

| OVERVIEW OF LABORATORY TEST RESULTS | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|----------|-----------------|--------------------|--|-------|-------|--------|--------|--------|--------|--------|-----------------|-------|-------|-----------------------------------|------------------------------|----------------------------------|------------------------|--|
| No | Location | Borehole | Sample No | Sampling depth (m) | Sieve Analysis | | | | | | | | Atterberg Limit | | | Bulk density (g/cm ³) | Natural moisture content (%) | Dry density (g/cm ³) | Consistency Index (CI) | Unified Soil Classification According (Uses) |
| | | | | | % passing in sieves with squared shape openings (mm) | | | | | | | | LL % | PL % | PI % | | | | | |
| | | | | | 0.075 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | | | | | | | | |
| 1 | Bugesera, Nyanza and Cisagara districts | BH1 | BTP/014/02/2025 | 2.00 | 28.71 | 37.79 | 50.62 | 78.06 | 91.16 | 100.00 | 100.00 | 100.00 | 36.03 | 22.49 | 13.54 | 2.69 | 12.28 | 2.40 | 1.75 | SC; Clayey sand with gravel |
| 2 | | | BTP/015/02/2025 | 4.00 | 41.88 | 51.34 | 67.85 | 92.15 | 97.71 | 100.00 | 100.00 | 100.00 | 36.57 | 21.27 | 15.29 | 2.59 | 17.10 | 2.21 | 1.27 | SC; Clayey sand |
| 3 | | BH2 | BTP/016/02/2025 | 2.00 | 38.43 | 57.77 | 75.00 | 87.04 | 92.96 | 100.00 | 100.00 | 100.00 | 33.42 | 20.97 | 12.45 | 2.25 | 17.49 | 1.91 | 1.28 | SC; Clayey sand |
| 4 | | | BTP/017/02/2025 | 4.00 | 43.92 | 57.35 | 75.02 | 93.84 | 97.98 | 100.00 | 100.00 | 100.00 | 34.03 | 20.42 | 13.61 | 2.39 | 18.23 | 2.02 | 1.16 | SC; Clayey sand |
| 5 | | BH3 | BTP/018/02/2025 | 2.00 | 94.61 | 97.02 | 99.53 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 45.26 | 28.14 | 17.12 | 1.55 | 31.58 | 1.18 | 0.80 | CL; Sandy lean clay |
| 6 | | | BTP/019/02/2025 | 4.00 | 75.01 | 81.36 | 85.91 | 88.46 | 93.36 | 100.00 | 100.00 | 100.00 | 44.39 | 28.00 | 16.39 | 2.16 | 33.13 | 1.62 | 0.69 | CL; Sandy lean clay |
| 7 | | BH4 | BTP/020/02/2025 | 2.00 | 66.99 | 77.94 | 83.65 | 89.67 | 93.54 | 100.00 | 100.00 | 100.00 | 43.07 | 26.76 | 16.31 | 2.36 | 20.91 | 1.95 | 1.36 | CL; Sandy lean clay |
| 8 | | | BTP/021/02/2025 | 4.00 | 72.76 | 92.59 | 97.34 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 36.9 | 20.4 | 16.5 | 2.4 | 14.1 | 2.12 | 1.38 | CL; Sandy lean clay |
| 9 | | BH5 | BTP/022/02/2025 | 2.00 | 47.37 | 85.11 | 95.39 | 99.42 | 100.00 | 100.00 | 100.00 | 100.00 | 34.10 | 19.07 | 15.03 | 2.34 | 15.85 | 2.02 | 1.21 | SC; Clayey sand |
| 10 | | | BTP/023/02/2025 | 4.00 | 59.31 | 81.97 | 90.00 | 96.84 | 98.60 | 100.00 | 100.00 | 100.00 | 34.43 | 18.73 | 15.69 | 2.23 | 15.08 | 1.94 | 1.23 | CL; Sandy lean clay |
| 11 | | BH6 | BTP/024/02/2025 | 2.00 | 74.55 | 89.89 | 98.40 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 42.91 | 26.49 | 16.42 | 2.32 | 19.72 | 1.94 | 1.41 | CL; Sandy lean clay |
| 12 | | | BTP/025/02/2025 | 4.00 | 60.50 | 81.71 | 98.54 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 42.24 | 27.11 | 15.13 | 2.06 | 18.42 | 1.74 | 1.57 | CL; Sandy lean clay |
| 13 | | BH7 | BTP/026/02/2025 | 2.00 | 54.54 | 62.82 | 88.55 | 98.56 | 100.00 | 100.00 | 100.00 | 100.00 | 40.21 | 24.14 | 16.07 | 2.40 | 21.00 | 1.98 | 1.20 | CL; Sandy lean clay |
| 14 | | | BTP/027/02/2025 | 4.00 | 37.42 | 51.26 | 86.24 | 95.64 | 98.45 | 100.00 | 100.00 | 100.00 | 37.73 | 23.94 | 13.78 | 2.03 | 21.21 | 1.68 | 1.20 | SC; Clayey sand |

RINCENT BTP RWANDA

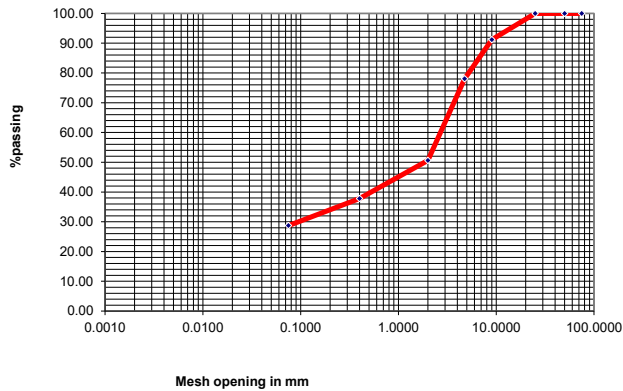
SOIL ANALYSIS

| | | | |
|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/014/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH1 | | |

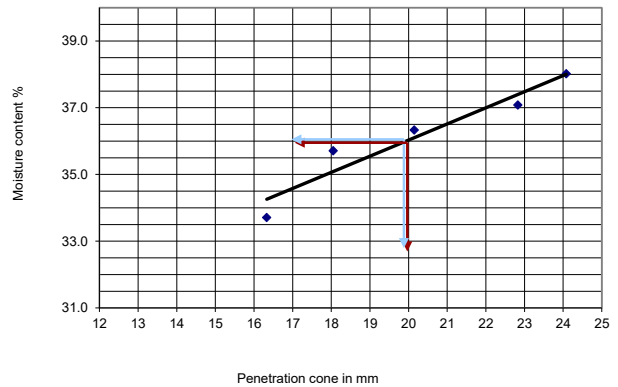
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|--------------------------|-------|-------|
| Bulk density | g/Cm³ | 2.69 |
| Natural Moisture content | W(n)% | 12.28 |

| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|--------------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.08 | 22.83 | 20.15 | 18.05 | 16.33 | correl. | 22.36 | 22.86 | 22.24 |
| % Passing | 28.71 | 37.79 | 50.6 | 78.1 | 91.2 | 100.0 | 100.0 | 100.0 | W% | 38.02 | 37.08 | 36.33 | 35.71 | 33.71 | 0.96 | | | |
| cumulative weight (g) | 236.2 | 206.1 | 163.6 | 72.7 | 29.3 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 36.03 | 22.49 | 13.54 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 28.71 | 49.35 | 21.94 |

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RINCENT BTP RWANDA

SOIL ANALYSIS

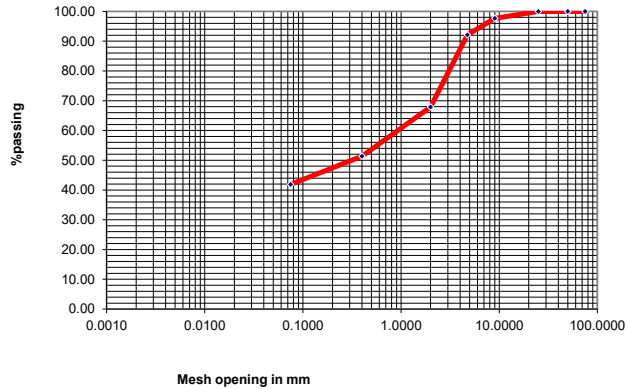
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/015/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH1 | | |

| | | | |
|--------------------------|--|-------|-------|
| Bulk density | | g/Cm³ | 2.59 |
| Natural Moisture content | | W(n)% | 17.10 |

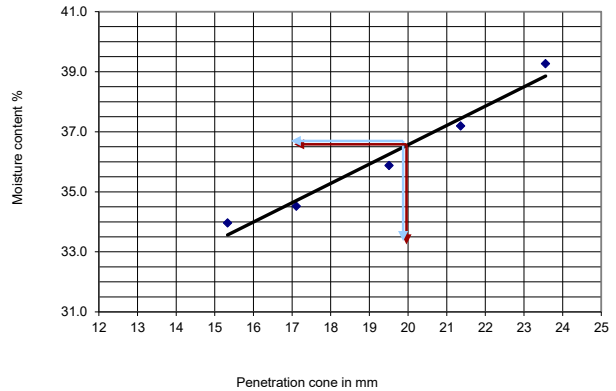
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|--------------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.56 | 21.36 | 19.51 | 17.11 | 15.33 | correl. | 21.38 | 21.77 | 20.67 |
| % Passing | 41.88 | 51.34 | 67.8 | 92.2 | 97.7 | 100.0 | 100.0 | 100.0 | W% | 39.27 | 37.19 | 35.88 | 34.52 | 33.96 | 0.98 | | | |
| cumulative weight (g) | 241.5 | 202.2 | 133.6 | 32.6 | 9.5 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 36.57 | 21.27 | 15.29 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 41.88 | 50.28 | 7.85 |

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SOIL ANALYSIS

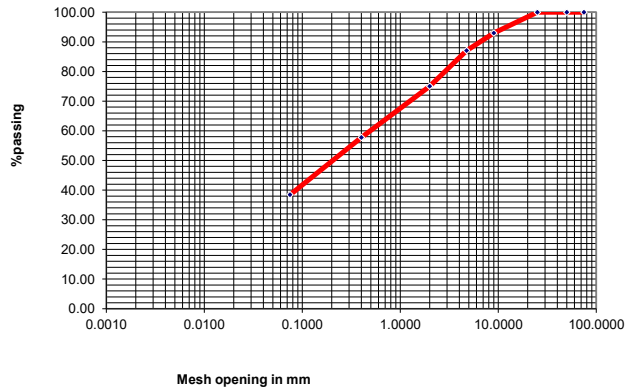
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/016/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH2 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.25 |
| Natural Moisture content | W(n)% | 17.49 |

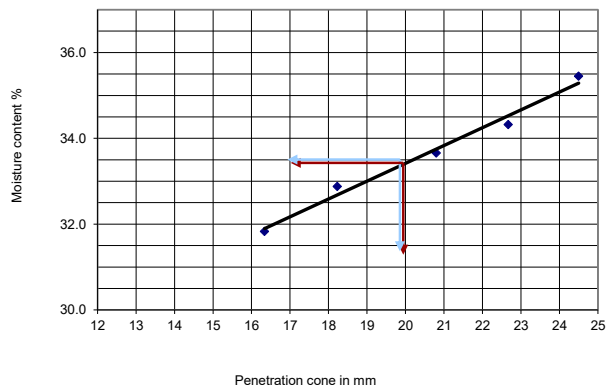
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|-------|-------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.50 | 22.67 | 20.80 | 18.23 | 16.34 | correl. | 21.43 | 21.48 | 20.00 |
| % Passing | 38.43 | 57.77 | 75.0 | 87.0 | 93.0 | 100.0 | 100.0 | 100.0 | W% | 35.45 | 34.32 | 33.66 | 32.88 | 31.83 | 0.99 | | | |
| cumulative weight (g) | 235.2 | 161.3 | 95.5 | 49.5 | 26.9 | 0 | 0 | 0 | WL | | WP | Ip | CI | | | | | |
| | | | | | | | | | | 33.42 | 20.97 | 12.45 | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 38.43 | 48.61 | 12.96 |

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RINCENT BTP RWANDA

SOIL ANALYSIS

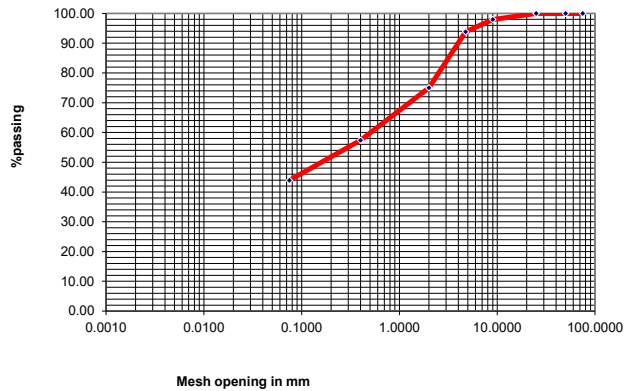
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/017/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH2 | | |

| | | |
|--------------------------|-------|-------|
| Bulk density | g/Cm³ | 2.39 |
| Natural Moisture content | W(n)% | 18.23 |

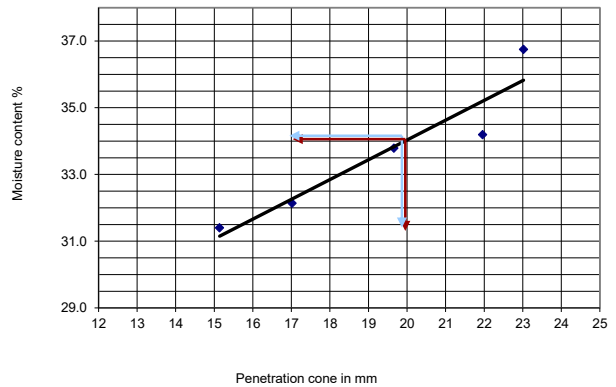
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| SIEVE ANALYSIS | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------------------------------------|--------------|--------------|--------------|-------|-------|------------------|---------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.02 | 21.96 | 19.66 | 17.02 | 15.14 | correl. | 21.13 | 20.92 | 19.21 |
| % Passing | 43.92 | 57.35 | 75.0 | 93.8 | 98.0 | 100.0 | 100.0 | 100.0 | W% | 36.75 | 34.19 | 33.79 | 32.14 | 31.40 | 0.94 | | | |
| cumulative weight (g) | 172 | 130.8 | 76.6 | 18.9 | 6.2 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 34.03 | 20.42 | 13.61 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| | | | |
|-------------------------|--------------|-------------|----------------|
| Particle content | Silty | Sand | Gravels |
| % | 43.92 | 49.92 | 6.16 |

RINCENT BTP RWANDA

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RINCENT BTP RWANDA

SOIL ANALYSIS

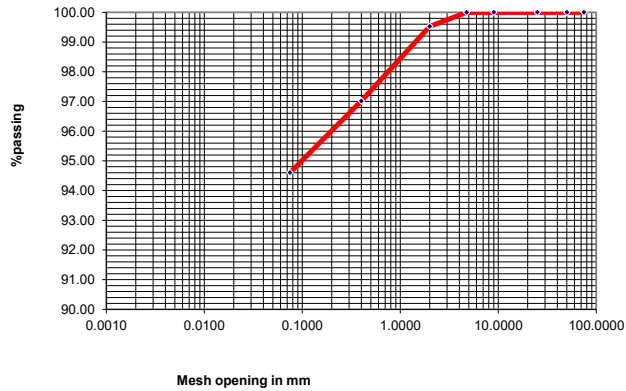
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/018/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH3 | | |

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|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 1.55 |
| Natural Moisture content | W(n)% | 31.58 |

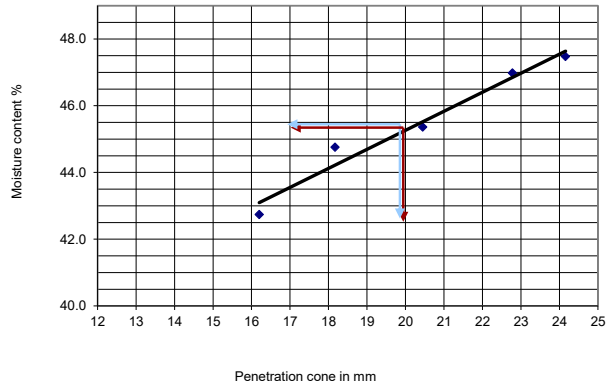
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | | PLASTICITY LIMIT | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|-------|-------|-------|-------|-------|---------|------------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.16 | 22.78 | 20.45 | 18.17 | 16.20 | correl. | 27.71 | 28.30 | 28.41 |
| % Passing | 94.61 | 97.02 | 99.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 47.48 | 46.98 | 45.36 | 44.76 | 42.74 | 0.98 | | | |
| cumulative weight (g) | 21.7 | 12 | 1.9 | 0 | 0 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 45.26 | 28.14 | 17.12 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|------|---------|
| % | 94.61 | 5.39 | 0.00 |

RINCENT BTP RWANDA

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RINCENT BTP RWANDA

SOIL ANALYSIS

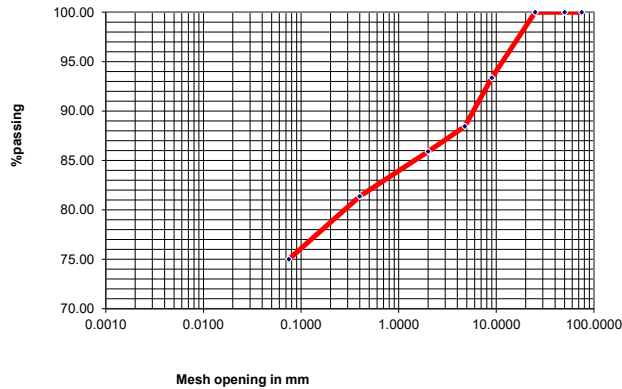
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/019/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Bugesera District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH3 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.16 |
| Natural Moisture content | W(n)% | 33.13 |

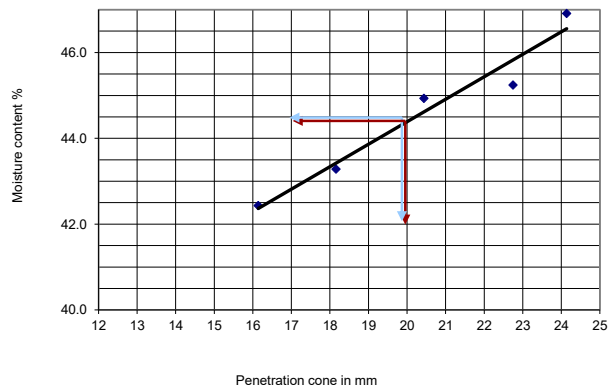
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|--------------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.14 | 22.75 | 20.44 | 18.16 | 16.14 | correl. | 28.14 | 28.86 | 27.00 |
| % Passing | 75.01 | 81.36 | 85.9 | 88.5 | 93.4 | 100.0 | 100.0 | 100.0 | W% | 46.91 | 45.24 | 44.93 | 43.28 | 42.43 | 0.98 | | | |
| cumulative weight (g) | 77.5 | 57.8 | 43.7 | 35.8 | 20.6 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 44.39 | 28.00 | 16.39 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 75.01 | 13.45 | 11.54 |

RINCENT BTP RWANDA

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RINCENT BTP RWANDA

SOIL ANALYSIS

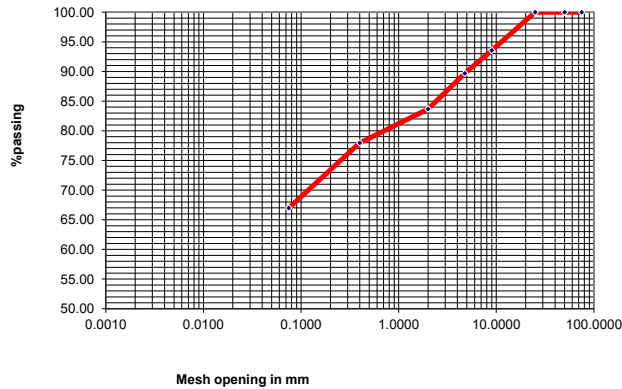
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/020/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH4 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.36 |
| Natural Moisture content | W(n)% | 20.91 |

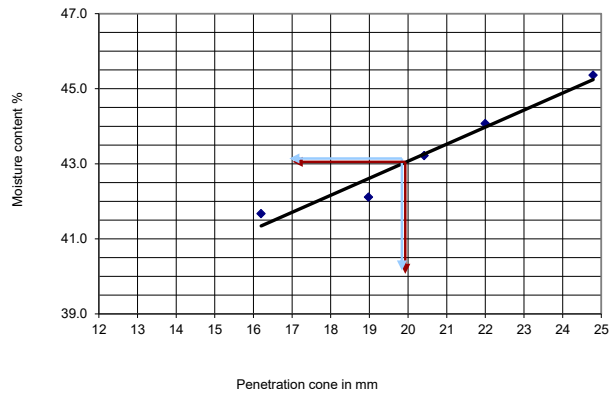
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| SIEVE ANALYSIS | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | | | | | PLASTICITY LIMIT | | | | | | | |
|-----------------------|--------------------------------------|-------|-------|-------|-------|--------|--------|--------|--------------|--------------|------------------|-------|-------|-------|---------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.79 | 22.00 | 20.42 | 18.98 | 16.20 | correl. | 25.28 | 27.43 | 27.57 |
| % Passing | 66.99 | 77.94 | 83.7 | 89.7 | 93.5 | 100.0 | 100.0 | 100.0 | W% | 45.36 | 44.07 | 43.22 | 42.11 | 41.67 | 0.98 | | | |
| cumulative weight (g) | 136.5 | 91.2 | 67.6 | 42.7 | 26.7 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 43.07 | 26.76 | 16.31 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 66.99 | 22.68 | 10.33 |

RINCENT BTP RWANDA

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RINCENT BTP RWANDA

SOIL ANALYSIS

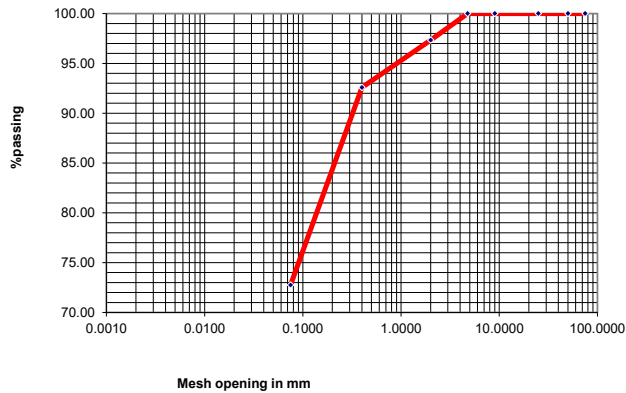
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/021/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH4 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.42 |
| Natural Moisture content | W(n)% | 14.11 |

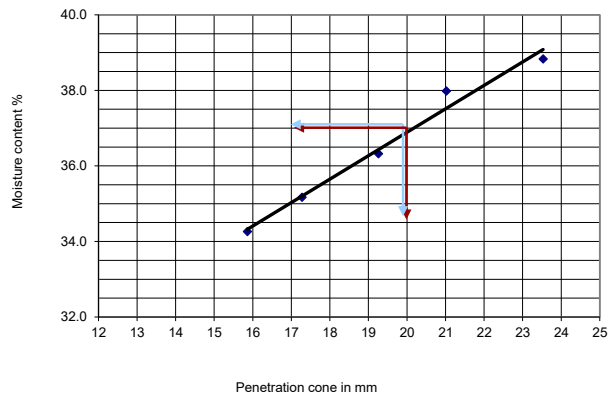
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| SIEVE ANALYSIS | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------------------------------------|--------------|--------------|--------------|-------|-------|------------------|------------|-------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.53 | 21.02 | 19.26 | 17.28 | 15.86 | correl. | 20.18 | 20.64 | 20.28 |
| % Passing | 72.76 | 92.59 | 97.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 38.83 | 37.98 | 36.32 | 35.17 | 34.26 | 0.99 | | | |
| cumulative weight (g) | 52.2 | 14.2 | 5.1 | 0 | 0 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 36.89 | 20.37 | 16.52 | | | CI= | (WL-Wn)/PI | | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 72.76 | 27.24 | 0.00 |

RINCENT BTP RWANDA

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RINCENT BTP RWANDA

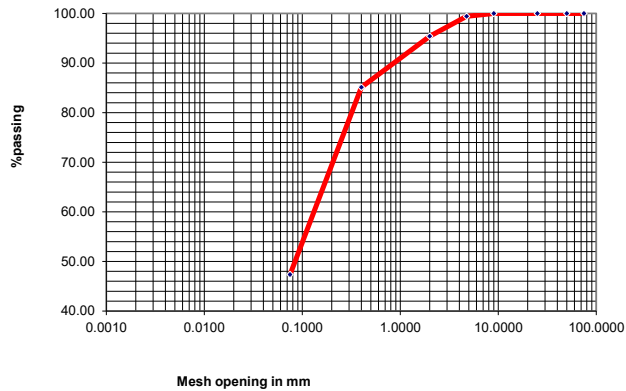
SOIL ANALYSIS

| | | | |
|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/022/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH5 | | |

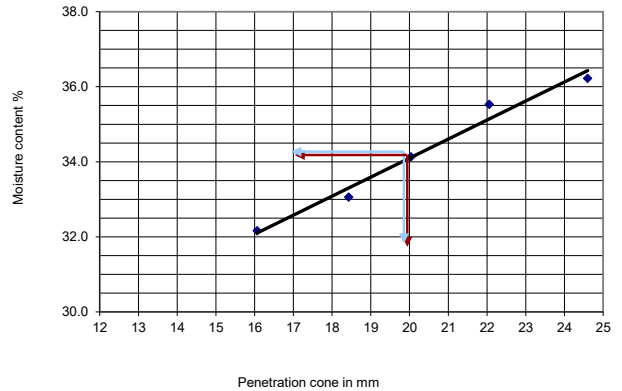
| | | | |
|--------------------------|--|-------|-------|
| Bulk density | | g/Cm³ | 2.34 |
| Natural Moisture content | | W(n)% | 15.85 |

| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|-------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.60 | 22.06 | 20.04 | 18.43 | 16.07 | correl. | 19.10 | 18.81 | 19.29 |
| % Passing | 47.37 | 85.11 | 95.4 | 99.4 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 36.22 | 35.53 | 34.13 | 33.06 | 32.16 | 0.99 | | | |
| cumulative weight (g) | 163.3 | 46.2 | 14.3 | 1.8 | 0 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 34.10 | 19.07 | 15.03 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 47.37 | 52.05 | 0.58 |

| | | | |
|--|--|--|--|
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| | | | |

RINCENT BTP RWANDA

SOIL ANALYSIS

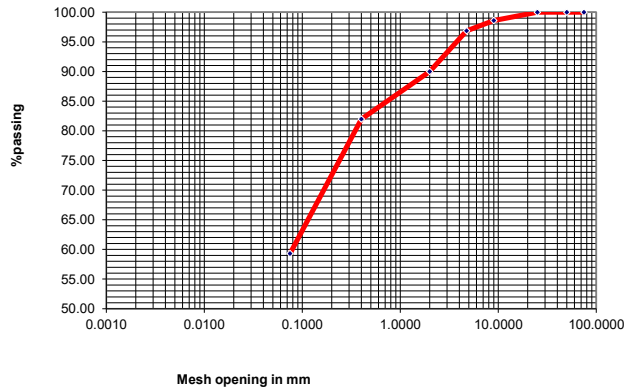
| | | | |
|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/023/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH5 | | |

| | | | |
|--------------------------|--|-------|-------|
| Bulk density | | g/Cm³ | 2.23 |
| Natural Moisture content | | W(n)% | 15.08 |

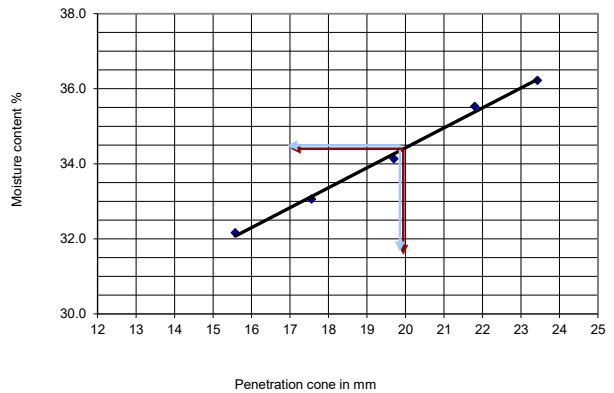
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|-------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.43 | 21.80 | 19.70 | 17.56 | 15.58 | correl. | 18.10 | 19.81 | 18.29 |
| % Passing | 59.31 | 81.97 | 90.0 | 96.8 | 98.6 | 100.0 | 100.0 | 100.0 | W% | 36.22 | 35.53 | 34.13 | 33.06 | 32.16 | 1.00 | | | |
| cumulative weight (g) | 185.5 | 82.2 | 45.6 | 14.4 | 6.4 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 34.43 | 18.73 | 15.69 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| | | | |
|-------------------------|--------------|-------------|----------------|
| Particle content | Silty | Sand | Gravels |
| % | 59.31 | 37.53 | 3.16 |

RINCENT BTP RWANDA

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| | | | |

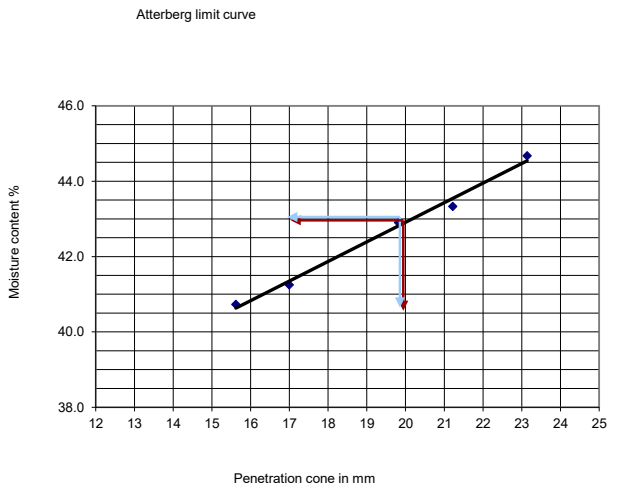
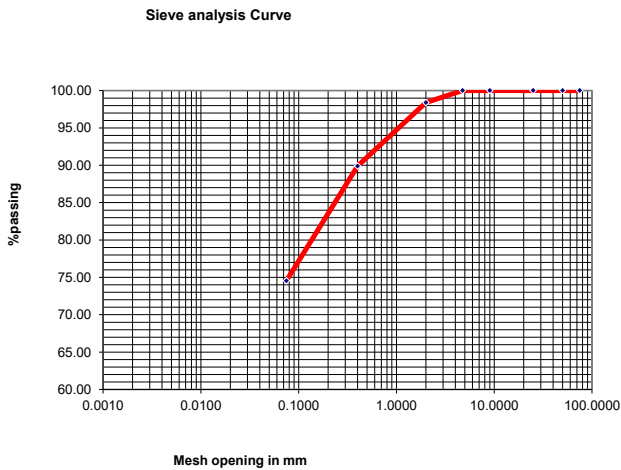
RINCENT BTP RWANDA

SOIL ANALYSIS

| | | | |
|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/024/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH6 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.32 |
| Natural Moisture content | W(n)% | 19.72 |

| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|--------------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.14 | 21.22 | 19.82 | 17.00 | 15.62 | correl. | 26.41 | 26.91 | 26.16 |
| % Passing | 74.55 | 89.89 | 98.4 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 44.67 | 43.33 | 42.90 | 41.25 | 40.73 | 1.00 | | | |
| cumulative weight (g) | 63.7 | 25.3 | 4 | 0 | 0 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 42.91 | 26.49 | 16.42 | | | | CI= | (WL-Wn)/PI | | |



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 74.55 | 25.45 | 0.00 |

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RINCENT BTP RWANDA

SOIL ANALYSIS

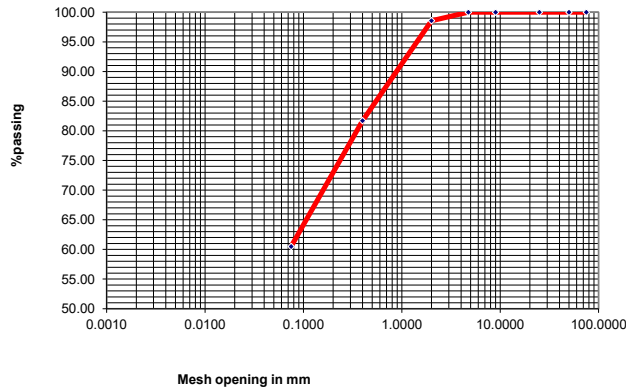
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/025/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Nyanza District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH6 | | |

| | | |
|--------------------------|-------------------|-------|
| Bulk density | g/Cm ³ | 2.06 |
| Natural Moisture content | W(n)% | 18.42 |

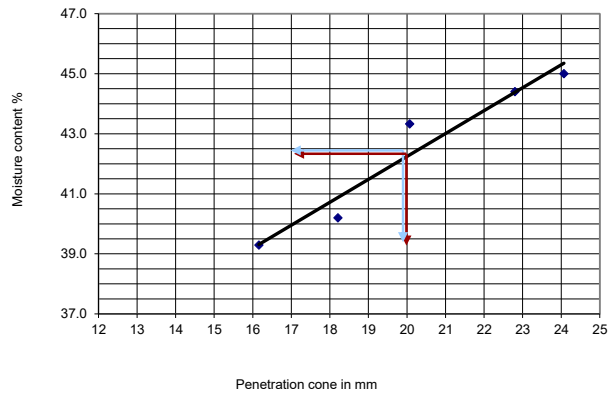
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|--------------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.07 | 22.80 | 20.07 | 18.21 | 16.16 | correl. | 26.25 | 27.47 | 27.62 |
| % Passing | 60.50 | 81.71 | 98.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 45 | 44.40 | 43.33 | 40.20 | 39.29 | 0.97 | | | |
| cumulative weight (g) | 113.8 | 52.7 | 4.2 | 0 | 0 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 42.24 | 27.11 | 15.13 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| | | | |
|-------------------------|--------------|-------------|----------------|
| Particle content | Silty | Sand | Gravels |
| % | 60.50 | 39.50 | 0.00 |

RINCENT BTP RWANDA

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| | | | |

RINCENT BTP RWANDA

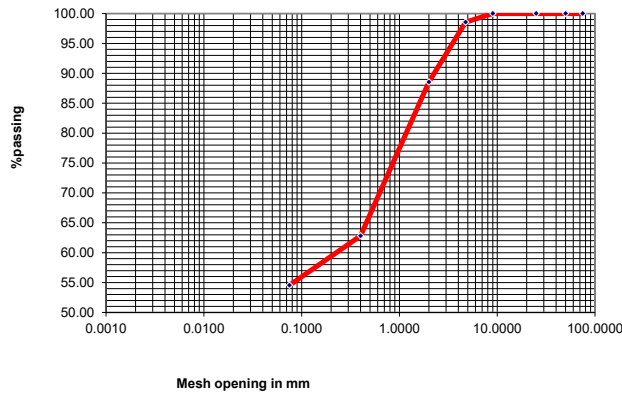
SOIL ANALYSIS

| | | | |
|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/026/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Gisagara District | Depth (m) | 2.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH7 | | |

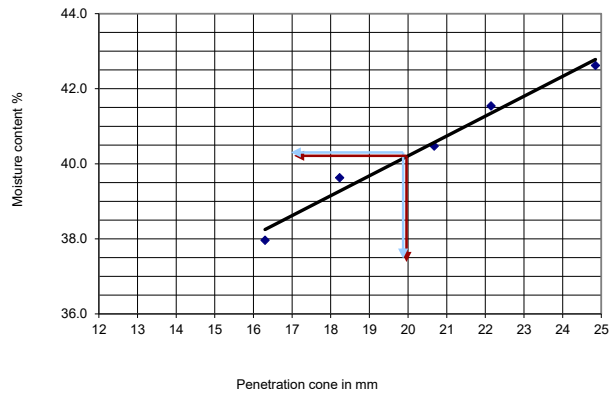
| | | | |
|--------------------------|--|-------------------|-------|
| Bulk density | | g/Cm ³ | 2.40 |
| Natural Moisture content | | W(n)% | 21.00 |

| SIEVE ANALYSIS | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | PLASTICITY LIMIT | | | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------------------------------------|----------|-------|-------|-------|------------------|-------|---------|-------|-------|------------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 24.85 | 22.15 | 20.68 | 18.23 | 16.30 | correl. | 25.35 | 23.57 | 23.50 |
| % Passing | 54.54 | 62.82 | 88.5 | 98.6 | 100.0 | 100.0 | 100.0 | 100.0 | W% | 42.62 | 41.54 | 40.47 | 39.63 | 37.96 | 0.99 | | | |
| cumulative weight (g) | 151.6 | 124 | 38.2 | 4.8 | 0 | 0 | 0 | 0 | WL | 40.21 | 24.14 | 16.07 | | | | | | |
| | | | | | | | | | | | | | | | CI= | | | (WL-Wn)/PI |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 54.54 | 44.02 | 1.44 |

| | | | |
|--|--|--|--|
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| | | | |

RINCENT BTP RWANDA

SOIL ANALYSIS

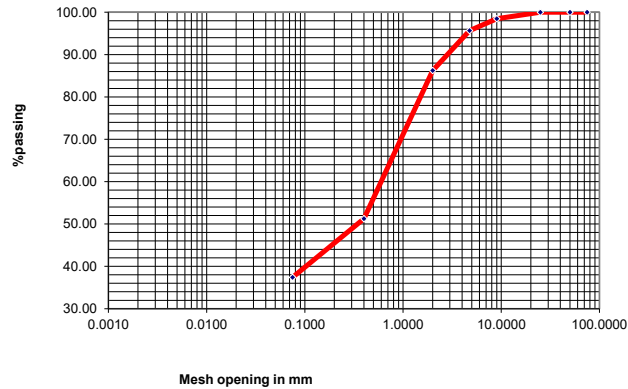
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|------------------------------------|---|---------------------|--------------------------------|
| Researcher | IRADUKUNDA Jeremie | Sample ID | BTP/027/02/2025 |
| Project | BUGESERA - NYANZA - MAMBA TRANSMISSION LINE | Testing date | 5 February to 19 February 2025 |
| Location | Gisagara District | Depth (m) | 4.0 |
| Date sample received in Lab | 01 February 2025 | | |
| Borehole No | BH7 | | |

| | | | |
|--------------------------|--|-------------------|-------|
| Bulk density | | g/Cm ³ | 2.03 |
| Natural Moisture content | | W(n)% | 21.21 |

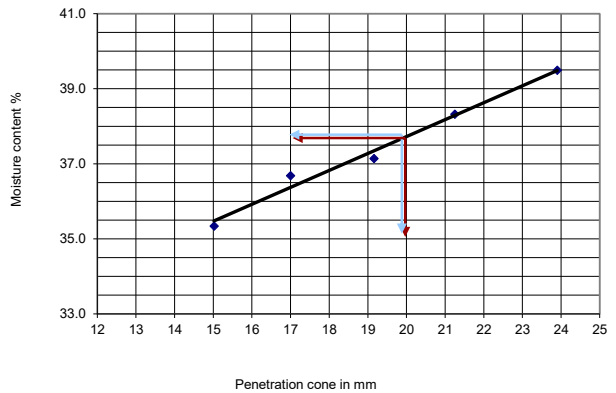
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| SIEVE ANALYSIS | | | | | | | | | LIQUIDITY LIMIT "WL" in penetrometer | | | | | | PLASTICITY LIMIT | | | |
|-----------------------|--------|-------|-------|-------|-------|--------|--------|--------|--------------------------------------|-------|--------------|-------|-------|-------|------------------|------------|-------|-------|
| Sieve Size (mm) | 0.0750 | 0.400 | 2.000 | 4.750 | 9.000 | 25.000 | 50.000 | 75.000 | Pen (mm) | 23.90 | 21.25 | 19.16 | 17.00 | 15.02 | correl. | 23.74 | 23.21 | 24.88 |
| % Passing | 37.42 | 51.26 | 86.2 | 95.6 | 98.4 | 100.0 | 100.0 | 100.0 | W% | 39.49 | 38.32 | 37.14 | 36.68 | 35.34 | 0.99 | | | |
| cumulative weight (g) | 149.2 | 116.2 | 32.8 | 10.4 | 3.7 | 0 | 0 | 0 | WL | WP | Ip | CI | | | | | | |
| | | | | | | | | | 37.73 | 23.94 | 13.78 | | | | CI= | (WL-Wn)/PI | | |

Sieve analysis Curve



Atterberg limit curve



| Particle content | Silty | Sand | Gravels |
|------------------|-------|-------|---------|
| % | 37.42 | 58.22 | 4.36 |

RINCENT BTP RWANDA

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