

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 4269,4270,4297 to 4299,4324 to 4327,/ Lab / **84** / 2022 - 23 Dated:- 21/05/2022. Laboratory : Bicholim - Goa.
4363 to 4366,4387 to 4390,4413 to 4416,4432 to 4435,4448 to 4451,4468 to 4471,4489 to 4492, Sub Division V (QC)/WRD/ Bicholim- Goa.
4529 to 4531,4547 to 4549,4578,4579 & 4580.

Name of work : Development and repair of bunds, Fish tanks and Water channel of Estuarine Fish farm at Ela - old Goa in Tiswadi Taluka.

Ref. to Requisition No.: SDIV/WDI/WRD/F.38/22-23/70 Dt.:- 29/ 04/ 2022

Qty. Recived. : 46 Sets of cube Date of Receipt:- 05/ 05 / 2022. Tested on: 05,06,07,09,10,11,12,13,14,16,17,18 & 19/04/2022 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix **1:1.5:3** O.S No. :0557,0558,0586,0587,0588,0613 to 0616,0652 to 0655,0676 to 0679,0702 to 0705, 0721 to 0724,0738 to 0741,0758 to 0761,0781 to 0784/R.K, 8484 to 8486,8502 to 8504,8535 to 8537/SS Lab. Sample No.: 4271 to 4316 Tested By: Mrs. R. R. Kadam A.E. & Mrs. S. B. Naik Shirodkar. J.E.

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissible	% above or below	REMARK
1	Cement concrete cube of mix 1:1.5:3 , cast on 07/04/2022. For Sluice - Cut off 3 & 4.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 15.00 M3 for two sets of cubes.
			278.63	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	278.63	Kg/Cm²			
2	Cement concrete cube of mix 1:1.5:3 , cast on 07/04/2022. For Sluice - Cut off 3 & 4.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	7.14	----- do -----
			276.36	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
3	Cement concrete cube of mix 1:1.5:3 , cast on 08/04/2022. For Sluice - Cut off 5,6 & 8.	28 th day compressive strength	280.89	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 23.00 M3 for three sets of cubes.
			267.30	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
4	Cement concrete cube of mix 1:1.5:3 , cast on 08/04/2022. For Sluice - Cut off 5,6 & 8.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	6.85	----- do -----
			289.95	Kg/Cm ²			
			274.10	Kg/Cm ²			
		Average	283.16	Kg/Cm²			
5	Cement concrete cube of mix 1:1.5:3 , cast on 08/04/2022. For Sluice - Cut off 5,6 & 8.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.00	----- do -----
			278.63	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
6	Cement concrete cube of mix 1:1.5:3 , cast on 09/04/2022. For Apron Sluice 3.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	6.57	Qty represents - 34.00 M3 for four sets of cubes.
			274.10	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	282.40	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
7	Cement concrete cube of mix 1:1.5:3 , cast on 09/04/2022. For Apron Sluice 3.	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	6.28	Qty represents - 34.00 M3 for four sets of cubes.
			289.95	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	281.65	Kg/Cm²			
8	Cement concrete cube of mix 1:1.5:3 , cast on 09/04/2022. For Apron Sluice 3.	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	3.15	----- do -----
			274.10	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	273.34	Kg/Cm²			
9	Cement concrete cube of mix 1:1.5:3 , cast on 09/04/2022. For Apron Sluice 3.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			269.57	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
10	Cement concrete cube of mix 1:1.5:3 , cast on 11/04/2022. For Apron Sluice 4.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	1.72	Qty represents - 34.00 M3 for four sets of cubes.
			269.57	Kg/Cm ²			
			274.10	Kg/Cm ²			
		Average	269.57	Kg/Cm²			
11	Cement concrete cube of mix 1:1.5:3 , cast on 11/04/2022. For Apron Sluice 4.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	4.29	----- do -----
			265.04	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
12	Cement concrete cube of mix 1:1.5:3 , cast on 11/04/2022. For Apron Sluice 4.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.00	----- do -----
			283.16	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
13	Cement concrete cube of mix 1:1.5:3 , cast on 11/04/2022. For Apron Sluice 4.	28 th day compressive strength	267.30	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			276.36	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
14	Cement concrete cube of mix 1:1.5:3 , cast on 12/04/2022. For Apron Sluice 5.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.57	Qty represents - 34.00 M3 for four sets of cubes.
			283.16	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	282.40	Kg/Cm²			
15	Cement concrete cube of mix 1:1.5:3 , cast on 12/04/2022. For Apron Sluice 5.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	4.29	----- do -----
			285.42	Kg/Cm ²			
			274.10	Kg/Cm ²			
		Average	276.36	Kg/Cm²			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
16	Cement concrete cube of mix 1:1.5:3 , cast on 12/04/2022. For Apron Sluice 5.	28 th day compressive strength	287.69	Kg/Cm ²	265.00 Kg/cm ²	7.71	Qty represents - 34.00 M3 for four sets of cubes.
			278.63	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	285.42	Kg/Cm²			
17	Cement concrete cube of mix 1:1.5:3 , cast on 12/04/2022. For Apron Sluice 5.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	9.42	----- do -----
			296.75	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	289.95	Kg/Cm²			
18	Cement concrete cube of mix 1:1.5:3 , cast on 13/04/2022. For Apron Sluice 6.	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	11.41	Qty represents - 34.00 M3 for four sets of cubes.
			303.55	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	295.24	Kg/Cm²			
19	Cement concrete cube of mix 1:1.5:3 , cast on 13/04/2022. For Apron Sluice 6.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	5.71	----- do -----
			280.89	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	280.14	Kg/Cm²			
20	Cement concrete cube of mix 1:1.5:3 , cast on 13/04/2022. For Apron Sluice 6.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
21	Cement concrete cube of mix 1:1.5:3 , cast on 13/04/2022. For Apron Sluice 6.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	7.14	----- do -----
			287.69	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
22	Cement concrete cube of mix 1:1.5:3 , cast on 14/04/2022. For Apron Sluice 8.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	6.85	Qty represents - 34.00 M3 for four sets of cubes.
			269.57	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	283.16	Kg/Cm²			
23	Cement concrete cube of mix 1:1.5:3 , cast on 14/04/2022. For Apron Sluice 8.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	6.57	----- do -----
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	282.40	Kg/Cm²			
24	Cement concrete cube of mix 1:1.5:3 , cast on 14/04/2022. For Apron Sluice 8.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	5.14	----- do -----
			274.10	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	278.63	Kg/Cm²			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
25	Cement concrete cube of mix 1:1.5:3 , cast on 14/04/2022. For Apron Sluice 8.	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	11.13	Qty represents - 34.00 M3 for four sets of cubes.
			292.22	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	294.48	Kg/Cm²			
26	Cement concrete cube of mix 1:1.5:3 , cast on 15/04/2022. For Sluice 3 & 4, 1st lift.	28 th day compressive strength	303.55	Kg/Cm ²	265.00 Kg/cm ²	14.83	Qty represents - 38.00 M3 for four sets of cubes.
			299.01	Kg/Cm ²			
			310.34	Kg/Cm ²			
		Average	304.30	Kg/Cm²			
27	Cement concrete cube of mix 1:1.5:3 , cast on 15/04/2022. For Sluice 3 & 4, 1st lift.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	11.41	----- do -----
			292.22	Kg/Cm ²			
			299.01	Kg/Cm ²			
		Average	295.24	Kg/Cm²			
28	Cement concrete cube of mix 1:1.5:3 , cast on 15/04/2022. For Sluice 3 & 4, 1st lift.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
29	Cement concrete cube of mix 1:1.5:3 , cast on 15/04/2022. For Sluice 3 & 4, 1st lift.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	5.43	----- do -----
			271.83	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	279.38	Kg/Cm²			
30	Cement concrete cube of mix 1:1.5:3 , cast on 16/04/2022. For Sluice 5 & 6, 1st lift.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 38.00 M3 for four sets of cubes.
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	278.63	Kg/Cm²			
31	Cement concrete cube of mix 1:1.5:3 , cast on 16/04/2022. For Sluice 5 & 6, 1st lift.	28 th day compressive strength	287.69	Kg/Cm ²	265.00 Kg/cm ²	5.71	----- do -----
			271.83	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	280.14	Kg/Cm²			
32	Cement concrete cube of mix 1:1.5:3 , cast on 16/04/2022. For Sluice 5 & 6, 1st lift.	28 th day compressive strength	301.28	Kg/Cm ²	265.00 Kg/cm ²	13.12	----- do -----
			294.48	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	299.77	Kg/Cm²			
33	Cement concrete cube of mix 1:1.5:3 , cast on 16/04/2022. For Sluice 5 & 6, 1st lift.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	2.58	----- do -----
			274.10	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	271.83	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
34	Cement concrete cube of mix 1:1.5:3 , cast on 18/04/2022. For Sluice 8, 1st lift, Sluice 2, 2nd lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 32.00 M3 for four sets of cubes.
			278.63	Kg/Cm ²			
			274.10	Kg/Cm ²			
			Average	274.85			
35	Cement concrete cube of mix 1:1.5:3 , cast on 18/04/2022. For Sluice 8, 1st lift, Sluice 2, 2nd lift.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	4.57	----- do -----
			278.63	Kg/Cm ²			
			269.57	Kg/Cm ²			
			Average	277.12			
36	Cement concrete cube of mix 1:1.5:3 , cast on 18/04/2022. For Sluice 8, 1st lift, Sluice 2, 2nd lift.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	2.01	----- do -----
			265.04	Kg/Cm ²			
			276.36	Kg/Cm ²			
			Average	270.32			
37	Cement concrete cube of mix 1:1.5:3 , cast on 18/04/2022. For Sluice 8, 1st lift, Sluice 2, 2nd lift.	28 th day compressive strength	269.57	Kg/Cm ²	265.00 Kg/cm ²	3.15	----- do -----
			271.83	Kg/Cm ²			
			278.63	Kg/Cm ²			
			Average	273.34			
38	Cement concrete cube of mix 1:1.5:3 , cast on 19/04/2022. For Sluice 3 & 4, 2nd lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.28	Qty represents - 26.00 M3 for three sets of cubes.
			292.22	Kg/Cm ²			
			280.89	Kg/Cm ²			
			Average	281.65			
39	Cement concrete cube of mix 1:1.5:3 , cast on 19/04/2022. For Sluice 3 & 4, 2nd lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.86	----- do -----
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	277.87			
40	Cement concrete cube of mix 1:1.5:3 , cast on 19/04/2022. For Sluice 3 & 4, 2nd lift.	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	6.57	----- do -----
			287.69	Kg/Cm ²			
			283.16	Kg/Cm ²			
			Average	282.40			
41	Cement concrete cube of mix 1:1.5:3 , cast on 20/04/2022. For Sluice 5 & 6, 2nd lift.	28 th day compressive strength	296.75	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 26.00 M3 for three sets of cubes.
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
			Average	283.91			
42	Cement concrete cube of mix 1:1.5:3 , cast on 20/04/2022. For Sluice 5 & 6, 2nd lift.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			283.16	Kg/Cm ²			
			276.36	Kg/Cm ²			
			Average	274.85			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
43	Cement concrete cube of mix 1:1.5:3 , cast on 20/04/2022. For Sluice 5 & 6, 2nd lift.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	4.86	Qty represents - 26.00 M3 for three sets of cubes.
			276.36	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
44	Cement concrete cube of mix 1:1.5:3 , cast on 21/04/2022. For Sluice 8, 2nd lift, Sluice 2,3rd lift.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	6.85	Qty represents - 19.00 M3 for three sets of cubes.
			294.48	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	283.16	Kg/Cm²			
45	Cement concrete cube of mix 1:1.5:3 , cast on 21/04/2022. For Sluice 8, 2nd lift, Sluice 2,3rd lift.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			262.77	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
46	Cement concrete cube of mix 1:1.5:3 , cast on 21/04/2022. For Sluice 8, 2nd lift, Sluice 2,3rd lift.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	7.42	----- do -----
			292.22	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	284.67	Kg/Cm²			

Copy to: 1. The Assistant Engineer , SD IV , WDI, WRD, Porvorim - Goa.

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

3. Copy submitted to The Executive Engineer , WDI ,WRD, Porvorim - Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer