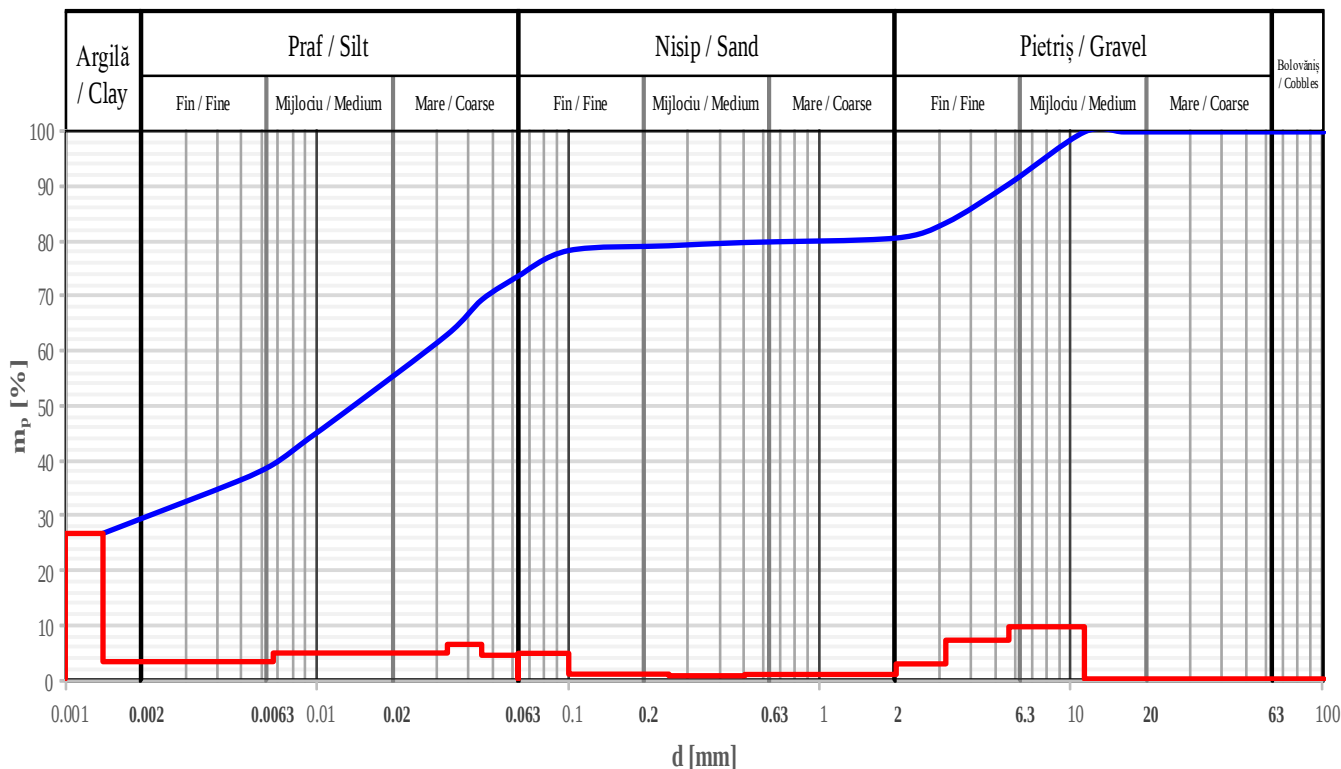


DCC-GEO-TEST CONSULT S.R.L.  
 LABORATOR DE ANALIZE ȘI ÎNCERCĂRI  
 ÎN CONSTRUCȚII - GRAD II  
 Autorizație nr. 2940 din 15.08.2014/24.08.2018

Amplasament / Location: Reabilitarea liniei de cale ferata Roman – Iasi - Frontiera  
 Forajul/Borehole: PODET 26  
 Proba/Sample: PT 8  
 Adancimea/Depth(m): 8,00

Raport de incercare nr. / Test report no.75 708



Curba granulometrica / Granulometric curve

| Identificarea și clasificarea pământurilor SR EN ISO 14688/2-2018 / SR EN ISO 14688/2-2018 / STAS 1913/5-85 |                   |            |            |         |                         |                           |            |              |             |            |                                     |
|-------------------------------------------------------------------------------------------------------------|-------------------|------------|------------|---------|-------------------------|---------------------------|------------|--------------|-------------|------------|-------------------------------------|
| Argila prafoasă / Silty clay (Si.Cl)                                                                        |                   |            |            |         |                         | galbuie-cenusie Un = #N/A |            |              |             |            |                                     |
| Conform SR EN ISO 14688/2-2005, la cerința beneficiarului                                                   | Pământ fin / Fine |            |            |         | Pământ grosier / Coarse |                           |            |              |             |            | Pământ foarte grosier / Very coarse |
| Argila (CI)                                                                                                 | Praf (Si)         |            |            |         | Nisip (Sa)              |                           |            | Pietris (Gr) |             |            | Bolovanis (Co)                      |
|                                                                                                             | Fin (fSi)         | Mediu (mS) | Mare (cSi) |         | Fin (fSa)               | Mediu (mSa)               | Mare (cSa) | Fin (fGr)    | Mediu (mGr) | Mare (cGr) |                                     |
|                                                                                                             | 28                | 46         |            |         | 7                       |                           |            | 19           |             |            |                                     |
|                                                                                                             | < 0,002           | < 0,0063   | < 0,02     | < 0,063 | < 0,2                   | < 0,63                    | < 2        | < 6,3        | < 20        | < 63       |                                     |
| %                                                                                                           | 28                | 11         | 16         | 19      | 5                       | 1                         | 1          | 11           | 8           | 0          | 0                                   |

CLASIFICAREA PĂMÂNTURILOR /SR Pământ fin / Fine soil  
 EN ISO 14688/2-2018 / SR EN ISO 14688/2-2018 #N/A

Executat de / Performed by:  
 ing. Nina IOSIF

*Nina IOSIF*

Sef Laborator / Laboratory head: Constanta ANDREI

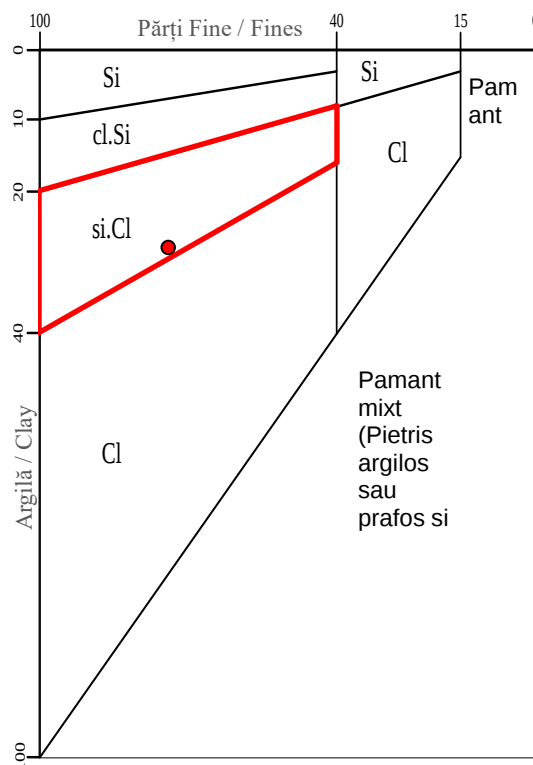
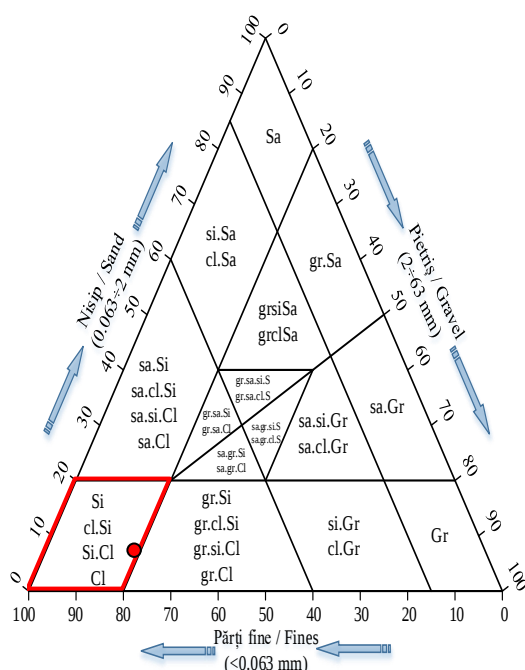


Data / Date: 16.12.2020

COD PROBA 75 708

**Raport de incercare nr. / Test report no.75 708**

|             | d (mm) | mp (%) |
|-------------|--------|--------|
| CERNERE     | 100    | 100,0  |
|             | 100    | 100,0  |
|             | 100    | 100,0  |
|             | 100    | 100,0  |
|             | 100    | 100,0  |
|             | 100    | 100,0  |
|             | 90     | 100,0  |
|             | 63     | 100,0  |
|             | 45     | 100,0  |
|             | 31,5   | 100,0  |
|             | 22,4   | 100,0  |
|             | 16     | 100,0  |
|             | 11,2   | 100,0  |
|             | 5,6    | 90,5   |
|             | 3,15   | 83,4   |
| SEDIMENTARE | 2      | 80,6   |
|             | 0,5    | 79,8   |
|             | 0,25   | 79,2   |
|             | 0,10   | 78,3   |
|             | 0,063  | 73,6   |
|             | 0,063  | 73,64  |
|             | 0,045  | 69,30  |
|             | 0,033  | 62,97  |
|             | 0,024  | 58,23  |
|             | 0,017  | 53,48  |
|             | 0,013  | 48,74  |
|             | 0,009  | 43,99  |
|             | 0,007  | 39,25  |
|             | 0,005  | 36,09  |
|             | 0,003  | 32,92  |
|             | 0,002  | 29,76  |
|             | 0,001  | 26,60  |



**Clasificarea pamantului dupa SR EN ISO 14688-1:2018 / SR EN ISO 14688-2:2018**

| Tip pamant / Soil group             | Tip fractiune |    | %  | C <sub>u</sub> (Un) | C <sub>c</sub> | Forma curbei granulometrice / Shape of grading curve | C <sub>u</sub> (Un) | C <sub>c</sub> |
|-------------------------------------|---------------|----|----|---------------------|----------------|------------------------------------------------------|---------------------|----------------|
| Pamant fin / Fine                   | Argila        | Cl | 28 | <3                  | < 1            | Foarte uniforma / Very uniform                       | #N/A                | #####          |
|                                     | Praf          | Si | 46 |                     |                | Uniforma / Uniform                                   |                     |                |
| Pamant grosier / Coarse             | Nisip         | Sa | 7  | 3---6               | < 1            | Uniformitate medie / Medium uniformity               |                     |                |
|                                     | Pietris       | Gr | 19 | 6---15              | < 1            | Neuniforma / Non-uniform                             |                     |                |
| Pamant foarte grosier / Very coarse | Bolovanis     | Co |    | >15                 | 1---3          | Discontinua / Gap graded                             |                     |                |
|                                     |               |    |    | >15                 | <0,5           |                                                      |                     |                |

Executat de / Performed by :  
 ing. Nina IOSIF

*Nina IOSIF*

Sef Laborator / Laboratory head: Constanta ANDREI



COD PROBA 75 708

Raport de incercare nr. / Test report no.75 709

**DETERMINAREA LIMITELOR DE PLASTICITATE /  
DETERMINATION OF ATTEBERG LIMITS  
STAS 1913/4-86**

| Nr. de caderi ale cupei (N)              | 25 | UMIDITATE NATURALA<br>NATURAL MOISTURE<br>STAS 1913/1-82 |  |  | LIMITA DE CURGERE<br>LIQUID LIMIT<br>W <sub>L</sub> % |       |       |       | LIMITA DE FRAMANTARE<br>PLASTIC LIMIT<br>W <sub>P</sub> % |       |       |
|------------------------------------------|----|----------------------------------------------------------|--|--|-------------------------------------------------------|-------|-------|-------|-----------------------------------------------------------|-------|-------|
| Adancimea de patrundere a conului (S) mm | 10 |                                                          |  |  | Metoda cu cupa                                        |       |       |       |                                                           |       |       |
|                                          |    |                                                          |  |  | 41                                                    | 31    | 22    | 13    |                                                           |       |       |
| PROBA UMEDA + TARA A (gr)                |    | 150,00                                                   |  |  | 27,14                                                 | 28,98 | 27,49 | 29,79 | 18,54                                                     | 18,70 | 19,30 |
| PROBA USCATA + TARA B (gr)               |    | 119,83                                                   |  |  | 23,20                                                 | 24,59 | 23,28 | 24,96 | 18,03                                                     | 18,15 | 18,71 |
| TARA C (gr)                              |    |                                                          |  |  | 13,16                                                 | 14,18 | 13,94 | 14,75 | 14,61                                                     | 14,50 | 14,78 |
| A - B                                    |    | 30,17                                                    |  |  | 3,94                                                  | 4,39  | 4,21  | 4,83  | 0,50                                                      | 0,55  | 0,59  |
| B - C                                    |    | 119,83                                                   |  |  | 10,04                                                 | 10,41 | 9,34  | 10,21 | 3,43                                                      | 3,66  | 3,94  |
| W(%) = (A-B)/(B-C)*100                   |    | 25,18                                                    |  |  | 39,27                                                 | 42,15 | 45,09 | 47,30 | 14,70                                                     | 15,03 | 14,91 |
| W(%) MEDIU                               |    | 25,18                                                    |  |  | 44,11                                                 |       |       |       | 14,88                                                     |       |       |

DESCRIEREA PROBEI /  
DESCRIPTION OF THE SOIL:

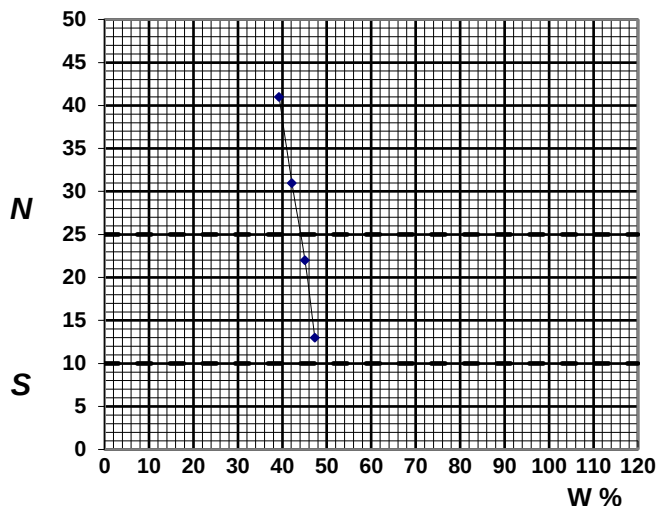
Argila prafoasa galbuie-cenusie cu FeO si pietris plastic consistenta / firm consistency

SR EN ISO 14688/1/2-2018

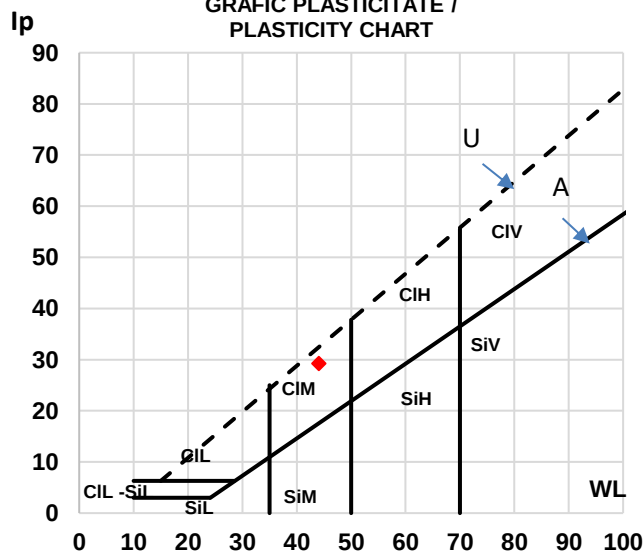
Pamant fin cu plasticitate medie / Fine soil, medium plasticity

CIM

GRAFICUL LIMITEI SUPERIOARE DE PLASTICITATE  
UPPER LIMIT OF PLASTICITY CHART



GRAFIC PLASTICITATE /  
PLASTICITY CHART



SR EN ISO 14688/2-2018

| LIMITA DE FRAMANTARE /<br>PLASTIC LIMIT      | W <sub>P</sub> =                                        | 14,88 | % | Tip pamant /<br>Type of Soil | Plasticitate /<br>Plasticity | Limita de curgere /<br>Liquid limit |
|----------------------------------------------|---------------------------------------------------------|-------|---|------------------------------|------------------------------|-------------------------------------|
| UMIDIT. NATUR. / NATURAL MOISTURE            | W =                                                     | 25,18 | % | Cl Clay                      | Low                          | redusa <35                          |
| LIMITA DE CURGERE / LIQUID LIMIT             | W <sub>L</sub> =                                        | 44,11 | % | Si Silt                      | Medium                       | medie 35----50                      |
| INDICE DE PLASTICIT./PLASTICITY INDEX        | I <sub>P</sub> =W <sub>L</sub> -W <sub>P</sub>          | 29,23 | % |                              | Heigh                        | mare 50----70                       |
| INDICE DE CONSISTENȚĂ /<br>CONSISTENCY INDEX | I <sub>C</sub> = (W <sub>L</sub> - W) / I <sub>P</sub>  | 0,65  |   |                              | Very heigh                   | foarte mare >70                     |
| INDICE DE LICHIDITATE/<br>LIQUIDITY INDEX    | I <sub>L</sub> = (W - W <sub>P</sub> ) / I <sub>P</sub> | 0,35  |   |                              | O                            | organica                            |

Executat de / Performed by: Laborant Emilia Dumitru

Data / Date: 16.12.2020

COD PROBA 75

709

Sef Laborator / Laboratory head: Constanta ANDREI

