geotesting®
STUDII GEOTEHNICE ŞI GEOFIZICE

Profilul ~~Forajului~~ ~~Santului~~ Nr. S4-FD-33
~~Borehole~~ ~~Pit~~ Profile

REZULTATELE ANALIZELOR DE LABORATOR
LABORATORY TEST RESULTS

LUCRAREA DESIGN: Studiu geotehnic pentru revizuirea Studiului de fezabilitate Autostrada Sibiu-Pitesti - Sectiunea 4 (Valeni-Curtea de Arges)

AMPLASAMENT LOCATION: Autostrada Sibiu-Pitesti
X : 464040.73 Y: 414872.53

DATA DATE: 02.08.2016

Cota fata de: 0.00 Foraj / Borehole (pit)

Level vs:

Grosimea stratului / Stratum thickness: 1.40 | 1.10 | 4.50

Adancimea apei subterane / Underground water depth: 1.20

Stratificatia / Stratification

Formatiunea geologica / Geological formation

DENUMIREA STRATULUI (conform Stas 1243-88 si SR EN ISO 14688/2-2005) / STRATUM DESCRIPTION (according to Stas 1243-88 and SR EN ISO 14688/2-2005)

- Bolovanis cu pietris si nisip cenusiu- galbui.
- Nisip prafos, galbui - cenusiu indesat.
- Argila calenie - roscata, cu intercalatii centimetrice de nisip fin cenusiu.

Borcan / Stut / Carota — Jar / Tube / Core

Numarul probelor / Number and type of samples: 1, 2, 3*

Adancimea / Depth: 1.6-1.8 | 4.0-4.27 | 6.5-7.0

Compozitie granulometrica (d. in mm) SR EN ISO 14683/2-2005 — Particle size distribution SR EN ISO 14688/2-2005

	Argila / Clay	Praf / Silt	Nisip fin / Fine sand	Nisip mediu / Medium sand	Nisip mare / Coarse sand	Pietris mic / Small gravel	Pietris mediu / Medium gravel	Pietris mare / Coarse gravel	Bolovanis / Cobbles
	<0.002	0.063	0.2	0.63	2	6.3	20	63	200
1	4	26	24	35	10	1			
2	55	41	1	2	1				
3*	42	49	3	3	2	1			

Coeficientul de neuniformitate / Non-uniformity coefficient: $U=\frac{d_{60}}{d_{10}}$

Limitele Atterberg / Atterberg's limits: Limita de curgere / Liquid limit w_L; Limita de plasticitate / Plastic limit w_P

Indicele de plasticitate / Plasticity index I_P

Umiditatea / Water content w %

Indicele de consistenta / Consistency index I_C

Densitatea scheletului mineral / Skeletal mineral density ρ_s kN/m³ γ_s

	Liquid limit	Plastic limit	Plasticity index	Water content	Consistency index
1			>15	17.0	
2	78.3	23.5	54.8	20.7	>1
				19.8	
3*	72.6	20.4	52.3	13.0	>1
				11.1	

Greutatea volumica / Unit weight γ kN/m³; Greutatea volumica in stare uscata / Unit dry weight γ_d kN/m³; Porozitate / Porosity n %; Indicele porilor / Void ratio e; Gradul de umiditate / Degree of saturation Sr

	Unit weight	Unit dry weight	Porosity	Void ratio	Degree of saturation
1					
2	20.9	17.4	36.02	0.53	0.96
		19.0			
3*	21.1	19.0	30.26	0.43	0.70
		11.1			

Contractilitatea / Shrinkage-swelling

Umflarea libera / Unconfined swelling U_L %; Sucțiunea 15 bari / Suction 15 bars w_{15} %; Contracția volumica / Volume shrinkage C_v %; Limita de contractie / Shrinkage limit w_s %; Presiunea de umflare / Swelling pressure Pu kPa

	Unconfined swelling	Suction 15 bars	Volume shrinkage	Shrinkage limit	Swelling pressure
1					
2	220				
3*	311.7				

Compresibilitatea / Compressibility

Modulul de deformatie edometrica / Oedometer deformation modulus $M_{200-300}$ kPa; Tasare specifica la 200 kPa / Specific settlement at 200 kPa c_{200} %; Coef. compresibilitate volumica / Coefficient of volume change m_v cm^2/kPa; Coeficientul de compresibilitate / Coefficient of compressibility $a_{v\,200-300}$ 1/kPa; Sensibilitatea la umezire / Susceptibility to wetting Im_{300} %; Efort / Stress σ kPa; Tasare specifica / Specific settlement ε %; Modulul de deformatie edometrica / Oedometer deformation modulus M kPa

	Oedometer deformation modulus	Specific settlement at 200 kPa	Coefficient of volume change	Coefficient of compressibility	Susceptibility to wetting	Stress	Specific settlement	Oedometer deformation modulus
1								
2	16905.1	2.29		0.00009				
3*	22867.2	2.10		0.00006				

Rezistenta la forfecare / Shear strength

Efort / Effective stress σ/τ: 1 | 2 | 3

Unghiul de frecare int. / Angle of int. friction Φ °; Coeziunea / Cohesion c kPa

Felul determinarii / Type of test

Rezistenta la compresiune cu deformatie laterala libera / Unconfined compressive strength p_c kPa

Coeficient de permeabilitate / Permeability coefficient k $\frac{m}{s}$

Continutul in CaCO3 / CaCO3 content: CaCO3 ‰ | CaCO3 %

Penetrarea dinamica standard / Standard penetration test: N / 30 cm

	CaCO3 content	Standard penetration test
1		2.00
2		14/R
3*	3.15	6.00 / 18/29/27

Nota: (*) - Esantion comparabil PNT (proba netulburata) - rezultat informativ

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