

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 1364 to 1367,1386 to 1388,1411 to 1413,1443 to 1446,/ Lab / 13 / 2021 - 22 Dated:- 16/ 04/ 2021. Laboratory : Bicholim - Goa.
1468 to 1471,1479,1480,1503,1504,1534 to 1537,1563 to 1566 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 I- Construction of Barrage providing and ng 1000mm dia D.Ipipe Rising main and Break Pressure Tank at Ganjem in Sattari Taluka.**

Ref. to Requisition No.:WRD/WDVI/SDI/F.W.215/2020-21/576 Dated :- 08/ 03/ 2021.

Qty. Received. :30 Sets of cube Date of Receipt:- 09/ 03 / 2021. Tested on: -18,19,20,23,24,25,26,29/03/2021 & 01/04/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 1.5 : 3 & M 35 O.S No. :5483 to 5486,5510 to 5512,5537 to 5539,5574 to 5577,5599 to 5602,5611,5512,5638,5639,5674 to 5577,5703 to 5706/SS.

Lab. Sample No.: 761 To 790 Tested By: Mrs. Shirodkar. J.E.

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 18/02/2021. RCC for Pier P8-7.20m to 8.40m.	28 th day compressive strenath	299.01	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 13.50 Cum.
			276.36	Kg/Cm ²			
			260.51	Kg/Cm ²			
			Average	278.63			
2	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 18/02/2021. RCC for Pier P8-7.20m to 8.40m.	28 th day compressive strenath	271.83	Kg/Cm ²	265.00 Kg/cm ²	2.01	----- do -----
			276.36	Kg/Cm ²			
			262.77	Kg/Cm ²			
			Average	270.32			
3	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 18/02/2021. RCC for Pier P9-7.20m to 8.40m.	28 th day compressive strenath	267.30	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 13.50 Cum.
			283.16	Kg/Cm ²			
			285.42	Kg/Cm ²			
			Average	278.63			
4	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 18/02/2021. RCC for Pier P9-7.20m to 8.40m.	28 th day compressive strenath	292.22	Kg/Cm ²	265.00 Kg/cm ²	5.43	----- do -----
			280.89	Kg/Cm ²			
			265.04	Kg/Cm ²			
			Average	279.38			
5	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 19/02/2021. RCC for Secondary concrete at crest of Seventh opening.	28 th day compressive strenath	289.95	Kg/Cm ²	265.00 Kg/cm ²	11.41	Qty represents - 19.00 Cum.
			305.81	Kg/Cm ²			
			289.95	Kg/Cm ²			
			Average	295.24			
6	Cement concrete cube of mix 1 : 1.5 : 3 , cast on 19/02/2021. For Raft of Retaining wall on D/s at L.H.S.	28 th day compressive strenath	253.71	Kg/Cm ²	265.00 Kg/cm ²	3.15	Qty represents - 13.00 Cum.
			274.10	Kg/Cm ²			
			292.22	Kg/Cm ²			
			Average	273.34			

Junior Engineer

Assistant Engineer

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
7	Cement concrete cube of mix 1 : 1.5 :3 , cast on 19/02/2021. RCC for Secondary concrete at crest of Eight opening.	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/cm ²	11.13	Qty represents - 19.00 Cum.
			303.55	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	294.48	Kg/Cm²			
8	Cement concrete cube of mix 1 : 1.5 :3 , cast on 20/02/2021. RCC for Pier P8-8.40m to 9.60m.	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	11.13	Qty represents - 13.50 Cum.
			283.16	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	294.48	Kg/Cm²			
9	Cement concrete cube of mix 1 : 1.5 :3 , cast on 20/02/2021. RCC for Pier P9-8.40m to 9.60m.	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	15.40	Qty represents - 13.50 Cum.
			317.14	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	305.81	Kg/Cm²			
10	Cement concrete cube of mix 1 : 1.5 :3 , cast on 20/02/2021. RCC for Secondary concrete at crest of Ninth opening.	28 th day compressive strength	310.34	Kg/Cm ²	265.00 Kg/cm ²	14.55	Qty represents - 19.00 Cum.
			296.75	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	303.55	Kg/Cm²			
11	Cement concrete cube of mix M 35 , cast on 23/02/2021. RCC for 5 th span of service bridge of barrage.	28 th day compressive strength	407.75	Kg/Cm ²	400.00 Kg/cm ²	2.69	Qty represents - 9.00 Cum.
			394.16	Kg/Cm ²			
			430.40	Kg/Cm ²			
		Average	410.77	Kg/Cm²			
12	Cement concrete cube of mix M 35 , cast on 23/02/2021. RCC for 5 th span of service bridge of barrage.	28 th day compressive strength	385.09	Kg/Cm ²	400.00 Kg/cm ²	1.18	----- do -----
			430.40	Kg/Cm ²			
			398.69	Kg/Cm ²			
		Average	404.73	Kg/Cm²			
13	Cement concrete cube of mix M 35 , cast on 23/02/2021. RCC for 5 th span of service bridge of barrage.	28 th day compressive strength	421.34	Kg/Cm ²	400.00 Kg/cm ²	2.50	----- do -----
			405.48	Kg/Cm ²			
			403.22	Kg/Cm ²			
		Average	410.01	Kg/Cm²			
14	Cement concrete cube of mix M 35 , cast on 23/02/2021. RCC for 5 th span of service bridge of barrage.	28 th day compressive strength	437.20	Kg/Cm ²	400.00 Kg/cm ²	3.64	----- do -----
			410.01	Kg/Cm ²			
			396.42	Kg/Cm ²			
		Average	414.54	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
15	Cement concrete cube of mix 1 : 1.5 :3 , cast on 24/02/2021. RCC for Secondary concrete at crest of Tenth opening.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	4.86	Qty represents - 19.00 Cum.
			260.51	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
16	Cement concrete cube of mix 1 : 1.5 :3 , cast on 24/02/2021. RCC for Pier P8-9.60m to 10.80m.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	7.99	Qty represents - 13.50 Cum.
			294.48	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	286.18	Kg/Cm²			
17	Cement concrete cube of mix 1 : 1.5 :3 , cast on 24/02/2021. RCC for Pier P8-9.60m to 10.80m.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	8.28	----- do -----
			292.22	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	286.93	Kg/Cm²			
18	Cement concrete cube of mix 1 : 1.5 :3 , cast on 24/02/2021. RCC for Secondary concrete for first & second opening for gates's Grooves.	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents -10.00 Cum.
			267.30	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
19	Cement concrete cube of mix 1 : 1.5 :3 , cast on 25/02/2021. RCC for Pier P9- 9.60m to 10.80m.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	5.43	Qty represents - 13.50 Cum.
			260.51	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	279.38	Kg/Cm²			
20	Cement concrete cube of mix 1 : 1.5 :3 , cast on 25/02/2021. RCC for Pier P9- 9.60m to 10.80m.	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	10.56	----- do -----
			305.81	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	292.97	Kg/Cm²			
21	Cement concrete cube of mix 1 : 1.5 :3 , cast on 26/02/2021. RCC for Secondary concrete for third & fourth opening for gates's Grooves.	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/cm ²	15.40	Qty represents - 10.00 Cum.
			317.14	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	305.81	Kg/Cm²			
22	Cement concrete cube of mix 1 : 1.5 :3 , cast on 26/02/2021. RCC for Secondary concrete for fifth & sixth opening for gates's Grooves.	28 th day compressive strength	308.08	Kg/Cm ²	265.00 Kg/cm ²	8.85	Qty represents - 10.00 Cum.
			276.36	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	288.44	Kg/Cm²			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
23	Cement concrete cube of mix 1 : 1.5: 3 , cast on 01/03/2021. RCC for Pier P8- 10.80m to 11.85m.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	6.00	Qty represents - 13.50 Cum.
			265.04	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
24	Cement concrete cube of mix 1 : 1.5: 3 , cast on 01/03/2021. RCC for Pier P8- 10.80m to 11.85m.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	3.15	----- do -----
			267.30	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	273.34	Kg/Cm²			
25	Cement concrete cube of mix 1 : 1.5: 3 , cast on 01/03/2021. RCC for Pier P9- 10.80m to 11.85m.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	3.43	Qty represents - 13.50 Cum.
			267.30	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
26	Cement concrete cube of mix 1 : 1.5: 3 , cast on 01/03/2021. RCC for Pier P9- 10.80m to 11.85m.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.00	----- do -----
			294.48	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
27	Cement concrete cube of mix M 35 , cast on 04/03/2021. RCC for 6 th span of service bridge of barrage.	28 th day compressive strength	428.13	Kg/Cm ²	400.00 Kg/cm ²	3.26	Qty represents - 9.00 Cum.
			407.75	Kg/Cm ²			
			403.22	Kg/Cm ²			
		Average	413.03	Kg/Cm²			
28	Cement concrete cube of mix M 35 , cast on 04/03/2021. RCC for 6 th span of service bridge of barrage.	28 th day compressive strength	412.28	Kg/Cm ²	400.00 Kg/cm ²	3.64	----- do -----
			423.60	Kg/Cm ²			
			407.75	Kg/Cm ²			
		Average	414.54	Kg/Cm²			
29	Cement concrete cube of mix M 35 , cast on 04/03/2021. RCC for 6 th span of service bridge of barrage.	28 th day compressive strength	419.07	Kg/Cm ²	400.00 Kg/cm ²	3.26	----- do -----
			416.81	Kg/Cm ²			
			403.22	Kg/Cm ²			
		Average	413.03	Kg/Cm²			
30	Cement concrete cube of mix M 35 , cast on 04/03/2021. RCC for 6 th span of service bridge of barrage.	28 th day compressive strength	430.40	Kg/Cm ²	400.00 Kg/cm ²	2.88	----- do -----
			407.75	Kg/Cm ²			
			396.42	Kg/Cm ²			
		Average	411.52	Kg/Cm²			

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

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