## GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

<u>Test Report No</u>.: WRD/Q.C./F.6-4/ Aggr -T- 9673, 9674 /Lab/ 140 /2020-21 Sand -T: 5050 & Cement: 1190

**Dated:** 28/11/2020. <u>Laboratory</u>: Bicholim

Sub Div: V (QC)/WRD/Bicholim

Sub: Construction of Tivim Minor from ch. 2.29 km to ch. 3.86 km of LBMC of TIP at Tivim Village in Bardez Taluka. Ref to requisition No: SDIII/WDVIII/WRD/WF. 51/2020-21/196 Dated: 17/11/2020.

## **R E P O RT 01 OF 01**

| Sr. No. | Description of sample                     | Tested for  | Results                      | Max. /Min. value permissible   | Remarks      |
|---------|---|---|------------------------------|--|--------------|
| 1.      | 20 mm Size Aggrega                        | te: Particle size distributio   | n: It is single sized a      | aggregate of 20 mm nominal size. (Qty. r   | $ep m^3$ )   |
| 2.      | 10.0 mm Size Aggre                        | gate: Particle size distribution  | n: It is not single siz      | ed aggregate of 10.0 mm nominal size. (Qty. 1  | $repm^3)$    |
|         |   |   |                              | with 10.0 mm aggregates at the ratio of <u>1:2</u> for graded aggregate of 20 mm nominal size. |              |
| 2       | Coores Sand                               | • 0   | -                            |  |              |
| 3.      | Coarse <u>Sand:</u>                       | i) Silt & Clay by S.A. method   |                              |  |              |
|         | (L.S.No.9564)                             | ii) Silt by sedimentation   | :- 4.34 %                    |  |              |
|         |   | iii) Fineness Modulus   | :- 2.528                     |  |              |
|         |   | iv) Grading Zone  | :- II                        |  |              |
|         |   | <u>REMA</u>   | <u>RK</u> : The observed res | sults are within the permissible limits of the   | coarse sand. |
| •       | Cement:                                   | i) H  | Fineness of Cement           | : 1.13 % (It should not be more  | than 10%)    |
|         | J.K cement, bearing IS: 269               |   | Consistency of cement        | : 32.00% (It should be in the neighborhood   | of 35%)      |
|         | Ordinary Portland cement,                 |   | Initial Setting Time         | : 175 minutes (It should not be less than  | ,            |
|         | Manuf. date: Week 42, Month 10 Year'2020. |   | Final Setting Time           | : 315 minutes (It should not be more than  |              |
|         | $\pi$                                     | $\underline{2}, \underline{1}, \underline{1}$ | I mui setting I mie          | (it should not be more than  | ooo minutes) |

To be used for - 1:2:4 and 1:1.5:3 Mix Concrete.

## **REMARK:** The observed results are within the permissible limit for Ordinary Portland cement.

Copy to: 1. The Assistant Engineer, SDIII, WDVIII, Karaswada Bardez - Goa

2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.

3. Copy Submitted to The Executive Engineer, W.D.VIII, WRD, , Karaswada Bardez – Goa .

4. Q.C. Lab file 5. Bill File.

Junior Engineer

**Assistant Engineer**