

|                      |                                       |                       |               |
|----------------------|---------------------------------------|-----------------------|---------------|
| <b>Obra:</b>         | PUENTE ENTRONQUE MOLINITO             | <b>Descripción</b>    | GRANULOMETRÍA |
| <b>Localización:</b> | KM 28+980                             | <b>Fecha:</b>         | 05/12/2017    |
| <b>SPT:</b>          | 2 <b>Muestra N°:</b> 22-23            | <b>Laboratorista:</b> | ABJ           |
| <b>Prueba N°:</b>    | 9 <b>Profundidad:</b> 14.80 - 15.55 m |                       |               |

**CONTENIDO NATURAL DE AGUA**

| Tara No. | Peso de la tara | Peso tara + suelo húmedo (g) | Peso tara + suelo seco (g) | Peso del agua (g) | Peso del suelo seco (g) | Contenido de agua (%) |
|----------|-----------------|------------------------------|----------------------------|-------------------|-------------------------|-----------------------|
| 1        | 71.40           | 452.90                       | 398.60                     | 54.30             | 327.20                  | 16.60                 |

**GRANULOMETRÍA**

| Designación de la malla | Abertura nominal (mm) | Peso retenido (g) | Retenido (%) | Retenido acumulado (%) | Pasa (%) |
|-------------------------|-----------------------|-------------------|--------------|------------------------|----------|
| 3"                      | 76.20                 | 0.00              | 0.00         | 0.00                   | 100.00   |
| 2"                      | 50.80                 | 0.00              | 0.00         | 0.00                   | 100.00   |
| 1"                      | 25.40                 | 0.00              | 0.00         | 0.00                   | 100.00   |
| 3/4"                    | 19.05                 | 0.00              | 0.00         | 0.00                   | 100.00   |
| 1/2"                    | 12.70                 | 0.00              | 0.00         | 0.00                   | 100.00   |
| 3/8"                    | 9.53                  | 40.36             | 12.33        | 12.33                  | 87.67    |
| 1/4"                    | 6.35                  | 30.25             | 9.25         | 21.58                  | 78.42    |
| N°4                     | 4.75                  | 32.69             | 9.99         | 31.57                  | 68.43    |
| N°10                    | 2.00                  | 10.20             | 13.96        | 13.96                  | 54.47    |
| N°20                    | 0.85                  | 6.78              | 9.28         | 23.24                  | 45.19    |
| N°40                    | 0.425                 | 6.52              | 8.92         | 32.16                  | 36.27    |
| N°60                    | 0.25                  | 5.62              | 7.69         | 39.85                  | 28.58    |
| N°100                   | 0.15                  | 5.92              | 8.10         | 47.96                  | 20.47    |
| N°200                   | 0.075                 | 4.60              | 6.30         | 54.25                  | 14.18    |
| ↓N°200                  | -                     | 10.36             | 14.18        | 68.43                  | 0.00     |
| TOTAL                   |                       | 50.0              | -            | -                      | -        |

**COEFICIENTES DE UNIFORMIDAD Y CURVATURA**

$D_{10} = 0.00 \text{ mm}$   
 $D_{30} = 0.00 \text{ mm}$   
 $D_{60} = 0.00 \text{ mm}$   
 $C_u = \text{NO DETERMINADO}$   
 $C_c = \text{NO DETERMINADO}$

**PORCENTAJE DE RANGO DE TAMAÑOS**

$\%G = 31.57 \%$   
 $\%S = 54.25 \%$   
 $\%F = 14.18 \%$

