

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|--------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-7 2.5 m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPIENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|----------------------|---|-----------------------------|--|--|-----------------------------|
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | W (g) | |
| | | 1.0 | | 3,556.15 | 3,569.75 |
| | DIAMETER (DIAMÈTRE) | (cm) | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W_s = W - W_c$ (g) | |
| | | | | 1,614.78 | 1,628.39 |
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s/V$ (g/cm ³) | |
| | | 81.71 | | 1.70 | 1.71 |
| | LENGTH (LONGUEUR) | L (cm) | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | |
| | | 11.65 | | 88.8 | 93.9 |
| | VOLUME (VOLUME) | $V = AL$ (cm ³) | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| | | 95.92 | | 43 | 48.2 |
| | WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | W_c (g) | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100)$ (g/cm ³) | |
| | | | | 1.19 | 1.15 |
| | SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | VOID RATIO (INDICE DES VIDES) | e | |
| | | 2.81 | | 1.361 | 1.443 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|---|------------------------|-------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 9/28 9:00 AM | 9/28 9:00 AM | 9/28 9:00 AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 1:30 PM | 4:30 PM | 9:15 AM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | 16,200 | 27,000 | 87,300 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | |
| | $A \cdot (t_2 - t_1)$ | | |
| | L/h | | |
| | VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | |
| | $Q/A \cdot (t_2 - t_1)$ | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 124.7 |
| | h_1/h_2 | | 1.039 |
| | $\log_{10} (h_1/h_2)$ | | 0.0168 |
| | $a \cdot L$ | | 11.65 |
| | aL/A | | 0.1426 |
| | $2.3/(t_2 - t_1)$ | | 1.420×10^{-4} |
| | * * * $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | 3.66106×10^{-7} |
| | WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 30.5 |
| | * * * $\mu_{T/15}$ | | 0.699 |
| | * * * $k_{15} = k_T \cdot \frac{\mu_{T/15}}{\mu_{15}}$ | | 2.55908×10^{-7} |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | 1.953×10^{-7} cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_c |
| W_w |
| $w =$ % |
| No. |
| W_s |
| W_c |
| W_w |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 43 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
|---|
| No. |
| W_s |
| W_c |
| W_w |
| $w =$ % |
| No. |
| W_s |
| W_c |
| W_w |
| $w =$ 48.2 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 48.2 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
* * * μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* * * COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|------------------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP8 2-3 ^m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|-----------------------------|--------|---|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIENT + SPÉCIMEN)) | W' (g) | 3515.32 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W_s = W' - W_c$ (g) | 1524.06 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / V$ (g/cm ³) | 1.60 |
| LENGTH (LONGUEUR) | L (cm) | 11.65 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | 80.8 |
| VOLUME (VOLUME) | $V = AL$ (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | 45 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIENT) | W_c (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w)$ (g/cm ³) | 1.10 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | 2.84 | VOID RATIO (INDICE DES VIDES) | e | 1.582 |
| | | | | | 1.606 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|--|------------------------|--------------------------|------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 8/24 9:00 AM | 8/24 9:00 AM | 8/24 9:00 AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 8/24 4:30 PM | 8/25 8:00 AM | 8/25 1:10 PM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 27,000 | 82,800 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_r = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 | 130.0 |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 121.7 | 108.9 |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | 0.02865 | 0.07692 |
| $a \cdot L$ | | 11.65 | 11.65 |
| aL/A | | 0.1426 | 0.1426 |
| $2.3/(t_2 - t_1)$ | | 8.518×10^{-5} | 2.778×10^{-5} |
| * * $k_r = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot 10 \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | 3.48002×10^{-7} | 3.04489×10^{-7} |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 30.9 | 30.8 |
| * * * $\mu T / \mu_{15}$ | | 0.684 | 0.684 |
| * * $k_{15} = k_r \cdot \frac{\mu T}{\mu_{15}}$ | | 2.38033×10^{-7} | 2.08407×10^{-7} |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | 2.20×10^{-7} cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_c |
| W_s |
| $w =$ % |
| No. |
| W_s |
| W_c |
| W_s |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w = 45$ % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
|---|
| No. |
| W_s |
| W_c |
| W_s |
| $w =$ % |
| No. |
| W_s |
| W_c |
| W_s |
| $w = 56.2$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w = 56.2$ % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
 * * * μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
 (μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* * COEFFICIENT OF PERMEABILITY AT T °C
 OR 15 °C
 (COEFFICIENT DE PERMÉABILITÉ À T °C
 OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

175

| | | | |
|--|--------------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I - TP-9 2.5 - 3 m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPIENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|-----------------------------|--------|---|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPIENT + SPÉCIMEN)) | W' (g) | 3,357.62 3,661.62 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W = W' - W_s$ (g) | 1,415.65 1,719.65 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma = W_t N / (g / cm^3)$ | 1.49 1.81 |
| LENGTH (LONGUEUR) | L (cm) | 11.65 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S (%) | 60.3 >100 (111) |
| VOLUME (VOLUME) | $V = AL$ (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | 32.8 59.4 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPIENT) | W_s (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma / (1 + w) (g / cm^3)$ | 1.12 1.13 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | 2.84 | VOID RATIO (INDICE DES VIDES) | e | 1.546 1.513 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|---|------------------------|------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 8/14 9:30AM | 8/14 9:30AM | 8/14 9:30AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | " 10:00AM | " 10:30AM | " 11:00AM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 1,800 3,600 | 5,400 7,200 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | |
| | $A \cdot (t_2 - t_1)$ | | |
| | L/h | | |
| | VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | |
| | $Q/A \cdot (t_2 - t_1)$ | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 130.0 130.0 |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 122.1 115.0 107.1 |
| | h_1/h_2 | | |
| | $\log_{10} (h_1/h_2)$ | | |
| | $a \cdot L$ | | |
| | aL/A | | |
| | $2.3/(t_2 - t_1)$ | | |
| | * * * $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | |
| | WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 27.5 27.0 27.2 |
| | * * * $\mu T / \mu_{15}$ | | |
| | * * * $k_{15} = k_T \cdot \frac{\mu T}{\mu_{15}}$ | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | 3.68×10^{-6} cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | |
|--|--------|
| No. | |
| W_s | W_d |
| W_b | W_c |
| W_w | W_t |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 32.8 % |
| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
| No. | |
| W_s | W_d |
| W_b | W_c |
| W_w | W_t |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 59.4 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
* * * μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* * * COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|---------|-------------------|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-10 | 2-3 th | TESTED BY (ESSAI PAR) |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|------------------------|--------------------|--|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a | (cm ²) | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | W' (g) | |
| | | 1.0 | | 3,483.57 | 3,569.75 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W = W' - W_s$ (g) | |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A | (cm ²) | | 1,542.21 | 1,628.39 |
| LENGTH (LONGUEUR) | L | (cm) | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s/V$ (g/cm ³) | |
| VOLUME (VOLUME) | $V = AL$ | (cm ³) | | 1.62 | 1.7 |
| | | 81.71 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | |
| | | 11.65 | | 81.3 | 95.3 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | W_s | (g) | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| | | | | 44.3 | 50.4 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100)$ (g/cm ³) | |
| | | 2.87 | | 1.12 | 1.14 |
| | | | VOID RATIO (INDICE DES VIDES) | e | |
| | | | | 1.563 | 1.518 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 | WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|---|-------------------|--------------|--------------|--|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 8/21 8:00 AM | 8/21 8:00 AM | 8/21 8:00 AM | No. |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 4:30 PM | 8/22 8:00 AM | 8/23 8:00 AM | W_s |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 30,600 | 86,400 | W_b |
| | | | 172,800 | W_c |
| | | | 259,200 | W_d |
| | | | | $w =$ % |
| | | | | No. |
| | | | | W_s |
| | | | | W_b |
| | | | | W_c |
| | | | | W_d |
| | | | | $w =$ % |
| | | | | MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| | | | | $w =$ 94.3 % |
| | | | | WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
| | | | | No. |
| | | | | W_s |
| | | | | W_b |
| | | | | W_c |
| | | | | W_d |
| | | | | $w =$ % |
| | | | | No. |
| | | | | W_s |
| | | | | W_b |
| | | | | W_c |
| | | | | W_d |
| | | | | $w =$ 50.4 % |
| | | | | MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| | | | | $w =$ 50.4 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

** COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | |
|--|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | DATE (DATE) |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TESTED BY (ESSAI PAR) |

| | | | |
|-------------------------------------|----------------------------------|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | CONTAINER NO. (N° DU RÉCIENT) | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|----------------------------------|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|------------------------|--------------------|---|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a | (cm ²) | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIENT + SPÉCIMEN)) | W' (g) | |
| | | 1.0 | | 3,438.21 | 3,606.04 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W = W' - W_s$ (g) | |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A | (cm ²) | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / N$ (g/cm ³) | |
| | | 81.71 | | 1,496.85 | 1,637.46 |
| LENGTH (LONGUEUR) | L | (cm) | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | |
| | | 11.65 | | 74.8 | 77.4 |
| VOLUME (VOLUME) | $V = AL$ | (cm ³) | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| | | 951.92 | | 37.5 | 49.9 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIENT) | W_o | (g) | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + \frac{w}{100})$ (g/cm ³) | |
| | | | | 1.13 | 1.15 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | | VOID RATIO (INDICE DES VIDES) | e | |
| | | 2.80 | | 1.478 | 1.435 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------|---|---|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | t_1 | | |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | t_2 | | |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_r = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | | |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | | |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | | |
| $a \cdot L$ | | | |
| aL/A | | | |
| $2.3/(t_2 - t_1)$ | | | |
| * $k_r = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | | |
| *** μ_T / μ_{15} | | | |
| ** $k_{15} = k_r \cdot \frac{\mu_T}{\mu_{15}}$ | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_b |
| W_c |
| W_e |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 39.5 % |
| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
| No. |
| W_s |
| W_b |
| W_c |
| W_e |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 49.9 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

** COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C)
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|-----------------------------------|--------------------------|---|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | | TESTED BY (ESSAI PAR) | |
| APPARATUS NO. (N° DE L'APPAREIL) | CONTAINER NO. (N° DU RÉCIPENT) | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|-----------------------------|--------|--|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | W' (g) | 3,451.82 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W_s = W' - W_c$ (g) | 1,646.53 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s/V$ (g/cm ³) | 1.73 |
| LENGTH (LONGUEUR) | L (cm) | 11.65 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | 72.7 |
| VOLUME (VOLUME) | $V = AL$ (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | 27.2 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | W_c (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w)$ (g/cm ³) | 1.36 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | 2.77 | VOID RATIO (INDICE DES VIDES) | e | 1.037 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 | |
|---|---|-------------------------------|--------------------------|--------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 8/18 9:10 AM | 8/18 9:10 AM | 8/18 9:10 AM | |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | " 4:20 PM | 8/19 8:20 AM | 8/19 8:19 AM | |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 25,800 | 83,400 | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| | $A \cdot (t_2 - t_1)$ | | | |
| | L/h | | | |
| | VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | | |
| | $Q/A \cdot (t_2 - t_1)$ | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 | 130.0 |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 119.0 | 105.0 |
| | h_1/h_2 | | | |
| | $\log_{10} (h_1/h_2)$ | 0.03839 | 0.09275 | 0.10762 |
| | $a \cdot L$ | 11.65 | 11.65 | 11.65 |
| | aL/A | 0.1426 | 0.1426 | 0.1426 |
| | $2.3/(t_2 - t_1)$ | 8.915×10^{-5} | 2.758×10^{-5} | 2.473×10^{-5} |
| | * * * $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | 4.88029×10^{-7} | 3.64750×10^{-7} | 3.86593×10^{-7} |
| | WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 29.2 | 30.6 |
| | * * * μ_{T1}/μ_{15} | 0.719 | 0.699 | 0.714 |
| * * * $k_{15} = k_T \cdot \frac{\mu_{T1}}{\mu_{15}}$ | 3.48453×10^{-7} | 2.54960×10^{-7} | 2.76028×10^{-7} | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | 2.845×10^{-7} cm/sec | | |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | |
|--|--------|
| No. | |
| W_s | W_d |
| W_b | W_c |
| W_w | W_r |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 27.2 % |
| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
| No. | |
| W_s | W_d |
| W_b | W_c |
| W_w | W_r |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 37.6 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
 * * * μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT $T^\circ C$.
 (μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À $T^\circ C$.)

* * * COEFFICIENT OF PERMEABILITY AT $T^\circ C$
 OR $15^\circ C$
 (COEFFICIENT DE PERMÉABILITÉ À $T^\circ C$
 OU $15^\circ C$)

PERMEABILITY TEST
(ESSAI DE PERMÉABILITÉ)

| | | | |
|--|-------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-13 3 m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) (cm) | | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|--|--|-----|---|--|------------------------------|-----------------------------|
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) a (cm ²) | | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) W (g) | | 3,624.18 | 3,646.86 |
| SPECIMEN (SPÉCIMEN) | DIAMETER (DIAMÈTRE) (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) $W_s = W - W_c$ (g) | | 1,605.71 | 1,628.39 |
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) A (cm ²) | | WET DENSITY (DENSITÉ HUMIDE) $\gamma_s = W_s / N$ (g/cm ³) | | 1.69 | 1.71 |
| | LENGTH (LONGUEUR) L (cm) | | DEGREE OF SATURATION (DEGRÉ DE SATURATION) S_r (%) | | 821 | 968 |
| | VOLUME (VOLUME) $V = AL$ (cm ³) | | WATER CONTENT (TENEUR EN EAU) w (%) | | 42.2 | 51.2 |
| | WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) W_c (g) | | DRY DENSITY (DENSITÉ SÈCHE) $\gamma_d = \gamma_s / (1 + \frac{w}{100})$ (g/cm ³) | | 1.19 | 1.13 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) G_s | | 281 | VOID RATIO (INDICE DES VIDES) e | | 1.361 | 1.487 |

| TEST NO. (N° DE L'ESSAI) | | 1 | 2 | 3 |
|---|---|-------------------------------|--------------------------|---|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) t_1 | | 9/19 9:00AM | 9/19 9:00AM | 9/19 9:19 |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) t_2 | | " 11:00AM | " 1:00 PM | " 3:00PM 5:00PM |
| ELAPSED TIME (TEMPS ÉCOULÉ) $t_2 - t_1$ (sec) | | 7,200 | 14,400 | 21,600 28,800 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) h (cm) | | | |
| | $A \cdot (t_2 - t_1)$ | | | |
| | L/h | | | |
| | VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) Q (cm ³) | | | |
| | $Q/A \cdot (t_2 - t_1)$ | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) h_1 (cm) | 130.0 | 130.0 | 130.0 130.0 |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) h_2 (cm) | 125.2 | 120.8 | 117.3 114.0 |
| | h_1/h_2 | | | |
| | $\log_{10} (h_1/h_2)$ | 0.01634 | 0.03188 | 0.0465 0.05704 |
| | $a \cdot L$ | 11.65 | 11.65 | 11.65 11.65 |
| | aL/A | 0.1426 | 0.1426 | 0.1426 0.1426 |
| | $2.3/(t_2 - t_1)$ | 3.19×10^{-4} | 1.597×10^{-4} | 1.065×10^{-4} 7.986×10^{-5} |
| | * $k_{15} = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot 10^8 \log_{10} \frac{h_1}{h_2}$ (cm/sec) | 7.44332×10^{-7} | 7.26111×10^{-7} | 6.77977×10^{-7} 6.49593×10^{-7} |
| | WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) T (°C) | 27 | 26.8 | 27 27.6 |
| | *** $\mu T / \mu_{15}$ | 0.747 | 0.747 | 0.747 0.730 |
| | ** $k_{15} = k_T \cdot \frac{\mu_T}{\mu_{15}}$ | 5.56016×10^{-7} | 5.42405×10^{-7} | 5.06449×10^{-7} 4.74195×10^{-7} |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | 5.198×10^{-7} cm/sec | | |

| WATER CONTENT BEFOR TEST (TENEUR EN EAU AVANT ESSAI) | |
|---|-------|
| No. | |
| W_s | W_b |
| W_c | W_e |
| W_w | W_r |
| $w =$ % | |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
|---|-------|
| No. | |
| W_s | W_b |
| W_c | W_e |
| W_w | W_r |
| $w = 42.2$ % | |
| No. | |
| W_s | 236.5 |
| W_b | 170.8 |
| W_c | 170.8 |
| W_e | 42.4 |
| W_w | 65.7 |
| W_r | 128.4 |
| $w = 51.2$ % | |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w = 51.2$ % | |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

** COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|---------|----------------|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-14 | 6.0 m | TESTED BY (ESSAI PAR) |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|----------------------|------------------------|---|--|---|-----------------------------|
| | (cm) | $a \text{ (cm}^2\text{)}$ | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | $W' \text{ (g)}$ | |
| | | 1.0 | | 3,619.65 | 3,637.79 |
| | | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W_s = W' - W_c \text{ (g)}$ | |
| | | | | 1,678.28 | 1,696.43 |
| | | | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / V \text{ (g/cm}^3\text{)}$ | |
| | | | | 1.76 | 1.78 |
| | | | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | $S_r \text{ (%)}$ | |
| | | | | 88.6 | 96.1 |
| | | | WATER CONTENT (TENEUR EN EAU) | $w \text{ (%)}$ | |
| | | | | 37.8 | 42.8 |
| | | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100) \text{ (g/cm}^3\text{)}$ | |
| | | | | 1.28 | 1.25 |
| | | | VOID RATIO (INDICE DES VIDES) | e | |
| | | | | 1.203 | 1.256 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------------|---------------|---------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 10/5 10:00 AM | 10/5 10:00 AM | 10/5 10:00 AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 10/5 5:00 PM | 10/6 8:00 AM | 10/6 8:00 PM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | 25,200 | 79,200 | 116,600 |
| * HEAD (DIFFÉRENCE DE NIVEAU) | $h \text{ (cm)}$ | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | $Q \text{ (cm}^3\text{)}$ | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_r = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)} \text{ (cm/sec)}$ | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | $h_1 \text{ (cm)}$ | | |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | $h_2 \text{ (cm)}$ | | |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | | |
| $a \cdot L$ | | | |
| aL/A | | | |
| $2.3/(t_2 - t_1)$ | | | |
| * $k_r = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \log_{10} \frac{h_1}{h_2} \text{ (cm/sec)}$ | | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | $T \text{ (}^\circ\text{C)}$ | | |
| μ_{15} | | | |
| $k_{15} = k_r \cdot \frac{\mu_{15}}{\mu_T}$ | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_c |
| $W_s - W_c$ |
| $w = \frac{W_s - W_c}{W_s} \text{ %}$ |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
|---|
| No. |
| W_s |
| W_c |
| $W_s - W_c$ |
| $w = \frac{W_s - W_c}{W_s} \text{ %}$ |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT $T^\circ\text{C}$.
(μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À $T^\circ\text{C}$.)

* COEFFICIENT OF PERMEABILITY AT $T^\circ\text{C}$
OR 15°C
(COEFFICIENT DE PERMÉABILITÉ À $T^\circ\text{C}$
OU 15°C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | |
|--|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | DATE (DATE) |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TESTED BY (ESSAI PAR) |

| | | | |
|-------------------------------------|----------------------------------|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | CONTAINER NO. (N° DU RÉCIENT) | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|----------------------------------|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|------------------------|--------------------|---|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a | (cm ²) | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIENT + SPÉCIMEN)) | W' (g) | |
| DIAMETER (DIAMÈTRE) | | (cm) | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W = W' - W_s$ (g) | |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A | (cm ²) | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / N$ (g/cm ³) | |
| LENGTH (LONGUEUR) | L | (cm) | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | |
| VOLUME (VOLUME) | $V = AL$ | (cm ³) | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| WEIGHT OF CONTAINER (POIDS DU RÉCIENT) | W_s | (g) | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100)$ (g/cm ³) | |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | | VOID RATIO (INDICE DES VIDES) | e | |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------|---|---|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | t_1 | | |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | t_2 | | |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_T = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | | |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | | |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | | |
| $a \cdot L$ | | | |
| aL/A | | | |
| $2.3/(t_2 - t_1)$ | | | |
| $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | | |
| *** $\mu T / \mu_{15}$ | | | |
| ** $k_{15} = k_T \cdot \frac{\mu}{\mu_{15}}$ | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | |

| WATER CONTENT BEFOR TEST (TENEUR EN EAU AVANT ESSAI) | |
|---|--------|
| | No. |
| W_s | W_b |
| W_b | W_c |
| W_w | W_s |
| $w =$ | % |
| | No. |
| W_s | W_b |
| W_b | W_c |
| W_w | W_s |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 41.8 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
|---|--------|
| | No. |
| W_s | W_b |
| W_b | W_c |
| W_w | W_s |
| $w =$ | % |
| No. | |
| W_s | 1.942 |
| W_b | 1.340 |
| W_c | 602 |
| W_s | 1031.9 |
| $w =$ | 58.34% |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 58.34% |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER.
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|---------|----------------|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-16 | 25-3 m | TESTED BY (ESSAI PAR) |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|-----------------------------|--------|--|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | W (g) | 3,479.04 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W_s = W - W_c$ (g) | 1,537.67 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_t = W_s / V$ (g / cm ³) | 1.62 |
| LENGTH (LONGUEUR) | L (cm) | 11.56 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S , (%) | 76.0 |
| VOLUME (VOLUME) | $V = AL$ (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | 38.3 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPENT.) | W_c (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_t / (1 + \frac{w}{100})$ (g / cm ³) | 1.17 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | 2.85 | VOID RATIO (INDICE DES VIDES) | e | 1.436 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------|--------------------------|-------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 8/22 4:30 PM | 8/22 4:30 PM | 8/22 4:30 PM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 8/23 8:00 AM | 8/23 10:00 AM | 8/23 1:00 PM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 55,800 | 63,000 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_r = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 | 130.0 |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 114.5 | 111.9 |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | 0.055138 | 0.06511 |
| $a \cdot L$ | | 11.65 | 11.65 |
| aL/A | | 0.1426 | 0.1426 |
| $2.3/(t_2 - t_1)$ | | 4.122×10^{-5} | 3.651×10^{-5} |
| * * * $k_r = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \frac{1}{\log_{10} \frac{h_1}{h_2}}$ (cm/sec) | | 3.24089×10^{-7} | 3.38965×10^{-7} |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 29 | 28.9 |
| * * * $\mu T / \mu_{15}$ | | 0.714 | 0.714 |
| * * * $k_{15} = k_r \cdot \frac{\mu T}{\mu_{15}}$ | | 2.31399×10^{-7} | 2.42021×10^{-7} |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | 2.400×10^{-7} cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | |
|--|-------|
| No. | |
| W_a | W_b |
| W_c | W_e |
| W_w | W_r |
| $w =$ % | |
| No. | |
| W_a | W_b |
| W_c | W_e |
| W_w | W_r |
| $w =$ % | |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ 38.3 % | |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
|---|--------------|
| No. | |
| W_s | W_b |
| W_b | W_c |
| W_w | W_r |
| $w =$ % | |
| No. | |
| W_s 21.85 | W_b 11.578 |
| W_b 11.578 | W_c 451 |
| W_w 607 | W_r 1.127 |
| $w =$ 53.9 % | |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ 53.9 % | |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
* * * μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* * COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|---------|----------------|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | I-TP-17 | 25-3 m. | TESTED BY (ESSAI PAR) |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|------------------------|---|--------|-----------|--|--|--|-----------------------------|
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | | W' (g) | |
| | a (cm ²) | 1.0 | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | | $W = W' - W_c$ (g) | |
| SPECIMEN (SPÉCIMEN) | DIAMETER (DIAMÈTRE) | | (cm) | WET DENSITY (DENSITÉ HUMIDE) | | $\gamma_t = W/N$ (g/cm ³) | |
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | | $S, (\%)$ | |
| | LENGTH (LONGUEUR) | | | WATER CONTENT (TENEUR EN EAU) | | $w (\%)$ | |
| | VOLUME (VOLUME) | | | DRY DENSITY (DENSITÉ SÈCHE) | | $\gamma_d = \gamma_t / (1 + \frac{w}{100})$ (g/cm ³) | |
| | | | | VOID RATIO (INDICE DES VIDES) | | e | |
| | A (cm ²) | 81.71 | | | | | |
| | L (cm) | 11.65 | | | | | |
| | $V = AL$ (cm ³) | 951.92 | | | | | |
| | WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | | W_c (g) | | | | |
| | SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | | G_s | | | | |

| TEST NO. (N° DE L'ESSAI) | | 1 | 2 | 3 |
|---|--|--|---|---------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | | t_1 | | |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | | t_2 | | |
| ELAPSED TIME (TEMPS ÉCOULÉ) | | $t_2 - t_1$ (sec) | | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| | $A \cdot (t_2 - t_1)$ | | | |
| | L/h | | | |
| | VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | | |
| | $Q/A \cdot (t_2 - t_1)$ | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | | |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | | |
| | h_1/h_2 | | | |
| | $\log_{10} (h_1/h_2)$ | | | |
| | $a \cdot L$ | | | |
| | | aL/A | | |
| | | $2.3/(t_2 - t_1)$ | | |
| | | $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot 10 \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | | T (°C) | | |
| *** $\mu T / \mu_{15}$ | | | | |
| *** $k_{15} = k_T \cdot \frac{\mu_{15}}{\mu}$ | | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | | cm/sec. |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | |
|--|--------|
| No. | |
| W_s | W_b |
| W_c | W_e |
| W_w | W_s |
| $w =$ | % |
| No. | |
| W_s | W_b |
| W_c | W_e |
| W_w | W_s |
| $w =$ | % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 42.2 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
|---|--------|
| No. | |
| W_s | W_b |
| W_c | W_e |
| W_w | W_s |
| $w =$ | % |
| No. | |
| W_s | 2.660 |
| W_b | 2.099 |
| W_c | 95.2 |
| W_w | 56.1 |
| W_s | 1146.7 |
| $w =$ | 48.1 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| $w =$ | 48.1 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
 ** μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
 (μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

*** COEFFICIENT OF PERMEABILITY AT T °C
 OR 15 °C
 (COEFFICIENT DE PERMÉABILITÉ À T °C
 OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | |
|--|--------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | DATE (DATE) |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TESTED BY (ESSAI PAR) |

| | | | |
|-------------------------------------|-----------------------------------|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | CONTAINER NO. (N° DU RÉCIPENT) | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|-----------------------------------|-------------------------|---|

| BURETTE (BURETTE) | | | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|--|-----------------------------|--|--|--|-----------------------------|
| DIAMETER (DIAMÈTRE) | | (cm) | | | | |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | a (cm ²) | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | | W (g) | |
| | | 1.0 | | | 3,728.51 | 3,742.12 |
| DIAMETER (DIAMÈTRE) | | (cm) | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | | $W_s = W - W_c$ (g) | |
| | | | | | 1,710.03 | 1,723.64 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | A (cm ²) | WET DENSITY (DENSITÉ HUMIDE) | | $\gamma_t = W_t / V$ (g/cm ³) | |
| | | 81.71 | | | 1.80 | 1.81 |
| LENGTH (LONGUEUR) | | L (cm) | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | | S_r (%) | |
| | | 11.65 | | | 88.1 | 88.9 |
| VOLUME (VOLUME) | | $V = AL$ (cm ³) | WATER CONTENT (TENEUR EN EAU) | | w (%) | |
| | | 951.92 | | | 36.3 | 37.6 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | | W_c (g) | DRY DENSITY (DENSITÉ SÈCHE) | | $\gamma_d = \gamma_t / (1 + w)$ (g/cm ³) | |
| | | | | | 1.32 | 1.32 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | | G_s | VOID RATIO (INDICE DES VIDES) | | e | |
| | | 2.99 | | | 1.265 | 1.265 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 | | |
|---|---|------------------------|--------------------------|--------------------------|-------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 10/8 8:00AM | 10/8 8:00AM | 10/8 8:00AM | | |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 10/9 8:00AM | 10/10 8:00AM | 10/11 8:00AM | | |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 86,400 | 172,800 | 259,200 | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | | |
| | $A \cdot (t_2 - t_1)$ | | | | |
| | L/h | | | | |
| | VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN) | Q (cm ³) | | | |
| | $Q/A \cdot (t_2 - t_1)$ | | | | |
| | $k_T = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 | 130.0 | 130.0 |
| | * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 127.5 | 125.9 | 121.3 |
| | h_1/h_2 | | | | |
| | $\log_{10} (h_1/h_2)$ | | 0.00843 | 0.01392 | 0.03008 |
| | $a \cdot L$ | | 11.65 | 11.65 | 11.65 |
| | aL/A | | 0.1426 | 0.1426 | 0.1426 |
| | $2.3/(t_2 - t_1)$ | | 2.662×10^{-5} | 1.331×10^{-5} | 8.873×10^{-6} |
| | * * * $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | 3.20008×10^{-8} | 2.64206×10^{-8} | 3.80619×10^{-8} |
| | WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 25.5 | 27.3 | 26.5 |
| | * * * $\mu T / \mu_{15}$ | | 0.782 | 0.747 | 0.764 |
| | * * * $k_{15} = k_T \cdot \frac{\mu T}{\mu_{15}}$ | | 2.50246×10^{-8} | 1.97362×10^{-8} | 2.90773×10^{-8} |
| | MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | | 2.565×10^{-8} cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | No. |
|--|--------|
| W_a | W_b |
| W_c | W_d |
| W_e | W_f |
| $w =$ | % |
| W_a | 192.7 |
| W_b | 152.9 |
| W_c | 43.2 |
| W_d | 39.8 |
| W_e | 109.7 |
| $w =$ | 36.3 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | $w =$ |
| | 36.3 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | No. |
|---|---------|
| W_a | W_b |
| W_c | W_d |
| W_e | W_f |
| $w =$ | % |
| W_a | 2,747 |
| W_b | 2,276 |
| W_c | 1,022 |
| W_d | 471 |
| W_e | 1,254 |
| $w =$ | 37.56 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | $w =$ |
| | 37.56 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAIL WATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
* * * μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* * * COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

185

| | | | |
|--|------------------------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | II - TP - 1 3.0 ^m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|---------------------------|--------|---|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER + SPECIMEN) (POIDS (RÉCIENT + SPÉCIMEN)) | W' (g) | 3,565.22 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | W _s = W' - W _c (g) | 1,623.85 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / V$ (g/cm ³) | 1.71 |
| LENGTH (LONGUEUR) | L (cm) | 11.65 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S _r (%) | 83.0 |
| VOLUME (VOLUME) | V = AL (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | 39.4 |
| WEIGHT OF CONTAINER (POIDS DU RÉCIENT) | W _c (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100)$ (g/cm ³) | 1.22 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G _s | 2.90 | VOID RATIO (INDICE DES VIDES) | e | 1.377 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|----------------------|----------------------------|---------------------------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 9/24 9:00AM | 9/24 9:00AM | 9/24 9:00AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 11 5:00PM | 9/25 9:00AM | 9/25 5:00PM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | 28,800 | 86,400 | 115,200 |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h ₁ (cm) | | |
| A · (t ₂ - t ₁) | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN t ₂ - t ₁) | Q (cm ³) | | |
| Q/A · (t ₂ - t ₁) | | | |
| $k_r = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| * HEAD AT t ₁ (DIFF. DE NIVEAU À t ₁) | h ₁ (cm) | 130.0 | 130.0 |
| * HEAD AT t ₂ (DIFF. DE NIVEAU À t ₂) | h ₂ (cm) | 126.6 | 121.8 |
| h ₁ /h ₂ | | | |
| log ₁₀ (h ₁ /h ₂) | | 0.01151 | 0.02830 |
| a · L | | 11.65 | 11.65 |
| aL/A | | 0.1426 | 0.1426 |
| 2.3/(t ₂ - t ₁) | | 7.986 × 10 ⁻⁵ | 2.662 × 10 ⁻⁵ |
| * $k_r = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | 1.31078 × 10 ⁻⁷ | 1.07427 × 10 ⁻⁷ |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 29.0 | 30.0 |
| * μ_T / μ_{15} | | 0.714 | 0.699 |
| * $k_{15} = k_r \cdot \frac{\mu_T}{\mu_{15}}$ | | 9.35898 × 10 ⁻⁸ | 7.50926 × 10 ⁻⁸ |
| MEAN VALUE OF k ₁₅ (VALEUR MOYENNE DE k ₁₅) | | | 7.790 × 10 ⁻⁸ cm/sec |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) | |
|--|----------------|
| No. | |
| W _s | W _c |
| W _s | W _c |
| W _s | W _c |
| w = | % |
| No. | |
| W _s | W _c |
| W _s | W _c |
| W _s | W _c |
| w = | 39.4 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| w = | 39.4 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) | |
|---|----------------|
| No. | |
| W _s | W _c |
| W _s | W _c |
| W _s | W _c |
| w = | % |
| No. | |
| W _s | W _c |
| W _s | W _c |
| W _s | W _c |
| w = | 44.8 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) | |
| w = | 44.8 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAIL WATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
* μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

* COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|--------------------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | II - TP - 3 ^m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPIENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED - DISTURBED (INTACT - REMANIÉ) |
|-------------------------------------|--|------------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|---|---------------------------|---|--|-----------------------------|
| | | (cm) | | | |
| SPECIMEN (SPÉCIMEN) | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPIENT + SPÉCIMEN)) | W' (g) | |
| | | a (cm ²) | | | |
| | DIAMETER (DIAMÈTRE) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | W _i =W - W _s (g) | |
| | | (cm) | | | |
| | CROSS SECTIONAL AREA (SURF. DE LA SECTION) | | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_t = W_i / V_i$ (g / cm ³) | |
| | | A (cm ²) | | | |
| | LENGTH (LONGUEUR) | | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S _i (%) | |
| | | L (cm) | | | |
| VOLUME (VOLUME) | | V = AL (cm ³) | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPIENT) | | W _s (g) | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_t / (1 + \frac{w}{100})$ (g/cm ³) | |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | | G _s | VOID RATIO (INDICE DES VIDES) | e | |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------|--------------|--------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 9/25 9:00 AM | 9/25 9:00 AM | 9/25 9:00 AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 9/26 5:00 PM | 9/26 9:30 AM | 9/27 9:00 AM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | | |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN (VOLUME D'ÉPANCHEMENT EN) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_T = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | | |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | | |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | | |
| $a \cdot L$ | | | |
| aL/A | | | |
| $2.3/(t_2 - t_1)$ | | | |
| $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | | |
| μ_T / μ_{15} | | | |
| $k_{15} = k_T \cdot \frac{\mu_T}{\mu_{15}}$ | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| No. |
| W_s 185.4 |
| W_b 146.1 |
| W_w 69.3 |
| $w =$ 38.1 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 38.1 % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
|---|
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| No. |
| W_s 2.166 |
| W_b 1.588 |
| W_w 578 |
| $w =$ 51.2 % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ 51.2 % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μ_T IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μ_T EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

** COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

PERMEABILITY TEST (ESSAI DE PERMÉABILITÉ)

| | | | |
|--|--------------------------|--------------------------|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | II-TP-4 3.0 ^m | TESTED BY (ESSAI PAR) | |

| | | | | | |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|
| APPARATUS NO. (N° DE L'APPAREIL) | | CONTAINER NO. (N° DU RÉCIPENT) | | SAMPLE (ÉCHANTILLON) | UNDISTURBED · DISTURBED (INTACT · REMANIÉ) |
|-------------------------------------|--|-----------------------------------|--|-------------------------|---|

| BURETTE (BURETTE) | DIAMETER (DIAMÈTRE) | (cm) | CONDITIONS OF SPECIMEN (CONDITIONS DU SPÉCIMEN) | BEFORE TEST (AVANT ESSAI) | AFTER TEST (APRÈS ESSAI) |
|---|-----------------------------|--------|--|--|-----------------------------|
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | a (cm ²) | 1.0 | WEIGHT (CONTAINER+SPECIMEN) (POIDS (RÉCIPENT + SPÉCIMEN)) | W' (g) | 3,637.79 |
| DIAMETER (DIAMÈTRE) | (cm) | | WEIGHT OF SPECIMEN (POIDS DU SPÉCIMEN) | $W = W' - W_s$ (g) | 1,619.32 |
| CROSS SECTIONAL AREA (SURF. DE LA SECTION) | A (cm ²) | 81.71 | WET DENSITY (DENSITÉ HUMIDE) | $\gamma_s = W_s / V$ (g/cm ³) | 1.70 |
| LENGTH (LONGUEUR) | L (cm) | 11.65 | DEGREE OF SATURATION (DEGRÉ DE SATURATION) | S_r (%) | 1.82 |
| VOLUME (VOLUME) | $V = AL$ (cm ³) | 951.92 | WATER CONTENT (TENEUR EN EAU) | w (%) | |
| WEIGHT OF CONTAINER (POIDS DU RÉCIPENT) | W_s (g) | | DRY DENSITY (DENSITÉ SÈCHE) | $\gamma_d = \gamma_s / (1 + w/100)$ (g/cm ³) | 1.28 |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | G_s | 2.88 | VOID RATIO (INDICE DES VIDES) | e | 1.27 |

| TEST NO. (N° DE L'ESSAI) | 1 | 2 | 3 |
|---|------------------------|-------------|-------------|
| TIME OF INITIAL OBSERVATION (MOMENT OÙ L'OBSERVATION COMMENCE) | 9/24 9:00AM | 9/24 9:00AM | 9/24 9:00AM |
| TIME OF FINAL OBSERVATION (MOMENT OÙ L'OBSERVATION FINIT) | 9/25 9:00AM | 9/26 9:30AM | 9/27 9:30AM |
| ELAPSED TIME (TEMPS ÉCOULÉ) | $t_2 - t_1$ (sec) | 86,400 | 174,600 |
| CONSTANT HEAD METHOD (MÉTHODE DES NIVEAUX CONSTANTS) | | | |
| * HEAD (DIFFÉRENCE DE NIVEAU) | h (cm) | | |
| $A \cdot (t_2 - t_1)$ | | | |
| L/h | | | |
| VOLUME OF DISCHARGE IN $t_2 - t_1$ (VOLUME D'ÉPANCHEMENT EN $t_2 - t_1$) | Q (cm ³) | | |
| $Q/A \cdot (t_2 - t_1)$ | | | |
| $k_T = \frac{L}{h} \cdot \frac{Q}{A(t_2 - t_1)}$ (cm/sec) | | | |
| FALLING HEAD METHOD (MÉTHODE DES NIVEAUX VARIABLES) | | | |
| * HEAD AT t_1 (DIFF. DE NIVEAU À t_1) | h_1 (cm) | 130.0 | 130.0 |
| * HEAD AT t_2 (DIFF. DE NIVEAU À t_2) | h_2 (cm) | 126.3 | 124.8 |
| h_1/h_2 | | | |
| $\log_{10} (h_1/h_2)$ | | | |
| $a \cdot L$ | | | |
| aL/A | | | |
| $2.3/(t_2 - t_1)$ | | | |
| $k_T = \frac{aL}{A} \cdot \frac{2.3}{(t_2 - t_1)} \cdot \log_{10} \frac{h_1}{h_2}$ (cm/sec) | | | |
| WATER TEMPERATURE (TEMPÉRATURE DE L'EAU) | T (°C) | 29.9 | 31.0 |
| *** $\mu T / \mu_{15}$ | | | |
| ** $k_{15} = k_T \cdot \frac{\mu T}{\mu_{15}}$ | | | |
| MEAN VALUE OF k_{15} (VALEUR MOYENNE DE k_{15}) | | | |

| WATER CONTENT BEFORE TEST (TENEUR EN EAU AVANT ESSAI) |
|--|
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ % |

| WATER CONTENT AFTER TEST (TENEUR EN EAU APRÈS ESSAI) |
|---|
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| No. |
| W_s |
| W_b |
| W_w |
| $w =$ % |
| MEAN WATER CONTENT (TENEUR MOYENNE EN EAU) |
| $w =$ % |

* DIFFERENCE BETWEEN HEAD WATER AND TAILWATER
(DIFFÉRENCE ENTRE LE NIVEAU D'EAU EN TÊTE DE COLONNE ET LE NIVEAU D'ÉPANCHEMENT)
*** μT IS THE COEFFICIENT OF VISCOSITY OF THE WATER AT T °C.
(μT EST LE COEFFICIENT DE VISCOSITÉ DE L'EAU À T °C.)

** COEFFICIENT OF PERMEABILITY AT T °C
OR 15 °C
(COEFFICIENT DE PERMÉABILITÉ À T °C
OU 15 °C)

2.10 Consolidation Test

CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

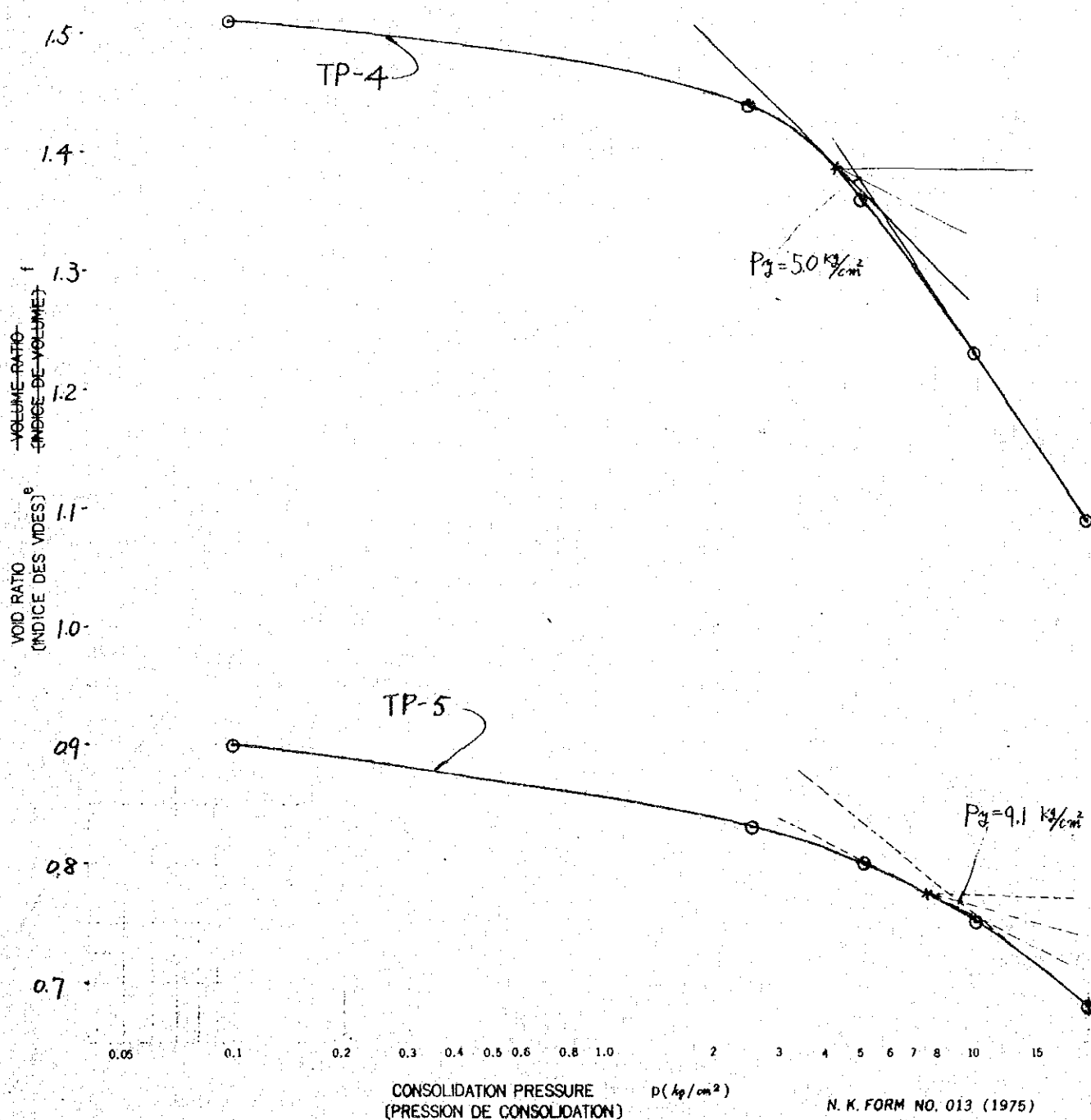
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|--|---|--|---|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | | TESTED BY (ESSAI PAR) | |
| AG00 | | NPC | |
| TP4 and TP5 (3 m - m) | | | |
| *UNDISTURBED OR DISTURBED (CONTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | *LIQUID LIMIT (LIMIT DE LIQUIDITÉ) |
| DISTURBED | MH (SC) | 2.87 (2.66) | 83.90 (48.40) |
| *INITIAL WATER CONTENT w_0 (%) (TENEUR EN EAU INITIALE) | *INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | *INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | *DEGREE OF INITIAL SATURATION S_r (%) (DEGRÉ DE SATURATION INITIALE) |
| | | | 74.0 (81.0) |
| | | *COMPRESSION INDEX (INDICE DE COMPRESSION) | *YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) |
| | | | 5.0 (9.1) |

*THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

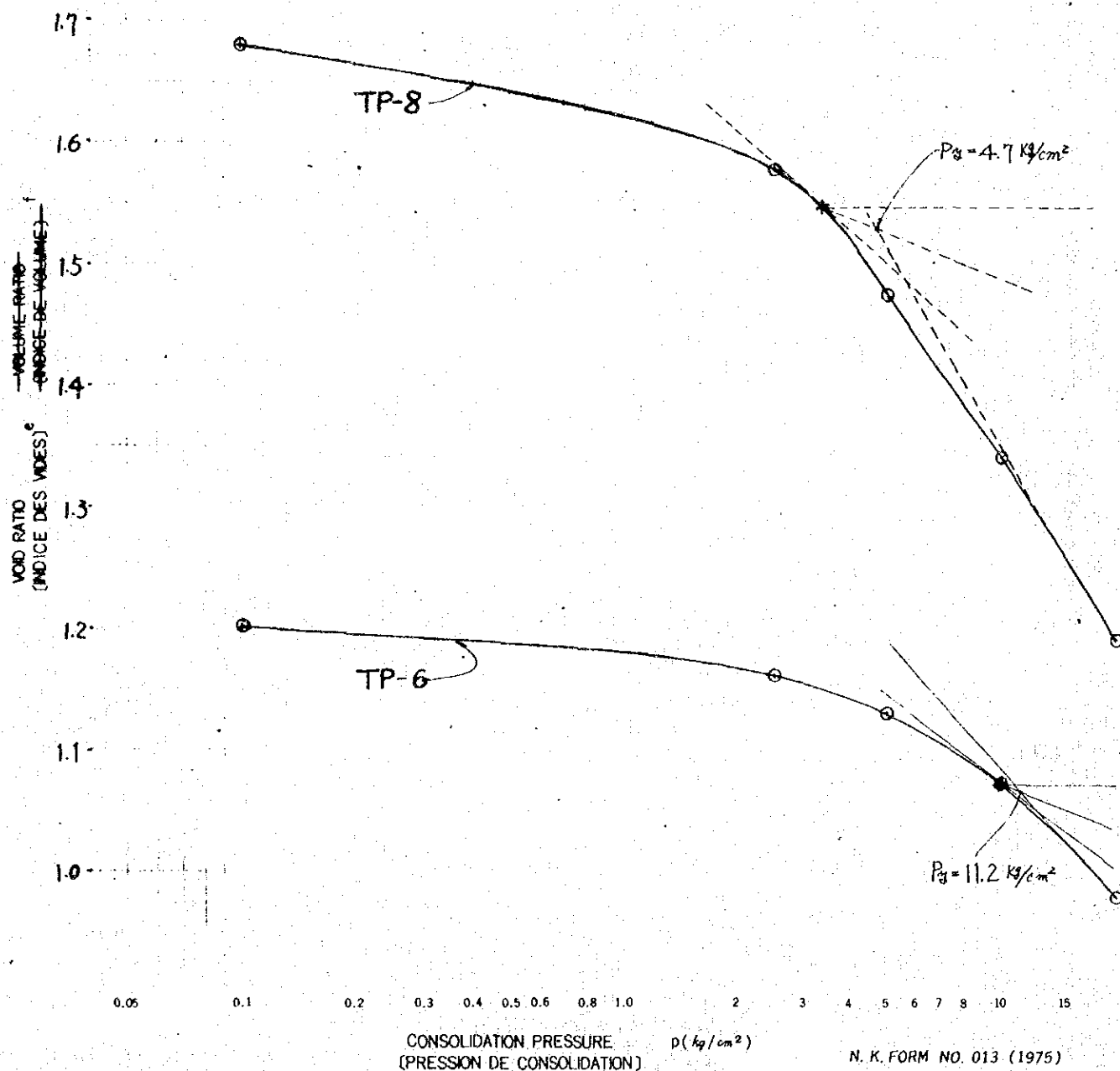
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | | | | | |
|--|---|---|--|--|--------------------------|---|--------------------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L' ENQUÊTE ET LOCALITÉ) | | | A800 | | DATE (DATE) | | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | | | TP-6 and TP-8 | | TESTED BY (ESSAI PAR) | | NPC |
| | | | (m ~ m) | | | | |
| *UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY G _s (POIDS SPÉCIFIQUE) | *LIQUID LIMIT w _L (%) (LIMIT DE LIQUIDITÉ) | *INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPÉCIMEN) | | | |
| | | | | HEIGHT (HAUTEUR) | (cm) | DIAMETER (DIAMÈTRE) | (cm) |
| DISTURBED | SC (SM) | 2.84 (2.85) | 52.33 (54.9) | | | | |
| *INITIAL WATER CONTENT w _o (%) (TENEUR EN EAU INITIALE) | *INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | *INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | *DEGREE OF INITIAL SATURATION S _r (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | C _c | YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) | P _y (kg/cm ²) |
| | | | 76.2 (76.3) | | | 11.2 (4.7) | |

*THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

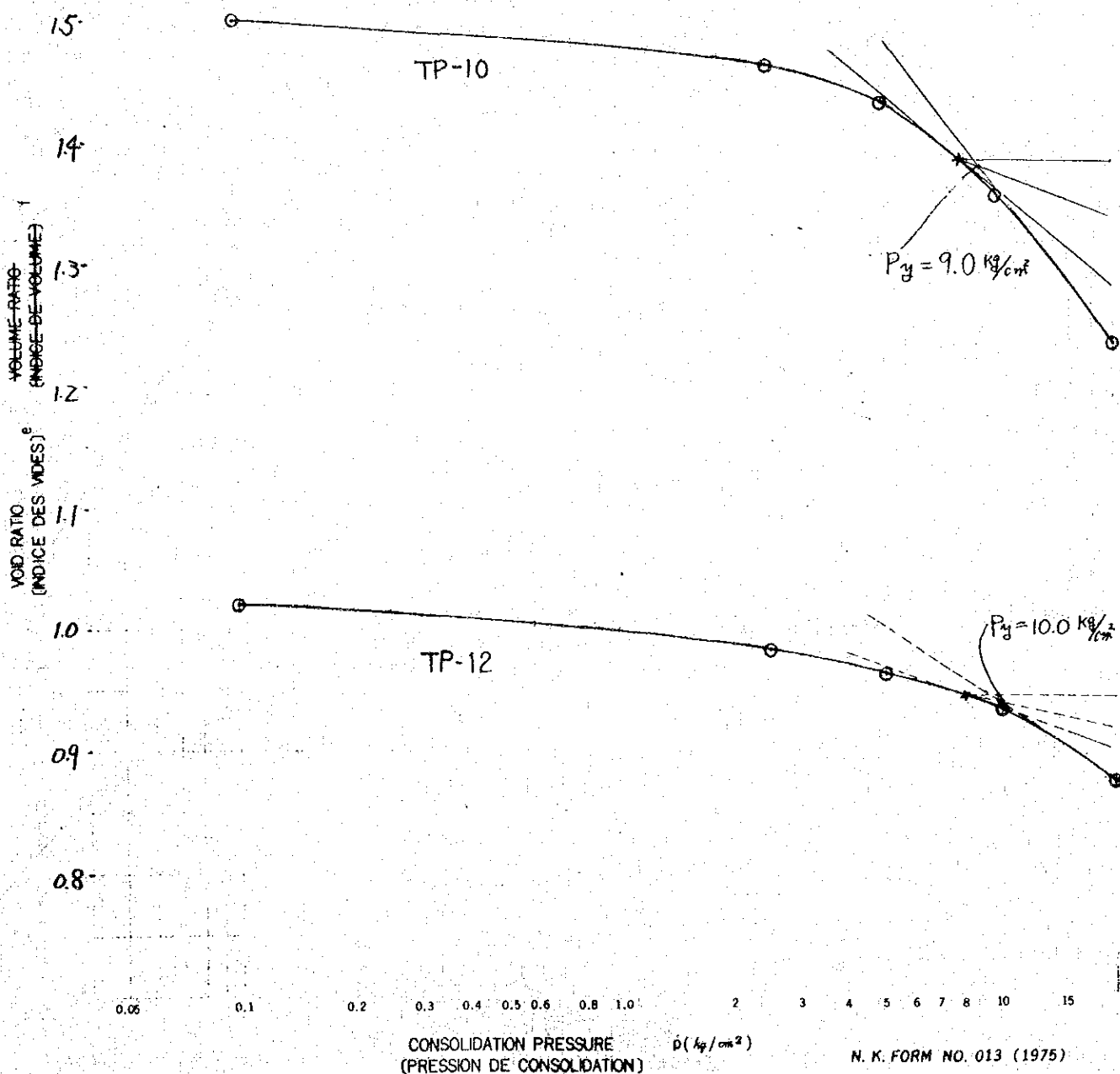
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | | | | |
|--|---|--|--|--|---|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L' ENQUÊTE ET LOCALITÉ) | | | A900 | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L' ÉCHANTILLON ET PROFONDEUR) | | | TP-10 and TP-12 | | TESTED BY (ESSAI PAR) | |
| | | | (2.5 m - 3.0 m) | | NPC | |
| *UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY Gs (POIDS SPÉCIFIQUE) | *LIQUID LIMIT w _L (%) (LIMIT DE LIQUIDITÉ) | *INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPÉCIMEN) | | |
| | | | | HEIGHT (HAUTEUR) | DIAMETER (DIAMÈTRE) | |
| DISTURBED | SC(SM) | 2.87(2.77) | 97.0(43.25) | | | |
| *INITIAL WATER CONTENT w _s (%) (TENEUR EN EAU INITIALE) | *INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | *INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | *DEGREE OF INITIAL SATURATION S _r (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) | |
| | | | 84.5 (89.0) | | 9.0 (10.0) | |

* THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



CONSOLIDATION TEST
(ESSAI DE CONSOLIDATION)

(e-log P CURVE)
(f-log P (COURBE))

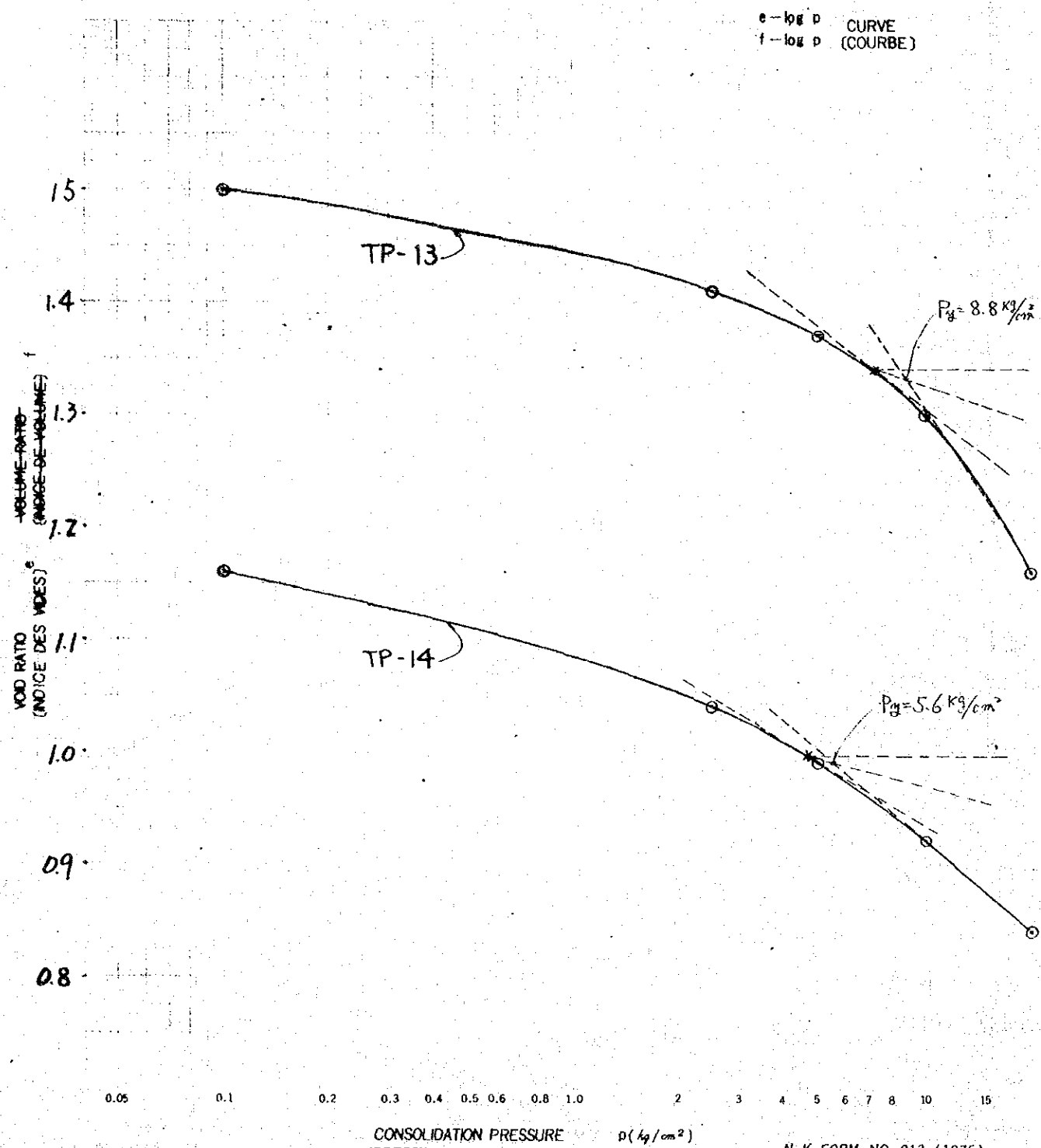
FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|--|-------------------------------|--------------------------|-----|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | A800 | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-13 and TP-14 (3.0 (6.0) m) | TESTED BY (ESSAI PAR) | NPC |

| UNDISTURBED OR DISTURBED (INTACT OU REMANÉ) | CLASSIFICATION (CLASSIFICATION) | SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | LIQUID LIMIT (LIMIT DE LIQUIDITÉ) | INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPECIMEN) | |
|---|--|---|---|---|---|
| | | G _s | w _L (%) | HEIGHT (HAUTEUR) | DIAMETER (DIAMÈTRE) |
| DISTURBED | SM (SM) | 2.81 (2.83) | 56.56 (59.60) | | |
| INITIAL WATER CONTENT w _i (%) (TENEUR EN EAU INITIALE) | INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | DEGREE OF INITIAL SATURATION S _r (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | YIELD STRESS OF CONSOLIDATION (LIMITÉ D'ÉLASTICITÉ DE CONSOLIDATION) |
| | | | 69.9 (81.6) | | 8.8 (5.6) |

THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log P CURVE
f-log P (COURBE)



CONSOLIDATION PRESSURE
(PRESSION DE CONSOLIDATION)

CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

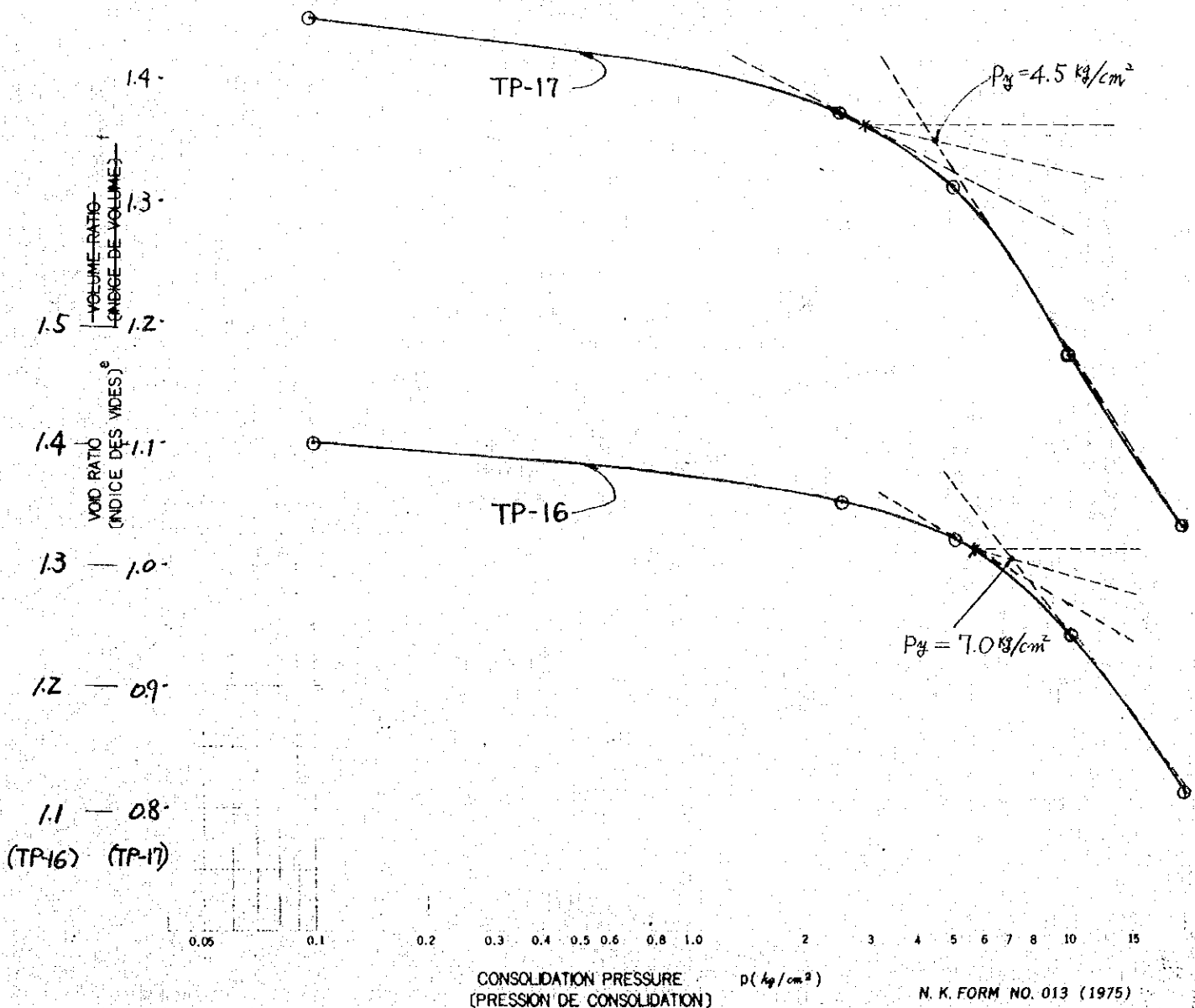
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | | | |
|--|-------------------------------------|---|---|--|--------------------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agou | | DATE (DATE) | | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-16 and TP-17 (2.5 m - 3.0 m) | | TESTED BY (ESSAI PAR) | NPC | |
| *UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | *LIQUID LIMIT (LIMIT DE LIQUIDITÉ) | *INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPÉCIMEN) | |
| | | G _s | w _L (%) | HEIGHT (HAUTEUR) | DIAMETER (DIAMÈTRE) |
| | | | | (cm) | (cm) |
| DISTURBED | MH (MH) | 2.85 (2.86) | 60.0 (69.20) | | |
| *INITIAL WATER CONTENT w _i (%) | *INITIAL VOLUME RATIO | *INITIAL VOID RATIO | *DEGREE OF INITIAL SATURATION S _i (%) | COMPRESSION INDEX | YIELD STRESS OF CONSOLIDATION |
| (TENEUR EN EAU INITIALE) | (INDICE DE VOLUME INITIAL) | (INDICE DES VIDES INITIAL) | (DEGRÉ DE SATURATION INITIALE) | (INDICE DE COMPRESSION) | P _y (kg/cm ²) |
| | | | 73.9 (72.8) | | 7.0 (4.5) |

*THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

(e-log p CURVE)
(f-log p (COURBE))

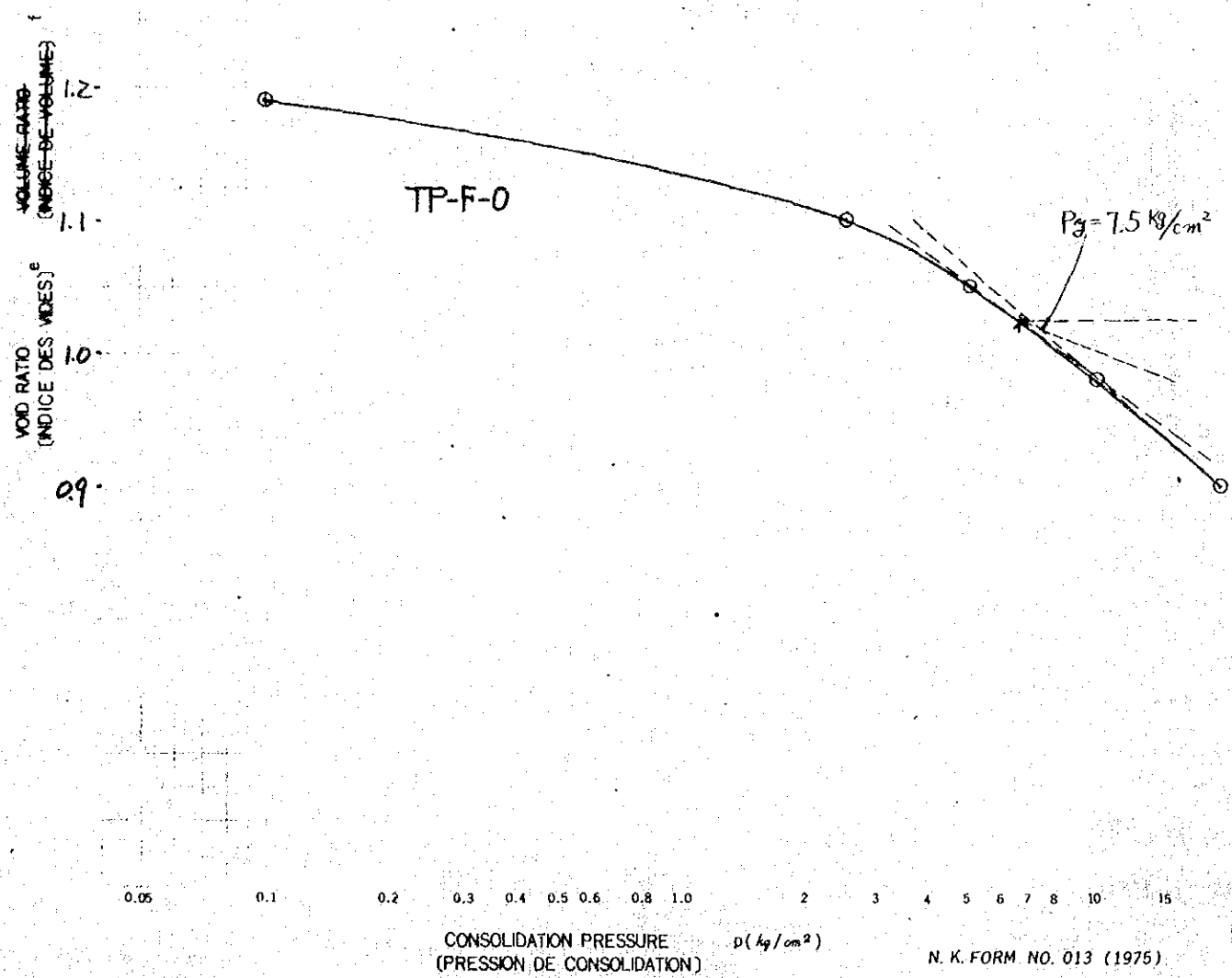
FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|--|------------------|--------------------------|-----|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | A200 | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-F-0 (m ~ m) | TESTED BY (ESSAI PAR) | NPC |

| UNDISTURBED OR DISTURBED (INTACT OU REMANÉ) | CLASSIFICATION (CLASSIFICATION) | SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | LIQUID LIMIT (LIMIT DE LIQUIDITÉ) | INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPÉCIMEN) | |
|---|--|---|---|---|---|
| | CL | 2.99 | 46.75 | HEIGHT (HAUTEUR) | DIAMETER (DIAMÈTRE) |
| INITIAL WATER CONTENT w _i (%) (TENEUR EN EAU INITIALE) | INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | DEGREE OF INITIAL SATURATION S _i (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) |
| | | | 84.9 | | 7.5 |

THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE.)

e-log p CURVE
f-log p (COURBE)



196

CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

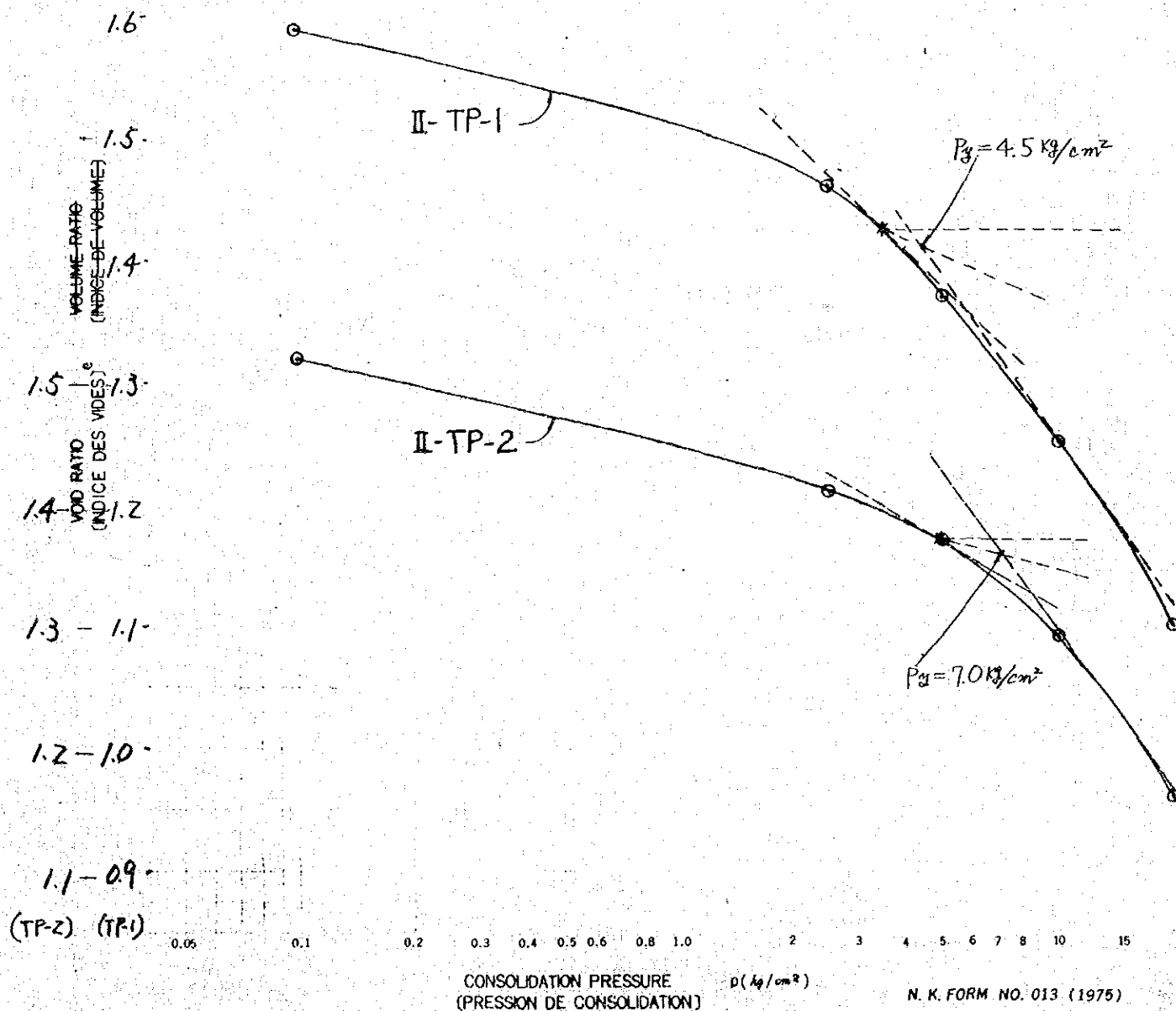
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | | | |
|--|---|--|--|--|---|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agoo | | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | II TP-1 and TP-2 (3.0 m ~ m) | | | TESTED BY (ESSAI PAR) | NPC |
| *UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | *LIQUID LIMIT (LIMIT DE LIQUIDITÉ) | *INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPECIMEN) | |
| | | G _s | w _L (%) | HEIGHT (HAUTEUR) | DIAMETER (DIAMÈTRE) |
| DISTURBED | SC(SC) | 2.90 (2.92) | 52.8 (57.7) | | |
| *INITIAL WATER CONTENT w _o (%) (TENEUR EN EAU INITIALE) | *INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | *INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | *DEGREE OF INITIAL SATURATION S _r (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) |
| | | | | | P _y (kg/cm ²) |
| | | | 69.7 (72.1) | | |

*THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

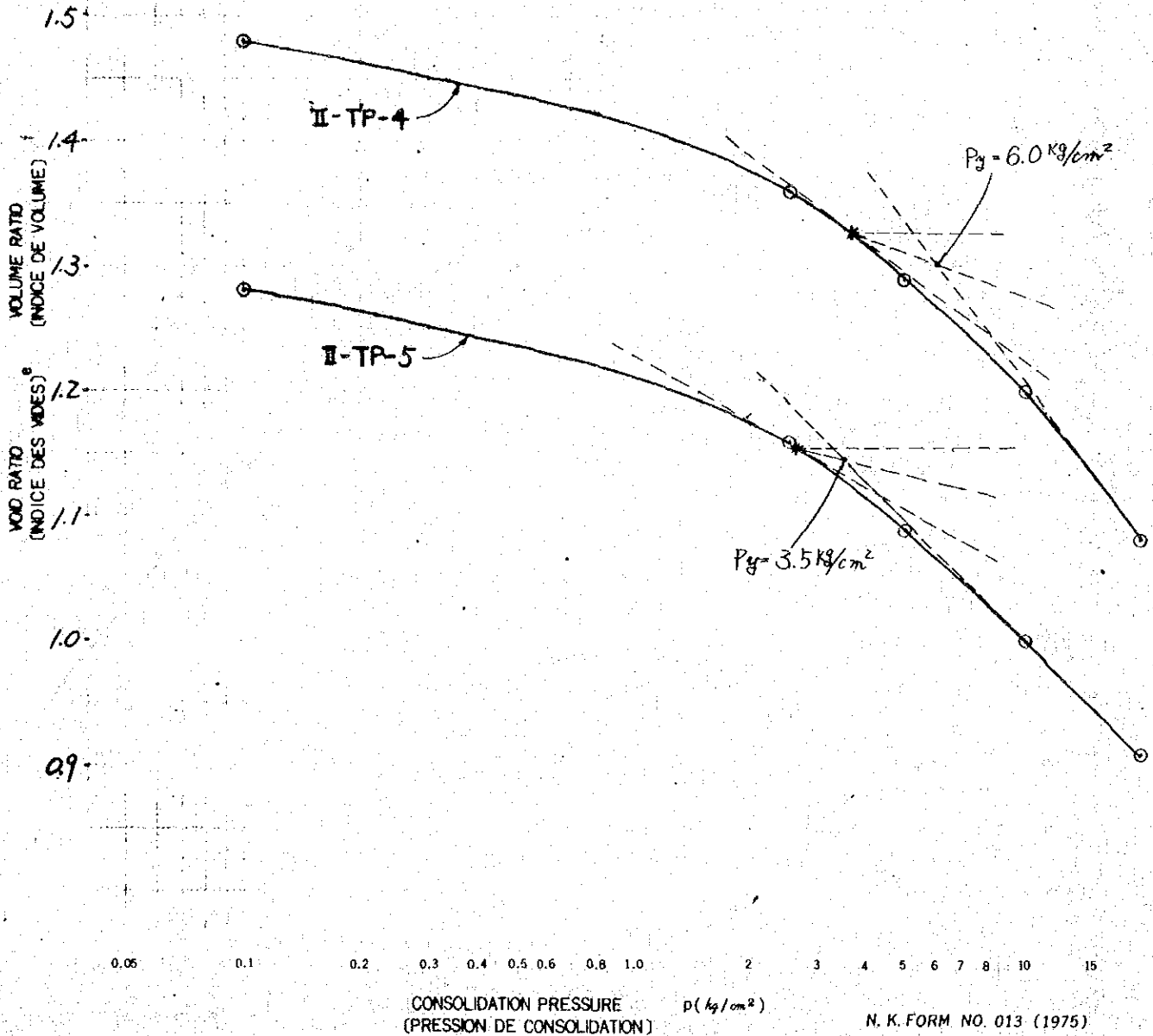
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|---|--|---|--|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | | TESTED BY (ESSAI PAR) | |
| UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | | INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPECIMEN) | |
| CLASSIFICATION (CLASSIFICATION) | | LIQUID LIMIT (LIMIT DE LIQUIDITÉ) | |
| SPECIFIC GRAVITY (POIDS SPÉCIFIQUE) | | INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | |
| INITIAL WATER CONTENT (TENEUR EN EAU INITIALE) | | DEGREE OF INITIAL SATURATION (DEGRÉ DE SATURATION INITIALE) | |
| INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | | COMPRESSION INDEX (INDICE DE COMPRESSION) | |
| YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) | | | |

THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE).

e-log P CURVE
f-log P (COURBE)



CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

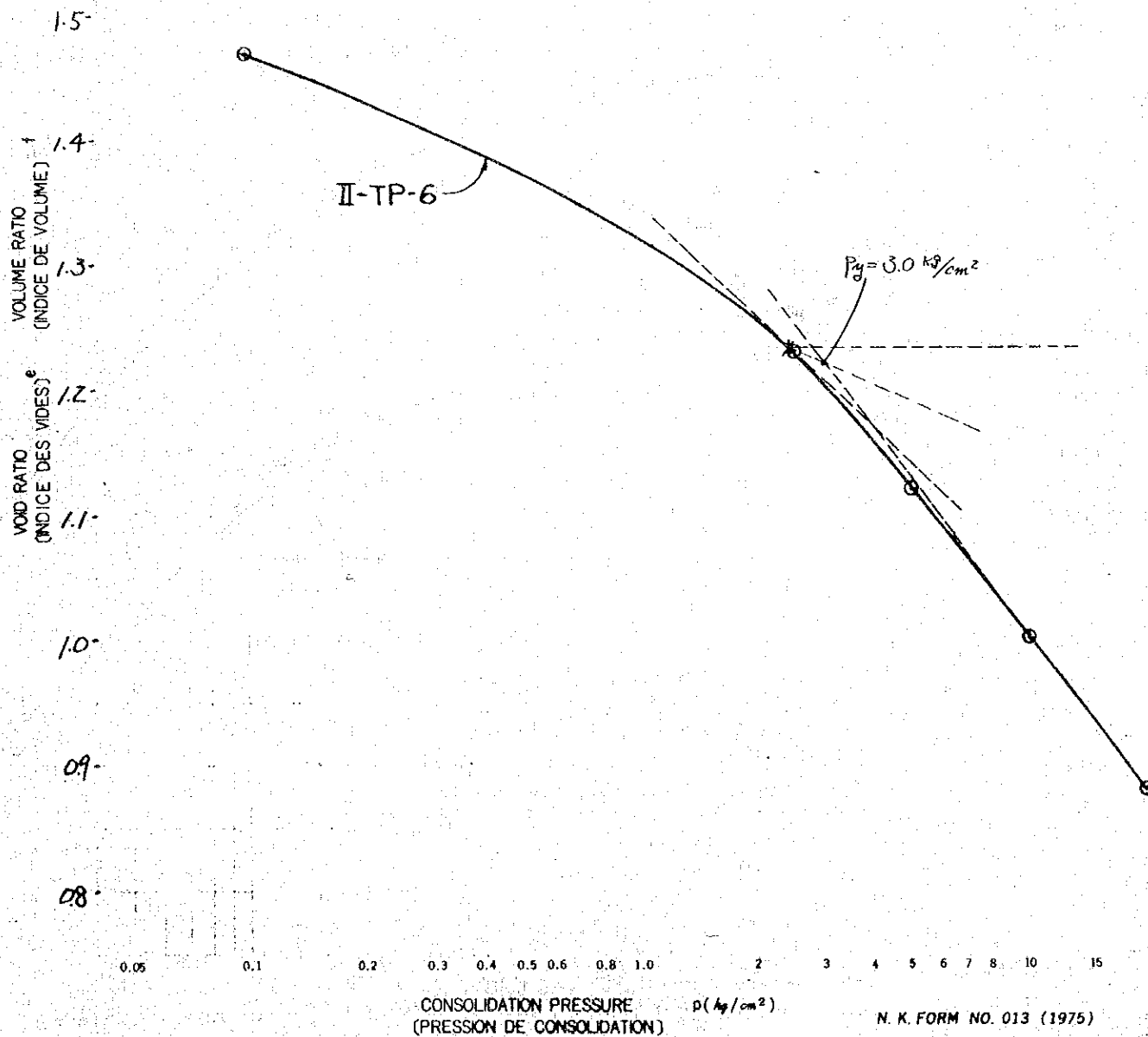
(e-log P CURVE)
(f-log P (COURBE))

FOR REPORTING
(POUR LE RAPPORT)

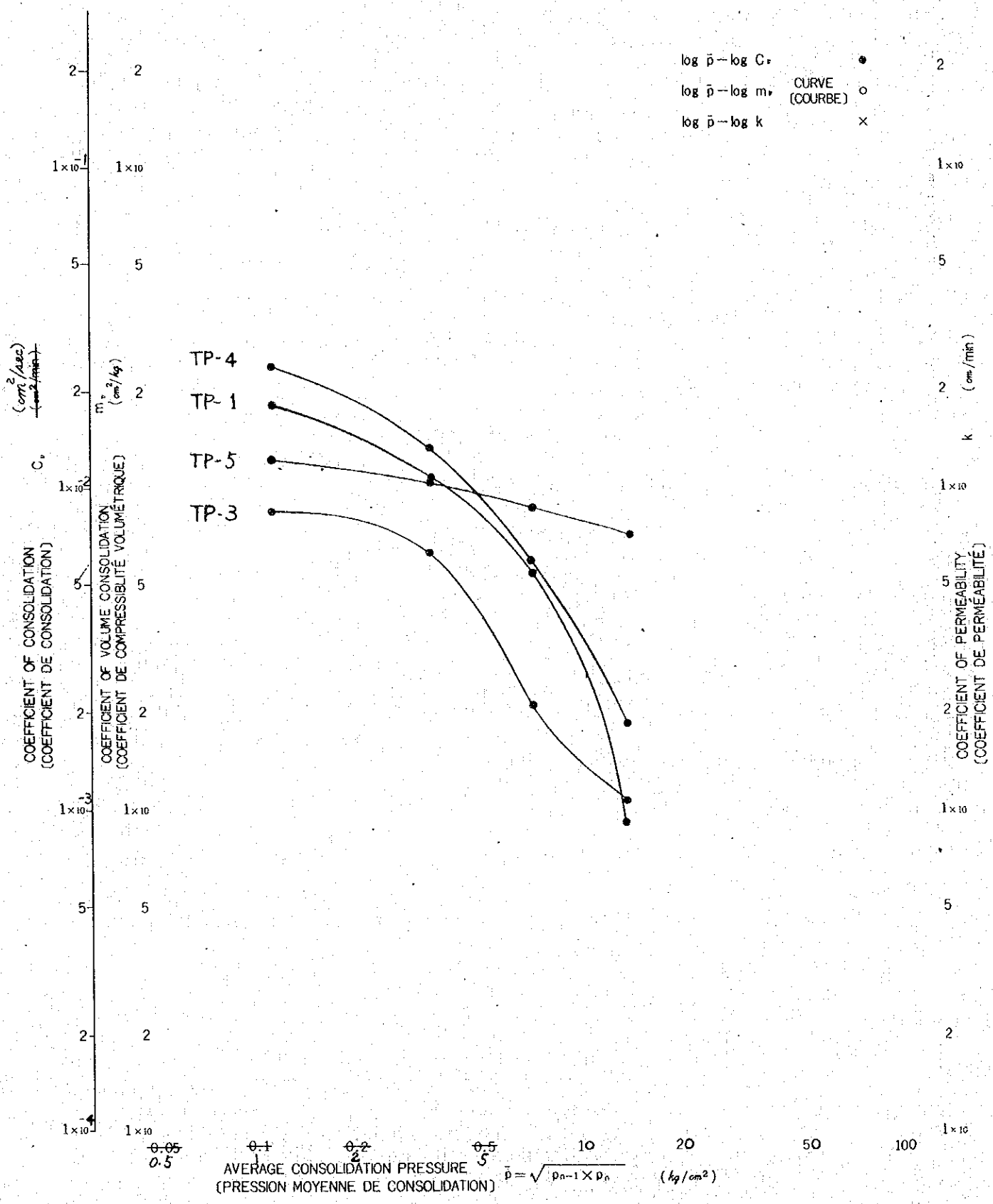
| | | | | | | | |
|--|---|--|--|--|----------------|---|--------------------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | | Agou | | DATE (DATE) | | | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | | II-TP-6 | | (2.5 m - 3.0 m) | | TESTED BY (ESSAI PAR) NPC | |
| *UNDISTURBED OR DISTURBED (INTACT OU REMANIÉ) | *CLASSIFICATION (CLASSIFICATION) | *SPECIFIC GRAVITY Gs (POIDS SPÉCIFIQUE) | *LIQUID LIMIT w _L (%) (LIMIT DE LIQUIDITÉ) | *INITIAL DIMENSION OF SPECIMEN (DIMENSION INITIALE DU SPÉCIMEN) | | | |
| DISTURBED | CH | 2.71 | 50.70 | HEIGHT (HAUTEUR) | (cm) | DIAMETER (DIAMÈTRE) | (cm) |
| *INITIAL WATER CONTENT w _p (%) (TENEUR EN EAU INITIALE) | *INITIAL VOLUME RATIO (INDICE DE VOLUME INITIAL) | *INITIAL VOID RATIO (INDICE DES VIDES INITIAL) | *DEGREE OF INITIAL SATURATION S _r (%) (DEGRÉ DE SATURATION INITIALE) | COMPRESSION INDEX (INDICE DE COMPRESSION) | C _c | YIELD STRESS OF CONSOLIDATION (LIMITE D'ÉLASTICITÉ DE CONSOLIDATION) | P _y (kg/cm ²) |
| | | | 68.2 | | | 3.0 | |

*THE RECORDING IS NOT NECESSARY IN THE CASE THAT CALCULATION DATA SHEET IS APPENDED.
(LES CHIFFRES NE FIGURENT PAS ICI QUAND LA FEUILLE DES CALCULS DÉTAILLÉS EST ANNEXÉE)

e-log p CURVE
f-log p (COURBE)



| | | | |
|--|---|----------------------------------|------------------------------------|
| CONSOLIDATION TEST (ESSAI DE CONSOLIDATION) | | (P-C, m, k) CURVE (COURBE) | FOR REPORTING (POUR LE RAPPORT) |
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agoo | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-1, TP-3, TP-4, TP-5 (2.5 m - 3.0 m) | TESTED BY (ESSAI PAR) | NPC |

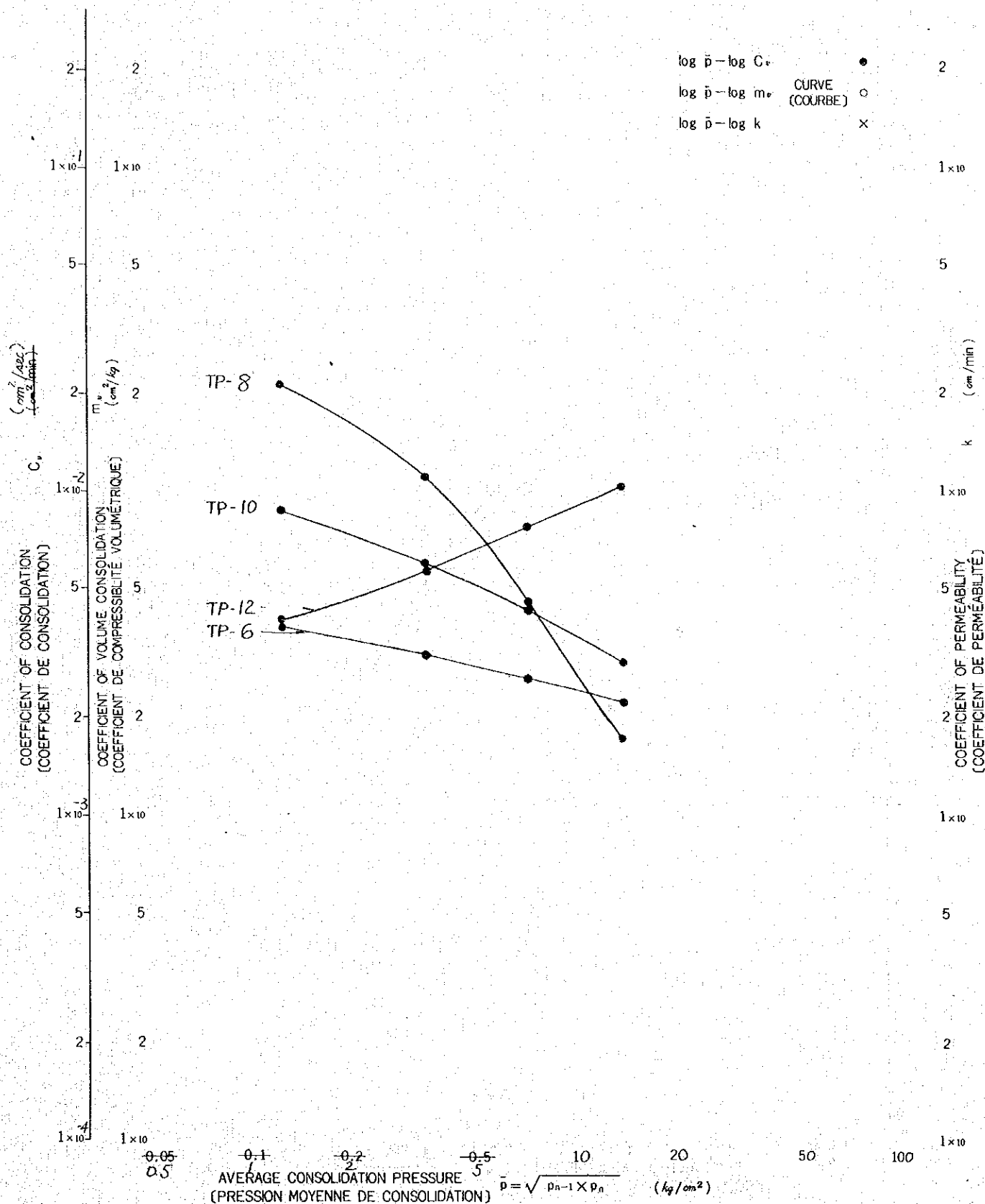


CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

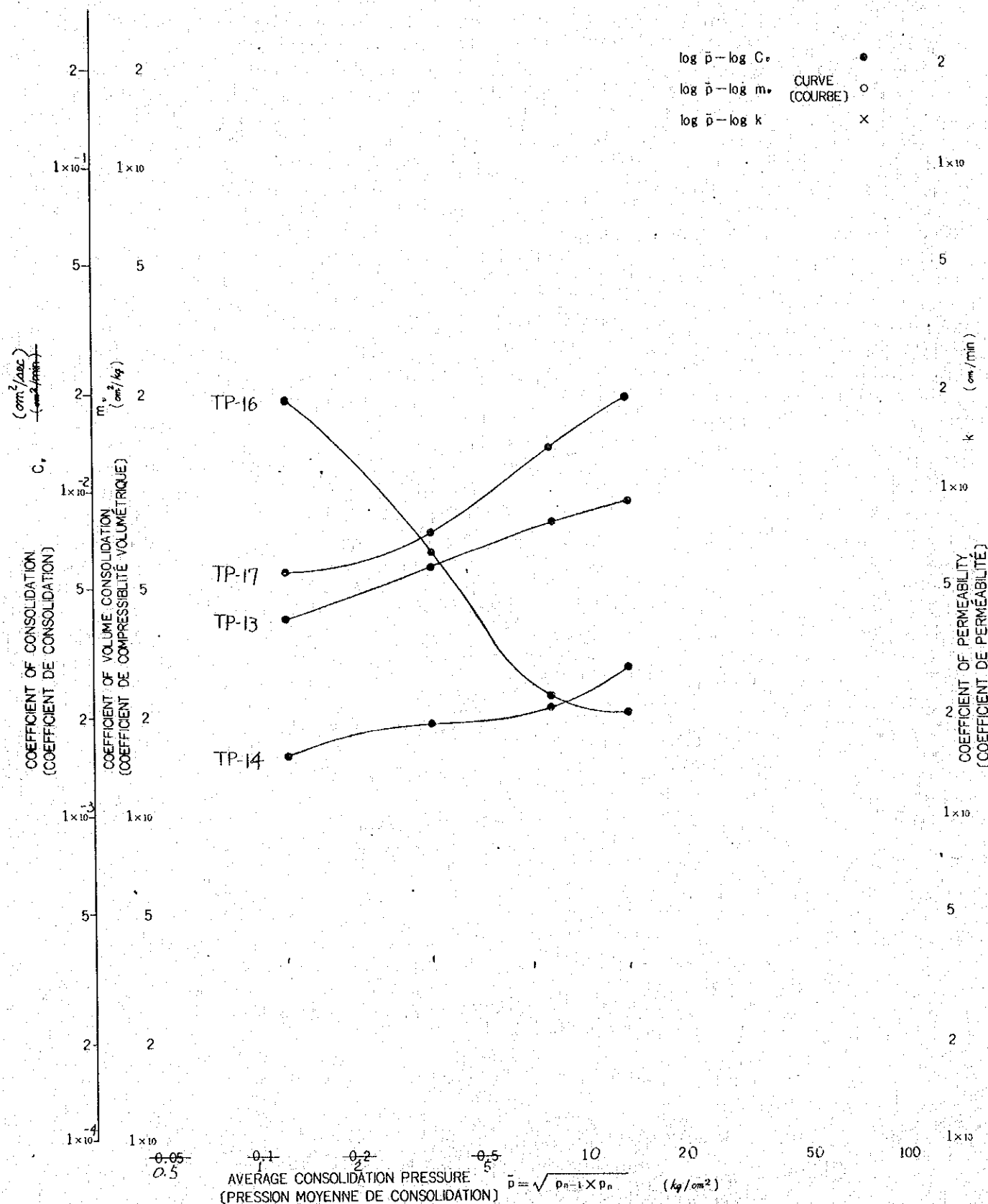
(P-C, m, k CURVE
(COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|--|--|--------------------------|-----|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Ago | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-6, TP-8, TP-10, TP-12 (2.5 m ~ 3.0m) | TESTED BY (ESSAI PAR) | NPC |



| CONSOLIDATION TEST (ESSAI DE CONSOLIDATION) | | ($P-C_v, m_v, k$ CURVE (COURBE)) | FOR REPORTING (POUR LE RAPPORT) |
|--|---|--------------------------------------|------------------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agos | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-13, TP-14, TP-16, TP-17 (m ~ m) | TESTED BY (ESSAI PAR) | NPC |

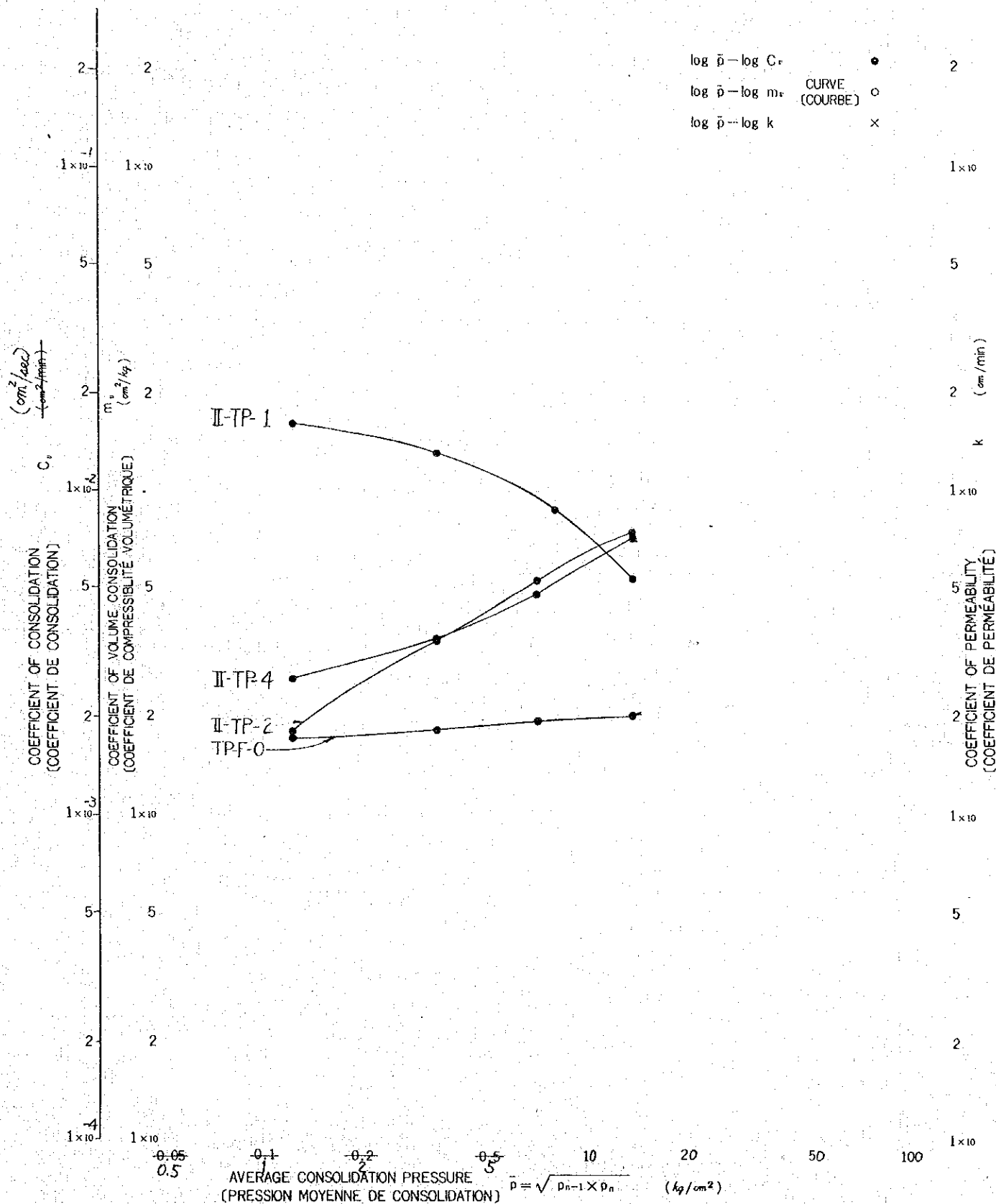


CONSOLIDATION TEST (ESSAI DE CONSOLIDATION)

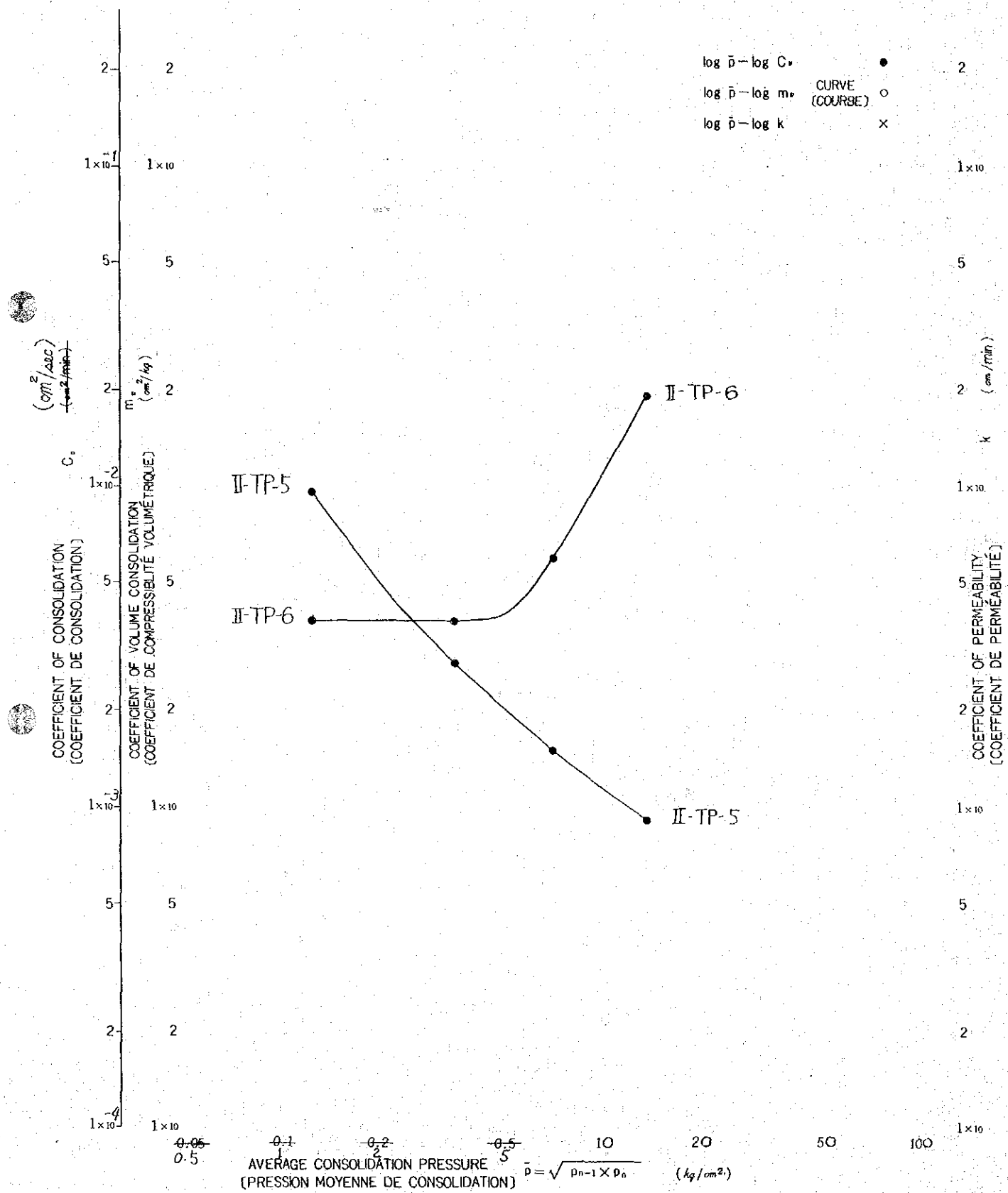
($P-C_v, m_v, k$
(CURVE
(COURBE))

FOR REPORTING
(POUR LE RAPPORT)

| | | | |
|--|--|--------------------------|-----|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agou | DATE (DATE) | |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | TP-F-0, II-TP-1, II-TP-2, II-TP-4 (m - m) | TESTED BY (ESSAI PAR) | NPC |



| CONSOLIDATION TEST (ESSAI DE CONSOLIDATION) | | ($P-C, m_v, k$ CURVE (COURBE)) | FOR REPORTING (POUR LE RAPPORT) |
|--|----------------------------|------------------------------------|------------------------------------|
| NAME OF SURVEY & LOCALITY (DÉNOMINATION DE L'ENQUÊTE ET LOCALITÉ) | Agos | | DATE (DATE) |
| SAMPLE NO. & DEPTH (N° DE L'ÉCHANTILLON ET PROFONDEUR) | II-TP-5, II-TP-6 (m ~ m) | | TESTED BY (ESSAI PAR) NPC |



CHAPTER 3

LABORATORY TESTS ON SAND AND GRAVEL MATERIALS

SECRET

UNCLASSIFIED//FOR OFFICIAL USE ONLY

1

1

3.1 Sieve Analysis and Chemical Durability Test

205

SAND TEST I

Location Agoos Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

STMSand
No. 1F.F Sand
No. 2

Weight of Sample and Container: _____

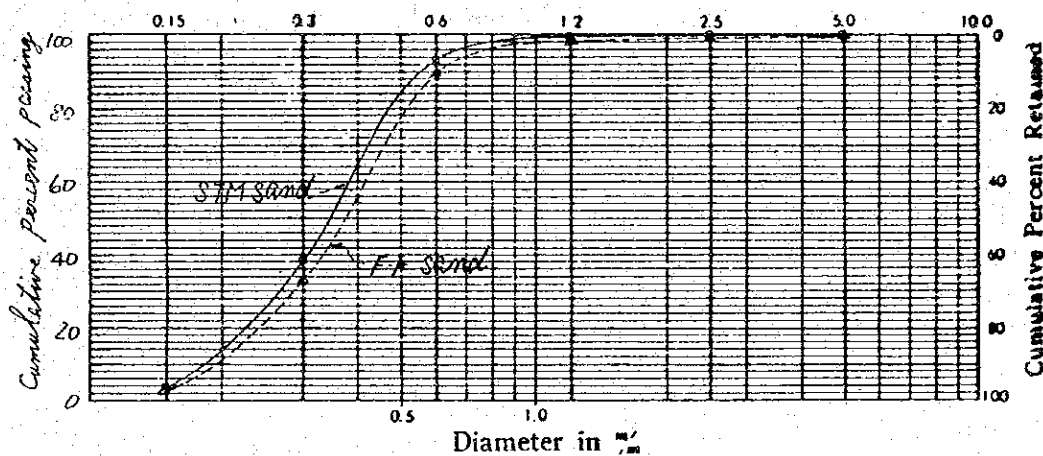
Weight of Container: _____

Weight of Sample: _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{passing} Retained | Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{passing} Retained |
|------------|----------------------------|---|---|--|------------|----------------------------|---|---|--|
| | (C + S) | C | S | | | (C + S) | C | S | |
| 10 | | | | | 10 | | | | |
| 5 | | | | 99.9 | 5 | | | | 99.9 |
| 2.5 | | | | 99.8 | 2.5 | | | | 99.3 |
| 1.2 | | | | 99.8 | 1.2 | | | | 98.4 |
| 0.6 | | | | 93.1 | 0.6 | | | | 89.6 |
| 0.3 | | | | 38.4 | 0.3 | | | | 33.4 |
| 0.15 | | | | 3.7 | 0.15 | | | | 3.5 |
| Passing | | | | | Passing | | | | |
| Total | | | | | Total | | | | |

Max. size: _____ Fineness modulus: _____ Max. size: _____ Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

| | | | | |
|-----------------------------|-------------------------------|--|--|--|
| Before Testing | Weight of Sample + Container: | | | |
| | Weight of Container: | | | |
| | Weight of Sample: | | | |
| After Testing | Weight of Sample + Container: | | | |
| | Weight of Container: | | | |
| | Weight of Sample: | | | |
| Decreased Amount Percentage | | | | |

SAND TEST I

206

Location Agou Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

F.C. sand
No. 1

F.C. sand
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 99.9 |
| 2.5 | | | | 68.7 |
| 1.2 | | | | 32.0 |
| 0.6 | | | | 13.3 |
| 0.3 | | | | 6.8 |
| 0.15 | | | | 2.2 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | |
| 2.5 | | | | 87.4 |
| 1.2 | | | | 70.1 |
| 0.6 | | | | 52.5 |
| 0.3 | | | | 21.5 |
| 0.15 | | | | 3.8 |
| Passing | | | | |
| Total | | | | |

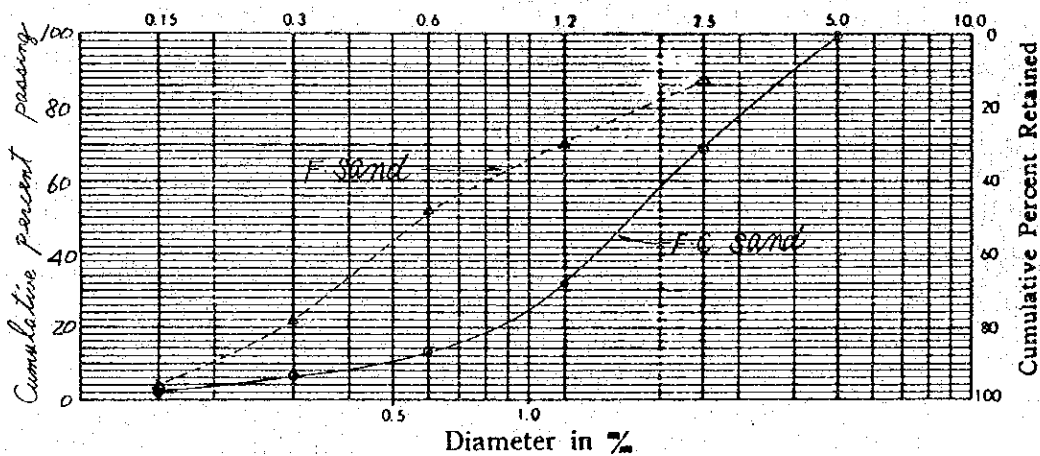
Max. size : _____

Fineness modulus : _____

Max. size : _____

Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

| | | | |
|-----------------------------|--------------------------------|--|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | |

SAND TEST I

Location Agou Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

STM-C
No. 1

STM-F
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

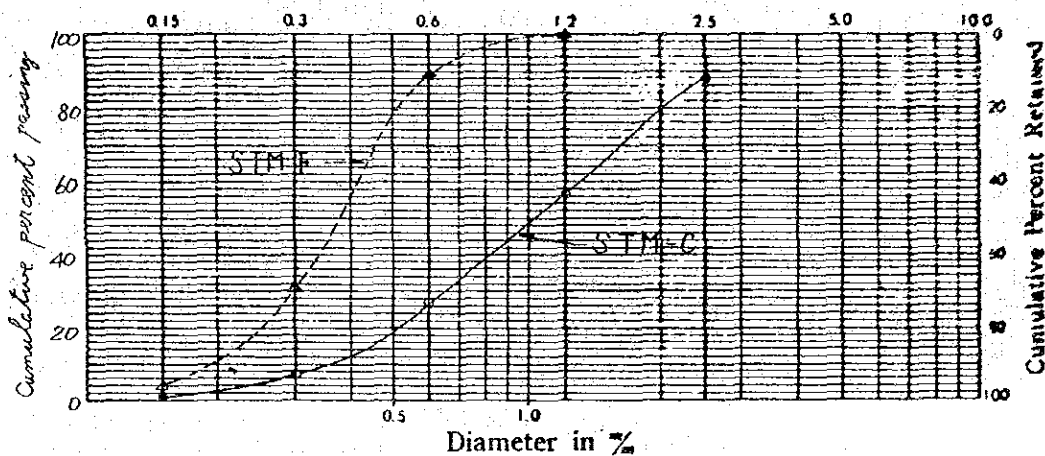
Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | |
| 2.5 | | | | 87.5 |
| 1.2 | | | | 56.8 |
| 0.6 | | | | 26.7 |
| 0.3 | | | | 7.2 |
| 0.15 | | | | 0.9 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | |
| 2.5 | | | | |
| 1.2 | | | | 99.9 |
| 0.6 | | | | 89.6 |
| 0.3 | | | | 30.7 |
| 0.15 | | | | 3.8 |
| Passing | | | | |
| Total | | | | |

Max. size : % Fineness modulus : Max. size : % Fineness modulus.

RESULT OF TESTS



II. DECANTATION TEST

| | | | |
|------------------|--------------------------------|--|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount | | | |
| Percentage | | | |

SAND TEST I

208

Location A900 Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

B-1
~~No. 1~~

B-2
~~No. 2~~

Weight of Sample and Container : _____

Weight of Container : _____

Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | |
| 2.5 | | | | 66.1 |
| 1.2 | | | | 29.7 |
| 0.6 | | | | 11.6 |
| 0.3 | | | | 5.2 |
| 0.15 | | | | 1.6 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | |
| 2.5 | | | | 82.7 |
| 1.2 | | | | 59.9 |
| 0.6 | | | | 26.4 |
| 0.3 | | | | 15.0 |
| 0.15 | | | | 5.7 |
| Passing | | | | |
| Total | | | | |

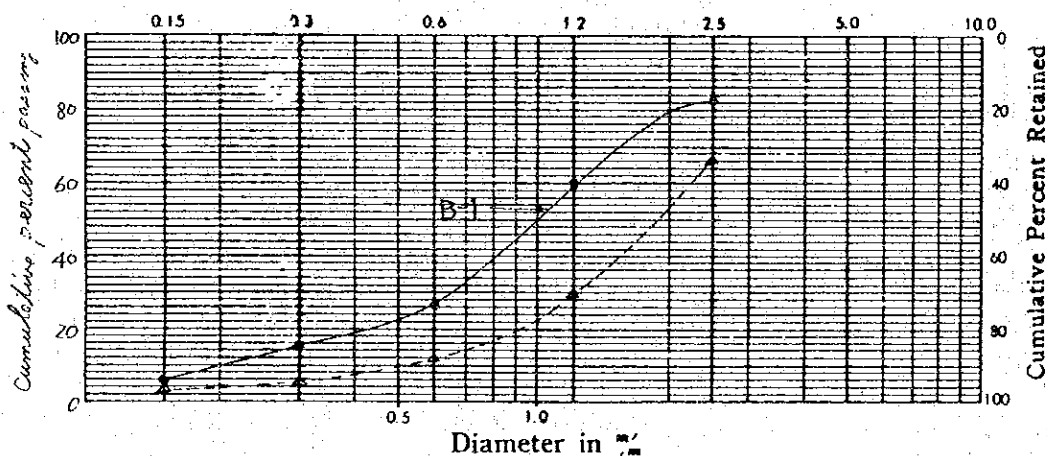
Max. size : _____

Fineness modulus : _____

Max. size : _____

Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

| | | | |
|-----------------------------|--------------------------------|--|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | |

209

SAND TEST I

Location Agoos Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

A-1, 0.3^m
No. 1A-1, 1.0^m
No. 2

Weight of Sample and Container: _____

Weight of Container: _____

Weight of Sample: _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|--------------------------------|
| | (C+S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 81.3 |
| 1.2 | | | | 45.3 |
| 0.6 | | | | 13.4 |
| 0.3 | | | | 2.0 |
| 0.15 | | | | 0.4 |
| Passing | | | | |
| Total | | | | |

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|--------------------------------|
| | (C+S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.6 |
| 2.5 | | | | 76.7 |
| 1.2 | | | | 25.3 |
| 0.6 | | | | 7.8 |
| 0.3 | | | | 1.2 |
| 0.15 | | | | 0.3 |
| Passing | | | | |
| Total | | | | |

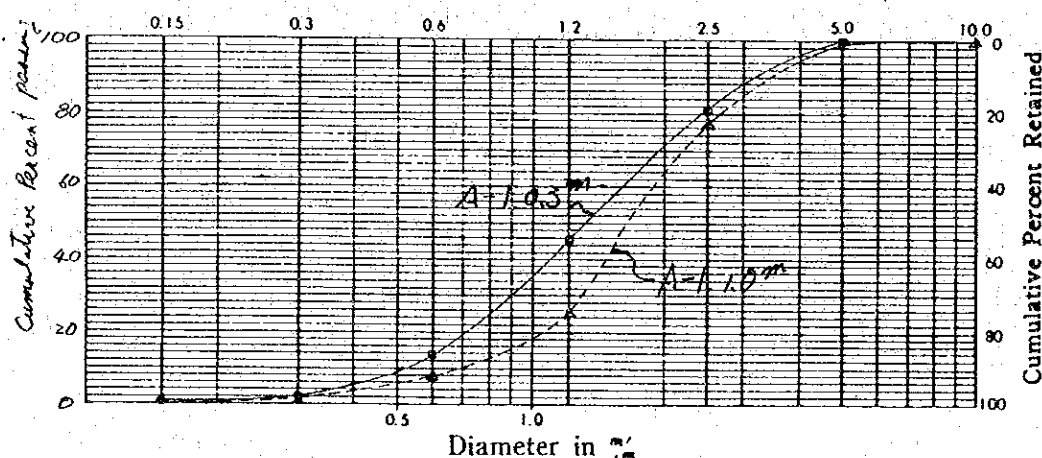
Max. size: mm

Fineness modulus: _____

Max. size: mm

Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

A-1, 1.0^m

| | | | |
|-----------------------------|-------------------------------------|--|------|
| Before Testing | Weight of Sample + Container: _____ | | |
| | Weight of Container: _____ | | |
| | Weight of Sample: _____ | | |
| After Testing | Weight of Sample + Container: _____ | | |
| | Weight of Container: _____ | | |
| | Weight of Sample: _____ | | |
| Decreased Amount Percentage | | | 2.5% |

SAND TEST I

2/0

Location Ago Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

A-1, 2.0^m
No. 1

A-2, 0.3^m
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

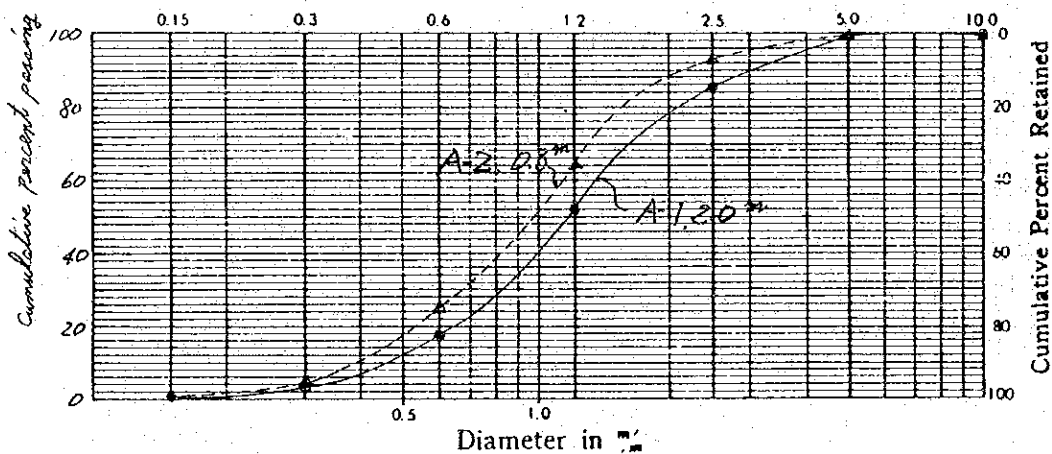
Weight of Sample : _____

| Sieve Size <small>m</small> | Cumulative Weight Retained | | | Cumulative <small>passing</small> Percent Retained |
|-----------------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 85.5 |
| 1.2 | | | | 52.1 |
| 0.6 | | | | 17.5 |
| 0.3 | | | | 3.0 |
| 0.15 | | | | 0.6 |
| Passing | | | | |
| Total | | | | |

| Sieve Size <small>m</small> | Cumulative Weight Retained | | | Cumulative <small>passing</small> Percent Retained |
|-----------------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 92.5 |
| 1.2 | | | | 64.1 |
| 0.6 | | | | 24.5 |
| 0.3 | | | | 4.3 |
| 0.15 | | | | 0.8 |
| Passing | | | | |
| Total | | | | |

Max. size : 2.0^m Fineness modulus : _____ Max. size : 0.3^m Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

A-1, 2.0^m

| | | | |
|-----------------------------|--------------------------------|-------|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 3.8 % | |

SAND TEST I

Location Agoo Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

A-2, 1.0^m
 No. 1

F-2, 1.0^m
 No. 2

Weight of Sample and Container: _____

Weight of Container: _____

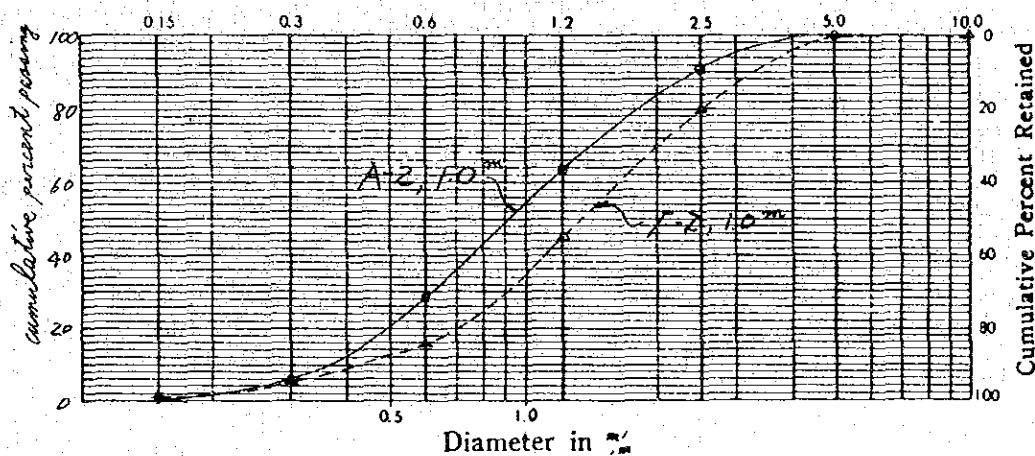
Weight of Sample: _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|--------------------------------|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 90.3 |
| 1.2 | | | | 63.1 |
| 0.6 | | | | 28.2 |
| 0.3 | | | | 5.7 |
| 0.15 | | | | 0.7 |
| Passing | | | | |
| Total | | | | |

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|--------------------------------|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 79.7 |
| 1.2 | | | | 45.0 |
| 0.6 | | | | 16.0 |
| 0.3 | | | | 4.8 |
| 0.15 | | | | 1.6 |
| Passing | | | | |
| Total | | | | |

Max. size: _____ Fineness modulus: _____ Max. size: _____ Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

A-2, 1.0^m

F-2, 1.0^m

| | | | |
|-----------------------------|-------------------------------|------|------|
| Before Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| After Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| Decreased Amount Percentage | | 4.2% | 4.6% |

SAND TEST I

2/2

Location Agos Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

F-3, SURFACE
No. 1

F-4 1.0^m
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

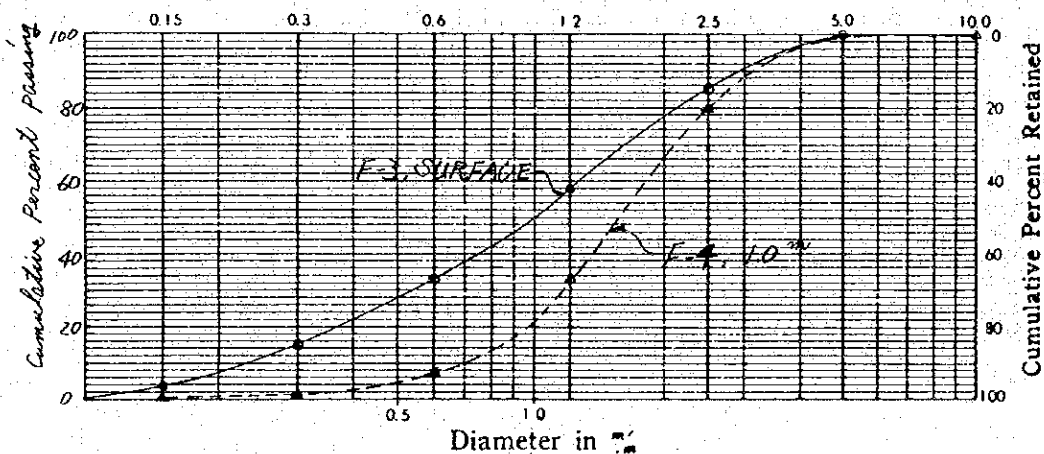
Weight of Sample : _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|---------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 84.9 |
| 1.2 | | | | 57.9 |
| 0.6 | | | | 33.1 |
| 0.3 | | | | 15.0 |
| 0.15 | | | | 3.6 |
| Passing | | | | |
| Total | | | | |

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|---------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 79.8 |
| 1.2 | | | | 32.7 |
| 0.6 | | | | 7.0 |
| 0.3 | | | | 1.3 |
| 0.15 | | | | 0.5 |
| Passing | | | | |
| Total | | | | |

Max. size : _____ Fineness modulus : _____ Max. size : _____ Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

F-3, SURFACE

| | | | |
|-----------------------------|--------------------------------|-------|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 3.4 % | |

SAND TEST I

Location Ago Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

F-4, 2.0^m
 No. 1

F-4, 3.0^m
 No. 2

Weight of Sample and Container : _____

Weight of Container : _____

Weight of Sample : _____

| Sieve Size in m | Cumulative Weight Retained | | | Cumulative, Passing Percent Retained |
|-------------------|----------------------------|---|---|---|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 76.8 |
| 1.2 | | | | 36.8 |
| 0.6 | | | | 11.7 |
| 0.3 | | | | 3.2 |
| 0.15 | | | | 1.3 |
| Passing | | | | |
| Total | | | | |

| Sieve Size in m | Cumulative Weight Retained | | | Cumulative, Passing Percent Retained |
|-------------------|----------------------------|---|---|---|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.5 |
| 2.5 | | | | 78.6 |
| 1.2 | | | | 41.8 |
| 0.6 | | | | 11.4 |
| 0.3 | | | | 1.9 |
| 0.15 | | | | 0.7 |
| Passing | | | | |
| Total | | | | |

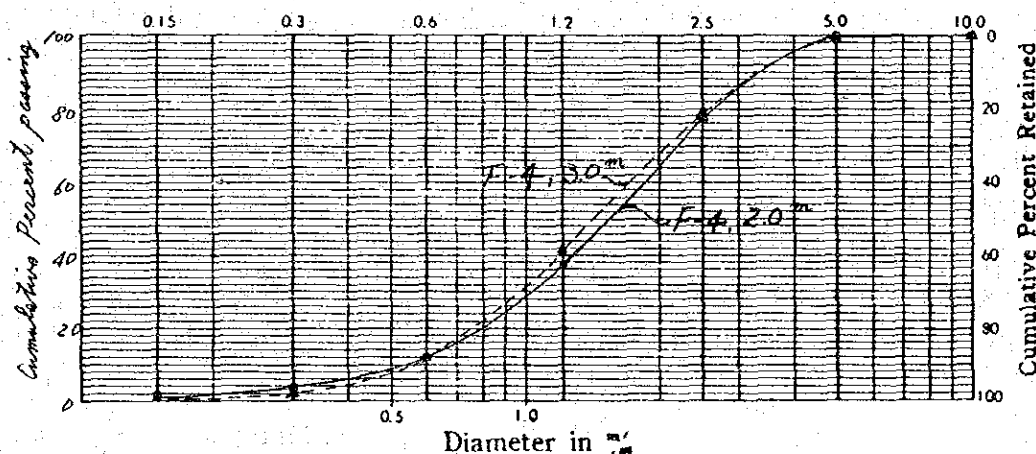
Max. size : m_m

Fineness modulus :

Max. size : m_m

Fineness modulus.

RESULT OF TESTS



II. DECANTATION TEST

F-4, 2.0^m

F-4, 3.0^m

| | | | |
|-----------------------------|--------------------------------|------|------|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 3.0% | 4.2% |

SAND TEST I

214

Location Ago Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

F-5, 2.0^m
No. 1

F-5, 4.0^m
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

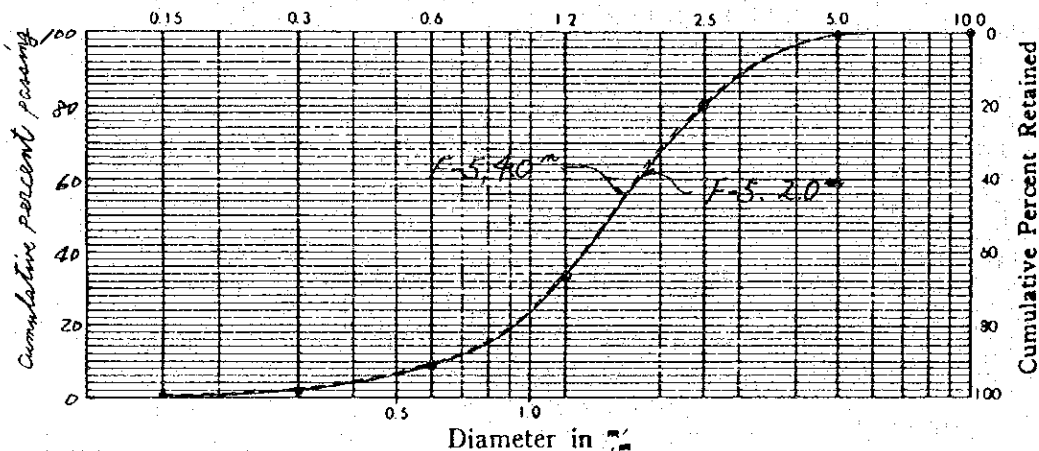
Weight of Sample : _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|-----------------------------------|
| | (C+S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.8 |
| 2.5 | | | | 71.4 |
| 1.2 | | | | 33.3 |
| 0.6 | | | | 8.5 |
| 0.3 | | | | 1.8 |
| 0.15 | | | | 0.5 |
| Passing | | | | |
| Total | | | | |

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|-----------------------------------|
| | (C+S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 80.6 |
| 1.2 | | | | 33.7 |
| 0.6 | | | | 8.7 |
| 0.3 | | | | 2.1 |
| 0.15 | | | | 0.7 |
| Passing | | | | |
| Total | | | | |

Max. size : _____ Fineness modulus : _____ Max. size : _____ Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

F-5, 4.0^m

| | | | |
|-----------------------------|--------------------------------|--|-------|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | 1.4 % |

SAND TEST I

Location Agoo Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

F-5, 60^m
 No. 1

D-1, 1.0^m
 No. 2

Weight of Sample and Container : _____

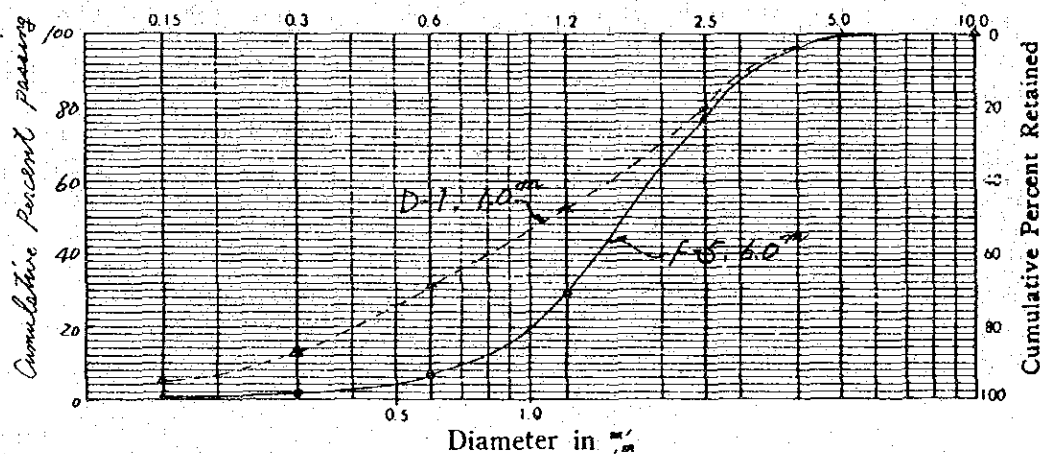
Weight of Container : _____

Weight of Sample : _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained | Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent Retained |
|---------------------|----------------------------|---|---|--------------------------------|---------------------|----------------------------|---|---|--------------------------------|
| | (C + S) | C | S | | | (C + S) | C | S | |
| 10 | | | | 100 | 10 | | | | 100 |
| 5 | | | | 99.9 | 5 | | | | 99.8 |
| 2.5 | | | | 76.3 | 2.5 | | | | 79.7 |
| 1.2 | | | | 28.8 | 1.2 | | | | 52.5 |
| 0.6 | | | | 6.7 | 0.6 | | | | 31.5 |
| 0.3 | | | | 1.7 | 0.3 | | | | 12.9 |
| 0.15 | | | | 0.5 | 0.15 | | | | 5.6 |
| Passing | | | | | Passing | | | | |
| Total | | | | | Total | | | | |

Max. size : mm Fineness modulus : _____ Max. size : mm Fineness modulus. _____

RESULT OF TESTS



II. DECANTATION TEST

| | | | |
|-----------------------------|--------------------------------|--|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | |

SAND TEST I

2/6

Location Agoos Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-1, 3.0^m
No. 1

D-1, 5.0^m
No. 2

Weight of Sample and Container: _____

Weight of Container: _____

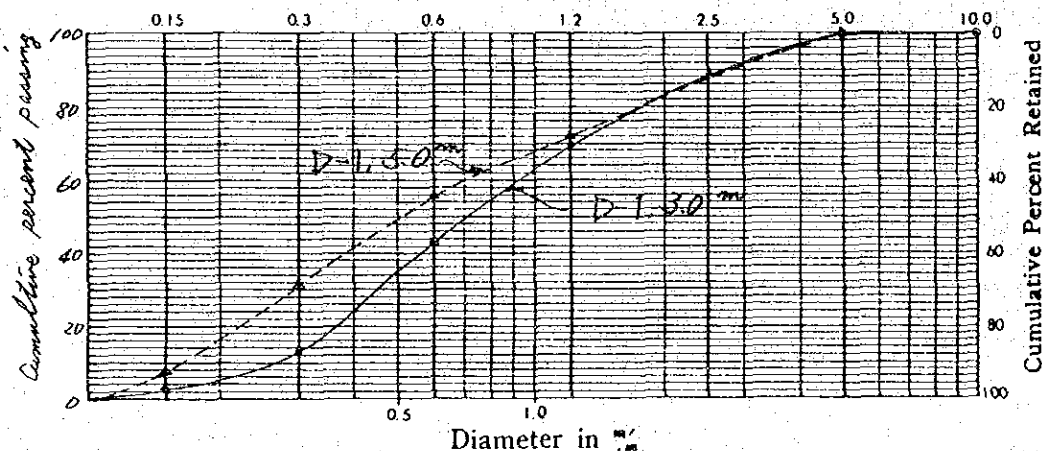
Weight of Sample: _____

| Sieve Size ^m | Cumulative Weight Retained | | | Cumulative ^{Passing} Percent Retained |
|-------------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.5 |
| 2.5 | | | | 87.9 |
| 1.2 | | | | 69.5 |
| 0.6 | | | | 43.0 |
| 0.3 | | | | 12.5 |
| 0.15 | | | | 2.4 |
| Passing | | | | |
| Total | | | | |

| Sieve Size ^m | Cumulative Weight Retained | | | Cumulative ^{Passing} Percent Retained |
|-------------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 87.6 |
| 1.2 | | | | 71.9 |
| 0.6 | | | | 55.9 |
| 0.3 | | | | 31.1 |
| 0.15 | | | | 2.3 |
| Passing | | | | |
| Total | | | | |

Max. size: 3.0^m Fineness modulus: _____ Max. size: 5.0^m Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

D-1, 3.0^m

| | | | |
|-----------------------------|-------------------------------|--------------|--|
| Before Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| After Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| Decreased Amount Percentage | | <u>4.6 %</u> | |

SAND TEST I

Location Agos Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-2, 1.0^m
~~No. 1~~

D-2, 3.0^m
~~No. 2~~

Weight of Sample and Container : _____

Weight of Container : _____

Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 95.3 |
| 1.2 | | | | 90.8 |
| 0.6 | | | | 75.1 |
| 0.3 | | | | 32.4 |
| 0.15 | | | | 2.7 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 88.6 |
| 1.2 | | | | 82.4 |
| 0.6 | | | | 66.9 |
| 0.3 | | | | 28.8 |
| 0.15 | | | | 8.2 |
| Passing | | | | |
| Total | | | | |

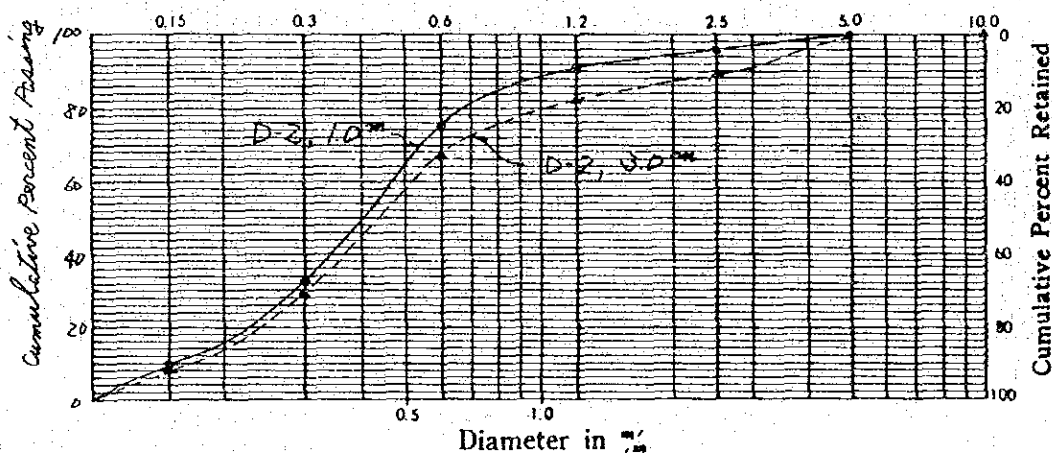
Max. size : _____

Fineness modulus : _____

Max. size : _____

Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

D-2, 3.0^m

| | | | |
|-----------------------------|--------------------------------|--|-------|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | 8.6 % |

SAND TEST I

218

Location Agoo Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-2, 5.0^m
No. 1

D-3, 1.0^m
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

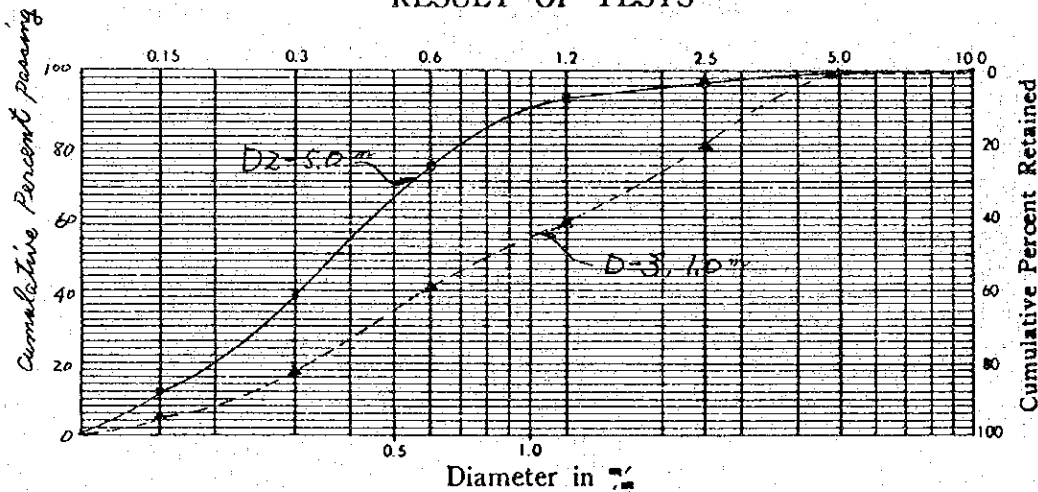
Weight of Sample : _____

| Sieve Size <i>m m</i> | Cumulative Weight Retained (C + S) C S | | | Cumulative <i>passing</i> Percent Retained |
|-----------------------|--|--|--|--|
| 10 | | | | 100 |
| 5 | | | | 99.5 |
| 2.5 | | | | 96.9 |
| 1.2 | | | | 92.3 |
| 0.6 | | | | 74.0 |
| 0.3 | | | | 38.1 |
| 0.15 | | | | 11.7 |
| Passing | | | | |
| Total | | | | |

| Sieve Size <i>m m</i> | Cumulative Weight Retained (C + S) C S | | | Cumulative <i>passing</i> Percent Retained |
|-----------------------|--|--|--|--|
| 10 | | | | 99.6 |
| 5 | | | | 99.4 |
| 2.5 | | | | 99.1 |
| 1.2 | | | | 58.6 |
| 0.6 | | | | 40.5 |
| 0.3 | | | | 17.3 |
| 0.15 | | | | 5.2 |
| Passing | | | | |
| Total | | | | |

Max. size : _____ Fineness modulus : _____ Max. size : _____ Fineness modulus.

RESULT OF TESTS



II. DECANTATION TEST

D-2, 5.0^m

| | | | |
|-----------------------------|--------------------------------|--------|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 17.8 % | |

SAND TEST I

Location Agoo Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-3, 3.0^m
 No. 1

D-3, 5.0^m
 No. 2

Weight of Sample and Container: _____

Weight of Container: _____

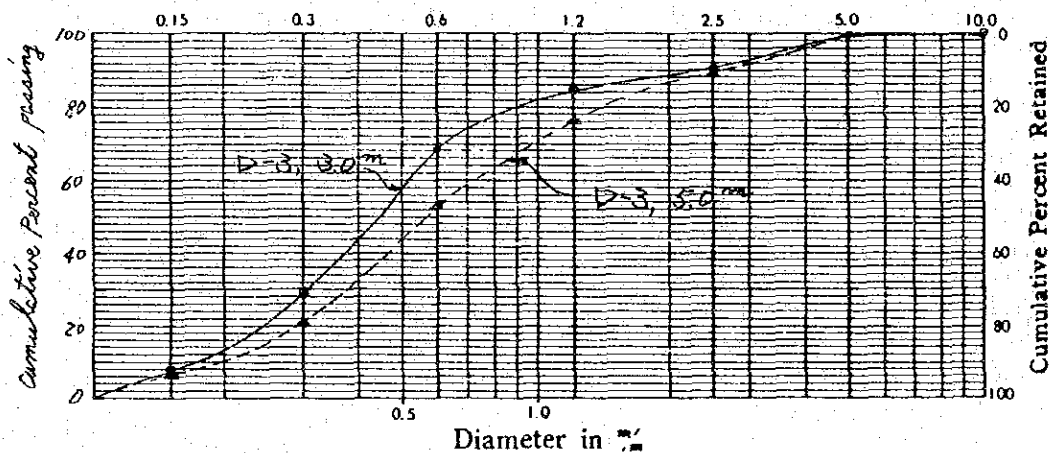
Weight of Sample: _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 90.1 |
| 1.2 | | | | 84.7 |
| 0.6 | | | | 68.1 |
| 0.3 | | | | 28.7 |
| 0.15 | | | | 7.9 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 89.1 |
| 1.2 | | | | 76.0 |
| 0.6 | | | | 53.5 |
| 0.3 | | | | 21.0 |
| 0.15 | | | | 6.4 |
| Passing | | | | |
| Total | | | | |

Max. size: _____ Fineness modulus: _____ Max. size: _____ Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

D-3, 3.0^mD-3, 5.0^m

| | | | |
|-----------------------------|-------------------------------|-------|-------|
| Before Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| After Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| Decreased Amount Percentage | | 8.8 % | 5.4 % |

SAND TEST I

220

Location Ago Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-4, 1.0^m
No. 1

D-4, 3.0^m
No. 2

Weight of Sample and Container : _____

Weight of Container : _____

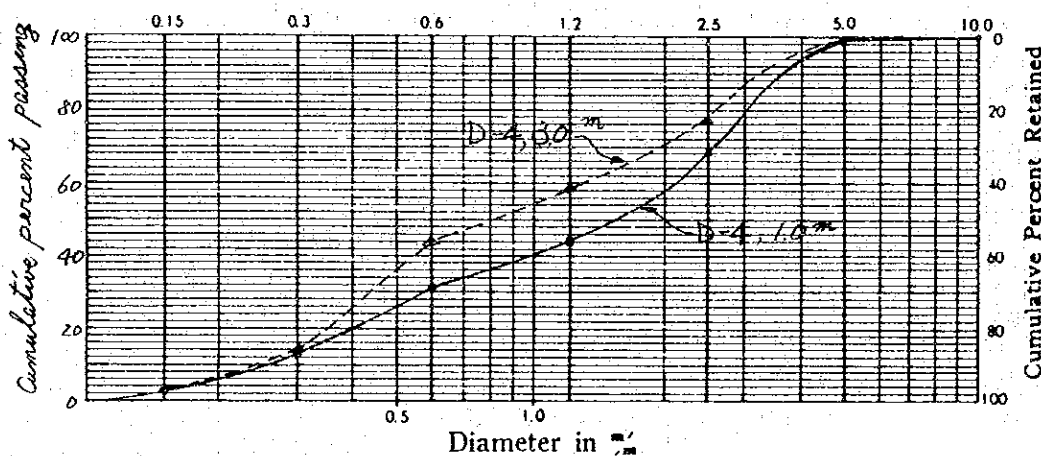
Weight of Sample : _____

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|---------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 67.9 |
| 1.2 | | | | 43.8 |
| 0.6 | | | | 31.1 |
| 0.3 | | | | 12.4 |
| 0.15 | | | | 2.8 |
| Passing | | | | |
| Total | | | | |

| Sieve Size mm | Cumulative Weight Retained | | | Cumulative Percent ^{Passing} Retained |
|---------------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 76.8 |
| 1.2 | | | | 59.1 |
| 0.6 | | | | 44.0 |
| 0.3 | | | | 13.9 |
| 0.15 | | | | 3.2 |
| Passing | | | | |
| Total | | | | |

Max. size : _____ Fineness modulus : _____ Max. size : _____ Fineness modulus.

RESULT OF TESTS



II. DECANTATION TEST

D-4, 3.0^m

| | | | |
|-----------------------------|--------------------------------|--|-------|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | 6.8 % |

SAND TEST I

Location Agos Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-4, 5.0^m
 No. 1

D-5, 1.0^m
 No. 2

Weight of Sample and Container: _____

Weight of Container: _____

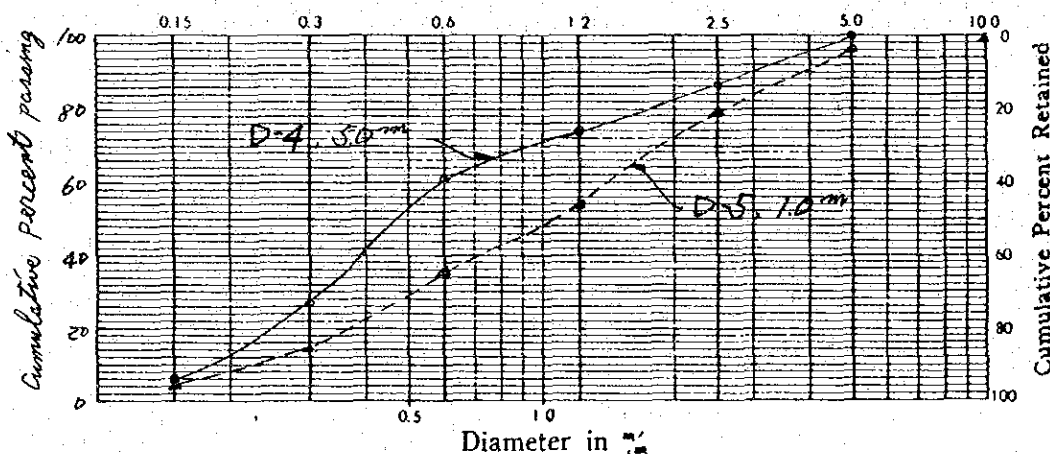
Weight of Sample: _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative, Passing Percent Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | |
| 5 | | | | 100 |
| 2.5 | | | | 86.2 |
| 1.2 | | | | 73.8 |
| 0.6 | | | | 60.7 |
| 0.3 | | | | 26.6 |
| 0.15 | | | | 6.1 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative, Passing Percent Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 99.3 |
| 5 | | | | 96.2 |
| 2.5 | | | | 78.6 |
| 1.2 | | | | 53.7 |
| 0.6 | | | | 35.2 |
| 0.3 | | | | 14.3 |
| 0.15 | | | | 3.9 |
| Passing | | | | |
| Total | | | | |

Max. size: mm Fineness modulus: _____ Max. size: mm Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

| | | | |
|-----------------------------|--------------------------------|--|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | | |

SAND TEST I

Location Agos Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-5, 2.0^m
~~No. 1~~

D-5, 4.0^m
~~No. 2~~

Weight of Sample and Container : _____

Weight of Container : _____

Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------------|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.4 |
| 2.5 | | | | 75.5 |
| 1.2 | | | | 55.5 |
| 0.6 | | | | 41.9 |
| 0.3 | | | | 18.2 |
| 0.15 | | | | 7.4 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative Percent Retained |
|------------|----------------------------|---|---|-----------------------------------|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.3 |
| 2.5 | | | | 80.3 |
| 1.2 | | | | 68.7 |
| 0.6 | | | | 59.5 |
| 0.3 | | | | 39.4 |
| 0.15 | | | | 18.9 |
| Passing | | | | |
| Total | | | | |

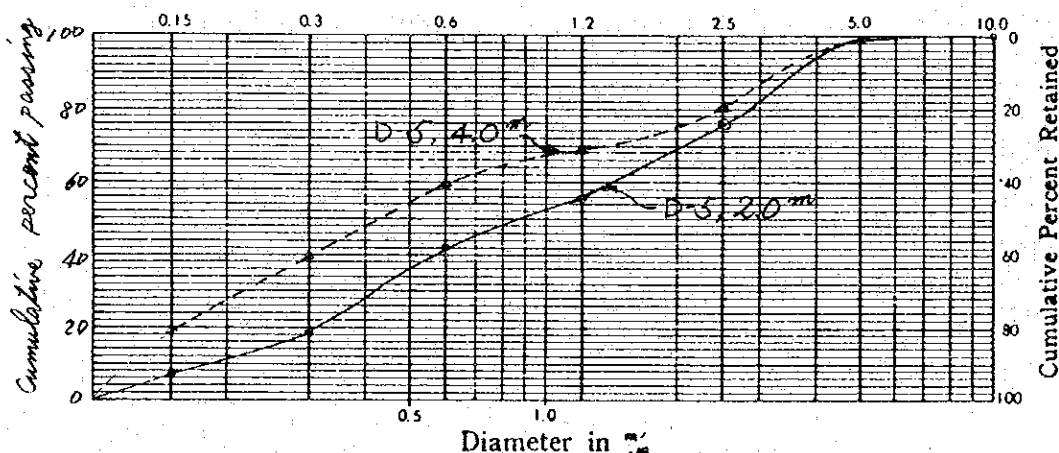
Max. size : mm

Fineness modulus :

Max. size : mm

Fineness modulus.

RESULT OF TESTS



II. DECANTATION TEST

D-5, 2.0^m

| | | | |
|-----------------------------|--------------------------------|-------|--|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 8.8 % | |

SAND TEST I

Location Agoo Plant _____ Date _____
 Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-6, 1.5 m
 No. 1

D-7, 1.0 m
 No. 2

Weight of Sample and Container: _____

Weight of Container: _____

Weight of Sample: _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative ^{passing} Percent Retained |
|------------|----------------------------|---|---|--|
| | (C+S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 98.9 |
| 2.5 | | | | 80.1 |
| 1.2 | | | | 52.3 |
| 0.6 | | | | 33.1 |
| 0.3 | | | | 16.4 |
| 0.15 | | | | 7.8 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative ^{passing} Percent Retained |
|------------|----------------------------|---|---|--|
| | (C+S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.8 |
| 2.5 | | | | 77.3 |
| 1.2 | | | | 60.5 |
| 0.6 | | | | 45.4 |
| 0.3 | | | | 14.2 |
| 0.15 | | | | 3.3 |
| Passing | | | | |
| Total | | | | |

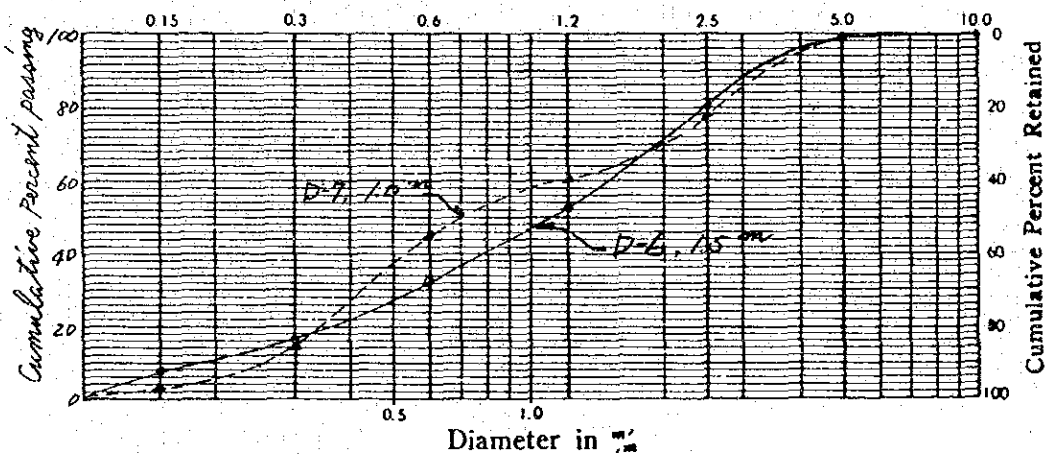
Max. size: $\frac{m}{m}$

Fineness modulus: _____

Max. size: $\frac{m}{m}$

Fineness modulus: _____

RESULT OF TESTS



II. DECANTATION TEST

D-6, 1.5 m

D-7, 1.0 m

| | | | |
|-----------------------------|-------------------------------|-------|------|
| Before Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| After Testing | Weight of Sample + Container: | | |
| | Weight of Container: | | |
| | Weight of Sample: | | |
| Decreased Amount Percentage | | 23.0% | 6.8% |

SAND TEST I

Location Agos Plant _____ Date _____
Sample No. _____ Tested by NPC

I. SIEVE ANALYSIS.

D-8, 1.0 m
~~No. 1~~

D-9, 1.0 m
~~No. 2~~

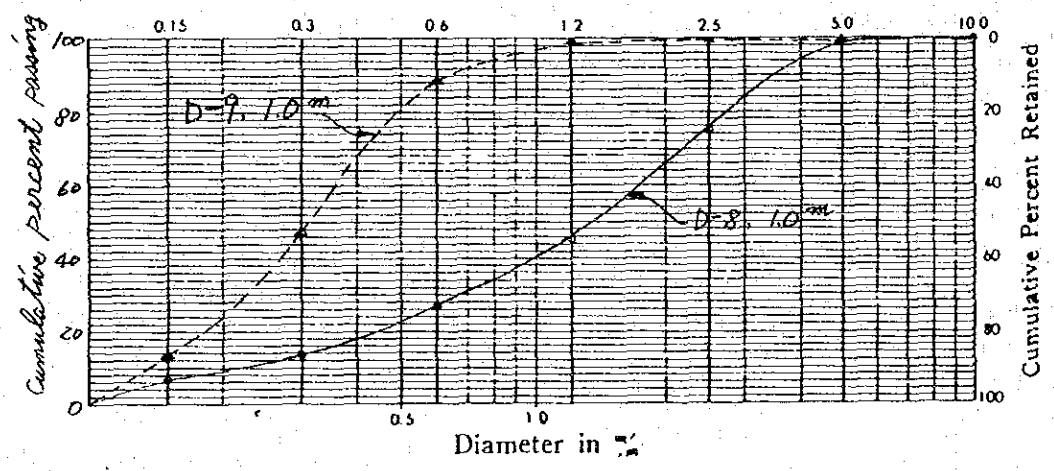
Weight of Sample and Container : _____
Weight of Container : _____
Weight of Sample : _____

| Sieve Size | Cumulative Weight Retained | | | Cumulative ^{passing} Percent Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.4 |
| 2.5 | | | | 74.4 |
| 1.2 | | | | 45.1 |
| 0.6 | | | | 27.0 |
| 0.3 | | | | 13.8 |
| 0.15 | | | | 6.8 |
| Passing | | | | |
| Total | | | | |

| Sieve Size | Cumulative Weight Retained | | | Cumulative ^{passing} Percent Retained |
|------------|----------------------------|---|---|--|
| | (C + S) | C | S | |
| 10 | | | | 100 |
| 5 | | | | 99.9 |
| 2.5 | | | | 99.9 |
| 1.2 | | | | 99.1 |
| 0.6 | | | | 88.4 |
| 0.3 | | | | 46.7 |
| 0.15 | | | | 13.1 |
| Passing | | | | |
| Total | | | | |

Max. size : _____ Fineness modulus : _____ Max. size : _____ Fineness modulus : _____

RESULT OF TESTS



II. DECANTATION TEST

D-8, 1.0 m

D-9, 1.0 m

| | | | |
|-----------------------------|--------------------------------|-------|-------|
| Before Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| After Testing | Weight of Sample + Container : | | |
| | Weight of Container : | | |
| | Weight of Sample : | | |
| Decreased Amount Percentage | | 4.4 % | 3.8 % |