

**GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT**

Test Report No.: WRD/Q.C./F.6-4/ Aggr -T- 9414, 9415 /Lab/ 275 /2019-20

Dated: 23/ 09/ 2019.

Laboratory: Bicholim

Sand –T: 4902,4903 & Cement: 1097

Sub Div: V (QC)/WRD/Bicholim

Sub: Construction of Anjuna Distributory taking off at ch. 28.97 km of the Left Bank main canal of Tillari Irrigation Project in Siolim & Anjuna Village of Bardez Taluka. **Part I :** Construction of pump house, manifold and supply & installation of pumps and Motors, Transformer Substation, Electrical accessories and internal wiring for Anjuna Distributory near ch.28.970 kms of LBMC of TIP at Village Cucholim of Bardez Taluka..

Ref to requisition No: SDIII/WDVIII/WRD/WF. 32(PART- I)/2019-20/134 Dated: 10/09/2019.

Qty. Received: 1 bags each **Date of Receipt:** 18/09/2019 **Tested on:** 19/09/2019 to 23/09/2019 **Ref to Specification:** CPWD 2002, Vol. I & IS:4031-4-1988

Sample: Sand ,20mm, **O.S. No. :** 2701 to 2705 /SS **Lab. Sample No.:** 6774 TO 6778 **Tested by:** Mrs. S. B. Naik Shirodkar.JE.
10.0mm size aggrt, cement

R E P O R T 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	20 mm Size Aggregate:	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – 100.00 m ³)	
2.	10.0 mm Size Aggregate:	Particle size distribution:	It is not single sized aggregate of 10.0 mm nominal size.	(Qty. rep. – 100.00 m ³)	
REMARK: After blending 20 mm aggregate with 10.0 mm aggregates at the ratio of 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.					
3.	Coarse Sand: (L.S.No.6776)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 3.20% : - 4.76 % : - 2.10 : - III		
REMARK: The observed results are within the permissible limits of the coarse sand.					
4.	M. Sand: (L.S.No.6777)	i) Silt & Clay by S.A. method ii) Silt by sedimentation iii) Fineness Modulus iv) Grading Zone	: - 9.20% : - 13.63% : - 3.12 : - I		
REMARK: The observed results are <u>within</u> the permissible limits of the Coarse sand. (As per IS 383:2016 clause 5.2.1-Table 2)					

Junior Engineer

Assistant Engineer

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R E P O R T 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
5 .	Cement: Zuari cement, bearing IS: Ordinary Portland cement, Manuf. date: Week 36, Month 09 Year'2019. CML = 0006077671		i) Fineness of Cement : 1.13 % ii) Consistency of cement : 30.50% iii) Initial Setting Time : 175 minutes iv) Final Setting Time : 310 minutes	----- (It should not be more than 10%) (It should be in the neighborhood of 35%) ---- (It should not be less than 30 minutes) -- (It should not be more than 600 minutes)	

To be used for – 1:1.5:3 Grade Concrete for Slab and columns of pump house.

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