

Evaluación del Potencial de Licuación
MÉTODO SIMPLIFICADO DE SEED E IDRISSE

Solicitado
 Proyecto PUENTE QUILCA
 Fecha

| | |
|---|----------|
| | |
| 2 | -0.06196 |
| 3 | -0.29065 |
| 4 | -0.26589 |
| 5 | -0.19217 |

Valor de la Magnitud Ms= 7.50
 Aceleración Máxima a máx 0.20

Sondaje PL-5
 Profundidad Nivel freático 1.10
 Cota Nivel Freático 1.10
 Cota Inicio del Suelo 0.00
 Peso Unitario Agua (TON/M3) 1
 Presión total (Kg/cm²)

$$\ln \logit (P_L) = \ln(P_L/(1 - P_L)) = 7.633 + 2.256 M_W - 0.258 (N_1)_{60cs} + 3.095 \ln CRR \quad (27)$$

<0.3 <1.1

| | Prof. Total Estratos (m) | Cota Estratos | Espesor Estratos (m) | Prof Total Estratos (pie) | SUCS | γ_i (Tn/m ³) | Finos (%) | N'60 SPT (Glp/ft) | Efzo. Total (Kg/cm ²) | sfzo. Eftv (Kg/cm ²) | Cn | N1 SPT (Glp/ft) | $\Delta(N1)_{60}$ | N160(cs) | Fct. Rduc. Rd | C_σ | K_σ | CRR Tav6 (Kg/cm ²) | CSR Tav (Kg/cm ²) | FS | PL | |
|---|--------------------------|---------------|----------------------|---------------------------|------|---------------------------------|-----------|-------------------|-----------------------------------|----------------------------------|-------|-----------------|-------------------|----------|---------------|------------|------------|--------------------------------|-------------------------------|----------|----|-------|
| 1 | 1.1 | 4 | | 3.609 | | 1.6 | 23.9 | | 0.176 | | | | | | | | | | | | | 1 |
| 2 | 1.45 | 3.65 | 0.350 | 4.757 | SP | 1.6 | 12.5 | 6 | 0.232 | 0.197 | 1.700 | 10 | 2 | 12 | 0.996 | 0.093 | 1.154 | 0.16 | 0.15 | NO LICUA | 2 | 0.583 |
| 3 | 7.85 | -2.75 | 6.400 | 25.755 | SP | 2.1 | 8.7 | 6 | 1.576 | 0.901 | 0.798 | 5 | 1 | 5 | 0.932 | 0.075 | 1.010 | 0.09 | 0.21 | LICUA | 3 | 0.604 |
| 4 | 10.35 | -5.25 | 2.500 | 33.957 | SP | 1.7 | 16.5 | 7 | 2.001 | 1.076 | 0.710 | 5 | 4 | 9 | 0.879 | 0.076 | 0.997 | 0.11 | 0.21 | LICUA | 4 | 0.545 |
| 5 | 13.25 | -8.15 | 2.900 | 43.471 | SP | 1.7 | 13.4 | 8 | 2.494 | 1.279 | 0.687 | 5 | 3 | 8 | 0.807 | 0.077 | 0.984 | 0.10 | 0.20 | LICUA | 5 | 0.543 |

| PROF | SUCS | ESTRATC | N | PROF+0.30 | PROF CR | CR | CE | CB | CS | N60 |
|------|------|---------|----|-----------|---------|------|----|----|----|------|
| 1.8 | SP | 1 | 5 | 2.1 | 2.7 | 0.75 | 1 | 1 | 1 | 3.75 |
| 14.1 | SP | 1 | 50 | 14.4 | 15.00 | 1 | 1 | 1 | 1 | 50 |
| 16.5 | SP | 1 | 5 | 16.8 | 17.40 | 1 | 1 | 1 | 1 | 5 |
| 18.1 | SP | 1 | 6 | 18.4 | 19.00 | 1 | 1 | 1 | 1 | 6 |
| 19.5 | SP | 1 | 6 | 19.8 | 20.4 | 1 | 1 | 1 | 1 | 6 |
| 25.2 | SP | 1 | 7 | 25.5 | 26.1 | 1 | 1 | 1 | 1 | 7 |
| 26.9 | SP | 1 | 8 | 27.2 | 27.8 | 1 | 1 | 1 | 1 | 8 |
| 28.5 | SP | 1 | 7 | 28.8 | 29.4 | 1 | 1 | 1 | 1 | 7 |

