



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

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

PENUGASAN
 No : 16-07/PM/LM/VII/99

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 CBR LAPANGAN AKSES ROAD CILANDAK.
 Lokasi : Jakarta Selatan
 Pemberi Tugas : PT. Citra Rejeki Nusantara

Dengan jadwal pelaksanaan pekerjaan selama 5 hari kerja (40 Jam), 1 hari di lapangan dan 4 hari 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, 16 Juli 1999
 Kaprodi Teknik Sipil

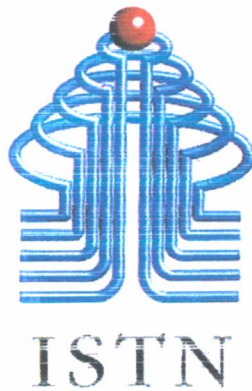


Ir. Wawan Kuswaya MT
 NIP : 01.86765

Tembusan :

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

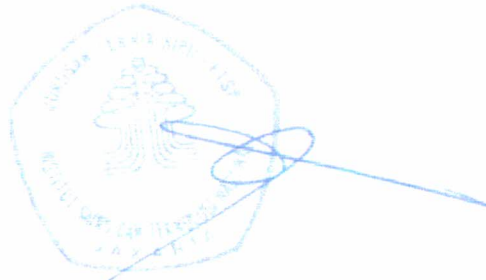
**LEMBAR PENGESAHAN
PENGABDIAN PADA MASYARAKAT**



**PENYELIDIKAN TANAH CBR LAPANGAN AKSES ROAD
CILANDAK
Lokasi : Jakarta Selatan**

Oleh :
Idrus Ir, M.Sc

Mengetahui :
Ketua Jurusan Teknik Sipil



Ir. Wawan Kuswaya, M.T

**Program Studi Teknik Sipil
Institut Sain dan Teknologi Nasional
Jakarta 1999**

MAPA DE LOCALIDADES
DE LA ZONA DE LA SIERRA DE LA NEBLINA



Este mapa fue elaborado por el Sr. J. J. Rodríguez y el Sr. J. J. Rodríguez en el mes de mayo de 1950.

Escala: 1:50,000

Proyecto: 1000

Elaborado por:
J. J. Rodríguez

Revisado por:
J. J. Rodríguez

Este mapa fue elaborado por el Sr. J. J. Rodríguez y el Sr. J. J. Rodríguez en el mes de mayo de 1950.
Escala: 1:50,000
Proyecto: 1000

FINAL REPORT

SOIL INVESTIGATION

PROJECT :

CBR FIELD TEST

AKSES ROAD CILANDAK IPA

LOCATION : CILANDAK, JAKSEL



LABORATORIUM MEKANIKA TANAH
INSTITUT SAINS DAN TEKNOLOGI NASIONAL

KAMPUS ISTN BHUMI SRENGSENG INDAH JALAN MOCH KAHFI 2 JAGAKARSA – JAKARTA 12640
TELPON. 021 98189554 FAX . 021 78893379



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TELPON. 021 98189554 FAX. 021 78893379

Jakarta 22 Juli 1999
No: 02-1/FR/CBR/VII/ 99

Kepada Yth
PT. Citra Rejeki Nusantara
di
JAKARTA

Perihal : Laporan Uji CBR Lapangan di Akses Road Cilandak IPA

Dengan hormat,

Sehubungan permohonan yang kami terima untuk melakukan pengujian CBR lapangan pada proyek : Akses Road Cilandak IPA, maka kami Laboratorium Mekanika Tanah ISTN, akan melaporkan hasil pengujian yang telah kami lakukan sbb :

1. Uji CBR Lapangan kami lakukan pada 18 Juli 1999 sebanyak 10 (sepuluh) titik pengujian pada lapisan tanah dasar (subgrade), berupa lime stone padat.
2. Hasil uji sbb :

No	CBR 0,1"	Jenis tanah	Keterangan
1	37,97	Lime stone	
2	49,04	Lime stone	
3	82,26	Lime stone	
4	63,28	Lime stone	
5	31,64	Lime stone	
6	69,6	Lime stone	
7	18,98	Lime stone	
8	15,82	Lime stone	
9	34,8	Lime stone	
10	15,82	Lime stone	

3. Hasil uji CBR lapangan untuk Subgrade (lime stone) berkisar antara 15,82 % s/d 82,26 %.

Hasil uji CBR lapangan terlampir.

Demikianlah laporan ini kami buat dengan sebenar benarnya.

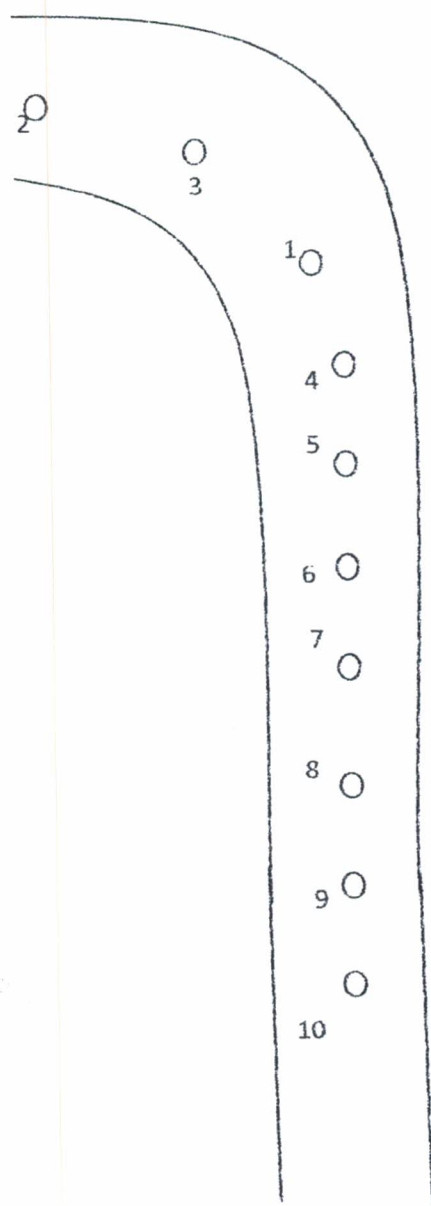
Hormat kami,
ISTN Soil Mechanics Laboratory



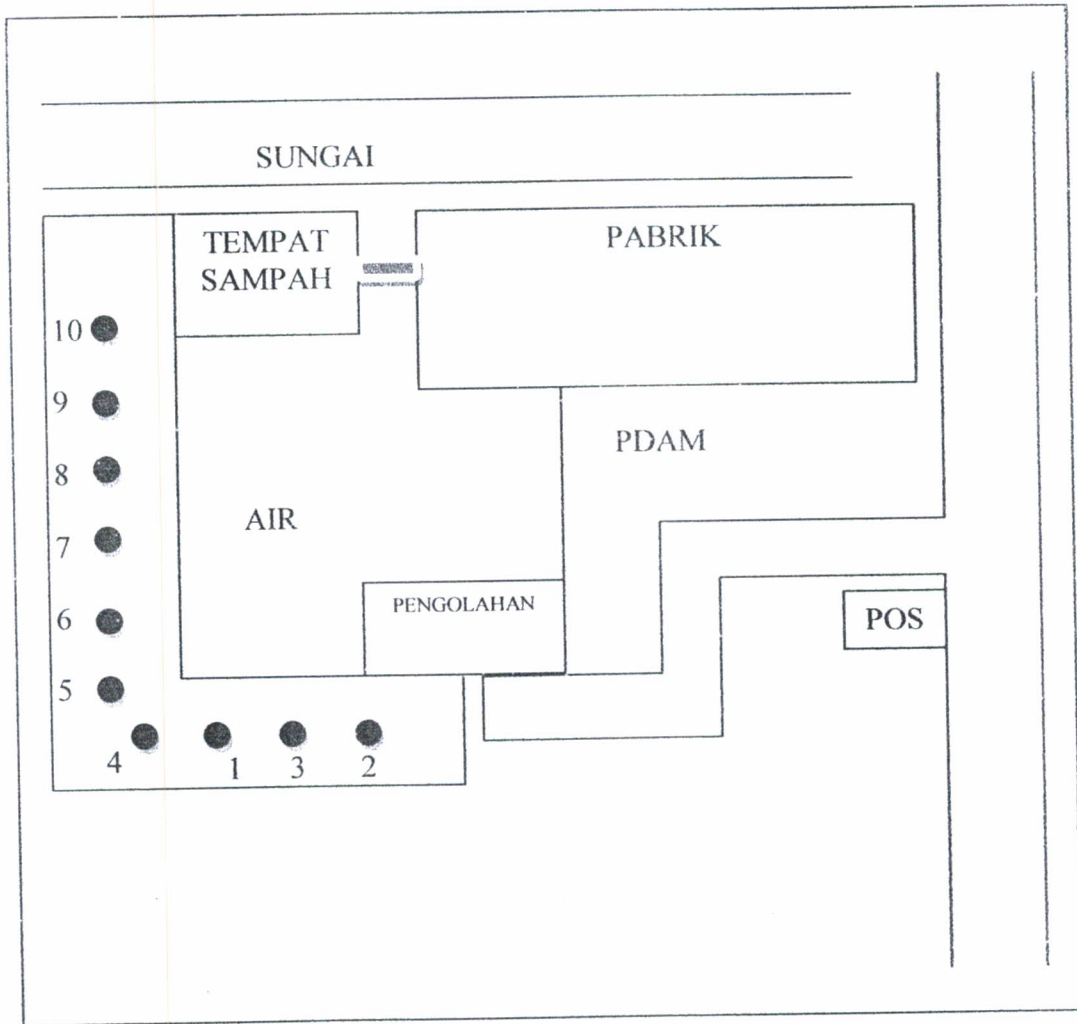
Idrus Muhammad Ir. M.Sc

REG LPJK : 1.2.500.2.31.09.03.000007

DENAH TITIK UJI CBR LAPANGAN



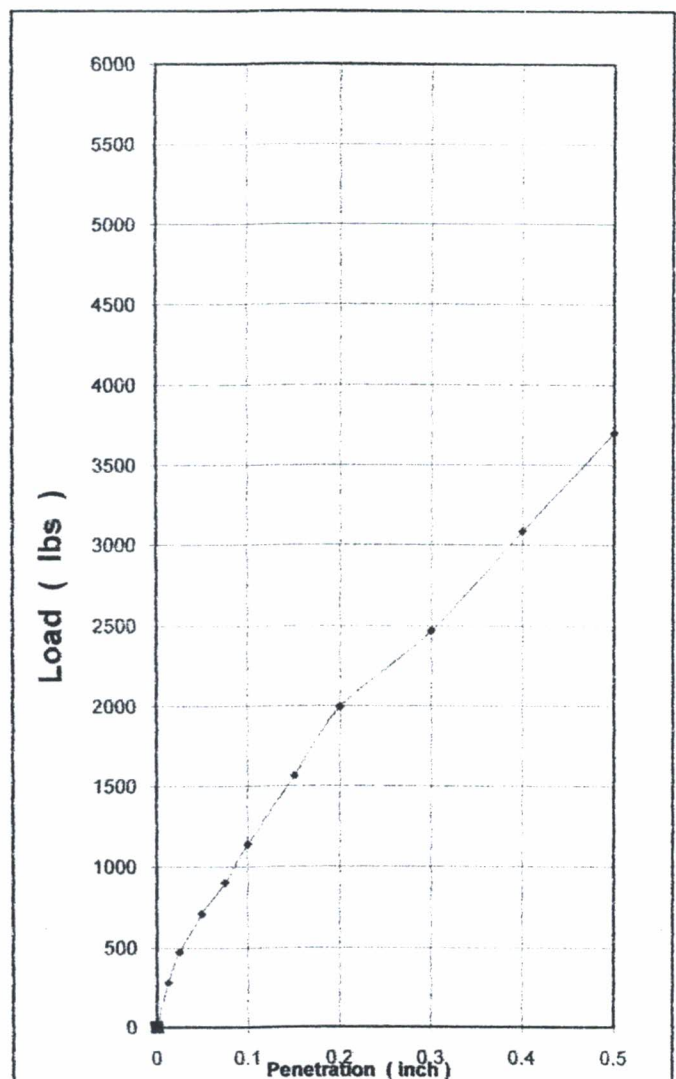
LAY-OUT TITIK CBR
SITE : AKSES ROAD CILANDAK IPA
CILANDAK, JAKSEL



CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No : 1 <i>Lime Stone</i>	Date of Test Tested By	July 18, 99 Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div) Standard of Test	47 45784 ASTM

Time in minute	Penetration		Load	
	(inch)	(Dial mm/100)	Prov. Ring	Load (lbs)
0.00	0	0	0.0	0
0.25	0.0125	31.75	6.0	284.75
0.50	0.025	63.5	10.0	474.58
1.00	0.05	127	15.0	711.87
1.50	0.075	190.5	19.0	901.70
2.00	0.1	254	24.0	1138.99
3.00	0.15	381	33.0	1566.11
4.00	0.2	508	42.0	1993.23
5.00	0.3	762	52.0	2467.81
6.00	0.4	1016	65.0	3084.76
8.00	0.5	1270	78.0	3701.71



Field Water Content (%)

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

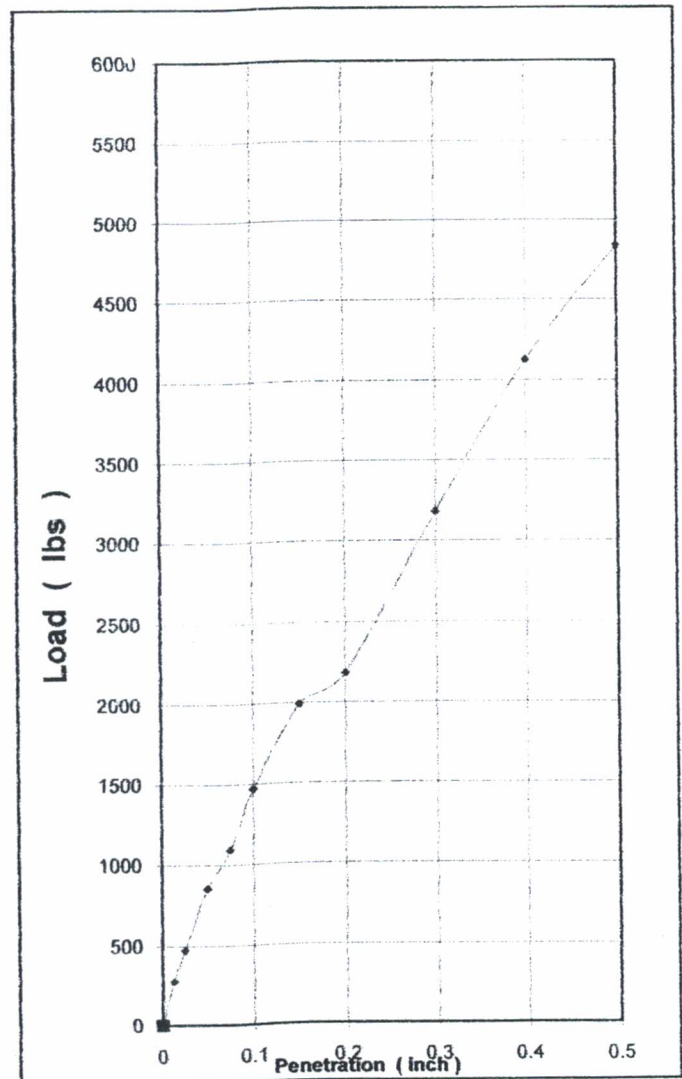
B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
B.R VALUE	37.97	44.29

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested soil Description	No : 2 <i>Lime Stone</i>	Date of Test	July 18, 99
Coordinate of Tested location	N : E :	Tested By	Budi
		Calibration (lbs/div)	47.45784
		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	6.0	284.75
0.50	0.025	63.5	10.0	474.58
1.00	0.05	127	18.0	854.24
1.50	0.075	190.5	23.0	1091.53
2.00	0.1	254	31.0	1471.19
3.00	0.15	381	42.0	1993.23
4.00	0.2	508	48.0	2183.06
6.00	0.3	762	67.0	3179.68
8.00	0.4	1016	87.0	4128.83
10.00	0.5	1270	102.0	4840.70



Field Water Content (%)

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

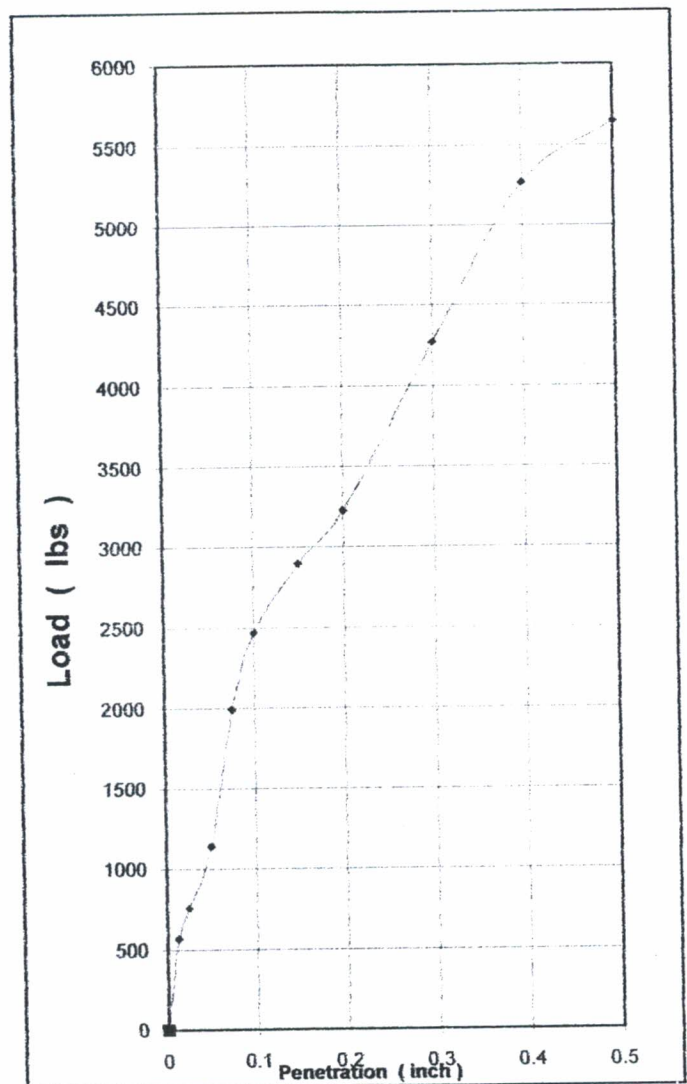
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
C.B.R VALUE	49.04	48.51

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No : 3 Lime Stone	Date of Test Tested By	July 18, 99 Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div) Standard of Test	47.45784 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	12.0	569.49
0.50	0.025	63.5	16.0	759.33
1.00	0.05	127	24.0	1138.99
1.50	0.075	190.5	42.0	1993.23
2.00	0.1	254	52.0	2467.81
3.00	0.15	381	61.0	2894.93
4.00	0.2	508	68.0	3227.13
6.00	0.3	762	90.0	4271.21
8.00	0.4	1016	111.0	5267.82
10.00	0.5	1270	119.0	5647.48



Field Water Content (%)

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

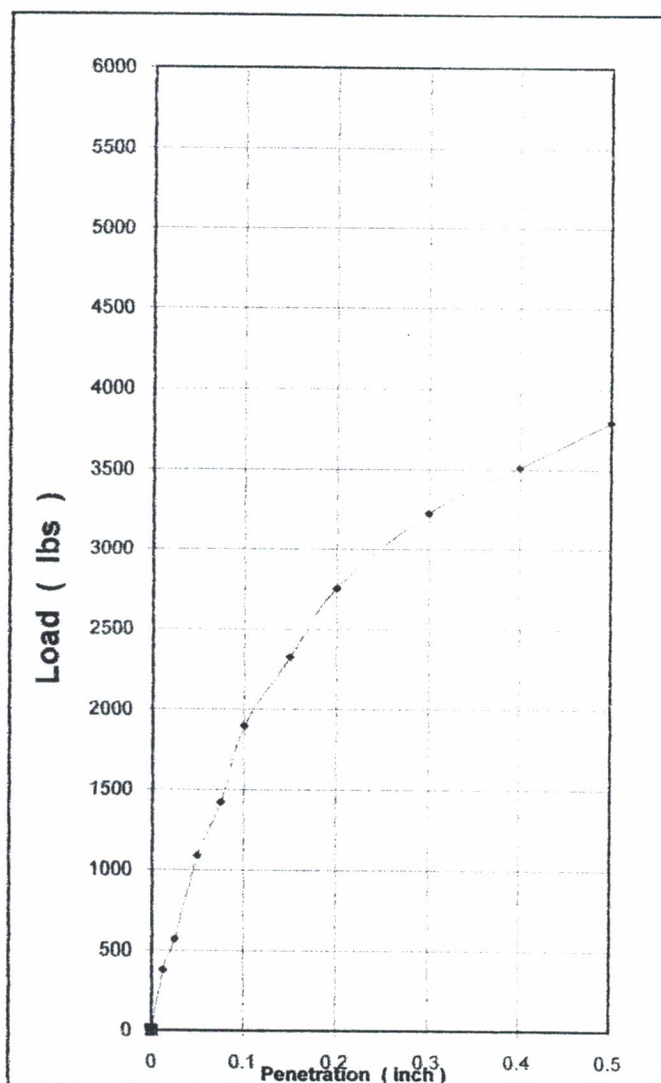
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
C.B.R VALUE	82.26	71.71

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description Coordinate of Tested Elevation	No : 4 Lime Stone N : E :	Date of Test Tested By Calibration (lbs/div) Standard of Test	July 18, 99 Budi 47.45784 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	8.0	379.66
0.50	0.025	63.5	12.0	569.49
1.00	0.05	127	23.0	1091.53
1.50	0.075	190.5	30.0	1423.74
2.00	0.1	254	40.0	1898.31
3.00	0.15	381	49.0	2325.43
4.00	0.2	508	58.0	2752.55
6.00	0.3	762	68.0	3227.13
8.00	0.4	1016	74.0	3511.88
10.00	0.5	1270	80.0	3796.63



Field Water Content (%)

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

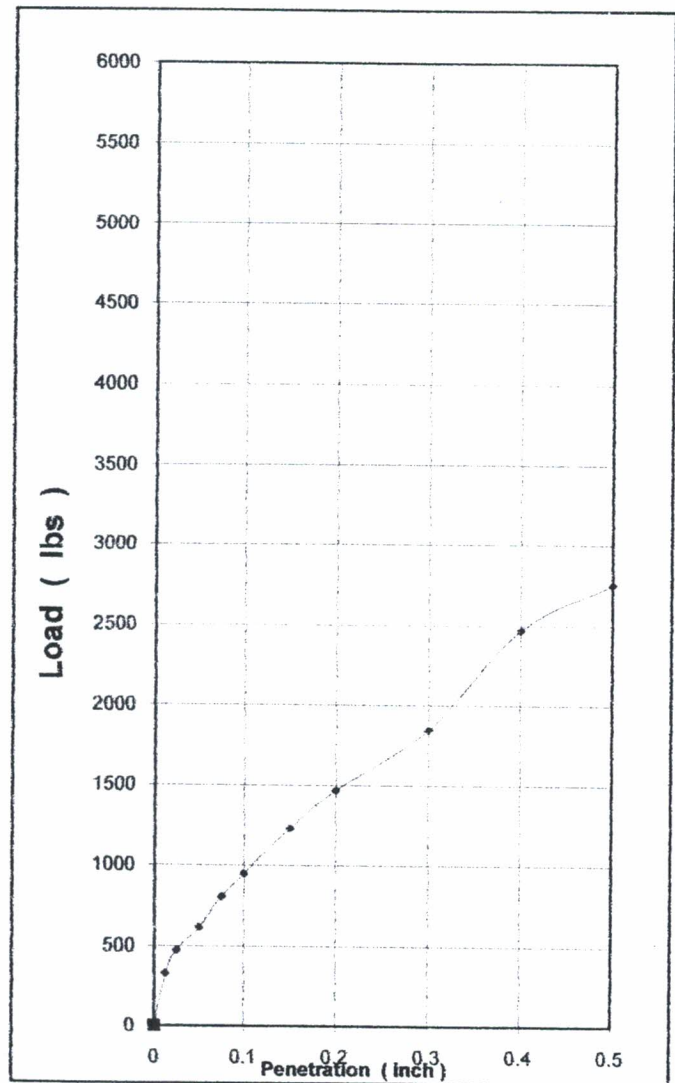
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
C.B.R VALUE	63.28	61.17

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No :5	Date of Test	July 18, 99
Coordinate of Tested Location	Lime Stone	Tested By	Budi
	N : E :	Calibration (lbs/div)	47.45784
		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	332.20
0.50	0.025	63.5	10.0	474.58
1.00	0.05	127	13.0	616.95
1.50	0.075	190.5	17.0	806.78
2.00	0.1	254	20.0	949.16
3.00	0.15	381	26.0	1233.90
4.00	0.2	508	31.0	1471.19
6.00	0.3	762	39.0	1850.86
8.00	0.4	1016	52.0	2467.81
10.00	0.5	1270	58.0	2752.55



Field Water Content (%)

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

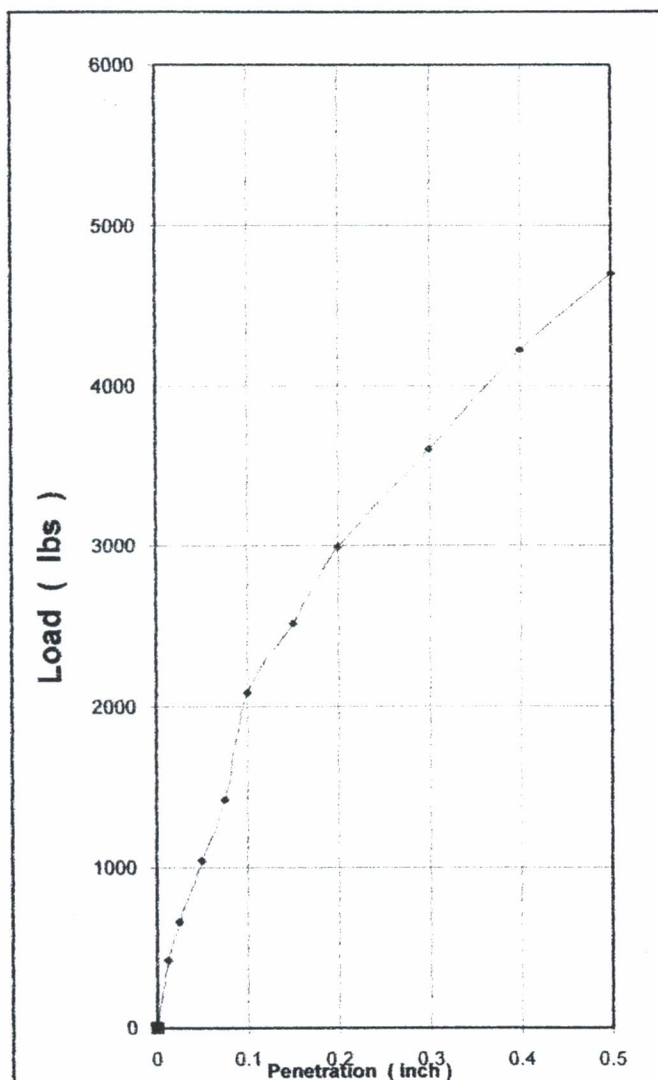
.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
BR VALUE	31.64	32.69

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil	No : 6	Date of Test	July 18, 99
Description	Lime Stone	Tested By	Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div)	47.45784
		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	9.0	427.12
0.50	0.025	63.5	14.0	664.41
1.00	0.05	127	22.0	1044.07
1.50	0.075	190.5	30.0	1423.74
2.00	0.1	254	44.0	2088.14
3.00	0.15	381	53.0	2515.27
4.00	0.2	508	62.0	2989.84
6.00	0.3	762	76.0	3606.80
8.00	0.4	1016	89.0	4223.75
10.00	0.5	1270	99.0	4698.33



Field Water Content (%)

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

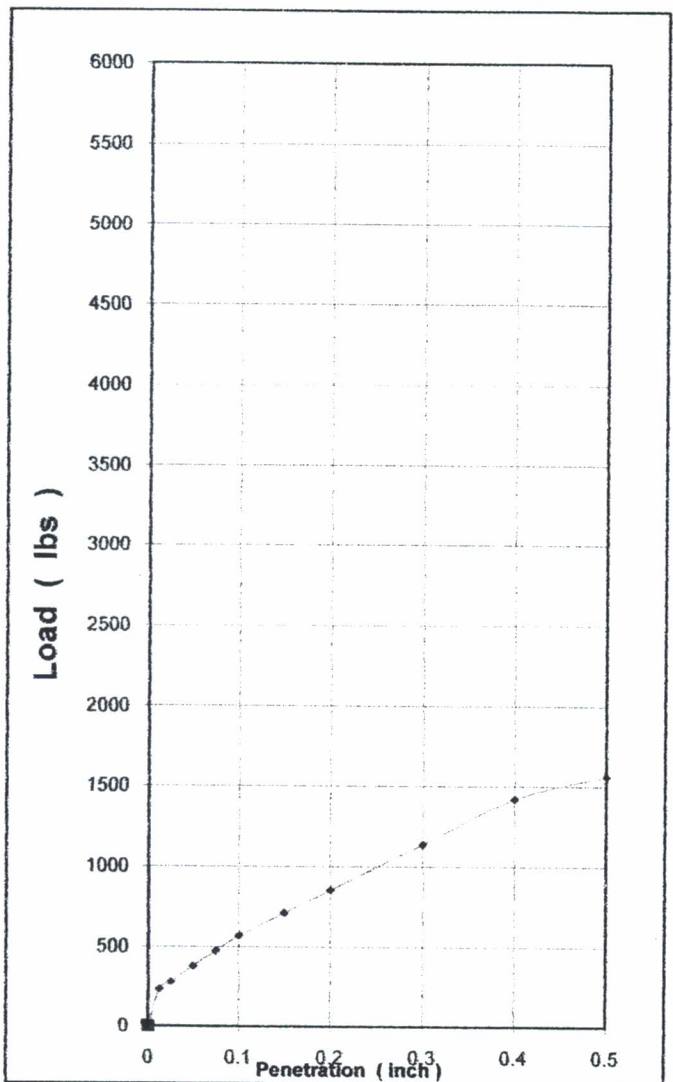
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
C.B.R VALUE	69.60	66.44

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No : 7 Lime Stone	Date of Test Tested By	July 18, 99 Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div) Standard of Test	47.45784 ASTM

Time in 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	237.29
0.50	0.025	63.5	6.0	284.75
1.00	0.05	127	8.0	379.66
1.50	0.075	190.5	10.0	474.58
2.00	0.1	254	12.0	569.49
3.00	0.15	381	15.0	711.87
4.00	0.2	508	18.0	854.24
5.00	0.3	762	24.0	1138.99
3.00	0.4	1016	30.0	1423.74
0.00	0.5	1270	33.0	1566.11



Field Water Content (%)

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

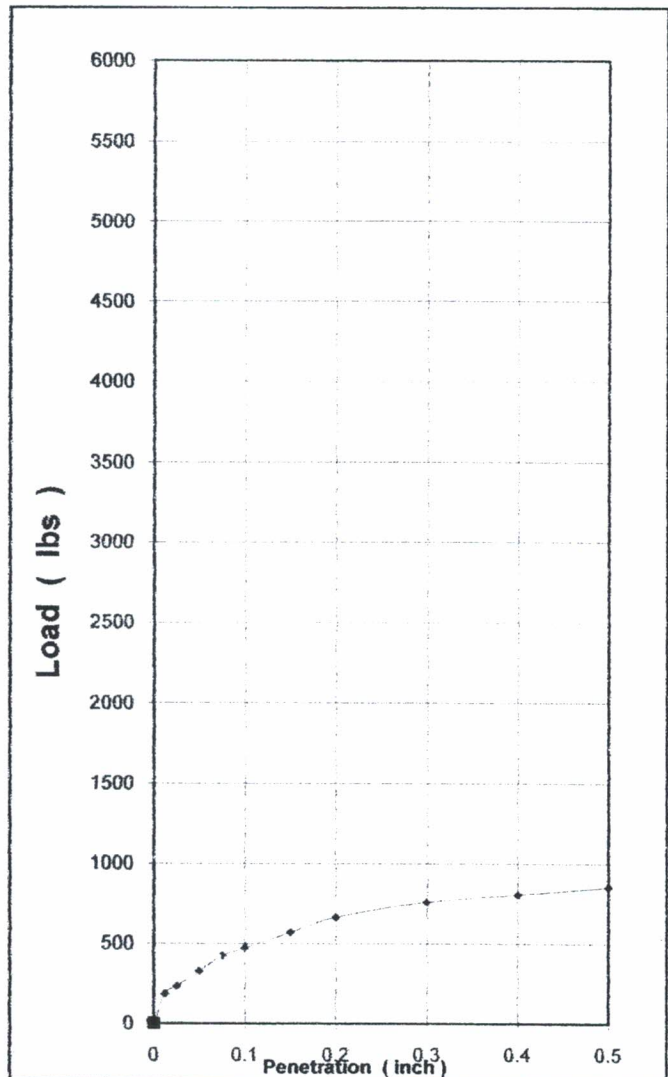
B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
B.R VALUE	18.98	18.98

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No : 8 Lime Stone	Date of Test Tested By	July 18, 99 Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div) Standard of Test	47.45784 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	189.83
0.50	0.025	63.5	5.0	237.29
1.00	0.05	127	7.0	332.20
1.50	0.075	190.5	9.0	427.12
2.00	0.1	254	10.0	474.58
3.00	0.15	381	12.0	569.49
4.00	0.2	508	14.0	664.41
5.00	0.3	762	16.0	759.33
6.00	0.4	1016	17.0	806.78
7.00	0.5	1270	18.0	854.24



Soil Moisture Content (%)

	Unit
Weight of Container	gm
Weight of Soil & Container	gm
Weight of Soil & Container	gm
Moisture Content	%

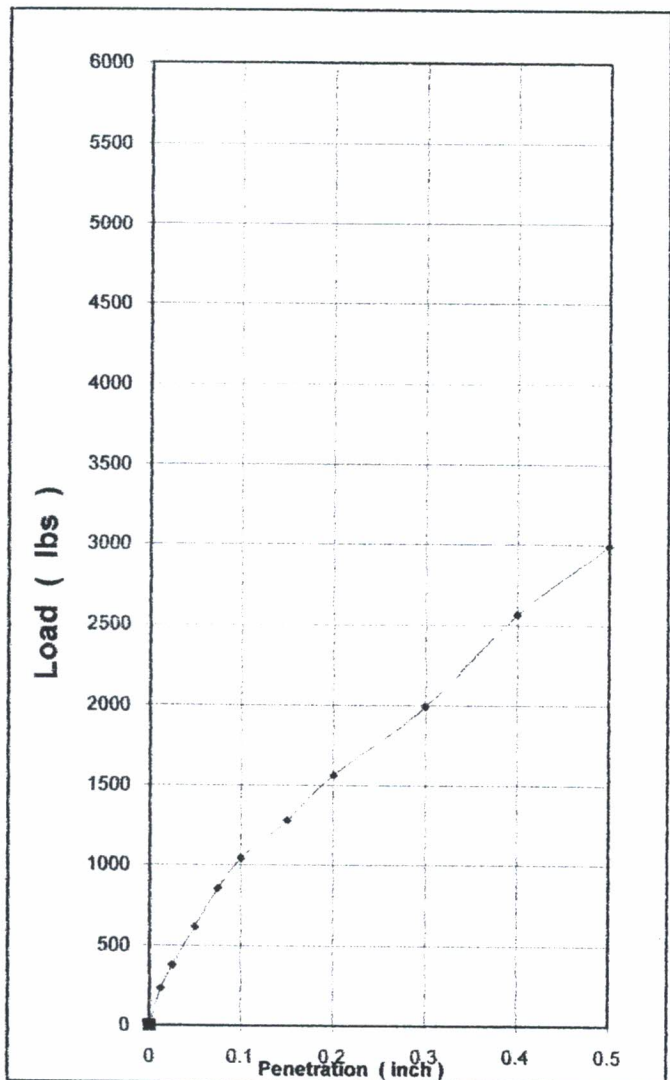
B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
B.R VALUE	15.82	14.76

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested	No : 9	Date of Test	July 18, 99
Soil Description	Lime Stone	Tested By	Budi
Coordinate of Tested	N : E :	Calibration (lbs/div)	47.45784
Elevation		Standard of Test	ASTM

Time in 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	237.29
0.50	0.025	63.5	8.0	379.66
1.00	0.05	127	13.0	616.95
1.50	0.075	190.5	18.0	854.24
2.00	0.1	254	22.0	1044.07
3.00	0.15	381	27.0	1281.36
4.00	0.2	508	33.0	1566.11
5.00	0.3	762	42.0	1993.23
6.00	0.4	1016	54.0	2562.72
8.00	0.5	1270	63.0	2989.84



Field Water Content (%)

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

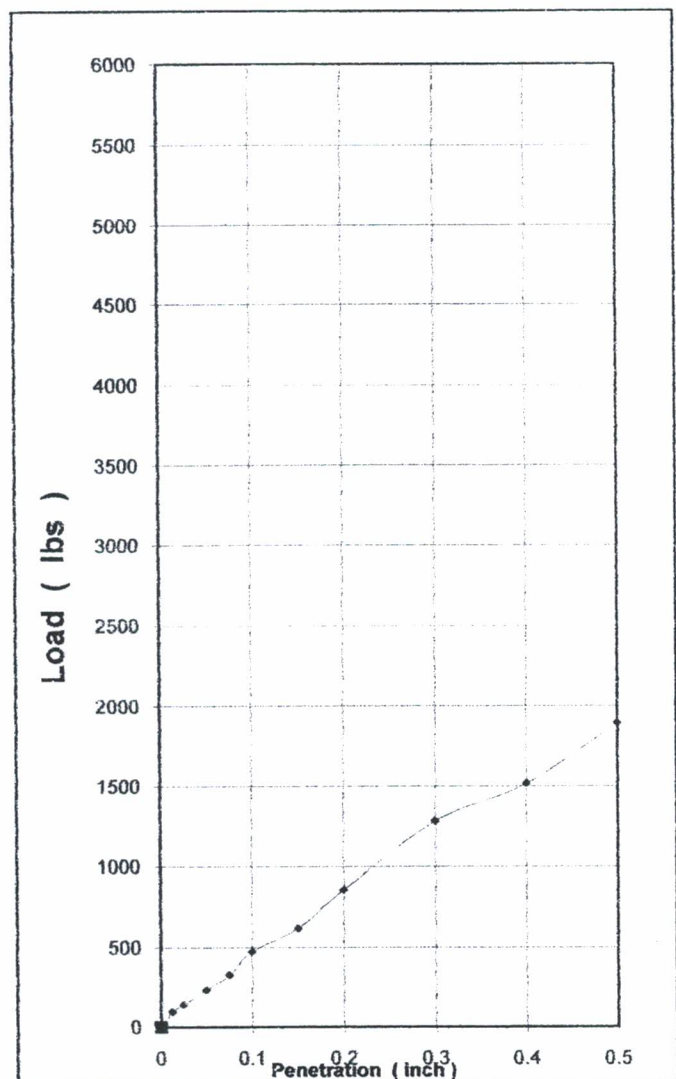
B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
B.R VALUE	34.80	34.80

CALIFORNIA BEARING RATIO FIELD TEST

PROJECT	AKSES ROAD CILANDAK IPA		
LOCATION	CILANDAK, JAKARTA SELATAN		
Location of Tested Soil Description	No : 10 <i>Lime Stone</i>	Date of Test Tested By	July 18, 99 Budi
Coordinate of Tested Location	N : E :	Calibration (lbs/div) Standard of Test	47,45784 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	2.0	94.92
0.50	0.025	63.5	3.0	142.37
1.00	0.05	127	5.0	237.29
1.50	0.075	190.5	7.0	332.20
2.00	0.1	254	10.0	474.58
3.00	0.15	381	13.0	616.95
4.00	0.2	508	18.0	854.24
6.00	0.3	762	27.0	1281.36
8.00	0.4	1016	32.0	1518.65
10.00	0.5	1270	40.0	1898.31



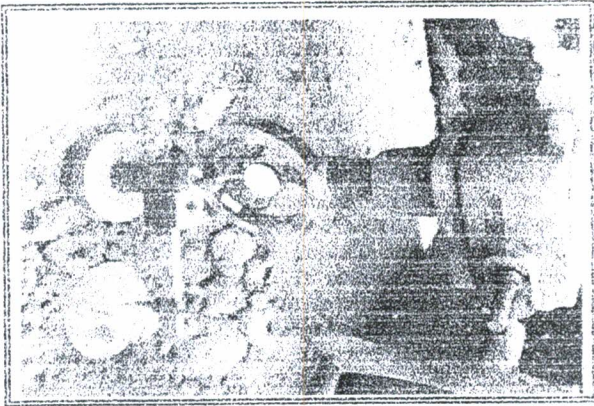
Field Water Content (%)

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

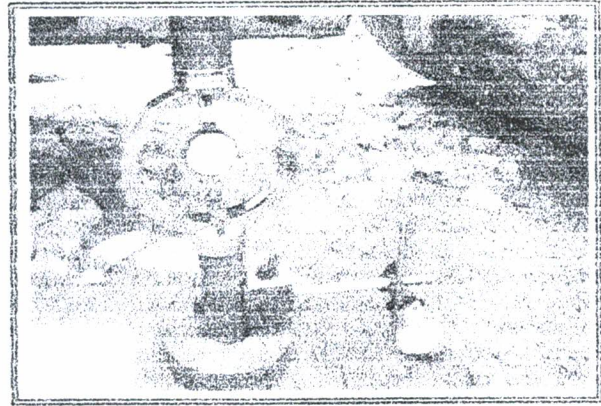
C.B.R VALUE

	Penetration	
	0.1 inch	0.2 inch
C.B.R VALUE	15.82	18.98

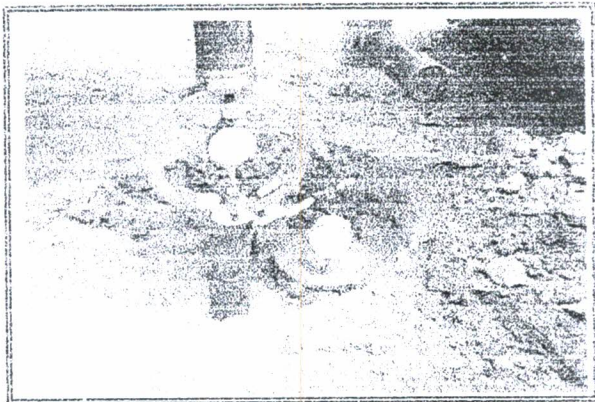
**DOKUMENTASI CBR : AKSES ROAD CILANDAK IPA
CILANDAK, JAKSEL**



Titik 1



Titik 2



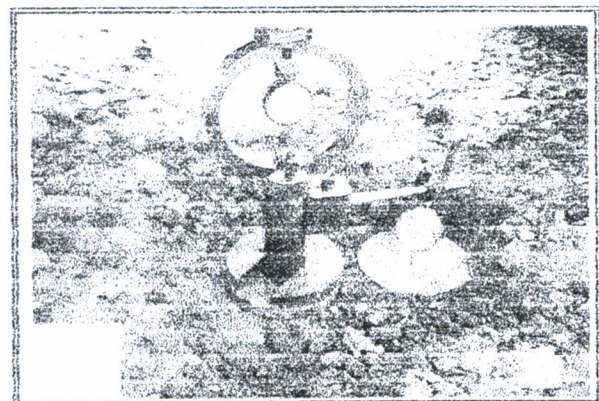
Titik 3



Titik 4

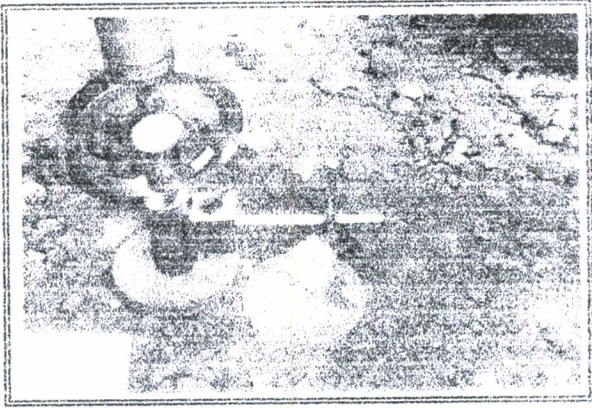


Titik 5

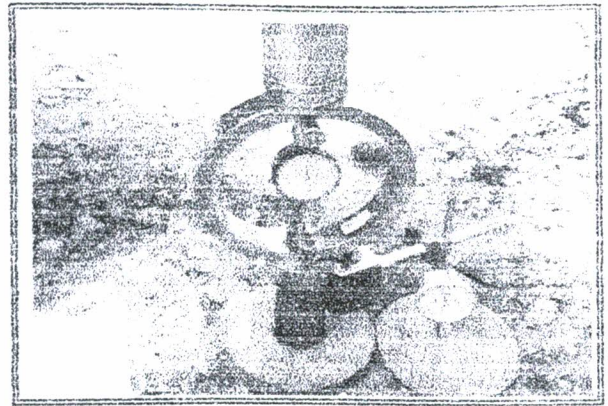


Titik 6

**DOKUMENTASI CBR : AKSES ROAD CILANDAK IPA
CILANDAK, JAKSEL**



Titik 7



Titik 8



Titik 9



Titik 10