

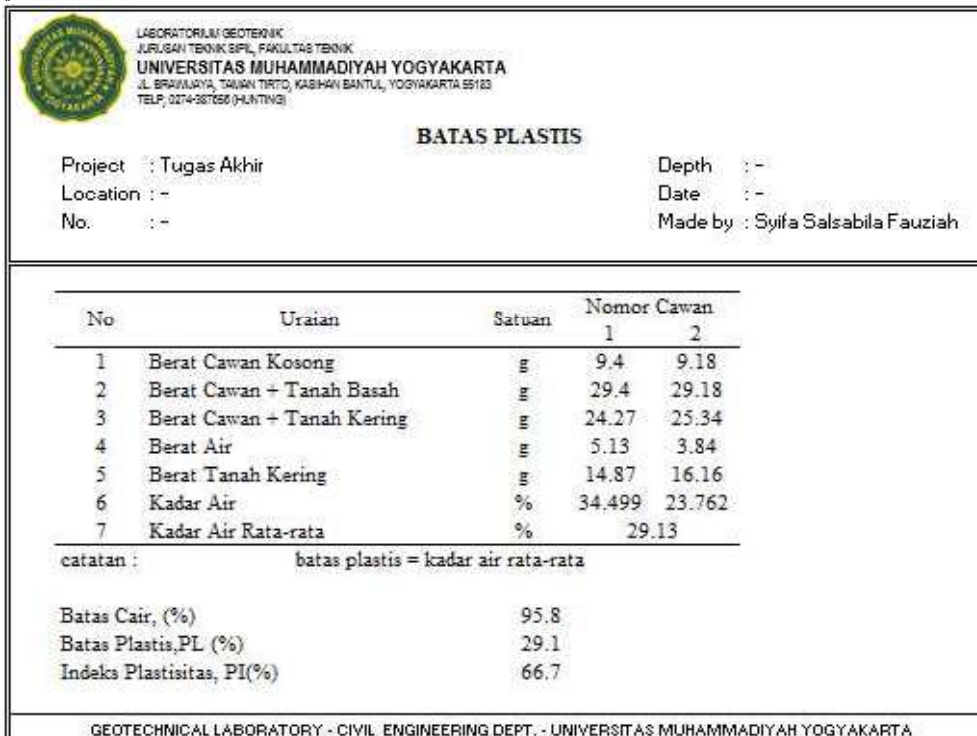
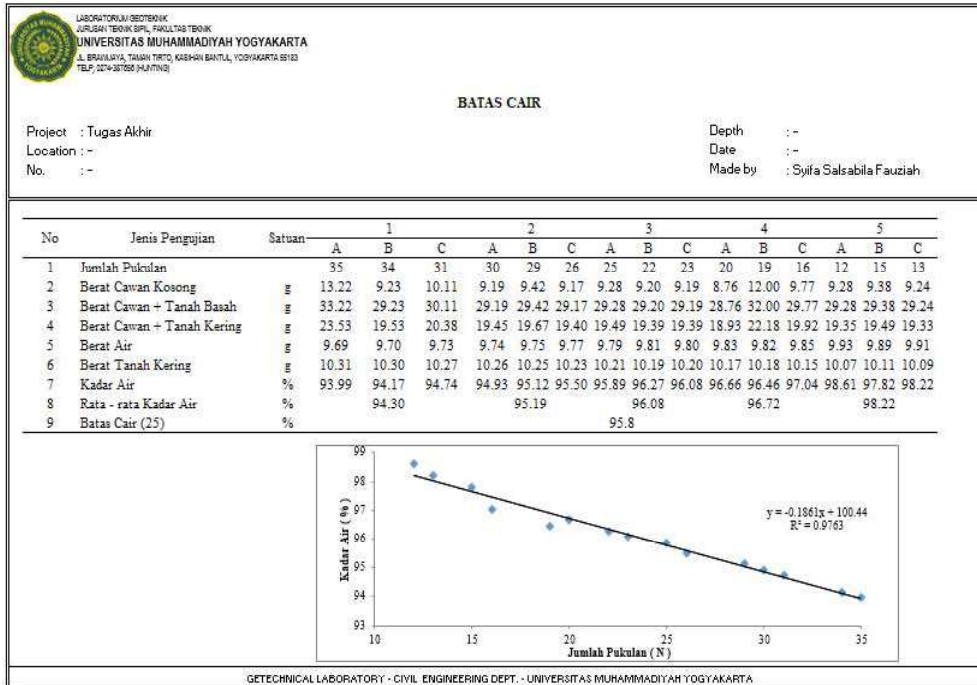



LAMPIRAN

Lampiran 1. *Index Properties* Tanah

	<p style="font-size: small;">LABORATORIUM GEOTEKNIK JURUSAN TEKNIK SIPIL, FAKULTAS TEKNIK UNIVERSITAS MUHAMMADIYAH YOGYAKARTA JL. BRAWIJAYA, TAMAN TIRTO, KASIHAN BANTUL, YOGYAKARTA 55183 TELP: 0274-387656 (HUNTING)</p> <p style="text-align: center;">KADAR AIR</p> <p>Project : Tugas Akhir Depth :- Location :- Date :- No. :- Made by : Syifa Salsabila Fauziah</p>																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">No.</th> <th rowspan="2">Uraian</th> <th rowspan="2">Satuan</th> <th colspan="3">Benda Uji</th> </tr> <tr> <th>A1</th> <th>A2</th> <th>A3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Berat Cawan Kosong</td> <td>g</td> <td>9.41</td> <td>9.19</td> <td>9.45</td> </tr> <tr> <td>2</td> <td>Berat Cawan + Tanah Basah</td> <td>g</td> <td>29.41</td> <td>29.19</td> <td>29.45</td> </tr> <tr> <td>3</td> <td>Berat Cawan + Tanah Kering</td> <td>g</td> <td>26.7</td> <td>26.53</td> <td>26.84</td> </tr> <tr> <td>4</td> <td>Berat Air</td> <td>g</td> <td>2.71</td> <td>2.66</td> <td>2.61</td> </tr> <tr> <td>5</td> <td>Berat Tanah Kering</td> <td>g</td> <td>17.29</td> <td>17.34</td> <td>17.39</td> </tr> <tr> <td>6</td> <td>Kadar Air</td> <td>%</td> <td>15.7</td> <td>15.3</td> <td>15.0</td> </tr> <tr> <td>7</td> <td>Kadar Air rata-rata</td> <td>%</td> <td></td> <td>15.3</td> <td></td> </tr> </tbody> </table>		No.	Uraian	Satuan	Benda Uji			A1	A2	A3	1	Berat Cawan Kosong	g	9.41	9.19	9.45	2	Berat Cawan + Tanah Basah	g	29.41	29.19	29.45	3	Berat Cawan + Tanah Kering	g	26.7	26.53	26.84	4	Berat Air	g	2.71	2.66	2.61	5	Berat Tanah Kering	g	17.29	17.34	17.39	6	Kadar Air	%	15.7	15.3	15.0	7	Kadar Air rata-rata	%		15.3																
No.	Uraian				Satuan	Benda Uji																																																													
		A1	A2	A3																																																															
1	Berat Cawan Kosong	g	9.41	9.19	9.45																																																														
2	Berat Cawan + Tanah Basah	g	29.41	29.19	29.45																																																														
3	Berat Cawan + Tanah Kering	g	26.7	26.53	26.84																																																														
4	Berat Air	g	2.71	2.66	2.61																																																														
5	Berat Tanah Kering	g	17.29	17.34	17.39																																																														
6	Kadar Air	%	15.7	15.3	15.0																																																														
7	Kadar Air rata-rata	%		15.3																																																															
GEOTECHNICAL LABORATORY - CIVIL ENGINEERING DEPT. - UNIVERSITAS MUHAMMADIYAH YOGYAKARTA																																																																			
	<p style="font-size: small;">LABORATORIUM GEOTEKNIK JURUSAN TEKNIK SIPIL, FAKULTAS TEKNIK UNIVERSITAS MUHAMMADIYAH YOGYAKARTA JL. BRAWIJAYA, TAMAN TIRTO, KASIHAN BANTUL, YOGYAKARTA 55183 TELP: 0274-387656 (HUNTING)</p> <p style="text-align: center;">BERAT JENIS</p> <p>Project : Tugas Akhir Depth :- Location :- Date :- No. :- Made by : Syifa Salsabila Fauziah</p>																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">No.</th> <th rowspan="2">Uraian</th> <th rowspan="2">Satuan</th> <th>A1</th> <th>A2</th> <th>A3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Berat Piknometer kosong</td> <td>g</td> <td>25.79</td> <td>22.86</td> <td>27.36</td> </tr> <tr> <td>2</td> <td>Berat Piknometer + tanah kering</td> <td>g</td> <td>35.79</td> <td>32.86</td> <td>37.36</td> </tr> <tr> <td>3</td> <td>Berat Piknometer + tanah + air</td> <td>g</td> <td>82.28</td> <td>79.43</td> <td>83.38</td> </tr> <tr> <td>4</td> <td>Temperatur</td> <td>C</td> <td>27.6</td> <td>27.5</td> <td>27.7</td> </tr> <tr> <td>5</td> <td>Berat Volume Air</td> <td>g/ml</td> <td>0.99625</td> <td>0.99638</td> <td>0.99632</td> </tr> <tr> <td>6</td> <td>Berat Piknometer + air</td> <td>g</td> <td>76.0008</td> <td>73.1664</td> <td>77.0945</td> </tr> <tr> <td>7</td> <td>Berat Jenis, G_s.t</td> <td></td> <td>2.69</td> <td>2.68</td> <td>2.69</td> </tr> <tr> <td>8</td> <td>Rata-rata berat jenis</td> <td></td> <td></td> <td>2.69</td> <td></td> </tr> <tr> <td>9</td> <td>Berat Jenis pada T=20°C. G_s</td> <td></td> <td></td> <td>2.69</td> <td></td> </tr> <tr> <td>10</td> <td>Berat Jenis Rata-rata, G_S</td> <td></td> <td></td> <td>2.69</td> <td></td> </tr> </tbody> </table>		No.	Uraian	Satuan	A1	A2	A3	1	Berat Piknometer kosong	g	25.79	22.86	27.36	2	Berat Piknometer + tanah kering	g	35.79	32.86	37.36	3	Berat Piknometer + tanah + air	g	82.28	79.43	83.38	4	Temperatur	C	27.6	27.5	27.7	5	Berat Volume Air	g/ml	0.99625	0.99638	0.99632	6	Berat Piknometer + air	g	76.0008	73.1664	77.0945	7	Berat Jenis, G _s .t		2.69	2.68	2.69	8	Rata-rata berat jenis			2.69		9	Berat Jenis pada T=20°C. G _s			2.69		10	Berat Jenis Rata-rata, G _S			2.69	
No.	Uraian				Satuan	A1	A2	A3																																																											
		1	Berat Piknometer kosong	g		25.79	22.86	27.36																																																											
2	Berat Piknometer + tanah kering	g	35.79	32.86	37.36																																																														
3	Berat Piknometer + tanah + air	g	82.28	79.43	83.38																																																														
4	Temperatur	C	27.6	27.5	27.7																																																														
5	Berat Volume Air	g/ml	0.99625	0.99638	0.99632																																																														
6	Berat Piknometer + air	g	76.0008	73.1664	77.0945																																																														
7	Berat Jenis, G _s .t		2.69	2.68	2.69																																																														
8	Rata-rata berat jenis			2.69																																																															
9	Berat Jenis pada T=20°C. G _s			2.69																																																															
10	Berat Jenis Rata-rata, G _S			2.69																																																															
GEOTECHNICAL LABORATORY - CIVIL ENGINEERING DEPT. - UNIVERSITAS MUHAMMADIYAH YOGYAKARTA																																																																			



	LABORATORIUM GEOTEKNIK JURUSAN TEKNIK SIPIL, FAKULTAS TEKNIK UNIVERSITAS MUHAMMADIYAH YOGYAKARTA J.L. BRANJAJA, TAMAN TIRTO, KASIHAN BANTUL, YOGYAKARTA 55183 TELP. 0274-357550 (HUNTING)	
	BATAS SUSUT	
Project : Tugas Akhir	Depth : -	
Location : -	Date : -	
No. : -	Made by : Syifa Salsabila Fauziah	

No.	Uraian	Satuan	Nomor Cawan	
			A1	A2
1	Berat Cawan Susut	g	11.11	10.14
2	Berat Cawan Susut + Pasta Tanah	g	41.49	42.45
3	Berat Cawan Susut + Tanah Kering	g	33.21	33.03
4	Berat Tanah Kering	g	22.1	22.89
5	Kadar Air Tanah Awal	%	37.47	41.15
6	Berat Tanah Kering + Lilin	g	22.67	22.48
7	Berat Tanah Kering + Lilin Dalam Air	g	7.47	7.17
8	Berat Air Yang Didesak Oleh Tanah Kering + Lilin	g	15.2	15.31
9	Volume Tanah Kering + Lilin	cm ³	15.2	15.31
10	Berat Lapisan Lilin Pada Tanah Kering	g	0.57	-0.41
11	Volume Lapisan Lilin Pada Tanah Kering	cm ³	0.4021	-0.289
12	Volume Tanah Kering	cm ³	14.80	15.599
13	Batas Susut Tanah	%	6.8	15
14	Batas Susut Tanah Rata-rata	%	10.9	

GEOTECHNICAL LABORATORY - CIVIL ENGINEERING DEPT. - UNIVERSITAS MUHAMMADIYAH YOGYAKARTA



LABORATORIUM GEOTEKNIK
JURUSAN TEKNIK SIPIL, FAKULTAS TEKNIK
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA
JL. LINGKAR LUAR SELATAN, TAMAN TIRTO, KASIHAN BANTUL, YOGYAKARTA 55183
TELP. 0274-387656 (HUNTING)

GRAIN SIZE ANALYSIS

Project : Tugas Akhir
Location : -
Test/Boring no. : -
Depth : -
Date : -
Made by : Syifa Salsabila Fauziah

Mass of soil, W = **65** gr
Specific Gravity, G_s = 2,69
K₂ = a/W x 100 : 1,526
Dispersing agent _____
Hydrometer no. = 152 H
Hydr. correction, a = 0,99
Meniscus correction, m = 1,0
Amount _____

Sieve No.	Opening (mm)	Mass retained (gr)	Mass passing (gr)	% finer by mass e/W x 100%
4	4,750	d ₁ = 0,00	e ₁ = 65,00	100,00
10	2,000	d ₂ = 0,00	e ₂ = 65,00	100,00
20	0,850	d ₃ = 0,89	e ₃ = 64,11	98,63
40	0,425	d ₄ = 1,81	e ₄ = 62,30	95,85
60	0,250	d ₅ = 1,08	e ₅ = 61,22	94,18
140	0,106	d ₆ = 2,23	e ₆ = 58,99	90,75
200	0,074	d ₇ = 0,72	e ₇ = 58,27	89,65
		Σd = 6,7		

Time	Elapsed time min.	R ₁	R ₂	t	R' = R ₁ + m	L	K	D = K * L / T	R = R' - R ₂ + Ct	P = K ₂ * R %
	2	17	-1	30,1	18,0	18,37	0,0120	0,036	22,9	34,93
	5	15	-1	30	16,0	17,73	0,0120	0,023	20,8	31,74
	30	13	-1	29,9	14,0	17,31	0,0120	0,009	18,8	28,65
	60	12	-1	30,3	13,0	17,09	0,0120	0,006	18,1	27,55
	250	9	-1	29,9	10,0	16,46	0,0120	0,003	14,8	22,54
	1440	4	-1	30,1	5,0	15,39	0,0120	0,001	9,9	15,09

NOTE :



LABORATORIUM GEOTEKNIK
 JURUSAN TEKNIK SIPIL, FAKULTAS TEKNIK
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA
 JL. LINGKAR LUAR SELATAN, TAMAN TIRTO, KASIHAN BANTUL, YOGYAKARTA 55183
 TELP. 0274-387656 (HUNTING)

GRAIN SIZE ANALYSIS

Project : Tugas Akhir
 Location : -
 No. : -

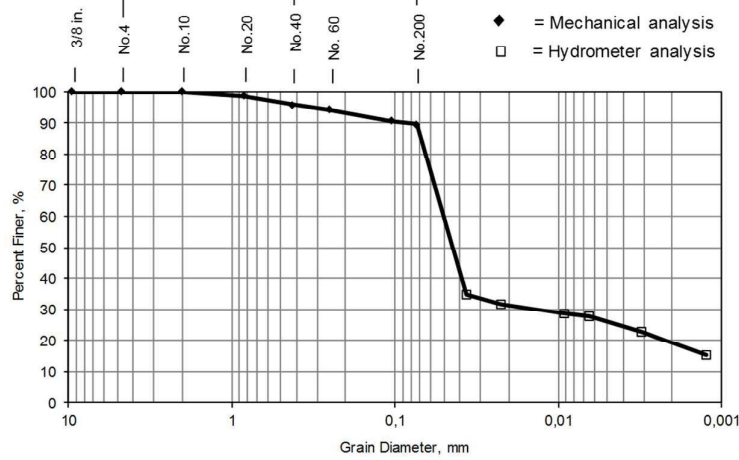
Depth : -
 Date : -
 Made by : Syifa Salsabila Fauziah

Specific Gravity 2,69

Description of soil _____

Gravel	Sand		Fines
	Coarse to medium	Fine	

U.S. standard sieve sizes

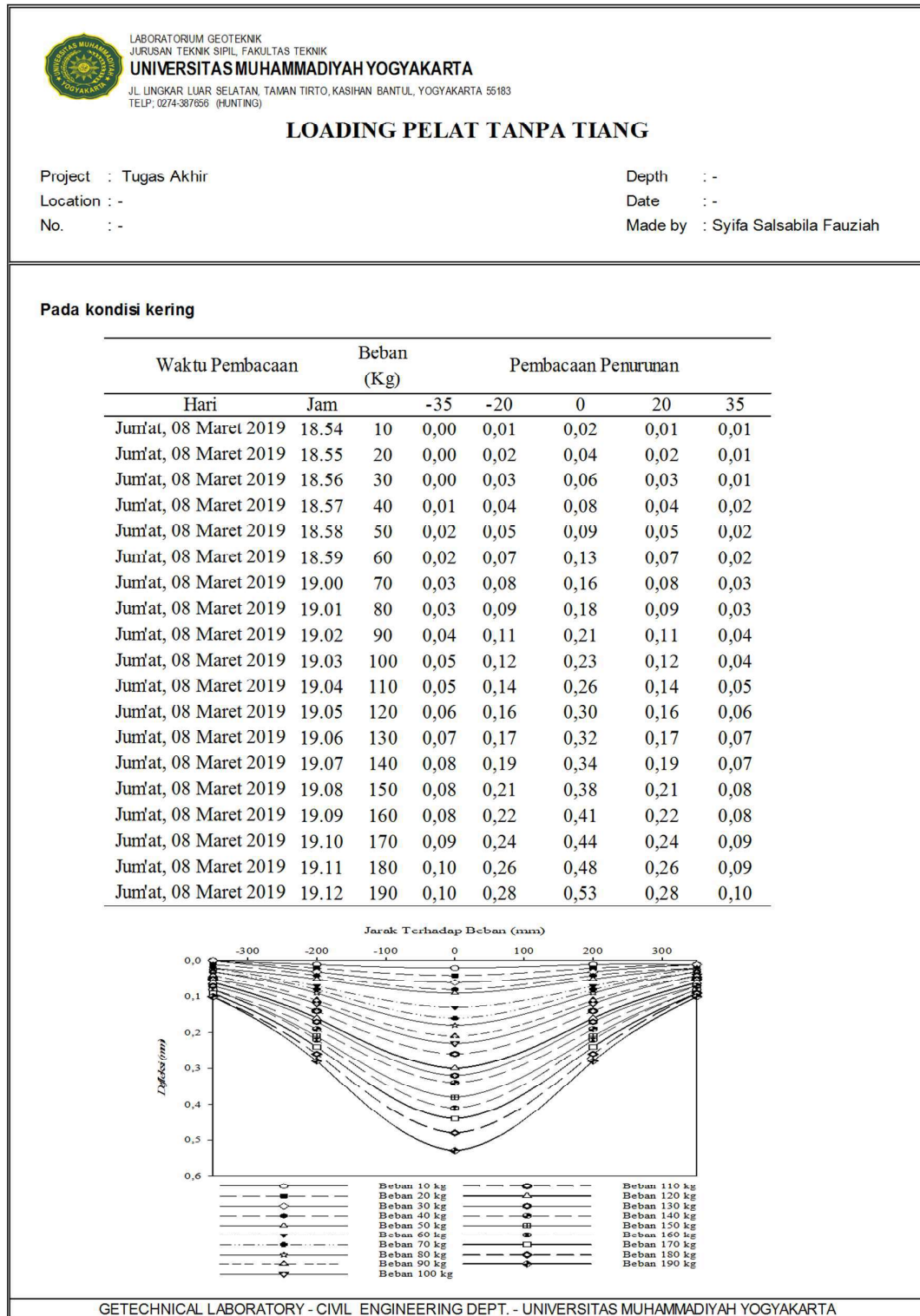


Finer # 200 = 89,65 %
 Gravel = 0,00 %
 Sand = 10,35 %
 Silt/Clay = 89,65 %

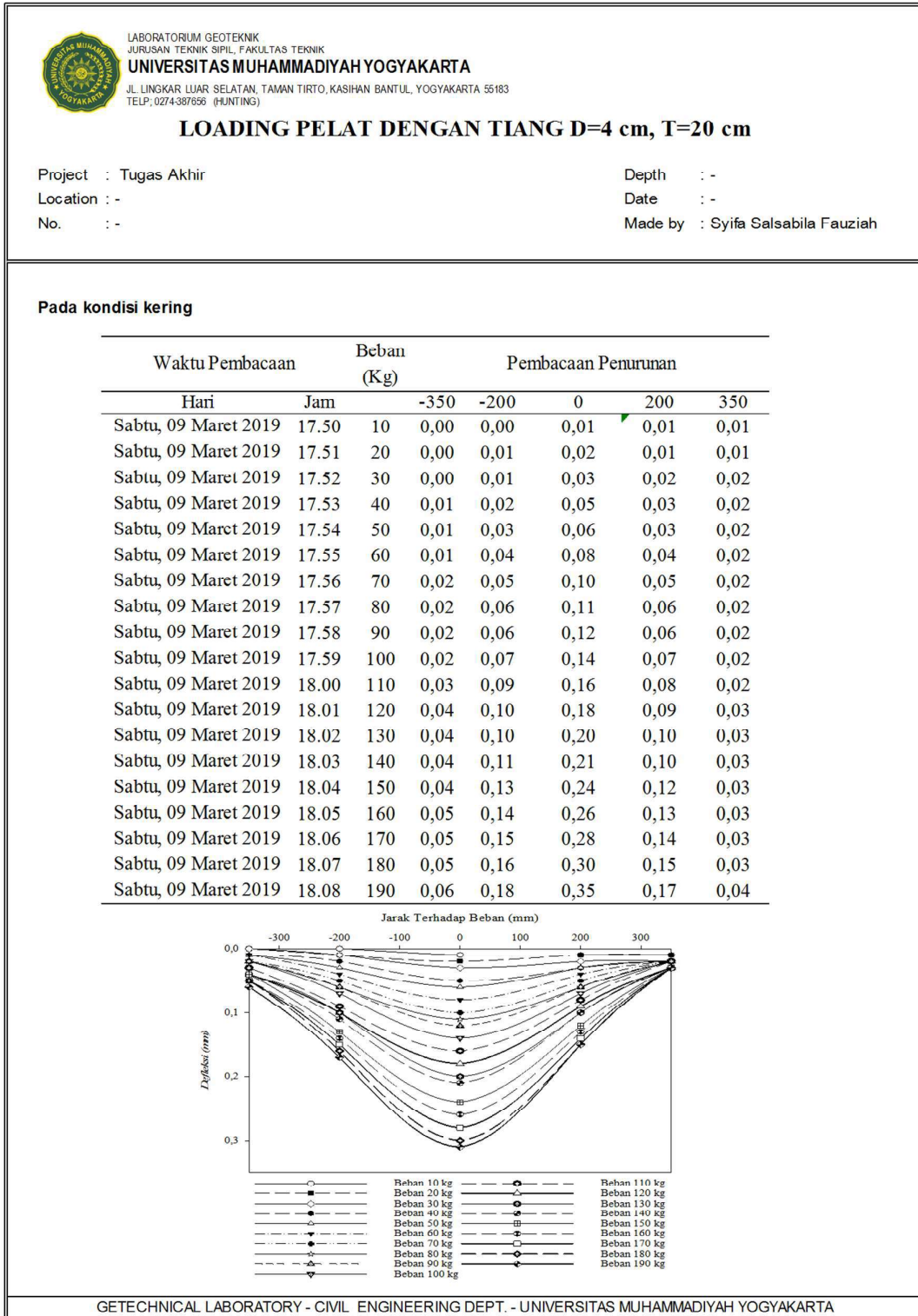
D ₁₀	D ₃₀	D ₆₀	C _u = D ₆₀ /D ₁₀	C _c = (D ₃₀) ² / (D ₁₀ × D ₆₀)
-	-	-	-	-

Lampiran 2. Hasil Pengujian Pembebanan pada Kondisi Kering

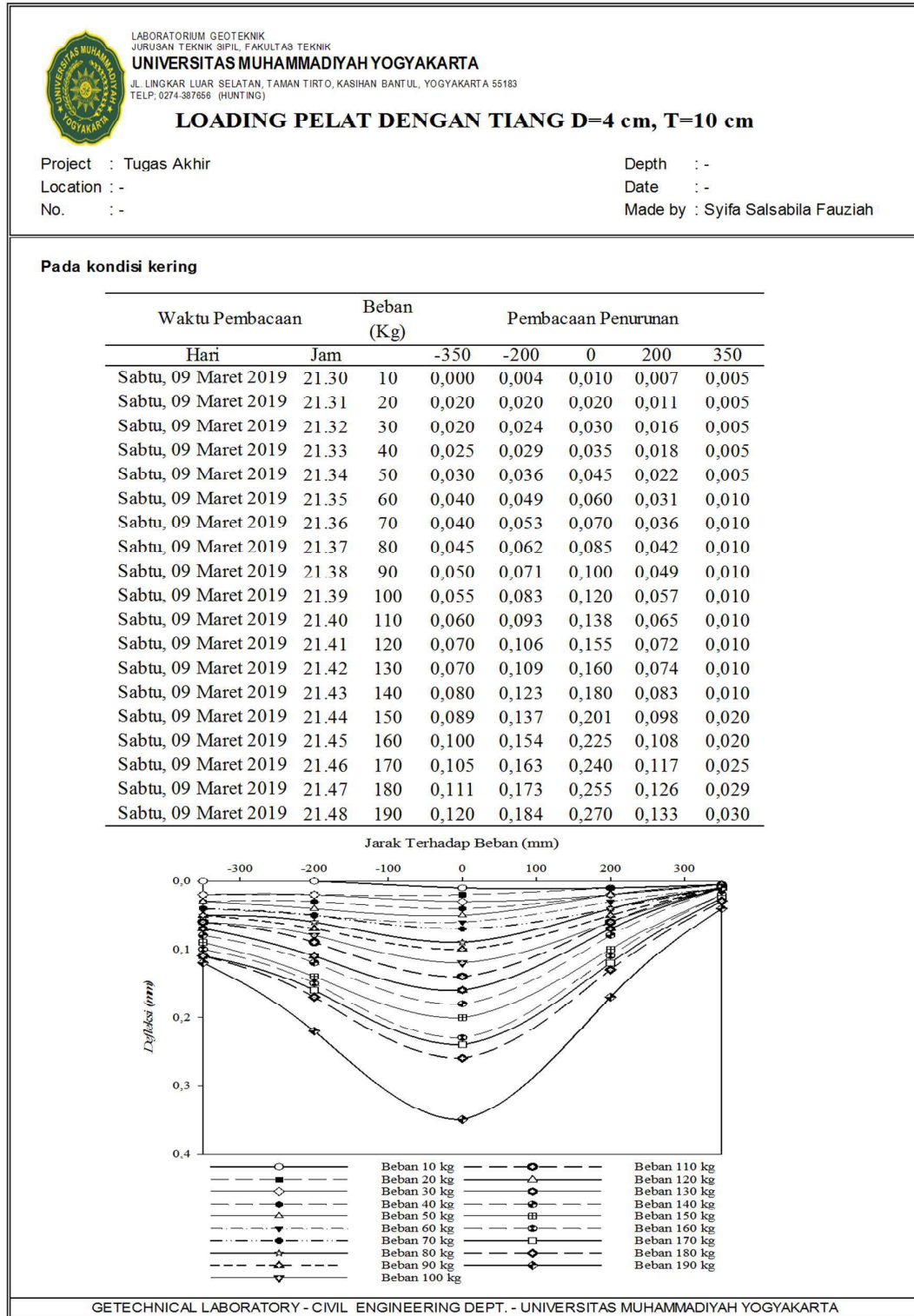
1. Pelat Tanpa Tiang



2. Pelat dengan tiang d=4 cm, t=20 cm

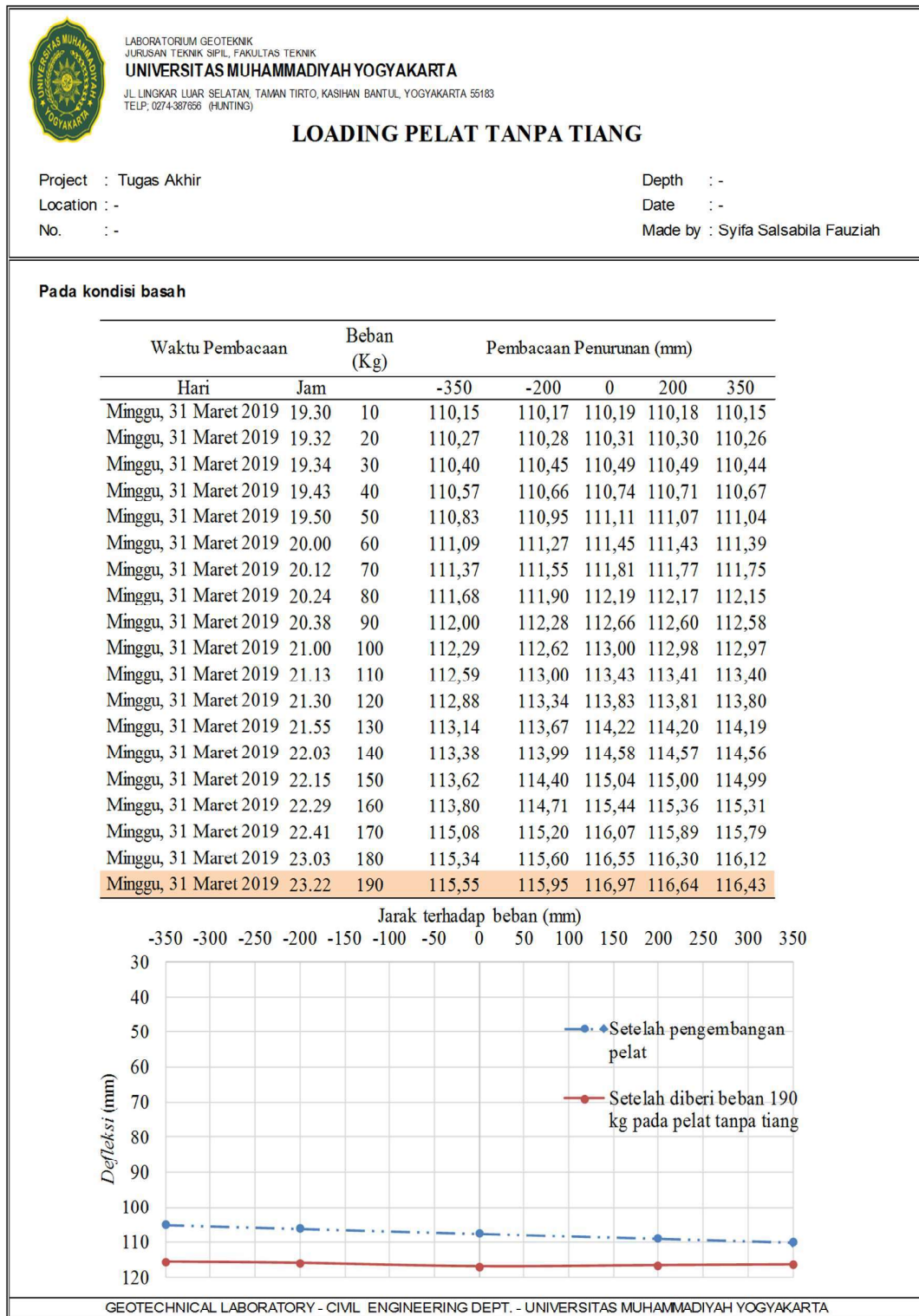


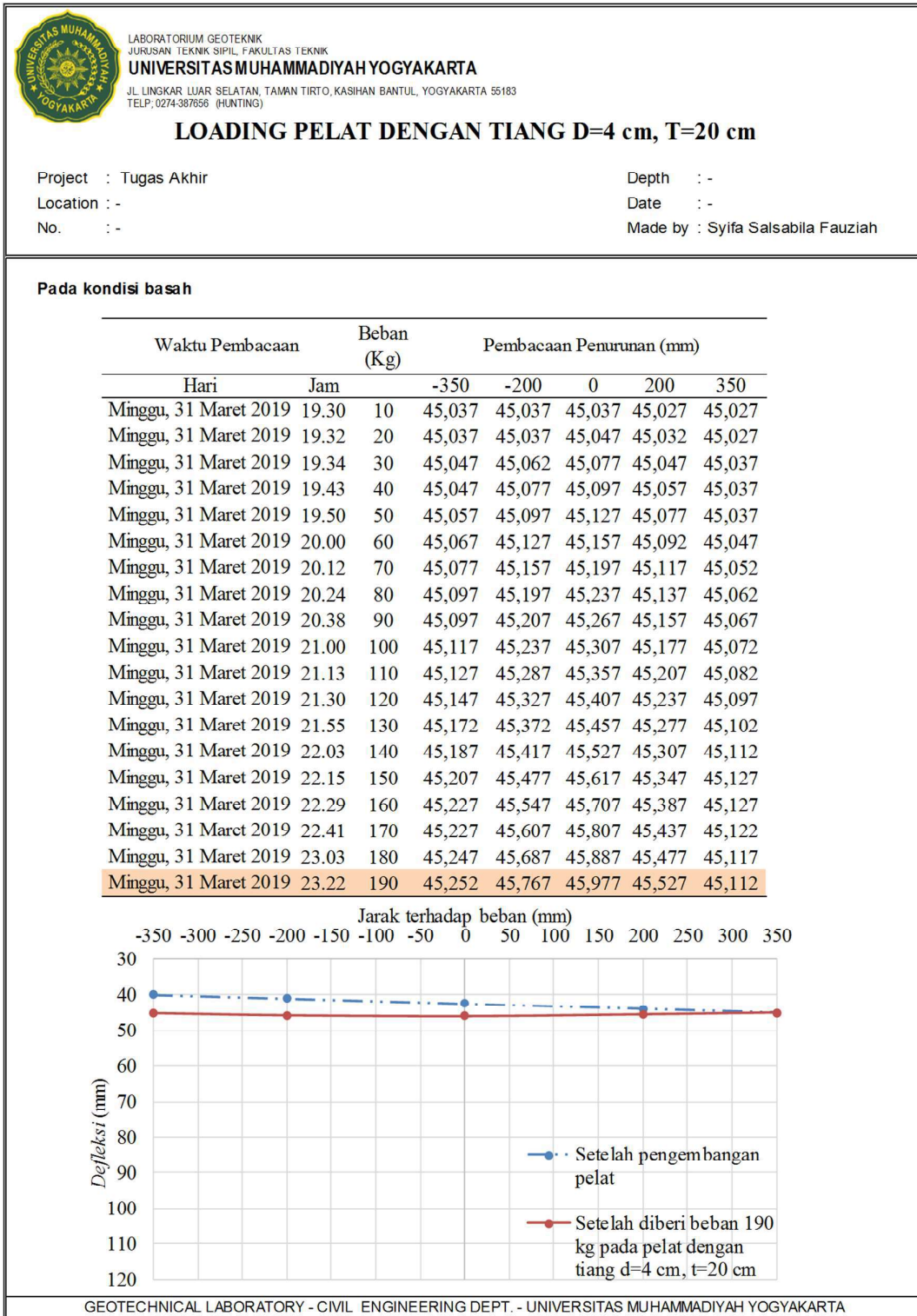
3. Pelat dengan tiang d=4 cm, t=10 cm



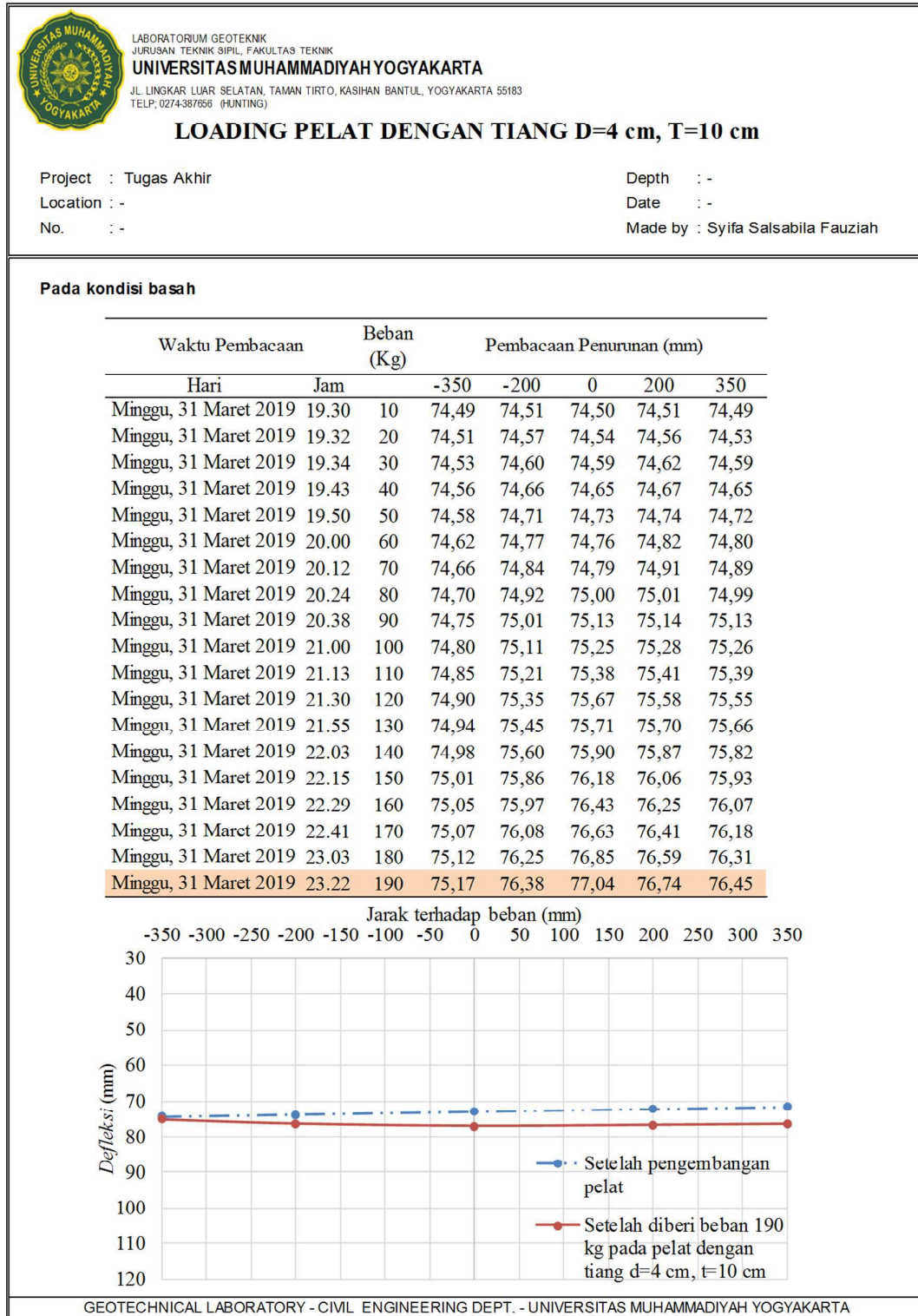
Lampiran 3. Hasil Pengujian Pembebanan pada Kondisi Basah

1. Pelat tanpa tiang



2. Pelat dengan tiang $d=4$ cm, $t=20$ cm

3. Pelat dengan tiang d=4 cm, t=10 cm



Lampiran 4. Hasil Pengukuran Deformasi Akibat Pengembangan Tanah

