GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DFEPARTMENT

Test Report No.: WRD/Q.C./F.6-4/ - Sand –T5024, 5025 /Lab/ 38 /2020-21 **Dated: 02/ 06 / 2020.** **Laboratory:** Bicholim –Goa.

Aggr -T : 9622, 9623 , Cement: 1169. **Sub Div: V (QC)/WRD/Bicholim Goa**

Sub: : Construction of Barrage and up gradation of Raw water Pumping station at Ganjem on Mhadai River for Augmentation of Raw for OPA water works. **Part III: Construction of bank protection wall on u/s of Barrage at Ganjem.**

Ref to requisition No: SDII/WDVI/WRD/F. 62/2020-21/21 Dated: 18/05/2020.

Qty. Received: 1 bags each **Date of Receipt**: 23/05/2020 **Tested on**: 28 & 29/05/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

Sample: M.Sand , Sand ,20mm, **O.S. No.** 3734,3735, 3725,3726 & 3728/SS **Lab. Sample No**.: 8903 To 8907 **Tested by**: Mrs. S. B. Naik Shirodkar.JE.
12.5mm size aggrt, cement.

R E P O RT 01 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
1.	**M. Sand:** (L.S.No.8903)	i) Silt & Clay by S.A. method	: - 12.00%	**(Limit of Deleterious material is 15.00% for crushed sand)**	
		ii) Silt by sedimentation	: - 14.28%		
		iii) Fineness Modulus	: - 2.13		
		iv) Grading Zone	: - II		
2.	**Coarse Sand:** (L.S.No.8904)	i) Silt & Clay by S.A. method	: - 4.40%		
		ii) Silt by sedimentation	: - 5.20%		
		iii) Fineness Modulus	: - 2.46		
		iv) Grading Zone	: - **II**		
3.	**20 mm Size Aggregate:**	Particle size distribution:	It is single sized aggregate of 20 mm nominal size.	(Qty. rep. – --- m^3)	
4.	**12.5 mm Size Aggregate**:	Particle size distribution:	It is not single sized aggregate of 12.5 mm nominal size.	(Qty. rep. – --- m^3)	

REMARK: The observed results are within the permissible limits for crushed sand (Fine Aggregate) vide table 2 of IS 383: 2016(Clause 5.2.1).

REMARK: The observed results are within the permissible limits of the coarse sand.

REMARK: After blending 20 mm aggregate with 12.5 mm aggregates at the ratio of 1:2 by weight; it is satisfying the required criteria for graded aggregate of 20 mm nominal size.

Junior Engineer **Assistant Engineer**

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Ref to requisition No: SDII/WDVI/WRD/F. 62/2020-21/21 Dated: 18/05/2020.

Qty. Received: 1 bags each **Date of Receipt**: 23/05/2020 **Tested on**: 28 & 29/05/2020 **Ref to Specification:** CPWD 2009, Vol. I & IS:4031-4-1968

Sample: M.Sand , Sand ,20mm, 12.5mm size aggrt, cement. **O.S. No.** 3734,3735, 3725,3726 & 3728/SS **Lab. Sample No**.: 8903 To 8907 **Tested by**: Mrs. S. B. Naik Shirodkar.JE.

R E P O RT 02 OF 02

Sr. No.	Description of sample	Tested for	Results	Max. /Min. value permissible	Remarks
5.	**Cement:** Dalmia cement, bearing IS:269 Ordinary Portland Cement, Manuf. date: Week 20, Month May, Year'2020. CM/L = 6200022577 Qty. rep. –_____. To be used for – For Mix 1:1.5:3.	i) Fineness of Cement ii) Consistency of cement iii) Initial Setting Time iv) Final Setting Time	: 1.18 % : 31.00 % : 135 minutes : 255 minutes	---------- (It should be in the neighborhood of 35%) ---- (It should not be less than 30 minutes) -- (It should not be more than 600 minutes)	(It should not be more than 10%) **REMARK: The observed results are within the permissible limit for Ordinary Portland cement.**

Copy to: 1. The Assistant Engineer, SDII, WDVI,WRD, Valpoi - Sattari – Goa.
2. Copy Submitted to The Superintending Engineer, CPO, WRD, Porvorim – Goa for kind information.
3. Copy Submitted to The Executive Engineer, W.D. VI, WRD, Bicholim – Goa.
4. Q.C. Lab file 5. Bill File.

Junior Engineer **Assistant Engineer**