GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD/QC/F.6-2/Cube -T : 7256 To 7283 / Lab / **194** / 2019 - 20 Dated: 17 / 06 / 2019 Laboratory : Bicholim -Goa / Sub Division V (QC)/WRD/ Bicholim -Goa.

Name of Work: - Construction of Barrage and up gradation of Raw water pumping station at Ganjem on Mhadei River for Augmentation of Raw water for Opa water works Reg. Construction of Barrage, providing and laying 1000 mm dia. D.I. pipe Rising main and Break Pressure Tank at Ganjem in Sattari Taluka.

Ref. to Requisition No.: WRD/WDVI/SD I /F.W.215/2019-20/ **205** Dated :- 15-06-2019

Qty. Recived.: 28 Sets of cube Date of Receipt: - 15/06/2019. Tested on: -15/06/2019 & 16/06/2019 Ref to CPWD: 2002, Vol. I

Sample: RCC 1:1.5:3 Mix O.S No.: 871 To 898/AF. Lab. Sample No.: 6144 To 6171. Tested By: - Mr. Anil R. Fadte, J.E.

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RES	SULTS	Max./Min.Value permissable	% above or below	REMARK
1	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	323.93 326.20 312.61 320.91	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	21.10	Represents Qty. 20.00 Cum.
2	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	317.14 310.34 328.46 318.65	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	20.24	Represents Qty. 20.00 Cum.
3	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	321.67 314.87 317.14 317.89	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	19.96	Represents Qty. 20.00 Cum.
4	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	328.46 319.40 310.34 319.40	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	20.53	Represents Qty. 20.00 Cum.
5	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	310.34 326.20 321.67 319.40	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	20.53	Represents Qty. 20.00 Cum.
6	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day compressive strength Average	312.61 328.46 323.93 321.67	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	265.00 Kg/Cm ²	21.38	Represents Qty. 20.00 Cum.

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			DRITAGE 02		Max./Min.Value	% above or	
SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR RESU		SULTS	permissable	below	REMARK
7	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	310.34	Kg/Cm ²		Scion	
		compressive	326.20	Kg/Cm ²		20.81	
		strength	323.93	Kg/Cm ²	265.00 Kg/Cm ²		Represents Qty. 20.00 Cum.
		Average	320.16	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	326.20	Kg/Cm ²			
		compressive	303.55	Kg/Cm ²	. ,	20.24	Represents Qty. 20.00 Cum.
8		strength	326.20	Kg/Cm ²	265.00 Kg/Cm ²		
		Average	318.65	Kg/Cm ²	1		
	Dainfarrand Company to such a of 11.4.4.5.3	28th day	328.46	Kg/Cm ²			Represents Qty. 20.00 Cum.
0	Reinforced Cement concrete cube of mix 1:1.5:3	compressive	323.93	Kg/Cm ²		21.38	
9	, cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	strength	312.61	Kg/Cm ²	265.00 Kg/Cm ²		
		Average	321.67	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	330.73	Kg/Cm ²		19.96	Represents Qty. 20.00 Cum.
10		compressive	308.08	Kg/Cm ²	265 00 K-162		
10		strength	314.87	Kg/Cm ²	265.00 Kg/Cm ²		
		Average	317.89	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	296.75	Kg/Cm ²		18.53	Represents Qty. 20.00 Cum.
11		compressive	330.73	Kg/Cm ²	265.00 Kg/Cm ²		
11		strength	314.87	Kg/Cm ²	265.00 Kg/Cili		
		Average	314.12	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	319.40	Kg/Cm ²	265.00 Kg/Cm ²	20.24	Represents Qty. 20.00 Cum.
12		compressive	326.20	Kg/Cm ²			
12		strength	310.34	Kg/Cm ²			
		Average	318.65	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	323.93	Kg/Cm ²	265.00 Kg/Cm ²	20.81	Represents Qty. 20.00 Cum.
13		compressive	312.61	Kg/Cm ²			
		strength	323.93	Kg/Cm ²			
		Average	320.16	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 18/05/2019, RCC for floor of Barage from 55-88 m.	28th day	323.93	Kg/Cm ²	265.00 Kg/Cm ²	21.67	Represents Qty. 20.00 Cum.
14		compressive	328.46	Kg/Cm ²			
		strength	314.87	Kg/Cm ²			
		Average	322.42	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	326.20	Kg/Cm ²	265.00 Kg/Cm ²	22.81	Represents Qty. 20.00 Cum.
15		compressive	330.73	Kg/Cm ²			
13		strength	319.40	Kg/Cm ²			
		Average	325.44	Kg/Cm ²			

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RES	SULTS	Max./Min.Value permissable	% above or below	REMARK
16	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	330.73	Kg/Cm ²	205 00 K-10 ²		
		compressive	323.93	Kg/Cm ²		21.95	Represents Qty. 20.00 Cum.
		strength	314.87	Kg/Cm ²	265.00 Kg/Cm ²	21.95	Represents Qty. 20.00 cum.
		Average	323.18	Kg/Cm ²			
17	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage	28th day	326.20	Kg/Cm ²		20.81	Represents Qty. 20.00 Cum.
		compressive	319.40	Kg/Cm ²	265.00 Kg/Cm ²		
1	from 55-88 m.	strength	314.87	Kg/Cm ²	205.00 Ng/CIII	20.61	
	אס-ככ וווטוו.	Average	320.16	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3	28th day	312.61	Kg/Cm ²		20.53	Represents Qty. 20.00 Cum.
18	, cast on 19/05/2019, RCC for floor of Barage	compressive	314.87	Kg/Cm ²	265.00 Kg/Cm ²		
10	from 55-88 m.	strength	330.73	Kg/Cm ²	203.00 kg/Cili		
	110111 55-66 111.	Average	319.40	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	330.73	Kg/Cm ²	265.00 Kg/Cm ²	21.10	Represents Qty. 20.00 Cum.
19		compressive	308.08	Kg/Cm ²			
		strength	323.93	Kg/Cm ²			
		Average	320.91	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	312.61	Kg/Cm ²	265.00 Kg/Cm ²	19.39	Represents Qty. 20.00 Cum.
20		compressive	308.08	Kg/Cm ²			
20		strength	328.46	Kg/Cm ²			
		Average	316.38	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	326.20	Kg/Cm ²	265.00 Kg/Cm ²	22.24	Represents Qty. 20.00 Cum.
21		compressive	330.73	Kg/Cm ²			
		strength	314.87	Kg/Cm ²			
		Average	323.93	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	303.55	Kg/Cm ²	265.00 Kg/Cm ²	19.96	Represents Qty. 20.00 Cum.
22		compressive	326.20	Kg/Cm ²			
		strength	323.93	Kg/Cm ²			
		Average	317.89	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	330.73	Kg/Cm ²	265.00 Kg/Cm ²	21.38	Represents Qty. 20.00 Cum.
23		compressive	323.93	Kg/Cm ²			
		strength	310.34	Kg/Cm ²			
		Average	321.67	Kg/Cm ²			
24	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	314.87	Kg/Cm ²	265.00 Kg/Cm ²	22.24	Represents Qty. 20.00 Cum.
		compressive	326.20	Kg/Cm ²			
		strength	330.73	Kg/Cm ²			
		Average	323.93	Kg/Cm ²			

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
25	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	328.46	Kg/Cm ²	265.00 Kg/Cm ²	19.96	Represents Qty. 20.00 Cum.
		compressive	301.28	Kg/Cm ²			
		strength	323.93	Kg/Cm ²			
		Average	317.89	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	330.73	Kg/Cm ²	265.00 Kg/Cm ²	22.81	Represents Qty. 20.00 Cum.
26		compressive	326.20	Kg/Cm ²			
		strength	319.40	Kg/Cm ²			
		Average	325.44	Kg/Cm ²			
	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	310.34	Kg/Cm ²	265.00 Kg/Cm ²	21.38	Represents Qty. 20.00 Cum.
27		compressive	326.20	Kg/Cm ²			
		strength	328.46	Kg/Cm ²			
		Average	321.67	Kg/Cm ²			
28	Reinforced Cement concrete cube of mix 1:1.5:3 , cast on 19/05/2019, RCC for floor of Barage from 55-88 m.	28th day	310.34	Kg/Cm ²	265.00 Kg/Cm ²	21.38	Represents Qty. 20.00 Cum.
		compressive	328.46	Kg/Cm ²			
		strength	326.20	Kg/Cm ²			
		Average	321.67	Kg/Cm ²			

1.Copy to: The Assistant Engineer SD I, WD VI, WRD, Bicholim Goa.

- 2. Copy submitted to:The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa. For kind Information.
- 3. Copy submitted to:The Executive Engineer ,WDVI,WRD, Bicholim-Goa.
- 4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer