ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.74	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

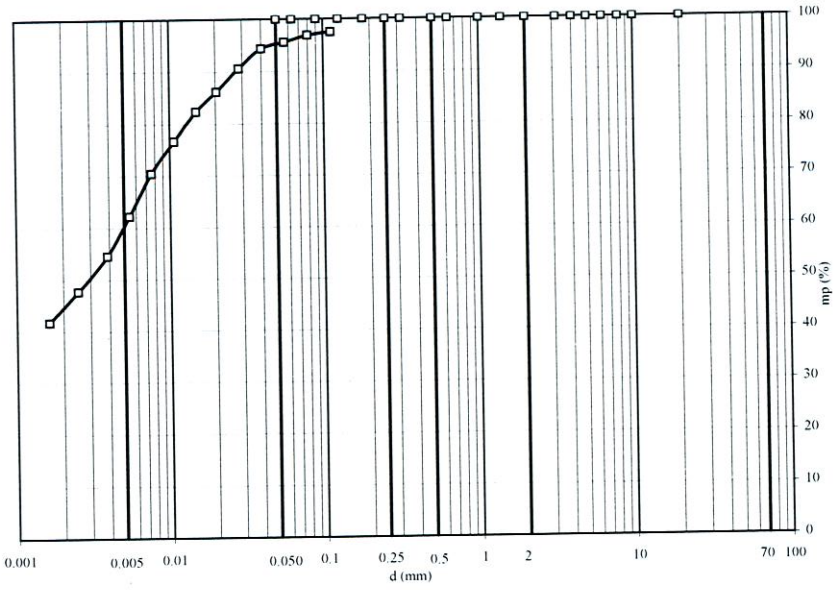
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	29.2	1.7	30.90	0.05	30.95	10.310	9.36	17.721	18.221	0.000	0.011	0.112	97	20.0
30"	30	29.0	1.7	30.70	0.05	30.75	10.308	9.40	17.721	18.261	0.000	0.008	0.080	97	20.0
1'	60	28.6	1.7	30.30	0.05	30.35	10.304	9.48	17.721	18.341	0.000	0.006	0.056	96	20.0
2'	120	28.2	1.7	29.90	0.05	29.95	10.300	9.56	17.721	18.421	0.000	0.004	0.040	94	20.0
4'	240	27.0	1.7	28.70	0.05	28.75	10.288	9.80	17.721	18.661	0.000	0.003	0.028	91	20.0
8'	480	25.6	1.7	27.30	0.05	27.35	10.274	10.08	17.721	18.941	0.000	0.002	0.020	86	20.0
15'	900	24.4	1.7	26.10	0.05	26.15	10.262	10.32	17.721	19.181	0.000	0.001	0.015	82	20.0
30'	1800	22.6	1.7	24.30	0.05	24.35	10.244	10.68	17.721	19.541	0.000	0.001	0.011	77	20.0
1h	3600	20.6	1.7	22.30	0.05	22.35	10.224	11.08	17.721	19.941	0.000	0.001	0.008	70	20.0
2h	7200	18.0	1.7	19.70	0.05	19.75	10.198	11.60	17.721	20.461	0.000	0.001	0.005	62	20.0
4h	14400	15.6	1.7	17.30	0.03	17.33	10.173	12.08	17.721	20.941	0.000	0.000	0.004	55	19.9
8h	36000	13.4	1.7	15.10	0.05	15.15	10.152	12.52	17.721	21.381	0.000	0.000	0.002	48	20.0
24h	86400	11.6	1.7	13.30	-0.04	13.26	10.133	12.88	17.721	21.741	0.000	0.000	0.002	42	19.5

DATE CERNERE			
m_d=	2.48	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{diinitial}$=	2.48	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
5	34	61
Clasificare proba STAS 1243-88		
argila grasa la argila		

Fractiuni granulometrice necoeziv		
Nisip fin	5	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	5	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu cenuşie, cu oxizi de fier, plastic vârtoasă cu zone plastic consistente
Foraj	F2	
Proba	P4	
Adancime (m)	3.60-4.80	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

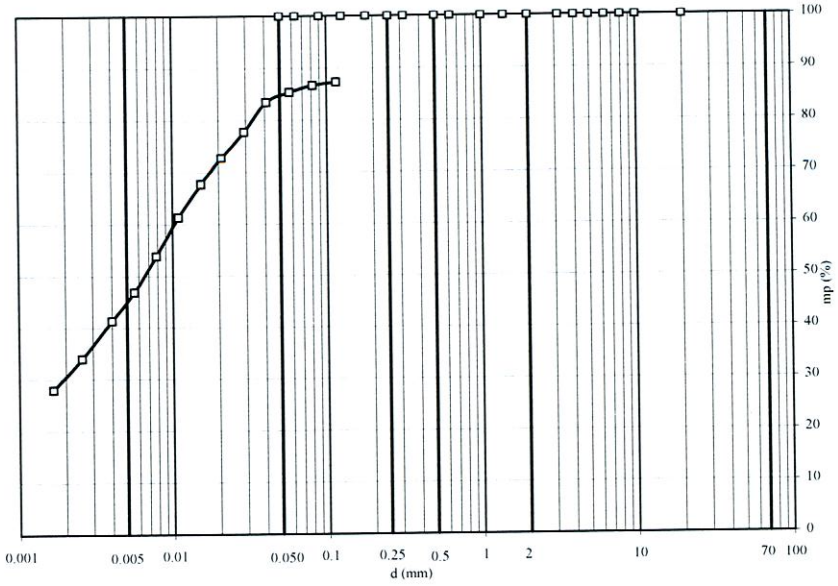
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	25.6	1.7	27.30	0.28	27.58	10.276	10.08	17.721	18.941	0.000	0.012	0.115	87	21.2
30"	30	25.4	1.7	27.10	0.28	27.38	10.274	10.12	17.721	18.981	0.000	0.008	0.082	87	21.2
1'	60	25.0	1.7	26.70	0.28	26.98	10.270	10.20	17.721	19.061	0.000	0.006	0.058	85	21.2
2'	120	24.4	1.7	26.10	0.28	26.38	10.264	10.32	17.721	19.181	0.000	0.004	0.041	83	21.2
4'	240	22.6	1.7	24.30	0.28	24.58	10.246	10.68	17.721	19.541	0.000	0.003	0.029	78	21.2
8'	480	21.0	1.7	22.70	0.28	22.98	10.230	11.00	17.721	19.861	0.000	0.002	0.021	73	21.2
15'	900	19.4	1.7	21.10	0.28	21.38	10.214	11.32	17.721	20.181	0.000	0.002	0.015	68	21.2
30'	1800	17.4	1.7	19.10	0.28	19.38	10.194	11.72	17.721	20.581	0.000	0.001	0.011	61	21.2
1h	3600	15.0	1.7	16.70	0.32	17.02	10.170	12.20	17.721	21.061	0.000	0.001	0.008	54	21.4
2h	7200	12.8	1.7	14.50	0.32	14.82	10.148	12.64	17.721	21.501	0.000	0.001	0.006	47	21.4
4h	14400	11.0	1.7	12.70	0.36	13.06	10.131	13.00	17.721	21.861	0.000	0.000	0.004	41	21.6
8h	36000	8.6	1.7	10.30	0.44	10.74	10.107	13.48	17.721	22.341	0.000	0.000	0.003	34	22.0
24h	86400	7.0	1.7	8.70	0.13	8.83	10.088	13.80	17.721	22.661	0.000	0.000	0.002	28	20.4

DATE CERNERE			
m_d=	7.47	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	7.47	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
15	41	44
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	15	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	15	%

Identificare proba		
Amplasament	Brasov	Argilă, cenuşie, cu oxizi de fier, slab nisipoasă, zone frământate, plastic consistentă la vârtoasă
Foraj	F2	
Proba	P5	
Adancime (m)	4.80-6.00	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.6	1.7	28.30	0.28	28.58	10.286	9.88	17.721	18.741	0.000	0.011	0.115	90	21.2
30"	30	26.4	1.7	28.10	0.28	28.38	10.284	9.92	17.721	18.781	0.000	0.008	0.081	90	21.2
1'	60	26.0	1.7	27.70	0.28	27.98	10.280	10.00	17.721	18.861	0.000	0.006	0.057	88	21.2
2'	120	25.4	1.7	27.10	0.28	27.38	10.274	10.12	17.721	18.981	0.000	0.004	0.041	87	21.2
4'	240	24.4	1.7	26.10	0.28	26.38	10.264	10.32	17.721	19.181	0.000	0.003	0.029	83	21.2
8'	480	23.2	1.7	24.90	0.28	25.18	10.252	10.56	17.721	19.421	0.000	0.002	0.021	80	21.2
15'	900	21.8	1.7	23.50	0.28	23.78	10.238	10.84	17.721	19.701	0.000	0.002	0.015	75	21.2
30'	1800	20.2	1.7	21.90	0.28	22.18	10.222	11.16	17.721	20.021	0.000	0.001	0.011	70	21.2
1h	3600	18.0	1.7	19.70	0.32	20.02	10.200	11.60	17.721	20.461	0.000	0.001	0.008	63	21.4
2h	7200	16.0	1.7	17.70	0.32	18.02	10.180	12.00	17.721	20.861	0.000	0.001	0.006	57	21.4
4h	14400	13.8	1.7	15.50	0.36	15.86	10.159	12.44	17.721	21.301	0.000	0.000	0.004	50	21.6
8h	36000	11.8	1.7	13.50	0.42	13.92	10.139	12.84	17.721	21.701	0.000	0.000	0.003	44	21.9
24h	86400	10.2	1.7	11.90	0.13	12.03	10.120	13.16	17.721	22.021	0.000	0.000	0.002	38	20.4

DATE CERNERE			
m_d=	5.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

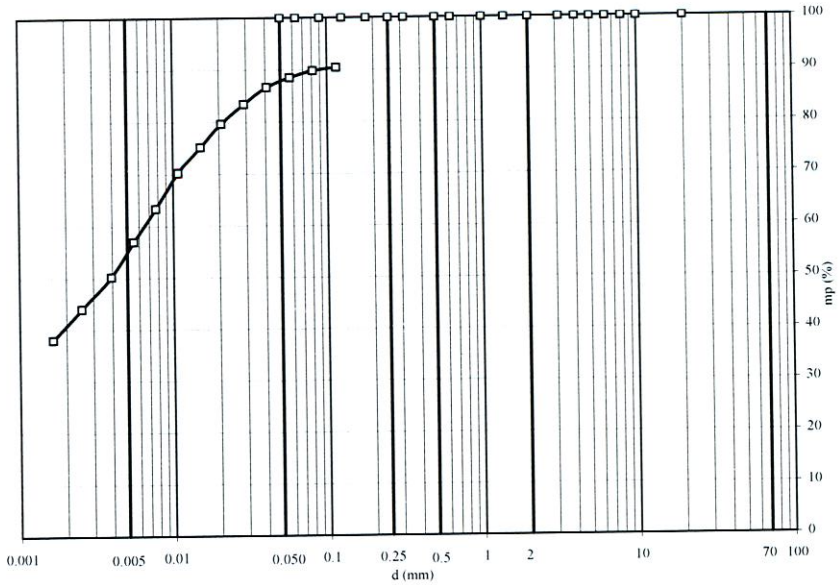
$m_{dinitial}$= 5.97 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
12	34	54
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	12	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	12	%

Identificare proba		
Amplasament	Brasov	Argilă, cenușie, cu oxizi de fier, slab nisipoasă, zone frământate, plastic consistentă la vârtoasă
Foraj	F2	
Proba	P6	
Adancime (m)	6.00-7.20	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

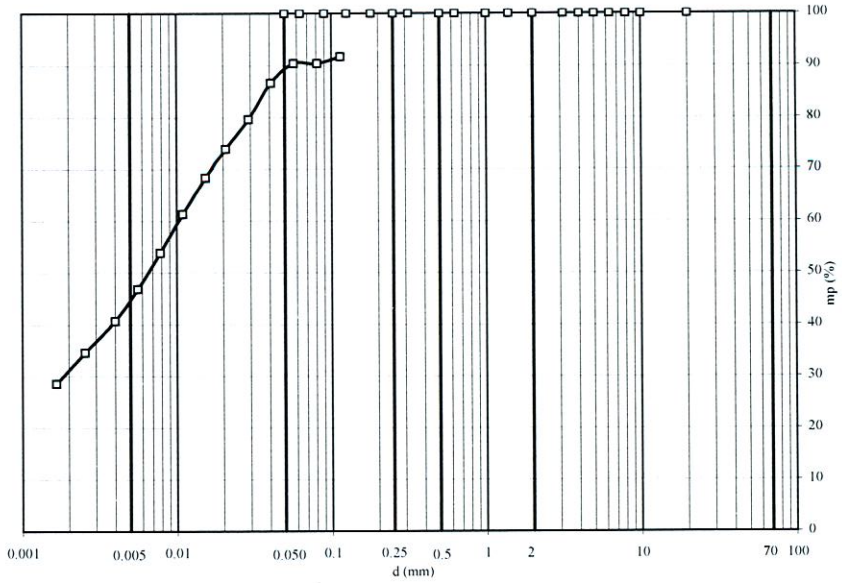
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.0	1.7	28.70	0.28	28.98	10.290	9.80	17.721	18.661	0.000	0.011	0.114	92	21.2
30"	30	26.6	1.7	28.30	0.28	28.58	10.286	9.88	17.721	18.741	0.000	0.008	0.081	90	21.2
1'	60	26.6	1.7	28.30	0.28	28.58	10.286	9.88	17.721	18.741	0.000	0.006	0.057	90	21.2
2'	120	25.4	1.7	27.10	0.28	27.38	10.274	10.12	17.721	18.981	0.000	0.004	0.041	87	21.2
4'	240	23.2	1.7	24.90	0.28	25.18	10.252	10.56	17.721	19.421	0.000	0.003	0.029	80	21.2
8'	480	21.4	1.7	23.10	0.28	23.38	10.234	10.92	17.721	19.781	0.000	0.002	0.021	74	21.2
15'	900	19.6	1.7	21.30	0.28	21.58	10.216	11.28	17.721	20.141	0.000	0.002	0.015	68	21.2
30'	1800	17.4	1.7	19.10	0.28	19.38	10.194	11.72	17.721	20.581	0.000	0.001	0.011	61	21.2
1h	3600	15.0	1.7	16.70	0.32	17.02	10.170	12.20	17.721	21.061	0.000	0.001	0.008	54	21.4
2h	7200	12.8	1.7	14.50	0.32	14.82	10.148	12.64	17.721	21.501	0.000	0.001	0.006	47	21.4
4h	14400	10.8	1.7	12.50	0.36	12.86	10.129	13.04	17.721	21.901	0.000	0.000	0.004	41	21.6
8h	36000	8.8	1.7	10.50	0.44	10.94	10.109	13.44	17.721	22.301	0.000	0.000	0.003	35	22.0
24h	86400	7.2	1.7	8.90	0.13	9.03	10.090	13.76	17.721	22.621	0.000	0.000	0.002	29	20.4

DATE CERNERE			
m_d=	5.47	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	5.47	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
11	45	44
Clasificare proba STAS 1243-88		
argila prafoasa la argila		

Fractiuni granulometrice necoeziv		
Nisip fin	11	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	11	%

Identificare proba		
Amplasament	Brasov	Argilă, cenuşie, cu oxizi de fier, slab nisipoasă, zone frământate, plastic consistentă la vârtoasă
Foraj	F2	
Proba	P7	
Adancime (m)	7.20-8.40	



Operator: Teh. Visan Andrei
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Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

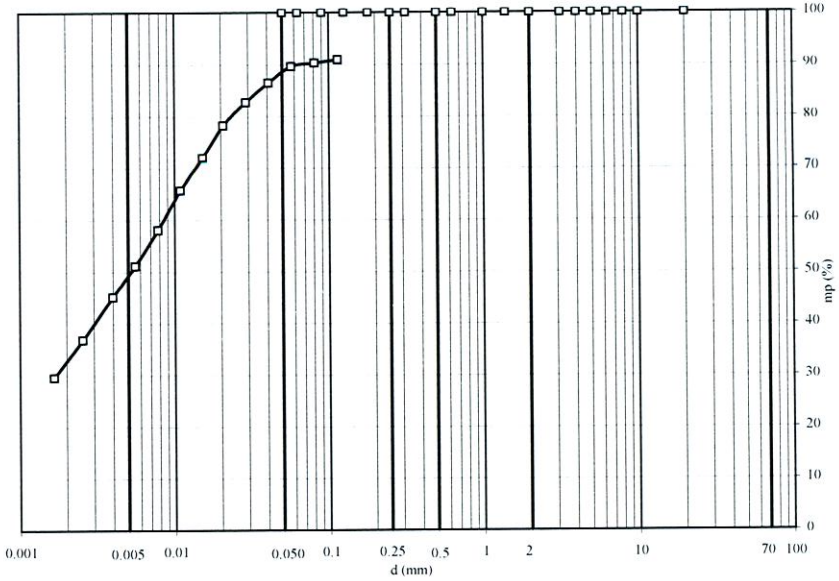
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.0	1.7	28.70	0.05	28.75	10.288	9.80	17.721	18.661	0.000	0.011	0.114	91	20.0
30"	30	26.8	1.7	28.50	0.05	28.55	10.286	9.84	17.721	18.701	0.000	0.008	0.081	90	20.0
1'	60	26.6	1.7	28.30	0.05	28.35	10.284	9.88	17.721	18.741	0.000	0.006	0.057	90	20.0
2'	120	25.6	1.7	27.30	0.05	27.35	10.274	10.08	17.721	18.941	0.000	0.004	0.041	87	20.0
4'	240	24.4	1.7	26.10	0.05	26.15	10.262	10.32	17.721	19.181	0.000	0.003	0.029	83	20.0
8'	480	23.0	1.7	24.70	0.05	24.75	10.248	10.60	17.721	19.461	0.000	0.002	0.021	78	20.0
15'	900	21.0	1.7	22.70	0.05	22.75	10.228	11.00	17.721	19.861	0.000	0.002	0.015	72	20.0
30'	1800	19.0	1.7	20.70	0.05	20.75	10.208	11.40	17.721	20.261	0.000	0.001	0.011	66	20.0
1h	3600	16.6	1.7	18.30	0.05	18.35	10.184	11.88	17.721	20.741	0.000	0.001	0.008	58	20.0
2h	7200	14.4	1.7	16.10	0.05	16.15	10.162	12.32	17.721	21.181	0.000	0.001	0.006	51	20.0
4h	14400	12.4	1.7	14.10	0.16	14.26	10.143	12.72	17.721	21.581	0.000	0.000	0.004	45	20.6
8h	36000	9.8	1.7	11.50	0.16	11.66	10.117	13.24	17.721	22.101	0.000	0.000	0.003	37	20.6
24h	86400	7.6	1.7	9.30	0.05	9.35	10.094	13.68	17.721	22.541	0.000	0.000	0.002	30	20.0

DATE CERNERE			
m_d=	5.45	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20 000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	5.45	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
11	40	49
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	11	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	11	%

Identificare proba		
Amplasament	Brasov	Argilă, cenușie, (mărnoasă) cu oxizi de fier și rare filme de nisip fin, cenușiu micaceu, tare cu zone frământate
Foraj	F2	
Proba	P8	
Adancime (m)	8.40-9.60	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

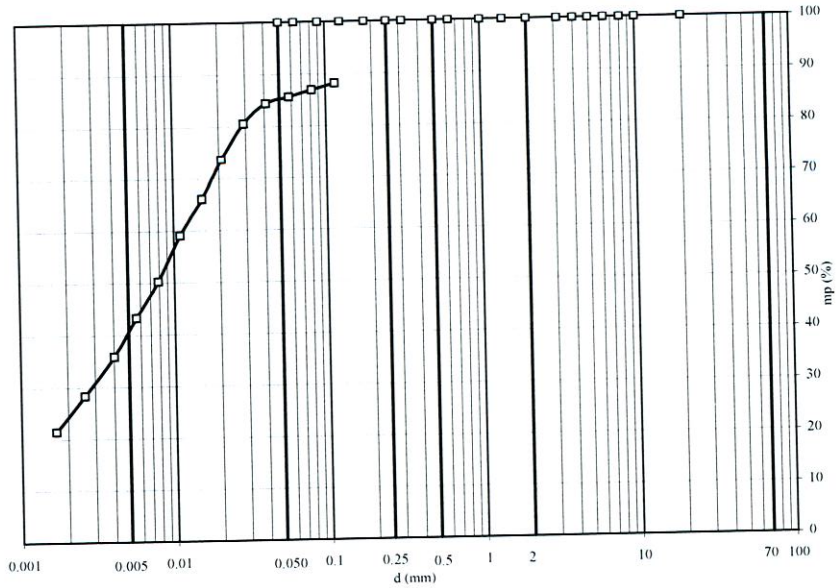
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.0	1.7	27.70	0.18	27.88	10.279	10.00	17.721	18.861	0.000	0.011	0.115	88	20.7
30"	30	25.6	1.7	27.30	0.18	27.48	10.275	10.08	17.721	18.941	0.000	0.008	0.081	87	20.7
1'	60	25.2	1.7	26.90	0.18	27.08	10.271	10.16	17.721	19.021	0.000	0.006	0.058	86	20.7
2'	120	24.8	1.7	26.50	0.18	26.68	10.267	10.24	17.721	19.101	0.000	0.004	0.041	84	20.7
4'	240	23.6	1.7	25.30	0.18	25.48	10.255	10.48	17.721	19.341	0.000	0.003	0.029	81	20.7
8'	480	21.4	1.7	23.10	0.18	23.28	10.233	10.92	17.721	19.781	0.000	0.002	0.021	74	20.7
15'	900	19.0	1.7	20.70	0.18	20.88	10.209	11.40	17.721	20.261	0.000	0.002	0.015	66	20.7
30'	1800	16.8	1.7	18.50	0.18	18.68	10.187	11.84	17.721	20.701	0.000	0.001	0.011	59	20.7
1h	3600	14.0	1.7	15.70	0.18	15.88	10.159	12.40	17.721	21.261	0.000	0.001	0.008	50	20.7
2h	7200	11.8	1.7	13.50	0.18	13.68	10.137	12.84	17.721	21.701	0.000	0.001	0.006	43	20.7
4h	14400	9.4	1.7	11.10	0.24	11.34	10.113	13.32	17.721	22.181	0.000	0.000	0.004	36	21.0
8h	36000	7.0	1.7	8.70	0.26	8.96	10.090	13.80	17.721	22.661	0.000	0.000	0.003	28	21.1
24h	86400	5.0	1.7	6.70	0.09	6.79	10.068	14.20	17.721	23.061	0.000	0.000	0.002	21	20.2

DATE CERNERE			
m_d=	7.46	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	7.46	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
15	44	41
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	15	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	15	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F3	
Proba	P1	
Adancime (m)	0.00-1.20	



Operator: Teh. Visan Andrei
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.70	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

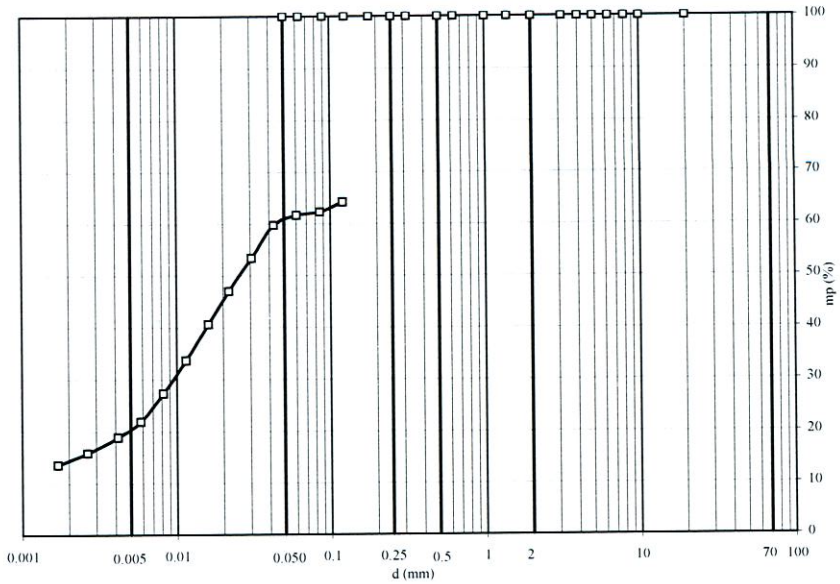
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	18.4	1.7	20.10	0.09	20.19	10.202	11.52	17.721	20.381	0.000	0.012	0.120	64	20.2
30"	30	17.8	1.7	19.50	0.09	19.59	10.196	11.64	17.721	20.501	0.000	0.009	0.085	62	20.2
1'	60	17.6	1.7	19.30	0.09	19.39	10.194	11.68	17.721	20.541	0.000	0.006	0.060	62	20.2
2'	120	17.0	1.7	18.70	0.09	18.79	10.188	11.80	17.721	20.661	0.000	0.004	0.043	60	20.2
4'	240	15.0	1.7	16.70	0.09	16.79	10.168	12.20	17.721	21.061	0.000	0.003	0.031	53	20.2
8'	480	13.0	1.7	14.70	0.09	14.79	10.148	12.60	17.721	21.461	0.000	0.002	0.022	47	20.2
15'	900	11.0	1.7	12.70	0.09	12.79	10.128	13.00	17.721	21.861	0.000	0.002	0.016	41	20.2
30'	1800	8.8	1.7	10.50	0.09	10.59	10.106	13.44	17.721	22.301	0.000	0.001	0.011	34	20.2
1h	3600	6.8	1.7	8.50	0.09	8.59	10.086	13.84	17.721	22.701	0.000	0.001	0.008	27	20.2
2h	7200	5.0	1.7	6.70	0.18	6.88	10.069	14.20	17.721	23.061	0.000	0.001	0.006	22	20.7
4h	14400	4.0	1.7	5.70	0.24	5.94	10.059	14.40	17.721	23.261	0.000	0.000	0.004	19	21.0
8h	36000	3.0	1.7	4.70	0.28	4.98	10.050	14.60	17.721	23.461	0.000	0.000	0.003	16	21.2
24h	86400	2.6	1.7	4.30	-0.04	4.26	10.043	14.68	17.721	23.541	0.000	0.000	0.002	14	19.5

DATE CERNERE			
m_d=	19.42	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	19.42	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
39	41	20
Clasificare proba STAS 1243-88		
praf nisipos argilos la nisip argilos		

Fractiuni granulometrice necoeziv		
Nisip fin	39	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	39	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F3	
Proba	P2	
Adancime (m)	1.20-2.40	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.70	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	23.6	1.7	25.30	0.07	25.37	10.254	10.48	17.721	19.341	0.000	0.012	0.117	81	20.1
30"	30	23.0	1.7	24.70	0.07	24.77	10.248	10.60	17.721	19.461	0.000	0.008	0.083	79	20.1
1'	60	22.8	1.7	24.50	0.07	24.57	10.246	10.64	17.721	19.501	0.000	0.006	0.059	78	20.1
2'	120	22.4	1.7	24.10	0.07	24.17	10.242	10.72	17.721	19.581	0.000	0.004	0.042	77	20.1
4'	240	20.0	1.7	21.70	0.07	21.77	10.218	11.20	17.721	20.061	0.000	0.003	0.030	69	20.1
8'	480	17.4	1.7	19.10	0.07	19.17	10.192	11.72	17.721	20.581	0.000	0.002	0.021	61	20.1
15'	900	15.2	1.7	16.90	0.07	16.97	10.170	12.16	17.721	21.021	0.000	0.002	0.016	54	20.1
30'	1800	12.0	1.7	13.70	0.07	13.77	10.138	12.80	17.721	21.661	0.000	0.001	0.011	44	20.1
1h	3600	9.8	1.7	11.50	0.07	11.57	10.116	13.24	17.721	22.101	0.000	0.001	0.008	37	20.1
2h	7200	7.8	1.7	9.50	0.16	9.66	10.097	13.64	17.721	22.501	0.000	0.001	0.006	31	20.6
4h	14400	6.0	1.7	7.70	0.22	7.92	10.079	14.00	17.721	22.861	0.000	0.000	0.004	25	20.9
8h	36000	4.2	1.7	5.90	0.28	6.18	10.062	14.36	17.721	23.221	0.000	0.000	0.003	20	21.2
24h	86400	3.0	1.7	4.70	-0.04	4.66	10.047	14.60	17.721	23.461	0.000	0.000	0.002	15	19.5

DATE CERNERE			
m_d=	10.93	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

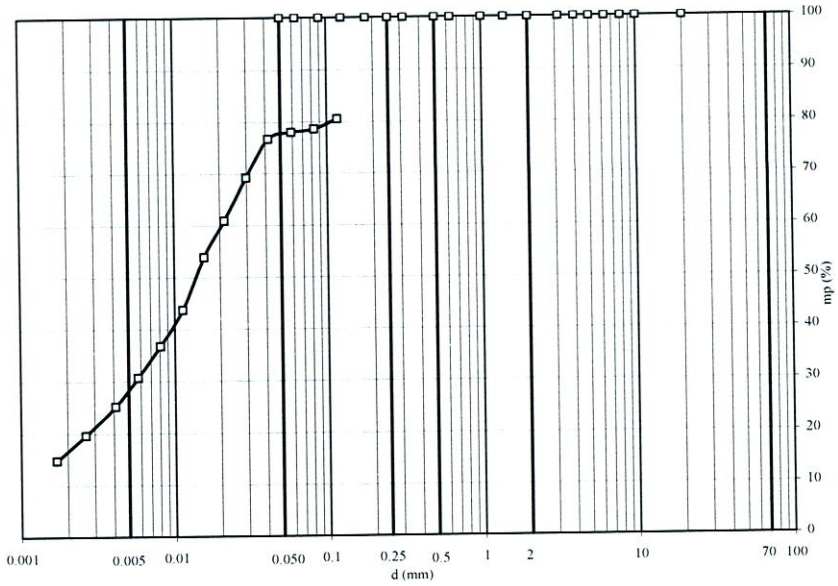
$m_{dinitial}$= 10.93 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
22	50	28
Clasificare proba STAS 1243-88		
praf argilos		

Fractiuni granulometrice necoeziv		
Nisip fin	22	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	22	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F3	
Proba	P3	
Adancime (m)	2.40-3.60	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	24.6	1.7	26.30	0.07	26.37	10.264	10.28	17.721	19.141	0.000	0.012	0.116	83	20.1
30"	30	24.2	1.7	25.90	0.07	25.97	10.260	10.36	17.721	19.221	0.000	0.008	0.082	82	20.1
1'	60	24.0	1.7	25.70	0.07	25.77	10.258	10.40	17.721	19.261	0.000	0.006	0.058	82	20.1
2'	120	23.6	1.7	25.30	0.07	25.37	10.254	10.48	17.721	19.341	0.000	0.004	0.041	80	20.1
4'	240	21.2	1.7	22.90	0.07	22.97	10.230	10.96	17.721	19.821	0.000	0.003	0.029	73	20.1
8'	480	18.8	1.7	20.50	0.07	20.57	10.206	11.44	17.721	20.301	0.000	0.002	0.021	65	20.1
15'	900	16.6	1.7	18.30	0.07	18.37	10.184	11.88	17.721	20.741	0.000	0.002	0.016	58	20.1
30'	1800	13.8	1.7	15.50	0.07	15.57	10.156	12.44	17.721	21.301	0.000	0.001	0.011	49	20.1
1h	3600	11.4	1.7	13.10	0.07	13.17	10.132	12.92	17.721	21.781	0.000	0.001	0.008	42	20.1
2h	7200	9.2	1.7	10.90	0.14	11.04	10.110	13.36	17.721	22.221	0.000	0.001	0.006	35	20.5
4h	14400	7.2	1.7	8.90	0.18	9.08	10.091	13.76	17.721	22.621	0.000	0.000	0.004	29	20.7
8h	36000	5.0	1.7	6.70	0.28	6.98	10.070	14.20	17.721	23.061	0.000	0.000	0.003	22	21.2
24h	86400	3.8	1.7	5.50	-0.04	5.46	10.055	14.44	17.721	23.301	0.000	0.000	0.002	17	19.5

DATE CERNERE			
m_d=	8.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

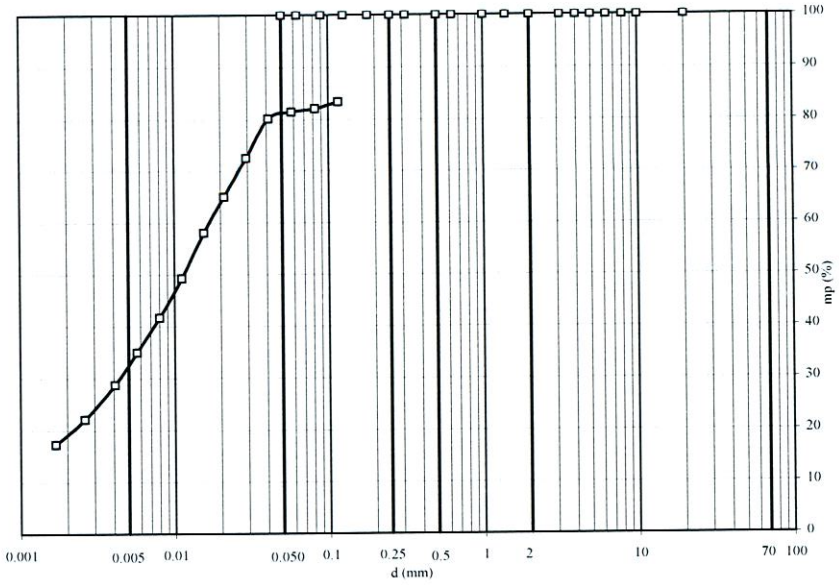
$m_{dinitial}$= 8.97 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
18	50	32
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	18	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	18	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenușii, cu foarte mulți oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F3	
Proba	P4	
Adancime (m)	3.60-4.80	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Oltean

UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

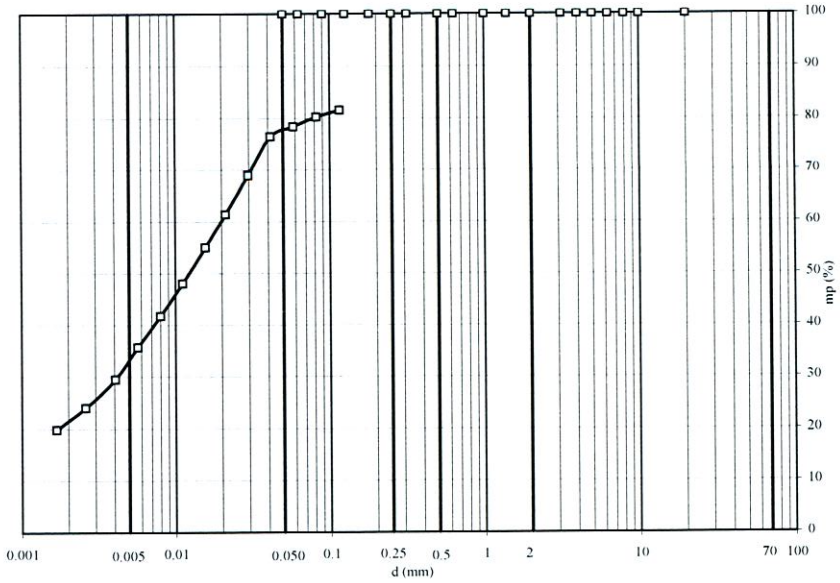
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	24.0	1.7	25.70	0.09	25.79	10.258	10.40	17.721	19.261	0.000	0.012	0.116	82	20.2
30"	30	23.6	1.7	25.30	0.09	25.39	10.254	10.48	17.721	19.341	0.000	0.008	0.082	80	20.2
1'	60	23.0	1.7	24.70	0.09	24.79	10.248	10.60	17.721	19.461	0.000	0.006	0.058	78	20.2
2'	120	22.4	1.7	24.10	0.09	24.19	10.242	10.72	17.721	19.581	0.000	0.004	0.041	77	20.2
4'	240	20.0	1.7	21.70	0.09	21.79	10.218	11.20	17.721	20.061	0.000	0.003	0.030	69	20.2
8'	480	17.6	1.7	19.30	0.09	19.39	10.194	11.68	17.721	20.541	0.000	0.002	0.021	61	20.2
15'	900	15.6	1.7	17.30	0.09	17.39	10.174	12.08	17.721	20.941	0.000	0.002	0.016	55	20.2
30'	1800	13.4	1.7	15.10	0.09	15.19	10.152	12.52	17.721	21.381	0.000	0.001	0.011	48	20.2
1h	3600	11.4	1.7	13.10	0.09	13.19	10.132	12.92	17.721	21.781	0.000	0.001	0.008	42	20.2
2h	7200	9.4	1.7	11.10	0.18	11.28	10.113	13.32	17.721	22.181	0.000	0.001	0.006	36	20.7
4h	14400	7.4	1.7	9.10	0.22	9.32	10.093	13.72	17.721	22.581	0.000	0.000	0.004	29	20.9
8h	36000	5.6	1.7	7.30	0.28	7.58	10.076	14.08	17.721	22.941	0.000	0.000	0.003	24	21.2
24h	86400	4.6	1.7	6.30	-0.04	6.26	10.063	14.28	17.721	23.141	0.000	0.000	0.002	20	19.5

DATE CERNERE			
m_d=	10.96	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	10.96	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
22	45	33
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	22	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	22	%

Identificare proba		
Amplasament	Brasov	Argilă, verzuie, cu foarte mulți oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F3	
Proba	P5	
Adancime (m)	4.80-6.00	



Operator: Teh. Visan Andrei
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

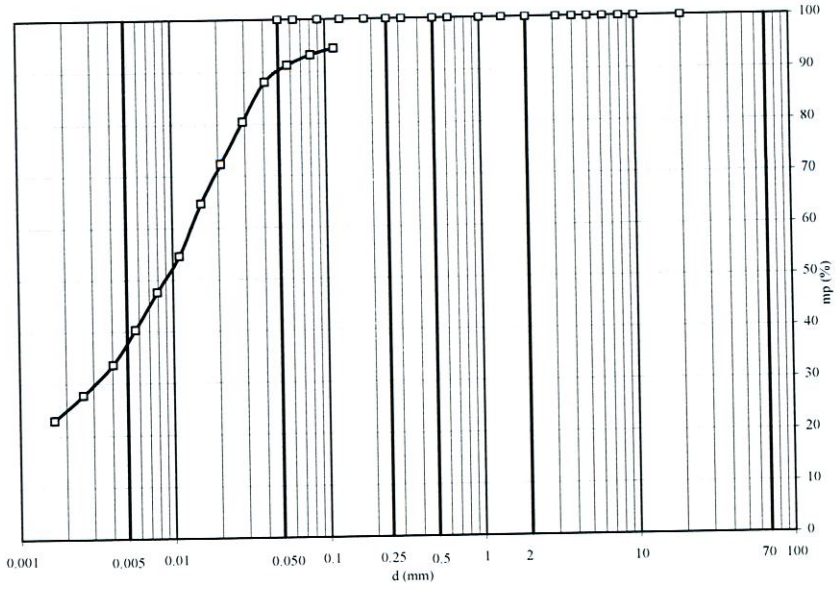
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.0	1.7	29.70	0.14	29.84	10.298	9.60	17.721	18.461	0.000	0.011	0.114	94	20.5
30"	30	27.6	1.7	29.30	0.14	29.44	10.294	9.68	17.721	18.541	0.000	0.008	0.081	93	20.5
1'	60	27.0	1.7	28.70	0.14	28.84	10.288	9.80	17.721	18.661	0.000	0.006	0.057	91	20.5
2'	120	26.0	1.7	27.70	0.14	27.84	10.278	10.00	17.721	18.861	0.000	0.004	0.041	88	20.5
4'	240	23.6	1.7	25.30	0.14	25.44	10.254	10.48	17.721	19.341	0.000	0.003	0.029	80	20.5
8'	480	21.0	1.7	22.70	0.14	22.84	10.228	11.00	17.721	19.861	0.000	0.002	0.021	72	20.5
15'	900	18.6	1.7	20.30	0.14	20.44	10.204	11.48	17.721	20.341	0.000	0.002	0.015	65	20.5
30'	1800	15.4	1.7	17.10	0.14	17.24	10.172	12.12	17.721	20.981	0.000	0.001	0.011	55	20.5
1h	3600	13.2	1.7	14.90	0.14	15.04	10.150	12.56	17.721	21.421	0.000	0.001	0.008	48	20.5
2h	7200	10.8	1.7	12.50	0.24	12.74	10.127	13.04	17.721	21.901	0.000	0.001	0.006	40	21.0
4h	14400	8.6	1.7	10.30	0.32	10.62	10.106	13.48	17.721	22.341	0.000	0.000	0.004	34	21.4
8h	36000	6.8	1.7	8.50	0.28	8.78	10.088	13.84	17.721	22.701	0.000	0.000	0.003	28	21.2
24h	86400	5.6	1.7	7.30	-0.04	7.26	10.073	14.08	17.721	22.941	0.000	0.000	0.002	23	19.5

DATE CERNERE			
m_d=	4.98	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	4.98	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
10	52	38
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	10	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	10	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenuşie, cu oxizi de fier, slab nisipoasă, frământată
Foraj	F3	
Proba	P6	
Adancime (m)	6.00-7.20	



Operator: Teh. Visan Andrei
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Laborator Geotehnic Grad I
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Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

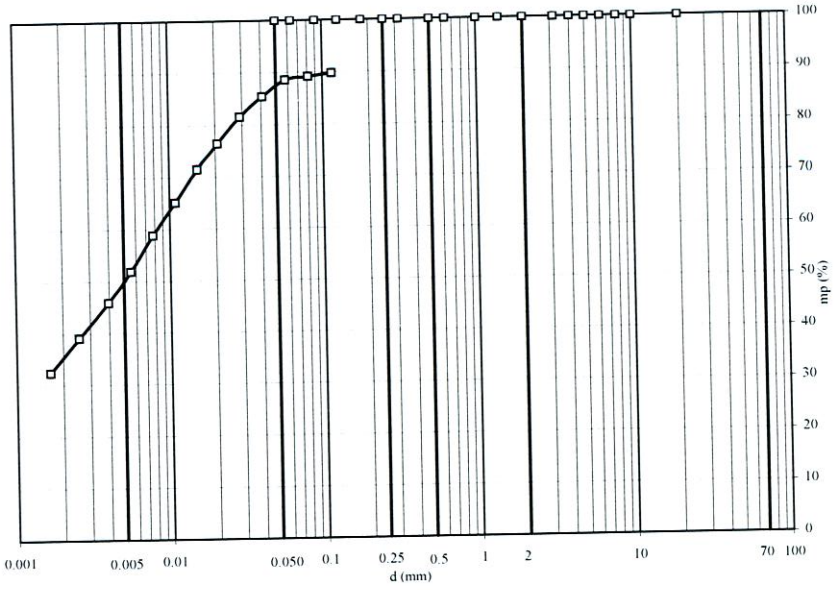
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.6	1.7	28.30	0.09	28.39	10.284	9.88	17.721	18.741	0.000	0.011	0.115	90	20.2
30"	30	26.4	1.7	28.10	0.09	28.19	10.282	9.92	17.721	18.781	0.000	0.008	0.081	89	20.2
1'	60	26.2	1.7	27.90	0.09	27.99	10.280	9.96	17.721	18.821	0.000	0.006	0.057	89	20.2
2'	120	25.2	1.7	26.90	0.09	26.99	10.270	10.16	17.721	19.021	0.000	0.004	0.041	85	20.2
4'	240	24.0	1.7	25.70	0.09	25.79	10.258	10.40	17.721	19.261	0.000	0.003	0.029	82	20.2
8'	480	22.4	1.7	24.10	0.09	24.19	10.242	10.72	17.721	19.581	0.000	0.002	0.021	77	20.2
15'	900	20.8	1.7	22.50	0.09	22.59	10.226	11.04	17.721	19.901	0.000	0.002	0.015	71	20.2
30'	1800	18.8	1.7	20.50	0.09	20.59	10.206	11.44	17.721	20.301	0.000	0.001	0.011	65	20.2
1h	3600	16.8	1.7	18.50	0.09	18.59	10.186	11.84	17.721	20.701	0.000	0.001	0.008	59	20.2
2h	7200	14.6	1.7	16.30	0.09	16.39	10.164	12.28	17.721	21.141	0.000	0.001	0.006	52	20.2
4h	14400	12.6	1.7	14.30	0.20	14.50	10.145	12.68	17.721	21.541	0.000	0.000	0.004	46	20.8
8h	36000	10.4	1.7	12.10	0.24	12.34	10.123	13.12	17.721	21.981	0.000	0.000	0.003	39	21.0
24h	86400	8.4	1.7	10.10	0.13	10.23	10.102	13.52	17.721	22.381	0.000	0.000	0.002	32	20.4

DATE CERNERE			
m_d=	5.96	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	5.96	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
12	38	50
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	12	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	12	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenușie, cu oxizi de fier, slab nisipoasă, frământată
Foraj	F3	
Proba	P7	
Adancime (m)	7.20-8.40	



Operator: Teh. Visan Andrei
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UTCB
Laborator Geotehnic Grad 1
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

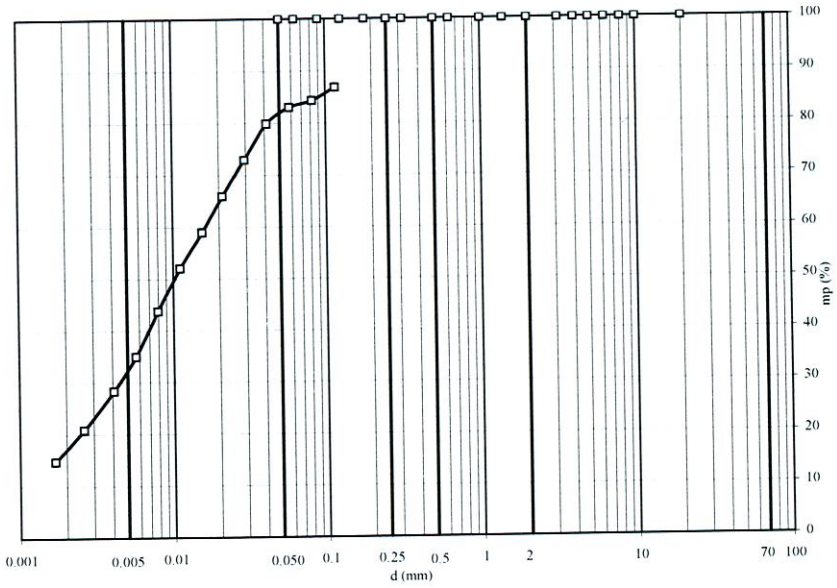
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	25.6	1.7	27.30	0.14	27.44	10.274	10.08	17.721	18.941	0.000	0.012	0.115	87	20.5
30"	30	24.8	1.7	26.50	0.14	26.64	10.266	10.24	17.721	19.101	0.000	0.008	0.082	84	20.5
1'	60	24.4	1.7	26.10	0.14	26.24	10.262	10.32	17.721	19.181	0.000	0.006	0.058	83	20.5
2'	120	23.4	1.7	25.10	0.14	25.24	10.252	10.52	17.721	19.381	0.000	0.004	0.041	80	20.5
4'	240	21.2	1.7	22.90	0.14	23.04	10.230	10.96	17.721	19.821	0.000	0.003	0.029	73	20.5
8'	480	19.0	1.7	20.70	0.14	20.84	10.208	11.40	17.721	20.261	0.000	0.002	0.021	66	20.5
15'	900	16.8	1.7	18.50	0.14	18.64	10.186	11.84	17.721	20.701	0.000	0.002	0.016	59	20.5
30'	1800	14.6	1.7	16.30	0.14	16.44	10.164	12.28	17.721	21.141	0.000	0.001	0.011	52	20.5
1h	3600	12.0	1.7	13.70	0.14	13.84	10.138	12.80	17.721	21.661	0.000	0.001	0.008	44	20.5
2h	7200	9.2	1.7	10.90	0.14	11.04	10.110	13.36	17.721	22.221	0.000	0.001	0.006	35	20.5
4h	14400	7.0	1.7	8.70	0.24	8.94	10.089	13.80	17.721	22.661	0.000	0.000	0.004	28	21.0
8h	36000	4.6	1.7	6.30	0.28	6.58	10.066	14.28	17.721	23.141	0.000	0.000	0.003	21	21.2
24h	86400	2.8	1.7	4.50	0.16	4.66	10.047	14.64	17.721	23.501	0.000	0.000	0.002	15	20.6

DATE CERNERE			
m_d=	8.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	8.97	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
18	50	32
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	18	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	18	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenușie, cu rare filme de nisip fin, cenușiu micaceu, supraconsolidată
Foraj	F3	
Proba	P8	
Adancime (m)	8.40-9.60	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

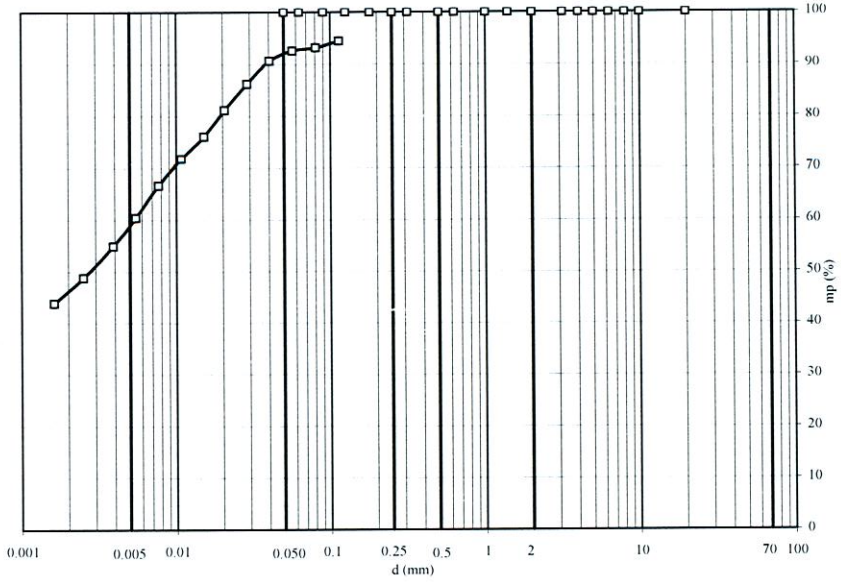
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.2	1.7	29.90	-0.04	29.86	10.299	9.56	17.721	18.421	0.000	0.011	0.114	94	19.5
30"	30	27.8	1.7	29.50	-0.04	29.46	10.295	9.64	17.721	18.501	0.000	0.008	0.081	93	19.5
1'	60	27.6	1.7	29.30	-0.04	29.26	10.293	9.68	17.721	18.541	0.000	0.006	0.057	93	19.5
2'	120	27.0	1.7	28.70	-0.04	28.66	10.287	9.80	17.721	18.661	0.000	0.004	0.040	91	19.5
4'	240	25.6	1.7	27.30	-0.04	27.26	10.273	10.08	17.721	18.941	0.000	0.003	0.029	86	19.5
8'	480	24.0	1.7	25.70	-0.04	25.66	10.257	10.40	17.721	19.261	0.000	0.002	0.021	81	19.5
15'	900	22.4	1.7	24.10	-0.04	24.06	10.241	10.72	17.721	19.581	0.000	0.002	0.015	76	19.5
30'	1800	21.0	1.7	22.70	-0.04	22.66	10.227	11.00	17.721	19.861	0.000	0.001	0.011	72	19.5
1h	3600	19.4	1.7	21.10	-0.04	21.06	10.211	11.32	17.721	20.181	0.000	0.001	0.008	67	19.5
2h	7200	17.4	1.7	19.10	-0.02	19.08	10.191	11.72	17.721	20.581	0.000	0.001	0.005	60	19.6
4h	14400	15.6	1.7	17.30	0.05	17.35	10.174	12.08	17.721	20.941	0.000	0.000	0.004	55	20.0
8h	36000	13.6	1.7	15.30	0.13	15.43	10.154	12.48	17.721	21.341	0.000	0.000	0.002	49	20.4
24h	86400	12.2	1.7	13.90	-0.04	13.86	10.139	12.76	17.721	21.621	0.000	0.000	0.002	44	19.5

DATE CERNERE			
m_d=	3.98	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	3.98	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
8	33	59
Clasificare proba STAS 1243-88		
argila la argila grasa		

Fractiuni granulometrice necoeziv		
Nisip fin	8	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	8	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu cenuşie, cu oxizi de fier, rare lentile de nisip, plastic vârtoasă
Foraj	F4	
Proba	P1	
Adancime (m)	0.00-1.20	



Operator: Teh. Visan Andrei
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Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

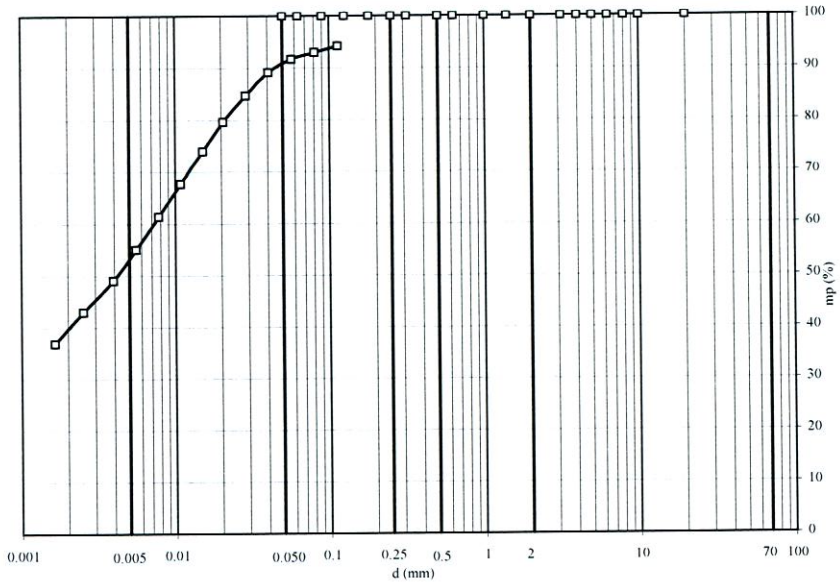
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.0	1.7	29.70	0.09	29.79	10.298	9.60	17.721	18.461	0.000	0.011	0.114	94	20.2
30"	30	27.6	1.7	29.30	0.09	29.39	10.294	9.68	17.721	18.541	0.000	0.008	0.081	93	20.2
1'	60	27.2	1.7	28.90	0.09	28.99	10.290	9.76	17.721	18.621	0.000	0.006	0.057	92	20.2
2'	120	26.4	1.7	28.10	0.09	28.19	10.282	9.92	17.721	18.781	0.000	0.004	0.041	89	20.2
4'	240	25.0	1.7	26.70	0.09	26.79	10.268	10.20	17.721	19.061	0.000	0.003	0.029	85	20.2
8'	480	23.4	1.7	25.10	0.09	25.19	10.252	10.52	17.721	19.381	0.000	0.002	0.021	80	20.2
15'	900	21.6	1.7	23.30	0.09	23.39	10.234	10.88	17.721	19.741	0.000	0.002	0.015	74	20.2
30'	1800	19.6	1.7	21.30	0.09	21.39	10.214	11.28	17.721	20.141	0.000	0.001	0.011	68	20.2
1h	3600	17.6	1.7	19.30	0.09	19.39	10.194	11.68	17.721	20.541	0.000	0.001	0.008	61	20.2
2h	7200	15.6	1.7	17.30	0.09	17.39	10.174	12.08	17.721	20.941	0.000	0.001	0.006	55	20.2
4h	14400	13.6	1.7	15.30	0.20	15.50	10.155	12.48	17.721	21.341	0.000	0.000	0.004	49	20.8
8h	36000	11.6	1.7	13.30	0.28	13.58	10.136	12.88	17.721	21.741	0.000	0.000	0.003	43	21.2
24h	86400	9.8	1.7	11.50	0.16	11.66	10.117	13.24	17.721	22.101	0.000	0.000	0.002	37	20.6

DATE CERNERE			
m_d=	4.46	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	4.46	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
9	39	52
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu cenuşie, cu oxizi de fier, rare lentile de nisip, plastic vârtoasă
Foraj	F4	
Proba	P2	
Adancime (m)	1.20-2.40	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.74	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

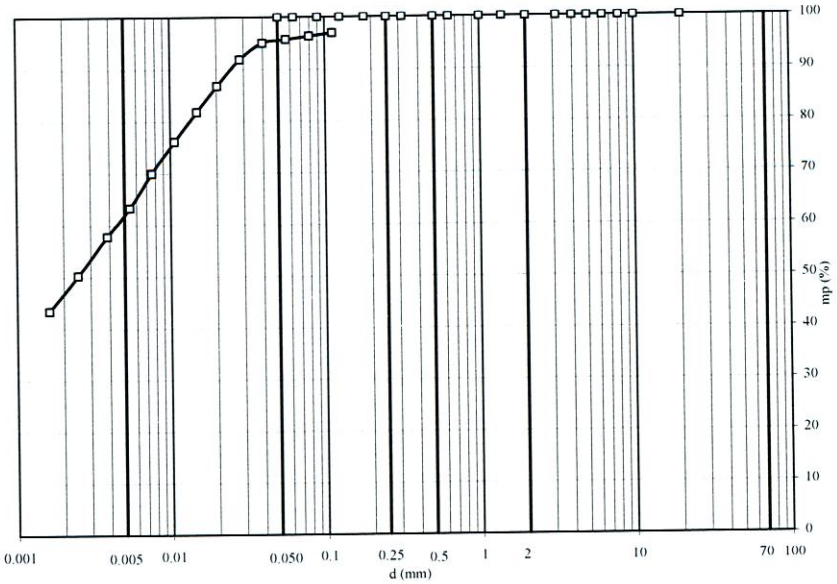
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	29.2	1.7	30.90	-0.13	30.77	10.308	9.36	17.721	18.221	0.000	0.011	0.112	97	19.0
30"	30	29.0	1.7	30.70	-0.13	30.57	10.306	9.40	17.721	18.261	0.000	0.008	0.080	96	19.0
1'	60	28.8	1.7	30.50	-0.13	30.37	10.304	9.44	17.721	18.301	0.000	0.006	0.056	96	19.0
2'	120	28.6	1.7	30.30	-0.13	30.17	10.302	9.48	17.721	18.341	0.000	0.004	0.040	95	19.0
4'	240	27.6	1.7	29.30	-0.13	29.17	10.292	9.68	17.721	18.541	0.000	0.003	0.028	92	19.0
8'	480	26.0	1.7	27.70	-0.13	27.57	10.276	10.00	17.721	18.861	0.000	0.002	0.020	87	19.0
15'	900	24.4	1.7	26.10	-0.13	25.97	10.260	10.32	17.721	19.181	0.000	0.001	0.015	82	19.0
30'	1800	22.6	1.7	24.30	-0.13	24.17	10.242	10.68	17.721	19.541	0.000	0.001	0.011	76	19.0
1h	3600	20.6	1.7	22.30	-0.13	22.17	10.222	11.08	17.721	19.941	0.000	0.001	0.008	70	19.0
2h	7200	18.4	1.7	20.10	-0.02	20.08	10.201	11.52	17.721	20.381	0.000	0.001	0.005	63	19.6
4h	14400	16.6	1.7	18.30	0.05	18.35	10.184	11.88	17.721	20.741	0.000	0.000	0.004	58	20.0
8h	36000	14.2	1.7	15.90	0.05	15.95	10.160	12.36	17.721	21.221	0.000	0.000	0.002	50	20.0
24h	86400	12.2	1.7	13.90	-0.13	13.77	10.138	12.76	17.721	21.621	0.000	0.000	0.002	43	19.0

DATE CERNERE			
m_d=	2.47	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	2.47	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
5	33	62
Clasificare proba STAS 1243-88		
argila grasa		

Fractiuni granulometrice necoeziv		
Nisip fin	5	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	5	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu cenuşie, cu oxizi de fier, rare lentile de nisip, plastic vârtoasă
Foraj	F4	
Proba	P3	
Adancime (m)	2.40-3.60	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

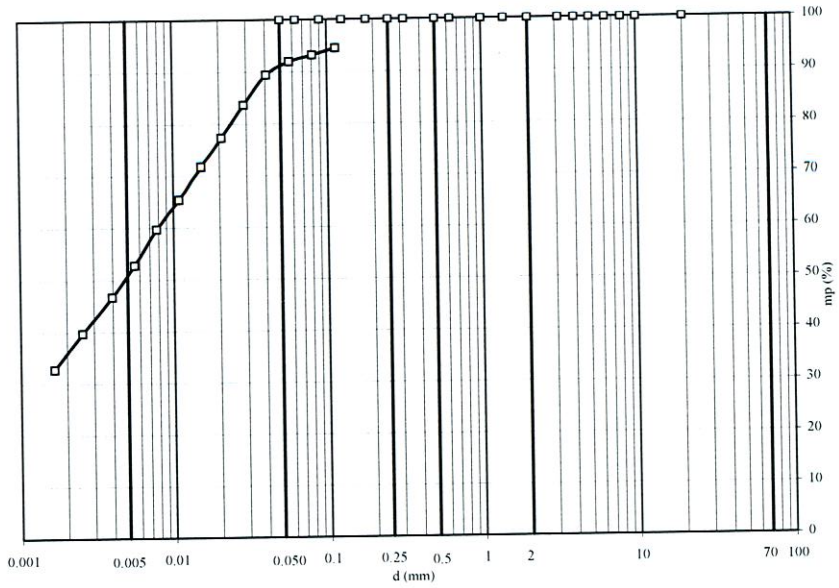
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.2	1.7	29.90	-0.04	29.86	10.299	9.56	17.721	18.421	0.000	0.011	0.114	94	19.5
30"	30	27.8	1.7	29.50	-0.04	29.46	10.295	9.64	17.721	18.501	0.000	0.008	0.081	93	19.5
1'	60	27.4	1.7	29.10	-0.04	29.06	10.291	9.72	17.721	18.581	0.000	0.006	0.057	92	19.5
2'	120	26.6	1.7	28.30	-0.04	28.26	10.283	9.88	17.721	18.741	0.000	0.004	0.041	89	19.5
4'	240	24.8	1.7	26.50	-0.04	26.46	10.265	10.24	17.721	19.101	0.000	0.003	0.029	84	19.5
8'	480	22.8	1.7	24.50	-0.04	24.46	10.245	10.64	17.721	19.501	0.000	0.002	0.021	77	19.5
15'	900	21.0	1.7	22.70	-0.04	22.66	10.227	11.00	17.721	19.861	0.000	0.002	0.015	72	19.5
30'	1800	19.0	1.7	20.70	-0.04	20.66	10.207	11.40	17.721	20.261	0.000	0.001	0.011	65	19.5
1h	3600	17.2	1.7	18.90	-0.04	18.86	10.189	11.76	17.721	20.621	0.000	0.001	0.008	60	19.5
2h	7200	15.0	1.7	16.70	-0.02	16.68	10.167	12.20	17.721	21.061	0.000	0.001	0.006	53	19.6
4h	14400	13.0	1.7	14.70	0.05	14.75	10.148	12.60	17.721	21.461	0.000	0.000	0.004	47	20.0
8h	36000	10.8	1.7	12.50	0.05	12.55	10.126	13.04	17.721	21.901	0.000	0.000	0.003	40	20.0
24h	86400	8.8	1.7	10.50	-0.13	10.37	10.104	13.44	17.721	22.301	0.000	0.000	0.002	33	19.0

DATE CERNERE			
m_d=	4.48	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	4.48	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
9	40	51
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cenușiu verzuie, cu oxizi de fier, slab nisipoasă, plastic vârtoasă la tare
Foraj	F4	
Proba	P4	
Adancime (m)	3.60-4.80	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	25.0	1.7	26.70	0.02	26.72	10.267	10.20	17.721	19.061	0.000	0.012	0.116	84	19.8
30"	30	24.2	1.7	25.90	0.02	25.92	10.259	10.36	17.721	19.221	0.000	0.008	0.082	82	19.8
1'	60	23.6	1.7	25.30	0.02	25.32	10.253	10.48	17.721	19.341	0.000	0.006	0.058	80	19.8
2'	120	22.4	1.7	24.10	0.02	24.12	10.241	10.72	17.721	19.581	0.000	0.004	0.041	76	19.8
4'	240	20.6	1.7	22.30	0.02	22.32	10.223	11.08	17.721	19.941	0.000	0.003	0.030	71	19.8
8'	480	18.2	1.7	19.90	0.02	19.92	10.199	11.56	17.721	20.421	0.000	0.002	0.021	63	19.8
15'	900	16.2	1.7	17.90	0.02	17.92	10.179	11.96	17.721	20.821	0.000	0.002	0.016	57	19.8
30'	1800	14.2	1.7	15.90	0.02	15.92	10.159	12.36	17.721	21.221	0.000	0.001	0.011	50	19.8
1h	3600	12.4	1.7	14.10	0.02	14.12	10.141	12.72	17.721	21.581	0.000	0.001	0.008	45	19.8
2h	7200	10.6	1.7	12.30	0.02	12.32	10.123	13.08	17.721	21.941	0.000	0.001	0.006	39	19.8
4h	14400	8.8	1.7	10.50	0.05	10.55	10.106	13.44	17.721	22.301	0.000	0.000	0.004	33	20.0
8h	36000	6.6	1.7	8.30	0.13	8.43	10.084	13.88	17.721	22.741	0.000	0.000	0.003	27	20.4
24h	86400	4.8	1.7	6.50	-0.04	6.46	10.065	14.24	17.721	23.101	0.000	0.000	0.002	20	19.5

DATE CERNERE			
m_d=	10.45	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

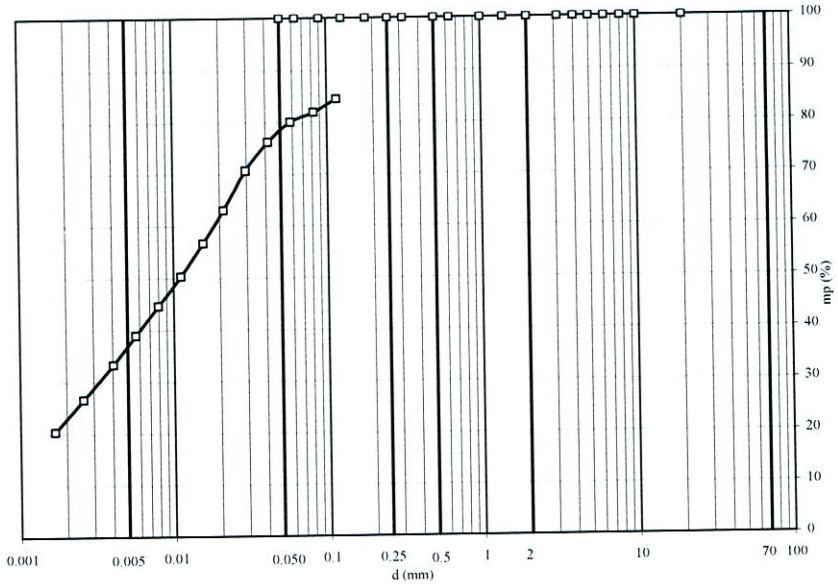
$m_{dinitial}$= 10.45 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
21	42	37
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	21	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	21	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu intercalații cenușii, cu oxizi de fier, lentile de mâl, cenușiu, curgător
Foraj	F4	
Proba	P5	
Adancime (m)	4.80-6.00	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

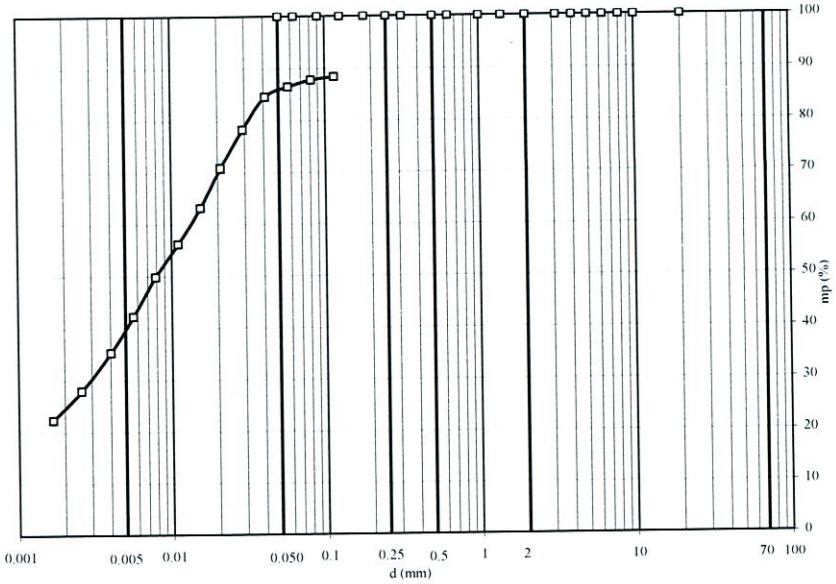
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.2	1.7	27.90	0.05	27.95	10.280	9.96	17.721	18.821	0.000	0.011	0.115	88	20.0
30"	30	26.0	1.7	27.70	0.05	27.75	10.278	10.00	17.721	18.861	0.000	0.008	0.081	88	20.0
1'	60	25.6	1.7	27.30	0.05	27.35	10.274	10.08	17.721	18.941	0.000	0.006	0.058	87	20.0
2'	120	25.0	1.7	26.70	0.05	26.75	10.268	10.20	17.721	19.061	0.000	0.004	0.041	85	20.0
4'	240	23.0	1.7	24.70	0.05	24.75	10.248	10.60	17.721	19.461	0.000	0.003	0.029	78	20.0
8'	480	20.6	1.7	22.30	0.05	22.35	10.224	11.08	17.721	19.941	0.000	0.002	0.021	71	20.0
15'	900	18.2	1.7	19.90	0.05	19.95	10.200	11.56	17.721	20.421	0.000	0.002	0.015	63	20.0
30'	1800	16.0	1.7	17.70	0.05	17.75	10.178	12.00	17.721	20.861	0.000	0.001	0.011	56	20.0
1h	3600	14.0	1.7	15.70	0.05	15.75	10.158	12.40	17.721	21.261	0.000	0.001	0.008	50	20.0
2h	7200	11.6	1.7	13.30	0.05	13.35	10.134	12.88	17.721	21.741	0.000	0.001	0.006	42	20.0
4h	14400	9.4	1.7	11.10	0.05	11.15	10.112	13.32	17.721	22.181	0.000	0.000	0.004	35	20.0
8h	36000	7.0	1.7	8.70	0.13	8.83	10.088	13.80	17.721	22.661	0.000	0.000	0.003	28	20.4
24h	86400	5.4	1.7	7.10	-0.04	7.06	10.071	14.12	17.721	22.981	0.000	0.000	0.002	22	19.5

DATE CERNERE			
m_d=	6.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	6.97	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
14	46	40
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	14	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	14	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu intercalații cenușii, slab nisipoasă, frământată
Foraj	F4	
Proba	P6	
Adancime (m)	6.00-7.20	



Operator: Teh. Visan Andrei
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Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

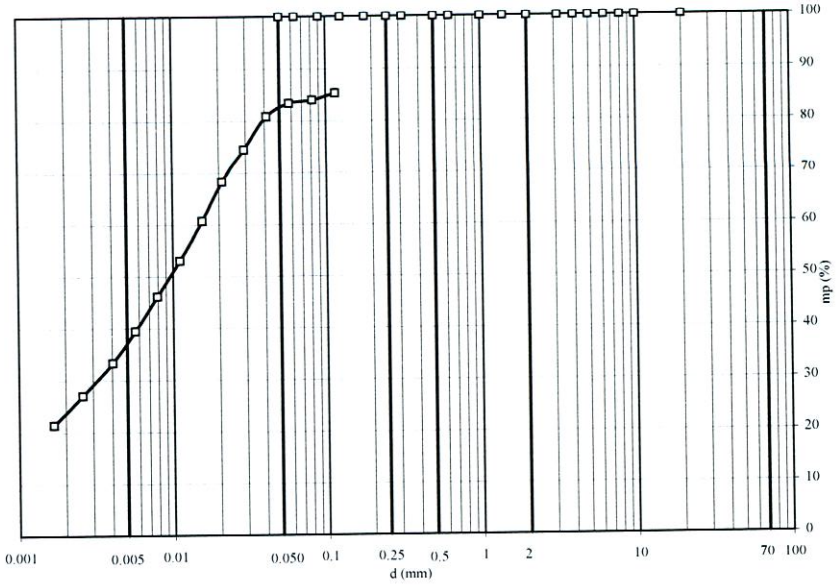
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	25.4	1.7	27.10	-0.13	26.97	10.270	10.12	17.721	18.981	0.000	0.012	0.115	85	19.0
30"	30	25.0	1.7	26.70	-0.13	26.57	10.266	10.20	17.721	19.061	0.000	0.008	0.082	84	19.0
1'	60	24.8	1.7	26.50	-0.13	26.37	10.264	10.24	17.721	19.101	0.000	0.006	0.058	83	19.0
2'	120	24.0	1.7	25.70	-0.13	25.57	10.256	10.40	17.721	19.261	0.000	0.004	0.041	81	19.0
4'	240	22.0	1.7	23.70	-0.13	23.57	10.236	10.80	17.721	19.661	0.000	0.003	0.029	75	19.0
8'	480	20.0	1.7	21.70	-0.13	21.57	10.216	11.20	17.721	20.061	0.000	0.002	0.021	68	19.0
15'	900	17.6	1.7	19.30	-0.13	19.17	10.192	11.68	17.721	20.541	0.000	0.002	0.015	61	19.0
30'	1800	15.2	1.7	16.90	-0.13	16.77	10.168	12.16	17.721	21.021	0.000	0.001	0.011	53	19.0
1h	3600	13.0	1.7	14.70	-0.13	14.57	10.146	12.60	17.721	21.461	0.000	0.001	0.008	46	19.0
2h	7200	10.8	1.7	12.50	-0.02	12.48	10.125	13.04	17.721	21.901	0.000	0.001	0.006	39	19.6
4h	14400	8.8	1.7	10.50	0.05	10.55	10.106	13.44	17.721	22.301	0.000	0.000	0.004	33	20.0
8h	36000	6.8	1.7	8.50	0.05	8.55	10.086	13.84	17.721	22.701	0.000	0.000	0.003	27	20.0
24h	86400	5.2	1.7	6.90	-0.13	6.77	10.068	14.16	17.721	23.021	0.000	0.000	0.002	21	19.0

DATE CERNERE			
m_d=	8.95	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	8.95	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
18	45	37
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	18	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	18	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu închisă cu lentule de nisip fin, cenuşiu micaceu, oxizi de fier, frământată
Foraj	F4	
Proba	P7	
Adancime (m)	7.20-8.40	



Operator: Teh. Visan Andrei
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Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.0	1.7	28.70	0.05	28.75	10.288	9.80	17.721	18.661	0.000	0.011	0.114	91	20.0
30"	30	26.8	1.7	28.50	0.05	28.55	10.286	9.84	17.721	18.701	0.000	0.008	0.081	90	20.0
1'	60	26.4	1.7	28.10	0.05	28.15	10.282	9.92	17.721	18.781	0.000	0.006	0.057	89	20.0
2'	120	25.4	1.7	27.10	0.05	27.15	10.272	10.12	17.721	18.981	0.000	0.004	0.041	86	20.0
4'	240	24.0	1.7	25.70	0.05	25.75	10.258	10.40	17.721	19.261	0.000	0.003	0.029	81	20.0
8'	480	22.4	1.7	24.10	0.05	24.15	10.242	10.72	17.721	19.581	0.000	0.002	0.021	76	20.0
15'	900	20.6	1.7	22.30	0.05	22.35	10.224	11.08	17.721	19.941	0.000	0.002	0.015	71	20.0
30'	1800	18.0	1.7	19.70	0.05	19.75	10.198	11.60	17.721	20.461	0.000	0.001	0.011	62	20.0
1h	3600	15.0	1.7	16.70	0.05	16.75	10.168	12.20	17.721	21.061	0.000	0.001	0.008	53	20.0
2h	7200	12.6	1.7	14.30	0.05	14.35	10.144	12.68	17.721	21.541	0.000	0.001	0.006	45	20.0
4h	14400	10.4	1.7	12.10	0.16	12.26	10.123	13.12	17.721	21.981	0.000	0.000	0.004	39	20.6
8h	36000	8.0	1.7	9.70	0.16	9.86	10.099	13.60	17.721	22.461	0.000	0.000	0.003	31	20.6
24h	86400	6.0	1.7	7.70	0.05	7.75	10.078	14.00	17.721	22.861	0.000	0.000	0.002	25	20.0

DATE CERNERE			
m_d=	5.96	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

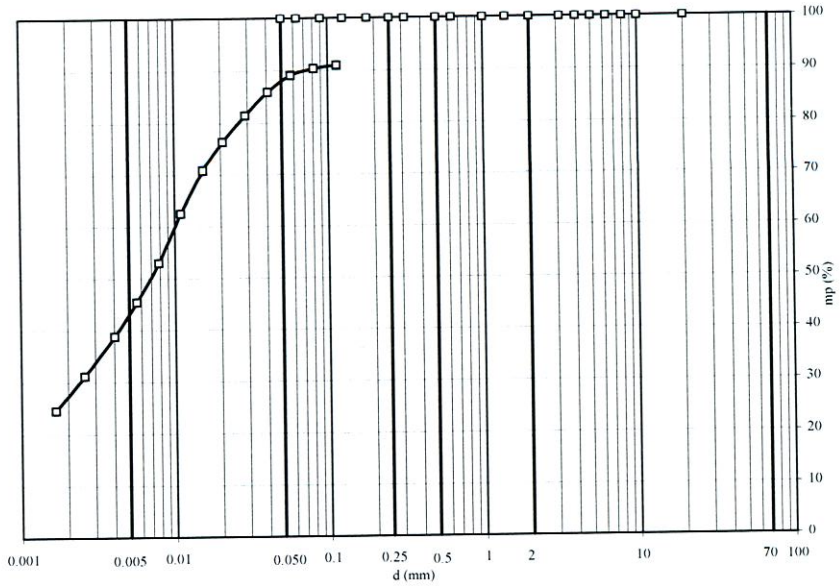
$m_{dinitial}$= 5.96 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
12	46	42
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	12	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	12	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu închisă cu lentule de nisip fin, cenuşiu micaceu, oxizi de fier, frământată
Foraj	F4	
Proba	P8	
Adancime (m)	8.40-9.60	



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Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.8	1.7	28.50	0.14	28.64	10.286	9.84	17.721	18.701	0.000	0.011	0.115	91	20.5
30"	30	26.4	1.7	28.10	0.14	28.24	10.282	9.92	17.721	18.781	0.000	0.008	0.081	89	20.5
1'	60	25.8	1.7	27.50	0.14	27.64	10.276	10.04	17.721	18.901	0.000	0.006	0.058	87	20.5
2'	120	24.4	1.7	26.10	0.14	26.24	10.262	10.32	17.721	19.181	0.000	0.004	0.041	83	20.5
4'	240	22.2	1.7	23.90	0.14	24.04	10.240	10.76	17.721	19.621	0.000	0.003	0.029	76	20.5
8'	480	19.8	1.7	21.50	0.14	21.64	10.216	11.24	17.721	20.101	0.000	0.002	0.021	68	20.5
15'	900	17.2	1.7	18.90	0.14	19.04	10.190	11.76	17.721	20.621	0.000	0.002	0.016	60	20.5
30'	1800	14.6	1.7	16.30	0.14	16.44	10.164	12.28	17.721	21.141	0.000	0.001	0.011	52	20.5
1h	3600	12.0	1.7	13.70	0.14	13.84	10.138	12.80	17.721	21.661	0.000	0.001	0.008	44	20.5
2h	7200	9.2	1.7	10.90	0.14	11.04	10.110	13.36	17.721	22.221	0.000	0.001	0.006	35	20.5
4h	14400	7.0	1.7	8.70	0.24	8.94	10.089	13.80	17.721	22.661	0.000	0.000	0.004	28	21.0
8h	36000	4.8	1.7	6.50	0.28	6.78	10.068	14.24	17.721	23.101	0.000	0.000	0.003	21	21.2
24h	86400	3.0	1.7	4.70	0.16	4.86	10.049	14.60	17.721	23.461	0.000	0.000	0.002	15	20.6

DATE CERNERE			
m_d=	6.93	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

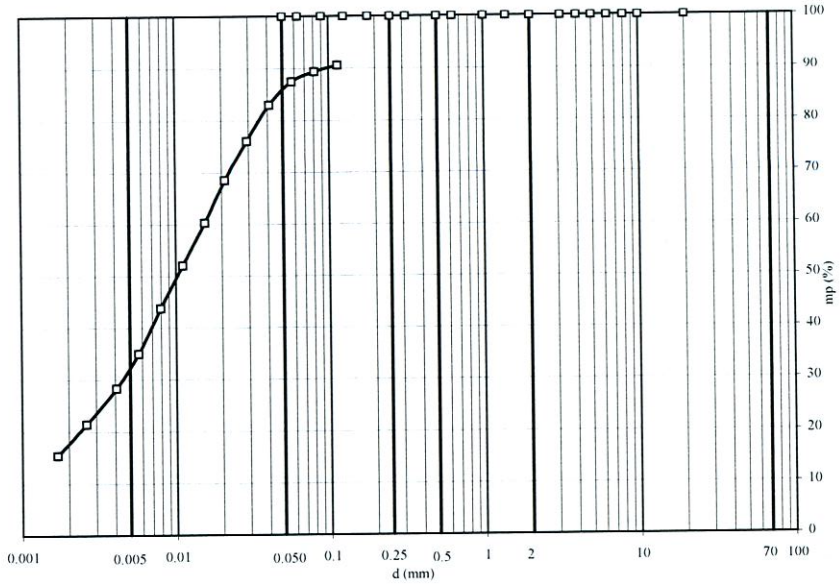
$m_{dinitial}$= 6.93 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
14	54	32
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	14	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	14	%

Identificare proba		
Amplasament	Brasov	Argilă, cenușie, mărnoasă, cu filme de nisip fin, cenușiu micaceu, frământată
Foraj	F4	
Proba	P9	
Adancime (m)	9.60-10.50	



Operator: Teh. Visan Andrei
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UTCB
Laboratorul Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.6	1.7	29.30	0.05	29.35	10.294	9.68	17.721	18.541	0.000	0.011	0.114	93	20.0
30"	30	27.4	1.7	29.10	0.05	29.15	10.292	9.72	17.721	18.581	0.000	0.008	0.081	92	20.0
1'	60	27.2	1.7	28.90	0.05	28.95	10.290	9.76	17.721	18.621	0.000	0.006	0.057	92	20.0
2'	120	26.6	1.7	28.30	0.05	28.35	10.284	9.88	17.721	18.741	0.000	0.004	0.041	90	20.0
4'	240	25.4	1.7	27.10	0.05	27.15	10.272	10.12	17.721	18.981	0.000	0.003	0.029	86	20.0
8'	480	23.6	1.7	25.30	0.05	25.35	10.254	10.48	17.721	19.341	0.000	0.002	0.021	80	20.0
15'	900	21.6	1.7	23.30	0.05	23.35	10.234	10.88	17.721	19.741	0.000	0.002	0.015	74	20.0
30'	1800	19.0	1.7	20.70	0.05	20.75	10.208	11.40	17.721	20.261	0.000	0.001	0.011	66	20.0
1h	3600	16.2	1.7	17.90	0.05	17.95	10.180	11.96	17.721	20.821	0.000	0.001	0.008	57	20.0
2h	7200	13.4	1.7	15.10	0.24	15.34	10.153	12.52	17.721	21.381	0.000	0.001	0.006	49	21.0
4h	14400	11.0	1.7	12.70	0.34	13.04	10.130	13.00	17.721	21.861	0.000	0.000	0.004	41	21.5
8h	36000	8.2	1.7	9.90	0.32	10.22	10.102	13.56	17.721	22.421	0.000	0.000	0.003	32	21.4
24h	86400	5.8	1.7	7.50	0.13	7.63	10.076	14.04	17.721	22.901	0.000	0.000	0.002	24	20.4

DATE CERNERE			
m_d=	4.47	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

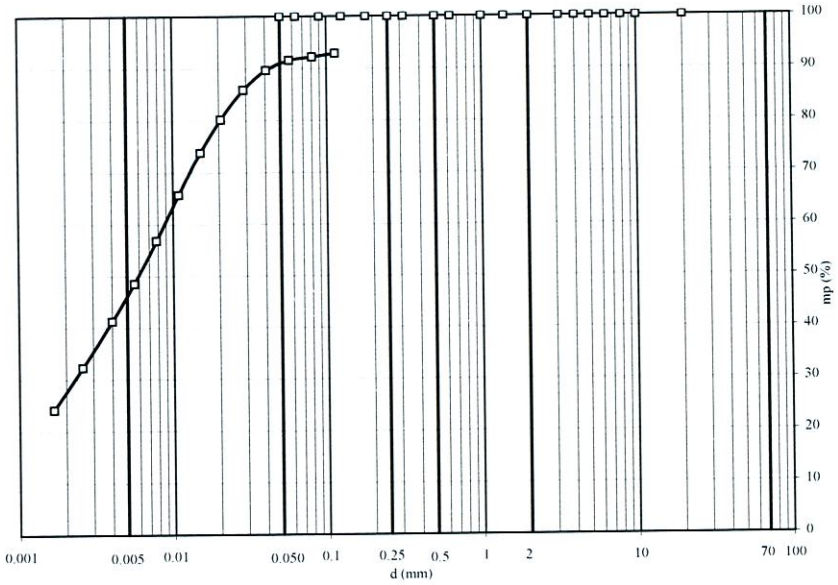
$m_{dinitial}$= 4.47 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
9	44	47
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F5	
Proba	P1	
Adancime (m)	0.00-1.20	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

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Autorizatie 2270/2011
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

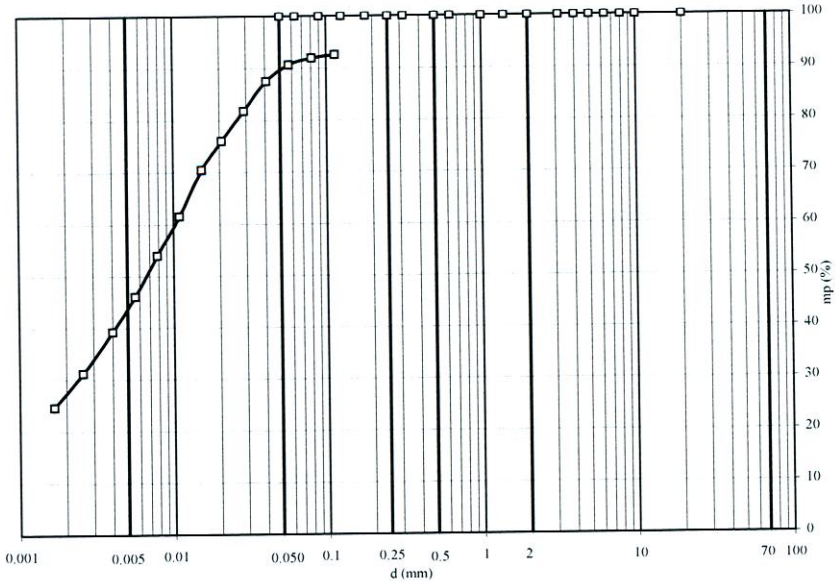
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.6	1.7	29.30	-0.04	29.26	10.293	9.68	17.721	18.541	0.000	0.011	0.114	93	19.5
30"	30	27.4	1.7	29.10	-0.04	29.06	10.291	9.72	17.721	18.581	0.000	0.008	0.081	92	19.5
1'	60	27.0	1.7	28.70	-0.04	28.66	10.287	9.80	17.721	18.661	0.000	0.006	0.057	91	19.5
2'	120	26.0	1.7	27.70	-0.04	27.66	10.277	10.00	17.721	18.861	0.000	0.004	0.041	87	19.5
4'	240	24.2	1.7	25.90	-0.04	25.86	10.259	10.36	17.721	19.221	0.000	0.003	0.029	82	19.5
8'	480	22.4	1.7	24.10	-0.04	24.06	10.241	10.72	17.721	19.581	0.000	0.002	0.021	76	19.5
15'	900	20.6	1.7	22.30	-0.04	22.26	10.223	11.08	17.721	19.941	0.000	0.002	0.015	70	19.5
30'	1800	17.8	1.7	19.50	-0.04	19.46	10.195	11.64	17.721	20.501	0.000	0.001	0.011	62	19.5
1h	3600	15.4	1.7	17.10	-0.04	17.06	10.171	12.12	17.721	20.981	0.000	0.001	0.008	54	19.5
2h	7200	12.8	1.7	14.50	0.05	14.55	10.146	12.64	17.721	21.501	0.000	0.001	0.006	46	20.0
4h	14400	10.6	1.7	12.30	0.09	12.39	10.124	13.08	17.721	21.941	0.000	0.000	0.004	39	20.2
8h	36000	8.0	1.7	9.70	0.16	9.86	10.099	13.60	17.721	22.461	0.000	0.000	0.003	31	20.6
24h	86400	6.2	1.7	7.90	-0.13	7.77	10.078	13.96	17.721	22.821	0.000	0.000	0.002	25	19.0

DATE CERNERE			
m_d=	4.98	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	4.98	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
10	47	43
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	10	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	10	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F5	
Proba	P2	
Adancime (m)	1.20-2.40	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

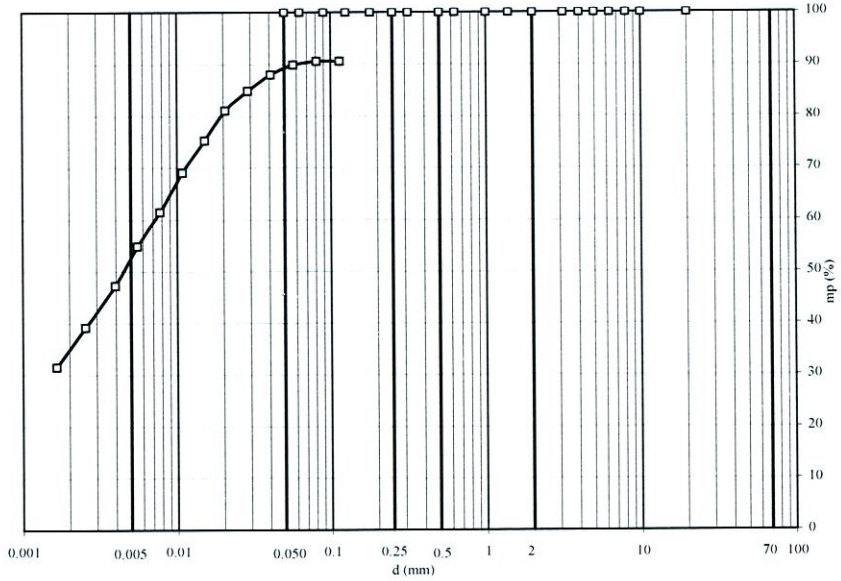
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.8	1.7	28.50	0.13	28.63	10.286	9.84	17.721	18.701	0.000	0.011	0.115	91	20.4
30"	30	26.8	1.7	28.50	0.13	28.63	10.286	9.84	17.721	18.701	0.000	0.008	0.081	91	20.4
1'	60	26.6	1.7	28.30	0.13	28.43	10.284	9.88	17.721	18.741	0.000	0.006	0.057	90	20.4
2'	120	26.0	1.7	27.70	0.13	27.83	10.278	10.00	17.721	18.861	0.000	0.004	0.041	88	20.4
4'	240	25.0	1.7	26.70	0.13	26.83	10.268	10.20	17.721	19.061	0.000	0.003	0.029	85	20.4
8'	480	23.8	1.7	25.50	0.13	25.63	10.256	10.44	17.721	19.301	0.000	0.002	0.021	81	20.4
15'	900	22.0	1.7	23.70	0.13	23.83	10.238	10.80	17.721	19.661	0.000	0.002	0.015	75	20.4
30'	1800	20.0	1.7	21.70	0.13	21.83	10.218	11.20	17.721	20.061	0.000	0.001	0.011	69	20.4
1h	3600	17.6	1.7	19.30	0.13	19.43	10.194	11.68	17.721	20.541	0.000	0.001	0.008	61	20.4
2h	7200	15.4	1.7	17.10	0.24	17.34	10.173	12.12	17.721	20.981	0.000	0.001	0.006	55	21.0
4h	14400	13.0	1.7	14.70	0.24	14.94	10.149	12.60	17.721	21.461	0.000	0.000	0.004	47	21.0
8h	36000	10.4	1.7	12.10	0.28	12.38	10.124	13.12	17.721	21.981	0.000	0.000	0.003	39	21.2
24h	86400	8.2	1.7	9.90	0.07	9.97	10.100	13.56	17.721	22.421	0.000	0.000	0.002	32	20.1

DATE CERNERE			
m_d=	5.44	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	5.44	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
11	37	52
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	11	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	11	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenușii, cu foarte mulți oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F5	
Proba	P3	
Adancime (m)	2.40-3.60	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

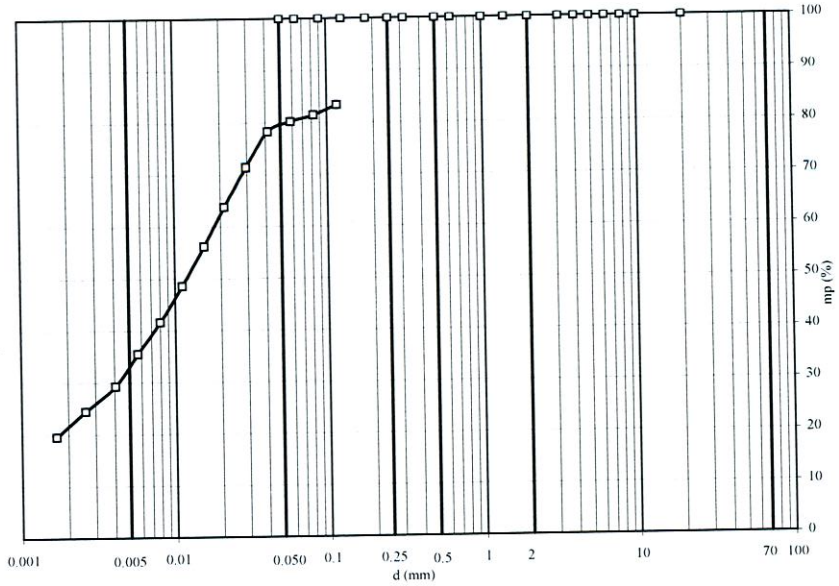
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	24.6	1.7	26.30	0.05	26.35	10.264	10.28	17.721	19.141	0.000	0.012	0.116	83	20.0
30"	30	24.0	1.7	25.70	0.05	25.75	10.258	10.40	17.721	19.261	0.000	0.008	0.082	81	20.0
1'	60	23.6	1.7	25.30	0.05	25.35	10.254	10.48	17.721	19.341	0.000	0.006	0.058	80	20.0
2'	120	23.0	1.7	24.70	0.05	24.75	10.248	10.60	17.721	19.461	0.000	0.004	0.041	78	20.0
4'	240	20.8	1.7	22.50	0.05	22.55	10.226	11.04	17.721	19.901	0.000	0.003	0.030	71	20.0
8'	480	18.4	1.7	20.10	0.05	20.15	10.202	11.52	17.721	20.381	0.000	0.002	0.021	64	20.0
15'	900	16.0	1.7	17.70	0.05	17.75	10.178	12.00	17.721	20.861	0.000	0.002	0.016	56	20.0
30'	1800	13.6	1.7	15.30	0.05	15.35	10.154	12.48	17.721	21.341	0.000	0.001	0.011	49	20.0
1h	3600	11.4	1.7	13.10	0.05	13.15	10.132	12.92	17.721	21.781	0.000	0.001	0.008	42	20.0
2h	7200	9.4	1.7	11.10	0.13	11.23	10.112	13.32	17.721	22.181	0.000	0.001	0.006	36	20.4
4h	14400	7.4	1.7	9.10	0.16	9.26	10.093	13.72	17.721	22.581	0.000	0.000	0.004	29	20.6
8h	36000	5.8	1.7	7.50	0.24	7.74	10.077	14.04	17.721	22.901	0.000	0.000	0.003	24	21.0
24h	86400	4.6	1.7	6.30	-0.13	6.17	10.062	14.28	17.721	23.141	0.000	0.000	0.002	20	19.0

DATE CERNERE			
m_d=	9.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	9.97	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
20	47	33
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	20	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	20	%

Identificare proba		
Amplasament	Brasov	Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F5	
Proba	P4	
Adancime (m)	3.60-4.80m	



Operator: Teh. Visan Andrei
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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.4	1.7	28.10	0.00	28.10	10.281	9.92	17.721	18.781	0.000	0.011	0.115	89	19.7
30"	30	26.2	1.7	27.90	0.00	27.90	10.279	9.96	17.721	18.821	0.000	0.008	0.081	88	19.7
1'	60	25.6	1.7	27.30	0.00	27.30	10.273	10.08	17.721	18.941	0.000	0.006	0.058	86	19.7
2'	120	24.0	1.7	25.70	0.00	25.70	10.257	10.40	17.721	19.261	0.000	0.004	0.041	81	19.7
4'	240	22.4	1.7	24.10	0.00	24.10	10.241	10.72	17.721	19.581	0.000	0.003	0.029	76	19.7
8'	480	20.0	1.7	21.70	0.00	21.70	10.217	11.20	17.721	20.061	0.000	0.002	0.021	69	19.7
15'	900	17.4	1.7	19.10	0.00	19.10	10.191	11.72	17.721	20.581	0.000	0.002	0.016	60	19.7
30'	1800	14.8	1.7	16.50	0.00	16.50	10.165	12.24	17.721	21.101	0.000	0.001	0.011	52	19.7
1h	3600	12.8	1.7	14.50	0.00	14.50	10.145	12.64	17.721	21.501	0.000	0.001	0.008	46	19.7
2h	7200	10.6	1.7	12.30	0.07	12.37	10.124	13.08	17.721	21.941	0.000	0.001	0.006	39	20.1
4h	14400	8.6	1.7	10.30	0.13	10.43	10.104	13.48	17.721	22.341	0.000	0.000	0.004	33	20.4
8h	36000	6.4	1.7	8.10	0.16	8.26	10.083	13.92	17.721	22.781	0.000	0.000	0.003	26	20.6
24h	86400	4.4	1.7	6.10	-0.13	5.97	10.060	14.32	17.721	23.181	0.000	0.000	0.002	19	19.0

DATE CERNERE			
m_d=	7.96	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

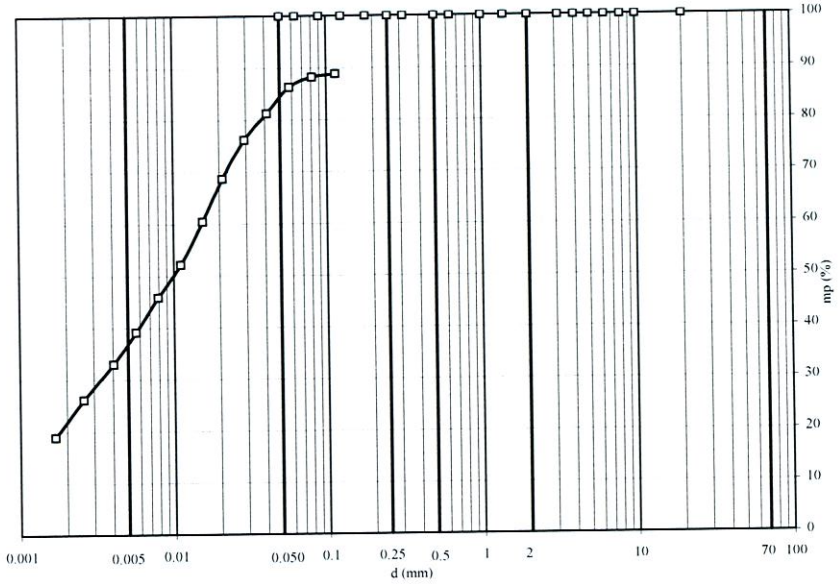
$m_{dinitial}$= 7.96 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
16	47	37
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	16	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	16	%

Identificare proba		
Amplasament	Brasov	Argilă, verzuie, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă
Foraj	F5	
Proba	P5	
Adancime (m)	4.80-6.00	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

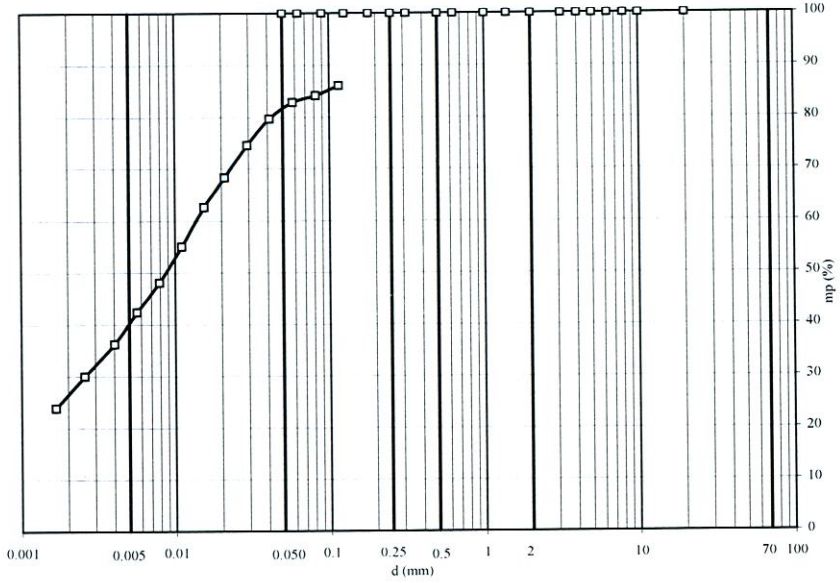
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	25.4	1.7	27.10	0.11	27.21	10.272	10.12	17.721	18.981	0.000	0.012	0.115	86	20.3
30"	30	24.8	1.7	26.50	0.11	26.61	10.266	10.24	17.721	19.101	0.000	0.008	0.082	84	20.3
1'	60	24.4	1.7	26.10	0.11	26.21	10.262	10.32	17.721	19.181	0.000	0.006	0.058	83	20.3
2'	120	23.4	1.7	25.10	0.11	25.21	10.252	10.52	17.721	19.381	0.000	0.004	0.041	80	20.3
4'	240	21.8	1.7	23.50	0.11	23.61	10.236	10.84	17.721	19.701	0.000	0.003	0.029	75	20.3
8'	480	19.8	1.7	21.50	0.11	21.61	10.216	11.24	17.721	20.101	0.000	0.002	0.021	68	20.3
15'	900	18.0	1.7	19.70	0.11	19.81	10.198	11.60	17.721	20.461	0.000	0.002	0.015	63	20.3
30'	1800	15.6	1.7	17.30	0.11	17.41	10.174	12.08	17.721	20.941	0.000	0.001	0.011	55	20.3
1h	3600	13.4	1.7	15.10	0.11	15.21	10.152	12.52	17.721	21.381	0.000	0.001	0.008	48	20.3
2h	7200	11.6	1.7	13.30	0.11	13.41	10.134	12.88	17.721	21.741	0.000	0.001	0.006	42	20.3
4h	14400	9.6	1.7	11.30	0.16	11.46	10.115	13.28	17.721	22.141	0.000	0.000	0.004	36	20.6
8h	36000	7.6	1.7	9.30	0.20	9.50	10.095	13.68	17.721	22.541	0.000	0.000	0.003	30	20.8
24h	86400	5.8	1.7	7.50	0.05	7.55	10.076	14.04	17.721	22.901	0.000	0.000	0.002	24	20.0

DATE CERNERE			
m_d=	8.95	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	8.95	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
18	42	40
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	18	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	18	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenușie, cu oxizi de fier, slab nisipoasă, frământată
Foraj	F5	
Proba	P6	
Adancime (m)	6.00-7.20	



Operator: Teh. Visan Andrei
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Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

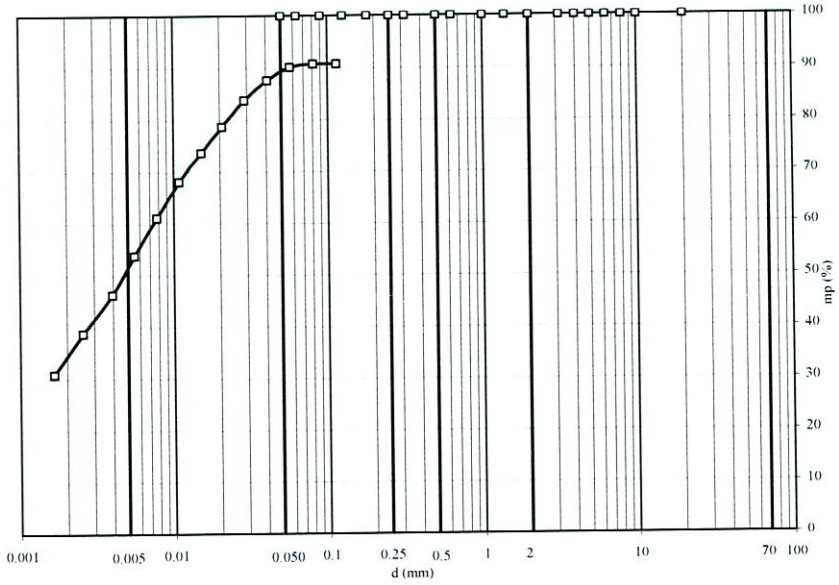
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.0	1.7	28.70	0,00	28.70	10.287	9.80	17.721	18.661	0.000	0.011	0.114	91	19.7
30"	30	27.0	1.7	28.70	0.00	28.70	10.287	9.80	17.721	18.661	0.000	0.008	0.081	91	19.7
1'	60	26.8	1.7	28.50	0.00	28.50	10.285	9.84	17.721	18.701	0.000	0.006	0.057	90	19.7
2'	120	26.0	1.7	27.70	0.00	27.70	10.277	10.00	17.721	18.861	0.000	0.004	0.041	88	19.7
4'	240	24.8	1.7	26.50	0.00	26.50	10.265	10.24	17.721	19.101	0.000	0.003	0.029	84	19.7
8'	480	23.2	1.7	24.90	0.00	24.90	10.249	10.56	17.721	19.421	0.000	0.002	0.021	79	19.7
15'	900	21.6	1.7	23.30	0.00	23.30	10.233	10.88	17.721	19.741	0.000	0.002	0.015	74	19.7
30'	1800	19.8	1.7	21.50	0.00	21.50	10.215	11.24	17.721	20.101	0.000	0.001	0.011	68	19.7
1h	3600	17.6	1.7	19.30	0.00	19.30	10.193	11.68	17.721	20.541	0.000	0.001	0.008	61	19.7
2h	7200	15.2	1.7	16.90	0.09	16.99	10.170	12.16	17.721	21.021	0.000	0.001	0.006	54	20.2
4h	14400	12.8	1.7	14.50	0.13	14.63	10.146	12.64	17.721	21.501	0.000	0.000	0.004	46	20.4
8h	36000	10.4	1.7	12.10	0.16	12.26	10.123	13.12	17.721	21.981	0.000	0.000	0.003	39	20.6
24h	86400	8.2	1.7	9.90	-0.13	9.77	10.098	13.56	17.721	22.421	0.000	0.000	0.002	31	19.0

DATE CERNERE			
m_d=	5.46	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	5.46	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
11	38	51
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	11	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	11	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenuşie, cu oxizi de fier, slab nisipoasă, frământată
Foraj	F5	
Proba	P7	
Adancime (m)	7.20-8.40	



Operator: Teh. Visan Andrei
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UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

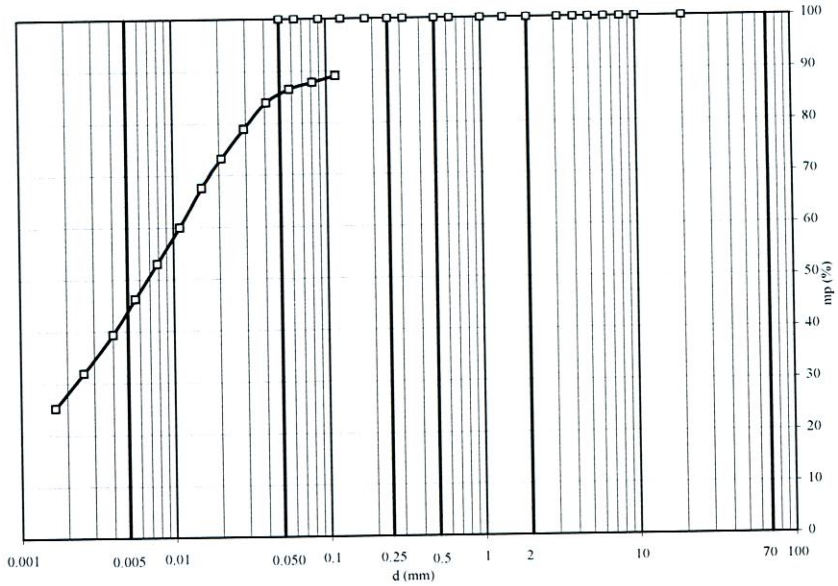
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.4	1.7	28.10	0.05	28.15	10.282	9.92	17.721	18.781	0.000	0.011	0.115	89	20.0
30"	30	26.0	1.7	27.70	0.05	27.75	10.278	10.00	17.721	18.861	0.000	0.008	0.081	88	20.0
1'	60	25.6	1.7	27.30	0.05	27.35	10.274	10.08	17.721	18.941	0.000	0.006	0.058	87	20.0
2'	120	24.8	1.7	26.50	0.05	26.55	10.266	10.24	17.721	19.101	0.000	0.004	0.041	84	20.0
4'	240	23.2	1.7	24.90	0.05	24.95	10.250	10.56	17.721	19.421	0.000	0.003	0.029	79	20.0
8'	480	21.4	1.7	23.10	0.05	23.15	10.232	10.92	17.721	19.781	0.000	0.002	0.021	73	20.0
15'	900	19.6	1.7	21.30	0.05	21.35	10.214	11.28	17.721	20.141	0.000	0.002	0.015	68	20.0
30'	1800	17.2	1.7	18.90	0.05	18.95	10.190	11.76	17.721	20.621	0.000	0.001	0.011	60	20.0
1h	3600	15.0	1.7	16.70	0.05	16.75	10.168	12.20	17.721	21.061	0.000	0.001	0.008	53	20.0
2h	7200	12.8	1.7	14.50	0.13	14.63	10.146	12.64	17.721	21.501	0.000	0.001	0.006	46	20.4
4h	14400	10.6	1.7	12.30	0.14	12.44	10.124	13.08	17.721	21.941	0.000	0.000	0.004	39	20.5
8h	36000	8.2	1.7	9.90	0.20	10.10	10.101	13.56	17.721	22.421	0.000	0.000	0.003	32	20.8
24h	86400	6.4	1.7	8.10	-0.13	7.97	10.080	13.92	17.721	22.781	0.000	0.000	0.002	25	19.0

DATE CERNERE			
m_d=	6.94	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	6.94	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
14	43	43
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	14	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	14	%

Identificare proba		
Amplasament	Brasov	Argilă mărnoasă, cenuşie, cu rare filme de nisip fin, cenuşiu micaceu, supraconsolidată
Foraj	F5	
Proba	P8	
Adancime (m)	8.4-9.6	



Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad 1
Autorizatie 2270/2011
Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.0	1.7	29.70	0.05	29.75	10.298	9.60	17.721	18.461	0.000	0.011	0.114	94	20.0
30"	30	27.6	1.7	29.30	0.05	29.35	10.294	9.68	17.721	18.541	0.000	0.008	0.081	93	20.0
1'	60	27.4	1.7	29.10	0.05	29.15	10.292	9.72	17.721	18.581	0.000	0.006	0.057	92	20.0
2'	120	26.6	1.7	28.30	0.05	28.35	10.284	9.88	17.721	18.741	0.000	0.004	0.041	90	20.0
4'	240	25.2	1.7	26.90	0.05	26.95	10.270	10.16	17.721	19.021	0.000	0.003	0.029	85	20.0
8'	480	23.8	1.7	25.50	0.05	25.55	10.256	10.44	17.721	19.301	0.000	0.002	0.021	81	20.0
15'	900	22.0	1.7	23.70	0.05	23.75	10.238	10.80	17.721	19.661	0.000	0.002	0.015	75	20.0
30'	1800	20.0	1.7	21.70	0.05	21.75	10.218	11.20	17.721	20.061	0.000	0.001	0.011	69	20.0
1h	3600	18.0	1.7	19.70	0.05	19.75	10.198	11.60	17.721	20.461	0.000	0.001	0.008	62	20.0
2h	7200	16.0	1.7	17.70	0.05	17.75	10.178	12.00	17.721	20.861	0.000	0.001	0.006	56	20.0
4h	14400	14.0	1.7	15.70	0.16	15.86	10.159	12.40	17.721	21.261	0.000	0.000	0.004	50	20.6
8h	36000	12.0	1.7	13.70	0.16	13.86	10.139	12.80	17.721	21.661	0.000	0.000	0.003	44	20.6
24h	86400	10.4	1.7	12.10	0.13	12.23	10.122	13.12	17.721	21.981	0.000	0.000	0.002	39	20.4

DATE CERNERE			
m_d=	4.44	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

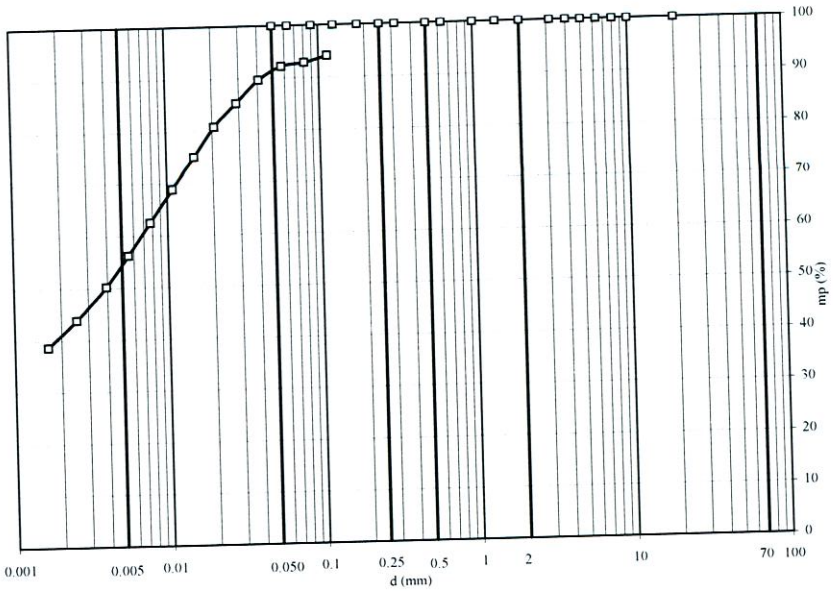
$m_{dinitial}$= 4.44 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
9	38	53
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu cenuşie, slab nisipoasă, cu oxizi de fier, tare
Foraj	F6	
Proba	P1	
Adancime (m)	0.00-1.20	



Operator: Teh. Visan Andrei
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Contract 149/2013

ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

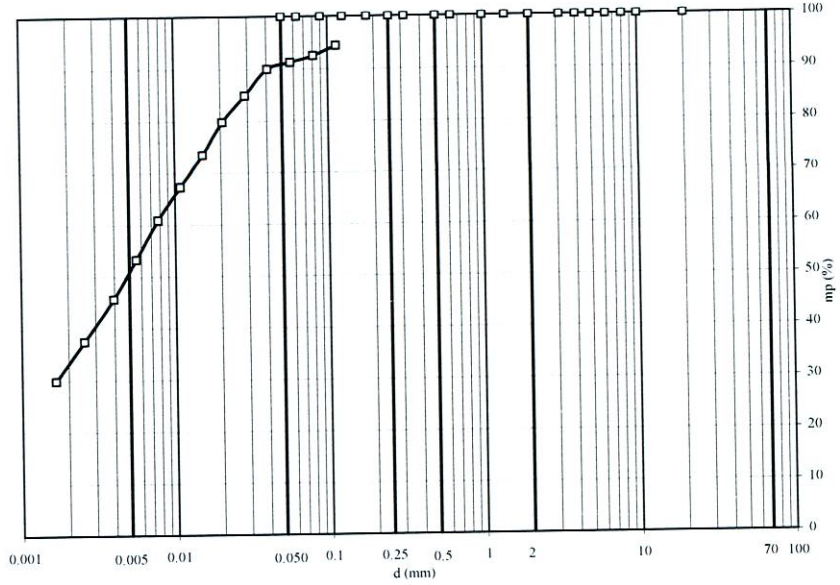
Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	28.0	1.7	29.70	0.14	29.84	10.298	9.60	17.721	18.461	0.000	0.011	0.114	94	20.5
30"	30	27.4	1.7	29.10	0.14	29.24	10.292	9.72	17.721	18.581	0.000	0.008	0.081	92	20.5
1'	60	27.0	1.7	28.70	0.14	28.84	10.288	9.80	17.721	18.661	0.000	0.006	0.057	91	20.5
2'	120	26.6	1.7	28.30	0.14	28.44	10.284	9.88	17.721	18.741	0.000	0.004	0.041	90	20.5
4'	240	25.0	1.7	26.70	0.14	26.84	10.268	10.20	17.721	19.061	0.000	0.003	0.029	85	20.5
8'	480	23.4	1.7	25.10	0.14	25.24	10.252	10.52	17.721	19.381	0.000	0.002	0.021	80	20.5
15'	900	21.4	1.7	23.10	0.14	23.24	10.232	10.92	17.721	19.781	0.000	0.002	0.015	74	20.5
30'	1800	19.4	1.7	21.10	0.14	21.24	10.212	11.32	17.721	20.181	0.000	0.001	0.011	67	20.5
1h	3600	17.4	1.7	19.10	0.14	19.24	10.192	11.72	17.721	20.581	0.000	0.001	0.008	61	20.5
2h	7200	15.0	1.7	16.70	0.14	16.84	10.168	12.20	17.721	21.061	0.000	0.001	0.006	53	20.5
4h	14400	12.6	1.7	14.30	0.14	14.44	10.144	12.68	17.721	21.541	0.000	0.000	0.004	46	20.5
8h	36000	10.0	1.7	11.70	0.16	11.86	10.119	13.20	17.721	22.061	0.000	0.000	0.003	38	20.6
24h	86400	7.8	1.7	9.50	-0.04	9.46	10.095	13.64	17.721	22.501	0.000	0.000	0.002	30	19.5

DATE CERNERE			
m_d=	4.45	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100
Σm_d	0.00	g	
$m_{dinitial}$=	4.45	g	
Diferenta=	100.00	%	

Fractiuni granulometrice		
N%	P%	A%
9	41	50
Clasificare proba STAS 1243-88		
argila		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu gălbuie, cu oxizi de fier, (rare resturi vegetale), intercalații de argilă, cenușie, plastic vârtoasă
Foraj	F6	
Proba	P2	
Adancime (m)	2.40-3.60	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	27.8	1.7	29.50	0.09	29.59	10.296	9.64	17.721	18.501	0.000	0.011	0.114	94	20.2
30"	30	27.6	1.7	29.30	0.09	29.39	10.294	9.68	17.721	18.541	0.000	0.008	0.081	93	20.2
1'	60	27.4	1.7	29.10	0.09	29.19	10.292	9.72	17.721	18.581	0.000	0.006	0.057	92	20.2
2'	120	26.4	1.7	28.10	0.09	28.19	10.282	9.92	17.721	18.781	0.000	0.004	0.041	89	20.2
4'	240	24.0	1.7	25.70	0.09	25.79	10.258	10.40	17.721	19.261	0.000	0.003	0.029	82	20.2
8'	480	21.8	1.7	23.50	0.09	23.59	10.236	10.84	17.721	19.701	0.000	0.002	0.021	75	20.2
15'	900	19.8	1.7	21.50	0.09	21.59	10.216	11.24	17.721	20.101	0.000	0.002	0.015	68	20.2
30'	1800	17.0	1.7	18.70	0.09	18.79	10.188	11.80	17.721	20.661	0.000	0.001	0.011	59	20.2
1h	3600	14.4	1.7	16.10	0.09	16.19	10.162	12.32	17.721	21.181	0.000	0.001	0.008	51	20.2
2h	7200	12.0	1.7	13.70	0.24	13.94	10.139	12.80	17.721	21.661	0.000	0.001	0.006	44	21.0
4h	14400	9.8	1.7	11.50	0.34	11.84	10.118	13.24	17.721	22.101	0.000	0.000	0.004	37	21.5
8h	36000	7.2	1.7	8.90	0.34	9.24	10.092	13.76	17.721	22.621	0.000	0.000	0.003	29	21.5
24h	86400	5.0	1.7	6.70	0.18	6.88	10.069	14.20	17.721	23.061	0.000	0.000	0.002	22	20.7

DATE CERNERE			
m_d=	4.46	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

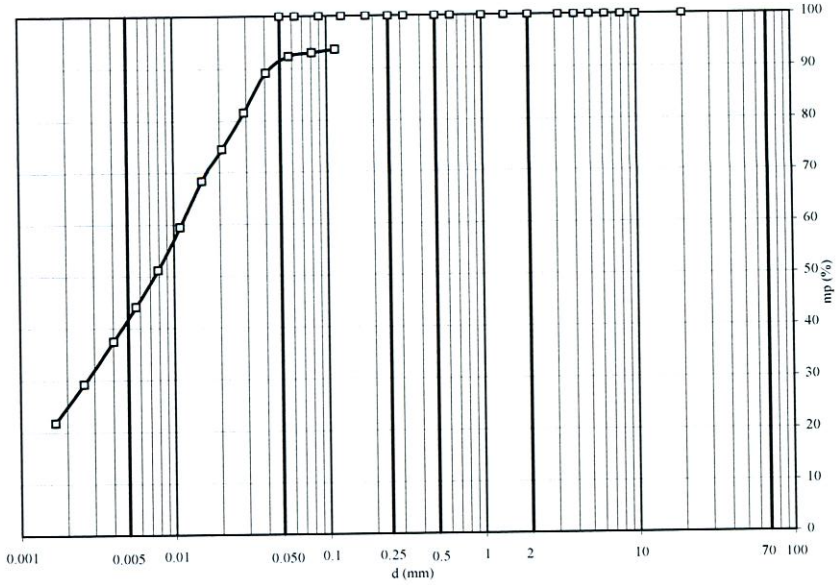
$m_{dinitial}$= 4.46 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
9	50	41
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	9	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	9	%

Identificare proba		
Amplasament	Brasov	Argilă, cafeniu gălbuie, cu oxizi de fier, (rare resturi vegetale?), intercalații de argilă, cenușie, plastic vârtoasă
Foraj	F6	
Proba	P3	
Adancime (m)	2.40-3.60	



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ANALIZA GRANULOMETRICA PRIN SEDIMENTARE SI CERNERE

Masa materialului	50	g
Densitatea scheletului	2.72	g/cm^3
Areometru nr.	1	
Lungime tija areometru	16.5	cm
1 diviziune	1	mm
Distanta de la ultima citire la bulb	1.3	cm
Volum bulb	104	cm^3
Sectiunea cilindrului	28.27	cm^2
Inaltime bulb	21.4	cm

Timp	Timp (s)	Citire redusa	Corectie menisc	Citire R_{cor}	Corectie de temperatura	Citire $R_{cortemp}$	γ (kN/m^3)	H (cm) (cm)	h-Vs (cm)	Hr (cm)	d^2 (cm^2)	d (cm)	d (mm)	m_p (%)	T (°C)
15"	15	26.6	1.7	28.30	0.09	28.39	10.284	9.88	17.721	18.741	0.000	0.011	0.115	90	20.2
30"	30	26.2	1.7	27.90	0.09	27.99	10.280	9.96	17.721	18.821	0.000	0.008	0.081	89	20.2
1'	60	25.8	1.7	27.50	0.09	27.59	10.276	10.04	17.721	18.901	0.000	0.006	0.058	87	20.2
2'	120	24.6	1.7	26.30	0.09	26.39	10.264	10.28	17.721	19.141	0.000	0.004	0.041	83	20.2
4'	240	23.0	1.7	24.70	0.09	24.79	10.248	10.60	17.721	19.461	0.000	0.003	0.029	78	20.2
8'	480	21.0	1.7	22.70	0.09	22.79	10.228	11.00	17.721	19.861	0.000	0.002	0.021	72	20.2
15'	900	19.0	1.7	20.70	0.09	20.79	10.208	11.40	17.721	20.261	0.000	0.002	0.015	66	20.2
30'	1800	15.8	1.7	17.50	0.09	17.59	10.176	12.04	17.721	20.901	0.000	0.001	0.011	56	20.2
1h	3600	13.2	1.7	14.90	0.09	14.99	10.150	12.56	17.721	21.421	0.000	0.001	0.008	47	20.2
2h	7200	10.2	1.7	11.90	0.09	11.99	10.120	13.16	17.721	22.021	0.000	0.001	0.006	38	20.2
4h	14400	7.8	1.7	9.50	0.16	9.66	10.097	13.64	17.721	22.501	0.000	0.000	0.004	31	20.6
8h	36000	5.6	1.7	7.30	0.20	7.50	10.075	14.08	17.721	22.941	0.000	0.000	0.003	24	20.8
24h	86400	3.4	1.7	5.10	0.13	5.23	10.052	14.52	17.721	23.381	0.000	0.000	0.002	17	20.4

DATE CERNERE			
m_d=	6.97	g	Nisip fin
d	m	% din m_d	m_p
(mm)	(g)	(%)	(%)
20.000	0.00	0	100
10.000	0.00	0	100
8.000	0.00	0	100
6.300	0.00	0	100
5.000	0.00	0	100
4.000	0.00	0	100
3.150	0.00	0	100
2.000	0.00	0	100
1.400	0.00	0	100
1.000	0.00	0	100
0.630	0.00	0	100
0.500	0.00	0	100
0.315	0.00	0	100
0.250	0.00	0	100
0.180	0.00	0	100
0.125	0.00	0	100
0.090	0.00	0	100
0.063	0.00	0	100
0.050	0.00	0	100

Σm_d 0.00 g

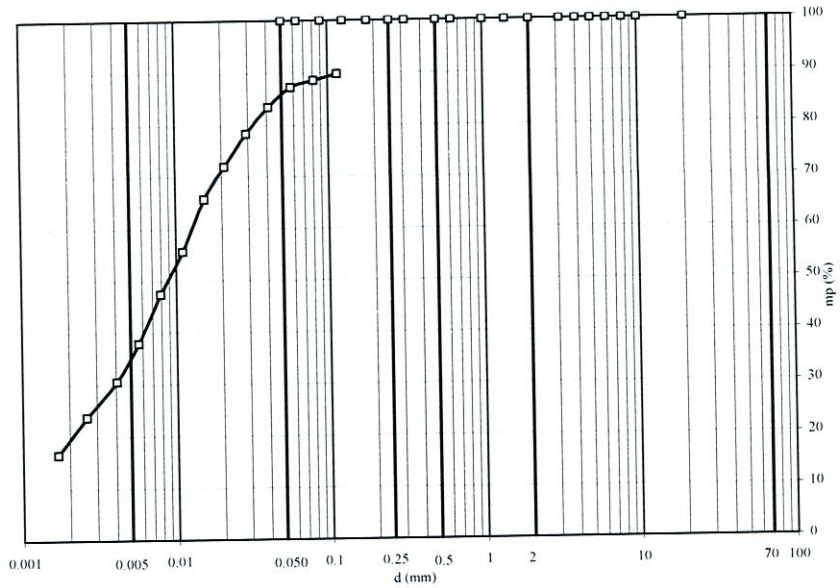
$m_{dinitial}$= 6.97 g

Diferenta= 100.00 %

Fractiuni granulometrice		
N%	P%	A%
14	52	34
Clasificare proba STAS 1243-88		
argila prafoasa		

Fractiuni granulometrice necoeziv		
Nisip fin	14	%
Nisip mijlociu	0	%
Nisip mare	0	%
Pietris	0	%
Bolovanis	0	%
Suma=	14	%

Identificare proba		
Amplasament	Brasov	Argilă, cenuşiu verzuie, cu oxizi de fier, tare
Foraj	F6	
Proba	P4	
Adancime (m)	3.60-4.80	



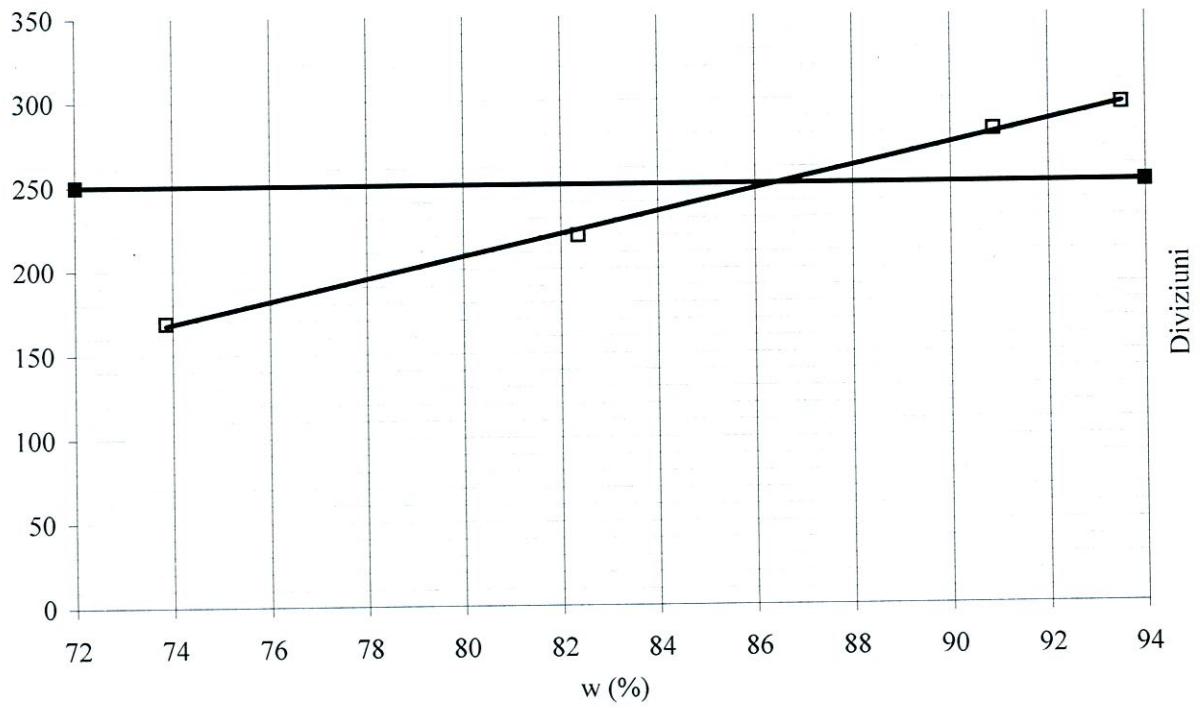
Operator: Teh. Visan Andrei
Verificat: Ing. Cristina Tomsa
Aprobat: Dr. ing. Andrei Constantin Olteanu

UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

Amplasament: DN1 km204+434÷205+546

Beneficiar:
C.N.A.D.N.R. S.A. - D.R.D.P. Braşov

Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F1	
Proba	P2	
Adancime (m)	1.20-2.40	
$\%<2_{\mu m}=$	30	%
$w=$	29	%
$w_p=$	22	%
$w_L=$	87	%
$I_p=$	65	%
$I_c=$	0.89	-
$I_A=$	2.17	-
Descriere proba		
Argilă, cenuşiu cafenie, cu foarte r cu plasticitate foarte mare plastic vartoasa foarte activ		

	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	169	220	281	296		
Proba umeda (g)	19.02	20.15	21.34	21.79	4.38	4.32
Proba uscata (g)	10.94	11.05	11.18	11.26	3.59	3.55
Umiditatea (%)	73.86	82.35	90.88	93.52	22.01	21.69
Umiditatea Medie (%)					21.85	

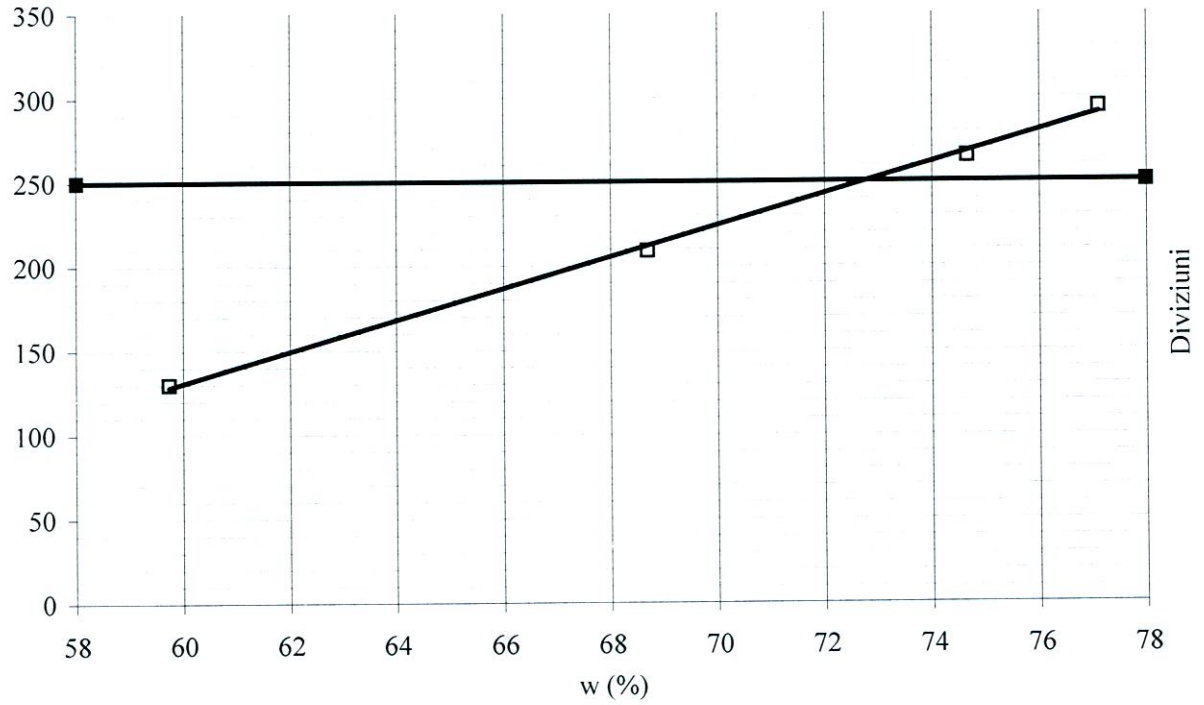
Operator: Teh. Visan Andrei
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UTCB
Laborator Geotehnic Grad I
Autorizatie 2270/2011
Contract 149/2013

Amplasament: DN1 km204+434÷205+546

Beneficiar:
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F1	
Proba	P3	
Adancime (m)	2.40-3.60	
$\%<2_{\mu m}=$	34	%
$w=$	23	%
$w_p=$	21	%
$w_L=$	73	%
$I_p=$	52	%
$I_c=$	0.96	-
$I_A=$	1.54	-
Descriere proba		
Argilă, cenuşiu cafenie, cu foarte cu plasticitate foarte mare plastic vartoasa foarte activ		

	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	130	209	265	294		
Proba umeda (g)	18.29	21.39	20.12	24.37	4.35	4.53
Proba uscata (g)	11.45	12.68	11.52	13.76	3.60	3.76
Umiditatea (%)	59.74	68.69	74.65	77.11	20.83	20.48
Umiditatea Medie (%)					20.66	

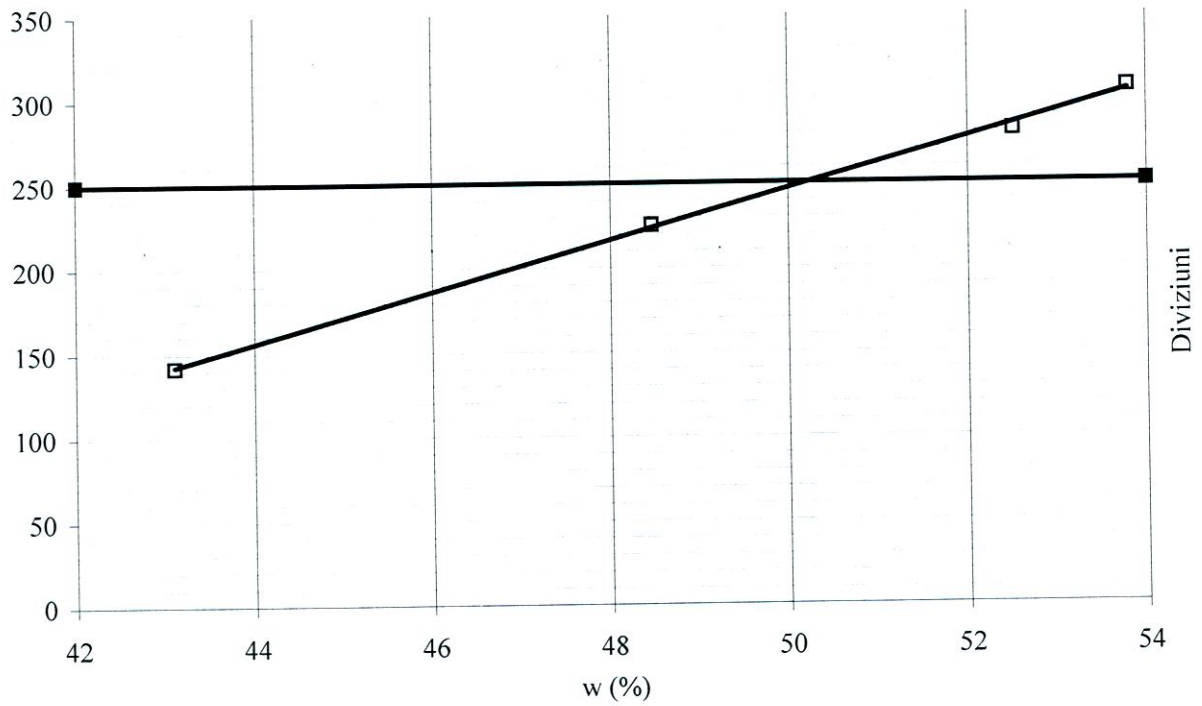
Operator: Teh. Visan Andrei
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F1	
Proba	P6	
Adancime (m)	6.00-7.20	
$\%<2_{\mu m}=$	17	%
$w=$	13	%
$w_p=$	21	%
$w_L=$	50	%
$I_p=$	29	%
$I_c=$	1.26	-
$I_A=$	1.73	-
Descriere proba		
Argilă mărnoasă, cenuşie, slab le cu plasticitate mare tare foarte activ		

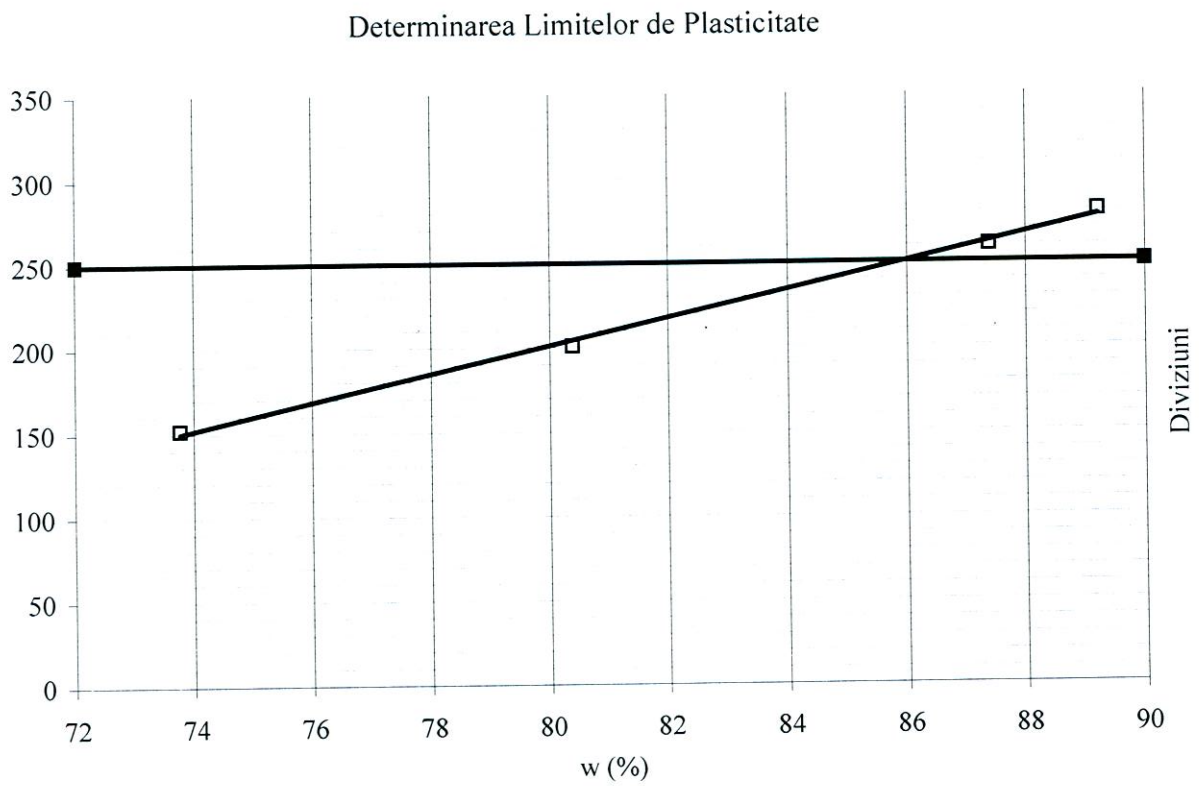
	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	142	225	281	306		
Proba umeda (g)	18.99	23.22	19.14	25.56	4.35	4.53
Proba uscata (g)	13.27	15.64	12.55	16.62	3.60	3.76
Umiditatea (%)	43.10	48.47	52.51	53.79	20.83	20.48
Umiditatea Medie (%)					20.66	

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Amplasament: DN1 km204+434÷205+546

Beneficiar:
C.N.A.D.N.R. S.A. - D.R.D.P. Braşov



Amplasament	Brasov	
Foraj	F2	
Proba	P2	
Adancime (m)	1.20-2.40	
%<2$_{\mu m}$=	33	%
w=	26	%
w_p=	21	%
w_L=	86	%
I_p=	65	%
I_c=	0.92	-
I_A=	1.98	-
Descriere proba		
Argilă, cafeniu cenușie, cu oxizi cu plasticitate foarte mare plastic vartoasa foarte activ		

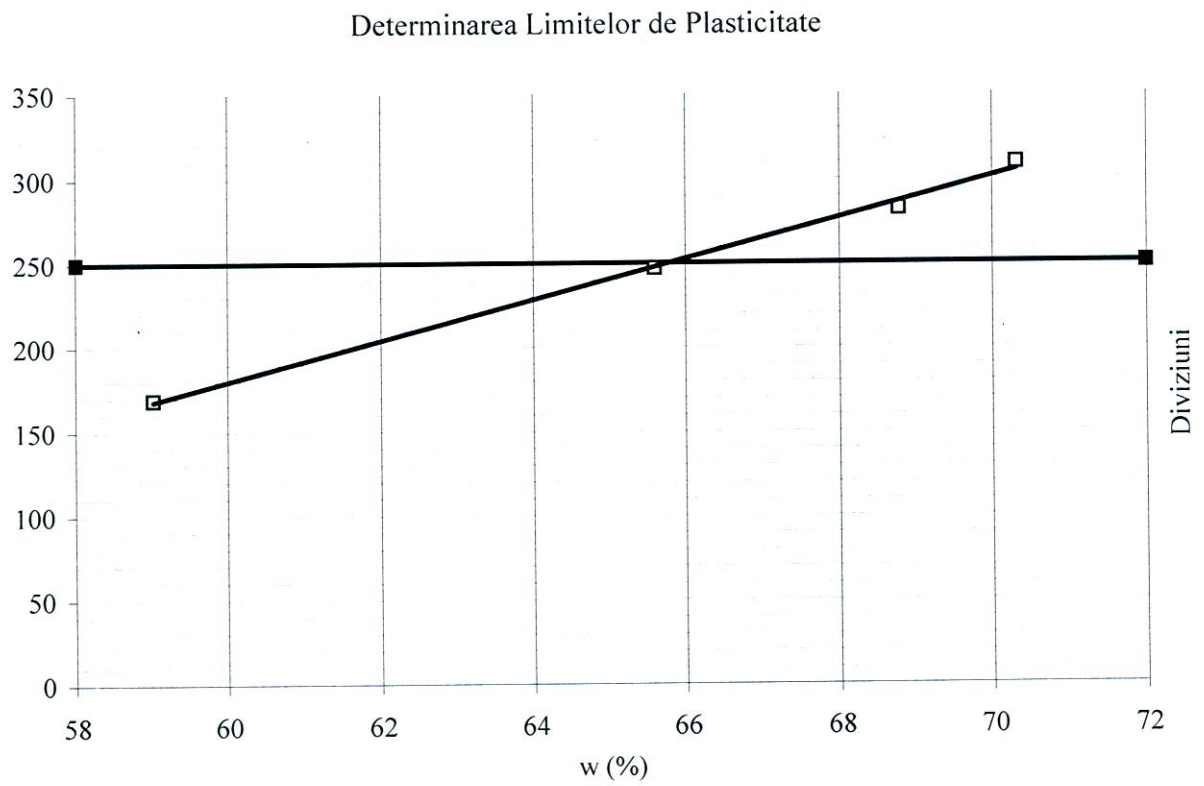
	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	152	201	260	280		
Proba umeda (g)	20.47	23.36	22.43	25.26	4.35	4.53
Proba uscata (g)	11.78	12.95	11.97	13.35	3.60	3.76
Umiditatea (%)	73.77	80.39	87.39	89.21	20.83	20.48
Umiditatea Medie (%)					20.66	

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Amplasament: DN1 km204+434÷205+546

Beneficiar:
C.N.A.D.N.R. S.A. - D.R.D.P. Braşov



Amplasament	Brasov	
Foraj	F2	
Proba	P4	
Adancime (m)	3.60-4.80	
$\%<2_{\mu m}=$	44	%
$w=$	27	%
$w_p=$	20	%
$w_L=$	66	%
$I_p=$	46	%
$I_c=$	0.85	-
$I_A=$	1.05	-
Descriere proba		
Argilă, cafeniu cenuşie, cu oxizi cu plasticitate foarte mare plastic vartoasa cu activitate medie		

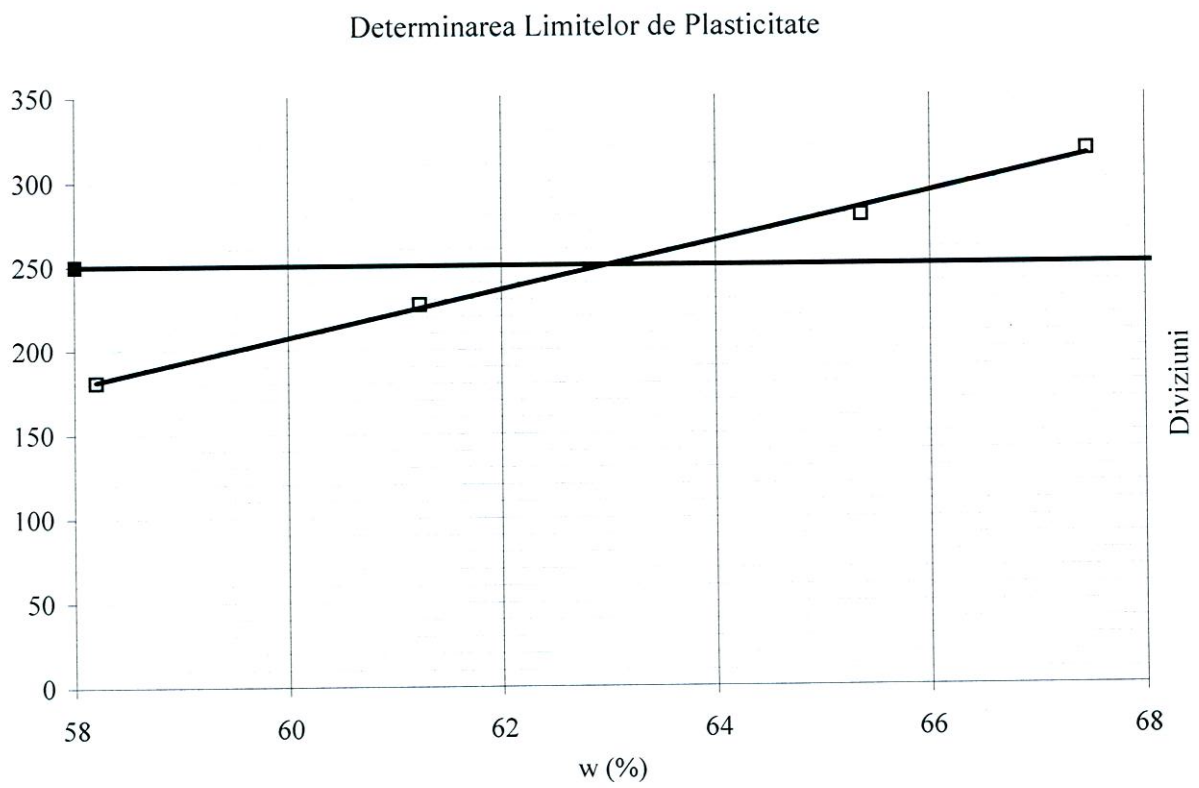
	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	169	247	282	309		
Proba umeda (g)	21.42	28.93	21.08	21.17	4.51	4.27
Proba uscata (g)	13.47	17.47	12.49	12.43	3.76	3.56
Umiditatea (%)	59.02	65.60	68.78	70.31	19.95	19.94
Umiditatea Medie (%)					19.95	

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Contract 149/2013

Amplasament: DN1 km204+434÷205+546

Beneficiar:
C.N.A.D.N.R. S.A. - D.R.D.P. Braşov



Amplasament	Brasov	
Foraj	F2	
Proba	P7	
Adancime (m)	7.20-8.40	
%<$2_{\mu m}$=	31	%
w=	23	%
w_p=	23	%
w_L=	63	%
I_p=	40	%
I_c=	1.01	-
I_A=	1.28	-
Descriere proba		
Argilă, cenușie, cu oxizi de fier, cu plasticitate foarte mare tare foarte activ		

	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	181	227	279	317		
Proba umeda (g)	17.26	21.46	18.95	25.37	4.20	4.91
Proba uscata (g)	10.91	13.31	11.46	15.15	3.39	4.00
Umiditatea (%)	58.20	61.23	65.36	67.46	23.89	22.75
Umiditatea Medie (%)					23.32	

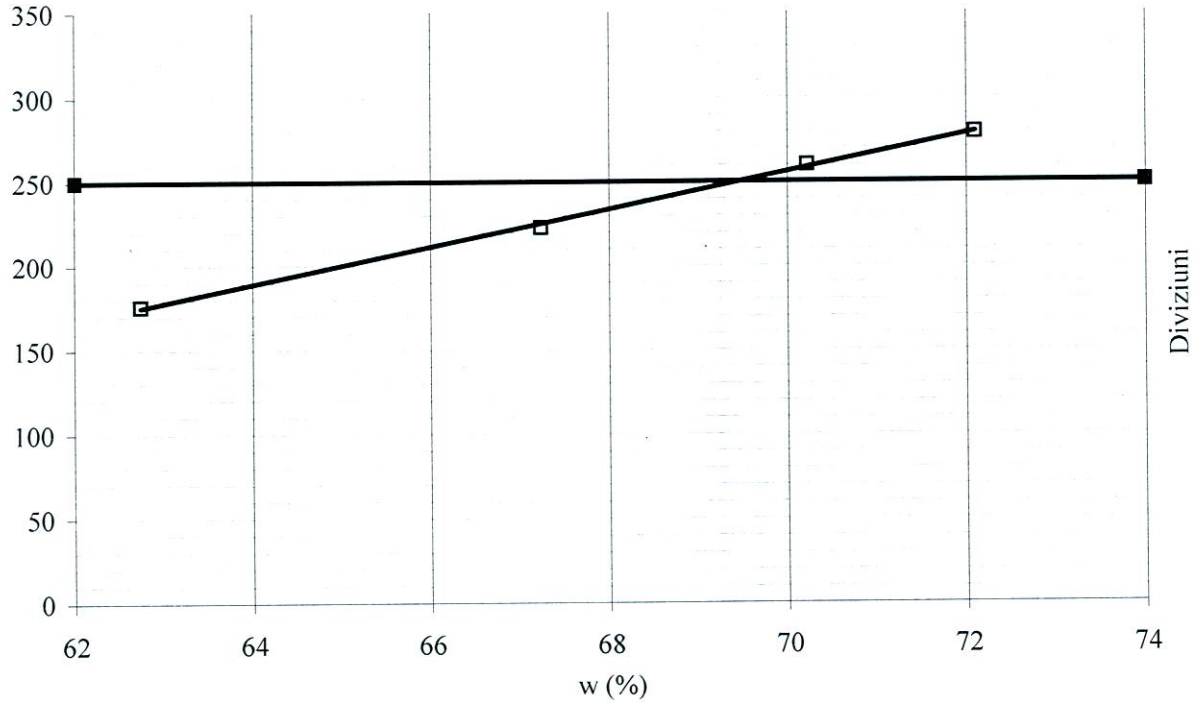
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Aprobat: Dr. ing. Andrei Constantin Olteanu

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Amplasament: DN1 km204+434÷205+546

Beneficiar:
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F3	
Proba	P2	
Adancime (m)	1.20-2.40	
$\%<2_{\mu m}=$	14	%
$w=$	27	%
$w_p=$	26	%
$w_L=$	70	%
$I_p=$	44	%
$I_c=$	0.98	-
$I_A=$	3.15	-
Descriere proba		
Argilă, cafenie cu filme cenușii, cu plasticitate foarte mare plastic vartoasa foarte activ		

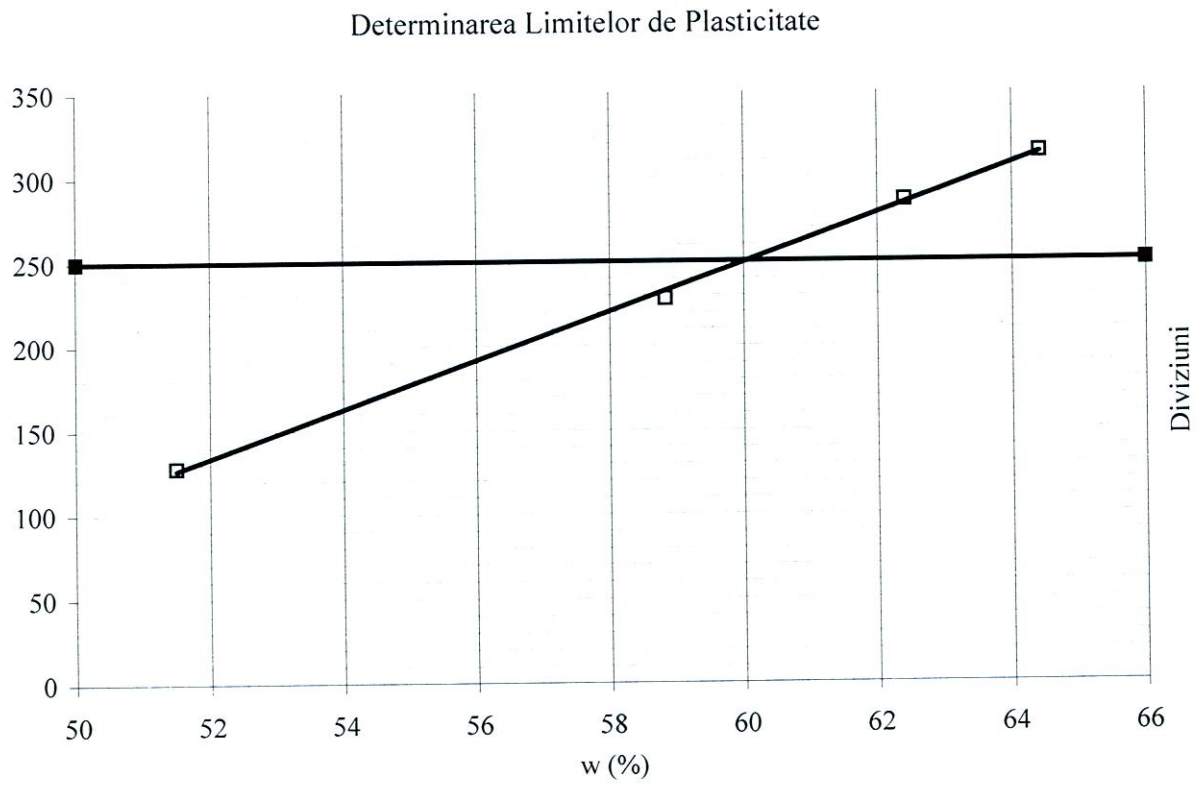
	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	176	223	260	279		
Proba umeda (g)	19.09	24.50	21.38	25.78	4.08	4.33
Proba uscata (g)	11.73	14.65	12.56	14.98	3.23	3.45
Umiditatea (%)	62.75	67.24	70.22	72.10	26.32	25.51
Umiditatea Medie (%)					25.91	

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Amplasament	Brasov	
Foraj	F3	
Proba	P4	
Adancime (m)	3.60-4.80	
$\%<2_{\mu m}=$	19	%
$w=$	24	%
$w_p=$	22	%
$w_L=$	60	%
$I_p=$	38	%
$I_c=$	0.94	-
$I_A=$	2.01	-
Descriere proba		
Argilă, cafenie cu filme cenușii, cu plasticitate foarte mare plastic vartoasa foarte activ		

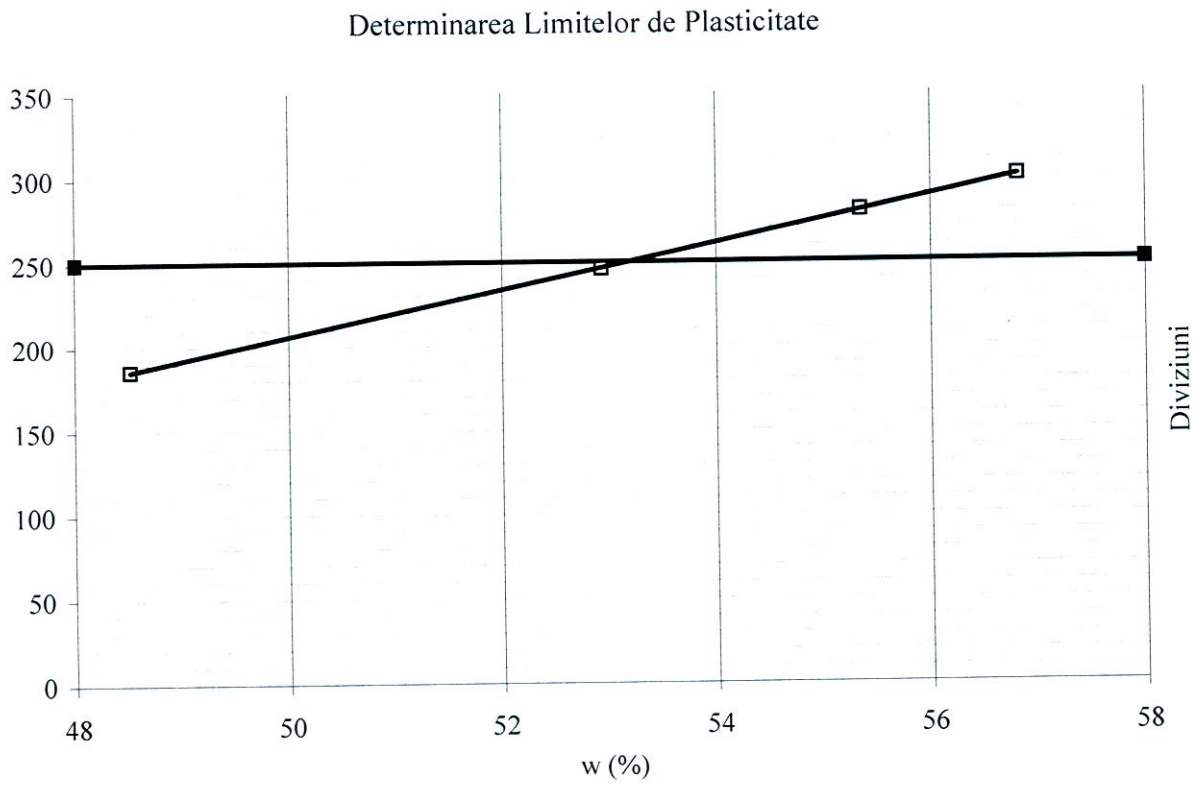
	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	128	228	286	314		
Proba umeda (g)	17.65	20.76	22.12	24.40	4.42	4.17
Proba uscata (g)	11.65	13.07	13.62	14.84	3.61	3.44
Umiditatea (%)	51.50	58.84	62.41	64.42	22.44	21.22
Umiditatea Medie (%)					21.83	

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Amplasament	Brasov	
Foraj	F3	
Proba	P7	
Adancime (m)	7.20-8.40	
$\%<2_{\mu m}=$	35	%
$w=$	22	%
$w_p=$	20	%
$w_L=$	53	%
$I_p=$	33	%
$I_c=$	0.93	-
$I_A=$	0.95	-
Descriere proba		
Argilă mărnoasă, cenușie, cu oxi cu plasticitate mare plastic vartoasa cu activitate medie		

	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	186	246	280	300		
Proba umeda (g)	18.58	19.85	21.64	26.25	4.50	4.53
Proba uscata (g)	12.51	12.98	13.93	16.74	3.75	3.79
Umiditatea (%)	48.52	52.93	55.35	56.81	20.00	19.53
Umiditatea Medie (%)					19.76	

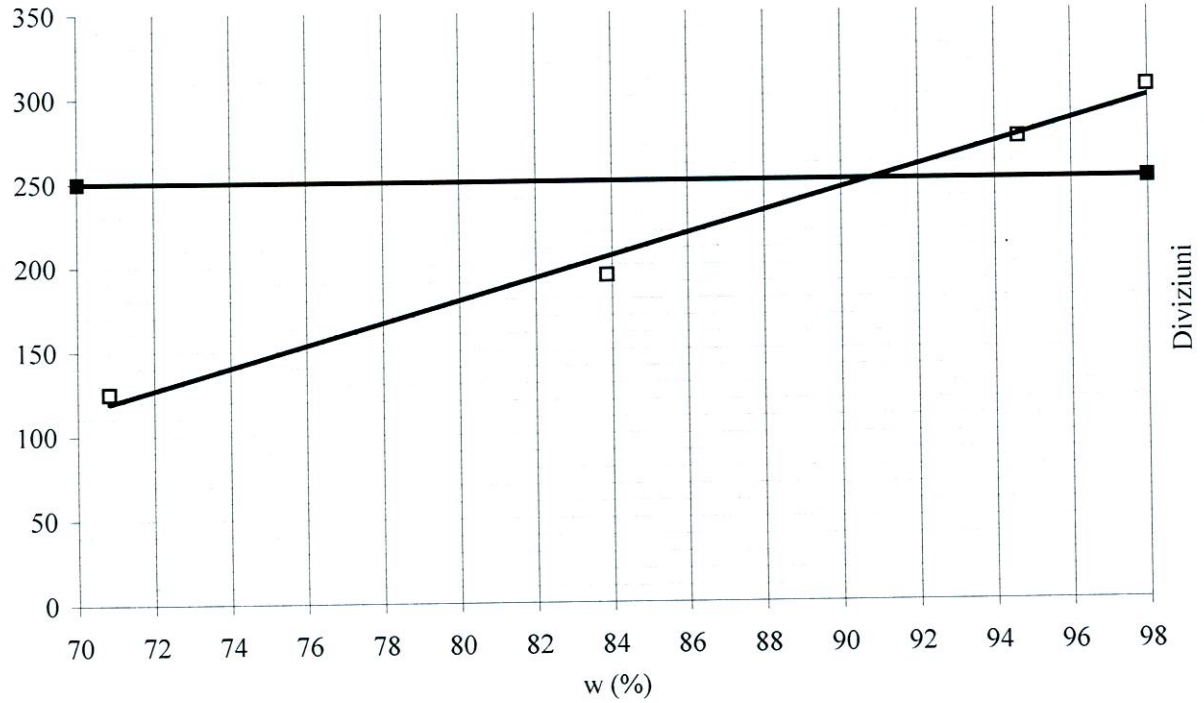
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F4	
Proba	P1	
Adancime (m)	0.00-1.20	
$\%<2_{\mu m}=$	46	%
$w=$	31	%
$w_p=$	19	%
$w_L=$	91	%
$I_p=$	72	%
$I_c=$	0.83	-
$I_A=$	1.56	-
Descriere proba		
Argilă, cafeniu cenușie, cu oxizi cu plasticitate foarte mare plastic vartoasa foarte activ		

	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	125	194	274	304		
Proba umeda (g)	17.39	24.16	23.86	18.69	4.18	4.44
Proba uscata (g)	10.18	13.14	12.26	9.44	3.50	3.74
Umiditatea (%)	70.83	83.87	94.62	97.99	19.43	18.72
Umiditatea Medie (%)					19.07	

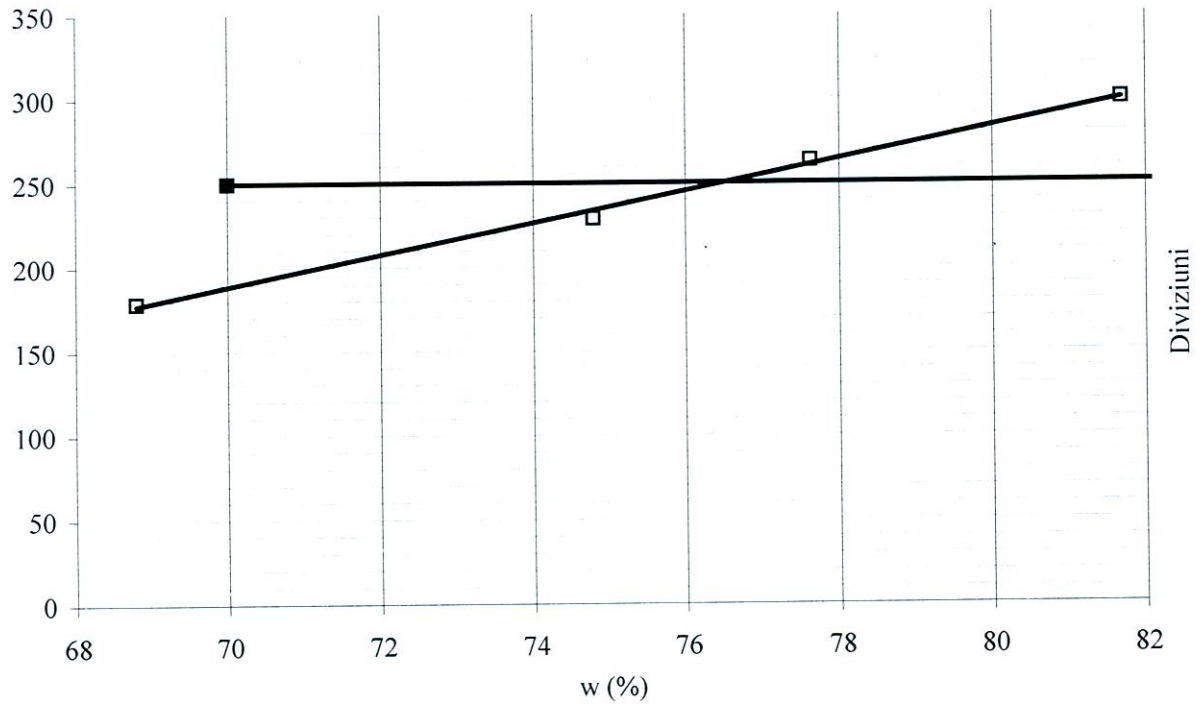
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F4	
Proba	P3	
Adancime (m)	0.00-1.20	
$\%<2_{\mu m}=$	45	%
$w=$	25	%
$w_p=$	22	%
$w_L=$	76	%
$I_p=$	54	%
$I_c=$	0.95	-
$I_A=$	1.19	-
Descriere proba		
Argilă, cafeniu cenușie, cu oxizi cu plasticitate foarte mare plastic vartoasa cu activitate medie		

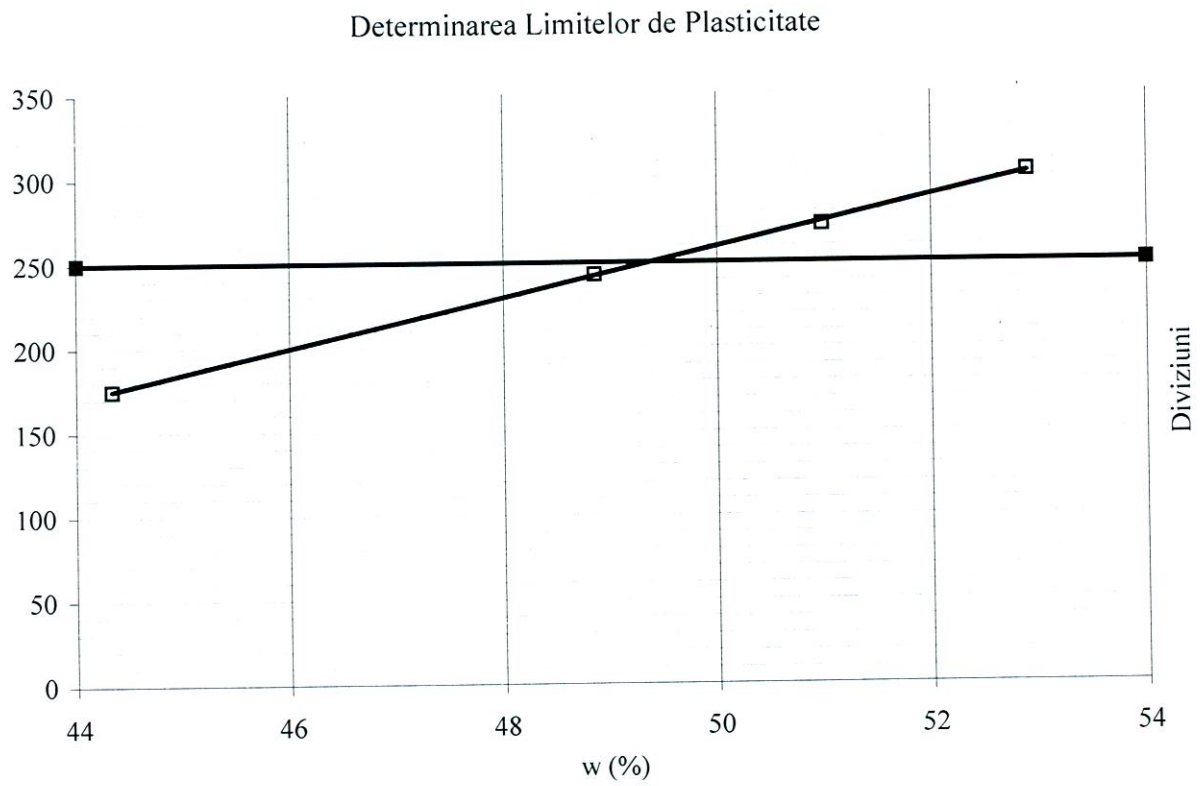
	Limita de curgere w_L%				Limita de framantare w_P%	
Numarul de diviziuni (grade)	179	229	263	299		
Proba umeda (g)	20.88	18.79	20.16	22.22	4.16	4.25
Proba uscata (g)	12.37	10.75	11.35	12.23	3.39	3.48
Umiditatea (%)	68.80	74.79	77.62	81.68	22.71	22.13
Umiditatea Medie (%)					22.42	

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Amplasament	Brasov	
Foraj	F4	
Proba	P8	
Adancime (m)	8.40-9.60	
$\%<2_{\mu m}=$	27	%
$w=$	18	%
$w_p=$	6	%
$w_L=$	49	%
$I_p=$	43	%
$I_c=$	0.72	-
$I_A=$	1.59	-
Descriere proba		
Argilă, cafeniu închisă cu lentule cu plasticitate foarte mare plastic consistenta foarte activ		

	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	175	243	272	303		
Proba umeda (g)	16.70	20.87	23.10	25.12	4.81	4.26
Proba uscata (g)	11.57	14.02	15.30	16.43	4.53	4.02
Umiditatea (%)	44.34	48.86	50.98	52.89	6.18	5.97
Umiditatea Medie (%)					6.08	

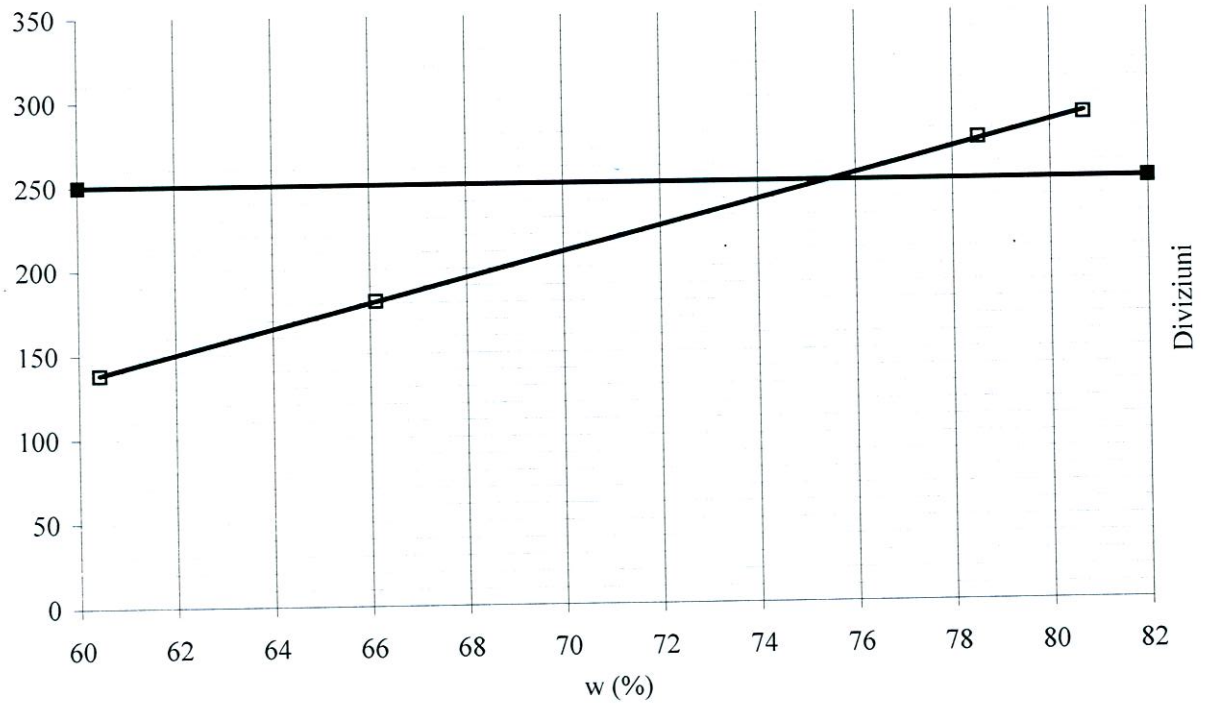
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F5	
Proba	P3	
Adancime (m)	2.40-3.60	
$\%<2_{\mu m}=$	34	%
$w=$	25	%
$w_p=$	17	%
$w_L=$	76	%
$I_p=$	59	%
$I_c=$	0.87	-
$I_A=$	1.73	-
Descriere proba		
Argilă, cafenie cu filme cenuşii, cu plasticitate foarte mare plastic vartoasa foarte activ		

	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	138	181	274	288		
Proba umeda (g)	14.92	15.35	17.46	22.37	4.38	4.17
Proba uscata (g)	9.30	9.24	9.78	12.38	3.75	3.54
Umiditatea (%)	60.43	66.13	78.53	80.69	16.80	17.80
Umiditatea Medie (%)					17.30	

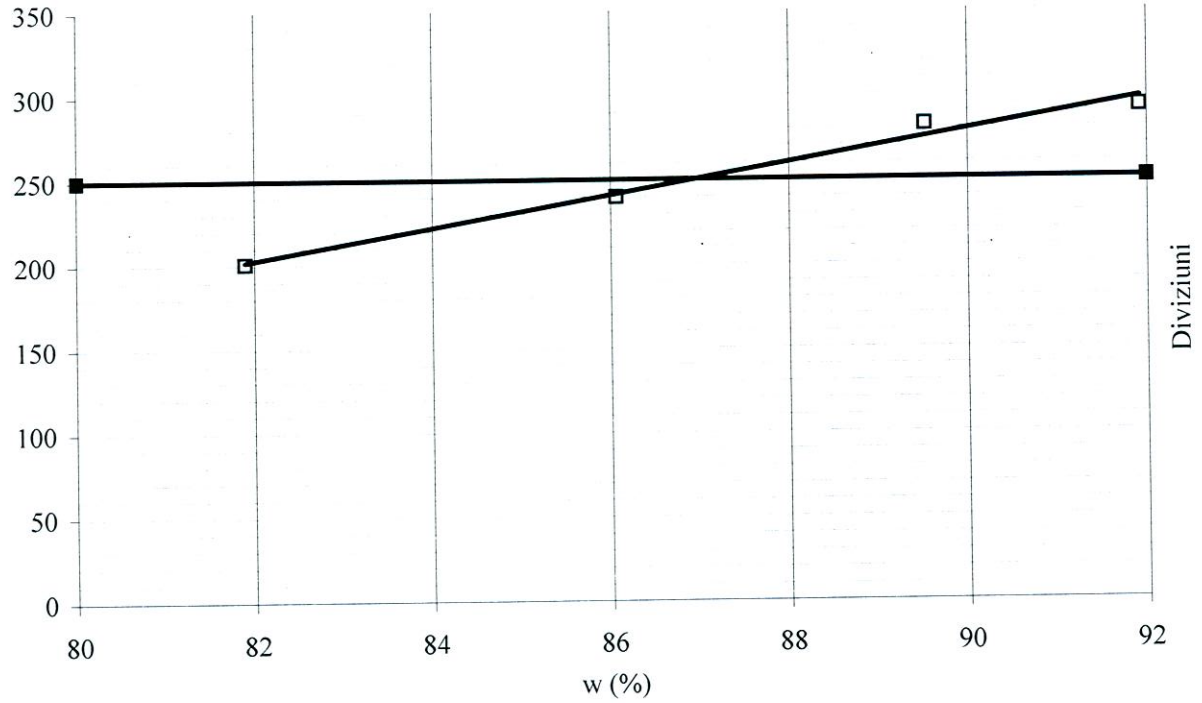
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Determinarea Limitelor de Plasticitate



Amplasament	Brasov	
Foraj	F6	
Proba	P2	
Adancime (m)	1.20-2.40	
$\%<2_{\mu m}=$	33	%
$w=$	31	%
$w_p=$	20	%
$w_L=$	87	%
$I_p=$	67	%
$I_c=$	0.84	-
$I_A=$	2.02	-
Descriere proba		
Argilă, cafeniu gălbuie, cu oxizi de cu plasticitate foarte mare plastic vartoasa foarte activ		

	Limita de curgere $w_L\%$				Limita de framantare $w_P\%$	
Numarul de diviziuni (grade)	201	240	282	292		
Proba umeda (g)	16.88	18.16	17.91	23.99	4.50	4.21
Proba uscata (g)	9.28	9.76	9.45	12.50	3.74	3.49
Umiditatea (%)	81.90	86.07	89.52	91.92	20.32	20.63
Umiditatea Medie (%)					20.48	

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Foraj	F1	F1	F1	F2	F2	F2	F3	-
Proba	P2	P3	P6	P2	P4	P7	P2	-
Adancime	1.20-2.40	2.40-3.60	6.00-7.20	1.20-2.40	3.60-4.80	7.20-8.40	1.20-2.40	m
$\%<2_{\mu m}=$	30	34	17	33	44	31	14	%
$w=$	29	23	13	26	27	23	27	%
$w_p=$	22	21	21	21	20	23	26	%
$w_L=$	87	73	50	86	66	63	70	%
$I_p=$	65	52	29	65	46	40	44	%
$I_c=$	0.89	0.96	1.26	0.92	0.85	1.01	0.98	-
$I_A=$	2.17	1.54	1.73	1.98	1.05	1.28	3.15	-

Foraj	F3	F3	F4	F4	F4	F5	F6	-
Proba	P4	P7	P1	P3	P8	P3	P2	-
Adancime	3.60-4.80	7.20-8.40	0.00-1.20	0.00-1.20	8.40-9.60	2.40-3.60	1.20-2.40	m
$\%<2_{\mu m}=$	19	35	46	45	27	34	33	%
$w=$	24	22	31	25	18	25	31	%
$w_p=$	22	20	19	22	6	17	20	%
$w_L=$	60	53	91	76	49	76	87	%
$I_p=$	38	33	72	54	43	59	67	%
$I_c=$	0.94	0.93	0.83	0.95	0.72	0.87	0.84	-
$I_A=$	2.01	0.95	1.56	1.19	1.59	1.73	2.02	-

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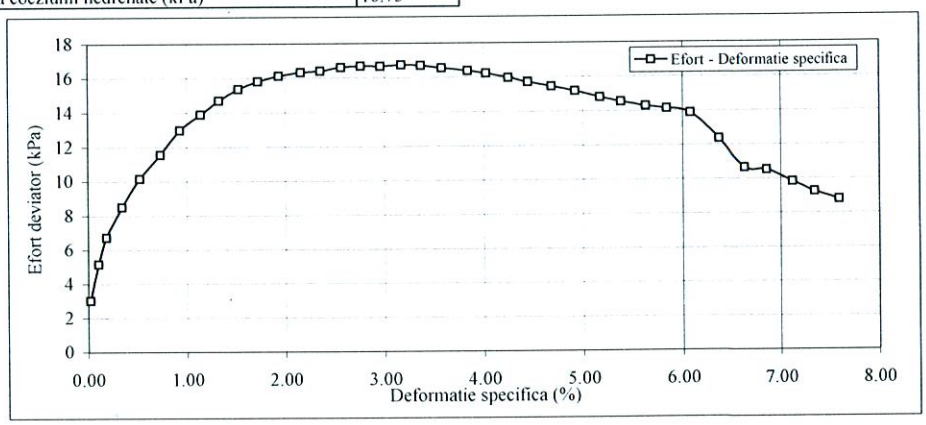
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Amplasament: DN1 km204+434÷205+546
Forajul F1 Proba P2 Adancime de prelevare proba 1.20÷2.40m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cenuşiu cafenie, cu foarte mult oxid de fier, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F1 P2	UM
Diametrul	d (cm)	3.80	γ	20.7	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.0	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	178.04	n	41	%
Masa in stare uscata	m_d (g)	137.55	e	0.70	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	29	c_u	17	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.07	E_s (0.05%)	12730	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.60	E_s (0.1%)	4909	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	3647	kPa
Porozitatea	n (%)	41	E_s (1%)	1387	kPa
Indicele porilor	e (-)	0.70	E_s (2%)	833	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	308	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.8	0.02	0.02	11.34	0.30	3.02	12730
20	18	5.87	8	0.08	0.11	11.35	0.52	5.17	4909
40	31	7.63	14	0.14	0.18	11.36	0.67	6.72	3647
60	46	9.67	26	0.26	0.34	11.38	0.85	8.50	2485
80	60	11.58	40	0.40	0.53	11.40	1.02	10.15	1929
100	72	13.21	56	0.56	0.74	11.43	1.16	11.56	1569
120	84	14.84	71	0.71	0.93	11.45	1.30	12.96	1387
140	92	15.93	87	0.87	1.14	11.47	1.39	13.88	1213
160	99	16.88	101	1.01	1.33	11.49	1.47	14.68	1105
180	105	17.69	116	1.16	1.53	11.52	1.54	15.36	1006
200	109	18.24	131	1.31	1.72	11.54	1.58	15.80	917
220	112	18.64	147	1.47	1.93	11.56	1.61	16.12	833
240	114	18.92	164	1.64	2.16	11.59	1.63	16.32	756
260	115	19.05	179	1.79	2.36	11.61	1.64	16.40	696
280	117	19.32	195	1.95	2.57	11.64	1.66	16.60	647
300	118	19.46	210	2.10	2.76	11.66	1.67	16.68	604
320	118	19.46	225	2.25	2.96	11.69	1.67	16.65	562
340	119	19.60	241	2.41	3.17	11.71	1.67	16.73	528
360	119	19.60	256	2.56	3.37	11.74	1.67	16.70	496
380	118	19.46	272	2.72	3.58	11.76	1.65	16.54	462
400	117	19.32	292	2.92	3.84	11.79	1.64	16.38	426
420	116	19.19	306	3.06	4.03	11.82	1.62	16.24	403
440	114	18.92	323	3.23	4.25	11.84	1.60	15.97	376
460	112	18.64	338	3.38	4.45	11.87	1.57	15.71	353
480	110	18.37	356	3.56	4.68	11.90	1.54	15.44	330
500	108	18.10	374	3.74	4.92	11.93	1.52	15.17	308
520	105	17.69	393	3.93	5.17	11.96	1.48	14.79	286
540	103	17.42	409	4.09	5.38	11.99	1.45	14.53	270
560	101	17.15	428	4.28	5.63	12.02	1.43	14.27	253
580	100	17.01	444	4.44	5.84	12.04	1.41	14.12	242
600	98	16.74	462	4.62	6.08	12.08	1.39	13.86	228
620	85	14.97	484	4.84	6.37	12.11	1.24	12.36	194
640	70	12.93	504	5.04	6.63	12.15	1.06	10.65	161
660	69	12.80	521	5.21	6.86	12.18	1.05	10.51	153
680	63	11.98	541	5.41	7.12	12.21	0.98	9.81	138
700	58	11.30	558	5.58	7.34	12.24	0.92	9.24	126
720	54	10.76	577	5.77	7.59	12.27	0.88	8.77	115
Valoarea coeziunii nedrenate (kPa)				16.73					



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Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

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Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F1 Proba P3 Adancime de prelevare proba 2.40÷3.60m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cenuşiu cafenie, cu foarte mult oxid de fier, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F1 P3	UM
Diametrul	d (cm)	3.80	γ	20.5	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.5	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	176.82	n	39	%
Masa in stare uscata	m_d (g)	142.22	e	0.65	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	24	c_u	24	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.05	E_s (0.05%)	14322	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.65	E_s (0.1%)	5741	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	3484	kPa
Porozitatea	n (%)	39	E_s (1%)	1428	kPa
Indicele porilor	e (-)	0.65	E_s (2%)	960	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	463	kPa

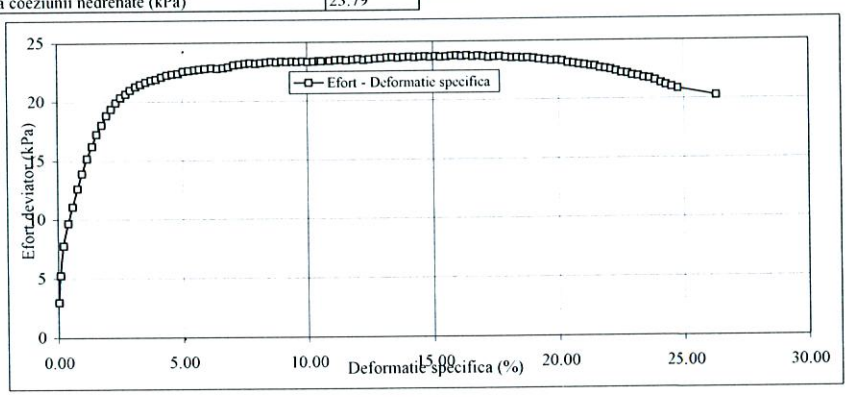
Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_{secant}
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.6	0.02	0.02	11.34	0.30	3.02	14322
20	19	6.00	7	0.07	0.09	11.35	0.53	5.29	5741
40	40	8.86	17	0.17	0.22	11.37	0.78	7.79	3484
60	56	11.03	31	0.31	0.41	11.39	0.97	9.69	2375
80	68	12.66	45	0.45	0.59	11.41	1.11	11.10	1875
100	81	14.43	60	0.60	0.79	11.43	1.26	12.62	1599
120	92	15.93	74	0.74	0.97	11.45	1.39	13.91	1428
140	103	17.42	90	0.90	1.18	11.48	1.52	15.18	1282
160	112	18.64	105	1.05	1.38	11.50	1.62	16.21	1173
180	121	19.87	119	1.19	1.57	11.52	1.72	17.24	1101
200	128	20.82	134	1.34	1.76	11.54	1.80	18.03	1023
220	135	21.77	149	1.49	1.96	11.57	1.88	18.82	960
240	140	22.45	163	1.63	2.14	11.59	1.94	19.37	903
260	145	23.13	178	1.78	2.34	11.61	1.99	19.92	850
280	149	23.67	193	1.93	2.54	11.64	2.03	20.34	801
300	152	24.08	208	2.08	2.74	11.66	2.07	20.65	755
320	155	24.49	222	2.22	2.92	11.68	2.10	20.96	718
340	158	24.90	238	2.38	3.13	11.71	2.13	21.26	679
360	160	25.17	253	2.53	3.33	11.73	2.15	21.45	644
380	162	25.44	270	2.70	3.55	11.76	2.16	21.63	609
400	164	25.71	286	2.86	3.76	11.78	2.18	21.82	580
420	165	25.85	301	3.01	3.96	11.81	2.19	21.89	553
440	167	26.12	317	3.17	4.17	11.83	2.21	22.07	529
460	169	26.39	334	3.34	4.39	11.86	2.22	22.25	506
480	170	26.53	350	3.50	4.61	11.89	2.23	22.31	485
500	171	26.66	367	3.67	4.83	11.92	2.24	22.37	463
520	173	26.94	383	3.83	5.04	11.94	2.26	22.55	448
540	174	27.07	400	4.00	5.26	11.97	2.26	22.61	430
560	175	27.21	418	4.18	5.50	12.00	2.27	22.67	412
580	176	27.34	433	4.33	5.70	12.03	2.27	22.74	399
600	177	27.48	450	4.50	5.92	12.05	2.28	22.79	385
620	178	27.61	469	4.69	6.17	12.09	2.28	22.85	370
640	178	27.61	487	4.87	6.41	12.12	2.28	22.79	356
660	179	27.75	505	5.05	6.64	12.15	2.28	22.84	344
680	180	27.89	521	5.21	6.86	12.18	2.29	22.90	334
700	182	28.16	537	5.37	7.07	12.20	2.31	23.07	327
720	183	28.29	554	5.54	7.29	12.23	2.31	23.13	317
740	184	28.43	571	5.71	7.51	12.26	2.32	23.18	309
760	185	28.57	587	5.87	7.72	12.29	2.32	23.24	301
780	185	28.57	603	6.03	7.93	12.32	2.32	23.19	292
800	186	28.70	619	6.19	8.14	12.35	2.32	23.25	285
820	187	28.84	635	6.35	8.36	12.38	2.33	23.30	279
840	188	28.97	651	6.51	8.57	12.40	2.34	23.36	273
860	188	28.97	667	6.67	8.78	12.43	2.33	23.31	266
880	189	29.11	682	6.82	8.97	12.46	2.34	23.36	260
900	189	29.11	698	6.98	9.18	12.49	2.33	23.31	254
920	190	29.25	714	7.14	9.39	12.52	2.34	23.36	249
940	190	29.25	729	7.29	9.59	12.54	2.33	23.31	243
960	191	29.38	745	7.45	9.80	12.57	2.34	23.37	238

Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

980	191	29.38	762	7.62	10.03	12.60	2.33	23.31	232
1000	192	29.52	779	7.79	10.25	12.64	2.34	23.36	228
1020	193	29.65	796	7.96	10.47	12.67	2.34	23.41	223
1040	193	29.65	803	8.03	10.57	12.68	2.34	23.38	221
1060	194	29.79	829	8.29	10.91	12.73	2.34	23.40	215
1080	195	29.93	846	8.46	11.13	12.76	2.34	23.45	211
1100	196	30.06	863	8.63	11.36	12.79	2.35	23.50	207
1120	196	30.06	879	8.79	11.57	12.82	2.34	23.44	203
1140	197	30.20	898	8.98	11.82	12.86	2.35	23.48	199
1160	198	30.33	914	9.14	12.03	12.89	2.35	23.53	196
1180	198	30.33	931	9.31	12.25	12.92	2.35	23.47	192
1200	199	30.47	947	9.47	12.46	12.96	2.35	23.52	189
1220	200	30.61	966	9.66	12.71	12.99	2.36	23.56	185
1240	201	30.74	983	9.83	12.93	13.03	2.36	23.60	182
1260	202	30.88	1001	10.01	13.17	13.06	2.36	23.64	179
1280	203	31.01	1018	10.18	13.39	13.10	2.37	23.68	177
1300	203	31.01	1035	10.35	13.62	13.13	2.36	23.62	173
1320	204	31.15	1051	10.51	13.83	13.16	2.37	23.67	171
1340	205	31.28	1069	10.69	14.07	13.20	2.37	23.71	169
1360	205	31.28	1085	10.85	14.28	13.23	2.36	23.65	166
1380	206	31.42	1101	11.01	14.49	13.26	2.37	23.69	164
1400	207	31.56	1117	11.17	14.70	13.30	2.37	23.74	161
1420	207	31.56	1132	11.32	14.89	13.33	2.37	23.68	159
1440	208	31.69	1148	11.48	15.11	13.36	2.37	23.72	157
1460	208	31.69	1163	11.63	15.30	13.39	2.37	23.67	155
1480	209	31.83	1180	11.80	15.53	13.43	2.37	23.71	153
1500	210	31.96	1196	11.96	15.74	13.46	2.37	23.75	151
1520	211	32.10	1212	12.12	15.95	13.49	2.38	23.79	149
1540	211	32.10	1227	12.27	16.14	13.52	2.37	23.73	147
1560	212	32.24	1243	12.43	16.36	13.56	2.38	23.78	145
1580	212	32.24	1260	12.60	16.58	13.60	2.37	23.71	143
1600	213	32.37	1277	12.77	16.80	13.63	2.37	23.75	141
1620	213	32.37	1292	12.92	17.00	13.66	2.37	23.69	139
1640	213	32.37	1309	13.09	17.22	13.70	2.36	23.63	137
1660	214	32.51	1325	13.25	17.43	13.74	2.37	23.67	136
1680	215	32.64	1342	13.42	17.66	13.77	2.37	23.70	134
1700	215	32.64	1360	13.60	17.89	13.81	2.36	23.63	132
1720	215	32.64	1379	13.79	18.14	13.86	2.36	23.56	130
1740	216	32.78	1394	13.94	18.34	13.89	2.36	23.60	129
1760	216	32.78	1412	14.12	18.58	13.93	2.35	23.53	127
1780	217	32.92	1427	14.27	18.78	13.96	2.36	23.57	126
1800	217	32.92	1445	14.45	19.01	14.00	2.35	23.51	124
1820	217	32.92	1462	14.62	19.24	14.04	2.34	23.44	122
1840	217	32.92	1480	14.80	19.47	14.08	2.34	23.37	120
1860	217	32.92	1498	14.98	19.71	14.13	2.33	23.30	118
1880	218	33.05	1516	15.16	19.95	14.17	2.33	23.33	117
1900	218	33.05	1532	15.32	20.16	14.20	2.33	23.27	115
1920	217	32.92	1549	15.49	20.38	14.24	2.31	23.11	113
1940	217	32.92	1566	15.66	20.61	14.28	2.30	23.04	112
1960	217	32.92	1582	15.82	20.82	14.32	2.30	22.98	110
1980	217	32.92	1599	15.99	21.04	14.36	2.29	22.92	109
2000	217	32.92	1617	16.17	21.28	14.41	2.28	22.85	107
2020	217	32.92	1630	16.30	21.45	14.44	2.28	22.80	106
2040	216	32.78	1646	16.46	21.66	14.48	2.26	22.64	105
2060	216	32.78	1662	16.62	21.87	14.52	2.26	22.58	103
2080	216	32.78	1678	16.78	22.08	14.55	2.25	22.52	102
2100	215	32.64	1694	16.94	22.29	14.59	2.24	22.37	100
2120	214	32.51	1711	17.11	22.51	14.64	2.22	22.21	99
2140	214	32,51	1728	17.28	22.74	14.68	2.21	22.15	97
2160	213	32.37	1743	17.43	22.93	14.72	2.20	22.00	96
2180	213	32.37	1760	17.60	23.16	14.76	2.19	21.93	95
2200	212	32.24	1778	17.78	23.39	14.80	2.18	21.77	93
2220	212	32.24	1794	17.94	23.61	14.85	2.17	21.71	92
2240	211	32.10	1811	18.11	23.83	14.89	2.16	21.56	90
2260	209	31.83	1829	18.29	24.07	14.94	2.13	21.31	89
2280	208	31.69	1844	18.44	24.26	14.97	2.12	21.16	87
2300	207	31.56	1862	18.62	24.50	15.02	2.10	21.01	86
2320	206	31.42	1882	18.82	24.76	15.07	2.08	20.84	84
2340	204	31.15	1999	19.99	26.30	15.39	2.02	20.24	77
Valoarea coeziunii nedrenate (kPa)				23.79					



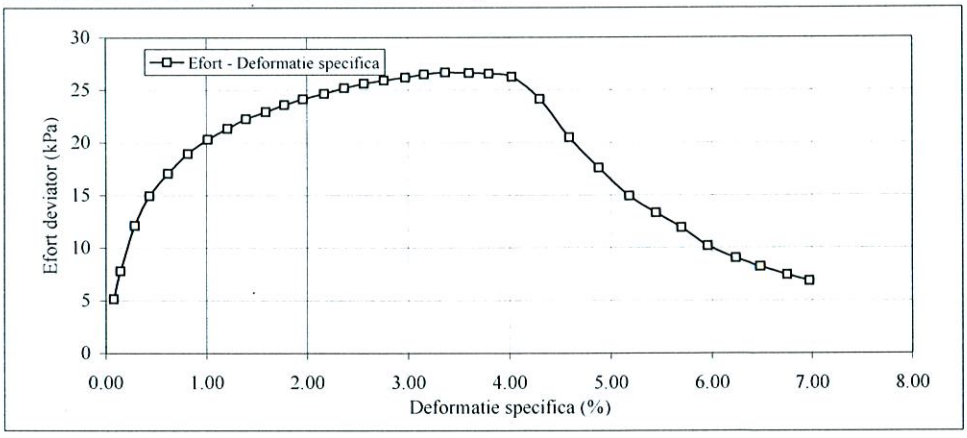
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F2 Proba P2 Adancime de prelevare proba 1.20÷2.40m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafeniu cenușie, cu oxizi de fier, plastic vârtoasă cu zone plastic consistente

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F2 P2	UM
Diametrul	d (cm)	3.80	γ	20.2	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.1	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	174.13	n	41	%
Masa in stare uscata	m_d (g)	138.56	e	0.69	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	26	c_u	27	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.02	E_s (0.05%)	6547	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.61	E_s (0.1%)	5388	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	4176	kPa
Porozitatea	n (%)	41	E_s (1%)	2004	kPa
Indicele porilor	e (-)	0.69	E_s (2%)	1230	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	288	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	18	5.87	6	0.06	0.08	11.35	0.52	5.17	6547
20	40	8.86	11	0.11	0.14	11.36	0.78	7.80	5388
40	76	13.75	22	0.22	0.29	11.37	1.21	12.09	4176
60	100	17.01	33	0.33	0.43	11.39	1.49	14.94	3440
80	118	19.46	47	0.47	0.62	11.41	1.71	17.05	2757
100	134	21.63	62	0.62	0.82	11.43	1.89	18.92	2319
120	146	23.27	77	0.77	1.01	11.46	2.03	20.31	2004
140	155	24.49	92	0.92	1.21	11.48	2.13	21.33	1762
160	163	25.58	106	1.06	1.39	11.50	2.22	22.24	1594
180	169	26.39	121	1.21	1.59	11.52	2.29	22.90	1438
200	175	27.21	135	1.35	1.78	11.55	2.36	23.56	1327
220	180	27.89	149	1.49	1.96	11.57	2.41	24.11	1230
240	185	28.57	165	1.65	2.17	11.59	2.46	24.64	1135
260	190	29.25	180	1.80	2.37	11.62	2.52	25.18	1063
280	194	29.79	195	1.95	2.57	11.64	2.56	25.59	997
300	197	30.20	210	2.10	2.76	11.66	2.59	25.89	937
320	200	30.61	226	2.26	2.97	11.69	2.62	26.18	881
340	203	31.01	240	2.40	3.16	11.71	2.65	26.48	839
360	205	31.28	256	2.56	3.37	11.74	2.67	26.66	791
380	205	31.28	274	2.74	3.61	11.77	2.66	26.59	738
400	205	31.28	289	2.89	3.80	11.79	2.65	26.54	698
420	203	31.01	306	3.06	4.03	11.82	2.62	26.24	652
440	185	28.57	327	3.27	4.30	11.85	2.41	24.10	560
460	154	24.35	349	3.49	4.59	11.89	2.05	20.49	446
480	129	20.95	371	3.71	4.88	11.92	1.76	17.57	360
500	106	17.83	394	3.94	5.18	11.96	1.49	14.90	288
520	92	15.93	414	4.14	5.45	11.99	1.33	13.28	244
540	80	14.29	433	4.33	5.70	12.03	1.19	11.89	209
560	65	12.26	453	4.53	5.96	12.06	1.02	10.16	170
580	55	10.90	474	4.74	6.24	12.10	0.90	9.01	144
600	48	9.94	493	4.93	6.49	12.13	0.82	8.20	126
620	41	8.99	513	5.13	6.75	12.16	0.74	7.39	110
640	36	8.31	530	5.30	6.97	12.19	0.68	6.82	98
Valoarea coeziunii nedrenate (kPa)				26.66					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

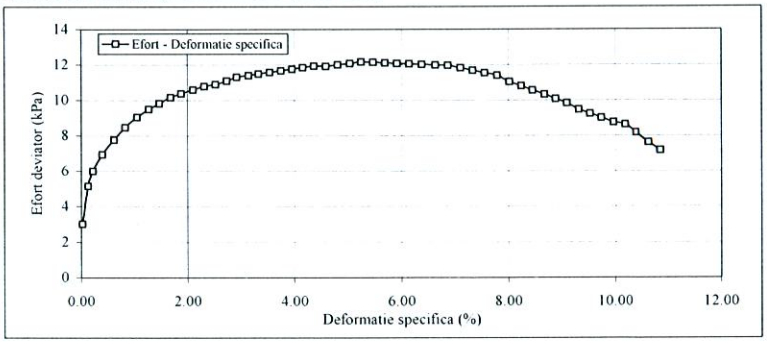
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F2 Proba P4 Adancime de prelevare proba 3.60÷4.80m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafeniu cenuşie, cu oxizi de fier, plastic vârtoasă cu zone plastic consistente

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F2 P4	UM
Diametrul	d (cm)	3.80	γ	20.0	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	15.8	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	172.16	n	42	%
Masa in stare uscata	m_d (g)	136.33	e	0.72	-
Volumul	V (cm3)	86.193	S_r	0.99	-
Umiditatea	w (%)	26	c_u	12	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.00	E_s (0.05%)	13479	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.58	E_s (0.1%)	3926	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	2682	kPa
Porozitatea	n (%)	42	E_s (1%)	858	kPa
Indicele porilor	e (-)	0.72	E_s (2%)	502	kPa
Gradul de saturatie	S_r (-)	0.99	E_s (5%)	240	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.7	0.02	0.02	11.34	0.30	3.02	13479
20	18	5.87	10	0.10	0.13	11.36	0.52	5.17	3926
40	25	6.82	17	0.17	0.22	11.37	0.60	6.00	2682
60	33	7.91	30	0.30	0.39	11.39	0.69	6.94	1759
80	40	8.86	47	0.47	0.62	11.41	0.78	7.76	1255
100	46	9.67	63	0.63	0.83	11.44	0.85	8.46	1020
120	51	10.35	80	0.80	1.05	11.46	0.90	9.03	858
140	55	10.90	97	0.97	1.28	11.49	0.95	9.48	743
160	58	11.30	112	1.12	1.47	11.51	0.98	9.82	666
180	61	11.71	128	1.28	1.68	11.54	1.02	10.15	603
200	63	11.98	143	1.43	1.88	11.56	1.04	10.37	551
220	65	12.26	160	1.60	2.11	11.59	1.06	10.58	502
240	67	12.53	176	1.76	2.32	11.61	1.08	10.79	466
260	68	12.66	192	1.92	2.53	11.64	1.09	10.88	431
280	70	12.93	208	2.08	2.74	11.66	1.11	11.09	405
300	72	13.21	222	2.22	2.92	11.68	1.13	11.30	387
320	73	13.34	239	2.39	3.14	11.71	1.14	11.39	362
340	74	13.48	253	2.53	3.33	11.73	1.15	11.49	345
360	75	13.61	269	2.69	3.54	11.76	1.16	11.58	327
380	76	13.75	285	2.85	3.75	11.78	1.17	11.67	311
400	77	13.89	301	3.01	3.96	11.81	1.18	11.76	297
420	78	14.02	316	3.16	4.16	11.83	1.18	11.85	285
440	79	14.16	332	3.32	4.37	11.86	1.19	11.94	273
460	79	14.16	349	3.49	4.59	11.89	1.19	11.91	259
480	80	14.29	366	3.66	4.82	11.91	1.20	12.00	249
500	81	14.43	383	3.83	5.04	11.94	1.21	12.08	240
520	82	14.57	399	3.99	5.25	11.97	1.22	12.17	232
540	82	14.57	416	4.16	5.47	12.00	1.21	12.14	222
560	82	14.57	433	4.33	5.70	12.03	1.21	12.11	213
580	82	14.57	450	4.50	5.92	12.05	1.21	12.08	204
600	82	14.57	467	4.67	6.14	12.08	1.21	12.05	196
620	82	14.57	485	4.85	6.38	12.11	1.20	12.02	188
640	82	14.57	504	5.04	6.63	12.15	1.20	11.99	181
660	82	14.57	522	5.22	6.87	12.18	1.20	11.96	174
680	81	14.43	540	5.40	7.11	12.21	1.18	11.82	166
700	80	14.29	557	5.57	7.33	12.24	1.17	11.68	159
720	79	14.16	574	5.74	7.55	12.27	1.15	11.54	153
740	78	14.02	592	5.92	7.79	12.30	1.14	11.40	146
760	75	13.61	609	6.09	8.01	12.33	1.10	11.04	138
780	73	13.34	626	6.26	8.24	12.36	1.08	10.80	131
800	71	13.07	642	6.42	8.45	12.39	1.06	10.55	125
820	69	12.80	659	6.59	8.67	12.42	1.03	10.31	119
840	67	12.53	675	6.75	8.88	12.45	1.01	10.06	113
860	65	12.26	691	6.91	9.09	12.48	0.98	9.82	108
880	62	11.85	708	7.08	9.32	12.51	0.95	9.47	102
900	60	11.58	724	7.24	9.53	12.54	0.92	9.23	97
920	58	11.30	740	7.40	9.74	12.56	0.90	9.00	92
940	56	11.03	757	7.57	9.96	12.60	0.88	8.76	88
960	55	10.90	774	7.74	10.18	12.63	0.86	8.63	85
980	51	10.35	790	7.90	10.39	12.66	0.82	8.18	79
1000	46	9.67	808	8.08	10.63	12.69	0.76	7.62	72
1020	42	9.13	825	8.25	10.86	12.72	0.72	7.18	66
Valoarea coeziunii nedrenate (kPa)				12.17					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

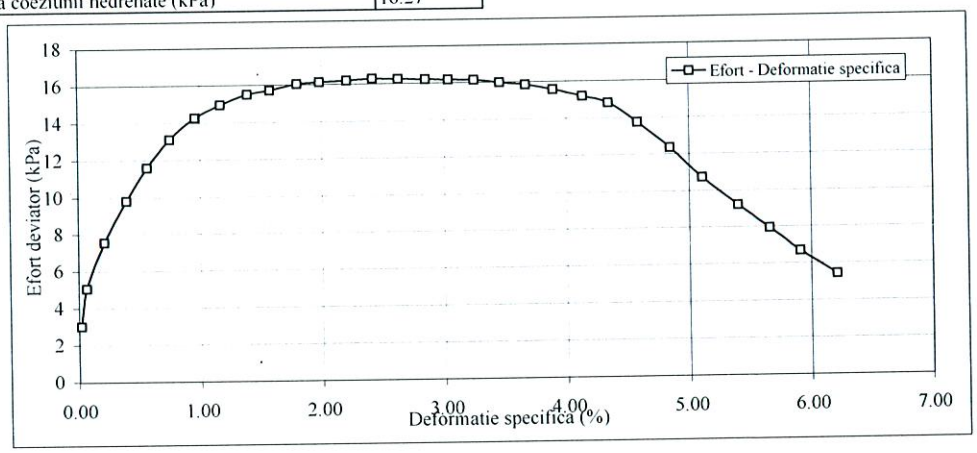
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F3 Proba P2 Adancime de prelevare proba 1.20÷2.40m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F3 P2	UM
Diametrul	d (cm)	3.80	γ	19.8	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.0	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.0	kN/m^3
Masa in stare naturala	m (g)	170.52	n	41	%
Masa in stare uscata	m_d (g)	137.63	e	0.69	-
Volumul	V (cm3)	86.193	S_r	0.93	-
Umiditatea	w (%)	24	c_u	16	kPa
Densitatea in stare naturala	ρ (g/cm^3)	1.98	E_s (0.05%)	15277	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.60	E_s (0.1%)	7676	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.700	E_s (0.2%)	3588	kPa
Porozitatea	n (%)	41	E_s (1%)	1485	kPa
Indicele porilor	e (-)	0.69	E_s (2%)	811	kPa
Gradul de saturatie	S_r (-)	0.93	E_s (5%)	210	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.5	0.02	0.02	11.34	0.30	3.02	15277
20	17	5.73	5	0.05	0.07	11.35	0.50	5.05	7676
40	38	8.59	16	0.16	0.21	11.37	0.76	7.55	3588
60	57	11.17	30	0.30	0.39	11.39	0.98	9.81	2485
80	72	13.21	43	0.43	0.57	11.41	1.16	11.58	2047
100	85	14.97	57	0.57	0.75	11.43	1.31	13.10	1747
120	95	16.33	73	0.73	0.96	11.45	1.43	14.26	1485
140	101	17.15	89	0.89	1.17	11.48	1.49	14.94	1276
160	106	17.83	106	1.06	1.39	11.50	1.55	15.50	1111
180	108	18.10	120	1.20	1.58	11.52	1.57	15.71	995
200	111	18.51	137	1.37	1.80	11.55	1.60	16.02	889
220	112	18.64	151	1.51	1.99	11.57	1.61	16.11	811
240	113	18.78	168	1.68	2.21	11.60	1.62	16.19	733
260	114	18.92	184	1.84	2.42	11.62	1.63	16.27	672
280	114	18.92	200	2.00	2.63	11.65	1.62	16.24	617
300	114	18.92	217	2.17	2.86	11.67	1.62	16.20	567
320	114	18.92	231	2.31	3.04	11.70	1.62	16.17	532
340	114	18.92	247	2.47	3.25	11.72	1.61	16.14	497
360	113	18.78	263	2.63	3.46	11.75	1.60	15.99	462
380	112	18.64	279	2.79	3.67	11.77	1.58	15.84	431
400	110	18.37	296	2.96	3.89	11.80	1.56	15.57	400
420	107	17.96	314	3.14	4.13	11.83	1.52	15.19	368
440	104	17.56	330	3.30	4.34	11.86	1.48	14.81	341
460	95	16.33	348	3.48	4.58	11.89	1.37	13.74	300
480	83	14.70	368	3.68	4.84	11.92	1.23	12.34	255
500	69	12.80	388	3.88	5.11	11.95	1.07	10.71	210
520	56	11.03	410	4.10	5.39	11.99	0.92	9.20	171
540	45	9.54	430	4.30	5.66	12.02	0.79	7.93	140
560	34	8.04	449	4.49	5.91	12.05	0.67	6.67	113
580	23	6.55	472	4.72	6.21	12.09	0.54	5.41	87
Valoarea coeziunii nedrenate (kPa)				16.27					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

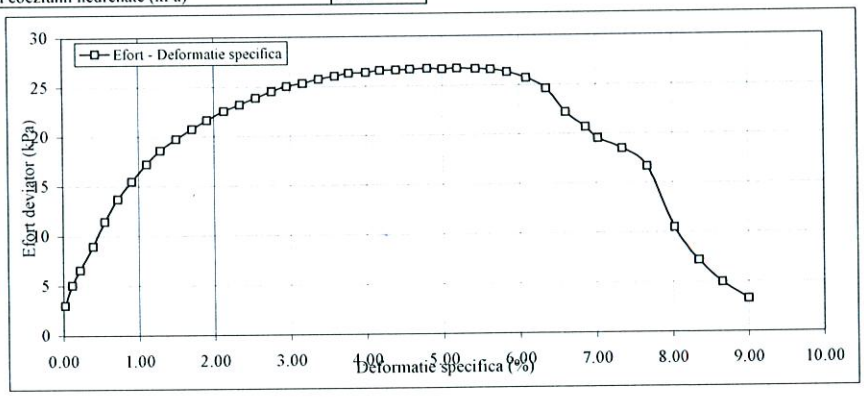
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F3 Proba P4 Adancime de prelevare proba 3.60÷4.80m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F3 P4	UM
Diametrul	d (cm)	3.80	γ	20.9	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.9	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	180.54	n	38	%
Masa in stare uscata	m_d (g)	145.25	e	0.61	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	24	c_u	27	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.09	E_s (0.05%)	14322	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.69	E_s (0.1%)	4262	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	2949	kPa
Porozitatea	n (%)	38	E_s (1%)	1703	kPa
Indicele porilor	e (-)	0.61	E_s (2%)	1135	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	556	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_{secant}
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.6	0.02	0.02	11.34	0.30	3.02	14322
20	17	5.73	9	0.09	0.12	11.35	0.50	5.05	4262
40	30	7.50	17	0.17	0.22	11.37	0.66	6.60	2949
60	50	10.22	30	0.30	0.39	11.39	0.90	8.97	2273
80	71	13.07	42	0.42	0.55	11.40	1.15	11.46	2074
100	90	15.65	55	0.55	0.72	11.42	1.37	13.70	1893
120	105	17.69	69	0.69	0.91	11.45	1.55	15.46	1703
140	120	19.73	84	0.84	1.11	11.47	1.72	17.21	1557
160	132	21.36	98	0.98	1.29	11.49	1.86	18.59	1442
180	142	22.72	114	1.14	1.50	11.51	1.97	19.73	1316
200	151	23.94	130	1.30	1.71	11.54	2.08	20.75	1213
220	159	25.03	145	1.45	1.91	11.56	2.17	21.65	1135
240	167	26.12	162	1.62	2.13	11.59	2.25	22.54	1057
260	173	26.94	178	1.78	2.34	11.61	2.32	23.19	990
280	179	27.75	194	1.94	2.55	11.64	2.38	23.84	934
300	185	28.57	210	2.10	2.76	11.66	2.45	24.49	886
320	190	29.25	225	2.25	2.96	11.69	2.50	25.02	845
340	193	29.65	241	2.41	3.17	11.71	2.53	25.32	798
360	197	30.20	257	2.57	3.38	11.74	2.57	25.73	761
380	200	30.61	273	2.73	3.59	11.76	2.60	26.02	724
400	203	31.01	287	2.87	3.78	11.79	2.63	26.31	697
420	204	31.15	304	3.04	4.00	11.81	2.64	26.37	659
440	206	31.42	318	3.18	4.18	11.84	2.65	26.55	634
460	207	31.56	334	3.34	4.39	11.86	2.66	26.60	605
480	208	31.69	348	3.48	4.58	11.89	2.67	26.67	582
500	209	31.83	365	3.65	4.80	11.91	2.67	26.72	556
520	209	31.83	380	3.80	5.00	11.94	2.67	26.66	533
540	210	31.96	395	3.95	5.20	11.96	2.67	26.72	514
560	210	31.96	413	4.13	5.43	11.99	2.67	26.65	490
580	210	31.96	428	4.28	5.63	12.02	2.66	26.60	472
600	208	31.69	444	4.44	5.84	12.04	2.63	26.31	450
620	203	31.01	463	4.63	6.09	12.08	2.57	25.68	422
640	194	29.79	483	4.83	6.36	12.11	2.46	24.60	387
660	173	26.94	502	5.02	6.61	12.14	2.22	22.18	336
680	160	25.17	522	5.22	6.87	12.18	2.07	20.67	301
700	150	23.81	534	5.34	7.03	12.20	1.95	19.52	278
720	141	22.59	558	5.58	7.34	12.24	1.85	18.45	251
740	125	20.41	583	5.83	7.67	12.28	1.66	16.62	217
760	70	12.93	610	6.10	8.03	12.33	1.05	10.49	131
780	40	8.86	635	6.35	8.36	12.38	0.72	7.16	86
800	20	6.14	658	6.58	8.66	12.42	0.49	4.94	57
820	5	4.10	684	6.84	9.00	12.46	0.33	3.29	37
Valoarea coeziunii nedrenate (kPa)				26.72					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

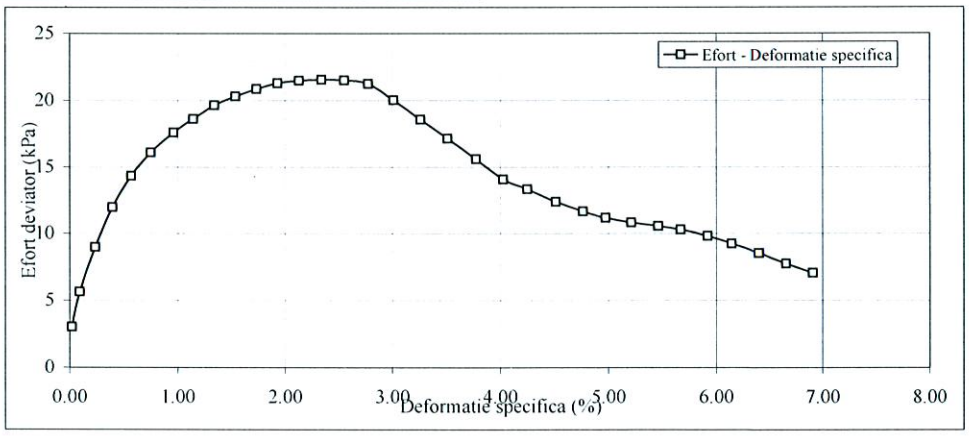
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F4 Proba P1 Adancime de prelevare proba 0.00÷1.20m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafeniu cenuşie, cu oxizi de fier, rare lentile de nisip, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F4 P1	UM
Diametrul	d (cm)	3.80	γ	20.3	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	15.5	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	175.02	n	43	%
Masa in stare uscata	m_d (g)	133.69	e	0.75	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	31	c_u	22	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.03	E_s (0.05%)	15277	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.55	E_s (0.1%)	6131	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	3794	kPa
Porozitatea	n (%)	43	E_s (1%)	1831	kPa
Indicele porilor	e (-)	0.75	E_s (2%)	1101	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	207	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_{secant}
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.5	0.02	0.02	11.34	0.30	3.02	15277
20	22	6.41	7	0.07	0.09	11.35	0.56	5.65	6131
40	50	10.22	18	0.18	0.24	11.37	0.90	8.99	3794
60	75	13.61	30	0.30	0.39	11.39	1.20	11.96	3029
80	95	16.33	43	0.43	0.57	11.41	1.43	14.32	2531
100	110	18.37	57	0.57	0.75	11.43	1.61	16.08	2144
120	123	20.14	73	0.73	0.96	11.45	1.76	17.59	1831
140	132	21.36	87	0.87	1.14	11.47	1.86	18.62	1627
160	141	22.59	102	1.02	1.34	11.50	1.96	19.65	1464
180	147	23.40	117	1.17	1.54	11.52	2.03	20.32	1320
200	152	24.08	132	1.32	1.74	11.54	2.09	20.86	1201
220	156	24.62	147	1.47	1.93	11.56	2.13	21.29	1101
240	158	24.90	162	1.62	2.13	11.59	2.15	21.48	1008
260	159	25.03	178	1.78	2.34	11.61	2.16	21.55	920
280	159	25.03	194	1.94	2.55	11.64	2.15	21.51	843
300	157	24.76	211	2.11	2.78	11.67	2.12	21.23	765
320	147	23.40	229	2.29	3.01	11.69	2.00	20.01	664
340	135	21.77	248	2.48	3.26	11.72	1.86	18.57	569
360	123	20.14	267	2.67	3.51	11.75	1.71	17.13	488
380	110	18.37	287	2.87	3.78	11.79	1.56	15.59	413
400	97	16.60	306	3.06	4.03	11.82	1.41	14.05	349
420	91	15.79	323	3.23	4.25	11.84	1.33	13.33	314
440	83	14.70	343	3.43	4.51	11.88	1.24	12.38	274
460	77	13.89	362	3.62	4.76	11.91	1.17	11.66	245
480	73	13.34	378	3.78	4.97	11.93	1.12	11.18	225
500	70	12.93	396	3.96	5.21	11.96	1.08	10.81	207
520	68	12.66	415	4.15	5.46	12.00	1.06	10.56	193
540	66	12.39	431	4.31	5.67	12.02	1.03	10.31	182
560	62	11.85	450	4.50	5.92	12.05	0.98	9.83	166
580	57	11.17	467	4.67	6.14	12.08	0.92	9.24	150
600	51	10.35	487	4.87	6.41	12.12	0.85	8.54	133
620	44	9.40	506	5.06	6.66	12.15	0.77	7.74	116
640	38	8.59	525	5.25	6.91	12.18	0.70	7.05	102
Valoarea coeziunii nedrenate (kPa)				21.55					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

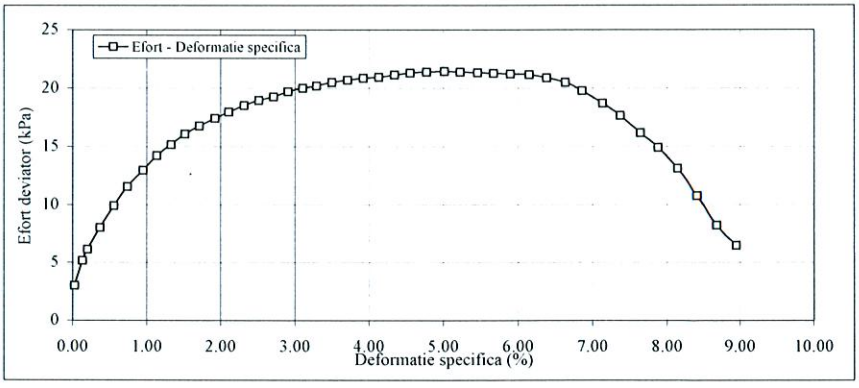
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

UTCB
Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F4 Proba P3 Adancime de prelevare proba 2.40÷3.60m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafeniu cenuşie, cu oxizi de fier, rare lentile de nisip, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F4 P3	UM
Diametrul	d (cm)	3.80	γ	20.3	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.2	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	175.11	n	40	%
Masa in stare uscata	m_d (g)	139.63	e	0.68	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	25	c_u	21	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.03	E_s (0.05%)	12060	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.62	E_s (0.1%)	3926	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	3101	kPa
Porozitatea	n (%)	40	E_s (1%)	1368	kPa
Indicele porilor	e (-)	0.68	E_s (2%)	907	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	447	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.9	0.02	0.03	11.34	0.30	3.01	12060
20	18	5.87	10	0.10	0.13	11.36	0.52	5.17	3926
40	26	6.95	15	0.15	0.20	11.36	0.61	6.12	3101
60	42	9.13	28	0.28	0.37	11.38	0.80	8.02	2177
80	58	11.30	42	0.42	0.55	11.40	0.99	9.91	1794
100	72	13.21	56	0.56	0.74	11.43	1.16	11.56	1569
120	84	14.84	72	0.72	0.95	11.45	1.30	12.96	1368
140	95	16.33	86	0.86	1.13	11.47	1.42	14.24	1258
160	103	17.42	101	1.01	1.33	11.49	1.52	15.16	1140
180	111	18.51	115	1.15	1.51	11.52	1.61	16.07	1062
200	117	19.32	130	1.30	1.71	11.54	1.67	16.75	979
220	123	20.14	146	1.46	1.92	11.56	1.74	17.42	907
240	128	20.82	160	1.60	2.11	11.59	1.80	17.97	854
260	133	21.50	176	1.76	2.32	11.61	1.85	18.52	800
280	137	22.04	191	1.91	2.51	11.63	1.89	18.95	754
300	140	22.45	206	2.06	2.71	11.66	1.93	19.26	710
320	144	22.99	221	2.21	2.91	11.68	1.97	19.68	677
340	147	23.40	236	2.36	3.11	11.70	2.00	19.99	644
360	149	23.67	250	2.50	3.29	11.73	2.02	20.19	614
380	152	24.08	266	2.66	3.50	11.75	2.05	20.49	585
400	154	24.35	282	2.82	3.71	11.78	2.07	20.68	557
420	156	24.62	298	2.98	3.92	11.80	2.09	20.86	532
440	157	24.76	314	3.14	4.13	11.83	2.09	20.93	507
460	159	25.03	330	3.30	4.34	11.86	2.11	21.11	486
480	161	25.30	346	3.46	4.55	11.88	2.13	21.30	468
500	162	25.44	363	3.63	4.78	11.91	2.14	21.36	447
520	163	25.58	381	3.81	5.01	11.94	2.14	21.42	427
540	163	25.58	397	3.97	5.22	11.97	2.14	21.37	409
560	163	25.58	415	4.15	5.46	12.00	2.13	21.32	390
580	163	25.58	431	4.31	5.67	12.02	2.13	21.27	375
600	163	25.58	448	4.48	5.89	12.05	2.12	21.22	360
620	163	25.58	467	4.67	6.14	12.08	2.12	21.17	344
640	161	25.30	485	4.85	6.38	12.11	2.09	20.89	327
660	158	24.90	504	5.04	6.63	12.15	2.05	20.50	309
680	152	24.08	521	5.21	6.86	12.18	1.98	19.78	288
700	143	22.86	542	5.42	7.13	12.21	1.87	18.72	262
720	134	21.63	560	5.60	7.37	12.24	1.77	17.67	240
740	121	19.87	581	5.81	7.64	12.28	1.62	16.18	212
760	110	18.37	599	5.99	7.88	12.31	1.49	14.92	189
780	94	16.20	619	6.19	8.14	12.35	1.31	13.12	161
800	73	13.34	640	6.40	8.42	12.38	1.08	10.77	128
820	50	10.22	660	6.60	8.68	12.42	0.82	8.23	95
840	34	8.04	680	6.80	8.95	12.46	0.65	6.46	72
Valoarea coeziunii nedrenate (kPa)				21.42					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

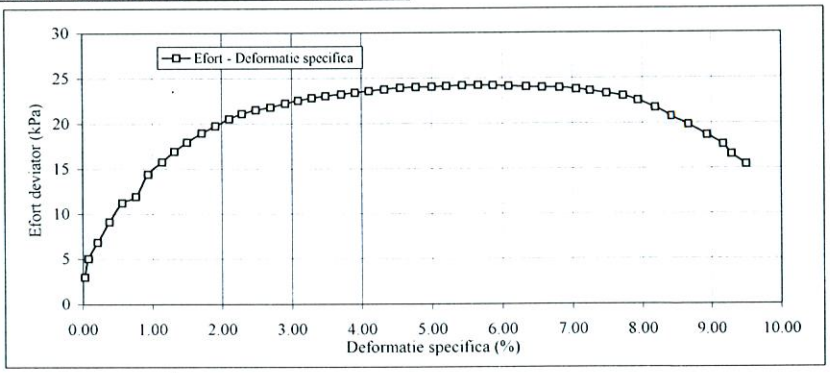
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

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Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F5 Proba P3 Adancime de prelevare proba 2.40÷3.60m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafenie cu filme cenuşii, cu foarte mulţi oxizi de fier, slab nisipoasă, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F5 P3	UM
Diametrul	d (cm)	3.80	γ	20.7	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	16.5	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	178.56	n	39	%
Masa in stare uscata	m_d (g)	142.12	e	0.65	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	26	c_u	24	kPa
Densitatea in stare naturala	ρ (g/cm^3)	2.07	E_s (0.05%)	11457	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.65	E_s (0.1%)	6396	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	3247	kPa
Porozitatea	n (%)	39	E_s (1%)	1540	kPa
Indicele porilor	e (-)	0.65	E_s (2%)	1036	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	481	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	2	0.02	0.03	11.34	0.30	3.01	11457
20	17	5.73	6	0.06	0.08	11.35	0.50	5.05	6396
40	32	7.77	16	0.16	0.21	11.37	0.68	6.84	3247
60	51	10.35	29	0.29	0.38	11.38	0.91	9.09	2383
80	69	12.80	43	0.43	0.57	11.41	1.12	11.22	1983
100	75	13.61	58	0.58	0.76	11.43	1.19	11.91	1561
120	96	16.47	71	0.71	0.93	11.45	1.44	14.39	1540
140	108	18.10	87	0.87	1.14	11.47	1.58	15.78	1378
160	118	19.46	100	1.00	1.32	11.49	1.69	16.93	1287
180	127	20.68	114	1.14	1.50	11.51	1.80	17.96	1198
200	136	21.91	130	1.30	1.71	11.54	1.90	18.98	1110
220	143	22.86	145	1.45	1.91	11.56	1.98	19.77	1036
240	150	23.81	160	1.60	2.11	11.59	2.06	20.55	976
260	155	24.49	174	1.74	2.29	11.61	2.11	21.10	922
280	159	25.03	189	1.89	2.49	11.63	2.15	21.52	865
300	162	25.44	205	2.05	2.70	11.66	2.18	21.83	809
320	166	25.98	221	2.21	2.91	11.68	2.22	22.24	765
340	169	26.39	235	2.35	3.09	11.70	2.26	22.55	729
360	172	26.80	250	2.50	3.29	11.73	2.29	22.85	695
380	174	27.07	265	2.65	3.49	11.75	2.30	23.04	661
400	176	27.34	282	2.82	3.71	11.78	2.32	23.21	626
420	178	27.61	297	2.97	3.91	11.80	2.34	23.40	599
440	180	27.89	312	3.12	4.11	11.83	2.36	23.58	574
460	182	28.16	329	3.29	4.33	11.85	2.38	23.75	549
480	184	28.43	346	3.46	4.55	11.88	2.39	23.93	526
500	185	28.57	363	3.63	4.78	11.91	2.40	23.98	502
520	186	28.70	380	3.80	5.00	11.94	2.40	24.04	481
540	187	28.84	396	3.96	5.21	11.96	2.41	24.10	463
560	188	28.97	413	4.13	5.43	11.99	2.42	24.16	445
580	189	29.11	430	4.30	5.66	12.02	2.42	24.22	428
600	189	29.11	446	4.46	5.87	12.05	2.42	24.16	412
620	189	29.11	463	4.63	6.09	12.08	2.41	24.10	396
640	189	29.11	482	4.82	6.34	12.11	2.40	24.04	379
660	189	29.11	499	4.99	6.57	12.14	2.40	23.98	365
680	189	29.11	518	5.18	6.82	12.17	2.39	23.92	351
700	188	28.97	536	5.36	7.05	12.20	2.37	23.75	337
720	187	28.84	551	5.51	7.25	12.23	2.36	23.58	325
740	185	28.57	569	5.69	7.49	12.26	2.33	23.30	311
760	183	28.29	587	5.87	7.72	12.29	2.30	23.02	298
780	179	27.75	603	6.03	7.93	12.32	2.25	22.53	284
800	172	26.80	622	6.22	8.18	12.35	2.17	21.70	265
820	164	25.71	640	6.40	8.42	12.38	2.08	20.76	247
840	156	24.62	659	6.59	8.67	12.42	1.98	19.83	229
860	146	23.27	679	6.79	8.93	12.45	1.87	18.68	209
880	137	22.04	697	6.97	9.17	12.49	1.77	17.65	192
900	127	20.68	706	7.06	9.29	12.50	1.65	16.54	178
920	117	19.32	722	7.22	9.50	12.53	1.54	15.42	162
Valoarea coeziunii nedrenate (kPa)				24.22					



Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

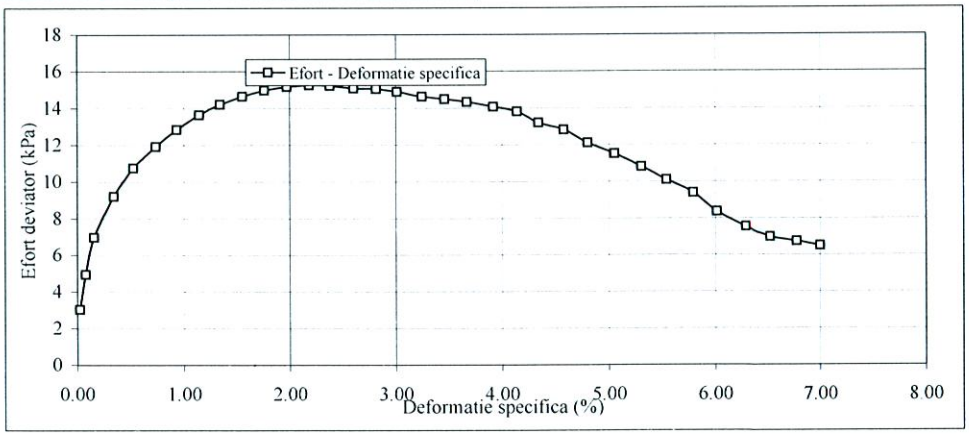
Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
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Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Amplasament: DN1 km204+434÷205+546
Forajul F6 Proba P2 Adancime de prelevare proba 1.20÷2.40m
Incercarea de Compresiune Monoaxiala (v=0.5mm/minut)
Descriere proba: Argilă, cafeniu gălbuie, cu oxizi de fier, (rare resturi vegetale), intercalatii de argilă, cenuşie, plastic vârtoasă

Caracteristicile probei (geometrie, indici structura)		Initial	Forajul / Proba	F6 P2	UM
Diametrul	d (cm)	3.80	γ	19.6	kN/m^3
Inaltimea	h (cm)	7.60	γ_d	15.1	kN/m^3
Aria	A (cm^2)	11.341	γ_s	27.2	kN/m^3
Masa in stare naturala	m (g)	169.29	n	44	%
Masa in stare uscata	m_d (g)	130.23	e	0.80	-
Volumul	V (cm3)	86.193	S_r	1.00	-
Umiditatea	w (%)	30	c_u	15	kPa
Densitatea in stare naturala	ρ (g/cm^3)	1.96	E_s (0.05%)	12730	kPa
Densitatea in stare uscata	ρ_d (g/cm^3)	1.51	E_s (0.1%)	6244	kPa
Densitatea scheletului	ρ_s (g/cm^3)	2.720	E_s (0.2%)	4408	kPa
Porozitatea	n (%)	44	E_s (1%)	1375	kPa
Indicele porilor	e (-)	0.80	E_s (2%)	769	kPa
Gradul de saturatie	S_r (-)	1.00	E_s (5%)	228	kPa

Timp	Citire inel	Forta	Citire deformatie ΔL	Deformatie ΔL	Deformatie specifica $\Delta L/L_0$	Arie corectata $A_0/(1-\Delta L/L_0)$	Efort (Forta/Arie corectata)	Efort (Forta/Arie corectata)	E_s
(secunde)	(div)	(N)	(div)	(mm)	(%)	(cm^2)	(N/cm^2)	(kPa)	(kPa)
0	0	3.42	1.8	0.02	0.02	11.34	0.30	3.02	12730
20	16	5.59	6	0.06	0.08	11.35	0.49	4.93	6244
40	33	7.91	12	0.12	0.16	11.36	0.70	6.96	4408
60	52	10.49	26	0.26	0.34	11.38	0.92	9.22	2694
80	65	12.26	40	0.40	0.53	11.40	1.07	10.75	2042
100	75	13.61	56	0.56	0.74	11.43	1.19	11.92	1617
120	83	14.70	71	0.71	0.93	11.45	1.28	12.84	1375
140	90	15.65	87	0.87	1.14	11.47	1.36	13.64	1192
160	95	16.33	102	1.02	1.34	11.50	1.42	14.21	1059
180	99	16.88	118	1.18	1.55	11.52	1.46	14.65	944
200	102	17.28	134	1.34	1.76	11.54	1.50	14.97	849
220	104	17.56	150	1.50	1.97	11.57	1.52	15.17	769
240	105	17.69	166	1.66	2.18	11.59	1.53	15.26	699
260	105	17.69	181	1.81	2.38	11.62	1.52	15.23	639
280	104	17.56	198	1.98	2.61	11.64	1.51	15.08	579
300	104	17.56	214	2.14	2.82	11.67	1.50	15.04	534
320	103	17.42	229	2.29	3.01	11.69	1.49	14.90	494
340	101	17.15	247	2.47	3.25	11.72	1.46	14.63	450
360	100	17.01	263	2.63	3.46	11.75	1.45	14.48	418
380	99	16.88	279	2.79	3.67	11.77	1.43	14.33	390
400	97	16.60	298	2.98	3.92	11.80	1.41	14.07	359
420	95	16.33	315	3.15	4.14	11.83	1.38	13.80	333
440	90	15.65	330	3.30	4.34	11.86	1.32	13.20	304
460	87	15.25	348	3.48	4.58	11.89	1.28	12.83	280
480	81	14.43	365	3.65	4.80	11.91	1.21	12.11	252
500	76	13.75	384	3.84	5.05	11.94	1.15	11.51	228
520	70	12.93	403	4.03	5.30	11.98	1.08	10.80	204
540	64	12.12	421	4.21	5.54	12.01	1.01	10.09	182
560	58	11.30	440	4.40	5.79	12.04	0.94	9.39	162
580	49	10.08	457	4.57	6.01	12.07	0.84	8.35	139
600	42	9.13	478	4.78	6.29	12.10	0.75	7.54	120
620	37	8.45	496	4.96	6.53	12.13	0.70	6.96	107
640	35	8.18	515	5.15	6.78	12.17	0.67	6.72	99
660	33	7.91	532	5.32	7.00	12.19	0.65	6.48	93
Valoarea coeziunii nedrenate (kPa)				15.26					



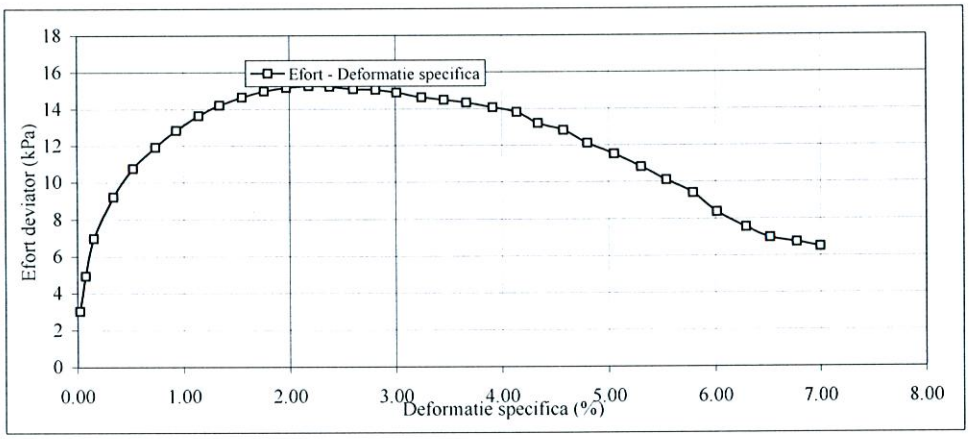
Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
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Operator: Tehnician Andrei Visan
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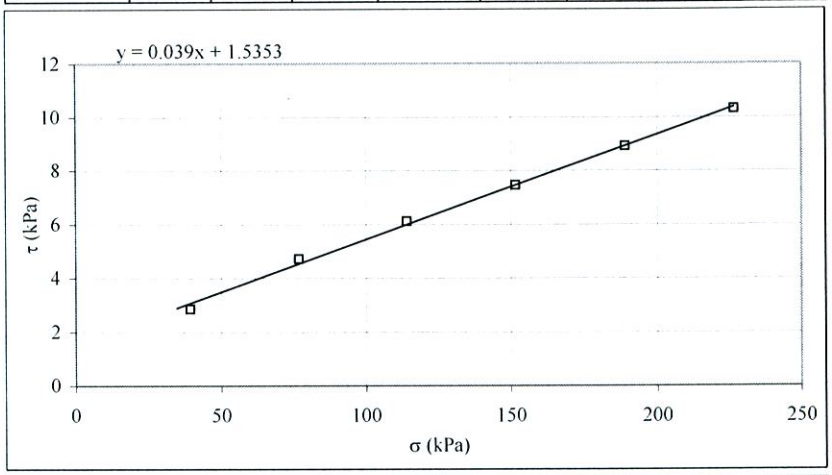
Forajul / Proba	F1 P2	F1 P3	F2 P2	F2 P4	F3 P2	F3 P4	F4 P1	F4 P3	F5 P3	F6 P2	UM
γ	20.7	20.5	20.2	20.0	19.8	20.9	20.3	20.3	20.7	19.6	kN/m^3
γ_d	16.0	16.5	16.1	15.8	16.0	16.9	15.5	16.2	16.5	15.1	kN/m^3
γ_s	27.2	27.2	27.2	27.2	27.0	27.2	27.2	27.2	27.2	27.2	kN/m^3
n	41	39	41	42	41	38	43	40	39	44	%
e	0.70	0.65	0.69	0.72	0.69	0.61	0.75	0.68	0.65	0.80	-
S_r	1.00	1.00	1.00	0.99	0.93	1.00	1.00	1.00	1.00	1.00	-
c_u	17	24	27	12	16	27	22	21	24	15	kPa
E_s (0.01%)	12730	14322	6547	13479	15277	14322	15277	12060	11457	12730	kPa
E_s (0.05%)	4909	5741	5388	3926	7676	4262	6131	3926	6396	6244	kPa
E_s (0.1%)	3647	3484	4176	2682	3588	2949	3794	3101	3247	4408	kPa
E_s (1%)	1387	1428	2004	858	1485	1703	1831	1368	1540	1375	kPa
E_s (2%)	833	960	1230	502	811	1135	1101	907	1036	769	kPa
E_s (5%)	308	463	288	240	210	556	207	447	481	228	kPa

Operator: Tehnician Andrei Visan
Sandu Panturu
ing. Robert Cuculici

Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Constantin Olteanu

Efort Unitar	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	Unitate de Masura
τ=	2.853	4.717	6.116	7.454	8.910	10.305	kPa
σ'=	39.321	76.769	114.217	151.665	189.114	226.562	kPa



	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	
P=	105	205	305	405	505	605	N
R_1=	4.75	4.75	4.75	4.75	4.75	4.75	cm
R_2=	3.75	3.75	3.75	3.75	3.75	3.75	cm
L=	4.25	4.25	4.25	4.25	4.25	4.25	cm
n_1=	**24**	**38**	**48**	**61**	**75**	**92**	div.
n_2=	**25**	**43**	**57**	**67**	**78**	**85**	div.
F_1=	7.477	11.839	14.955	19.005	23.367	28.663	N
F_2=	7.832	13.471	17.857	20.990	24.436	26.629	N
T=	32.533	53.784	69.725	84.989	101.581	117.496	Ncm
τ=	0.285	0.472	0.612	0.745	0.891	1.031	N/cm^2
σ'=	3.932	7.677	11.422	15.167	18.911	22.656	N/cm^2
τ/σ'=	0.073	0.061	0.054	0.049	0.047	0.045	(-)
$\tan\phi'$=	0.073	0.061	0.054	0.049	0.047	0.045	(-)
ϕ'=	0.072	0.061	0.053	0.049	0.047	0.045	rad
ϕ'=	4.2	3.5	3.1	2.8	2.7	2.6	°

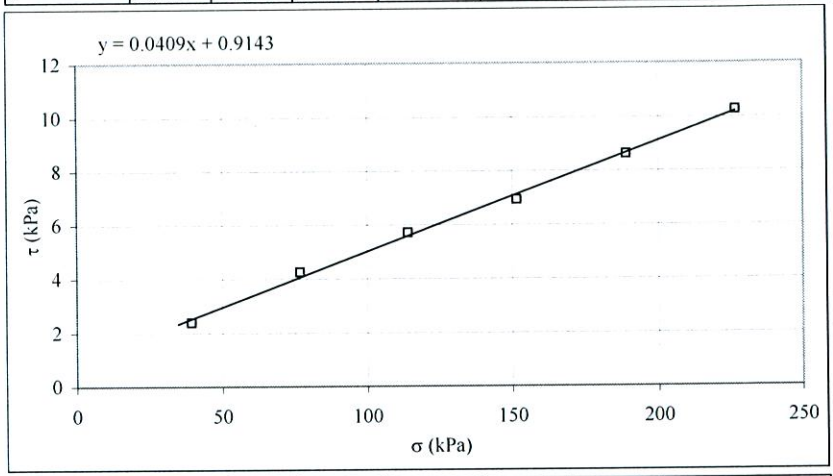
Amplasament		DN1
Forajul		F1
Proba		P6
Adancimea (m)		6.00-7.20
Descriere proba		
Argilă mărnoasă, cenuşie, slab lentile de nisip fin, cenuşiu micaceu, tare (supraconsolidată)		
$tg\phi$=	0.039	(-)
ϕ=	2	(grade)
c=	1.5	(kPa)
v=	0.445	°/minut
v=	0.33019	mm/minut

Centralizator date		
Foraj	F1	-
Proba	P6	-
Adancime	6.00-7.20	m
$\phi_{rezidual}$=	2	°
$c_{rezidual}$	1.5	kPa
I_p	35	%

Beneficiar: C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Probe prelevate de Executant
din Amplasamentul DN1 km204+434÷205+546

Laboratorul de Geotehnica Grad I
Autorizatie ISC Nr. 2270/14.06.2011

Efort Unitar	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	Unitate de Masura
τ=	2.387	4.250	5.705	6.931	8.622	10.253	kPa
σ'=	39.321	76.769	114.217	151.665	189.114	226.562	kPa



	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	
P=	105	205	305	405	505	605	N
R_1=	4.75	4.75	4.75	4.75	4.75	4.75	cm
R_2=	3.75	3.75	3.75	3.75	3.75	3.75	cm
L=	4.25	4.25	4.25	4.25	4.25	4.25	cm
n_1=	**22**	**39**	**53**	**54**	**62**	**75**	div.
n_2=	**19**	**34**	**45**	**65**	**86**	**101**	div.
F_1=	6.854	12.151	16.512	16.824	19.316	23.367	N
F_2=	5.952	10.652	14.098	20.363	26.942	31.642	N
T=	27.214	48.455	65.047	79.023	98.300	116.893	Ncm
τ=	0.239	0.425	0.571	0.693	0.862	1.025	N/cm^2
σ'=	3.932	7.677	11.422	15.167	18.911	22.656	N/cm^2
τ/σ'=	0.061	0.055	0.050	0.046	0.046	0.045	(-)
$\tan\phi'$=	0.061	0.055	0.050	0.046	0.046	0.045	(-)
ϕ'=	0.061	0.055	0.050	0.046	0.046	0.045	rad
ϕ'=	3.5	3.2	2.9	2.6	2.6	2.6	°

Amplasament	DN1	
Forajul	F2	
Proba	P7	
Adancimea (m)	7.20-8.40	
Descriere proba		
Argilă, cenuşie, cu oxizi de fier, slab nisipoasă, zone frământate, plastic consistentă la vârtoasă		
tgϕ=	0.0409	(-)
ϕ=	2	(grade)
c=	0.9	(kPa)
v=	0.445	°/minut
v=	0.33019	mm/minut

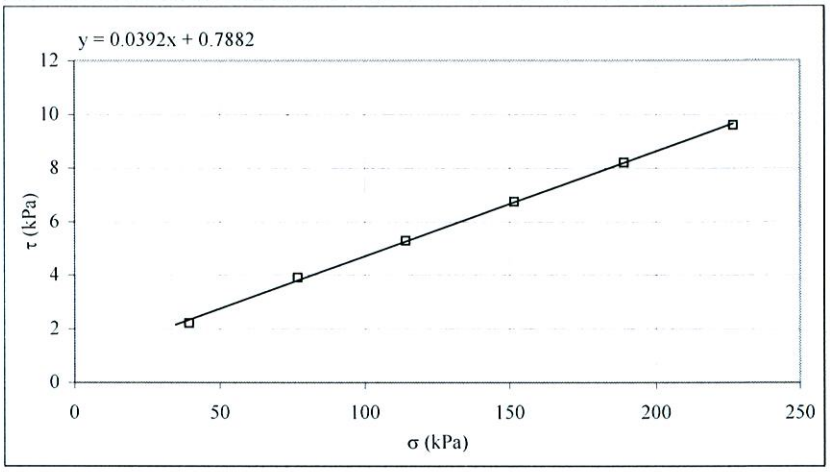
Centralizator date		
Foraj	F2	-
Proba	P7	-
Adancime	7.20-8.40	m
$\phi_{rezidual}$=	2	°
$c_{rezidual}$	0.9	kPa
I_p	49	%

Operator: Tehnician. Andrei Visan
Verificat: ing. Cristina Tomsa

Aprobat: dr. ing. Andrei Olteanu

UTCB
LG Grad I
Autorizatie 2270/2011
Contract :149/2013

Efort Unitar	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	Unitate de Masura
τ=	2.212	3.899	5.295	6.749	8.204	9.601	kPa
σ'=	39.321	76.769	114.217	151.665	189.114	226.562	kPa



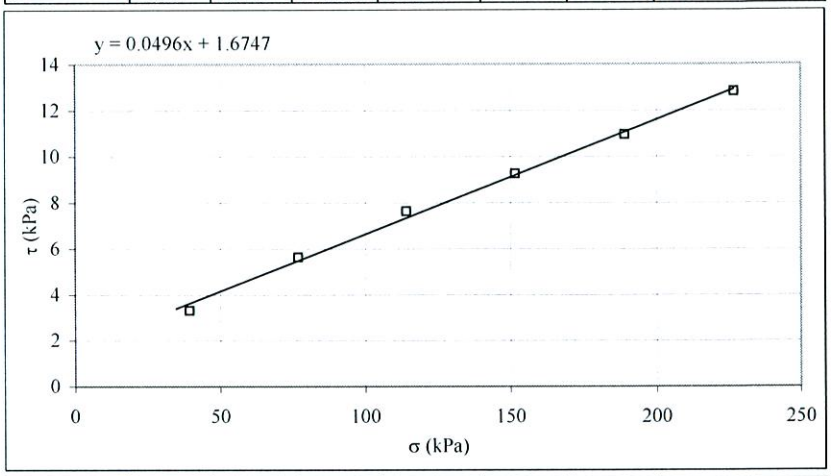
	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	
P=	105	205	305	405	505	605	N
R_1=	4.75	4.75	4.75	4.75	4.75	4.75	cm
R_2=	3.75	3.75	3.75	3.75	3.75	3.75	cm
L=	4.25	4.25	4.25	4.25	4.25	4.25	cm
n_1=	**22**	**42**	**57**	**74**	**89**	**103**	div.
n_2=	**16**	**25**	**34**	**42**	**52**	**62**	div.
F_1=	6.854	13.085	17.759	23.055	27.728	32.090	N
F_2=	5.013	7.832	10.652	13.158	16.291	19.424	N
T=	25.217	44.450	60.372	76.953	93.541	109.467	Ncm
τ=	0.221	0.390	0.530	0.675	0.820	0.960	N/cm^2
σ'=	3.932	7.677	11.422	15.167	18.911	22.656	N/cm^2
τ/σ'=	0.056	0.051	0.046	0.045	0.043	0.042	(-)
$\tan\phi'$=	0.056	0.051	0.046	0.045	0.043	0.042	(-)
ϕ'=	0.056	0.051	0.046	0.044	0.043	0.042	rad
ϕ'=	3.2	2.9	2.7	2.5	2.5	2.4	°

Amplasament	DN1
Forajul	F3
Proba	P7
Adancimea (m)	7.20-8.40
Descriere proba	
Argilă mărnoasă, cenuşie, cu oxizi de fier, slab nisipoasă, frământată	

$tg\phi$=	0.0392	(-)
ϕ=	2	(grade)
c=	0.8	(kPa)
v=	0.445	°/minut
v=	0.33019	mm/minut

Centralizator date		
Foraj	F3	-
Proba	P7	-
Adancime	7.20-8.40	m
$\phi_{rezidual}$=	2	°
$c_{rezidual}$	0.8	kPa
I_p	27	%

Efort Unitar	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	Unitate de Masura
τ=	3.318	5.646	7.628	9.260	10.948	12.813	kPa
σ'=	39.321	76.769	114.217	151.665	189.114	226.562	kPa

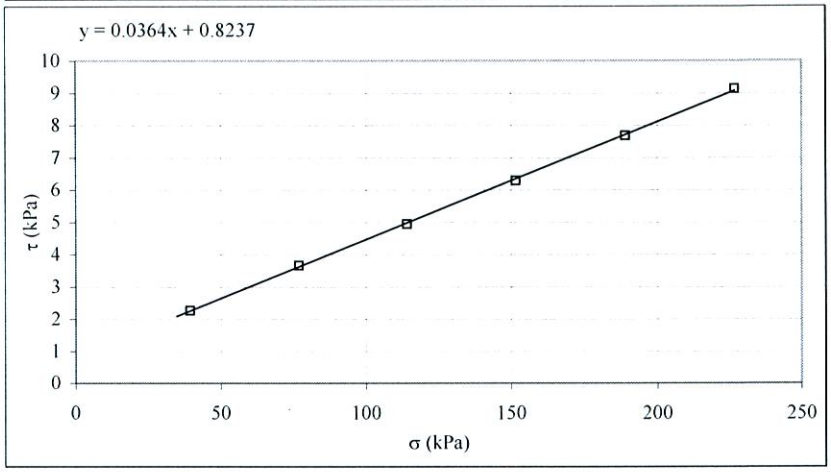


	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	
P=	105	205	305	405	505	605	N
R_1=	4.75	4.75	4.75	4.75	4.75	4.75	cm
R_2=	3.75	3.75	3.75	3.75	3.75	3.75	cm
L=	4.25	4.25	4.25	4.25	4.25	4.25	cm
n_1=	**31**	**56**	**64**	**74**	**90**	**101**	div.
n_2=	**26**	**41**	**67**	**85**	**98**	**119**	div.
F_1=	9.658	17.447	19.940	23.055	28.040	31.467	N
F_2=	8.145	12.845	20.990	26.629	30.702	37.281	N
T=	37.833	64.370	86.975	105.579	124.826	146.089	Ncm
τ=	0.332	0.565	0.763	0.926	1.095	1.281	N/cm^2
σ'=	3.932	7.677	11.422	15.167	18.911	22.656	N/cm^2
τ/σ'=	0.084	0.074	0.067	0.061	0.058	0.057	(-)
tanϕ'=	0.084	0.074	0.067	0.061	0.058	0.057	(-)
ϕ'=	0.084	0.073	0.067	0.061	0.058	0.056	rad
ϕ'=	4.8	4.2	3.8	3.5	3.3	3.2	°

Amplasament		DN1
Forajul		F4
Proba		P8
Adancimea (m)		8.40-9.60
Descriere proba		
Argilă, cafeniu închisă cu lentule de nisip fin, cenuşiu micaceu, oxizi de fier, frământată		
tgϕ=	0.0496	(-)
ϕ=	3	(grade)
c=	1.7	(kPa)
v=	0.445	°/minut
v=	0.33019	mm/minut

Centralizator date		
Foraj	F4	-
Proba	P8	-
Adancime	8.40-9.60	m
$\phi_{rezidual}$=	3	°
$c_{rezidual}$	1.7	kPa
I_p	49	%

Efort Unitar	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	Unitate de Masura
τ=	2.270	3.666	4.946	6.285	7.679	9.139	kPa
σ'=	39.321	76.769	114.217	151.665	189.114	226.562	kPa



	Proba 1	Proba 2	Proba 3	Proba 4	Proba 5	Proba 6	
P=	105	205	305	405	505	605	N
R_1=	4.75	4.75	4.75	4.75	4.75	4.75	cm
R_2=	3.75	3.75	3.75	3.75	3.75	3.75	cm
L=	4.25	4.25	4.25	4.25	4.25	4.25	cm
n_1=	**23**	**39**	**52**	**67**	**87**	**89**	div.
n_2=	**16**	**24**	**33**	**41**	**45**	**68**	div.
F_1=	7.166	12.151	16.201	20.874	27.105	27.728	N
F_2=	5.013	7.519	10.338	12.845	14.098	21.303	N
T=	25.879	41.798	56.396	71.653	87.557	104.192	Ncm
τ=	0.227	0.367	0.495	0.628	0.768	0.914	N/cm^2
σ'=	3.932	7.677	11.422	15.167	18.911	22.656	N/cm^2
τ/σ'=	0.058	0.048	0.043	0.041	0.041	0.040	(-)
$\tan\phi'$=	0.058	0.048	0.043	0.041	0.041	0.040	(-)
ϕ'=	0.058	0.048	0.043	0.041	0.041	0.040	rad
ϕ'=	3.3	2.7	2.5	2.4	2.3	2.3	°

Amplasament	DN1
Forajul	F5
Proba	P8
Adancimea (m)	8.40-9.60
Descriere proba	
Argilă mărnoasă, cenuşie, cu rare filme de nisip fin, cenuşiu micaceu, supraconsolidată	

tgϕ=	0.0364	(-)
ϕ=	2	(grade)
c=	0.8	(kPa)
v=	0.445	°/minut
v=	0.33019	mm/minut

Centralizator date		
Foraj	F5	-
Proba	P8	-
Adancime	8.40-9.60	m
$\phi_{rezidual}$=	2	°
$c_{rezidual}$	0.8	kPa
I_p	35	%

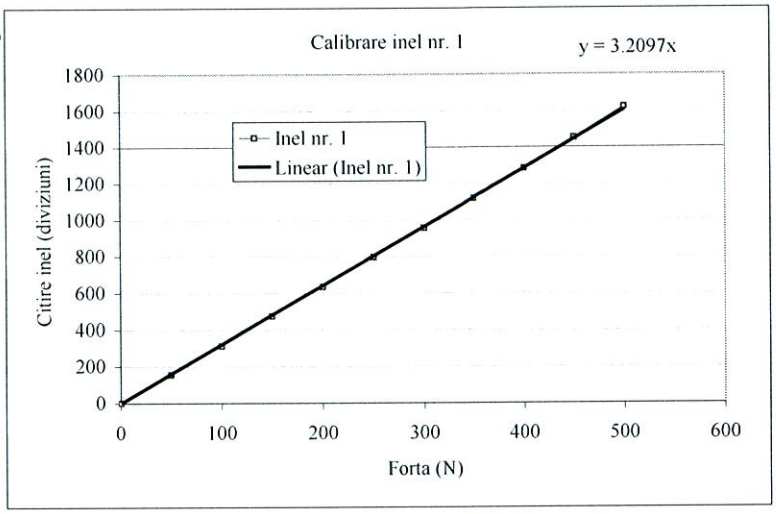
Foraj	F1	F2	F3	F4	F5	-
Proba	P6	P7	P7	P8	P8	-
Adancime	6.00-7.20	7.20-8.40	7.20-8.40	8.40-9.60	8.40-9.60	m
$\phi_{rezidual}$=	2	2	2	3	2	°
$c_{rezidual}$	1.5	0.9	0.8	1.7	0.8	kPa
I_p	29	40	33	43	-	%

Inel nr. 1

WF	no.	25860
Ring	no.	14512B

Forta (n)	Citire (div.)
0	0
50	155
100	312
150	473
200	634
250	795
300	956
350	1117
400	1283
450	1451
500	1620

Forta=Citire/3.2097

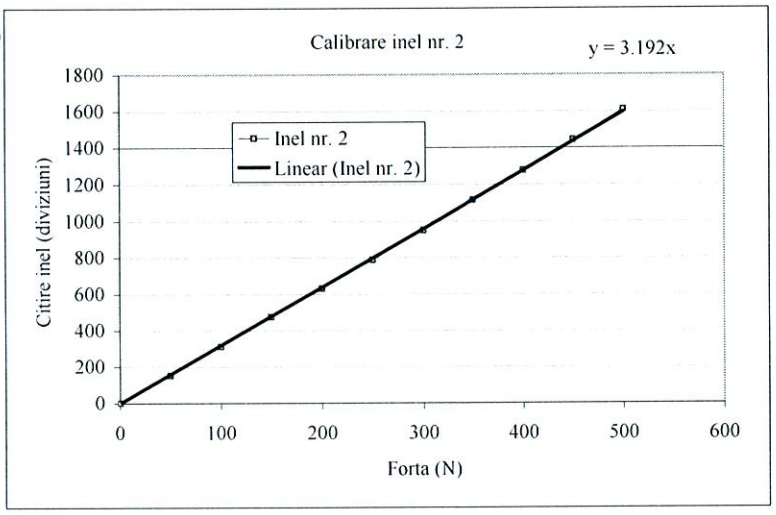


Inel nr. 2

WF	no.	25860
Ring	no.	14512A

Forta (n)	Citire (div.)
0	0
50	153
100	311
150	475
200	632
250	789
300	950
350	1113
400	1278
450	1442
500	1608

Forta=Citire/3.1920



Anexa 4: Prelucrarea datelor testelor de penetrare dinamică de tip SPTc

Denumire lucrare
Expertiză Tehnică Consolidare DN1 km204+434÷km205+546

Amplasamentul lucrării
DN1 km 204+434÷km 205+546

Titularul investiţiei:	C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Beneficiarul investiţiei:	C.N.A.D.N.R. S.A. - D.R.D.P. Braşov
Elaboratorul documentaţiei:	Universitatea Tehnică de Construcţii Bucureşti Departamentul de Geotehnică şi Fundaţii
Contract nr.	132/28.08.2013 (număr Beneficiar) 149/02.09.2013 (număr Executant)

Întocmit,

Drd. Ing.
Cristina Tomşa

Verificat,

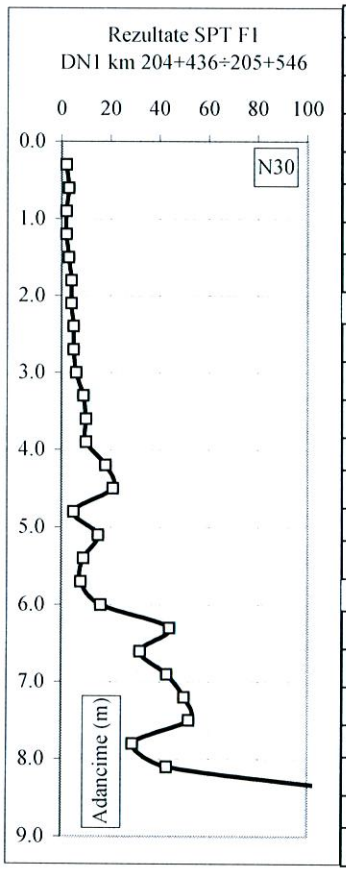
Şef Lucrări dr. ing.
Andrei Constantin Olteanu

Bucureşti, 03 Decembrie 2013

Rezultate Determinari SPTc
Amplasament: DN1 km 204+434÷205+54

Calcul la Stari Limita
Stratificatie de Calcul - Parametrii de Calcul

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	2	3	Plastic curgator	2200	9	-
2	c	0.6	3	4	Plastic moale	3100	12	-
3	c	0.9	2	3	Plastic curgator	2000	8	-
4	c	1.2	2	2	Plastic curgator	1900	7	-
5	c	1.5	3	4	Plastic curgator	2700	11	-
6	c	1.8	4	4	Plastic moale	3400	13	-
7	c	2.1	4	4	Plastic moale	3300	13	-
8	c	2.4	5	5	Plastic moale	3900	15	-
9	c	2.7	5	5	Plastic moale	3800	15	-
10	c	3.0	6	6	Plastic moale	4400	17	-
11	c	3.3	9	8	Plastic consistent	6400	25	-
12	c	3.6	10	9	Plastic consistent	6800	27	-
13	c	3.9	10	9	Plastic consistent	6600	26	-
14	c	4.2	18	17	Plastic vartos	13000	51	-
15	c	4.5	21	19	Plastic vartos	14700	58	-
16	c	4.8	5	4	Plastic moale	3400	13	-
17	c	5.1	15	13	Plastic consistent	9900	39	-
18	c	5.4	9	8	Plastic moale	5800	23	-
19	c	5.7	8	7	Plastic moale	5000	20	-
20	c	6.0	16	13	Plastic consistent	9700	38	-
21	c	6.3	44	38	Tare	29100	70	-
34	c	6.6	32	27	Plastic vartos	20700	70	-
35	c	6.9	43	35	Tare	27100	70	-
36	c	7.2	50	40	Tare	30700	70	-
37	c	7.5	52	41	Tare	31200	70	-
38	c	7.8	29	22	Plastic vartos	17000	67	-
39	c	8.1	43	32	Tare	24600	70	-
40	c	8.4	120	88	Tare	67300	70	-

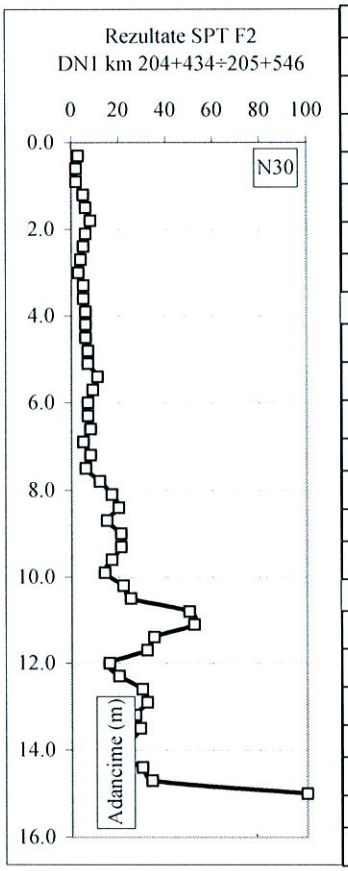


A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	47	°	ϕ_{maxim}=	54	°
ϕ_{minim}=	28	°	ϕ_{minim}=	39	°
ϕ_{mediu}=	34	°	ϕ_{mediu}=	45	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	17	°	$\phi_{F.O.S.}$=	23	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	14	°	ϕ_{calcul}=	18	°
c_{maxim}=	70	kPa	c_{maxim}=	70	kPa
c_{minim}=	7	kPa	c_{minim}=	67	kPa
c_{mediu}=	24	kPa	c_{mediu}=	70	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	24	kPa	$c_{F.O.S.}$=	70	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	18	kPa	c_{calcul}=	52	kPa
E_{maxim}=	29100	kPa	E_{maxim}=	67300	kPa
E_{minim}=	1900	kPa	E_{minim}=	17000	kPa
E_{mediu}=	6719	kPa	E_{mediu}=	31229	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	6719	kPa	$E_{F.O.S.}$=	31229	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	5375	kPa	E_{calcul}=	24983	kPa

B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c,n)	Adancime	N_{30}	N_{30cor}	Cor_z	$N_{30cor}*Cor_z$
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	2	3	0.00	0
2	c	0.6	3	4	0.00	0
3	c	0.9	2	3	0.00	0
4	c	1.2	2	2	0.00	0
5	c	1.5	3	4	0.00	0
6	c	1.8	4	4	0.00	0
7	c	2.1	4	4	0.00	0
8	c	2.4	5	5	0.00	0
9	c	2.7	5	5	0.00	0
10	c	3.0	6	6	1.00	6
11	c	3.3	9	8	0.98	8
12	c	3.6	10	9	0.96	9
13	c	3.9	10	9	0.94	8
14	c	4.2	18	17	0.91	16
15	c	4.5	21	19	0.89	17
16	c	4.8	5	4	0.87	4
17	c	5.1	15	13	0.85	11
18	c	5.4	9	8	0.83	6
19	c	5.7	8	7	0.81	5
20	c	6.0	16	13	0.78	10
21	c	6.3	44	38	0.76	29
34	c	6.6	32	27	0.74	20
35	c	6.9	43	35	0.72	25
36	c	7.2	50	40	0.70	28
37	c	7.5	52	41	0.68	28
38	c	7.8	29	22	0.65	15
39	c	8.1	43	32	0.63	20
40	c	8.4	120	88	0.61	54

N_{corz} =	21	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.024	(-)	Parametru geotehnic	$E_{stratul\ 1}$	5375	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	24983	kPa
s =	18	mm		$\phi_{stratul\ 1}$	14	°
k_s =	8.28E+03	kN/m^3		$\phi_{stratul\ 2}$	18	°
$p_{admisibil}$=	209	kPa		$c_{stratul\ 1}$	18	kPa
p_{ultim} =	313	kPa		$c_{stratul\ 2}$	52	kPa

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	3	4	Plastic moale	3300	13	-
2	c	0.6	2	3	Plastic curgator	2100	8	-
3	c	0.9	2	3	Plastic curgator	2000	8	-
4	c	1.2	5	6	Plastic moale	4700	18	-
5	c	1.5	6	7	Plastic moale	5400	21	-
6	c	1.8	8	9	Plastic consistent	6800	27	-
7	c	2.1	6	6	Plastic moale	4900	19	-
8	c	2.4	5	5	Plastic moale	3900	15	-
9	c	2.7	4	4	Plastic curgator	3000	12	-
10	c	3.0	3	3	Plastic curgator	2200	9	-
11	c	3.3	5	5	Plastic moale	3500	14	-
12	c	3.6	5	4	Plastic moale	3400	13	-
13	c	3.9	6	5	Plastic moale	4000	16	-
14	c	4.2	6	6	Plastic moale	4300	17	-
15	c	4.5	6	5	Plastic moale	4200	16	-
16	c	4.8	7	6	Plastic moale	4800	19	-
17	c	5.1	7	6	Plastic moale	4600	18	-
18	c	5.4	11	9	Plastic consistent	7100	28	-
19	c	5.7	9	7	Plastic moale	5600	22	-
20	c	6.0	7	6	Plastic moale	4300	17	-
21	c	6.3	7	6	Plastic moale	4600	18	-
22	c	6.6	8	7	Plastic moale	5200	20	-
23	c	6.9	5	4	Plastic moale	3100	12	-
24	c	7.2	8	6	Plastic moale	4900	19	-
25	c	7.5	6	5	Plastic moale	3600	14	-
26	c	7.8	12	9	Plastic consistent	7000	28	-
27	c	8.1	17	13	Plastic consistent	9700	38	-
28	c	8.4	20	15	Plastic consistent	11200	44	-
29	c	8.7	15	11	Plastic consistent	8200	32	-
30	c	9.0	21	15	Plastic consistent	11300	44	-
31	c	9.3	21	14	Plastic consistent	11000	43	-
32	c	9.6	17	11	Plastic consistent	8800	34	-
33	c	9.9	14	9	Plastic consistent	7100	28	-
34	c	10.2	22	15	Plastic consistent	11500	45	-
35	c	10.5	25	17	Plastic vartos	12800	50	-
36	c	10.8	50	33	Tare	25100	70	-
37	c	11.1	52	33	Tare	25600	70	-
38	c	11.4	35	22	Plastic vartos	16900	66	-
39	c	11.7	32	20	Plastic vartos	15200	60	-
40	c	12.0	16	10	Plastic consistent	7500	29	-
41	c	12.3	20	12	Plastic consistent	9200	36	-
42	c	12.6	30	18	Plastic vartos	13500	53	-
43	c	12.9	32	19	Plastic vartos	14200	56	-
44	c	13.2	27	15	Plastic vartos	11800	46	-
45	c	13.5	29	16	Plastic vartos	12500	49	-
46	c	13.8	24	13	Plastic consistent	10200	40	-
47	c	14.1	17	9	Plastic consistent	7100	28	-
48	c	14.4	30	16	Plastic vartos	12300	48	-
49	c	14.7	34	18	Plastic vartos	13700	54	-
50	c	15.0	100	52	Tare	39800	70	-

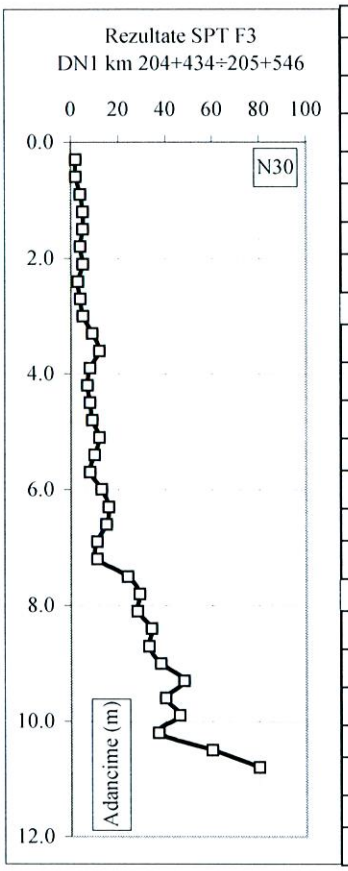


A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	37	°	ϕ_{maxim}=	39	°
ϕ_{minim}=	27	°	ϕ_{minim}=	25	°
ϕ_{mediu}=	31	°	ϕ_{mediu}=	31	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	16	°	$\phi_{F.O.S.}$=	16	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	12	°	ϕ_{calcul}=	12	°
c_{maxim}=	44	kPa	c_{maxim}=	70	kPa
c_{minim}=	8	kPa	c_{minim}=	28	kPa
c_{mediu}=	21	kPa	c_{mediu}=	51	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	21	kPa	$c_{F.O.S.}$=	51	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	16	kPa	c_{calcul}=	38	kPa
E_{maxim}=	11300	kPa	E_{maxim}=	39800	kPa
E_{minim}=	2000	kPa	E_{minim}=	7100	kPa
E_{mediu}=	5448	kPa	E_{mediu}=	15229	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	5448	kPa	$E_{F.O.S.}$=	15229	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	4359	kPa	E_{calcul}=	12184	kPa

B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c,n)	Adancime	N_{30}	N_{30cor}	Cor_z	$N_{30cor}*Cor_z$
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	3	4	0.00	0
2	c	0.6	2	3	0.00	0
3	c	0.9	2	3	0.00	0
4	c	1.2	5	6	0.00	0
5	c	1.5	6	7	0.00	0
6	c	1.8	8	9	0.00	0
7	c	2.1	6	6	0.00	0
8	c	2.4	5	5	0.00	0
9	c	2.7	4	4	0.00	0
10	c	3.0	3	3	1.00	3
11	c	3.3	5	5	0.98	5
12	c	3.6	5	4	0.96	4
13	c	3.9	6	5	0.94	5
14	c	4.2	6	6	0.91	5
15	c	4.5	6	5	0.89	5
16	c	4.8	7	6	0.87	5
17	c	5.1	7	6	0.85	5
18	c	5.4	11	9	0.83	8
19	c	5.7	9	7	0.81	6
20	c	6.0	7	6	0.78	4
21	c	6.3	7	6	0.76	5
22	c	6.6	8	7	0.74	5
23	c	6.9	5	4	0.72	3
24	c	7.2	8	6	0.70	4
25	c	7.5	6	5	0.68	3
26	c	7.8	12	9	0.65	6
27	c	8.1	17	13	0.63	8
28	c	8.4	20	15	0.61	9
29	c	8.7	15	11	0.59	6
30	c	9.0	21	15	0.57	8
31	c	9.3	21	14	0.55	8
32	c	9.6	17	11	0.52	6
33	c	9.9	14	9	0.50	5
34	c	10.2	22	15	0.48	7
35	c	10.5	25	17	0.46	8
36	c	10.8	50	33	0.44	14
37	c	11.1	52	33	0.42	14
38	c	11.4	35	22	0.40	9
39	c	11.7	32	20	0.37	7
40	c	12.0	16	10	0.35	3
41	c	12.3	20	12	0.33	4
42	c	12.6	30	18	0.31	5
43	c	12.9	32	19	0.29	5
44	c	13.2	27	15	0.27	4
45	c	13.5	29	16	0.24	4
46	c	13.8	24	13	0.22	3
47	c	14.1	17	9	0.20	2
48	c	14.4	30	16	0.18	3
49	c	14.7	34	18	0.16	3
50	c	15.0	100	52	0.14	7

N_{corz} =	10	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.068	(-)	Parametru geotehnic	$E_{stratul\ 1}$	4359	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	12184	kPa
s =	51	mm		$\phi_{stratul\ 1}$	12	°
k_s =	2.93E+03	kN/m^3		$\phi_{stratul\ 2}$	12	°
$p_{admisibil}$=	282	kPa		$c_{stratul\ 1}$	16	kPa
p_{ultim} =	149	kPa		$c_{stratul\ 2}$	38	kPa

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	2	3	Plastic curgator	2200	9	-
2	c	0.6	2	3	Plastic curgator	2100	8	-
3	c	0.9	4	5	Plastic moale	3900	15	-
4	c	1.2	5	6	Plastic moale	4700	18	-
5	c	1.5	5	6	Plastic moale	4500	18	-
6	c	1.8	4	4	Plastic moale	3400	13	-
7	c	2.1	5	5	Plastic moale	4100	16	-
8	c	2.4	3	3	Plastic curgator	2400	9	-
9	c	2.7	4	4	Plastic curgator	3000	12	-
10	c	3.0	5	5	Plastic moale	3700	14	-
11	c	3.3	9	8	Plastic consistent	6400	25	-
12	c	3.6	12	11	Plastic consistent	8200	32	-
13	c	3.9	8	7	Plastic moale	5300	21	-
14	c	4.2	7	7	Plastic moale	5100	20	-
15	c	4.5	8	7	Plastic moale	5600	22	-
16	c	4.8	9	8	Plastic consistent	6100	24	-
17	c	5.1	12	10	Plastic consistent	7900	31	-
18	c	5.4	10	8	Plastic consistent	6400	25	-
19	c	5.7	8	7	Plastic moale	5000	20	-
20	c	6.0	13	10	Plastic consistent	7900	31	-
21	c	6.3	16	14	Plastic consistent	10600	42	-
22	c	6.6	15	13	Plastic consistent	9700	38	-
23	c	6.9	11	9	Plastic consistent	6900	27	-
24	c	7.2	11	9	Plastic consistent	6800	26	-
25	c	7.5	24	19	Plastic vartos	14400	56	-
34	c	7.8	29	22	Plastic vartos	17000	67	-
35	c	8.1	28	21	Plastic vartos	16100	63	-
36	c	8.4	34	25	Plastic vartos	19100	70	-
37	c	8.7	33	24	Plastic vartos	18100	70	-
38	c	9.0	38	27	Plastic vartos	20400	70	-
39	c	9.3	48	33	Tare	25200	70	-
40	c	9.6	40	27	Plastic vartos	20600	70	-
41	c	9.9	46	30	Tare	23200	70	-
42	c	10.2	37	25	Plastic vartos	19300	70	-
43	c	10.5	60	40	Tare	30700	70	-
44	c	10.8	80	52	Tare	40200	70	-

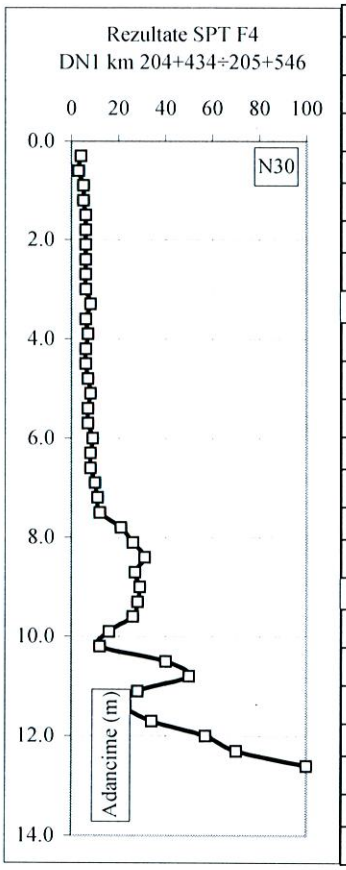


A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	38	°	ϕ_{maxim}=	43	°
ϕ_{minim}=	28	°	ϕ_{minim}=	37	°
ϕ_{mediu}=	33	°	ϕ_{mediu}=	39	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	17	°	$\phi_{F.O.S.}$=	20	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	13	°	ϕ_{calcul}=	16	°
c_{maxim}=	56	kPa	c_{maxim}=	70	kPa
c_{minim}=	8	kPa	c_{minim}=	63	kPa
c_{mediu}=	23	kPa	c_{mediu}=	69	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	23	kPa	$c_{F.O.S.}$=	69	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	17	kPa	c_{calcul}=	51	kPa
E_{maxim}=	14400	kPa	E_{maxim}=	40200	kPa
E_{minim}=	2100	kPa	E_{minim}=	16100	kPa
E_{mediu}=	5852	kPa	E_{mediu}=	22718	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	5852	kPa	$E_{F.O.S.}$=	22718	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	4682	kPa	E_{calcul}=	18175	kPa

B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c.n)	Adancime	N_{30}	N_{30cor}	Cor_z	$N_{30cor}*Cor_z$
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	2	3	0.00	0
2	c	0.6	2	3	0.00	0
3	c	0.9	4	5	0.00	0
4	c	1.2	5	6	0.00	0
5	c	1.5	5	6	0.00	0
6	c	1.8	4	4	0.00	0
7	c	2.1	5	5	0.00	0
8	c	2.4	3	3	0.00	0
9	c	2.7	4	4	0.00	0
10	c	3.0	5	5	1.00	5
11	c	3.3	9	8	0.98	8
12	c	3.6	12	11	0.96	10
13	c	3.9	8	7	0.94	6
14	c	4.2	7	7	0.91	6
15	c	4.5	8	7	0.89	7
16	c	4.8	9	8	0.87	7
17	c	5.1	12	10	0.85	9
18	c	5.4	10	8	0.83	7
19	c	5.7	8	7	0.81	5
20	c	6.0	13	10	0.78	8
21	c	6.3	16	14	0.76	11
22	c	6.6	15	13	0.74	9
23	c	6.9	11	9	0.72	7
24	c	7.2	11	9	0.70	6
25	c	7.5	24	19	0.68	13
34	c	7.8	29	22	0.65	15
35	c	8.1	28	21	0.63	13
36	c	8.4	34	25	0.61	15
37	c	8.7	33	24	0.59	14
38	c	9.0	38	27	0.57	15
39	c	9.3	48	33	0.55	18
40	c	9.6	40	27	0.52	14
41	c	9.9	46	30	0.50	15
42	c	10.2	37	25	0.48	12
43	c	10.5	60	40	0.46	18
44	c	10.8	80	52	0.44	23

N_{corz} =	15	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.039	(-)	Parametru geotehnic	$E_{stratul\ 1}$	4682	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	18175	kPa
s =	29	mm		$\phi_{stratul\ 1}$	13	°
k_s =	5.17E+03	kN/m^3		$\phi_{stratul\ 2}$	16	°
$p_{admisibil}$=	240	kPa		$c_{stratul\ 1}$	17	kPa
p_{ultim} =	224	kPa		$c_{stratul\ 2}$	51	kPa

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	4	6	Plastic moale	4300	17	-
2	c	0.6	3	4	Plastic moale	3100	12	-
3	c	0.9	5	6	Plastic moale	4900	19	-
4	c	1.2	5	6	Plastic moale	4700	18	-
5	c	1.5	6	7	Plastic moale	5400	21	-
6	c	1.8	6	7	Plastic moale	5100	20	-
7	c	2.1	6	6	Plastic moale	4900	19	-
8	c	2.4	6	6	Plastic moale	4700	19	-
9	c	2.7	6	6	Plastic moale	4600	18	-
10	c	3.0	6	6	Plastic moale	4400	17	-
11	c	3.3	8	7	Plastic moale	5600	22	-
12	c	3.6	6	5	Plastic moale	4100	16	-
13	c	3.9	7	6	Plastic moale	4600	18	-
14	c	4.2	6	6	Plastic moale	4300	17	-
15	c	4.5	6	5	Plastic moale	4200	16	-
16	c	4.8	7	6	Plastic moale	4800	19	-
17	c	5.1	8	7	Plastic moale	5300	21	-
18	c	5.4	7	6	Plastic moale	4500	18	-
19	c	5.7	7	6	Plastic moale	4400	17	-
20	c	6.0	9	8	Plastic moale	6100	24	-
21	c	6.3	8	7	Plastic moale	5300	21	-
22	c	6.6	8	7	Plastic moale	5200	20	-
23	c	6.9	10	8	Plastic consistent	6300	25	-
24	c	7.2	11	9	Plastic consistent	6800	26	-
25	c	7.5	12	9	Plastic consistent	7200	28	-
34	c	7.8	21	16	Plastic vartos	12300	48	-
35	c	8.1	26	19	Plastic vartos	14900	58	-
36	c	8.4	31	23	Plastic vartos	17400	68	-
37	c	8.7	27	19	Plastic vartos	14800	58	-
38	c	9.0	29	20	Plastic vartos	15600	61	-
39	c	9.3	28	19	Plastic vartos	14700	58	-
40	c	9.6	26	17	Plastic vartos	13400	52	-
41	c	9.9	16	11	Plastic consistent	8100	32	-
42	c	10.2	12	8	Plastic consistent	6300	25	-
43	c	10.5	40	27	Plastic vartos	20500	70	-
44	c	10.8	50	33	Tare	25100	70	-
45	c	11.1	28	18	Plastic vartos	13800	54	-
46	c	11.4	23	15	Plastic consistent	11100	44	-
47	c	11.7	34	21	Plastic vartos	16200	63	-
48	c	12.0	57	35	Tare	26600	70	-
49	c	12.3	70	42	Tare	32100	70	-
50	c	12.6	100	59	Tare	45100	70	-

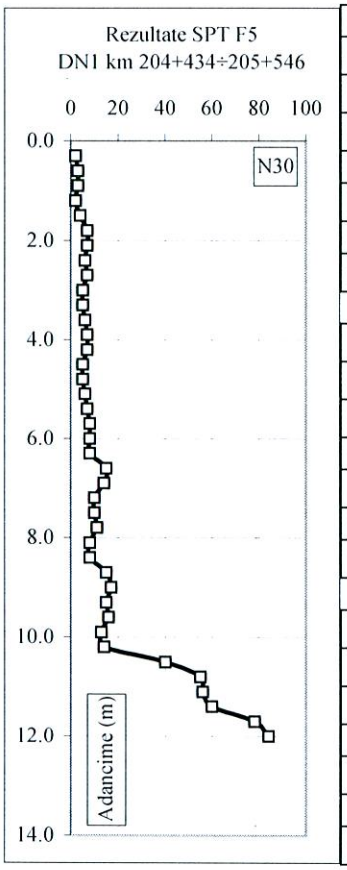


A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	35	°	ϕ_{maxim}=	42	°
ϕ_{minim}=	30	°	ϕ_{minim}=	28	°
ϕ_{mediu}=	32	°	ϕ_{mediu}=	36	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	16	°	$\phi_{F.O.S.}$=	18	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	13	°	ϕ_{calcul}=	14	°
c_{maxim}=	28	kPa	c_{maxim}=	70	kPa
c_{minim}=	12	kPa	c_{minim}=	25	kPa
c_{mediu}=	20	kPa	c_{mediu}=	57	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	20	kPa	$c_{F.O.S.}$=	57	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	14	kPa	c_{calcul}=	42	kPa
E_{maxim}=	7200	kPa	E_{maxim}=	45100	kPa
E_{minim}=	3100	kPa	E_{minim}=	6300	kPa
E_{mediu}=	4992	kPa	E_{mediu}=	18118	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	4992	kPa	$E_{F.O.S.}$=	18118	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	3994	kPa	E_{calcul}=	14494	kPa

B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c,n)	Adancime	N_{30}	N_{30cor}	Cor_z	N_{30cor}*Cor_z
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	4	6	0.00	0
2	c	0.6	3	4	0.00	0
3	c	0.9	5	6	0.00	0
4	c	1.2	5	6	0.00	0
5	c	1.5	6	7	0.00	0
6	c	1.8	6	7	0.00	0
7	c	2.1	6	6	0.00	0
8	c	2.4	6	6	0.00	0
9	c	2.7	6	6	0.00	0
10	c	3.0	6	6	1.00	6
11	c	3.3	8	7	0.98	7
12	c	3.6	6	5	0.96	5
13	c	3.9	7	6	0.94	6
14	c	4.2	6	6	0.91	5
15	c	4.5	6	5	0.89	5
16	c	4.8	7	6	0.87	5
17	c	5.1	8	7	0.85	6
18	c	5.4	7	6	0.83	5
19	c	5.7	7	6	0.81	5
20	c	6.0	9	8	0.78	6
21	c	6.3	8	7	0.76	5
22	c	6.6	8	7	0.74	5
23	c	6.9	10	8	0.72	6
24	c	7.2	11	9	0.70	6
25	c	7.5	12	9	0.68	6
34	c	7.8	21	16	0.65	11
35	c	8.1	26	19	0.63	12
36	c	8.4	31	23	0.61	14
37	c	8.7	27	19	0.59	11
38	c	9.0	29	20	0.57	12
39	c	9.3	28	19	0.55	11
40	c	9.6	26	17	0.52	9
41	c	9.9	16	11	0.50	5
42	c	10.2	12	8	0.48	4
43	c	10.5	40	27	0.46	12
44	c	10.8	50	33	0.44	14
45	c	11.1	28	18	0.42	8
46	c	11.4	23	15	0.40	6
47	c	11.7	34	21	0.37	8
48	c	12.0	57	35	0.35	12
49	c	12.3	70	42	0.33	14
50	c	12.6	100	59	0.31	18

N_{corz} =	13	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.047	(-)	Parametru geotehnic	$E_{stratul\ 1}$	3994	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	14494	kPa
s =	35	mm		$\phi_{stratul\ 1}$	13	°
k_s =	4.23E+03	kN/m^3		$\phi_{stratul\ 2}$	14	°
$p_{admisibil}$=	254	kPa		$c_{stratul\ 1}$	14	kPa
p_{ultim} =	194	kPa		$c_{stratul\ 2}$	42	kPa

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	2	3	Plastic curgator	2200	9	-
2	c	0.6	3	4	Plastic moale	3100	12	-
3	c	0.9	3	4	Plastic curgator	2900	12	-
4	c	1.2	2	2	Plastic curgator	1900	7	-
5	c	1.5	4	5	Plastic moale	3600	14	-
6	c	1.8	7	8	Plastic moale	6000	23	-
7	c	2.1	7	8	Plastic moale	5700	23	-
8	c	2.4	6	6	Plastic moale	4700	19	-
9	c	2.7	7	7	Plastic moale	5300	21	-
10	c	3.0	5	5	Plastic moale	3700	14	-
11	c	3.3	5	5	Plastic moale	3500	14	-
12	c	3.6	6	5	Plastic moale	4100	16	-
13	c	3.9	7	6	Plastic moale	4600	18	-
14	c	4.2	7	7	Plastic moale	5100	20	-
15	c	4.5	5	5	Plastic moale	3500	14	-
16	c	4.8	5	4	Plastic moale	3400	13	-
17	c	5.1	6	5	Plastic moale	4000	16	-
18	c	5.4	7	6	Plastic moale	4500	18	-
19	c	5.7	8	7	Plastic moale	5000	20	-
20	c	6.0	8	7	Plastic moale	5400	21	-
21	c	6.3	8	7	Plastic moale	5300	21	-
22	c	6.6	15	13	Plastic consistent	9700	38	-
23	c	6.9	14	12	Plastic consistent	8800	35	-
24	c	7.2	10	8	Plastic consistent	6100	24	-
25	c	7.5	10	8	Plastic moale	6000	24	-
26	c	7.8	11	8	Plastic consistent	6500	25	-
27	c	8.1	8	6	Plastic moale	4600	18	-
28	c	8.4	8	6	Plastic moale	4500	18	-
29	c	8.7	15	11	Plastic consistent	8200	32	-
23	c	9.0	17	12	Plastic consistent	9100	36	-
24	c	9.3	15	10	Plastic consistent	7900	31	-
25	c	9.6	16	11	Plastic consistent	8200	32	-
34	c	9.9	13	9	Plastic consistent	6600	26	-
35	c	10.2	14	10	Plastic consistent	7300	29	-
36	c	10.5	40	27	Plastic vartos	20500	70	-
37	c	10.8	55	36	Tare	27600	70	-
38	c	11.1	56	36	Tare	27600	70	-
39	c	11.4	60	38	Tare	29000	70	-
40	c	11.7	78	48	Tare	37100	70	-
41	c	12.0	84	51	Tare	39200	70	-

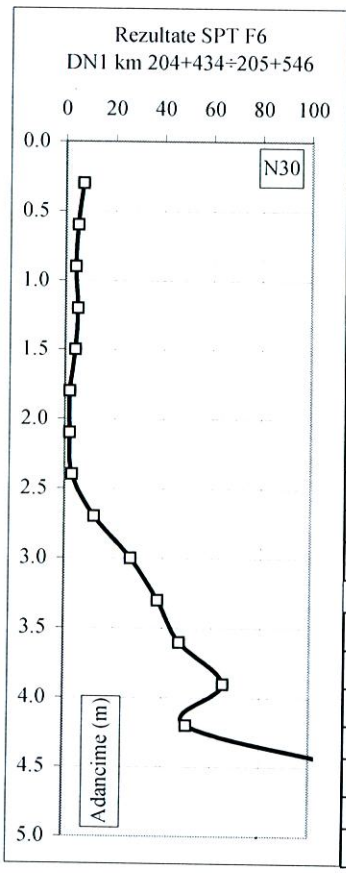


A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	36	°	ϕ_{maxim}=	41	°
ϕ_{minim}=	28	°	ϕ_{minim}=	29	°
ϕ_{mediu}=	31	°	ϕ_{mediu}=	37	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	16	°	$\phi_{F.O.S.}$=	19	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	12	°	ϕ_{calcul}=	15	°
c_{maxim}=	38	kPa	c_{maxim}=	70	kPa
c_{minim}=	7	kPa	c_{minim}=	26	kPa
c_{mediu}=	21	kPa	c_{mediu}=	59	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	21	kPa	$c_{F.O.S.}$=	59	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	15	kPa	c_{calcul}=	44	kPa
E_{maxim}=	9700	kPa	E_{maxim}=	39200	kPa
E_{minim}=	1900	kPa	E_{minim}=	6600	kPa
E_{mediu}=	5222	kPa	E_{mediu}=	24363	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	5222	kPa	$E_{F.O.S.}$=	24363	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	4178	kPa	E_{calcul}=	19490	kPa

B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c.n)	Adancime	N_{30}	N_{30cor}	Cor_z	N_{30cor}*Cor_z
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	2	3	0.00	0
2	c	0.6	3	4	0.00	0
3	c	0.9	3	4	0.00	0
4	c	1.2	2	2	0.00	0
5	c	1.5	4	5	0.00	0
6	c	1.8	7	8	0.00	0
7	c	2.1	7	8	0.00	0
8	c	2.4	6	6	0.00	0
9	c	2.7	7	7	0.00	0
10	c	3.0	5	5	1.00	5
11	c	3.3	5	5	0.98	5
12	c	3.6	6	5	0.96	5
13	c	3.9	7	6	0.94	6
14	c	4.2	7	7	0.91	6
15	c	4.5	5	5	0.89	4
16	c	4.8	5	4	0.87	4
17	c	5.1	6	5	0.85	4
18	c	5.4	7	6	0.83	5
19	c	5.7	8	7	0.81	5
20	c	6.0	8	7	0.78	6
21	c	6.3	8	7	0.76	5
22	c	6.6	15	13	0.74	9
23	c	9.0	17	12	0.57	7
24	c	9.3	15	10	0.55	6
25	c	9.6	16	11	0.52	6
34	c	9.9	13	9	0.50	4
35	c	10.2	14	10	0.48	5
36	c	10.5	40	27	0.46	12
37	c	10.8	55	36	0.44	16
38	c	11.1	56	36	0.42	15
39	c	11.4	60	38	0.40	15
40	c	11.7	78	48	0.37	18
41	c	12.0	84	51	0.35	18

N_{corz} =	12	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.053	(-)	Parametru geotehnic	$E_{stratul\ 1}$	4178	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	19490	kPa
s =	40	mm		$\phi_{stratul\ 1}$	12	°
k_s =	3.78E+03	kN/m^3		$\phi_{stratul\ 2}$	15	°
$p_{admisibil}$=	262	kPa		$c_{stratul\ 1}$	15	kPa
p_{ultim} =	179	kPa		$c_{stratul\ 2}$	44	kPa

Test	Tip pamant	Adancime	N_{30}	N_{30cor}	Clasificare	E	c_u	ϕ
(-)	(-)	(m)	(-)	(-)	(-)	(kPa)	(kPa)	(°)
1	c	0.3	7	10	Plastic consistent	7600	30	-
2	c	0.6	5	7	Plastic moale	5200	20	-
3	c	0.9	4	5	Plastic moale	3900	15	-
4	c	1.2	5	6	Plastic moale	4700	18	-
5	c	1.5	4	5	Plastic moale	3600	14	-
6	c	1.8	2	2	Plastic curgator	1700	7	-
7	c	2.1	2	2	Plastic curgator	1600	6	-
8	c	2.4	3	3	Plastic curgator	2400	9	-
9	c	2.7	12	12	Plastic consistent	9100	36	-
10	c	3.0	27	26	Plastic vartos	19800	70	-
34	c	3.3	38	35	Tare	26800	70	-
35	c	3.6	47	42	Tare	32100	70	-
36	c	3.9	65	56	Tare	42900	70	-
37	c	4.2	50	47	Tare	36200	70	-
38	c	4.5	120	110	Tare	84200	70	-



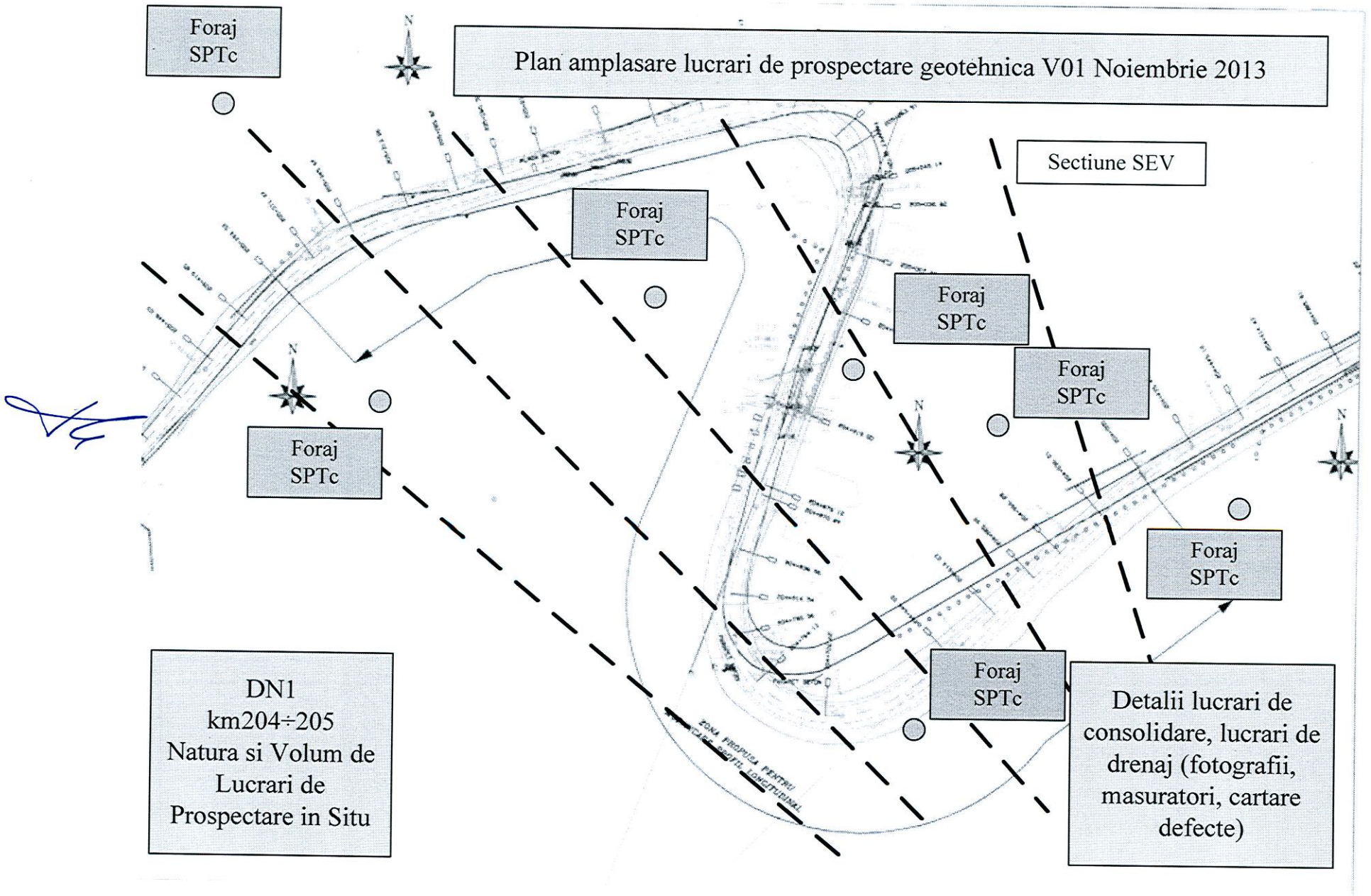
A-AN (Coeziv Stratul 1)			A-AN (Coeziv Stratul 2)		
ϕ_{maxim}=	47	°	ϕ_{maxim}=	64	°
ϕ_{minim}=	26	°	ϕ_{minim}=	50	°
ϕ_{mediu}=	34	°	ϕ_{mediu}=	55	°
FS (F.O.S.)	2	-	FS (F.O.S.)	2	-
$\phi_{F.O.S.}$=	17	°	$\phi_{F.O.S.}$=	28	°
FS (EC7)	1.25	-	FS (EC7)	1.25	-
ϕ_{calcul}=	14	°	ϕ_{calcul}=	22	°
c_{maxim}=	70	kPa	c_{maxim}=	70	kPa
c_{minim}=	6	kPa	c_{minim}=	70	kPa
c_{mediu}=	23	kPa	c_{mediu}=	70	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$c_{F.O.S.}$=	23	kPa	$c_{F.O.S.}$=	70	kPa
FS (EC7)	1.35	-	FS (EC7)	1.35	-
c_{calcul}=	17	kPa	c_{calcul}=	52	kPa
E_{maxim}=	19800	kPa	E_{maxim}=	84200	kPa
E_{minim}=	1600	kPa	E_{minim}=	26800	kPa
E_{mediu}=	5960	kPa	E_{mediu}=	44440	kPa
FS (F.O.S.)	1	-	FS (F.O.S.)	1	-
$E_{F.O.S.}$=	5960	kPa	$E_{F.O.S.}$=	44440	kPa
FS (EC7)	1.25	-	FS (EC7)	1.25	-
E_{calcul}=	4768	kPa	E_{calcul}=	35552	kPa

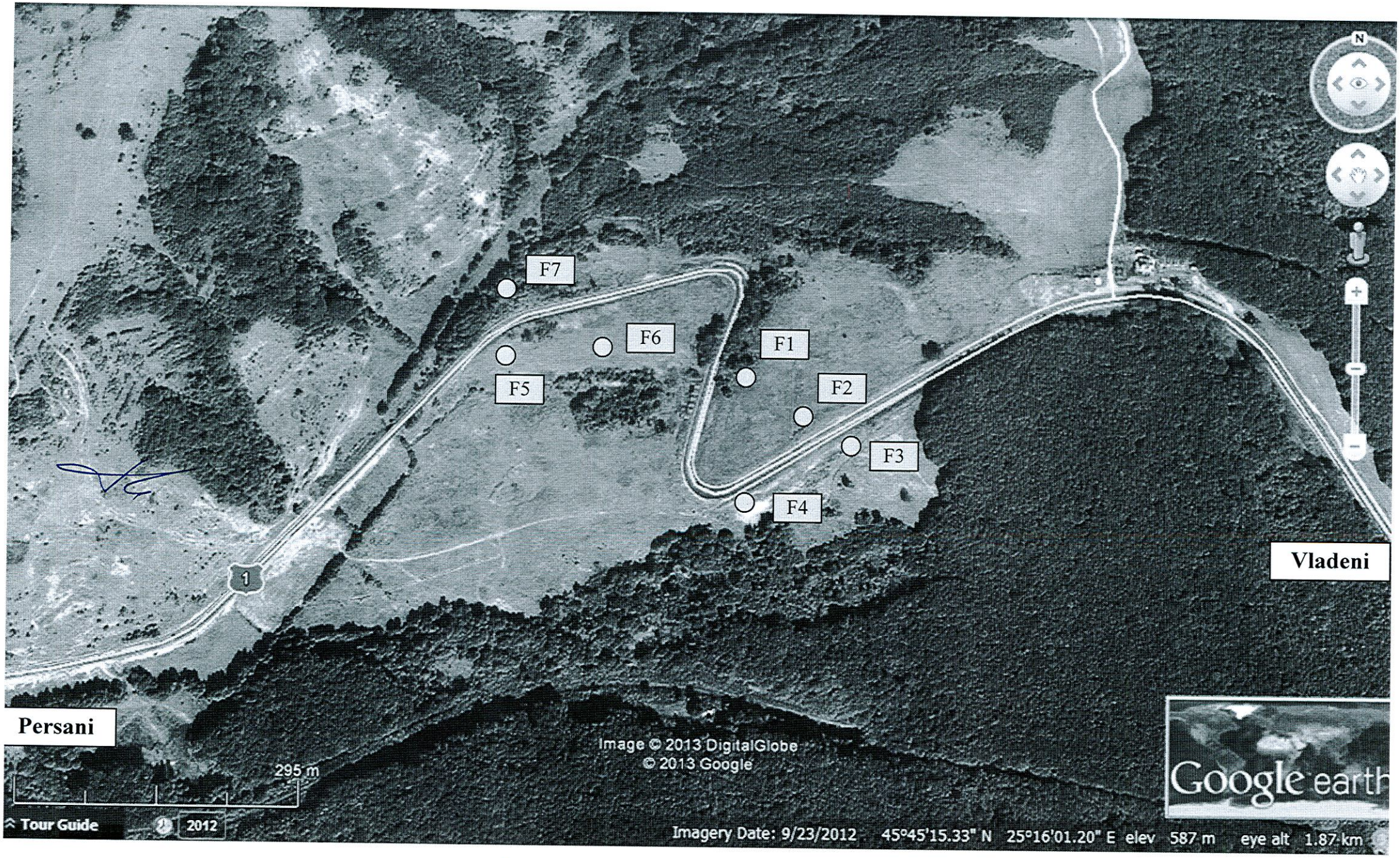
B =	10.0	m	Geometrie terasament			
D_f =	3.0	m	Adancime de fundare			
q=	150.0	kPa	Suprasarcina uniform distribuita			
Test	Tip pamant (c,n)	Adancime	N_{30}	N_{30cor}	Cor_z	$N_{30cor}*Cor_z$
(-)	(-)	(m)	(-)	(-)	(-)	(-)
1	c	0.3	7	10	0.00	0
2	c	0.6	5	7	0.00	0
3	c	0.9	4	5	0.00	0
4	c	1.2	5	6	0.00	0
5	c	1.5	4	5	0.00	0
6	c	1.8	2	2	0.00	0
7	c	2.1	2	2	0.00	0
8	c	2.4	3	3	0.00	0
9	c	2.7	12	12	0.00	0
10	c	3.0	27	26	1.00	26
34	c	3.3	38	35	0.98	34
35	c	3.6	47	42	0.96	40
36	c	3.9	65	56	0.94	52
37	c	4.2	50	47	0.91	43
38	c	4.5	120	110	0.89	98

N_{corz} =	52	(lovituri)	Centralizator parametrii geotehnici de calcul			
I_c =	0.007	(-)	Parametru geotehnic	$E_{stratul\ 1}$	4768	kPa
F_d=	1.10	(-)		$E_{stratul\ 2}$	35552	kPa
s =	5	mm		$\phi_{stratul\ 1}$	14	°
k_s =	2.95E+04	kN/m^3		$\phi_{stratul\ 2}$	22	°
$p_{admisibil}$=	146	kPa		$c_{stratul\ 1}$	17	kPa
p_{ultim} =	775	kPa		$c_{stratul\ 2}$	52	kPa

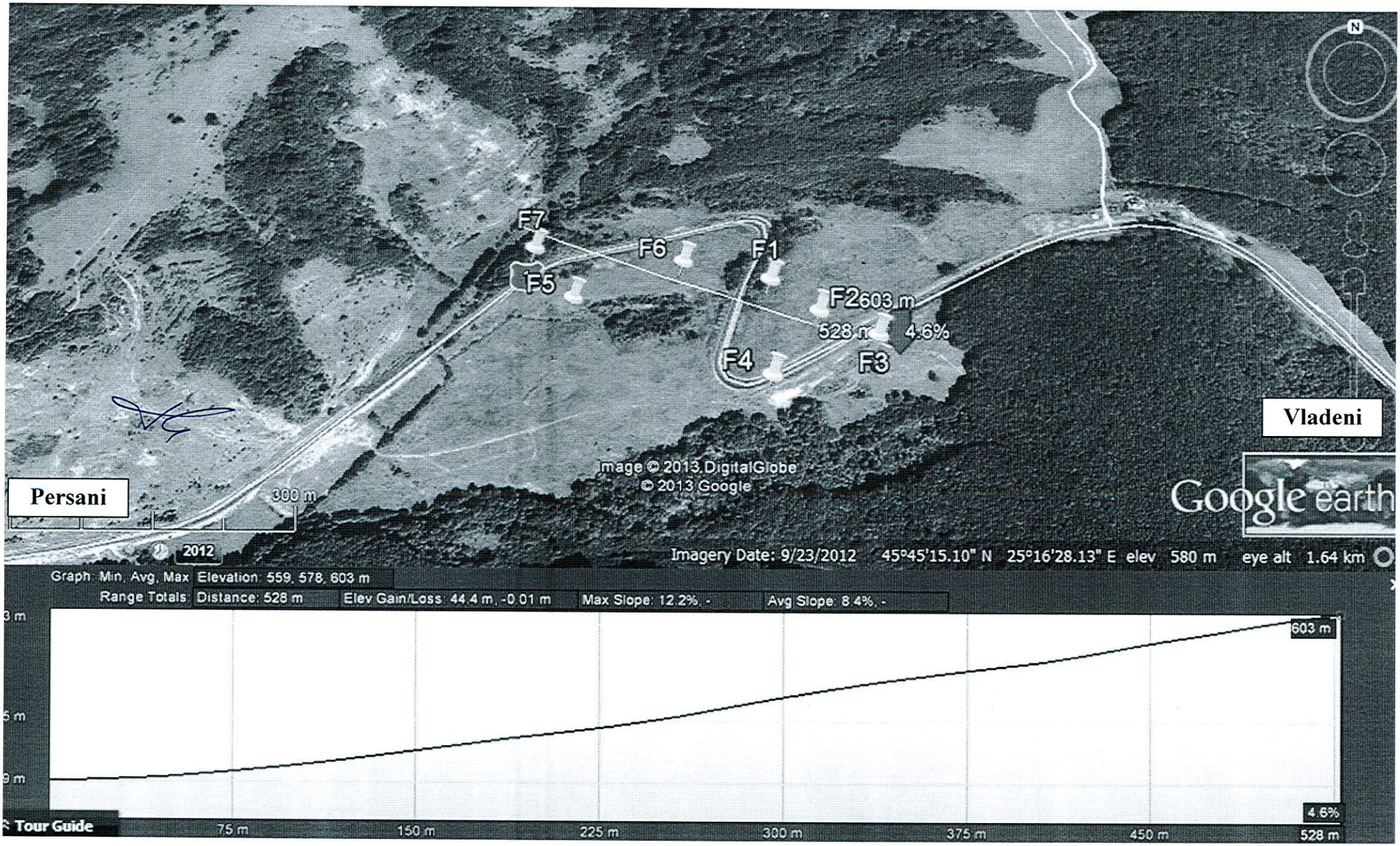
SPT	SPTc1	SPTc 2	SPTc 3	SPTc 4	SPTc 5	SPTc 6	-
s	18	51	29	35	40	5	mm
k_s	8282	2931	5170	4232	3783	29472	kN/m^3
$p_{admisibil}$	209	282	240	254	262	146	kPa
p_{ultim}	313	149	224	194	179	775	kPa

$E_{stratul\ 1}$	5375	4359	4682	3994	4178	4768	kPa
$E_{stratul\ 2}$	24983	12184	18175	14494	19490	35552	kPa
$\phi_{stratul\ 1}$	14	12	13	13	12	14	°
$\phi_{stratul\ 2}$	18	12	16	14	15	22	°
$c_{stratul\ 1}$	18	16	17	14	15	17	kPa
$c_{stratul\ 2}$	52	38	51	42	44	52	kPa

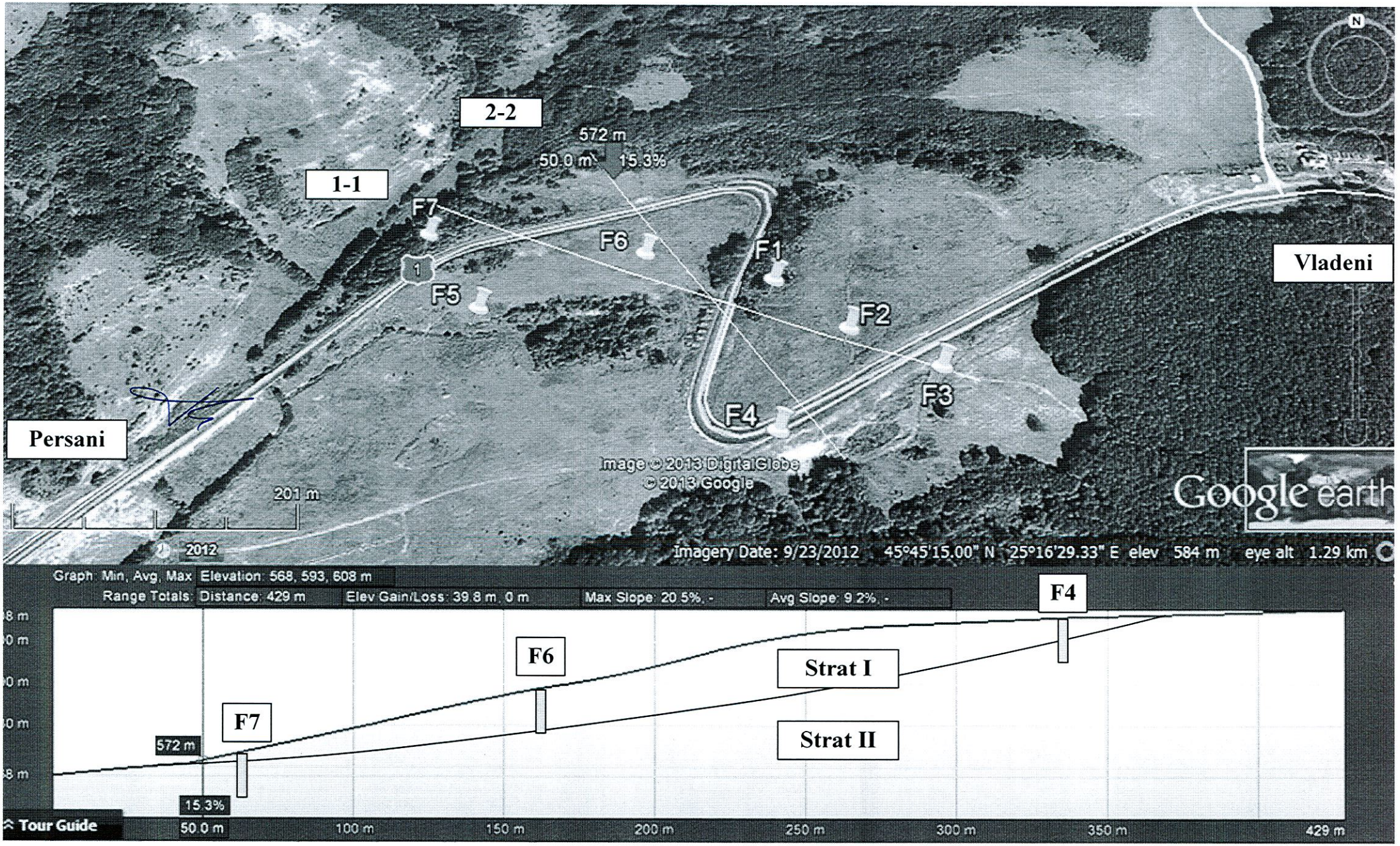

Foraj SPTc
Plan amplasare lucrari de prospectare geotehnica V01 Noiembrie 2013
Sectiune SEV
Foraj SPTc
Foraj SPTc
Foraj SPTc
Foraj SPTc
Foraj SPTc
Foraj SPTc
Foraj SPTc
DN1
km204÷205
Natura si Volum de Lucrari de Prospectare in Situ
Detalii lucrari de consolidare, lucrari de drenaj (fotografii, masuratori, cartare defecte)

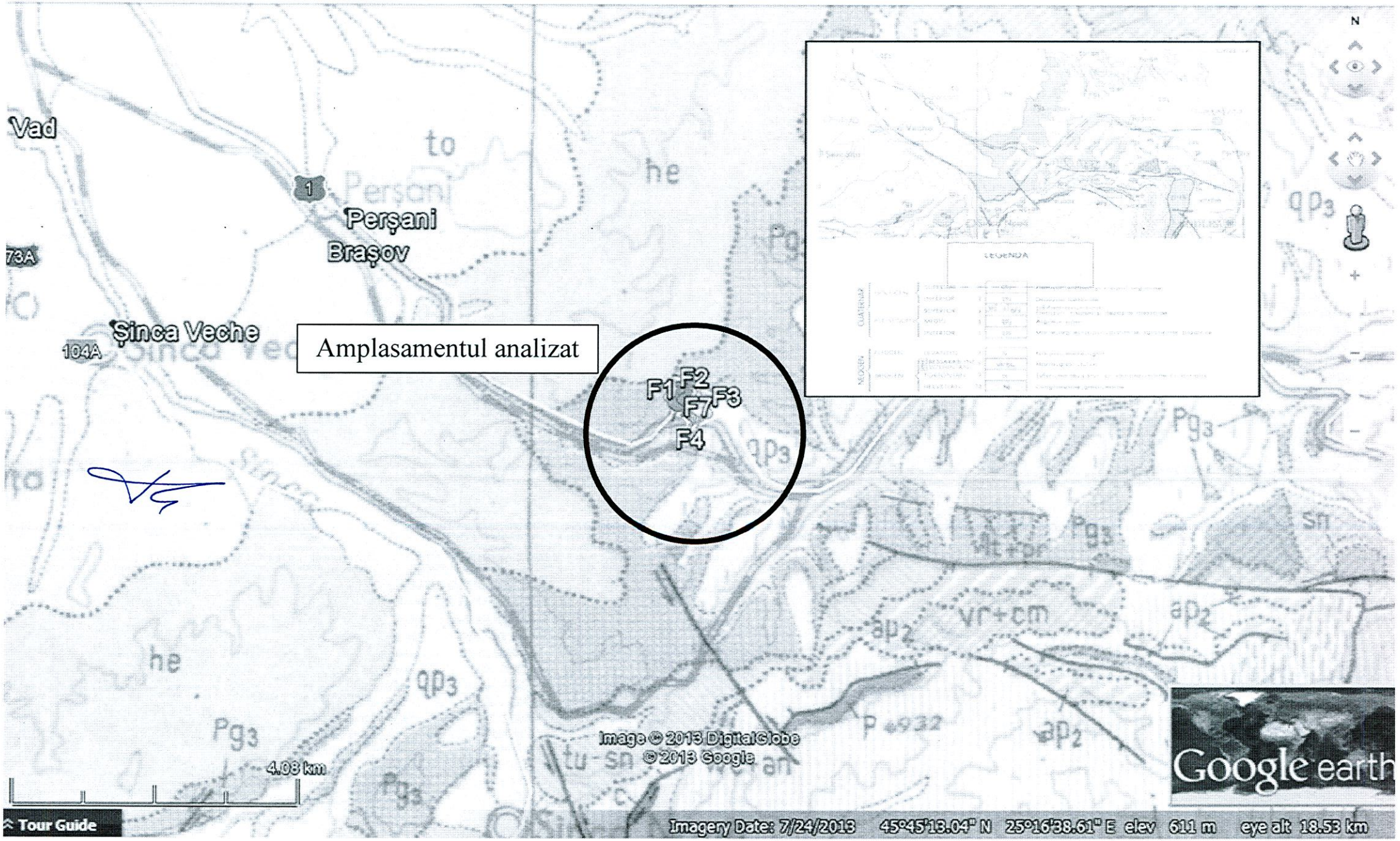

F7
F6
F5
F1
F2
F3
F4
Vladeni
Persani
1
295 m
Image © 2013 DigitalGlobe
© 2013 Google
Google earth
Tour Guide
2012
Imagery Date: 9/23/2012 45°45'15.33" N 25°16'01.20" E elev 587 m eye alt 1.87 km

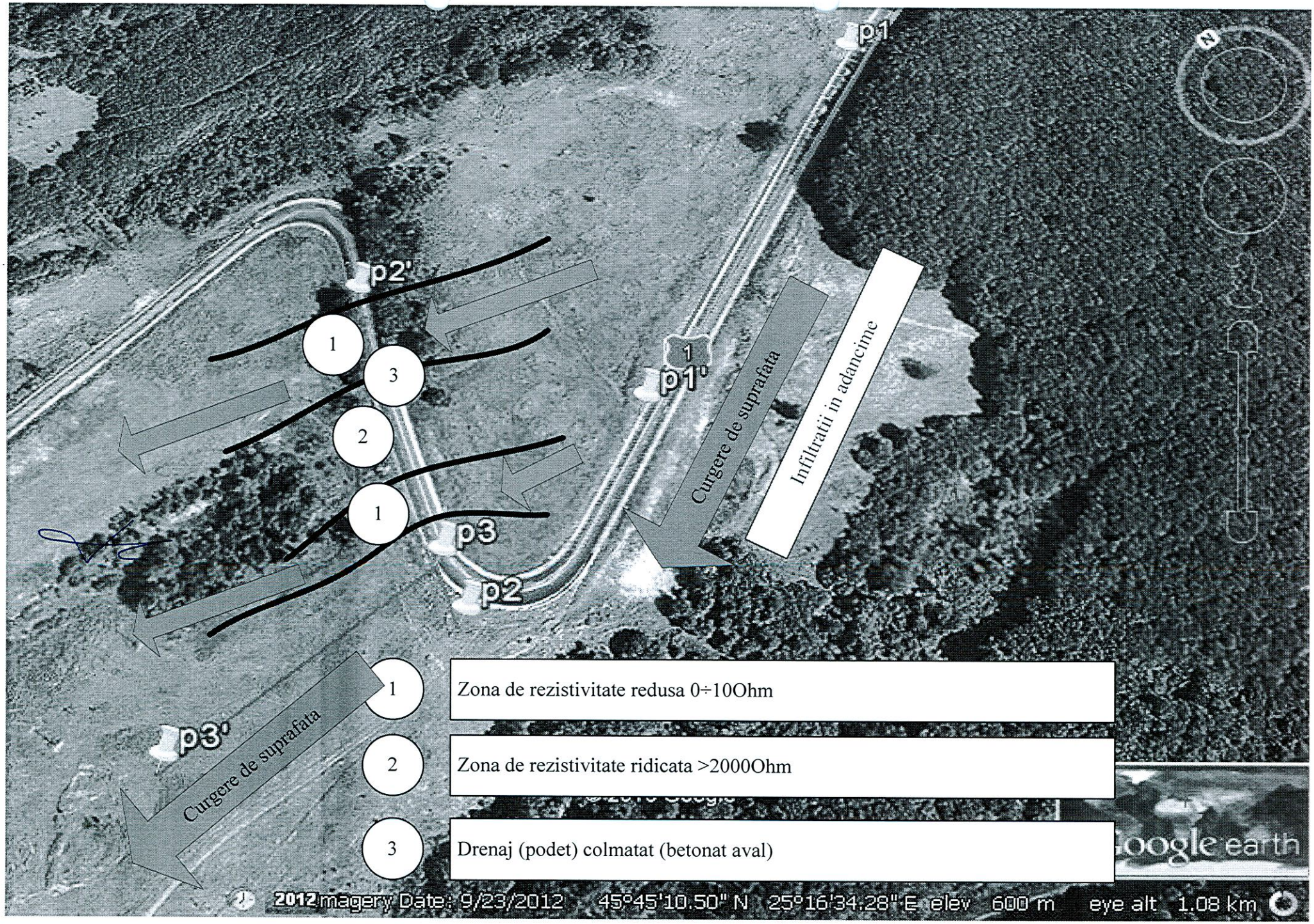
Sectiune 1-1


F7
F6
F1
F5
F2 603 m
528 m
4.6%
F4
F3
Persani
Vladeni
300 m
Image © 2013 DigitalGlobe
© 2013 Google
Google earth
2012
Imagery Date: 9/23/2012 45°45'15.10" N 25°16'28.13" E elev 580 m eye alt 1.64 km
Graph: Min, Avg, Max Elevation: 559, 578, 603 m
Range Totals: Distance: 528 m
Elev Gain/Loss: 44.4 m, -0.01 m
Max Slope: 12.2%, -
Avg Slope: 8.4%, -
603 m
4.6%
Tour Guide
75 m
150 m
225 m
300 m
375 m
450 m
528 m

Sectiune 2-2


2-2
1-1
572 m
50.0 m
15.3%
F7
F6
F1
F5
F2
F3
F4
Vladeni
Persani
201 m
Image © 2013 DigitalGlobe
© 2013 Google
Google earth
2012
Imagery Date: 9/23/2012 45°45'15.00" N 25°16'29.33" E elev 584 m eye alt 1.29 km
Graph: Min, Avg, Max Elevation: 568, 593, 608 m
Range Totals: Distance: 429 m Elev Gain/Loss: 39.8 m, 0 m Max Slope: 20.5%, - Avg Slope: 9.2%, -
F4
F6
Strat I
F7
Strat II
572 m
15.3%
Tour Guide
50.0 m
100 m
150 m
200 m
250 m
300 m
350 m
429 m


Vad
1
Perșani
Brașov
73A
Șinca Veche
104A
Amplasamentul analizat
F1
F2
F7
F3
F4
LEGENDA
N
4.08 km
Image © 2013 DigitalGlobe
© 2013 Google
Google earth
Tour Guide
Imagery Date: 7/24/2013 45°45'13.04" N 25°16'38.61" E elev 611 m eye alt 18.53 km


p1
p2'
p1'
p3
p2
p3'
1
3
2
1
1
Curgere de suprafata
Infiltratii in adancime
Curgere de suprafata
1
Zona de rezistivitate redusa 0÷10Ohm
2
Zona de rezistivitate ridicata >2000Ohm
3
Drenaj (podet) colmatat (betonat aval)
Google earth
2012 Imagery Date: 9/23/2012 45°45'10.50" N 25°16'34.28" E elev 600 m eye alt 1.08 km