



YAYASAN PERGURUAN "CIKINI"
**INSTITUT
 SAINS DAN TEKNOLOGI
 NASIONAL**

**FAKULTAS TEKNIK SIPIL
 DAN PERENCANAAN
JURUSAN TEKNIK SIPIL**

PENUGASAN

No : 29-09/PM/LM/IX/2003

Ketua Program Studi Teknik Sipil, Fakultas Teknik Sipil dan Perencanaan Institut Sains dan Teknologi Nasional Jakarta menugaskan kepada :

Ir. Idrus, MSc

Staff Jurusan Teknik Sipil

Untuk melakukan pekerjaan Penyelidikan Tanah sebagai bentuk kegiatan
Pengabdian Pada Masyarakat pada :

Nama Pekerjaan : Penyelidikan Tanah Uji CBR Landasan Masuk Skuadron 2 (Apron)
 Lokasi : Halim Perdana Kusuma
 Pemberi Tugas : PT. Hutan Alam

Dengan jadwal pelaksanaan pekerjaan selama 5 hari kerja (50 Jam), 2 hari di lapangan dan 3hari di Laboratorium

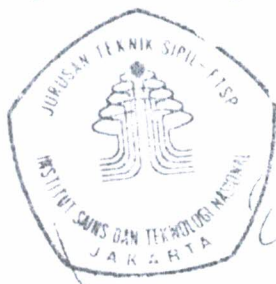
Kepada Ir. Idrus MSc diberikan kepercayaan penuh untuk melakukan pekerjaan Pengabdian Pada Masyarakat tersebut dan bertanggung jawab atas segala sesuatu mengenai pekerjaan tersebut

Kepada pelaksana tugas ini akan diberikan honorarium sesuai dengan ketentuan yang berlaku di Laboratorium Mekanika Tanah Institut Sains dan Teknologi Nasional.

Penugasan ini berlaku sejak dikeluarkan sampai dengan berakhirnya jangka waktu penyusunan Laporan Akhir (Final Report) diterima oleh pemberi kerja dengan baik.

Jakarta, 29 September 2003

Kaprodi Teknik Sipil



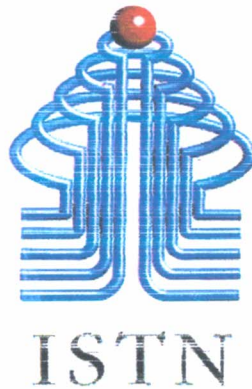
Ir. Harry Hartawan MT

NIP : 01.83316

Tembusan :

1. Dekan FTSP-ISTN (sbg laporan)
2. Ka. Lab. Mekanika Tanah ISTN
3. Arsip

**LEMBAR PENGESAHAN
PENGABDIAN PADA MASYARAKAT**



**PENYELIDIKAN TANAH CBR LANDASAN MASUK SKUADRON
2 (APRON)
Lokasi : Halim Perdana Kusuma**

Oleh :
Idrus Ir, M.Sc

Mengetahui :
Ketua Jurusan Teknik Sipil



Ir. Harry Hartawan, M.T

**Program Studi Teknik Sipil
Institut Sain dan Teknologi Nasional
Jakarta 2003**

THE UNIVERSITY OF CHICAGO
PHILOSOPHY DEPARTMENT



PHILOSOPHY DEPARTMENT

UNIVERSITY OF CHICAGO

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

FINAL REPORT

SOIL INVESTIGATION

PROJECT :

CBR FIELD TEST

LANDASAN MASUK SKADRON 2 (APRON)

LOCATION : HALIM PERDANA KUSUMA,

JAKARTA



**LABORATORIUM MEKANIKA TANAH
INSTITUT SAINS DAN TEKNOLOGI NASIONAL**

KAMPUS ISTN BHUMI SRENGSENG INDAH JALAN MOCH KAHFI 2 JAGAKARSA - JAKARTA 12640
TELPON 021 98186554 FAX 021 72893379



Jakarta 27 September 2003
No: 27-09.1/FR/CBR/IX/03

Kepada Yth
PT. Hutan Alam
Di Jakarta

Perihal : Laporan Uji CBR Lapangan di Landasan Masuk Skadron 2 (Apron)
Dengan hormat,

Sehubungan permohonan yang kami terima untuk melakukan pengujian CBR lapangan pada proyek : Landasan Masuk Skadron 2 (Apron), Halim Perdana Kusuma, Jakarta, maka kami Laboratorium Mekanika Tanah ISTN, akan melaporkan hasil pengujian yang telah kami lakukan sbb :

1. Uji CBR Lapangan kami lakukan pada 27 September 2003 sebanyak 10 (sepuluh) titik pengujian pada lapisan subgrade (tanah merah)
2. Hasil uji sbb :

No	CBR 0,1"	Jenis tanah	Keterangan
1	7.66	Tanah merah	
2	5.96	Tanah merah	
3	5.96	Tanah merah	
4	5.67	Tanah merah	
5	7.94	Tanah merah	
6	9.93	Tanah merah	
7	24.11	Tanah merah	
8	10.49	Tanah merah	
9	23.82	Tanah merah	
10	21.27	Tanah merah	

3. Hasil uji CBR lapangan untuk subgrade berkisar antara 5.67 s/d 24.11 %.

Hasil uji CBR lapangan terlampir.

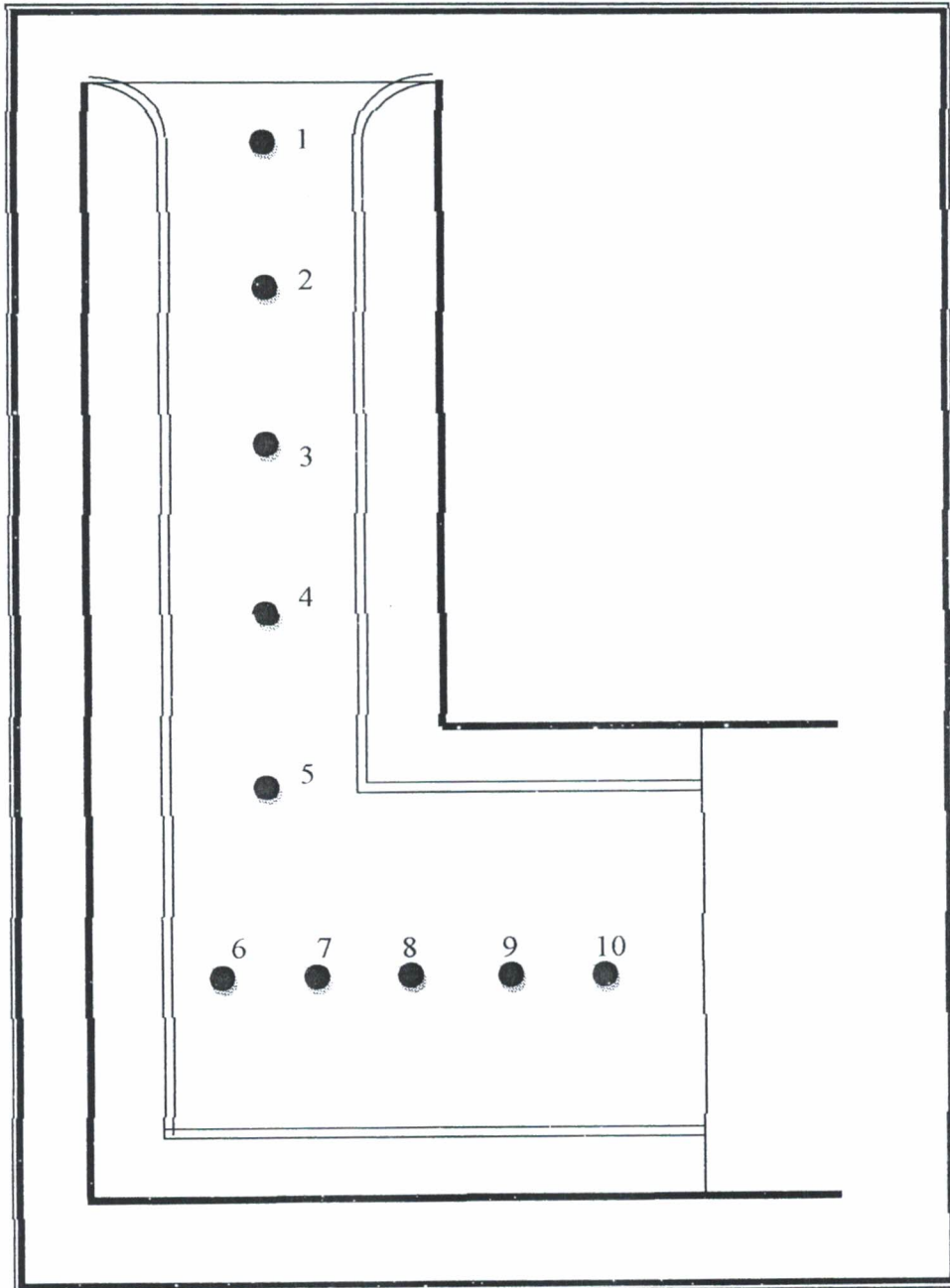
Demikianlah laporan ini kami buat dengan sebenar benarnya.

Hormat kami,
ISTN Soil Mechanics Laboratory

Idrus Muhammad Ir. M.Sc

REG LPJK : 1.2.500.2.31.09.03.000007

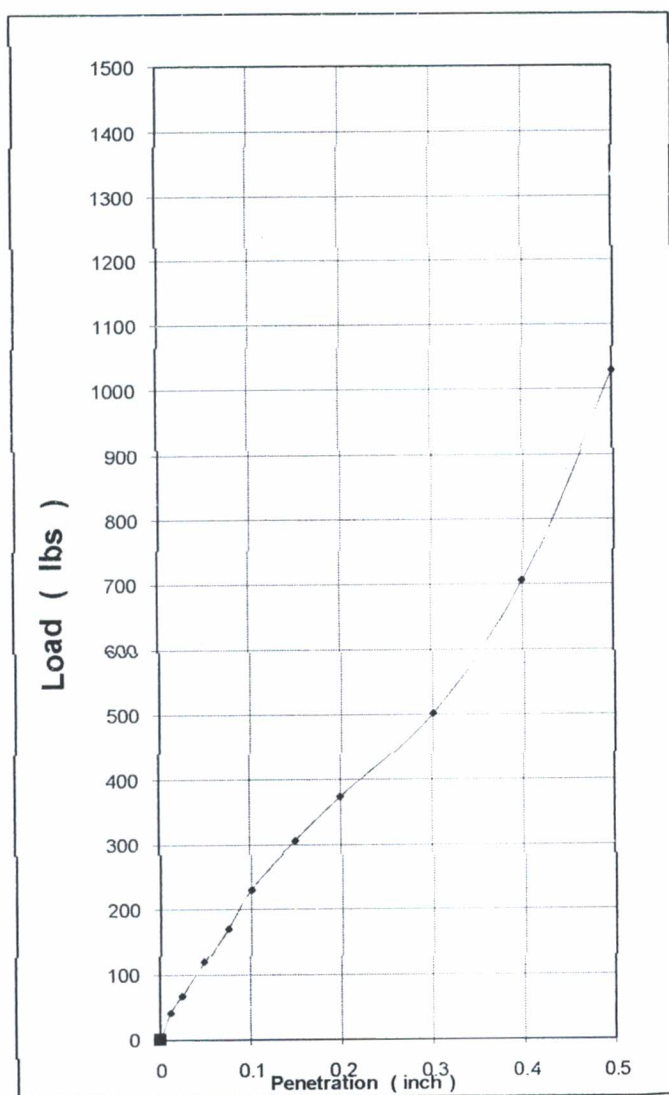
LAY-OUT TITIK CBR
SITE : LANDASAN MASUK SKADRON 2 (APRON)
JAKARTA



CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA		
LOCATION	Jakarta		
Location of Tested	No : 1	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	9.0	0
0.25	0.0125	31.75	5.0	42.54
0.50	0.025	63.5	8.0	68.07
1.00	0.05	127	14.0	119.11
1.50	0.075	190.5	20.0	170.16
2.00	0.1	254	27.0	229.72
3.00	0.15	381	36.0	306.30
4.00	0.2	508	44.0	374.36
6.00	0.3	762	59.0	501.98
8.00	0.4	1016	83.0	706.18
10.00	0.5	1270	121.0	1029.49



Field Water Content (%)

	Unit
Weight of Container	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

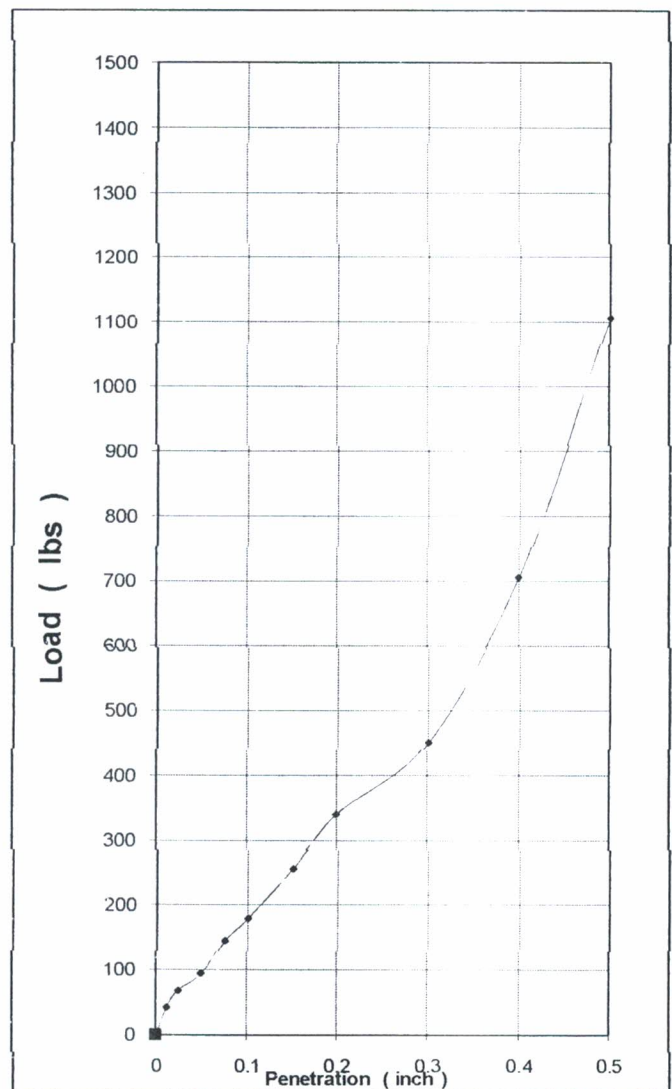
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	7.66	8.32

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 2	Date of Test	September 27, 2003
Soil Description	tanah merah (subgrade)	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	5.0	42.54
0.50	0.025	63.5	8.0	68.07
1.00	0.05	127	11.0	93.59
1.50	0.075	190.5	17.0	144.64
2.00	0.1	254	21.0	178.67
3.00	0.15	381	30.0	255.25
4.00	0.2	508	40.0	340.33
6.00	0.3	762	53.0	450.93
8.00	0.4	1016	83.0	706.18
10.00	0.5	1270	130.0	1106.07



Field Water Content (%)

	Unit
Weight of Cointainer	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

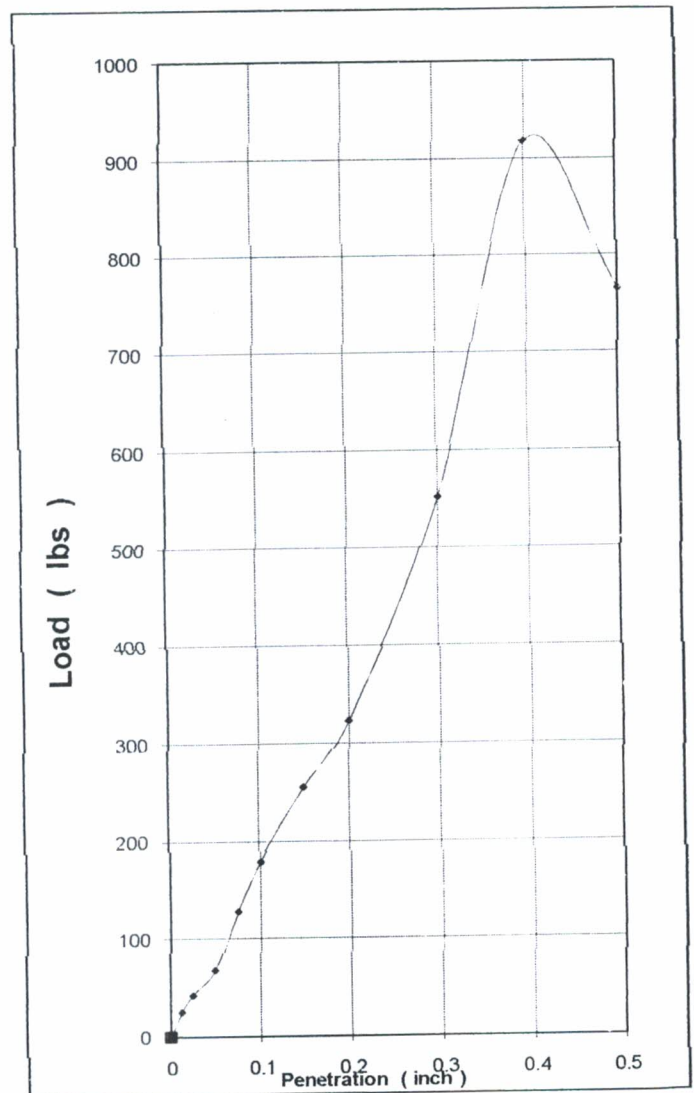
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	5.96	7.56

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 3	Date of Test	September 27, 2003
Soil Description	tanah merah (subgrade)	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.50820
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	3.0	25.52
0.50	0.025	63.5	5.0	42.54
1.00	0.05	127	8.0	68.07
1.50	0.075	190.5	15.0	127.62
2.00	0.1	254	21.0	178.67
3.00	0.15	381	30.0	255.25
4.00	0.2	508	38.0	323.31
6.00	0.3	762	65.0	553.03
8.00	0.4	1016	108.0	918.89
10.00	0.5	1270	90.0	765.74



Field Water Content (%)

	Unit
Weight of Cointainer	grm
Wet Soil & Container	grm
Dry Soil & Container	grm
Field Water Content	%

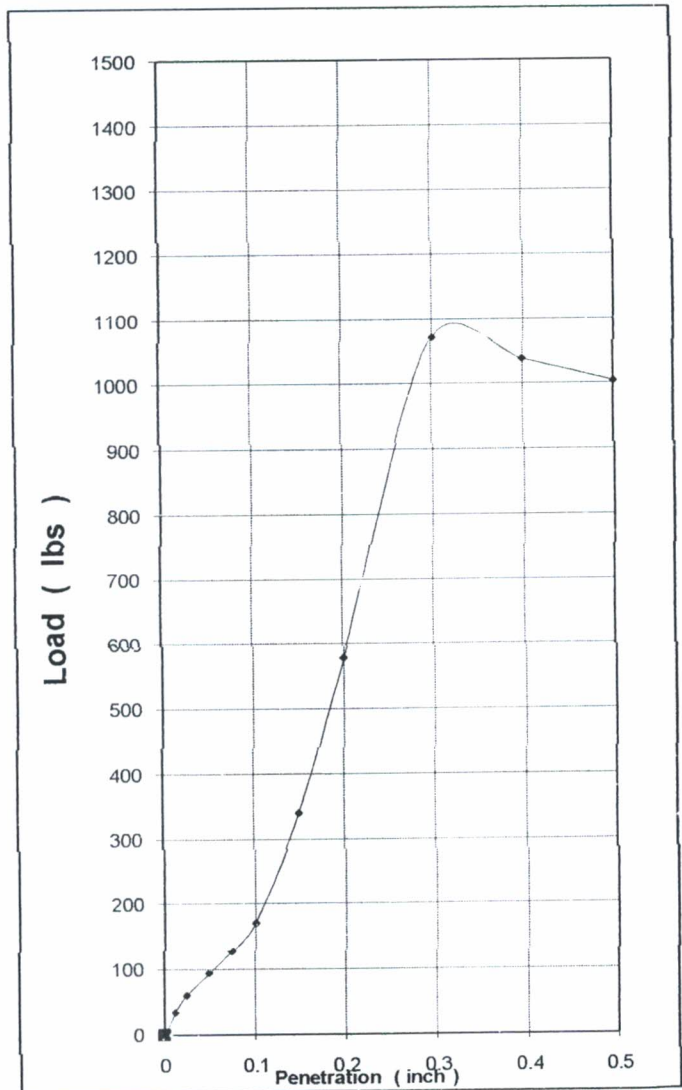
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	5.96	7.18

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 4	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.50820
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	4.0	34.03
0.50	0.025	63.5	7.0	59.56
1.00	0.05	127	11.0	93.59
1.50	0.075	190.5	15.0	127.62
2.00	0.1	254	20.0	170.16
3.00	0.15	381	40.0	340.33
4.00	0.2	508	68.0	578.56
6.00	0.3	762	126.0	1072.03
8.00	0.4	1016	122.0	1038.00
10.00	0.5	1270	118.0	1003.97



Field Water Content (%)

	Unit
Weight of Container	gram
Wet Soil & Container	gram
Dry Soil & Container	gram
Field Water Content	%

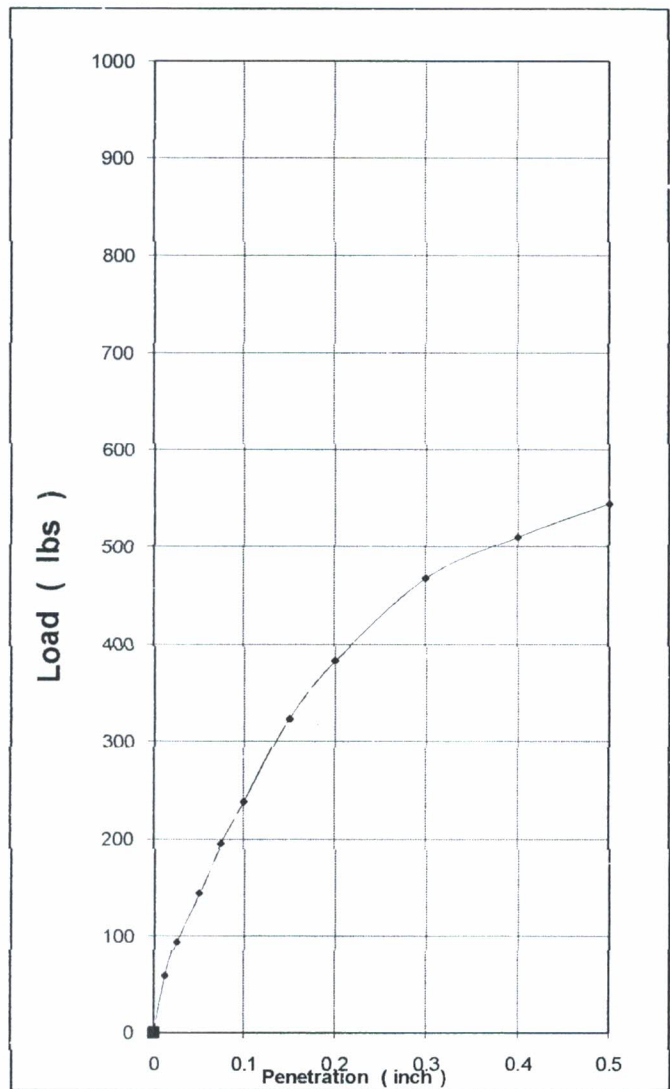
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	5.67	12.86

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 5	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov. Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	7.0	59.56
0.50	0.025	63.5	11.0	93.59
1.00	0.05	127	17.0	144.64
1.50	0.075	190.5	23.0	195.69
2.00	0.1	254	28.0	238.23
3.00	0.15	381	38.0	323.31
4.00	0.2	508	45.0	382.87
6.00	0.3	762	55.0	467.95
8.00	0.4	1016	60.0	510.49
10.00	0.5	1270	64.0	544.52



Field Water Content (%)

	Unit
Weight of Container	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

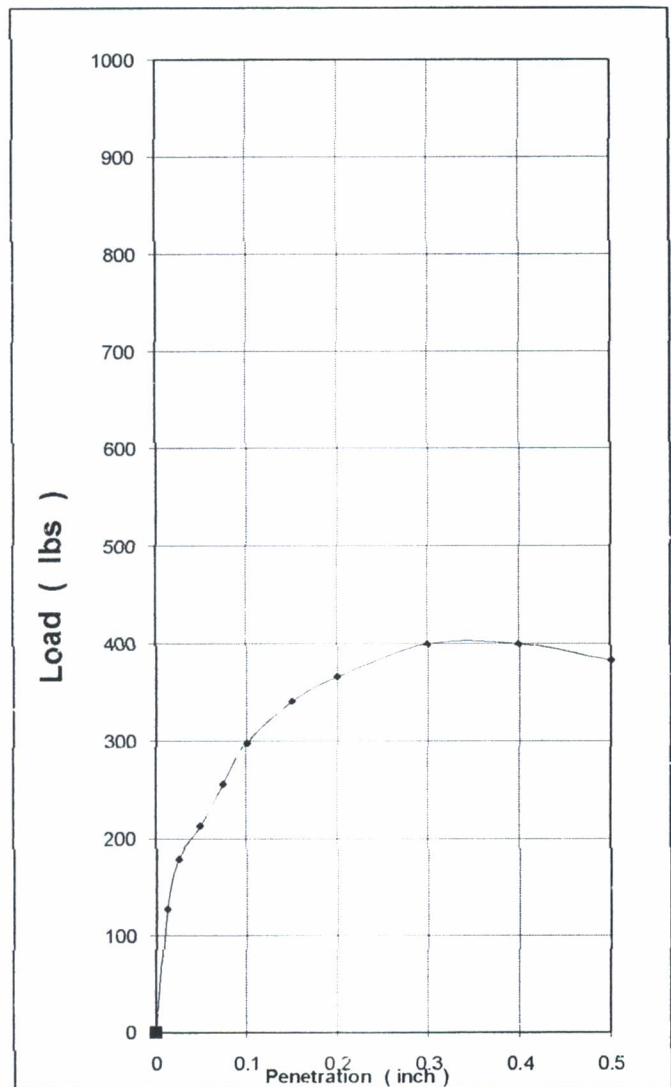
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	7.94	8.51

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 6	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov. Ring	Load (lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	15.0	127.62
0.50	0.025	63.5	21.0	178.67
1.00	0.05	127	25.0	212.71
1.50	0.075	190.5	30.0	255.25
2.00	0.1	254	35.0	297.79
3.00	0.15	381	40.0	340.33
4.00	0.2	508	43.0	365.85
6.00	0.3	762	47.0	399.89
8.00	0.4	1016	47.0	399.89
10.00	0.5	1270	45.0	382.87



Field Water Content (%)

	Unit
Weight of Cointainer	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

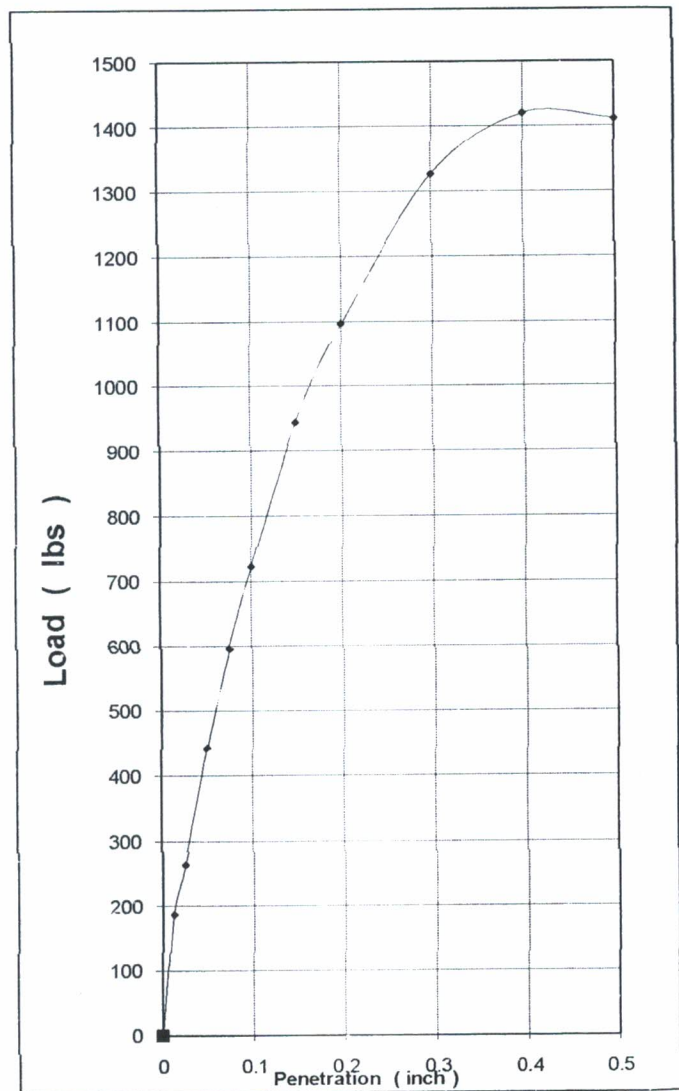
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	9.93	8.13

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 7	Date of Test	September 27, 2003
Soil Description	tanah merah (subgrade)	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov. Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	22.0	187.18
0.50	0.025	63.5	31.0	263.75
1.00	0.05	127	52.0	442.43
1.50	0.075	190.5	70.0	595.57
2.00	0.1	254	85.0	723.20
3.00	0.15	381	111.0	944.41
4.00	0.2	508	129.0	1097.56
6.00	0.3	762	156.0	1327.28
8.00	0.4	1016	167.0	1420.87
10.00	0.5	1270	166.0	1412.36



Field Water Content (%)

	Unit
Weight of Container	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

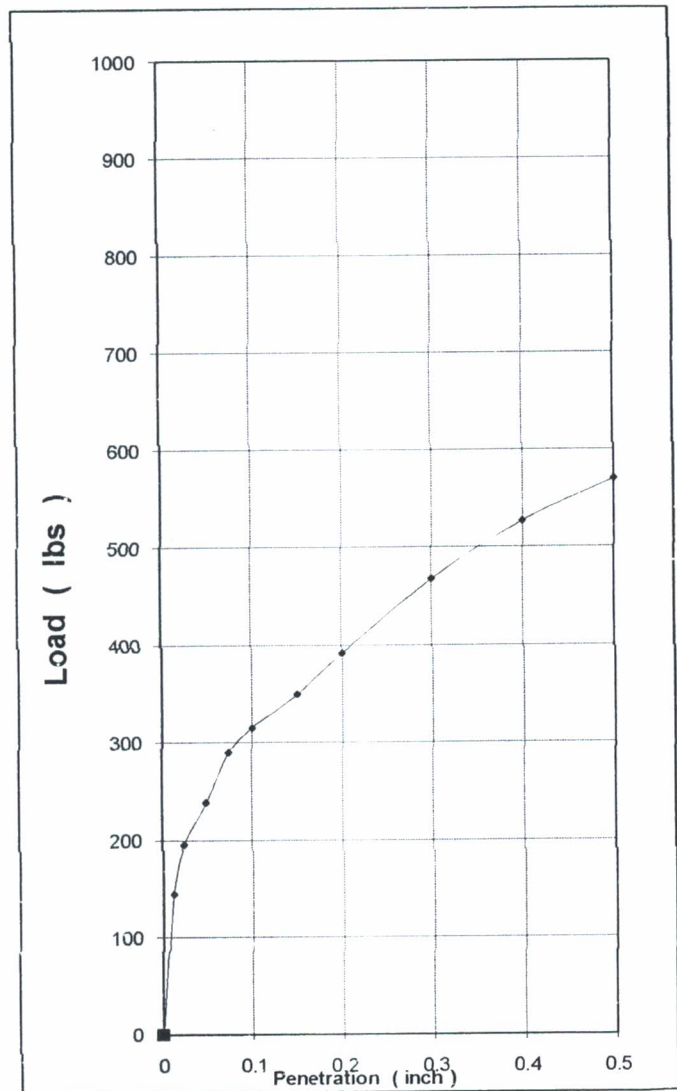
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	24.11	24.39

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 8	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	17.0	144.64
0.50	0.025	63.5	23.0	195.69
1.00	0.05	127	28.0	238.23
1.50	0.075	190.5	34.0	289.28
2.00	0.1	254	37.0	314.80
3.00	0.15	381	41.0	348.84
4.00	0.2	508	46.0	391.36
6.00	0.3	762	55.0	467.95
8.00	0.4	1016	62.0	527.51
10.00	0.5	1270	67.0	570.05



Field Water Content (%)

	Unit
Weight of Container	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

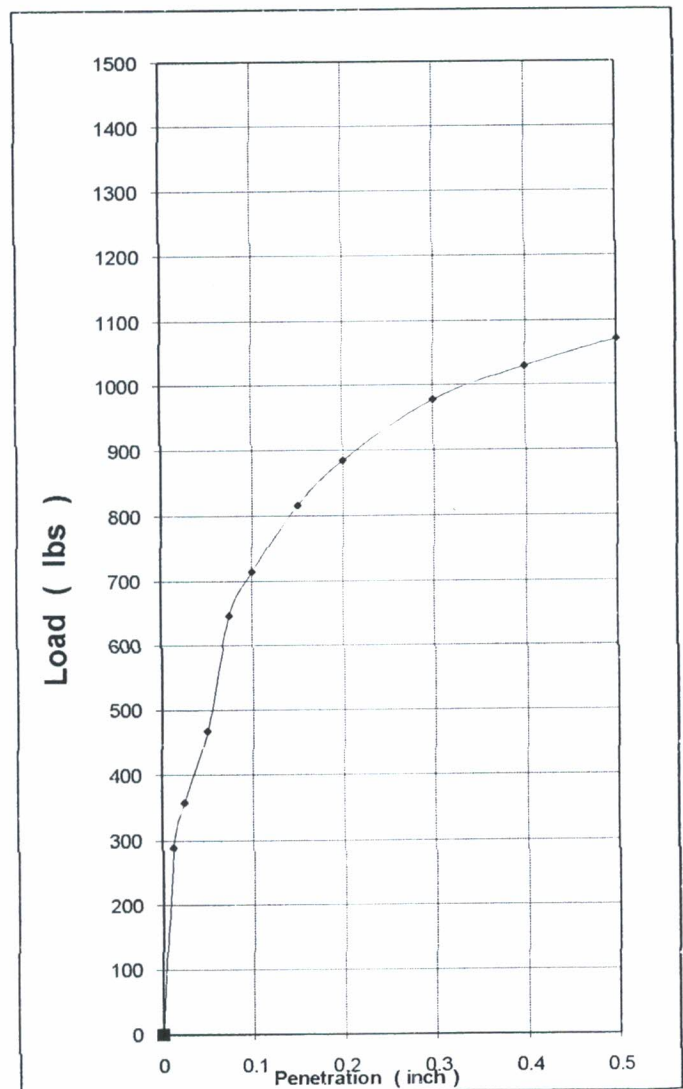
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	10.49	8.70

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 9	Date of Test	September 27, 2003
Soil Description	<i>tanah merah (subgrade)</i>	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	8.50820
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	34.0	289.28
0.50	0.025	63.5	42.0	357.34
1.00	0.05	127	55.0	467.95
1.50	0.075	190.5	76.0	646.62
2.00	0.1	254	84.0	714.69
3.00	0.15	381	96.0	816.79
4.00	0.2	508	104.0	884.85
6.00	0.3	762	115.0	978.44
8.00	0.4	1016	121.0	1029.49
10.00	0.5	1270	126.0	1072.03



Field Water Content (%)

	Unit
Weight of Cointainer	gram
Wet Soil & Container	gram
Dry Soil & Container	gram
Field Water Content	%

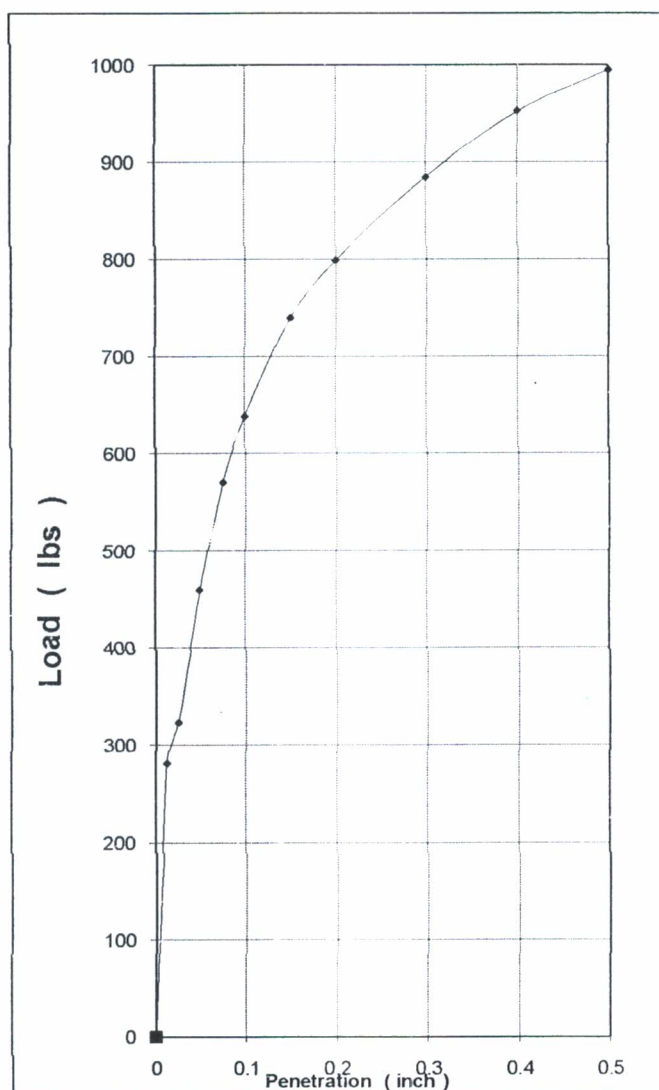
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	23.82	19.66

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	LANDASAN MASUK SKADRON 2 (APRON), HALIM PERDANA KUSUMA 0		
LOCATION	Jakarta		
Location of Tested	No : 10 <i>tanah merah (subgrade)</i> N : E :	Date of Test	September 27, 2003
Soil Description		Tested By	Budi
Coordinate of Tested		Calibration (lbs/div)	8.5082
Elevation		Standard of Test	ASTM

Time Minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov.Ring	Load(lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	33.0	280.77
0.50	0.025	63.5	38.0	323.31
1.00	0.05	127	54.0	459.44
1.50	0.075	190.5	67.0	570.05
2.00	0.1	254	75.0	638.12
3.00	0.15	381	87.0	740.21
4.00	0.2	508	94.0	799.77
6.00	0.3	762	104.0	884.85
8.00	0.4	1016	112.0	952.92
10.00	0.5	1270	117.0	995.46



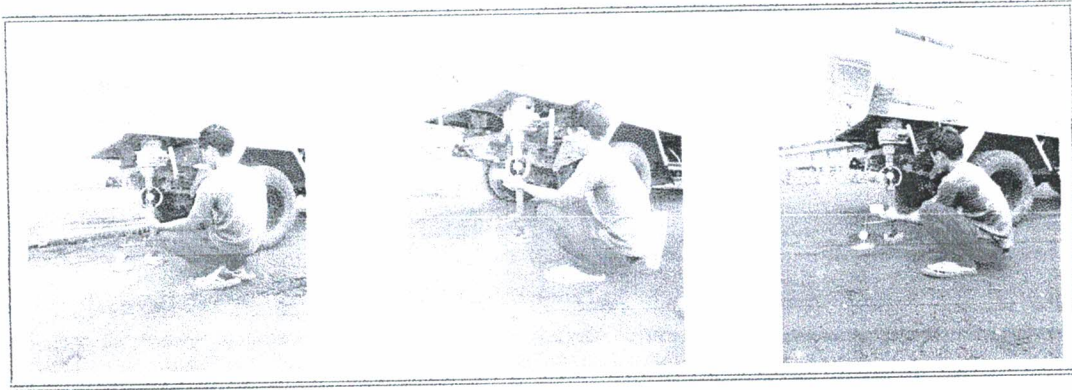
Field Water Content (%)

	Unit
Weight of Cointainer	gm
Wet Soil & Container	gm
Dry Soil & Container	gm
Field Water Content	%

C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
CBR VALUE	21.27	17.77

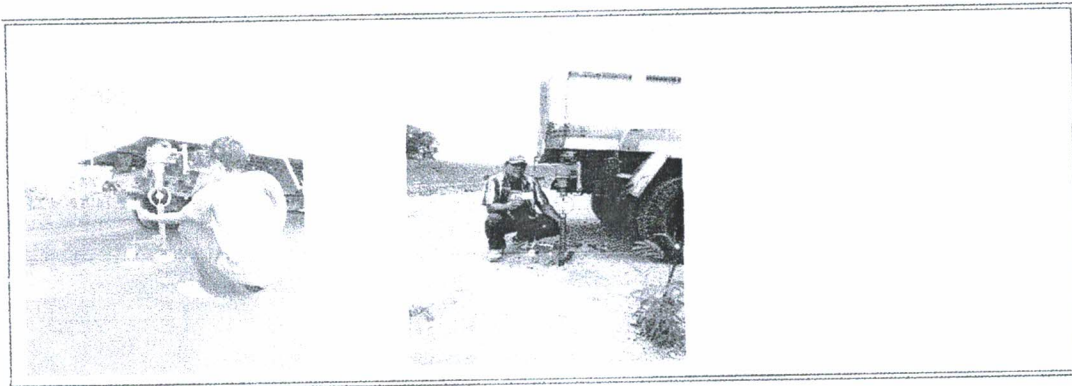
DOKUMENTASI CBR : SKADRON 2 HALIM PERDANA KUSUMA
JAKARTA



Titik 1

Titik 2

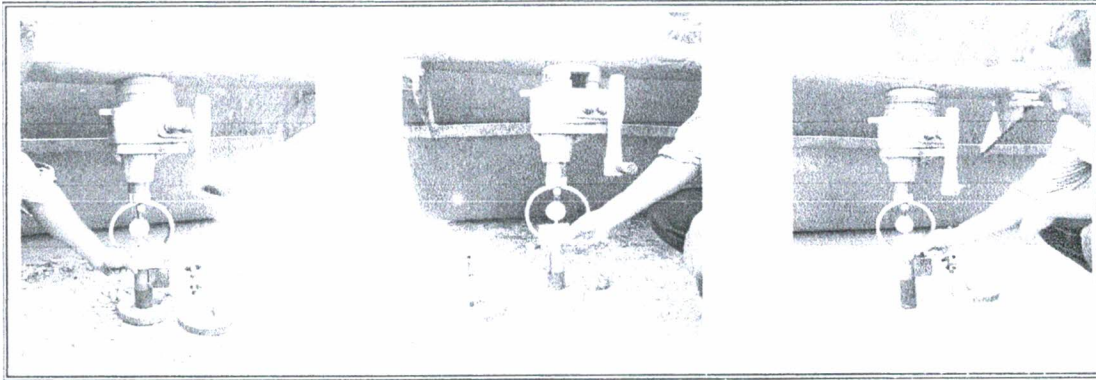
Titik 3



Titik 4

Titik 5

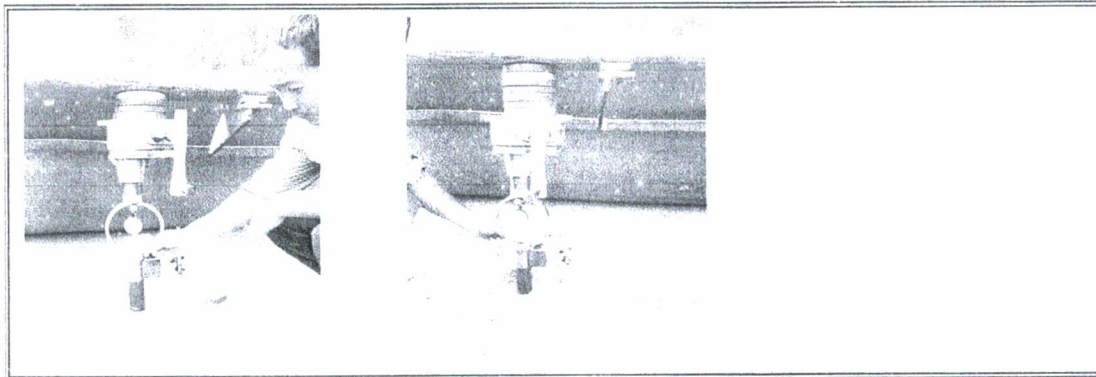
**DOKUMENTASI CBR : LANDASAN MASUK SKADRON 2 (APRON)
JAKARTA**



Titik 6

Titik 7

Titik 8



Titik 9

Titik 10