GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T :2204,2205,2206,2215,2216,2217,2222,/ Lab / **113** / 2021 - 22 Dated:-16 /06 / 2021. Laboratory : Bicholim - Goa.

2223,2224,2229,2230,2231,2242,2243,2244

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. Part II-Upgradation of pump house including supply and installation of pumps, motors, control panel and substation, providing and laying 1000mm DI pipe gravity main.

Ref. to Requisition No.:F.216/WRD/WDVI/SDI/92/20-21 Dated :- 07/ 06 / 2021.

Qty. Recived. : 15 Sets of cube Date of Receipt:- 08/06/2021. Tested on: -09 to 13/06/2021 as per due dates. Ref to CPWD :2009, Vol. I Sample: Cube Mix 1:2:4 O.S No. :6435,6436,6437,6446,6447,6448,6453,6454,6455,6460,6461,6462,6473,6474,6475/SS Lab. Sample No.: 1751 to 1765 Tested By: Mrs. Shirodkar. J.E.

SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix 1:2:4 , cast on 12/05/2021. PCC for found wall along the nallah from ch.3764m to 3784m.	28 th day	215.20	Kq/Cm ²	210.00 Kg/cm ²	5.35	Qty represents -36.00 Cum.
		compressive	210.67	Kg/Cm ²			
		strenath	237.85	Kq/Cm ²			
		Average	221.24	Kq/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 12/05/2021. PCC for found wall along the nallah from ch.3784m to 3804m along nallah.	28 th day	226.53	Kq/Cm ²	210.00 Kg/cm ²	3.55	Qty represents -36.00 Cum.
2		compressive	203.87	Kq/Cm ²			
2		strength	222.00	Kq/Cm ²			
		Average	217.47	Kg/Cm ²			
	Cement concrete cube of mix $1:2:4$, cast on 12/05/2021. PCC for 1^{st} step of wall along the nallah from ch.3704m to 3724m along nallah.	28 th day	215.20	Kq/Cm ²	210.00 Kg/cm ²	7.51	Qty represents - 27.00 Cum.
3		compressive	224.26	Kq/Cm ²			
Ŭ		strenath	237.85	Kq/Cm ²			
		Average	225.77	Kq/Cm ²			
	Cement concrete cube of mix $1:2:4$, cast on 13/05/2021. PCC for 1^{st} step of wall along the nallah from ch.3724m to 3744m along nallah.	28 th day	260.51	Kg/Cm ²	210.00 Kg/cm ²	13.26	Qty represents - 27.00 Cum.
4		compressive	226.53	Kg/Cm ²			
		strength	226.53	Kg/Cm ²			
		Average	237.85	Kq/Cm ²			
	Cement concrete cube of mix 1:2:4 , cast on 13/05/2021. PCC for found wall along the nallah from ch.3804m to 3824m along nallah.	28 th day	215.20	Ka/Cm ²	210.00 Kg/cm ²	10.39	Qty represents - 36.00 Cum.
5		compressive	251.44	Kq/Cm ²			
5		strenath	228.79	Kq/Cm ²			
		Average	231.81	Kg/Cm ²			

REPORT PAGE 01 OF 03

Junior Engineer

	REPORT PAGE 02 OF 03										
SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK				
6	Cement concrete cube of mix $1:2:4$, cast on 13/05/2021. PCC for 1 st step of wall along the nallah from ch.3744m to 3674m along nallah.	28 th day compressive strength Average	222.00 231.06 237.85 230.30	<u>Kq/Cm²</u> <u>Ka/Cm²</u> <u>Kq/Cm²</u>	210.00 Kg/cm ²	9.67	Qty represents - 27.00 Cum.				
7	Cement concrete cube of mix 1:2:4 , cast on 14/05/2021. PCC for 1 st step of wall along the nallah from ch.3764m to 3784m along nallah.	28 th day compressive strenath Average	244.65 249.18 226.53 240.12	Kq/Cm ² Kq/Cm ² Kq/Cm ² Kq/Cm ²	210.00 Kg/cm ²	14.34	Qty represents - 27.00 Cum.				
8	Cement concrete cube of mix 1:2:4 , cast on 14/05/2021. PCC for 2 nd step of wall along the nallah from ch.3704m to 3724m along nallah.	28 th day compressive strength Average	235.59 237.85 231.06 234.83	Kq/Cm ² Kq/Cm ² Kq/Cm ² Kq/Cm ²	210.00 Kg/cm ²	11.82	Qty represents -18.00 Cum.				
9	Cement concrete cube of mix 1:2:4 , cast on 14/05/2021. PCC for 1 st step of wall along the nallah from ch.3784m to 3804m along nallah.	28 th day compressive strength Average	246.91 237.85 226.53 237.10	Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	210.00 Kg/cm ²	12.90	Qty represents -27.00 Cum.				
10	Cement concrete cube of mix 1:2:4 , cast on 15/05/2021. PCC for 2 nd step of wall along the nallah from ch.3724m to 3744m along nallah.	28 th day compressive strength	215.20 240.12 217.47 224.26	Kg/Cm ² Kg/Cm ² Kg/Cm ²	210.00 Kg/cm ²	6.79	Qty represents -18.00 Cum.				
11	Cement concrete cube of mix 1:2:4 , cast on 15/05/2021. PCC for 1 st step of wall along the nallah from ch.3804m to 3824m along nallah.	Average 28 th day compressive strength	224.26 237.85 231.06 212.93	Kg/Cm ² Kg/Cm ² Kg/Cm ²	- 210.00 Kg/cm ²	8.23	Qty represents - 27.00 Cum.				
12	Cement concrete cube of mix 1:2:4 , cast on 15/05/2021. PCC for 2 nd step of wall along the nallah from ch.3744m to 3764m along nallah.	Average 28 th day compressive strength Average	227.28 226.53 235.59 244.65 235.59	Ka/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ²	210.00 Kg/cm ²	12.18	Qty represents - 18.00 Cum.				

SR. NO	DISCRIPTION OF SAIVIPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
13	Cement concrete cube of mix $1:2:4$, cast on 16/05/2021. PCC for 2 nd step of wall along the nallah from ch.3764m to 3784m along nallah.	28 th day	244.65	Kg/Cm ²	210.00 Kg/cm ²	10.75	Qty represents -18.00 Cum.
		compressive 2	226.53	Kg/Cm ²			
		strength	226.53	Kg/Cm ²			
		Average	232.57	Kg/Cm ²			
	Cement concrete cube of mix $1:2:4$, cast on 16/05/2021. PCC for 2 nd step of wall along the nallah from ch.3784m to 3804m along nallah.	28 th day	231.06	Kg/Cm ²			
		compressive	ssive 235.59 Kg/Cm ²	210.00 Kg/cm ²	13.62	Qty represents -18.00 Cum.	
		strength 249.18	249.18	Kg/Cm ²	210.00 kg/cm	13.02	
		Average	238.61	Ka/Cm ²			
	Cement concrete cube of mix $1:2:4$, cast on 16/05/2021. PCC for 3^{rd} step of wall along the nallah from ch.3704m to 3744m along nallah.	28 th day	253.71	Kg/Cm ²	210.00 km^2	12.18	Qty represents - 12.00 Cum.
		compressive	222.00	Kg/Cm ²			
		strength	231.06 Kg/Cm ²	210.00 Kg/cm ²	12.10	City represents - 12.00 cum.	
		Average	235.59	Kg/Cm ²			

REPORT PAGE 03 OF 03

Copy to: 1. 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, WD VI, WRD, Bicholim - Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer