³	1.66
Berat isi kering model	gr/cm ³	1.23
Kerapatan relatif (Dr)	%	74.01

Lampiran 6

Hasil perhitungan kadar air dan kepadatan tanah lereng tanpa perkuatan

1. Jarak ke tepi pondasi (d) 12 cm

Kadar Air

	Lapisan		1	2	3	4	5	6	7						
Berat cawan + tanah basah	gram	21.8	21.5	20.3	21.9	21.3	21.7	19.8	21.6	21.3	20.9	21.5	22.3	21.2	20.1
Berat cawan + tanah kering	gram	21	20.7	19.5	21.1	20.4	20.9	18.9	20.7	20.5	20.1	20.7	21.4	20.4	19.3
Berat cawan	gram	5.7	5.7	4.1	5.5	5.8	5.9	4.3	3.7	5.7	5.7	6	6	5.6	5.4
Berat tanah kering	gram	15.3	15	15.4	15.6	14.6	15	14.6	17	14.8	14.4	14.7	15.4	14.8	13.9
Berat air	gram	0.8	0.8	0.8	0.8	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.8	0.8
Kadar air	%	5.23	5.33	5.19	5.13	6.16	5.33	6.16	5.29	5.41	5.56	5.44	5.84	5.41	5.76
Kadar air rata-rata (%)		5.52													

Pemadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.7	32.5	32	32.3	32.5	32.2	32.6	32.5	32.6	32.5	31.9	32.1	32.3	32.2
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	14.2	14	13.5	13.8	14	13.7	14.1	14	14.1	14	13.4	13.6	13.8	13.7
γt	gr/cm³	1.314	1.347	1.249	1.328	1.295	1.318	1.305	1.347	1.305	1.347	1.240	1.309	1.277	1.318
Kadar air	%	5.23	5.33	5.19	5.13	6.16	5.33	6.16	5.29	5.41	5.56	5.44	5.84	5.41	5.76
γd	gr/cm³	1.249	1.279	1.188	1.263	1.220	1.252	1.229	1.280	1.238	1.276	1.176	1.237	1.211	1.247
γt rata-rata	gr/cm³	1.307													
γd rata-rata	gr/cm³	1.239													

Lampiran 7

Hasil perhitungan kadar air dan kepadatan tanah lereng dengan menggunakan perkuanan

1. $L/H = 0,45$ dan $Sv/H = 0,15$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	19.4	19.6	21.4	18	20.5	18.1	21.4	18.6	21.6	19.7	19.8	20.3	19.1	19.6
Berat cawan + tanah kering	gram	18.6	18.8	20.8	17.3	19.9	17.5	20.5	17.7	20.6	18.8	18.8	19.3	18.3	18.8
Berat cawan	gram	2.9	4.1	5.9	3	5.7	2.9	6.1	3	5.7	4.3	4.2	4.2	4.8	4.2
Berat tanah kering	gram	15.7	14.7	14.9	14.3	14.2	14.6	14.4	14.7	14.9	14.5	14.6	15.1	13.5	14.6
Berat air	gram	0.8	0.8	0.6	0.7	0.6	0.6	0.9	0.9	1	0.9	1	1	0.8	0.8
Kadar air	%	5.10	5.44	4.03	4.90	4.23	4.11	6.25	6.12	6.71	6.21	6.85	6.62	5.93	5.48
Kadar air rata-rata (%)		5.57													

Kepadatan

	Lapisan		1	2	3	4	5	6	7							
Berat ring + tanah	gram		32.4	32.5	33	33.1	32.1	32.6	32.9	33	32.6	32.3	32.8	32.9	32.7	32.9
Berat ring	gram		18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm		2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm		2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³		10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram		13.9	14	14.5	14.6	13.6	14.1	14.4	14.5	14.1	13.8	14.3	14.4	14.2	14.4
γt	gr/cm ³		1.286	1.347	1.342	1.405	1.258	1.357	1.333	1.395	1.305	1.328	1.323	1.386	1.314	1.386
Kadar air	%		5.10	5.44	4.03	4.90	4.23	4.11	6.25	6.12	6.71	6.21	6.85	6.62	5.93	5.48
γd	gr/cm ³		1.224	1.278	1.290	1.339	1.207	1.303	1.254	1.315	1.223	1.250	1.238	1.300	1.240	1.314
γt rata-rata	gr/cm ³		1.340													
γd rata-rata	gr/cm ³		1.270													

2. $L/H = 0,45$ dan $S_v/H = 0,18$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	19.8	21.6	21.4	20.7	21.7	20.9	22.6	21.9	23	21	19.9	20.3	21.7	21.1
Berat cawan + tanah kering	gram	18.9	20.6	20.4	19.8	20.9	20.1	21.8	21	22.1	20.2	19.1	19.5	20.8	20.3
Berat cawan	gram	4.1	5.8	5.4	6	5.6	4.2	6.1	5.6	6	6	4.2	4.3	5.7	5.6
Berat tanah kering	gram	14.8	14.8	15	13.8	15.3	15.9	15.7	15.4	16.1	14.2	14.9	15.2	15.1	14.7
Berat air	gram	0.9	1	1	0.9	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.8
Kadar air	%	6.08	6.76	6.67	6.52	5.23	5.03	5.10	5.84	5.59	5.63	5.37	5.26	5.96	5.44
Kadar air rata-rata (%)		5.75													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.6	32.2	32.3	32.5	32.4	32.4	32	32.3	32.4	32.2	32.1	32.6	32.1	32.6
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	14.1	13.7	13.8	14	13.9	13.9	13.5	13.8	13.9	13.7	13.6	14.1	13.6	14.1
γt	gr/cm ³	1.305	1.318	1.277	1.347	1.286	1.338	1.249	1.328	1.286	1.318	1.258	1.357	1.258	1.357
Kadar air	%	6.08	6.76	6.67	6.52	5.23	5.03	5.10	5.84	5.59	5.63	5.37	5.26	5.96	5.44
γd	gr/cm ³	1.230	1.235	1.197	1.265	1.222	1.274	1.189	1.255	1.218	1.248	1.194	1.289	1.188	1.287
γt rata-rata	gr/cm ³	1.306													
γd rata-rata	gr/cm ³	1.235													

3. $L/H = 0,45$ dan $S_v/H = 0,21$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	20.2	21	21.9	21.4	22.4	21.1	21.5	21.8	23	19	22.3	22	20.1	20
Berat cawan + tanah kering	gram	19.4	20.2	20.9	20.5	21.5	20.3	20.6	20.8	22.1	18.2	21.4	21.2	19.2	19
Berat cawan	gram	4.7	5.5	3.7	4.8	5.7	5.5	5.3	4.1	5.8	4.3	5.7	6	3.5	2
Berat tanah kering	gram	14.7	14.7	17.2	15.7	15.8	14.8	15.3	16.7	16.3	13.9	15.7	15.2	15.7	17
Berat air	gram	0.8	0.8	1	0.9	0.9	0.8	0.9	1	0.9	0.8	0.9	0.8	0.9	1
Kadar air	%	5.44	5.44	5.81	5.73	5.70	5.41	5.88	5.99	5.52	5.76	5.73	5.26	5.73	5.88
Kadar air rata-rata (%)		5.66													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.5	32.1	32.4	32.5	32.6	32.4	32.7	32.5	32.5	32.4	32.7	32.5	32.5	32.4
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	14	13.6	13.9	14	14.1	13.9	14.2	14	14	13.9	14.2	14	14	13.9
γt	gr/cm ³	1.295	1.309	1.286	1.347	1.305	1.338	1.314	1.347	1.295	1.338	1.314	1.347	1.295	1.338
Kadar air	%	5.44	5.44	5.81	5.73	5.70	5.41	5.88	5.99	5.52	5.76	5.73	5.26	5.73	5.88
γd	gr/cm ³	1.229	1.241	1.216	1.274	1.234	1.269	1.241	1.271	1.228	1.265	1.243	1.280	1.225	1.263
γt rata-rata	gr/cm ³	1.319													
γd rata-rata	gr/cm ³	1.249													

4. $L/H = 0,52$ dan $S_v/H = 0,15$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	20.2	21	20.1	20.5	19.5	19.6	20.5	18.1	19.7	19.5	21.5	20.3	22.3	22
Berat cawan + tanah kering	gram	19.4	20.2	19.3	19.6	18.7	18.8	19.9	17.5	18.9	18.8	20.6	19.4	21.4	21.2
Berat cawan	gram	4.7	5.8	6.1	6	4.1	4.7	5.7	2.9	5.4	5.8	5.6	5.4	5.7	6
Berat tanah kering	gram	14.7	14.4	13.2	13.6	14.6	14.1	14.2	14.6	13.5	13	15	14	15.7	15.2
Berat air	gram	0.8	0.8	0.8	0.9	0.8	0.8	0.6	0.6	0.8	0.7	0.9	0.9	0.9	0.8
Kadar air	%	5.44	5.56	6.06	6.62	5.48	5.67	4.23	4.11	5.93	5.38	6.00	6.43	5.73	5.26
Kadar air rata-rata (%)		5.56													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	33.1	33	32.8	32.9	32.6	32.6	33.2	33	32.7	32.9	33.5	33.2	32.8	32.7
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	14.6	14.5	14.3	14.4	14.1	14.1	14.7	14.5	14.2	14.4	15	14.7	14.3	14.2
γt	gr/cm³	1.351	1.395	1.323	1.386	1.305	1.357	1.360	1.395	1.314	1.386	1.388	1.415	1.323	1.367
Kadar air	%	5.44	5.56	6.06	6.62	5.48	5.67	4.23	4.11	5.93	5.38	6.00	6.43	5.73	5.26
γd	gr/cm³	1.281	1.322	1.248	1.300	1.237	1.284	1.305	1.340	1.240	1.315	1.309	1.329	1.252	1.298
γt rata-rata	gr/cm³	1.362													
γd rata-rata	gr/cm³	1.290													

5. $L/H = 0,52$ dan $S_v/H = 0,18$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	19.4	21.8	21.3	20.4	21	20	21.6	21.2	21.5	19.7	21.5	19.6	20	21.5
Berat cawan + tanah kering	gram	18.5	20.8	20.7	19.8	20.2	19.2	20.9	20.6	20.5	18.8	20.7	18.8	19	20.6
Berat cawan	gram	4.3	5.7	6	5.7	5.7	4.3	6	5.6	5.7	4.1	5.7	4.3	4.3	5.7
Berat tanah kering	gram	14.2	15.1	14.7	14.1	14.5	14.9	14.9	15	14.8	14.7	15	14.5	14.7	14.9
Berat air	gram	0.9	1	0.6	0.6	0.8	0.8	0.7	0.6	1	0.9	0.8	0.8	1	0.9
Kadar air	%	6.34	6.62	4.08	4.26	5.52	5.37	4.70	4.00	6.76	6.12	5.33	5.52	6.80	6.04
Kadar air rata-rata (%)		5.53													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.7	33.2	33	33.2	32.7	32.8	32.9	32.6	32.9	33.1	33.4	33.4	33.1	33.2
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	14.2	14.7	14.5	14.7	14.2	14.3	14.4	14.1	14.4	14.6	14.9	14.9	14.6	14.7
γt	gr/cm ³	1.314	1.415	1.342	1.415	1.314	1.376	1.333	1.357	1.333	1.405	1.379	1.434	1.351	1.415
Kadar air	%	6.34	6.62	4.08	4.26	5.52	5.37	4.70	4.00	6.76	6.12	5.33	5.52	6.80	6.04
γd	gr/cm ³	1.236	1.327	1.289	1.357	1.245	1.306	1.273	1.305	1.248	1.324	1.309	1.359	1.265	1.334
γt rata-rata	gr/cm ³	1.370													
γd rata-rata	gr/cm ³	1.298													

6. $L/H = 0,52$ dan $S_v/H = 0,21$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	20.7	20	19.7	19.5	20.1	20.5	20.6	20.1	19.5	19.6	19.3	20.1	19.7	20.1
Berat cawan + tanah kering	gram	19.8	19.2	18.9	18.8	19.3	19.6	19.6	19.2	18.7	18.8	18.4	19.2	19.1	19.5
Berat cawan	gram	4	4.3	5.4	5.8	6.1	6	3.9	4.2	4.1	4.7	4.5	5.2	5	5.8
Berat tanah kering	gram	15.8	14.9	13.5	13	13.2	13.6	15.7	15	14.6	14.1	13.9	14	14.1	13.7
Berat air	gram	0.9	0.8	0.8	0.7	0.8	0.9	1	0.9	0.8	0.8	0.9	0.9	0.6	0.6
Kadar air	%	5.70	5.37	5.93	5.38	6.06	6.62	6.37	6.00	5.48	5.67	6.47	6.43	4.26	4.38
Kadar air rata-rata (%)		5.72													

Kepadatan

	Lapisan	1	2	3	4	5	6	7							
Berat ring + tanah	gram	32.1	32.2	33	33.1	32.1	32.6	32.5	32.6	32.6	32.3	32.4	32.2	32.5	33
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	13.6	13.7	14.5	14.6	13.6	14.1	14	14.1	14.1	13.8	13.9	13.7	14	14.5
γt	gr/cm ³	1.258	1.318	1.342	1.405	1.258	1.357	1.295	1.357	1.305	1.328	1.286	1.318	1.295	1.395
Kadar air	%	5.70	5.37	5.93	5.38	6.06	6.62	6.37	6.00	5.48	5.67	6.47	6.43	4.26	4.38
γd	gr/cm ³	1.191	1.251	1.267	1.333	1.187	1.273	1.218	1.280	1.237	1.257	1.208	1.239	1.243	1.337
γt rata-rata	gr/cm ³	1.323													
γd rata-rata	gr/cm ³	1.251													

7. $L/H = 0,59$ dan $S_v/H = 0,15$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	19.1	21.1	22.2	20	19.1	20.2	19.8	21	21	20.5	20.8	20.2	21.5	22.1
Berat cawan + tanah kering	gram	18.4	20.3	21.2	19.2	18.3	19.4	19	20.1	20.2	19.7	20	19.4	20.7	21.3
Berat cawan	gram	5.7	5.6	5.8	5.9	4.2	5.5	4.3	4.1	4.2	5.3	5.7	4.2	5.9	5.6
Berat tanah kering	gram	12.7	14.7	15.4	13.3	14.1	13.9	14.7	16	16	14.4	14.3	15.2	14.8	15.7
Berat air	gram	0.7	0.8	1	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Kadar air	%	5.51	5.44	6.49	6.02	5.67	5.76	5.44	5.62	5.00	5.56	5.59	5.26	5.41	5.10
Kadar air rata-rata (%)		5.56													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.4	32.5	32.2	32.8	32.1	32.4	32	32.1	32.6	32.1	32.1	32.6	32.5	32.5
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	13.9	14	13.7	14.3	13.6	13.9	13.5	13.6	14.1	13.6	13.6	14.1	14	14
γt	gr/cm ³	1.286	1.347	1.268	1.376	1.258	1.338	1.249	1.309	1.305	1.309	1.258	1.357	1.295	1.347
Kadar air	%	5.51	5.44	6.49	6.02	5.67	5.76	5.44	5.62	5.00	5.56	5.59	5.26	5.41	5.10
γd	gr/cm ³	1.219	1.278	1.190	1.298	1.191	1.265	1.185	1.239	1.243	1.240	1.192	1.289	1.229	1.282
γt rata-rata	gr/cm ³	1.307													
γd rata-rata	gr/cm ³	1.239													

8. $L/H = 0,59$ dan $S_v/H = 0,18$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	20.2	21.1	22.8	19.2	20.3	20.9	20.6	20.8	21.5	21.8	21.2	19.7	20.2	21.6
Berat cawan + tanah kering	gram	19.3	20.3	21.8	18.3	19.6	20.1	19.8	20	20.7	21	20.6	19.1	19.4	20.8
Berat cawan	gram	4.2	5.6	5.9	4.7	5.7	5.6	5.7	5.6	5.3	5.9	5.7	4.1	4.2	5.7
Berat tanah kering	gram	15.1	14.7	15.9	13.6	13.9	14.5	14.1	14.4	15.4	15.1	14.9	15	15.2	15.1
Berat air	gram	0.9	0.8	1	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.8	0.8
Kadar air	%	5.96	5.44	6.29	6.62	5.04	5.52	5.67	5.56	5.19	5.30	4.03	4.00	5.26	5.30
Kadar air rata-rata (%)		5.37													

Kepadatan

	Lapisan		1	2	3	4	5	6	7						
Berat ring + tanah	gram	32.1	32.6	33.2	32.3	32.5	32.6	32.8	32.7	32.4	32.6	32.4	32.1	32.4	32.5
Berat ring	gram	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram	13.6	14.1	14.7	13.8	14	14.1	14.3	14.2	13.9	14.1	13.9	13.6	13.9	14
γt	gr/cm ³	1.258	1.357	1.360	1.328	1.295	1.357	1.323	1.367	1.286	1.357	1.286	1.309	1.286	1.347
Kadar air	%	5.96	5.44	6.29	6.62	5.04	5.52	5.67	5.56	5.19	5.30	4.03	4.00	5.26	5.30
γd	gr/cm ³	1.188	1.287	1.280	1.246	1.233	1.286	1.252	1.295	1.223	1.289	1.236	1.258	1.222	1.280
γt rata-rata	gr/cm ³	1.323													
γd rata-rata	gr/cm ³	1.255													

9. $L/H = 0,59$ dan $S_v/H = 0,21$

Kadar Air

	Lapisan	1	2	3	4	5	6	7							
Berat cawan + tanah basah	gram	19.7	19.5	20.2	21	19.5	19.6	20.1	20.5	22.3	22	21.5	20.3	20.5	18.1
Berat cawan + tanah kering	gram	18.9	18.8	19.4	20.2	18.7	18.8	19.3	19.6	21.4	21.2	20.6	19.4	19.9	17.5
Berat cawan	gram	5.4	5.8	4.7	5.8	4.1	4.7	6.1	6	5.7	6	5.6	5.4	5.7	2.9
Berat tanah kering	gram	13.5	13	14.7	14.4	14.6	14.1	13.2	13.6	15.7	15.2	15	14	14.2	14.6
Berat air	gram	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.6	0.6
Kadar air	%	5.93	5.38	5.44	5.56	5.48	5.67	6.06	6.62	5.73	5.26	6.00	6.43	4.23	4.11
Kadar air rata-rata (%)									5.56						

Kepadatan

	Lapisan		1	2	3	4	5	6	7							
Berat ring + tanah	gram		32.4	32.5	33	33.1	32.1	32.6	32.9	33	32.6	32.3	32.8	32.9	32.7	32.9
Berat ring	gram		18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Diameter ring	cm		2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Tinggi ring	cm		2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5
Volume ring	cm ³		10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391	10.807	10.391
Berat tanah	gram		13.9	14	14.5	14.6	13.6	14.1	14.4	14.5	14.1	13.8	14.3	14.4	14.2	14.4
γ_t	gr/cm ³		1.286	1.347	1.342	1.405	1.258	1.357	1.333	1.395	1.305	1.328	1.323	1.386	1.314	1.386
Kadar air	%		5.93	5.38	5.44	5.56	5.48	5.67	6.06	6.62	5.73	5.26	6.00	6.43	4.23	4.11
γ_d	gr/cm ³		1.214	1.278	1.273	1.331	1.193	1.284	1.256	1.309	1.234	1.262	1.248	1.302	1.261	1.331
γ_t rata-rata	gr/cm ³		1.340													
γ_d rata-rata	gr/cm ³		1.270													

Lampiran 8

Perhitungan Daya Dukung Lereng Tanpa Perkuatan dengan Metode Analitik

1. Metode Shields

Data:

γ	=	1,23 gr/cm ³	
ϕ	= sudut geser dalam tanah	= 34,544°	
β	= sudut kemiringan lereng	= 51°	
B	= lebar pondasi	= 6 cm = 2,362 inchi	
D	= kedalaman pondasi	= 0	
L	= panjang pondasi	= ~	
b	= jarak pondasi ke puncak lereng	= 12 cm = 4,724 inchi	
f_{ϕ}	=	$10^{(0,1159 \cdot \phi - 2,386)} = 10^{(0,1159 \cdot 34,544 - 2,386)}$	= 41,462
f_B	=	$10^{(0,34 - 0,2 \log B)} = 10^{(0,34 - 0,2 \log 2,362)}$	= 1,842
$f_{D/B}$	=	$1 + 0,65 (D/B) = 1 + 0,65 (0/2,362)$	= 1
$f_{B/L}$	=	$1 - 0,27 (B/L) = 1 - 0,27 (2,362/\sim)$	= 1
$f_{D/B, B/L}$	=	$1 + 0,39 (D/L) = 1 + 0,39 (0/\sim)$	= 1
$f_{\beta, b/B}$	=	$1 - 0,8 [1 - (1 - \tan \beta)^2] \{2/[2 + (b/B)^2 \tan \beta]\}$ $= 1 - 0,8 [1 - (1 - \tan 51^\circ)^2] \{2/[2 + (4,724/2,362)^2 \tan 51^\circ]\}$ $= 0,782$	
$f_{\beta, b/D, D/B}$	=	$1 + 0,6 (B/L) [1 - (1 - \tan \beta)^2] \{2/[2 + (b/B)^2 \tan \beta]\}$ $= 1 + 0,6 (2,362/\sim) [1 - (1 - \tan 51^\circ)^2] \{2/[2 + (4,724/2,362)^2 \tan 51^\circ]\}$ $= 1$	
$f_{\beta, b/B, B/L}$	=	$1 + 0,33 (D/B) \tan \beta \{2/[2 + (b/B)^2 \tan \beta]\}$ $= 1 + 0,33 (0/2,362) \tan 51^\circ \{2/[2 + (4,724/2,362)^2 \tan 51^\circ]\}$ $= 1$	

$$N_{\gamma q} = 41,462 \times 1,842 \times 1 \times 1 \times 1 \times 1 \times 0,782 \times 1 \times 1 = 59,724$$

$$q_u = 0,5 \times \gamma \times B \times N_{\gamma q} = 0,5 \times 1,23 \times 6 \times 59,724 = 220,382 \text{ gr/cm}^2$$

$$q_u = 22,038 \text{ kN/m}^2$$

2. Metode Hansen

Data:

$$\gamma = 1,23 \text{ gr/cm}^3$$

$$\Psi = \text{sudut geser dalam tanah} = 34,544^\circ$$

$$\beta = \text{sudut kemiringan lereng} = 51^\circ$$

$$B = \text{lebar pondasi} = 6 \text{ cm}$$

$$D = \text{kedalaman pondasi} = 0$$

$$L = \text{panjang pondasi} = \sim$$

$$b = \text{jarak pondasi ke puncak lereng} = 12 \text{ cm}$$

Untuk b = 4B (Tanah Datar):

$$N_q = e^{\pi \tan \varphi} \cdot \tan^2 \left(45 + \frac{\varphi}{2} \right) = e^{\pi \tan 34,544} \cdot \tan^2 \left(45 + \frac{34,544}{2} \right) = 31,469$$

$$N_c = (N_q - 1) \cot \varphi = (31,469 - 1) \cot 34,544 = 44,259$$

$$N_\gamma = 1,5(N_q - 1) \tan \varphi = 1,5(31,469 - 1) \tan 34,544 = 31,463$$

Dengan mengasumsi bahwa nilai $c = 0$ dan $D_f = 0$, maka diperoleh nilai daya dukung sebagai berikut:

$$q_u = c \times N_c + D_f \gamma \times N_q + \gamma \times \frac{B}{2} \times N_\gamma$$

$$q_u = 0 \times 44,259 + 0 \times 1,23 \times 31,469 + 1,23 \times \frac{6}{2} \times 31,463$$

$$q_u = 116,098 \text{ gr/cm}^2 = 11,6098 \text{ kN/m}^2$$

Untuk Tanah Lereng:

$$q_u = c N_c s_c d_c i_c g_c b_c + D_f \gamma N_q s_q d_q i_q g_q b_q + \gamma \frac{B}{2} N_\gamma s_\gamma d_\gamma i_\gamma g_\gamma b_\gamma$$

$$N_q = e^{\pi \tan \varphi} \cdot \tan^2 \left(45 + \frac{\varphi}{2} \right) = e^{\pi \tan 34,544} \cdot \tan^2 \left(45 + \frac{34,544}{2} \right) = 31,469$$

$$N_c = (N_q - 1) \cot \varphi = (31,469 - 1) \cot 34,544 = 44,259$$

$$N_\gamma = 1,5(N_q - 1) \tan \varphi = 1,5(31,469 - 1) \tan 34,544 = 31,463$$

$$d_c = d_q = d_\gamma = 1$$

$$i_c = i_q = i_\gamma = 1$$

$$b_c = b_q = b_\gamma = 1$$

Untuk $d = 0 \text{ cm}$, maka:

$$g_q = g_\gamma = (1 - 0,5 \tan \beta)^5 = (1 - 0,5 \tan 51)^5 = 0,0082$$

Untuk $D_f = 0$ cm maka nilai daya dukung:

$$q_u = 1,23 \times \frac{6}{2} \times 31,463 \times 0,0082 = 0,952 \frac{gr}{cm^2} = 0,0952 \text{ kN/m}^2$$

Dengan menggunakan interpolasi, dihitung daya dukung pada kondisi $d=2B$ (12 cm):

$$d = 0 \quad \rightarrow \quad q_u = 0,0952 \text{ kN/m}^2$$

$$d = 4B \text{ (24 cm)} \quad \rightarrow \quad q_u = 11,6098 \text{ kN/m}^2$$

$$\frac{11,6098 - 0,0952}{24 - 0} = \frac{q_u - 0,0952}{12 - 0}$$

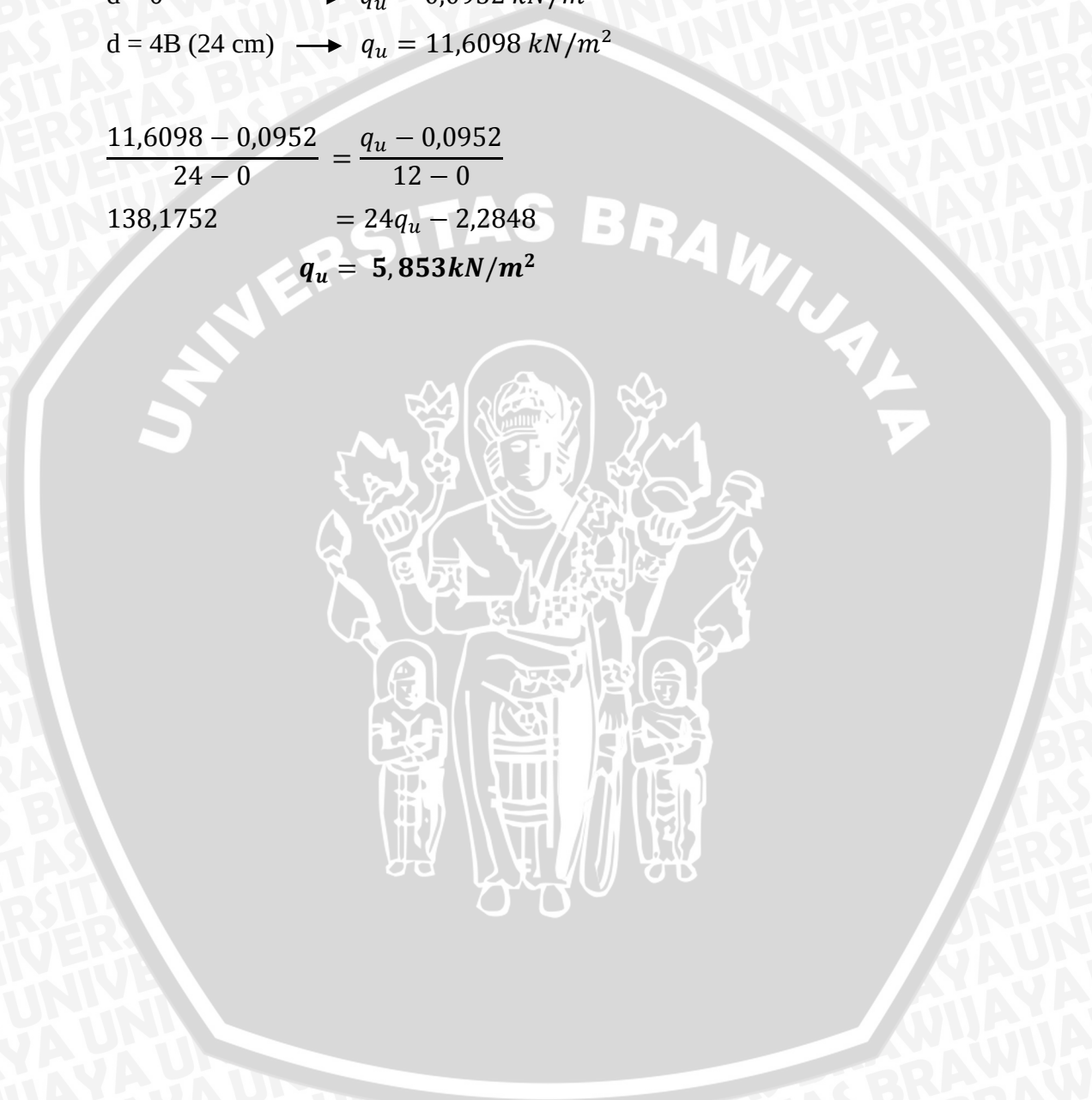
$$138,1752 = 24q_u - 2,2848$$

$$q_u = 5,853 \text{ kN/m}^2$$

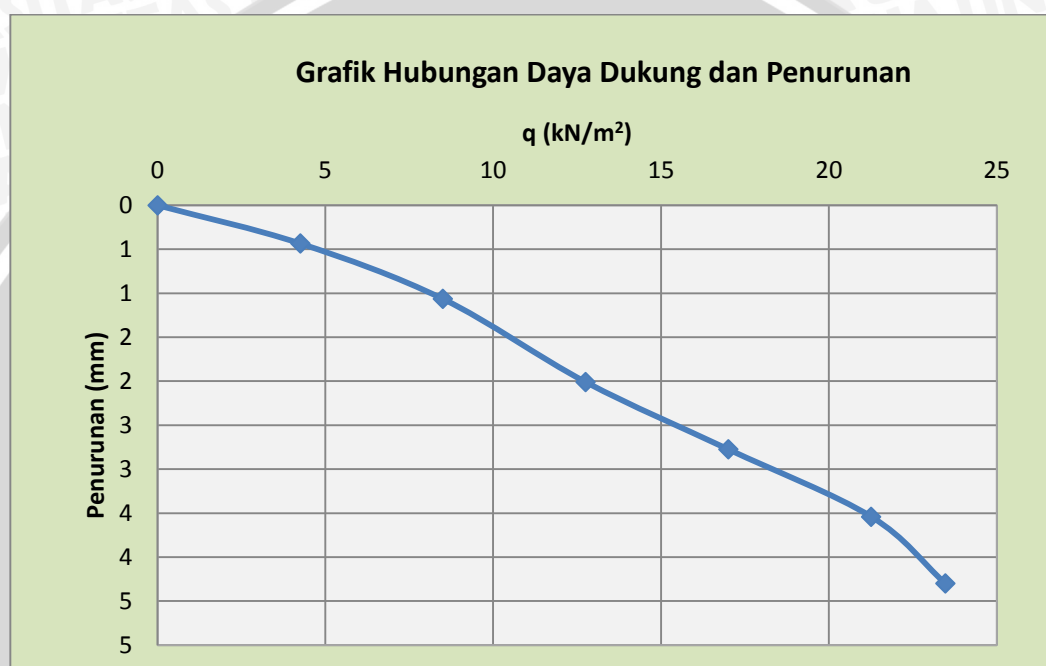
Lampiran 9

Perhitungan Daya Dukung Lereng dengan Metode Eksperimen

1. Lereng tanpa perkuatan



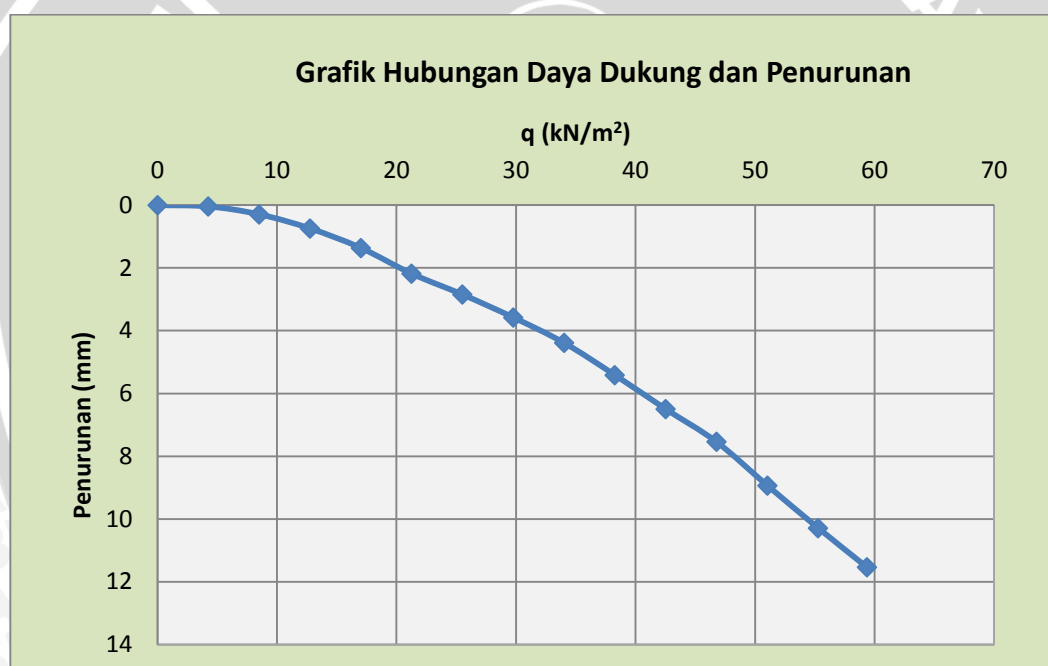
Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm ²)	q (kN/m ²)
0	4344	0.000	0.000	0.000	0.000
25	4257	0.435	0.725	0.043	4.252
50	4131	1.065	1.775	0.085	8.503
75	3942	2.010	3.350	0.128	12.755
100	3789	2.775	4.625	0.170	17.007
125	3636	3.540	5.900	0.213	21.259
138	3484	4.300	7.167	0.235	23.469



2. Lereng dengan perkuatan $L/H = 0,45$ dan $S_v/H = 0,15$

Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm ²)	q (kN/m ²)
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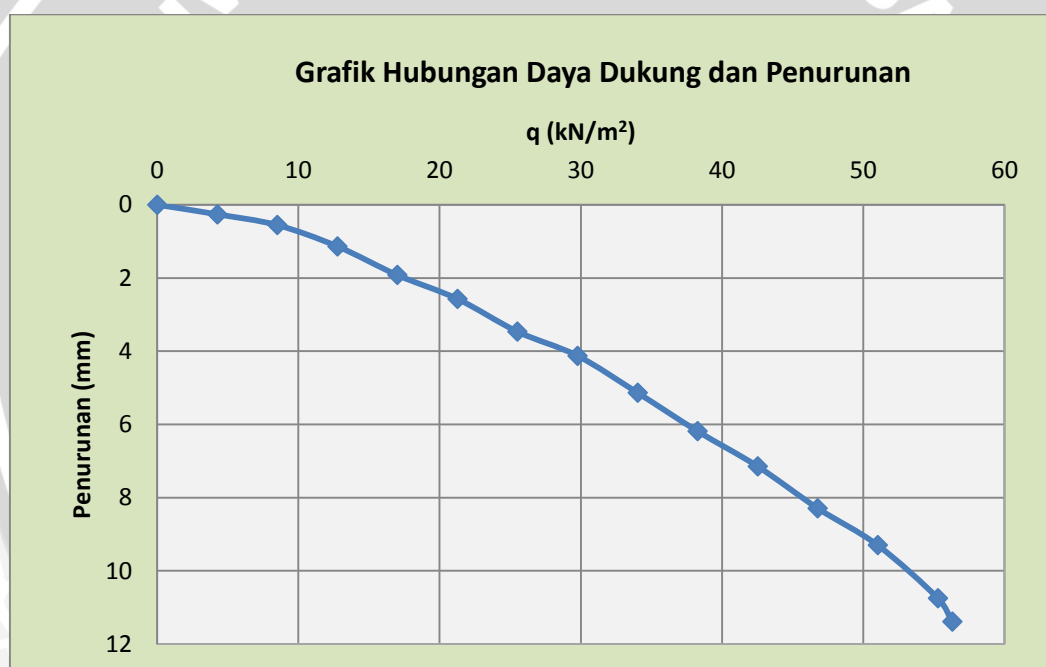
0	4720	0.000	0.000	0.000	0.000
25	4712	0.040	0.067	0.043	4.252
50	4662	0.290	0.483	0.085	8.503
75	4542	0.890	1.483	0.128	12.755
100	4408	1.560	2.600	0.170	17.007
125	4264	2.280	3.800	0.213	21.259
150	4111	3.045	5.075	0.255	25.510
175	4005	3.575	5.958	0.298	29.762
200	3843	4.385	7.308	0.340	34.014
225	3638	5.410	9.017	0.383	38.265
250	3421	6.495	10.825	0.425	42.517
275	3212	7.540	12.567	0.468	46.769
300	2934	8.930	14.883	0.510	51.020
325	2663	10.285	17.142	0.553	55.272
349	2413	11.535	19.225	0.594	59.354



3. Lereng dengan perkuatan $L/H = 0,45$ dan $S_v/H = 0,18$

Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm²)	q (kN/m²)
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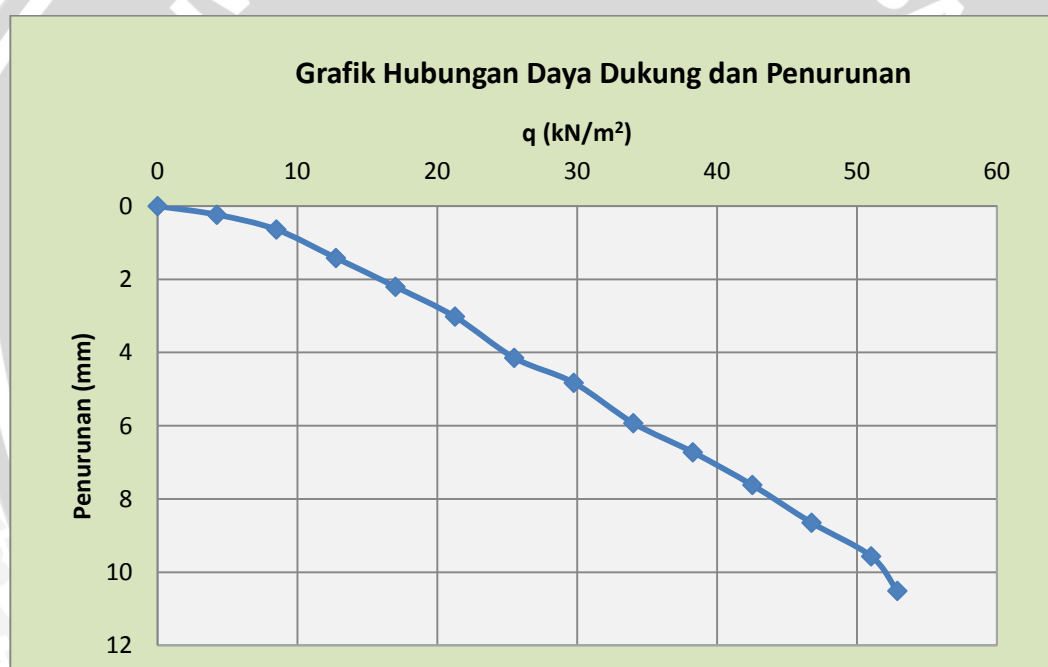
0	4679	0.000	0.000	0.000	0.000
25	4627	0.260	0.433	0.043	4.252
50	4568	0.555	0.925	0.085	8.503
75	4452	1.135	1.892	0.128	12.755
100	4295	1.920	3.200	0.170	17.007
125	4165	2.570	4.283	0.213	21.259
150	3986	3.465	5.775	0.255	25.510
175	3854	4.125	6.875	0.298	29.762
200	3652	5.135	8.558	0.340	34.014
225	3442	6.185	10.308	0.383	38.265
250	3250	7.145	11.908	0.425	42.517
275	3021	8.290	13.817	0.468	46.769
300	2819	9.300	15.500	0.510	51.020
325	2530	10.745	17.908	0.553	55.272
331	2402	11.385	18.975	0.563	56.293



4. Lereng dengan perkuatan $L/H = 0,45$ dan $S_v/H = 0,21$

Beban	LVDT	Penurunan	s/B	q (kg/cm ²)	q (kN/m ²)
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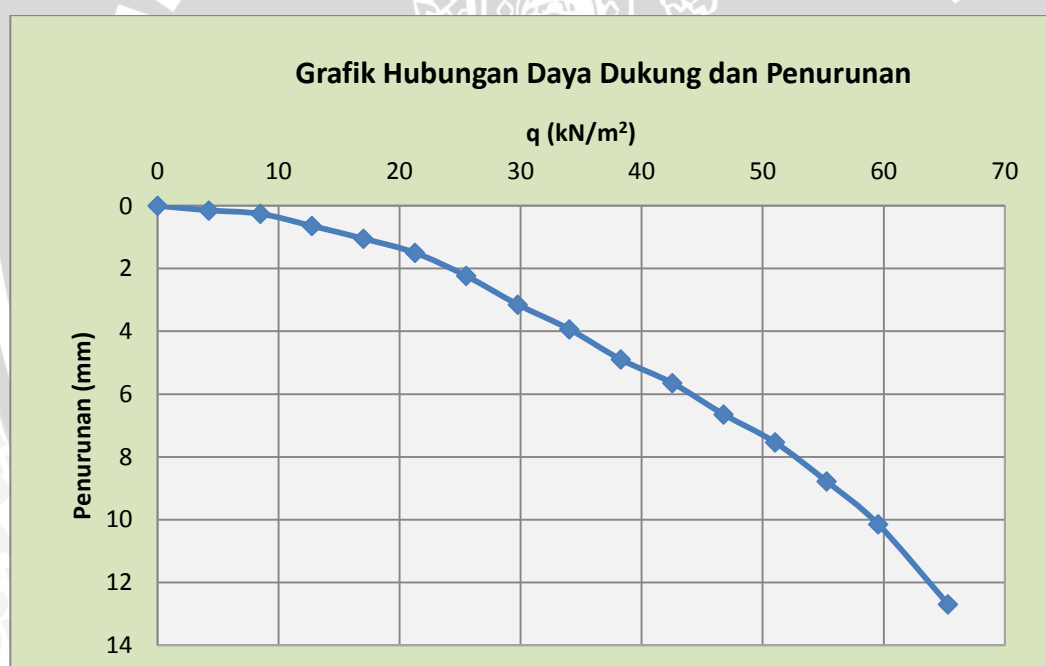
(kg)		(mm)	(%)		
0	4745	0.000	0.000	0.000	0.000
25	4698	0.235	0.392	0.043	4.252
50	4617	0.640	1.067	0.085	8.503
75	4462	1.415	2.358	0.128	12.755
100	4305	2.200	3.667	0.170	17.007
125	4141	3.020	5.033	0.213	21.259
150	3916	4.145	6.908	0.255	25.510
175	3780	4.825	8.042	0.298	29.762
200	3560	5.925	9.875	0.340	34.014
225	3401	6.720	11.200	0.383	38.265
250	3221	7.620	12.700	0.425	42.517
275	3015	8.650	14.417	0.468	46.769
300	2832	9.565	15.942	0.510	51.020
311	2643	10.510	17.517	0.529	52.891



5. Lereng dengan perkuatan $L/H = 0,52$ dan $S_v/H = 0,15$

Beban	LVDT	Penurunan	s/B	q (kg/cm ²)	q (kN/m ²)
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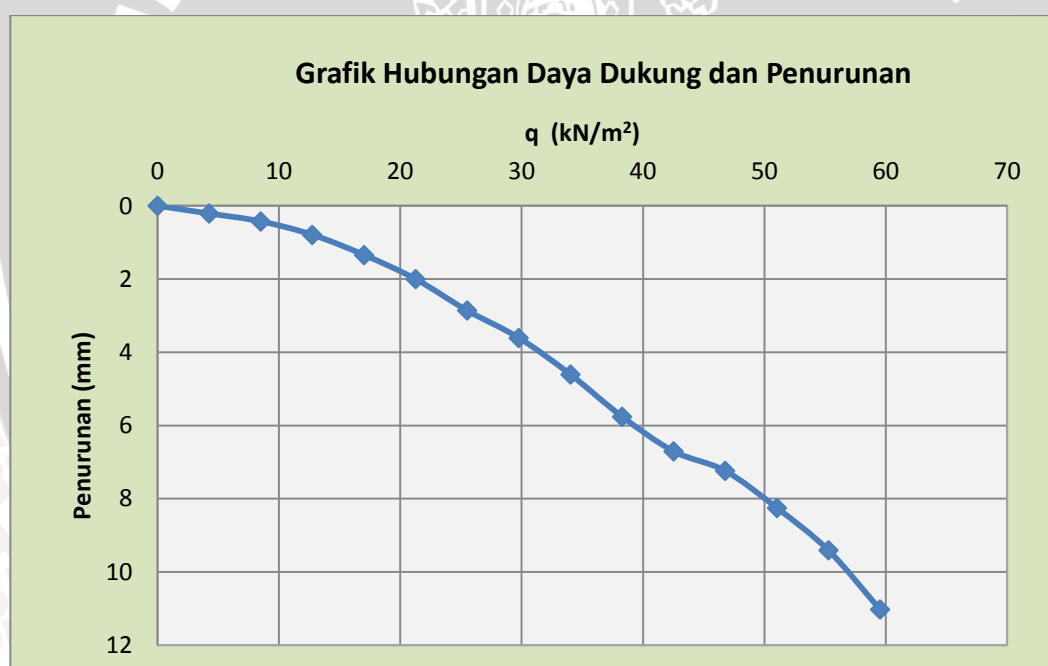
(kg)		(mm)	(%)		
0	5050	0.000	0.000	0.000	0.000
25	5021	0.145	0.242	0.043	4.252
50	4999	0.255	0.425	0.085	8.503
75	4922	0.640	1.067	0.128	12.755
100	4841	1.045	1.742	0.170	17.007
125	4751	1.495	2.492	0.213	21.259
150	4603	2.235	3.725	0.255	25.510
175	4421	3.145	5.242	0.298	29.762
200	4264	3.930	6.550	0.340	34.014
225	4071	4.895	8.158	0.383	38.265
250	3921	5.645	9.408	0.425	42.517
275	3721	6.645	11.075	0.468	46.769
300	3542	7.540	12.567	0.510	51.020
325	3294	8.780	14.633	0.553	55.272
350	3021	10.145	16.908	0.595	59.524
384	2511	12.695	21.158	0.653	65.306



6. Lereng dengan perkuatan L/H = 0,52 dan Sv/H = 0,18

Beban	LVDT	Penurunan	s/B	q (kg/cm ²)	q (kN/m ²)
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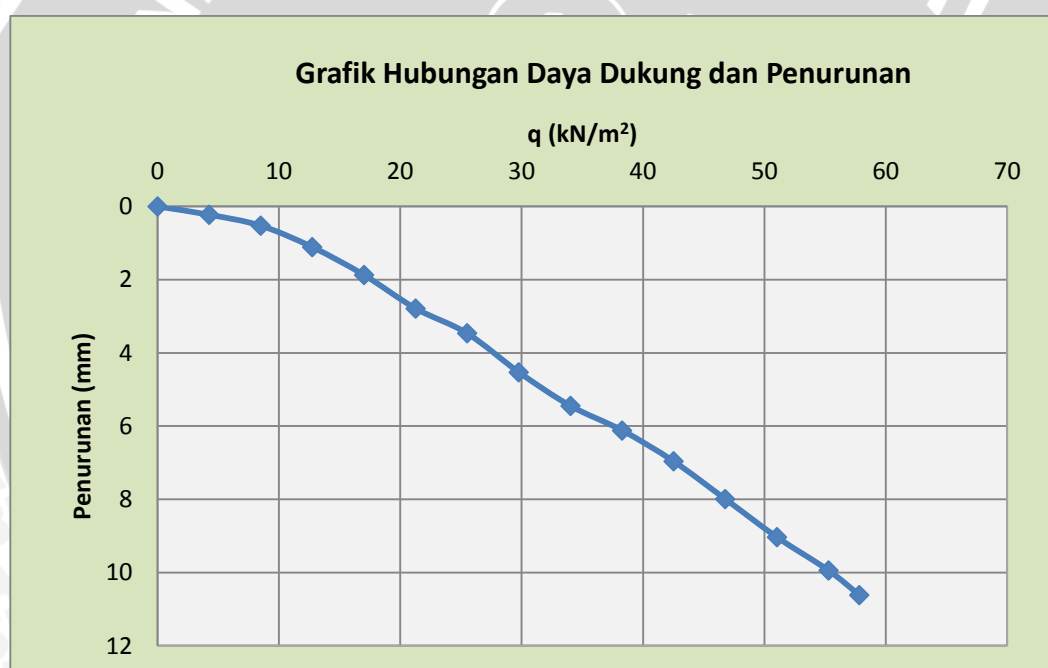
(kg)		(mm)	(%)		
0	4513	0.000	0.000	0.000	0.000
25	4471	0.210	0.350	0.043	4.252
50	4428	0.425	0.708	0.085	8.503
75	4355	0.790	1.317	0.128	12.755
100	4245	1.340	2.233	0.170	17.007
125	4113	2.000	3.333	0.213	21.259
150	3941	2.860	4.767	0.255	25.510
175	3792	3.605	6.008	0.298	29.762
200	3592	4.605	7.675	0.340	34.014
225	3362	5.755	9.592	0.383	38.265
250	3172	6.705	11.175	0.425	42.517
275	3065	7.240	12.067	0.468	46.769
300	2863	8.250	13.750	0.510	51.020
325	2631	9.410	15.683	0.553	55.272
350	2308	11.025	18.375	0.595	59.524
364	2199	11.570	19.283	0.619	61.905



7. Lereng dengan perkuatan L/H = 0,52 dan Sv/H = 0,21

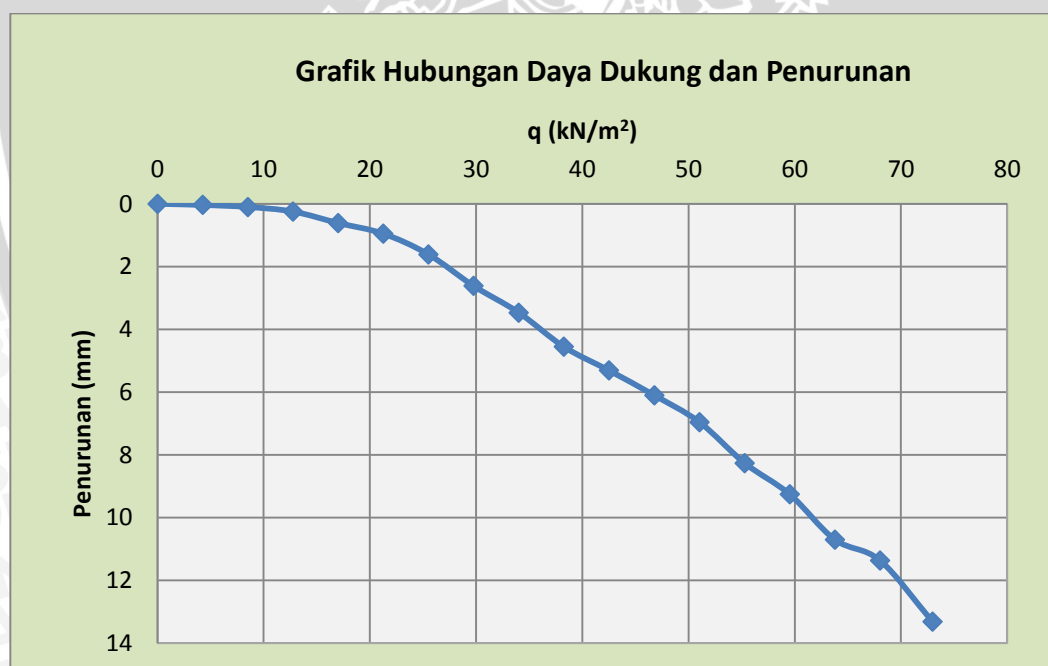
Beban	LVDT	Penurunan	s/B	q (kg/cm ²)	q (kN/m ²)
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(kg)		(mm)	(%)		
0	4310	0.000	0.000	0.000	0.000
25	4265	0.225	0.375	0.043	4.252
50	4205	0.525	0.875	0.085	8.503
75	4088	1.110	1.850	0.128	12.755
100	3936	1.870	3.117	0.170	17.007
125	3753	2.785	4.642	0.213	21.259
150	3617	3.465	5.775	0.255	25.510
175	3405	4.525	7.542	0.298	29.762
200	3221	5.445	9.075	0.340	34.014
225	3087	6.115	10.192	0.383	38.265
250	2918	6.960	11.600	0.425	42.517
275	2712	7.990	13.317	0.468	46.769
300	2504	9.030	15.050	0.510	51.020
325	2322	9.940	16.567	0.553	55.272
340	2187	10.615	17.692	0.578	57.823



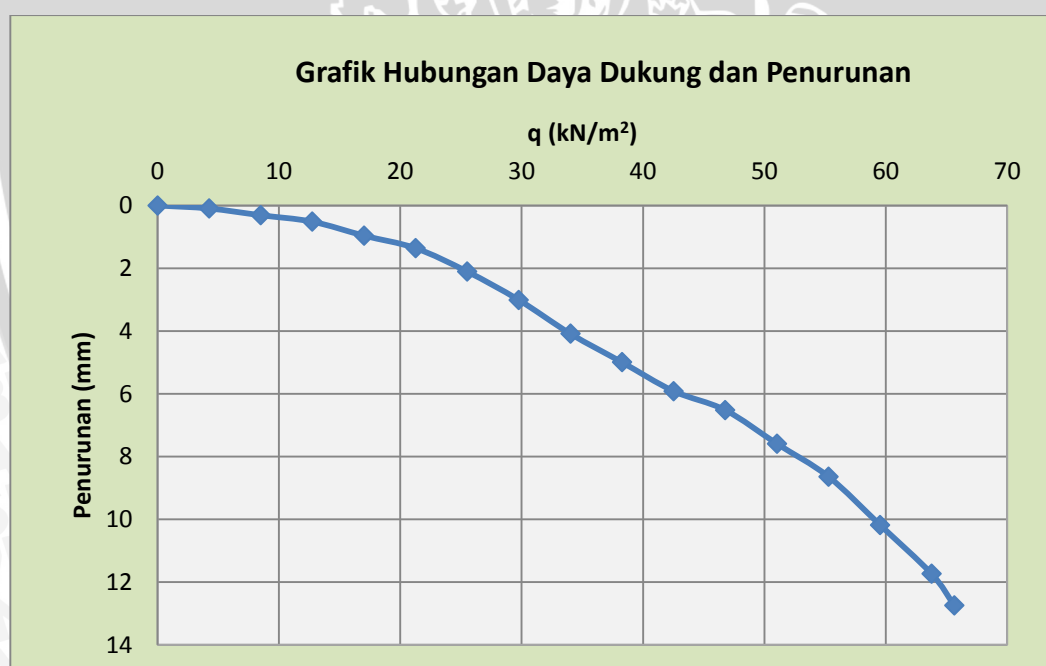
8. Lereng dengan kekuatan $L/H = 0,59$ dan $Sv/H = 0,15$

Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm ²)	q (kN/m ²)
0	4883	0.000	0.000	0.000	0.000
25	4876	0.035	0.058	0.043	4.252
50	4863	0.100	0.167	0.085	8.503
75	4834	0.245	0.408	0.128	12.755
100	4761	0.610	1.017	0.170	17.007
125	4693	0.950	1.583	0.213	21.259
150	4561	1.610	2.683	0.255	25.510
175	4360	2.615	4.358	0.298	29.762
200	4190	3.465	5.775	0.340	34.014
225	3972	4.555	7.592	0.383	38.265
250	3821	5.310	8.850	0.425	42.517
275	3663	6.100	10.167	0.468	46.769
300	3492	6.955	11.592	0.510	51.020
325	3231	8.260	13.767	0.553	55.272
350	3032	9.255	15.425	0.595	59.524
375	2743	10.700	17.833	0.638	63.776
400	2610	11.365	18.942	0.680	68.027
429	2221	13.310	22.183	0.730	72.959



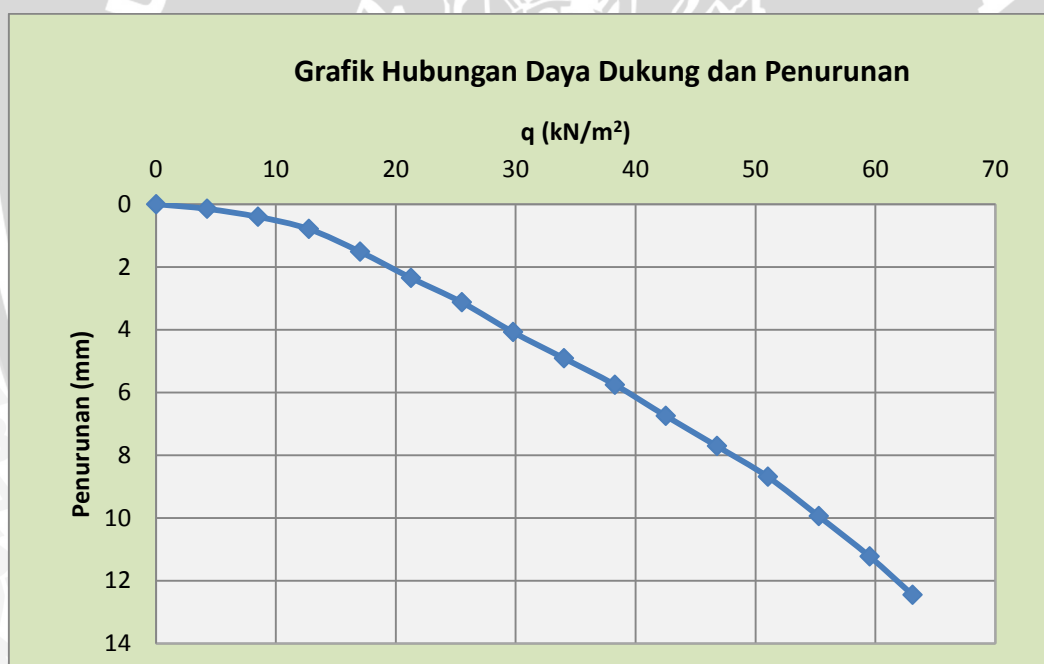
9. Lereng dengan perkuatan $L/H = 0,59$ dan $S_v/H = 0,18$

Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm ²)	q (kN/m ²)
0	5104	0.000	0.000	0.000	0.000
25	5085	0.095	0.158	0.043	4.252
50	5042	0.310	0.517	0.085	8.503
75	5001	0.515	0.858	0.128	12.755
100	4912	0.960	1.600	0.170	17.007
125	4832	1.360	2.267	0.213	21.259
150	4683	2.105	3.508	0.255	25.510
175	4502	3.010	5.017	0.298	29.762
200	4287	4.085	6.808	0.340	34.014
225	4105	4.995	8.325	0.383	38.265
250	3921	5.915	9.858	0.425	42.517
275	3800	6.520	10.867	0.468	46.769
300	3586	7.590	12.650	0.510	51.020
325	3376	8.640	14.400	0.553	55.272
350	3068	10.180	16.967	0.595	59.524
375	2756	11.740	19.567	0.638	63.776
386	2555	12.745	21.242	0.656	65.646



10. Lereng dengan perkuatan $L/H = 0,59$ dan $S_v/H = 0,21$

Beban (kg)	LVDT	Penurunan (mm)	s/B (%)	q (kg/cm ²)	q (kN/m ²)
0	5102	0.000	0.000	0.000	0.000
25	5072	0.150	0.250	0.043	4.252
50	5021	0.405	0.675	0.085	8.503
75	4943	0.795	1.325	0.128	12.755
100	4799	1.515	2.525	0.170	17.007
125	4632	2.350	3.917	0.213	21.259
150	4476	3.130	5.217	0.255	25.510
175	4287	4.075	6.792	0.298	29.762
200	4120	4.910	8.183	0.340	34.014
225	3951	5.755	9.592	0.383	38.265
250	3752	6.750	11.250	0.425	42.517
275	3560	7.710	12.850	0.468	46.769
300	3364	8.690	14.483	0.510	51.020
325	3113	9.945	16.575	0.553	55.272
350	2856	11.230	18.717	0.595	59.524
371	2612	12.450	20.750	0.631	63.095



Perhitungan nilai BCI_(s) dengan Menggunakan Interpolasi Orde Dua

Perhitungan Daya Dukung pada Penurunan s/B: 2%, 4%, 6% dan 7,167%

Daya dukung (q) diperoleh dengan interpolasi orde dua dengan rumus:

$$f(x_0) = b_0 + b_1(x_0 - x_0) + b_2(x_0 - x_0)(x_0 - x_1)$$

$$b_0 = f(x_0)$$

$$b_1 = \frac{f(x_1) - f(x_0)}{x_1 - x_0}$$

$$b_2 = \frac{\frac{f(x_2) - f(x_1)}{x_2 - x_1} - \frac{f(x_1) - f(x_0)}{x_1 - x_0}}{x_2 - x_0}$$

Lereng tanpa perkuatan

s/B (%)	s/B		q		B1	B2	Hasil Interpolasi
2	x ₀	0.725	f(x ₀)	4.252	4.049	- 0.514	9.267
	x ₁	1.775	f(x ₁)	8.503			
	x ₂	3.350	f(x ₂)	12.755			
4	x ₀	1.775	f(x ₀)	8.503	2.699	0.223	14.832
	x ₁	3.350	f(x ₁)	12.755			
	x ₂	4.625	f(x ₂)	17.007			
6	x ₀	4.625	f(x ₀)	17.007	3.335	- 0.625	21.506
	x ₁	5.900	f(x ₁)	21.259			
	x ₂	7.167	f(x ₂)	23.469			

Lereng dengan perkuatan geotekstil dengan variasi panjang

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
2	Sv/H=0.15	L/H=0.45	x ₀	1.233	f(x ₀)	12.755	4.115	-0.418	15.995
			x ₁	2.267	f(x ₁)	17.007			
			x ₂	3.633	f(x ₂)	21.259			
		L/H=0.52	x ₀	1.742	f(x ₀)	17.007	5.669	-1.120	18.614
			x ₁	2.492	f(x ₁)	21.259			
			x ₂	3.725	f(x ₂)	25.510			
		L/H=0.59	x ₀	1.017	f(x ₀)	17.007	7.503	-2.183	23.490
			x ₁	1.583	f(x ₁)	21.259			
			x ₂	2.683	f(x ₂)	25.510			
	Sv/H=0.18	L/H=0.45	x ₀	0.925	f(x ₀)	8.503	4.398	-0.505	13.173
			x ₁	1.892	f(x ₁)	12.755			
			x ₂	3.200	f(x ₂)	17.007			
		L/H=0.52	x ₀	1.317	f(x ₀)	12.755	4.638	-0.383	15.986
			x ₁	2.233	f(x ₁)	17.007			
			x ₂	3.333	f(x ₂)	21.259			
		L/H=0.59	x ₀	0.858	f(x ₀)	12.755	5.733	0.458	19.509
			x ₁	1.600	f(x ₁)	17.007			
			x ₂	2.267	f(x ₂)	21.259			
	Sv/H=0.21	L/H=0.45	x ₀	1.067	f(x ₀)	8.503	3.292	-0.016	11.581
			x ₁	2.358	f(x ₁)	12.755			
			x ₂	3.667	f(x ₂)	17.007			
		L/H=0.52	x ₀	0.875	f(x ₀)	8.503	4.361	-0.448	13.334
			x ₁	1.850	f(x ₁)	12.755			
			x ₂	3.117	f(x ₂)	17.007			
		L/H=0.59	x ₀	1.325	f(x ₀)	12.755	3.543	-0.188	15.213
			x ₁	2.525	f(x ₁)	17.007			
			x ₂	3.917	f(x ₂)	21.259			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
4	Sv/H=0.15	L/H=0.45	x ₀	3.633	f(x ₀)	21.259	3.836	-0.147	22.705
			x ₁	4.742	f(x ₁)	25.510			
			x ₂	5.958	f(x ₂)	29.762			
		L/H=0.52	x ₀	2.492	f(x ₀)	21.259	3.447	-0.234	26.361
			x ₁	3.725	f(x ₁)	25.510			
			x ₂	5.242	f(x ₂)	29.762			
		L/H=0.59	x ₀	2.683	f(x ₀)	25.510	2.538	0.150	28.782
			x ₁	4.358	f(x ₁)	29.762			
			x ₂	5.775	f(x ₂)	34.014			
	Sv/H=0.18	L/H=0.45	x ₀	3.200	f(x ₀)	17.007	3.925	-0.417	20.241
			x ₁	4.283	f(x ₁)	21.259			
			x ₂	5.775	f(x ₂)	25.510			
		L/H=0.52	x ₀	3.333	f(x ₀)	21.259	2.966	0.171	23.149
			x ₁	4.767	f(x ₁)	25.510			
			x ₂	6.008	f(x ₂)	29.762			
		L/H=0.59	x ₀	2.267	f(x ₀)	21.259	3.424	-0.220	27.006
			x ₁	3.508	f(x ₁)	25.510			
			x ₂	5.017	f(x ₂)	29.762			
	Sv/H=0.21	L/H=0.45	x ₀	2.358	f(x ₀)	12.755	3.250	-0.052	18.062
			x ₁	3.667	f(x ₁)	17.007			
			x ₂	5.033	f(x ₂)	21.259			
		L/H=0.52	x ₀	3.117	f(x ₀)	17.007	2.788	0.362	19.264
			x ₁	4.642	f(x ₁)	21.259			
			x ₂	5.775	f(x ₂)	25.510			
		L/H=0.59	x ₀	3.917	f(x ₀)	21.259	3.271	-0.199	21.551
			x ₁	5.217	f(x ₁)	25.510			
			x ₂	6.792	f(x ₂)	29.762			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
6	Sv/H=0.15	L/H=0.45	x ₀	4.742	f(x ₀)	25.510	3.495	-0.134	29.900
			x ₁	5.958	f(x ₁)	29.762			
			x ₂	7.308	f(x ₂)	34.014			
		L/H=0.52	x ₀	3.725	f(x ₀)	25.510	2.803	0.158	32.160
			x ₁	5.242	f(x ₁)	29.762			
			x ₂	6.550	f(x ₂)	34.014			
		L/H=0.59	x ₀	4.358	f(x ₀)	29.762	3.001	-0.204	34.613
			x ₁	5.775	f(x ₁)	34.014			
			x ₂	7.592	f(x ₂)	38.265			
	Sv/H=0.18	L/H=0.45	x ₀	4.283	f(x ₀)	21.259	2.850	0.392	26.303
			x ₁	5.775	f(x ₁)	25.510			
			x ₂	6.875	f(x ₂)	29.762			
		L/H=0.52	x ₀	4.767	f(x ₀)	25.510	3.424	-0.300	29.736
			x ₁	6.008	f(x ₁)	29.762			
			x ₂	7.675	f(x ₂)	34.014			
		L/H=0.59	x ₀	5.017	f(x ₀)	29.762	2.373	0.130	31.992
			x ₁	6.808	f(x ₁)	34.014			
			x ₂	8.325	f(x ₂)	38.265			
	Sv/H=0.21	L/H=0.45	x ₀	5.033	f(x ₀)	21.259	2.268	0.493	23.017
			x ₁	6.908	f(x ₁)	25.510			
			x ₂	8.042	f(x ₂)	29.762			
		L/H=0.52	x ₀	4.642	f(x ₀)	21.259	3.752	-0.464	26.213
			x ₁	5.775	f(x ₁)	25.510			
			x ₂	7.542	f(x ₂)	29.762			
		L/H=0.59	x ₀	5.217	f(x ₀)	25.510	2.699	0.120	27.550
			x ₁	6.792	f(x ₁)	29.762			
			x ₂	8.183	f(x ₂)	34.014			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
7.167	Sv/H=0.15	L/H=0.45	x ₀	5.958	f(x ₀)	29.762	3.149	-0.216	33.605
			x ₁	7.308	f(x ₁)	34.014			
			x ₂	9.017	f(x ₂)	38.265			
		L/H=0.52	x ₀	5.242	f(x ₀)	29.762	3.250	-0.208	35.772
			x ₁	6.550	f(x ₁)	34.014			
			x ₂	8.158	f(x ₂)	38.265			
		L/H=0.59	x ₀	5.775	f(x ₀)	34.014	2.340	0.338	37.072
			x ₁	7.592	f(x ₁)	38.265			
			x ₂	8.850	f(x ₂)	42.517			
	Sv/H=0.18	L/H=0.45	x ₀	5.775	f(x ₀)	25.510	3.865	-0.481	30.695
			x ₁	6.875	f(x ₁)	29.762			
			x ₂	8.558	f(x ₂)	34.014			
		L/H=0.52	x ₀	6.008	f(x ₀)	29.762	2.551	-0.093	32.772
			x ₁	7.675	f(x ₁)	34.014			
			x ₂	9.592	f(x ₂)	38.265			
		L/H=0.59	x ₀	5.017	f(x ₀)	29.762	2.373	0.130	34.965
			x ₁	6.808	f(x ₁)	34.014			
			x ₂	8.325	f(x ₂)	38.265			
	Sv/H=0.21	L/H=0.45	x ₀	6.908	f(x ₀)	25.510	3.752	-0.483	26.590
			x ₁	8.042	f(x ₁)	29.762			
			x ₂	9.875	f(x ₂)	34.014			
		L/H=0.52	x ₀	5.775	f(x ₀)	25.510	2.407	0.111	28.802
			x ₁	7.542	f(x ₁)	29.762			
			x ₂	9.075	f(x ₂)	34.014			
		L/H=0.59	x ₀	5.217	f(x ₀)	25.510	2.699	0.120	30.863
			x ₁	6.792	f(x ₁)	29.762			
			x ₂	8.183	f(x ₂)	34.014			

Lereng dengan perkuatan geotekstil dengan variasi jarak vertikal antarlapis

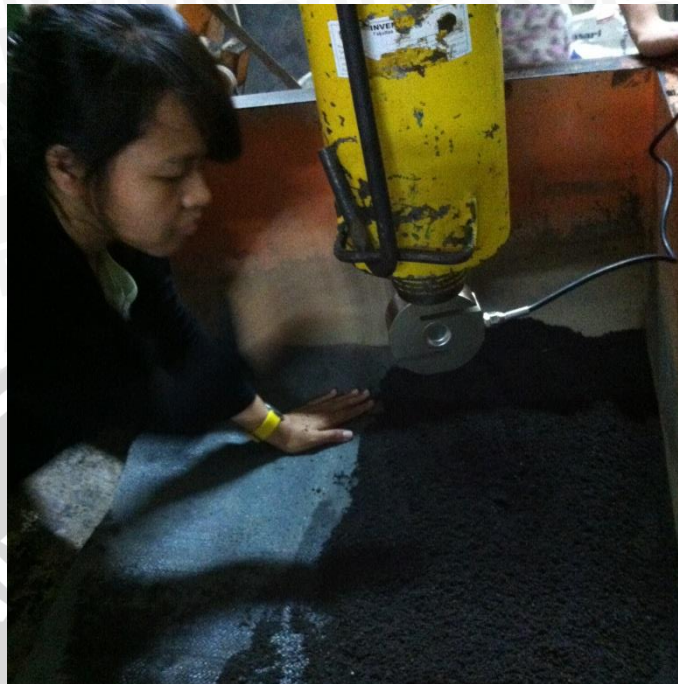
s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
2	L/H=0.45	Sv/H=0.15	x ₀	1.233	f(x ₀)	12.755	4.115	-0.418	15.995
			x ₁	2.267	f(x ₁)	17.007			
			x ₂	3.633	f(x ₂)	21.259			
		Sv/H=0.18	x ₀	0.925	f(x ₀)	8.503	4.398	-0.505	13.173
			x ₁	1.892	f(x ₁)	12.755			
			x ₂	3.200	f(x ₂)	17.007			
		Sv/H=0.21	x ₀	1.067	f(x ₀)	8.503	3.292	-0.016	11.581
			x ₁	2.358	f(x ₁)	12.755			
			x ₂	3.667	f(x ₂)	17.007			
	L/H=0.52	Sv/H=0.15	x ₀	1.742	f(x ₀)	17.007	5.669	-1.120	18.614
			x ₁	2.492	f(x ₁)	21.259			
			x ₂	3.725	f(x ₂)	25.510			
		Sv/H=0.18	x ₀	1.317	f(x ₀)	12.755	4.638	-0.383	15.986
			x ₁	2.233	f(x ₁)	17.007			
			x ₂	3.333	f(x ₂)	21.259			
		Sv/H=0.21	x ₀	0.875	f(x ₀)	8.503	4.361	-0.448	13.334
			x ₁	1.850	f(x ₁)	12.755			
			x ₂	3.117	f(x ₂)	17.007			
	L/H=0.59	Sv/H=0.15	x ₀	1.017	f(x ₀)	17.007	7.503	-2.183	23.490
			x ₁	1.583	f(x ₁)	21.259			
			x ₂	2.683	f(x ₂)	25.510			
		Sv/H=0.18	x ₀	0.858	f(x ₀)	12.755	5.733	0.458	19.509
			x ₁	1.600	f(x ₁)	17.007			
			x ₂	2.267	f(x ₂)	21.259			
		Sv/H=0.21	x ₀	1.325	f(x ₀)	12.755	3.543	-0.188	15.213
			x ₁	2.525	f(x ₁)	17.007			
			x ₂	3.917	f(x ₂)	21.259			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
4	L/H=0.45	Sv/H=0.15	x ₀	3.633	f(x ₀)	21.259	3.836	-0.147	22.705
			x ₁	4.742	f(x ₁)	25.510			
			x ₂	5.958	f(x ₂)	29.762			
		Sv/H=0.18	x ₀	3.200	f(x ₀)	17.007	3.925	-0.417	20.241
			x ₁	4.283	f(x ₁)	21.259			
			x ₂	5.775	f(x ₂)	25.510			
		Sv/H=0.21	x ₀	2.358	f(x ₀)	12.755	3.250	-0.052	18.062
			x ₁	3.667	f(x ₁)	17.007			
			x ₂	5.033	f(x ₂)	21.259			
	L/H=0.52	Sv/H=0.15	x ₀	2.492	f(x ₀)	21.259	3.447	-0.234	26.361
			x ₁	3.725	f(x ₁)	25.510			
			x ₂	5.242	f(x ₂)	29.762			
		Sv/H=0.18	x ₀	3.333	f(x ₀)	21.259	2.966	0.171	23.149
			x ₁	4.767	f(x ₁)	25.510			
			x ₂	6.008	f(x ₂)	29.762			
		Sv/H=0.21	x ₀	3.117	f(x ₀)	17.007	2.788	0.362	19.264
			x ₁	4.642	f(x ₁)	21.259			
			x ₂	5.775	f(x ₂)	25.510			
	L/H=0.59	Sv/H=0.15	x ₀	2.683	f(x ₀)	25.510	2.538	0.150	28.782
			x ₁	4.358	f(x ₁)	29.762			
			x ₂	5.775	f(x ₂)	34.014			
		Sv/H=0.18	x ₀	2.267	f(x ₀)	21.259	3.424	-0.220	27.006
			x ₁	3.508	f(x ₁)	25.510			
			x ₂	5.017	f(x ₂)	29.762			
		Sv/H=0.21	x ₀	3.917	f(x ₀)	21.259	3.271	-0.199	21.551
			x ₁	5.217	f(x ₁)	25.510			
			x ₂	6.792	f(x ₂)	29.762			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
6	L/H=0.45	Sv/H=0.15	x ₀	4.742	f(x ₀)	25.510	3.495	-0.134	29.900
			x ₁	5.958	f(x ₁)	29.762			
			x ₂	7.308	f(x ₂)	34.014			
		Sv/H=0.18	x ₀	4.283	f(x ₀)	21.259	2.850	0.392	26.303
			x ₁	5.775	f(x ₁)	25.510			
			x ₂	6.875	f(x ₂)	29.762			
		Sv/H=0.21	x ₀	5.033	f(x ₀)	21.259	2.268	0.493	23.017
			x ₁	6.908	f(x ₁)	25.510			
			x ₂	8.042	f(x ₂)	29.762			
	L/H=0.52	Sv/H=0.15	x ₀	3.725	f(x ₀)	25.510	2.803	0.158	32.160
			x ₁	5.242	f(x ₁)	29.762			
			x ₂	6.550	f(x ₂)	34.014			
		Sv/H=0.18	x ₀	4.767	f(x ₀)	25.510	3.424	-0.300	29.736
			x ₁	6.008	f(x ₁)	29.762			
			x ₂	7.675	f(x ₂)	34.014			
		Sv/H=0.21	x ₀	4.642	f(x ₀)	21.259	3.752	-0.464	26.213
			x ₁	5.775	f(x ₁)	25.510			
			x ₂	7.542	f(x ₂)	29.762			
	L/H=0.59	Sv/H=0.15	x ₀	4.358	f(x ₀)	29.762	3.001	-0.204	34.613
			x ₁	5.775	f(x ₁)	34.014			
			x ₂	7.592	f(x ₂)	38.265			
		Sv/H=0.18	x ₀	5.017	f(x ₀)	29.762	2.373	0.130	31.992
			x ₁	6.808	f(x ₁)	34.014			
			x ₂	8.325	f(x ₂)	38.265			
		Sv/H=0.21	x ₀	5.217	f(x ₀)	25.510	2.699	0.120	27.550
			x ₁	6.792	f(x ₁)	29.762			
			x ₂	8.183	f(x ₂)	34.014			

s/B(%)	Jarak Vertikal	Panjang	data s/B (%)		q (kN/m ²)		B1	B2	Hasil Interpolasi
7.167	L/H=0.45	Sv/H=0.15	x ₀	5.958	f(x ₀)	29.762	3.149	-0.216	33.605
			x ₁	7.308	f(x ₁)	34.014			
			x ₂	9.017	f(x ₂)	38.265			
		Sv/H=0.18	x ₀	5.775	f(x ₀)	25.510	3.865	-0.481	30.695
			x ₁	6.875	f(x ₁)	29.762			
			x ₂	8.558	f(x ₂)	34.014			
		Sv/H=0.21	x ₀	6.908	f(x ₀)	25.510	3.752	-0.483	26.590
			x ₁	8.042	f(x ₁)	29.762			
			x ₂	9.875	f(x ₂)	34.014			
	L/H=0.52	Sv/H=0.15	x ₀	5.242	f(x ₀)	29.762	3.250	-0.208	35.772
			x ₁	6.550	f(x ₁)	34.014			
			x ₂	8.158	f(x ₂)	38.265			
		Sv/H=0.18	x ₀	6.008	f(x ₀)	29.762	2.551	-0.093	32.772
			x ₁	7.675	f(x ₁)	34.014			
			x ₂	9.592	f(x ₂)	38.265			
		Sv/H=0.21	x ₀	5.775	f(x ₀)	25.510	2.407	0.111	28.802
			x ₁	7.542	f(x ₁)	29.762			
			x ₂	9.075	f(x ₂)	34.014			
	L/H=0.59	Sv/H=0.15	x ₀	5.775	f(x ₀)	34.014	2.340	0.338	37.072
			x ₁	7.592	f(x ₁)	38.265			
			x ₂	8.850	f(x ₂)	42.517			
		Sv/H=0.18	x ₀	5.017	f(x ₀)	29.762	2.373	0.130	34.965
			x ₁	6.808	f(x ₁)	34.014			
			x ₂	8.325	f(x ₂)	38.265			
		Sv/H=0.21	x ₀	5.217	f(x ₀)	25.510	2.699	0.120	30.863
			x ₁	6.792	f(x ₁)	29.762			
			x ₂	8.183	f(x ₂)	34.014			

Lampiran 11
Dokumentasi Penelitian



(1)



(2)

(1) dan (2) Pemasangan geotekstil



(3) Pemadatan



(4)



(5)

(4) dan (5): Model pembebanan lereng



(6) Tampak samping model lereng