

**REPUBLIC OF KENYA**

**MINISTRY OF ROADS AND TRANSPORT**

**STATE DEPARTMENT OF ROADS**

Telegraphic Address: “MINWORKS”, Nairobi Materials Testing & Research Division Telephone: Nairobi 0202554950 Machakos Road, Industrial Area Fax: 554877 P.O. Box 11873 – 00400 E-mail: [chiefengineer@mtrd.go.ke](mailto:chiefengineer@mtrd.go.ke) **NAIROBI**

Ref No. M.1898/35/L/10 Date: 9th March, 2023

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| **Laboratory Test Report** |

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| **1. Customer’s Details:** KENYA AIRPORTS AUTHORITY /HAMETHYST LIMITED  **E-mail:** Not provided  **Address:** P.O.BOX 57653-00200 NAIROBI Phone: 0725337459  **2. Customer Contact:** 0725337459 6. Job Card No. 1763/S/2023  **3. Sample Description:** Gravel 7. Date fee paid: 16/02/2023  **4. Sampled by:** Client. 8. GOK MR No.4127577  **5. Date Sample received:** 09/02/2023 9. Date Analysis started:16/02/2023  **10. Additional information provided by the customer:** Proposed Musa Gate Access Road and Civil Works JKIA.  **Contract No.** KAA/ES//JKIA/0199/C     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | TEST RESULTS | | | | | | | | | | | | | | | | | | | **Sample No.** | **Reference** | **Dosage**% | **Grading** | | | | | | | **Atterberg Limits** | | | | | **Compaction T180** | | **CBR** | | | % Passing BS Sieve Size (mm) | | | | | | | LL | PL | PI | LS | PM |  | OMC (%) | 4days Soak  (%) | Swell (%) | | 20 | 10 | 5 | 2 | 0.425 | 0.075 | % | | % | % | % |  | MDD  Kg/m3 | | 723/S/22 | Mechanically Blended  Sample  B&C @Ratio 50:50 | Neat | 100 | 86 | 67 | 50 | 29 | 24 | 45 | | 27 | 18 | 9 | 522 | 1786 | 14.6 | 35 | 0.9 | | **SOIL COMPOSITION: Gravel = 50%, Sand = 26%, Silt/clay =24%** | | | | | | | | | | | | | | | | | **IMPROVED WITH BAMBURI CEMENT 42.5N 7DAYS CURE & 7DAYS SOAK** | | | | | | | | | | | | | | | | | | 1.5 |  |  |  |  |  |  | 41 | | 24 | 16 | 8 | 464 |  |  | 65 | 0.3 | | 2.0 |  |  |  |  |  |  | 36 | | 22 | 14 | 7 | 406 |  |  | 100 | 0.1 | | 2.5 |  |  |  |  |  |  | 35 | | 22 | 12 | 6 | 348 |  |  | 135 | <0.1 | | 3.0 |  |  |  |  |  |  | 35 | | 25 | 10 | 5 | 290 |  |  | 170 | <0.1 | | **IMPROVED WITH NEELKANTH HYDRATED LIME 7DAYS CURE & 7 DAYS SOAK** | | | | | | | | | | | | | | | | | | 1.0 |  |  |  |  |  |  | 42 | | 30 | 15 | 8 | 435 |  |  | 40 | 0.2 | | 1.5 |  |  |  |  |  |  | 42 | | 30 | 12 | 6 | 348 |  |  | 65 | 0.1 | | 2.0 |  |  |  |  |  |  | 35 | | 26 | 9 | 4 | 261 |  |  | 90 | <0.1 | |

**Eng. J. M. Mbarua**

**For: CHIEF ENGINEER (MATERIALS)**

**OiC Soils Laboratory. CSE Soils Laboratory.**

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