

COMPRESION TRIAXIAL

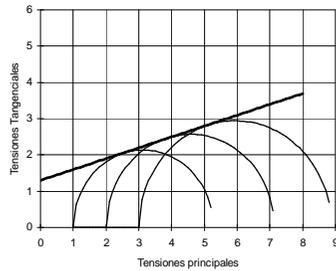
OBRA: CANAL EL SALTON
UBICACION: TUCUMAN

DATOS DE LA MUESTRA

Ubicación:	PCA 2	Volumen:	67,312 cm ³ .
Profundidad:	2,00 m.	Peso:	115,600 grs
Diametro:	3,5 cm.	D. nat.:	1,717 gr/cm ³ .
Altura:	7,0 cm.	Hum. %:	20,40 %
Area:	9,616 cm ² .	D. seca:	1,426 gr/cm ³ .
	constante del aro de carga : K =		0,526

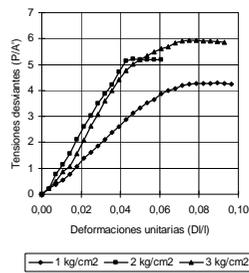
No.	Datos del Ensayo	Presion de Cámara G3 en kg./cm ² .		
		1,000	2,000	3,000
1	Lectura inicial carga	0,000	0,000	0,000
2	Lectura final carga	86,100	101,600	118,100
3	Divisiones de carga (2 - 1)	86,100	101,600	118,100
4	Fuerza Axial (P = 3 x Ka) (Kg.)	45,289	53,442	62,121
5	Lectura inicial deformaciones (cm)	0,000	0,000	0,000
6	Lectura final deformaciones (cm)	0,650	0,525	0,625
7	Deformacion de la muestra (7 = 6 - 5)	0,650	0,525	0,625
8	Factor correccion area (8 = l/ b-7)	1,102	1,081	1,098
9	Area corregida (A' = 8 x A) (cm ²)	10,600	10,396	10,559
10	Presion axial (Ga = P/ A) (kg/cm ²)	4,272	5,141	5,883
11	Tension Principal (G1 = Ga + G3)	5,272	7,141	8,883
12	Presion de poros (u) (kg/cm ²)			
13	Tension Princ. efect. (G1-G1-u)	5,272	7,141	8,883
14	Tension princ. efect. (G3-G3-u)	1,000	2,000	3,000

GRAFICA



COHESION
 ANGULO DE FRICCION :

GRAFICA ESFUERZO - DEFORMACION
 Presión de cámara 1, 2 Y 3 kg/cm²



1,299 kg/cm²
 16,67 °

g ₁ =	1,000	g ₃ =	2,000	g ₅ =	3,000
g ₂ =	5,272	g ₄ =	7,141	g ₆ =	8,883
R ₁ =(g ₂ -g ₁)/2=	2,136	R ₂ =(g ₄ -g ₃)/2=	2,570	R ₃ =(g ₆ -g ₅)/2=	2,942

a₁=(g₂+g₁)/2= 3,136

sen B ₁ =	0,303	sen B=(sen ₁ +sen ₂ +sen ₃)/3=	0,287	sen B ₁ =(R ₂ -R ₁)/(a ₂ -a ₁)=	0,303
sen B ₂ =	0,271	c = (c ₁ + c ₂ + c ₃)/3 =	1,299	c ₁ =R ₁ /cos B ₁ - a ₁ tg B ₁ =	1,291
sen B ₃ =	0,287	B = arc sen B =	16,671		
		tag B =	0,299		
c ₁ =	1,291	cos B =	0,958		
c ₂ =	1,315	Atan B =	16,67061		
c ₃ =	1,291				
		y = X x tag B + c =			
0,000	2,523	3,833	5,098	5,000	8,000
1,299	2,055	2,447	2,825	2,796	3,695

$$a_2 = (g_4 + g_3) / 2 = 4,570 \quad a_3 = (g_6 + g_5) / 2 = 5,942$$

$$\begin{aligned} \text{sen} B_2 &= (R_3 - R_2) / (a_3 - a_2) = 0,271 & \text{sen} B_3 &= (R_3 - R_1) / (a_3 - a_1) = 0,287 \\ c_2 &= R_2 / \cos B_2 - a_2 \text{tg} B_2 = 1,315 & c_3 &= R_3 / \cos B_3 - a_3 \text{tg} B_3 = 1,291 \end{aligned}$$