

## Lampiran 01.

## Analisis kandungan klorofil a

Kandungan Klorofil a (mg) pada kepadatan lalu lintas yang berbeda.

| Perlakuan | Ulangan |        |        |        | rerata |
|-----------|---------|--------|--------|--------|--------|
|           | I       | II     | III    | Jumlah |        |
| P awal    | 0,5739  | 0,4713 | 0,5757 | 1,6209 | 0,5403 |
| P0        | 1,0042  | 0,9809 | 1,2200 | 3,2051 | 1,0683 |
| P1        | 0,8155  | 0,8653 | 0,8155 | 2,4963 | 0,8321 |
| P2        | 0,6937  | 0,7941 | 0,7774 | 2,2652 | 0,7550 |
| Jumlah    | 3,0873  | 3,1116 | 3,3886 | 9,5875 | 0,7989 |

$$FK = \frac{9,5875^2}{12} = 7,6600$$

$$JK \text{ Total} = (0,5739^2 + 1,0042^2 + 0,8155^2 + 0,6937^2 + \dots + 0,7774^2) - FK = 0,4768$$

$$JKP = \frac{(1,6209^2 + 3,2051^2 + 2,4963^2 + 2,2652^2)}{3} - FK = 0,4275$$

$$JK \text{ Galat} = 0,4768 - 0,4275 = 0,0493$$

## Tabel Anova

Kandungan klorofil a (mg) pada kepadatan lalu lintas yang berbeda

| SK        | DB | JK     | KT     | F Hitung | F Tabel   |
|-----------|----|--------|--------|----------|-----------|
| Perlakuan | 3  | 0,4275 | 0,1425 | 0,0231   | 4,07 (5%) |
| Galat     | 8  | 0,0422 | 0,0070 |          | 7,59 (1%) |
| Total     | 11 |        |        |          |           |

Keterangan : Karena F Hitung lebih kecil dari F tabel maka tidak berbeda nyata

## Lampiran 02.

**Analisis Varians Kandungan Klorofil b**  
**Kandungan Klorofil b (mg) pada kepadatan lalu lintas yang berbeda.**

| Perlakuan | Ulangan |        |        | Jumlah | Rerata |
|-----------|---------|--------|--------|--------|--------|
|           | I       | II     | III    |        |        |
| P awal    | 0,4629  | 0,5281 | 0,4457 | 1,4367 | 0,4789 |
| P0        | 0,9590  | 1      | 0,8676 | 2,8266 | 0,9422 |
| P1        | 0,5371  | 0,5371 | 0,4598 | 1,3679 | 0,4559 |
| P2        | 0,4468  | 0,5939 | 0,5371 | 1,5778 | 0,5259 |
| Jumlah    | 2,4052  | 2,6591 | 2,3102 | 2,2090 | 0,6007 |

$$FK = \frac{2,2090^2}{12} = 0,4066$$

$$JK_{Tot} = (0,9590^2 + 0,5371^2 + 0,4468^2 + 0,4629^2 + \dots + 0,5371^2) - FK$$

$$= 4,5867$$

$$JKP = \frac{(1,4367^2 + 2,8266^2 + 1,3679^2 + 1,5778^2)}{3} - FK$$

$$= 4,3981$$

$$JK \text{ galat} = 4,5867 - 4,3981 = 0,1886$$

**Analisis Varians Klorofil b**

| SK        | DB | JK     | KT     | F Hitung | F Tabel   |
|-----------|----|--------|--------|----------|-----------|
| Perlakuan | 3  | 4,3981 | 1,4660 | 62,38*   | 4,07 (5%) |
| Galat     | 8  | 0,1886 | 0,0235 |          | 7,59(1%)  |
| Total     | 11 |        |        |          |           |

Keterangan : Karena F Hitung lebih besar dari F tabel maka berbeda nyata.

### Uji Lanjut dengan menggunakan Duncan

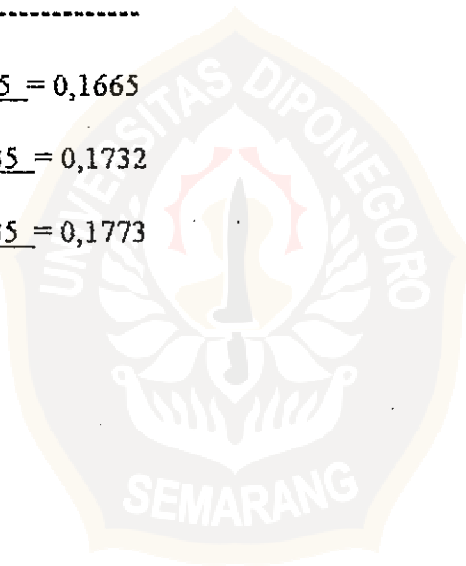
| Perlakuan     | P1      | P awal  | P2      | P0     |
|---------------|---------|---------|---------|--------|
|               | 0,4559  | 0,4789  | 0,5259  | 0,9422 |
| P1 0,4559     | -       |         |         |        |
| P awal 0,4789 | 0,023   | -       |         |        |
| P2 0,5259     | 0,07    | 0,047   | -       |        |
| P0 0,9422     | 0,4863* | 0,4633* | 0,4163* | -      |

| P         | 2    | 3    | 4    |
|-----------|------|------|------|
| (R)V, 5 % | 3,26 | 3,39 | 3,47 |

$$\text{LSR } P_2 = 3,26 \times \frac{0,0235}{3} = 0,1665$$

$$P_3 = 3,39 \times \frac{0,0235}{3} = 0,1732$$

$$P_4 = 3,47 \times \frac{0,0235}{3} = 0,1773$$



## Lampiran 03.

Analisa kandungan Pb dengan menggunakan Alat Spektrofotometer

METODE : FLAME  
 SIGNAL : AA-BG  
 INTEG. TIME : 3.0sec  
 CALIBRATION TYPE : Non Linier  
 EXPANSION : 1.00  
 PRINT CALIB : Yes  
 READ DELAY : 03sec

LAMP CURRENT : 10 ma  
 REPLICATES : 03  
 TECHNIQUE : Flame  
 ENERGY : 55

Standart 1 : 20

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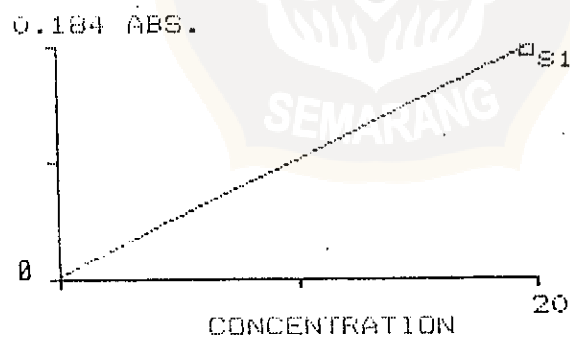
Standart 1

(AA-BG) ABSORBANCE :

|                      |        |                |                |
|----------------------|--------|----------------|----------------|
|                      | 0,184  | 0,184          | 0,184          |
| CONC. (STD APLIED) : |        |                |                |
| MEAN :               | 20     | SD : 0,0001    | RSD (%) : 0,03 |
| CORR. COEF. :        | 1.0000 | SLOPE : 0,0092 |                |

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Grafik



**KANDUNGAN Pb PADA KEPADATAN LALU LINTAS RENDAH**Ulangan I

(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0455 | RSD (%) : |

Ulangan II

(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0525 | RSD (%) : |

Ulangan III

(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0243 | RSD (%) : |

**KEPADATAN LALU LINTAS SEDANG :**Ulangan I

(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0577 | RSD (%) : |

Ulangan II

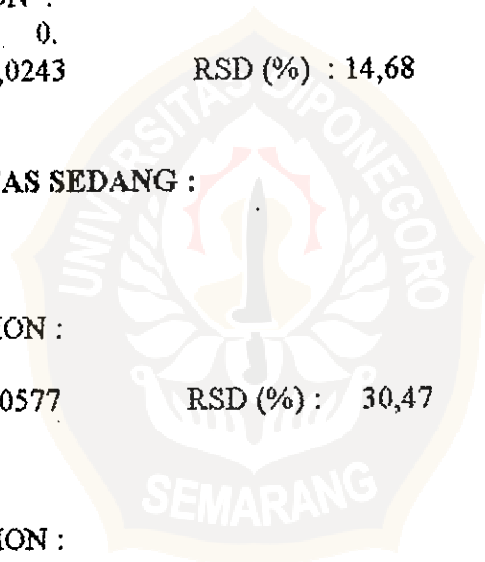
(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0143 | RSD (%) : |

Ulangan III

(AA-BG) CONCENTRATION :

|        |    |      |        |           |
|--------|----|------|--------|-----------|
|        | 0. | 0.   | 0.     |           |
| MEAN : | 0. | SD : | 0,0607 | RSD (%) : |



**KEPADATAN LALU LINTAS TINGGI**Ulangan I

(AA-BG) CONCENTRATION :

|        |   |      |        |           |      |
|--------|---|------|--------|-----------|------|
|        | 1 | 1    | 1      |           |      |
| MEAN : | 1 | SD : | 0,0170 | RSD (%) : | 2,44 |

Ulangan II

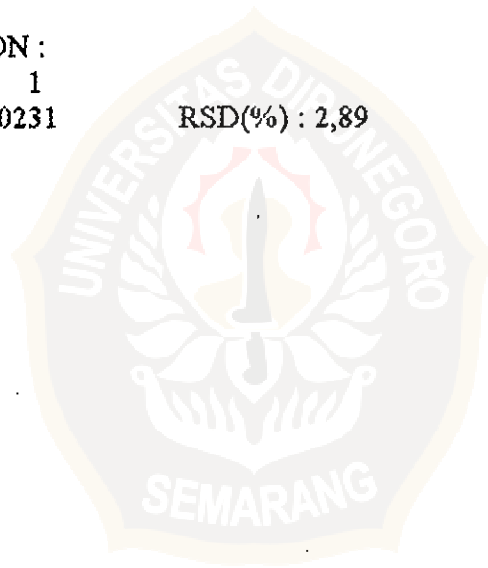
(AA-BG) CONCENTRATION :

|        |   |      |        |          |      |
|--------|---|------|--------|----------|------|
|        | 1 | 1    | 1      |          |      |
| MEAN : | 1 | SD : | 0,0226 | RSD(%) : | 4,21 |

Ulangan III

(AA-BG) CONCENTRATION :

|        |   |      |        |          |      |
|--------|---|------|--------|----------|------|
|        | 1 | 1    | 1      |          |      |
| MEAN : | 1 | SD : | 0,0231 | RSD(%) : | 2,89 |



**DATA FISIK LINGKUNGAN  
KEPADATAN LALU LINTAS TINGGI**

| HARI | PH  | SUHU TANAH | KELEMBABAN | KECEPATAN ANGIN | SUHU UDARA |
|------|-----|------------|------------|-----------------|------------|
| 1    | 5,8 | 29         | 70         |                 | 31         |
| 2    | 5,6 | 30         | 67         |                 | 30         |
| 3    | 5,4 | 30         | 68         |                 | 30         |
| 4    | 5,2 | 31         | 60         |                 | 31         |
| 5    | 5,5 | 29         | 60,5       |                 | 29         |
| 6    | 5,0 | 30         | 65         | 1,6-3,1 km/jam  | 30         |
| 7    | 5,2 | 31         | 52         |                 | 29         |
| 8    | 5,4 | 30         | 65         |                 | 30         |
| 9    | 5,2 | 30         | 65         |                 | 31         |
| 10   | 5,2 | 29         | 65         |                 | 31         |
| 11   | 5,0 | 28         | 70         |                 | 32         |
| 12   | 5,4 | 28         | 72         | 1,6-4,4 km/jam  | 32         |
| 13   | 5,6 | 29         | 60         |                 | 31         |
| 14   | 5,6 | 30         | 65         |                 | 29         |
| 15   | 5,4 | 28         | 65         |                 | 30         |
| 16   | 5,6 | 29         | 50         |                 | 29         |
| 17   | 5,4 | 30         | 52         |                 | 31         |
| 18   | 5,2 | 30         | 60         |                 | 30         |
| 19   | 5,0 | 31         | 65         |                 | 31         |
| 20   | 5,2 | 29         | 65         |                 | 31         |
| 21   | 5,4 | 30         | 70         | 0,9-2,8 km/jam  | 31         |
| 22   | 5,4 | 31         | 75         |                 | 30         |
| 23   | 5,2 | 30         | 65         |                 | 31         |
| 24   | 5,4 | 29         | 62         |                 | 30         |
| 25   | 5,6 | 30         | 50         |                 | 29         |
| 26   | 5,2 | 30         | 65         |                 | 29         |
| 27   | 5,0 | 29         | 65         |                 | 30         |
| 28   | 5,0 | 29         | 60         |                 | 32         |
| 29   | 5,2 | 28         | 65         | 0,5-2,4 km/jam  | 32         |
| 30   | 5,4 | 30         | 65         |                 | 32         |

Keterangan : Data Primer Imanuddin (1997)

**DATA FISIK LINGKUNGAN  
KEPADATAN LALU LINTAS SEDANG**

| HARI | PH  | SUHU TANAH | KELEMBABAN | KECEPATAN ANGIN | SURU UDARA |
|------|-----|------------|------------|-----------------|------------|
| 1    | 5,8 | 29         | 65         |                 | 31         |
| 2    | 5,4 | 30         | 60         |                 | 30         |
| 3    | 5,4 | 31         | 60         |                 | 30         |
| 4    | 5,2 | 31         | 60         |                 | 31         |
| 5    | 5,6 | 30         | 70         |                 | 29         |
| 6    | 5,2 | 30         | 65         | 1,1-3,1 km/jam  | 31         |
| 7    | 5,2 | 31         | 65         |                 | 30         |
| 8    | 5,4 | 29         | 60         |                 | 31         |
| 9    | 5,3 | 29         | 65         |                 | 31         |
| 10   | 5,2 | 30         | 60         |                 | 31         |
| 11   | 5,0 | 30         | 65         |                 | 30         |
| 12   | 5,4 | 31         | 75         | 0,4-3,5 km/jam  | 32         |
| 13   | 5,6 | 31         | 70         |                 | 31         |
| 14   | 5,5 | 31         | 70         |                 | 29         |
| 15   | 5,6 | 30         | 60         |                 | 30         |
| 16   | 5,5 | 31         | 75         |                 | 29         |
| 17   | 5,4 | 29         | 60         |                 | 30         |
| 18   | 5,2 | 30         | 80         | 0,1-2,1 km/jam  | 29         |
| 19   | 5,0 | 31         | 55         |                 | 31         |
| 20   | 5,2 | 30         | 60         |                 | 31         |
| 21   | 5,4 | 30         | 65         |                 | 30         |
| 22   | 5,5 | 31         | 60         |                 | 30         |
| 23   | 5,2 | 30         | 55         |                 | 31         |
| 24   | 5,4 | 29         | 60         | 0,3-2,0 km/jam  | 30         |
| 25   | 5,6 | 30         | 75         |                 | 29         |
| 26   | 5,2 | 31         | 70         |                 | 29         |
| 27   | 5,0 | 29         | 50         |                 | 32         |
| 28   | 5,2 | 29         | 55         |                 | 32         |
| 29   | 5,2 | 28         | 60         |                 | 31         |
| 30   | 5,4 | 31         | 65         | 1,4-3,6 km/jam  | 31         |

Keterangan : Data primer M. Imanudin (1997).



DATA FISIK LINGKUNGAN  
KEPADATAN RENDAH (KONTROL)

| HARI | PH  | SUHU TANAH | KELEMBABAN | SUHU UDARA | KECEPATAN ANGIN |
|------|-----|------------|------------|------------|-----------------|
| 1    | 5,3 | 29         | 70         | 29         |                 |
| 2    | 5,4 | 30         | 60         | 30         |                 |
| 3    | 5,3 | 30         | 65         | 31         |                 |
| 4    | 5,5 | 31         | 60         | 30         |                 |
| 5    | 5,3 | 29         | 55         | 31         |                 |
| 6    | 5,5 | 29         | 60         | 29         |                 |
| 7    | 5,1 | 28         | 65         | 29         |                 |
| 8    | 5,5 | 30         | 50         | 32         |                 |
| 9    | 5,1 | 30         | 65         | 29         |                 |
| 10   | 5,1 | 30         | 70         | 28         |                 |
| 11   | 5,4 | 29         | 65         | 30         |                 |
| 12   | 5,3 | 29         | 65         | 30         |                 |
| 13   | 5,2 | 28         | 60         | 30         |                 |
| 14   | 5,1 | 30         | 55         | 31         |                 |
| 15   | 5,1 | 31         | 70         | 29         |                 |
| 16   | 4,9 | 30         | 65         | 30         |                 |
| 17   | 5,0 | 29         | 55         | 29         |                 |
| 18   | 5,1 | 30         | 50         | 28         |                 |
| 19   | 5,0 | 30         | 55         | 28         |                 |
| 20   | 5,0 | 31         | 65         | 30         |                 |
| 21   | 5,2 | 29         | 75         | 29         |                 |
| 22   | 5,1 | 29         | 75         | 29         |                 |
| 23   | 5,2 | 28         | 70         | 30         |                 |
| 24   | 5,3 | 29         | 65         | 31         |                 |
| 25   | 5,2 | 28         | 60         | 32         |                 |
| 26   | 5,3 | 30         | 55         | 32         |                 |
| 27   | 5,3 | 31         | 60         | 31         |                 |
| 28   | 5,2 | 30         | 65         | 30         |                 |
| 29   | 5,3 | 30         | 60         | 31         |                 |
| 30   | 5,3 | 29         | 55         | 32         |                 |

Keterangan : Data Primer Imanuddin (1997).

## LAPORAN HASIL ANALISIS

Sampel : Tanah  
 Objek analisis : Kadar N dan Mg  
 Lama pengerjaan : 2 minggu

### Analisis N

1. Diambil 10 gram tanah dimasukkan ke dalam labu kjehdahl ditambah dengan 1 gram  $\text{CuSO}_4$  dan 1 gram  $\text{ZnSO}_4$  dan 50 ml larutan  $\text{H}_2\text{SO}_4$  pekat 97% dan didestruksi sampai asapnya habis (6-24 jam)
2. Setelah itu larutan diencerkan, didinginkan dan dimasukkan ke dalam labu ukur 100 ml sambil disaring lalu ditambah dengan air sampai tanda batas (ditandai sebagai larutan X)
3. Diambil 25 ml larutan tadi dan dimasukkan dalam labu destilasi, ditambah indikator fenolptalein dan larutan  $\text{NaOH}$  30% sampai berwarna merah, kemudian didestilasi sampai 2/3 larutan tersulingkan.
4. Destilat ditampung dalam 25 ml larutan  $\text{HCl}$  0,1 N
5. Dititrasi kelebihan  $\text{HCl}$  dengan  $\text{NaOH}$  0,1 N hingga titik akhir
6. Dicatat volume  $\text{NaOH}$  0,1 N yang diperlukan dengan menghitung kadar nitrogennya.

$$\text{Kadar Nitrogen} = \frac{Fp \times (Vb - Vs) \times N_{\text{NaOH}} \times 14 \text{ mg}}{\text{Berat sampel (gr)}}$$

Fp = faktor pengenceran      Vb = Volume blanko      Vs = Volume sampel

### Hasil analisis

#### Sampel Tinggi

$$Fp = 100/25 = 4 \qquad Vb = 23,5 \text{ ml} \qquad Vs = 20 \text{ ml}$$

$$\text{Kadar N} = \frac{4 \times (23,5 - 20) \times 0,1 \times 14 \text{ mg}}{10 \text{ (gr)}} = 19,6 \text{ mg N/10 gr sampel}$$

#### Sampel Sedang

$$Fp = 100/25 = 4 \qquad Vb = 25,3 \text{ ml} \qquad Vs = 22,5 \text{ ml}$$

$$\text{Kadar N} = \frac{4 \times (25,3 - 22,5) \times 0,1 \times 14 \text{ mg}}{10 \text{ (gr)}} = 15,68 \text{ mg N/10 gr sampel}$$

#### Sampel Rendah

$$Fp = 100/25 = 4 \qquad Vb = 34 \text{ ml} \qquad Vs = 31,5 \text{ ml}$$

$$\text{Kadar N} = \frac{4 \times (34 - 31,5) \times 0,1 \times 14 \text{ mg}}{10 \text{ (gr)}} = 14 \text{ mg N/10 gr sampel}$$

### Analisis Mg dengan AAS

1. Disiapkan larutan standar 0.5 ppm  $\text{Mg}(\text{NO}_3)_2$  dan diinjeksikan pada AAS
2. Destilat hasil destruksi (larutan X) diencerkan 100 - 10.000 kali untuk mendapatkan range linear yang tepat pada pengukuran
3. Menginjeksi larutan pada alat AAS
4. Menghitung kadar Mg

$$\text{Kadar Mg} = \frac{Fp \times (\text{volume larutan X}) \times \text{konsentrasi Mg}}{\text{Berat sampel (gr)}}$$

Fp = faktor pengenceran      Volume larutan X = 0,1 liter      Konsentrasi Mg dalam ppm

### Hasil analisis

#### Sampel tinggi

$$Fp = 1000 \text{ kali} \qquad \text{konsentrasi Mg} = 0,1 \text{ ppm}$$

$$\text{Kadar Mg} = \frac{1000 \times 0,1 \times 0,1 \text{ mg}}{10 \text{ (gr)}} = 10 \text{ mg Mg/10 gr sampel}$$

#### Sampel sedang

$$Fp = 10.000 \text{ kali} \qquad \text{konsentrasi Mg} = 0,3 \text{ ppm}$$

$$\text{Kadar Mg} = \frac{10.000 \times 0,1 \times 0,3 \text{ mg}}{10 \text{ (gr)}} = 300 \text{ mg Mg/10 gr sampel}$$

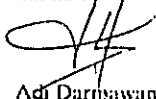
#### Sampel rendah

$$Fp = 100 \text{ kali} \qquad \text{konsentrasi Mg} = 0,5 \text{ ppm}$$


$$\text{Kadar Mg} = \frac{100 \times 0,1 \times 0,5 \text{ mg}}{10 \text{ (gr)}} = 5 \text{ mg Mg/10 gr sampel}$$

Semarang, 26 Agustus 1997

Analisis 1

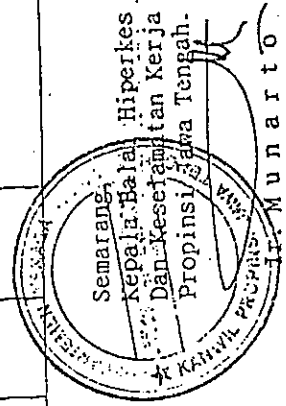
  
Adi Darmawan

Analisis 2

  
Sriatun

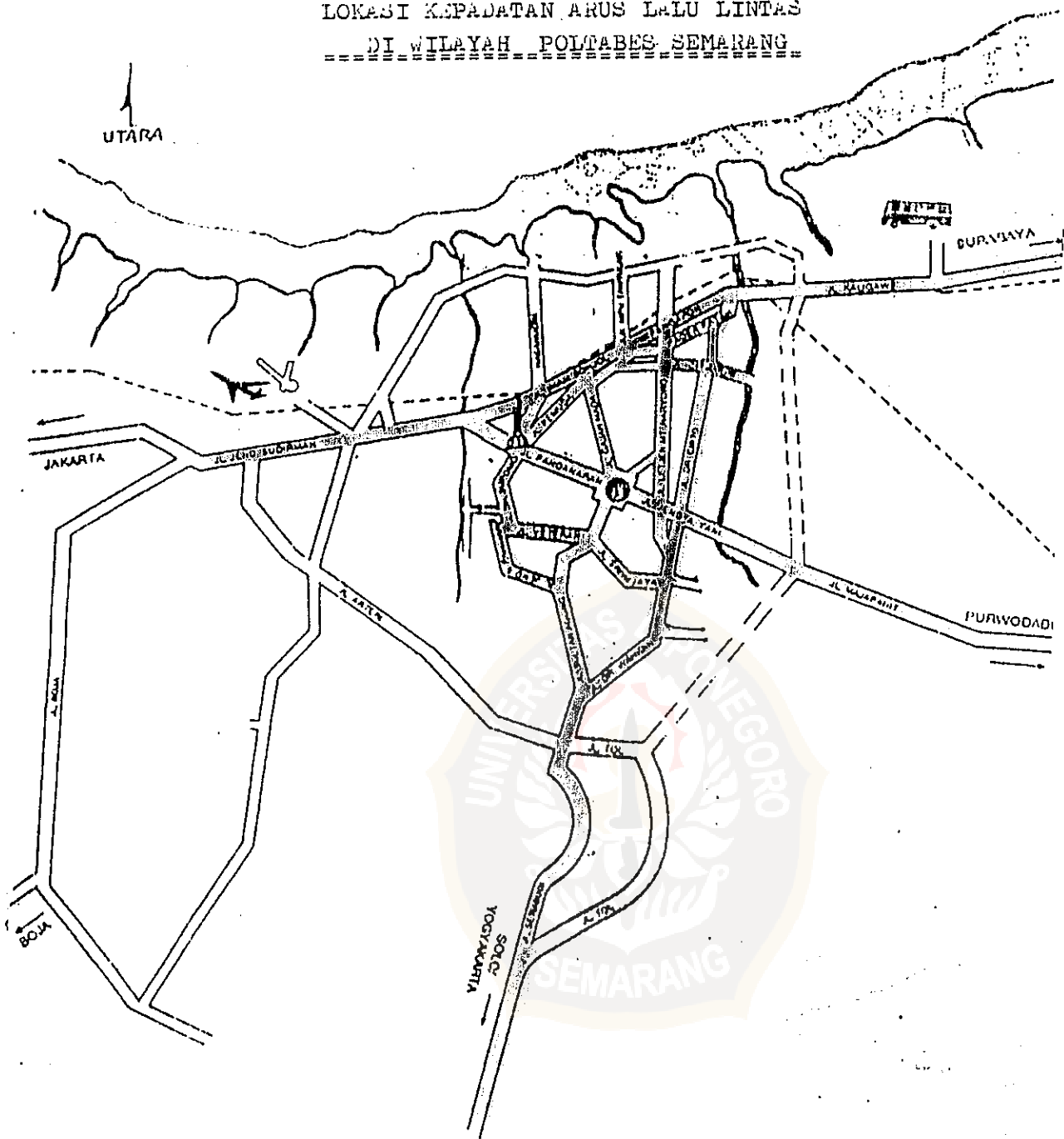
DATA HASIL PENGUJIAN KUALITAS UDARA  
DI KOTA MADYA SEMARANG  
Tanggal, 3 Desember 1996

| No. | L o k a s i /<br>Waktu pengukuran                                | Wapada-<br>tan lalu<br>lintas<br>(per jam) | Keadaan Cuaca      |                      | Konsentrasi gas di udara |              |              |              |              |             |                 | Keterangan |   |
|-----|--|--|--------------------|----------------------|--------------------------|--------------|--------------|--------------|--------------|-------------|-----------------|------------|---|
|     |  |  | Arah Angin<br>(ke) | Kec.Angin<br>(m/dtk) | CO<br>(ppm)              | NOx<br>(ppm) | SO2<br>(ppm) | H2S<br>(ppm) | NH3<br>(ppm) | Pb<br>(ppm) | Debu<br>(mg/m3) |            |   |
| 1.  | Bunderan<br>Kali Banteng<br>07.30-08.30                          | 4340                                       | Barat laut         | 1,4                  | 3,9247                   | 0,0359       | 0,0912       | tt           | tt           | tt          | 0,0003          | 0,2401     | Kesimpulan:<br>1. Konsentrasi gas pada 5 titik lokasi pengukuran, bila dibandingkan dengan Baku Mutu Udara Ambient, Menurut Surat MENKLH.<br>No.Kep.02/MENKLH/1988, pada umumnya masih dibawah Baku Mutu Udara,kecuali gas SO2 dan NOx dilokasi IV dan V Sudah melebihi Baku Mutu Udara Ambient.<br><br>S a r a n :<br>1. Penghijauan<br>2. Pengaturan transportasi ke padatan lalu lintas. |
| 2   | Bunderan<br>Tugu Kuda<br>07.55-08.55                             | 6900                                       | Barat Laut         | 1,2                  | 4,7981                   | 0,0260       | 0,0825       | 0,0246       | tt           | tt          | 0,0012          | 0,1219     |   |
| 3.  | Jl.Seteran<br>Miroto (Dapan Pe<br>rumahan Camat )<br>09.25-10.25 | 47   | Barat Laut         | 0,5                  | 0,9136                   | 0,0130       | 0,0135       | 0,0106       | tt           | tt          | tt              | 0,1471     |   |
| 4.  | Jl.Raya Kaligawe<br>(Depan PT.Cejam)<br>08.50-10.50              | 4620                                       | Barat Laut         | 1,4                  | 5,7505                   | 0,0542       | 0,1542       | 0,0295       | tt           | tt          | 0,0026          | 0,2181     |   |
| 5.  | Lampu Merah<br>Jatingaleh<br>11.30-12.30                         | 5060                                       | Barat Laut         | 1,3                  | 4,7125                   | 0,0406       | 0,1240       | 0,0277       | tt           | tt          | 0,0051          | 0,2296     |   |



Baku Mutu : - CO : 20 ppm  
 - NOx : 0,05 ppm  
 - SO2 : 0,1 ppm  
 - H2S : 0,03 ppm  
 - NH3 : 2 ppm  
 - Pb : 0,06 ppm  
 - Debu : 0,26 mg/m3

LOKASI KEPADATAN ARUS LALU LINTAS  
DI WILAYAH POLTABES SEMARANG



Ketrangan :

Kemacetan terjadi terutama pada jam - jam berangkat sekolah / kerja dan pulang kerja.

Pagi jam 06.30 s/d 08.30 WIB  
Sore jam 16.00 s/d 17.00 WIB

1. Jl Kaligawe
2. Jl Teuku Umar ( Jatingaleh )
3. Jl Majapahit ( Peremp. Gajah )
4. Bundaran Kali Banteng.

**BADAN METEOROLOGI DAN GEOFISIKA  
BALAI METEOROLOGI DAN GEOFISIKA WILAYAH II  
STASIUN KLIMATOLOGI KLAS I SEMARANG  
JL.SILIWANGI 291 TLP.609016 FAX.612394 SMG 50145**

Lintang : 06°59' LS  
Bujur : 110°23' BT  
Ketinggian : 3 Meter

**DATA KLIMATOLOGI**

Bulan : Maret 1997

NO.KT.401/Klm-Smg/222/97

| TGL | SUHU UDARA (°C) |      |      |      |      |      |      |      | KELEMBABAN (%) |    |    |    |    |     | HUJAN (mm) |
|-----|-----------------|------|------|------|------|------|------|------|----------------|----|----|----|----|-----|------------|
|     | 07              | 10   | 13   | 16   | 18   | RT2  | MAX  | MIN  | 07             | 10 | 13 | 16 | 18 | RT2 |            |
| 1   | 23.3            | 26.8 | 29.8 | 26.8 | 25.6 | 25.5 | 29.8 | 23.5 | 97             | 85 | 70 | 82 | 89 | 93  | 73.0       |
| 2   | 24.5            | 29.2 | 29.2 | 28.5 | 27.1 | 26.3 | 29.7 | 24.2 | 88             | 76 | 75 | 82 | 82 | 78  | 2.0        |
| 3   | 24.8            | 29.0 | 28.8 | 25.0 | 23.4 | 25.5 | 29.3 | 23.4 | 90             | 78 | 83 | 92 | 98 | 84  | 7.0        |
| 4   | 24.0            | 28.6 | 29.2 | 26.4 | 27.2 | 26.1 | 29.7 | 23.2 | 93             | 78 | 74 | 77 | 82 | 81  | 154.0      |
| 5   | 24.2            | 28.8 | 29.8 | 29.0 | 27.8 | 26.5 | 32.0 | 23.8 | 89             | 80 | 68 | 68 | 78 | 87  |            |
| 6   | 24.1            | 28.6 | 29.4 | 28.9 | 28.0 | 26.4 | 29.7 | 23.8 | 92             | 76 | 74 | 78 | 78 | 85  | 6.0        |
| 7   | 24.6            | 29.2 | 29.9 | 29.0 | 28.0 | 26.8 | 30.0 | 23.9 | 87             | 67 | 64 | 77 | 78 | 83  | 1.0        |
| 8   | 24.5            | 29.3 | 29.5 | 29.4 | 28.3 | 26.7 | 30.3 | 23.4 | 94             | 98 | 72 | 69 | 76 | 81  |            |
| 9   | 25.6            | 29.4 | 30.6 | 30.0 | 28.2 | 27.5 | 30.9 | 25.0 | 87             | 68 | 69 | 68 | 76 | 79  | 0.0        |
| 10  | 25.0            | 27.4 | 29.2 | 28.5 | 27.5 | 26.7 | 29.4 | 25.0 | 89             | 82 | 71 | 73 | 78 | 93  | 1.0        |
| 11  | 23.8            | 28.8 | 29.8 | 25.8 | 26.3 | 25.9 | 30.1 | 23.4 | 93             | 69 | 68 | 80 | 80 | 89  | 1.0        |
| 12  | 24.1            | 28.3 | 30.6 | 30.7 | 29.2 | 27.0 | 30.9 | 24.0 | 91             | 74 | 66 | 63 | 68 | 87  | 1.0        |
| 13  | 24.8            | 29.5 | 30.3 | 29.2 | 27.6 | 26.9 | 30.4 | 24.0 | 84             | 68 | 67 | 71 | 76 | 83  |            |
| 14  | 24.6            | 30.2 | 31.1 | 30.5 | 29.2 | 27.4 | 31.7 | 24.4 | 86             | 61 | 57 | 64 | 71 | 80  |            |
| 15  | 24.6            | 29.6 | 32.2 | 33.5 | 28.8 | 27.6 | 33.5 | 24.2 | 85             | 69 | 49 | 46 | 77 | 83  | 1.0        |
| 16  | 24.8            | 30.6 | 31.8 | 31.1 | 29.6 | 27.8 | 31.8 | 24.4 | 83             | 65 | 63 | 64 | 68 | 79  |            |
| 17  | 25.4            | 30.8 | 30.4 | 25.8 | 25.9 | 26.8 | 31.5 | 25.0 | 88             | 66 | 72 | 78 | 76 | 81  |            |
| 18  | 24.6            | 29.8 | 29.8 | 30.0 | 28.6 | 26.9 | 30.8 | 23.2 | 92             | 64 | 65 | 65 | 74 | 78  | 18.0       |
| 19  | 25.0            | 30.4 | 30.9 | 29.6 | 29.0 | 27.5 | 31.4 | 24.7 | 92             | 64 | 67 | 67 | 65 | 94  | 2.0        |
| 20  | 24.2            | 30.6 | 32.4 | 30.7 | 29.1 | 27.5 | 33.1 | 23.5 | 85             | 50 | 56 | 68 | 74 | 86  |            |
| 21  | 26.6            | 31.0 | 32.8 | 30.4 | 29.4 | 28.9 | 33.2 | 25.2 | 84             | 62 | 56 | 72 | 73 | 87  | 2.0        |
| 22  | 24.8            | 31.0 | 33.8 | 31.6 | 29.8 | 28.3 | 34.2 | 24.0 | 92             | 57 | 54 | 67 | 72 | 84  | 4.0        |
| 23  | 25.1            | 31.0 | 32.6 | 30.8 | 29.8 | 28.2 | 33.0 | 23.7 | 95             | 64 | 60 | 69 | 72 | 82  | 50.0       |
| 24  | 25.8            | 31.4 | 32.8 | 33.0 | 30.6 | 28.8 | 33.2 | 25.2 | 81             | 51 | 49 | 60 | 60 | 81  |            |
| 25  | 26.9            | 30.1 | 31.7 | 31.2 | 29.0 | 28.6 | 33.0 | 25.9 | 74             | 58 | 52 | 63 | 74 | 92  |            |
| 26  | 27.0            | 30.5 | 32.8 | 32.3 | 31.4 | 29.6 | 33.8 | 26.2 | 75             | 60 | 48 | 59 | 58 | 85  |            |
| 27  | 27.7            | 31.6 | 33.1 | 30.4 | 30.2 | 29.7 | 34.0 | 26.5 | 74             | 62 | 50 | 75 | 73 | 93  |            |
| 28  | 27.0            | 29.4 | 32.8 | 27.2 | 28.6 | 28.9 | 33.2 | 26.2 | 84             | 69 | 57 | 95 | 88 | 79  | 4.5        |
| 29  | 27.6            | 30.0 | 32.7 | 30.2 | 30.5 | 29.6 | 33.0 | 25.0 | 78             | 65 | 56 | 68 | 57 | 83  | 7.0        |
| 30  | 27.4            | 30.4 | 32.6 | 29.0 | 29.6 | 29.3 | 33.0 | 26.6 | 78             | 65 | 56 | 71 | 71 | 77  |            |
| 31  | 27.5            | 31.5 | 33.4 | 34.0 | 29.0 | 29.4 | 34.2 | 27.5 | 83             | 63 | 46 | 47 | 84 | 83  |            |
| HH  |                 |      |      |      |      |      |      |      |                |    |    |    |    |     | 18         |
| RT2 | 25.3            | 29.8 | 31.2 | 29.7 | 28.5 | 27.5 | 31.7 | 24.6 | 87             | 68 | 62 | 70 | 75 | 84  | 344        |

Keterangan : Suhu dan Kelembaban udara rata-rata =  $[(2 \times 07) + 13 + 10] : 4$   
0 = Hujan < 0.5 mm, nil = tidak ada hujan, HH=Hari Hujan



## STASIUN KLIMATOLOGI KLAS I SEMARANG

Bulan : Maret 1997

| TGL        | KEC. ANGIN RT2<br>(KM/JAM) |     |      | ARAH<br>ANGIN<br>TER-<br>BANYAK | LAMANYA PE-<br>NYINARAN(%) |       | INTENS. P.MTH.<br>(Cal/cm <sup>2</sup> /Hari) |         | PENGUAPAN |       | TEKANAN<br>UDARA<br>(mb) |
|------------|----------------------------|-----|------|---------------------------------|----------------------------|-------|---|---------|-----------|-------|--------------------------|
|            | 0.5 M                      | 2M  | 10M  |                                 | 08-16                      | 06-18 | A. GRAPH                                      | B. BELN | Q.PAN     | PICHE |                          |
|            |                            |     |      |                                 |                            |       |   |         | (mm)      | (ml)  |                          |
| 1          | 1.4                        | 3.9 | 5.2  | BL                              | 64                         | 45    | 275   | 722     | 2.4       | 2.0   | 1009.6                   |
| 2          | 2.0                        | 4.1 | 5.6  | BL                              | 66                         | 53    | 302   | 789     | 3.4       | 2.8   | 1009.9                   |
| 3          | 1.2                        | 5.0 | 7.3  | BL                              | 25                         | 21    | 203   | 382     | 2.3       | 2.3   | 1011.7                   |
| 4          | 1.1                        | 3.5 | 4.2  | BL                              | *                          | *     | 318   | 798     | 2.0       | 1.2   | 1011.8                   |
| 5          | 3.3                        | 7.2 | 8.4  | BL                              | *                          | *     | 282   | 752     | 5.2       | 2.9   | 1011.5                   |
| 6          | 3.7                        | 7.3 | 12.3 | BL                              | *                          | *     | 288   | 720     | 4.6       | 2.9   | 1011.6                   |
| 7          | 2.5                        | 5.8 | 7.8  | BL                              | 81                         | 68    | 318   | 710     | 5.4       | 2.8   | 1012.2                   |
| 8          | 1.5                        | 3.8 | 5.2  | BL                              | 100                        | 80    | 336   | 806     | 4.0       | 2.6   | 1011.7                   |
| 9          | 1.5                        | 4.1 | 5.6  | U                               | 86                         | 64    | 396   | 651     | 5.9       | 3.0   | 1011.0                   |
| 10         | 1.6                        | 4.1 | 4.9  | BL                              | 53                         | 38    | 264   | 515     | 3.2       | 2.8   | 1013.7                   |
| 11         | 0.9                        | 3.0 | 4.3  | BL                              | 66                         | 50    | 384   | 710     | 2.9       | 2.2   | 1013.9                   |
| 12         | 0.8                        | 2.7 | 4.0  | BL                              | 85                         | 73    | 372   | 729     | 2.3       | 2.1   | 1012.3                   |
| 13         | 0.9                        | 3.0 | 4.7  | BL                              | 79                         | 59    | 336   | 701     | 4.7       | 3.1   | 1011.1                   |
| 14         | 1.5                        | 3.9 | 4.4  | BL                              | 94                         | 73    | 351   | 863     | 3.9       | 3.2   | 1010.6                   |
| 15         | 0.4                        | 3.7 | 5.8  | TG                              | 91                         | 74    | 363   | 747     | 3.6       | 3.6   | 1010.5                   |
| 16         | 1.4                        | 3.6 | 4.3  | BL                              | 100                        | 77    | 300   | 878     | 5.8       | 3.5   | 1011.5                   |
| 17         | 2.2                        | 4.6 | 5.4  | U                               | 87                         | 68    | 396   | 689     | 5.0       | 3.5   | 1012.6                   |
| 18         | 2.6                        | 4.9 | 5.2  | BL                              | 65                         | 56    | 324   | 521     | 5.4       | 2.5   | 1013.3                   |
| 19         | 1.6                        | 3.9 | 4.5  | C                               | 75                         | 53    | 324   | 632     | 5.0       | 3.0   | 1012.3                   |
| 20         | 0.3                        | 3.9 | 4.6  | TL                              | 100                        | 84    | 264   | 848     | 4.1       | 2.9   | 1011.3                   |
| 21         | 2.0                        | 4.2 | 5.8  | TL                              | 84                         | 65    | 360   | 666     | 4.7       | 3.7   | 1011.4                   |
| 22         | 0.3                        | 4.8 | 6.3  | TL                              | 96                         | 72    | 270   | 773     | 4.5       | 3.4   | 1011.3                   |
| 23         | 2.2                        | 4.6 | 5.9  | TG                              | 87                         | 63    | 372   | 672     | 6.5       | 6.0   | 1010.7                   |
| 24         | 2.9                        | 4.9 | 5.8  | TG                              | 97                         | 81    | 270   | 788     | 4.1       | 3.2   | 1010.5                   |
| 25         | 3.0                        | 5.3 | 6.1  | T                               | 90                         | 78    | 348   | 653     | 5.2       | 6.4   | 1010.7                   |
| 26         | 2.7                        | 4.8 | 5.5  | TG                              | 83                         | 68    | 276   | 668     | 6.9       | 6.2   | 1010.4                   |
| 27         | 3.3                        | 5.8 | 7.0  | TG                              | 89                         | 70    | 270   | 588     | 4.9       | 6.9   | 1010.1                   |
| 28         | 3.6                        | 5.9 | 6.2  | TG                              | 54                         | 36    | 222   | 409     | 4.2       | 5.5   | 1008.6                   |
| 29         | 3.0                        | 4.9 | 6.0  | C                               | 72                         | 48    | 186   | 546     | 5.0       | 5.8   | 1009.5                   |
| 30         | 3.7                        | 6.3 | 9.3  | TG                              | 71                         | 61    | 204   | 496     | 4.7       | 6.5   | 1009.2                   |
| 31         | 3.1                        | 5.3 | 7.0  | TG                              | 86                         | 71    | 246   | 689     | 4.2       | 6.2   | 1008.6                   |
| JML<br>RT2 | 2                          | 4.6 | 6    | BL                              | 72                         | 56    | 336   | 764     | 136.0     | 114.7 | 1011.1                   |

Ket : \* ) = No Record

Departemen Perindustrian dan Perdagangan R.I  
Badan Penelitian dan Pengembangan Industri dan Perdagangan  
**BALAI PENELITIAN DAN PENGEMBANGAN INDUSTRI**

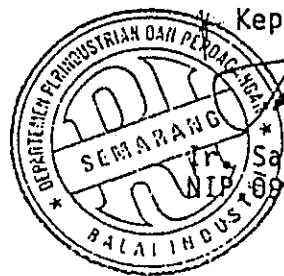
Jl. Ki Mangun Sarkoro No. 6 Telp. 316315  
Tromol Pos 829  
SEMARANG - 50241

Semarang 24 APRIL 1997.

PENGUJIAN No. : PI. 07  
Report Nr. :  
  
Bahan / Barang : DAUN ANGSANA.  
Material :  
  
Cap :  
Mark :  
  
DIBUAT UNTUK : I M A.M.  
Executed : MIPA TEMBALANG.  
  
Contoh diterima tanggal : 8 APRIL 1997.  
Sample received on :

HASIL PENGUJIAN  
TEST RESULT

TIMBAL (Pb), mg/kg : 0,00



Kepala,

*[Signature]*  
Sardjono.-  
WIB 090010542

laporan pengujian ini Mengutip sebagian saja dari isinya, dilarang keras.  
- Hasil pengujian ini hanya berlaku untuk contoh yang diuji.  
- Sertifikat ini hanya berlaku selama 3 bulan, terhitung dari tanggal dikeluarkan

PEMERINTAH PROPINSI DAERAH TINGKAT I JAWA TENGAH  
DINAS LALU LINTAS DAN ANGKUTAN JALAN RAYA

JL. SILIWANGI 357 KOTAK POS 182 SEMARANG 50146

TELEPON 607697- 605660

Semarang, 09 Juni 1997

K e p a d a

Nomor : 071/03053  
Sifat : Biasa  
Lampiran : 1 (satu) set  
Perihal : Permintaan Data

Yth. Kepala Cabang Dinas LLAJR  
Prop. Dati I Jawa Tengah  
Kodia Semarang  
di -

S E M A R A N G

Menunjuk surat dari Dekan Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Diponegoro Semarang tanggal 24 Mei 1997 Nomor : 668/PT09H4FMIPA/Q/97 perihal pada pokok surat maka dengan ini kami hadapkan mahasiswa :

N'a m a : M. IMANUDIN  
NIM. : J 201 91 0581  
Jurusan : Biologi  
Judul : Analisa Jumlah Klorofil dan Kandungan Logam Berat Pb akibat pencemaran Lalu Lintas di Kodia Semarang.

guna melaksanakan penelitian pada Kantor Cabang Dinas LLAJR Prop. Dati I Jawa Tengah Kodia Semarang dalam rangka penulisan Skripsi.

Untuk keperluan tersebut kami minta bantuan Saudara agar memberikan data, bimbingan / petunjuk-petunjuk serta kemu-  
dahan kepada yang bersangkutan.

Sehubungan dengan itu bersama ini kami lampirkan fotocopy surat dari Dekan.

Demikian untuk menjadikan maklum.

An. KEPALA DINAS LALU LINTAS DAN ANGKUTAN JALAN RAYA  
PROPINSI DAERAH TINGKAT I JAWA TENGAH  
Kepala Sub. Dinas Bina Program

HR BUDI SOELISTYO, SH

Bimbina Tk. I  
NIP. 500 040 950

TEMBUSAN kepada Yth.:

1. Dekan Fakultas Matematika dan Ilmu Pengetahuan Universitas Diponegoro Semarang.
2. Yang bersangkutan.
3. A r s i p.

riset