geotesting®
STUDII GEOTEHNICE ȘI GEOFIZICE

Profilul ~~Forajului~~ ~~Santului~~ Borehole ~~Pit~~ Profile Nr. S4-FP-1018

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 : 463461.75 Y: 416261.94

DATA DATE: 05.09.2016

Cota fata de: 0.00 Foraj

Level vs: 0.00 Bore-hole (pit)

Grosimea stratului / Stratum thickness (m)	Adancimea apei subterane / Underground water depth (m)	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 14588/2-2005)	Numarul probelor / Number and type of samples	Adancimea / Depth (m)	Compozitie granulometrica (d. in mm) SR EN ISO 14688/2-2005 / Particle size distribution SR EN ISO 14588/2-2005: Argila / Clay <0.002; Praf / Silt 0.002-0.063; Nisip fin / Fine sand 0.063-0.2; Nisip mediu / Medium sand 0.2-0.63; Nisip mare / Coarse sand 0.63-2; Pietris mic / Small gravel 2-6.3; Pietris mediu / Medium gravel 6.3-20; Pietris mare / Coarse gravel 20-63; Bolovanis / Cobbles 63-200	Coeficientul de neuniformitate / Non-uniformity coefficient $U_n = d_{60}/d_{10}$	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	Greutatea volumica / Unit weight kN/m³ γ	Greutatea volumica in stare uscata / Unit dry weight kN/m³ γ_d	Porozitatea / Porosity n %	Indicele porilor / Void ratio e	Gradul de umiditate / Degree of saturation Sr	Contractilitatea / Shrinkage-swelling: Umflarea libera / Unconfined swelling U_L; Sugtiunea 15 bari / Suction 15 bars w_{15}; Contractia volumica / Volume shrinkage C_v; Tulb. / Turb.; Netulb. / Undist.; Limita de contractie / Shrinkage limit w_s; Presiunea de umflare / Swelling pressure Pu kPa	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 1/kPa; Coeficientul de compresibilitate / Coefficient of compressibility $a_{v\ 200-300}$ 1/kPa; Sensibilitatea la umezire / Susceptibility to wetting Im_{200} %; Efort / Stress σ kPa; Indice de recompresiune / Recompression index RSC; Coeficientul de consolidare / Coefficient of consolidation c_v cm²/sec	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 $k = \beta \frac{h}{t}$	Continutul in CaCO3 / CaCO3 content %	Penetrarea dinamica standard / Standard penetration test $\frac{N}{30\ cm}$
0.40	0.10			Pamant vegetal.																																		
2.00				Pietris cu nisip cenusiu si rar bolovanis.																																		
5.00				Nisip prafos, cenusiu, cu pietris.	1	4.4-4.6	5	21	15	20	15	19	5			>15				11.1																				2.20 24/27/R
10.40				Nisip prafos, cafeniu, cu pietris.	2	8.3-8.5	3	12	11	14	19	23	18			>15				8.77																				6.40 35/R
11.70				Argila nisipoasa, cafenie.																																		10.00 28/R
				Nisip mediu - grosier, cenusiu, indesat.	3	12.4-12.6	2	7	40	39	12			<6				15.6																						14.60 R

Forajul continua

geotesting®
STUDII GEOTEHNICE ŞI GEOFIZICE

Profilul ~~Forajului~~ ~~Santului~~ Nr. S4-FP-1018
Borehole ~~Pit~~ Profile continuare

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 : 463461.75 Y: 416261.94

DATA / DATE: 05.09.2016

Cota fata de: 16.0 Foraj	Grosimea stratului	Adancimea apei subterane	Stratificatia	Formatiunea geologica	DENUMIREA STRATULUI (conform Stas 1243-88 si SR EN ISO 14688/2-2005)	Numarul probelor	Adancimea	Compozitie granulometrica (d. in mm) SR EN ISO 14688/2-2005: Argila <0.002	Praf 0.063	Nisip fin 0.2	Nisip mediu 0.63	Nisip mare 2	Pietris mic 6.3	Pietris mediu 20	Pietris mare 63	Bolovanis 200	Coeficientul de neuniformitate	Limitele Atterberg: Limita de curgere	Limita de plasticitate	Indicele de plasticitate	Umiditatea	Indicele de consistenta	Densitatea scheletului mineral	Greutatea volumica	Greutatea volumica in stare uscata	Porozitatea	Indicele porilor	Gradul de umiditate	Contractilitatea: Umflarea libera	Sucsiunea 15 bari	Contractia volumica: Tulb. / Netulb.	Limita de contractie	Presiunea de umflare	Compresibilitatea: Modulul de deformatie edometrica	Tasare specifica la 200 kPa	Coef. compresibilitate volumica	Coeficientul de compresibilitate	Sensibilitatea la umezire	Rezistenta la forfecare: Efort	Indice de recompresiune	Coeficientul de consolidare	Efort σ/τ: 1	2	3	Unghiul de frecare int.	Coeziunea	Felul determinarii	Rezistenta la compresiune cu deformatie laterala libera	Coeficient de permeabilitate	Continutul in CaCO3	Penetrarea dinamica standard
	m	m					m											W_L	W_p	I_p	w %	I_c	ρ_s	kN/m³ γ	kN/m³ γ_d	n %	e	Sr	U_L	w_{15}	C_v	w_s	Pu kPa	$M_{200-300}$ kPa	ε_{200} %	m_v 1/kPa	$a_{v\ 200-300}$ 1/kPa	Im %	σ kPa	RSC	c_v cm²/sec	1	2	3	Φ °	c kPa		p_c kPa	k m/s	CaCO3 %	N / 30 cm
Level vs: 16.0 Bore-hole (pit)	Stratum thickness	Underground water depth	Stratification	Geological formation	STRATUM DESCRIPTION (according to Stas 1243-88 and SR EN ISO 14688/2-2005)	Number and type of samples	Depth	Particle size distribution SR EN ISO 14688/2-2005: Clay	Silt	Fine sand	Medium sand	Coarse sand	Small gravel	Medium gravel	Coarse gravel	Cobbles	Non-uniformity coefficient	Atterberg's limits: Liquid limit	Plastic limit	Plasticity index	Water content	Consistency index	Skeletal mineral density	Unit weight	Unit dry weight	Porosity	Void ratio	Degree of saturation	Shrinkage-swelling: Unconfined swelling	Suction 15 bars	Dist. / Undist. Volume shrinkage	Shrinkage limit	Swelling pressure	Compressibility: Oedometer deformation modulus	Specific settlement at 200 kPa	Coefficient of volume change	Coefficient of compressibility	Susceptibility to wetting	Shear strength: Stress	Recompression index	Coefficient of consolidation	Effective stress σ/τ: 1	2	3	Angle of int. friction	Cohesion	Type of test	Unconfined compressive strength	Permeability coefficient	CaCO3 content	Standard penetration test
						4	18.2-18.4		5	41	47	7					8.6				15.3																																	
21.70	10.00				Nisip mediu - grosier, cenusiu, indesat.	5	20.5-20.7	2	6	29	56	7					<6				13.2																																	18.40 R
23.40	1.70				Argila nisipoasa, galbue - cenusie.	6	24.0-24.3	4	6	27	34	22	7				7.1				11.9																																	22.10 R
					Nisip cafeniu - cenusiu, cu pietris la partea superioara.	7	28.1-28.3	2	15	54	28	1					<6				18.4																																	25.40 R
						8	32.0-32.2	5	7	25	27	31	5				10				12.3																																	

Forajul continua

geotesting®
STUDII GEOTEHNICE ŞI GEOFIZICE

Profilul ~~Forajului~~ ~~Santului~~ Nr. S4-FP-1018
Borehole ~~Pit~~ Profile continuare

REZULTATELE ANALIZELOR DE LABORATOR
LABORATORY TEST RESULTS

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

AMPLASAMENT / LOCATION: Autostrada Sibiu-Pitesti
X : 463461.75 Y: 416261.94

DATA / DATE: 05.09.2016

Cota fata de: 32.0 Foraj	Grosimea stratului	Adancimea apei subterane	Stratificatia	Formatiunea geologica	DENUMIREA STRATULUI (conform Stas 1243-88 si SR EN ISO 14688/2-2005)	Borcan / Stut / Carota — Numarul probelor	Adancimea	Compozitie granulometrica (c. in mm) SR EN ISO 14688/2-2005: Argila	Praf	Nisip fin	Nisip mediu	Nisip mare	Pietris mic	Pietris mediu	Pietris mare	Bolovanis	Coeficientul de neuniformitate	Limitele Atterberg: Limita de curgere	Limita de plasticitate	Indicele de plasticitate	Umiditatea	Indicele de consistenta	Densitatea scheletului mineral	Greutatea volumica	Greutatea volumica in stare uscata	Porozitatea	Indicele porilor	Gradul de umiditate	Contractilitatea: Umflarea libera	Sucsiunea 15 bari	Tulb. / Netulb.	Contractia volumica	Limita de contractie	Presiunea de umflare	Compresibilitatea: Modulul de deformatie edometrica	Taxare specifica la 200 kPa	Coef. compresibilitate volumica	Coeficientul de compresibilitate	Sensibilitatea la umezire	Efort	Indice de recompresiune	Coeficientul de consolidare	Rezistenta la forfecare: Efort σ/τ	Unghiul de frecare int.	Coeziunea	Felul determinarii	Rezistenta la compresiune cu deformatie laterala libera	Coeficient de permeabilitate	Continutul in materii organice	Penetrarea dinamica standard
	m	m					m	<0.002	0.063	0.2	0.63	2	6.3	20	63	200	$U = \frac{d_{60}}{d_{10}}$	W_L	W_p	I_p	w %	I_c	ρ_s	$\frac{kN}{m^3}$ γ	$\frac{kN}{m^3}$ γ_d	n %	e	Sr	U_L	w_{15}	C_v	w_s	Pu kPa	$M_{200-300}$ kPa	ε_{200} %	m_v $\frac{1}{kPa}$	$a_{v\ 200-300}$ $\frac{1}{kPa}$	Im %	σ kPa	RSC	c cm^2/sec	1	2	3	ϕ °	c kPa		p_c kPa	k $\frac{m}{s}$	%	$\frac{N}{30\ cm}$
Level vs: 32.0 Bore-hole (pit)	Stratum thickness	Underground water depth	Stratification	Geological formation	STRATUM DESCRIPTION (according to Stas 1243-88 and SR EN ISO 14688/2-2005)	Jar / Tube / Core — Number and type of samples	Depth	Particle size distribution SR EN ISO 14688/2-2005: Clay	Silt	Fine sand	Medium sand	Coarse sand	Small gravel	Medium gravel	Coarse gravel	Cobbles	Non-uniformity coefficient	Atterberg's limits: Liquid limit	Plastic limit	Plasticity index	Water content	Consistency index	Skeletal mineral density	Unit weight	Unit dry weight	Porosity	Void ratio	Degree of saturation	Shrinkage-swelling: Unconfined swelling	Suction 15 bars	Dist. / Undist.	Volume shrinkage	Shrinkage limit	Swelling pressure	Compressibility: Oedometer deformation modulus	Specific settlement at 200 kPa	Coefficient of volume change	Coefficient of compressibility	Susceptibility to wetting	Stress	Recompression index	Coefficient of consolidation	Shear strength: Effective stress σ/τ	1	2	3	Angle of int. friction	Cohesion	Type of test	Unconfined compressive strength	Permeability coefficient	Organic matter content	Standard penetration test
35.00 11.60					Nisip cafeniu - conuslu.																																															

Intocmit: ing. V. Marin

Verificat: ing. A. Diaconu