

**GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT**

Test Report No:WRD/QC/F.6-2/Cube-T-8084 To 8087,8103 To 8106,8120 To 8123,8135 To 8138,8150 To 8153,8165 To 8168,8172 To 8175,8181 To 8184,8192 To 8195 /Lab/**352**/2019-20
Dated :-26 / 12 / 2019

Laboratory : Bicholim -Goa

Sub Division V (QC)/WRD/ Bicholim -Goa.

Name of Work: - Improvement to the R.B.M.C. of T.I.P. by providing 100 mm thick RCC lining from Ch. 0.00 Kms To Ch. 6.020 Kms excluding Hassapur aqueduct and Kalna aqueduct between Ch.4.165 Kms To Ch. 4.227 Kms and Ch. 4.772 Kms To Ch. 5.117 Kms at Village Ankane, Hassapur and Hali in Pernem Taluka.

Ref. to Requisition No.: - SDI/WDVII/WRD /F.353/2019-20/ **226** Dated :-29-11-2019

Qty. Recived. :36 Sets of cube Date of Receipt: - 30 / 11 / 2019. Tested on: -17/12/2019 To 25/12/2019 as per due dates

Sample:RCC 1:1.5:3

Mix O.S No:1243 To 1246,1259 To 1262/AF,2874 To 2877/SS,1278 To 1281,1293 To 1296,1308 To 1311, 1315 To 1318,1324 To 1327,1335 To

1338/AF.

Lab. Sample No.: 7051 To 7086.

Tested By: -Mr.Anil R. Fadte,J.E. & Mrs. S. B. Naik Shirodkar. J.E.

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SR. NO.	DISCRIPTION OF SAMPLE		RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/ 11 / 2019, for RCC canal lining from Ch.650.00 to 710.00(P14) .	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/Cm ²	10.27	Qty represents - 80.00 Cum for four sets of cubes cast on 19/11/2019 .
			262.77	Kg/Cm ²			
			317.14	Kg/Cm ²			
			Average	292.22			
2	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/ 11 / 2019, for RCC canal lining from Ch.650.00 to 710.00(P14) .	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/Cm ²	15.69	-do-
			308.08	Kg/Cm ²			
			326.20	Kg/Cm ²			
			Average	306.57			
3	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/ 11 / 2019, for RCC canal lining from Ch.650.00 to 710.00(P14) .	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/Cm ²	3.43	-do-
			262.77	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	274.10			
4	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 19/ 11 / 2019, for RCC canal lining from Ch.650.00 to 710.00(P14) .	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/Cm ²	15.97	-do-
			321.67	Kg/Cm ²			
			305.81	Kg/Cm ²			
			Average	307.32			
5	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/ 11 / 2019, for RCC canal lining from Ch.710.00 to 770.00(P15) .	28 th day compressive strength	249.18	Kg/Cm ³	265.00 Kg/Cm ²	2.01	Qty represents - 80.00 Cum for four sets of cubes cast on 20/11/2019 .
			274.10	Kg/Cm ³			
			287.69	Kg/Cm ²			
			Average	270.32			
6	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/ 11 / 2019, for RCC canal lining from Ch.710.00 to 770.00(P15) .	28 th day compressive strength	314.87	Kg/Cm ²	265.00 Kg/Cm ²	19.67	-do-
			321.67	Kg/Cm ²			
			314.87	Kg/Cm ²			
			Average	317.14			

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	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/ 11 / 2019, for RCC canal lining from Ch.710.00 to 770.00(P15) .	28th day compressive strength	283.16	Kg/Cm ³	265.00 Kg/Cm ²	15.12	Qty represents - 80.00 Cum for four sets of cubes cast on 20/11/2019 .
			342.05	Kg/Cm ³			
			289.95	Kg/Cm ²			
		Average	305.06	Kg/Cm²			
8	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 20/ 11 / 2019, for RCC canal lining from Ch.710.00 to 770.00(P15) .	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/Cm ²	6.00	-do-
			280.89	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
9	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 21/ 11 / 2019, for RCC canal lining from Ch.770.00 to 830.00(P16) .	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/Cm ²	2.29	Qty represents - 80.00 Cum for four sets of cubes cast on 21/11/2019 .
			271.83	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	271.08	Kg/Cm²			
10	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 21/ 11 / 2019, for RCC canal lining from Ch.770.00 to 830.00(P16) .	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/Cm ²	2.86	-do-
			269.57	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
11	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 21/ 11 / 2019, for RCC canal lining from Ch.770.00 to 830.00(P16) .	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/Cm ²	3.72	-do-
			274.10	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
12	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 21/ 11 / 2019, for RCC canal lining from Ch.770.00 to 830.00(P16) .	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/Cm ²	3.43	-do-
			265.04	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	274.10	Kg/Cm²			
13	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 22/ 11 / 2019, for RCC canal lining from Ch.830.00 to 890.00(P17) .	28th day compressive strength	299.01	Kg/Cm ³	265.00 Kg/Cm ²	6.85	Qty represents - 80.00 Cum for four sets of cubes cast on 22/11/2019 .
			278.63	Kg/Cm ³			
			271.83	Kg/Cm ²			
		Average	283.16	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
14	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 22/ 11 / 2019, for RCC canal lining from Ch.830.00 to 890.00(P17) .	28 th day compressive strength	344.32	Kg/Cm ²	265.00 Kg/Cm ²	25.37	Qty represents - 80.00 Cum for four sets of cubes cast on 22/11/2019 .
			337.52	Kg/Cm ²			
			314.87	Kg/Cm ²			
		Average	332.24	Kg/Cm²			
15	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 22/ 11 / 2019, for RCC canal lining from Ch.830.00 to 890.00(P17) .	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/Cm ²	2.86	-do-
			269.57	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
16	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 22/ 11 / 2019, for RCC canal lining from Ch.830.00 to 890.00(P17) .	28 th day compressive strength	287.69	Kg/Cm ²	265.00 Kg/Cm ²	5.43	-do-
			267.30	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	279.38	Kg/Cm²			
17	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 23/ 11 / 2019, for RCC canal lining from Ch.890.00 to 950.00(P18) .	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/Cm ²	6.00	Qty represents - 80.00 Cum for four sets of cubes cast on 23/11/2019 .
			283.16	Kg/Cm ²			
			296.75	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
18	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 23/ 11 / 2019, for RCC canal lining from Ch.890.00 to 950.00(P18) .	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/Cm ²	11.41	-do-
			271.83	Kg/Cm ²			
			335.26	Kg/Cm ²			
		Average	295.24	Kg/Cm²			
19	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 23/ 11 / 2019, for RCC canal lining from Ch.890.00 to 950.00(P18) .	28 th day compressive strength	344.32	Kg/Cm ²	265.00 Kg/Cm ²	25.66	-do-
			342.05	Kg/Cm ²			
			312.61	Kg/Cm ²			
		Average	332.99	Kg/Cm²			
20	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 23/ 11 / 2019, for RCC canal lining from Ch.890.00 to 950.00(P18) .	28 th day compressive strength	326.20	Kg/Cm ²	265.00 Kg/Cm ²	11.98	-do-
			267.30	Kg/Cm ²			
			296.75	Kg/Cm ²			
		Average	296.75	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
21	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 24/ 11 / 2019, for RCC canal lining from Ch.950.00 to 1010.00(P19) .	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/Cm ²	16.82	Qty represents - 80.00 Cum for four sets of cubes cast on 24/11/2019 .
			323.93	Kg/Cm ²			
			326.20	Kg/Cm ²			
		Average	309.59	Kg/Cm²			
22	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 24/ 11 / 2019, for RCC canal lining from Ch.950.00 to 1010.00(P19) .	28 th day compressive strength	326.20	Kg/Cm ²	265.00 Kg/Cm ²	23.66	-do-
			323.93	Kg/Cm ²			
			332.99	Kg/Cm ²			
		Average	327.71	Kg/Cm²			
23	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 24/ 11 / 2019, for RCC canal lining from Ch.950.00 to 1010.00(P19) .	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/Cm ²	11.70	-do-
			337.52	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	295.99	Kg/Cm²			
24	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 24/ 11 / 2019, for RCC canal lining from Ch.950.00 to 1010.00(P19) .	28 th day compressive strength	305.81	Kg/Cm ²	265.00 Kg/Cm ²	9.13	-do-
			269.57	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	289.20	Kg/Cm²			
25	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 25/ 11 / 2019, for RCC canal lining from Ch.1010.00 to 1070.00(P20) .	28 th day compressive strength	342.05	Kg/Cm ²	265.00 Kg/Cm ²	17.11	Qty represents - 80.00 Cum for four sets of cubes cast on 25/11/2019 .
			308.08	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	310.34	Kg/Cm²			
26	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 25/ 11 / 2019, for RCC canal lining from Ch.1010.00 to 1070.00(P20) .	28 th day compressive strength	310.34	Kg/Cm ²	265.00 Kg/Cm ²	20.53	-do-
			326.20	Kg/Cm ²			
			321.67	Kg/Cm ²			
		Average	319.40	Kg/Cm²			
27	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 25/ 11 / 2019, for RCC canal lining from Ch.1010.00 to 1070.00(P20) .	28 th day compressive strength	335.26	Kg/Cm ²	265.00 Kg/Cm ²	17.96	-do-
			283.16	Kg/Cm ²			
			319.40	Kg/Cm ²			
		Average	312.61	Kg/Cm²			

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
28	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 25/ 11 / 2019, for RCC canal lining from Ch.1010.00 to 1070.00(P20) .	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/Cm ²	18.82	Qty represents - 80.00 Cum for four sets of cubes cast on 25/11/2019 .
			344.32	Kg/Cm ²			
			328.46	Kg/Cm ²			
		Average	314.87	Kg/Cm²			
29	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 26/ 11 / 2019, for RCC canal lining from Ch.1070.00 to 1130.00(P21) .	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/Cm ²	10.84	Qty represents - 80.00 Cum for four sets of cubes cast on 26/11/2019 .
			276.36	Kg/Cm ²			
			339.79	Kg/Cm ²			
		Average	293.73	Kg/Cm²			
30	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 26/ 11 / 2019, for RCC canal lining from Ch.1070.00 to 1130.00(P21) .	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/Cm ²	7.14	-do-
			260.51	Kg/Cm ²			
			321.67	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
31	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 26/ 11 / 2019, for RCC canal lining from Ch.1070.00 to 1130.00(P21) .	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/Cm ²	7.14	-do-
			305.81	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
32	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 26/ 11 / 2019, for RCC canal lining from Ch.1070.00 to 1130.00(P21) .	28 th day compressive strength	342.05	Kg/Cm ²	265.00 Kg/Cm ²	14.26	-do-
			283.16	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	302.79	Kg/Cm²			
33	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 27/ 11 / 2019, for RCC canal lining from Ch.1130.00 to 1190.00(P22) .	28 th day compressive strength	344.32	Kg/Cm ²	265.00 Kg/Cm ²	15.12	Qty represents - 80.00 Cum for four sets of cubes cast on 27/11/2019 .
			301.28	Kg/Cm ²			
			269.57	Kg/Cm ²			
		Average	305.06	Kg/Cm²			
34	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 27/ 11 / 2019, for RCC canal lining from Ch.1130.00 to 1190.00(P22) .	28 th day compressive strength	344.32	Kg/Cm ²	265.00 Kg/Cm ²	15.12	-do-
			299.01	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	305.06	Kg/Cm²			

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SR.NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
35	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 27/ 11 / 2019, for RCC canal lining from Ch.1130.00 to 1190.00(P22) .	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/Cm ²	20.53	Qty represents - 80.00 Cum for four sets of cubes cast on 27/11/2019 .
			344.32	Kg/Cm ²			
			323.93	Kg/Cm ²			
		Average	319.40	Kg/Cm²			
36	Reinforced Cement concrete cubes of mix 1:1.5:3 cast on 27/ 11 / 2019, for RCC canal lining from Ch.1130.00 to 1190.00(P22) .	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/Cm ²	11.98	-do-
			287.69	Kg/Cm ²			
			301.28	Kg/Cm ²			
		Average	296.75	Kg/Cm²			

Copy to: 1. The Assistant Engineer SD I , WD VII , WRD , Dhargal -Pernem- Goa.

2. Copy submitted to the Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa. For kind Information.

3. Copy submitted to the Executive Engineer ,WDVII,WRD , Dhargal - Pernem- Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer