GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DFEPARTMENT

<u>Test Report No.: WRD/Q.C./F.6-4/Aggr-T-117,118/Lab/344/2021-22</u> Dated:- 29/ 03 /2022. <u>Laboratory</u>: Bicholim

Sand –T:5263 Cement-T: 1346,1347

<u>Sub Div</u>: V (QC)/WRD/Bicholim Goa.

<u>Sub</u>:-Construction of 30 MLD Raw Water Pumping Station at Calangute on Calangute distributary of Tillari Canal for Pilerne Industrial Estate and Surrounding Villages of Calangute and Saligao.

Ref to requisition No:- WRD/WDI/SDV/F.27/2021-22/207 Dated: 23/03/2022.

Qty. Received:1 bags eachDate of Receipt:24/03/2022Tested on:25,26 & 28/03/2022Ref to Specification:CPWD 2009, Vol. I&IS:4031-4-1968Sample:Sand,20mm,O.S. N:-281,282,308 & 267/R.KLab. Sample No.:3488 To 3492Tested by:Mrs. R. R. Kadam A.E.12.5mm size aggrt., Sand, CementSample No.:Sample No.:3488 To 3492Sample No.:Sample No.:

R E P O RT 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 ag	gregate of 20 mm nominal size. (Qty. rep.	m^{3})
2.	<u>12.5 mm Size Aggregate</u> :	Particle size distribution:	It is not single sized	d aggregate of 12.5 mm nominal size. (Qty. rep.	m^{3})
			0 00 0	e with 12.5 mm aggregates at the ratio of <u>1:1</u> b	y weight; it is
		satisfying th	e required criteria f	or graded aggregate of 20 mm nominal size.	
3.	Coarse Sand:	i) Silt & Clay by S.A. r	nethod : - 5.60%		
	(L.S.No.3490)	ii) Silt by sedimentation	:- 5.00%		
		iii) Fineness Modulus	:- 2.66		
		iv) Grading Zone	:- II		
	To be used for RE	MARK: The observed resu	lts are within the pe	rmissible limits of the coarse sand.	
4.	Cement:	i) Fine	ness of Cement	: 1.22% (It should not be mor	e than 10%)
	J.K. Cement, bearing IS:269 ii) Con		sistency of cement	: 31.00% (It should be in the neighborhood	d of 35%)
			ial Setting Time	: 145 minutes (It should not be less that	an 30 minutes)
			al Setting Time	: 285 minutes (It should not be more that	,
	CM/L =0003401033		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
	Qty. rep. –.				
	- •	DV. The charmed regults of	······································	sible limit for Ordinary Portland cement.	

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 24/03/2022
 Tested on:
 25,26 & 28/03/2022
 Ref to Specification:
 CPWD 2009, Vol. I&IS:4031-4-1968

 Sample:
 Sand,20mm,
 O.S. N: 281,282,308 & 267/R.K
 Lab. Sample No.:
 3488 To 3492
 Tested by:
 Mrs. R. Kadam A.E.

 12.5mm size aggrt., Sand, Cement
 Sand, Cement
 Sample No.:
 3488 To 3492
 Tested by:
 Mrs. R. Kadam A.E.

R E P O RT 02 OF 02

5.	Cement:	i) Fineness of Cement	: 1.16% (It should not be more than 10%)	
	Zuari Cement, bearing IS:269	ii) Consistency of cement	: 32.50% (It should be in the neighborhood of 35%)	
	Ordinary Portland cement,	iii) Initial Setting Time	: 170 minutes (It should not be less than 30 minutes)	
	Manuf. date: W- 10, M-03, Year-2022	iv) Final Setting Time	: 305 minutes (It should not be more than 600 minutes)	
	CM/L =0005077671			
	Qty. rep. –.			

To be used for -. **<u>REMARK: The observed results are within the permissible limit for Ordinary Portland cement.</u>**

Copy to: 1. The Assistant Engineer, SDV, WDI, WRD, Porvorim – Goa.

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

3. Copy Submitted to The Executive Engineer, W.D. I, WRD, Porvorim - Goa

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

Assistant Engineer