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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

27/05/2016

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CIDADE: CASSANGE BACIA: A

POP. INICIAL: 565 POP. SATURAÇÃO: 666 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00026 VAZÃO EM MARCHA FIM (l/s.m): 0.00037

COMPRIMENTO VIRTUAL REDE (m): 3741.00 COMPRIMENTO TOTAL REDE (m): 3839.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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SES VETOR IPITANGA  
Rede Coletora de Esgoto - Bacia A

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
009-001	A008	A1A.006	44	64.081	57.515	63.031	56.465	63.047	56.481	1.05	1.05	150	0.14923	0	0	0.0203	0.0251	1.42	1.42	1.92	15.562	0.11	0.11	
009-002	A1A.006	A1A.005	21	57.515	55.714	56.465	54.644	56.484	54.663	1.05	1.07	150	0.08671	0	0	0.03	0.0371	1.17	1.17	2.04	10.131	0.13	0.13	
009-003	A1A.005	A1A.004	56	55.714	58.835	54.644	54.389	54.683	54.428	1.07	4.446	150	0.00455	0	0	0.0559	0.0691	0.41	0.41	2.83	1.029	0.26	0.26	
009-004	A1A.004	A1A.003	58	58.835	54.402	54.389	53.352	54.417	53.38	4.446	1.05	150	0.01788	0	0	0.0827	0.1022	0.67	0.67	2.43	2.997	0.18	0.18	
009-005	A1A.003	A1A.002	26	54.402	51.500	53.352	50.45	53.37	50.468	1.05	1.05	150	0.11162	0	0	0.0947	0.117	1.28	1.28	1.98	12.427	0.12	0.12	
009-006	A1A.002	A1A.001	60	51.500	43.000	50.45	41.95	50.467	41.967	1.05	1.05	150	0.14167	0	0	0.1224	0.1513	1.39	1.39	1.93	14.948	0.11	0.11	
009-007	A1A.001	A1A	78	43.000	38.000	41.95	36.95	41.97	36.97	1.05	1.05	150	0.0641	0	0	0.1585	0.1958	1.06	1.06	2.11	8.083	0.13	0.13	DG 0.100
008-001	A1.003	A1.002	54	61.437	58.964	60.387	57.914	60.409	57.936	1.05	1.05	150	0.0458	0	0	0.025	0.0308	0.94	0.94	2.19	6.227	0.15	0.15	
008-002	A1.002	A1.001	30	58.964	58.209	57.914	57.159	57.939	57.184	1.05	1.05	150	0.02517	0	0	0.0389	0.0479	0.76	0.76	2.34	3.91	0.17	0.17	
008-003	A1.001	A001	45	58.209	57.956	57.159	56.906	57.196	56.943	1.05	1.05	150	0.00562	0	0	0.0597	0.0736	0.45	0.45	2.76	1.214	0.24	0.24	TQ 2.451
007-001	A8.015	A8.014	99	67.624	64.699	66.574	63.649	66.598	63.673	1.05	1.05	150	0.02955	0	0	0.0458	0.0565	0.8	0.8	2.3	4.43	0.16	0.16	
007-002	A8.014	A8.007	10	64.699	64.384	63.649	63.334	63.673	63.358	1.05	1.05	150	0.0315	0	0	0.0504	0.0622	0.82	0.82	2.28	4.656	0.16	0.16	
006-001	A8.013	A8.012	40	75.869	72.902	74.819	71.852	74.839	71.871	1.05	1.05	150	0.07418	0	0	0.0185	0.0228	1.11	1.11	2.08	9.053	0.13	0.13	
006-002	A8.012	A8.011	13	72.902	71.789	71.852	70.739	71.871	70.758	1.05	1.05	150	0.08562	0	0	0.0245	0.0302	1.17	1.17	2.04	10.118	0.13	0.13	
006-003	A8.011	A8.010	23	71.789	69.585	70.739	68.535	70.757	68.553	1.05	1.05	150	0.09583	0	0	0.0351	0.0433	1.21	1.21	2.02	11.041	0.12	0.12	
006-004	A8.010	A8.09	11	69.585	68.412	68.535	67.362	68.553	67.38	1.05	1.05	150	0.10664	0	0	0.0402	0.0496	1.26	1.26	1.99	11.995	0.12	0.12	
006-005	A8.09	A8.008	20	66.244	66.244	67.362	65.194	67.38	65.212	1.05	1.05	150	0.1084	0	0	0.0494	0.061	1.27	1.27	1.99	12.148	0.12	0.12	
006-006	A8.008	A8.007	25	66.244	64.384	65.194	63.334	65.213	63.353	1.05	1.05	150	0.0744	0	0	0.061	0.0753	1.11	1.11	2.08	9.074	0.13	0.13	
006-007	A8.007	A8.006	27	64.384	63.598	63.334	62.548	63.358	62.572	1.05	1.05	150	0.02911	0	0	0.1239	0.1529	0.8	0.8	2.3	4.379	0.16	0.16	
006-008	A8.006	A8.005	53	63.598	63.302	62.548	62.252	62.585	62.289	1.05	1.05	150	0.00558	0	0	0.1484	0.1832	0.45	0.45	2.76	1.207	0.25	0.25	
006-009	A8.005	A8.004	34	63.302	64.660	62.252	62.097	62.291	62.136	1.05	2.363	150	0.00456	0	0	0.1641	0.2026	0.41	0.41	2.83	1.029	0.26	0.26	
006-010	A8.004	A8.003	18	64.460	65.071	62.097	62.015	62.136	62.054	2.363	3.056	150	0.00456	0	0	0.1724	0.2129	0.41	0.41	2.83	1.029	0.26	0.26	
006-011	A8.003	A8.002	26	65.071	65.835	62.015	61.897	62.054	61.935	3.056	3.938	150	0.00454	0	0	0.1844	0.2277	0.41	0.41	2.83	1.029	0.26	0.26	
006-012	A8.002	A8.001	17	65.835	65.188	61.897	61.82	61.936	61.858	3.938	3.368	150	0.00453	0	0	0.1923	0.2374	0.41	0.41	2.83	1.029	0.26	0.26	
006-013	A8.001	A008	20	65.188	64.081	61.82	61.729	61.859	61.768	3.368	2.352	150	0.00455	0	0	0.2015	0.2488	0.41	0.41	2.83	1.029	0.26	0.26	DG 0.147
005-001	A15.013	A15.012	22	74.247	73.119	73.197	72.069	73.218	72.09	1.05	1.05	150	0.05127	0	0	0.0102	0.0126	0.98	0.98	2.16	6.797	0.14	0.14	
005-002	A15.012	A15.007	27	73.119	70.209	72.069	69.159	72.087	69.177	1.05	1.05	150	0.10778	0	0	0.0227	0.028	1.27	1.27	1.99	12.094	0.12	0.12	TQ 1.209
004-001	A15.011	A15.010	27	70.018	69.356	68.968	68.306	69.063	68.401	1.05	1.05	150	0.02452	0	17.237	0.0125	17.2524	0.75	1.47	3.88	3.832	0.17	0.63	DG 0.050
004-002	A15.010	A15.09	11	69.356	69.450	68.256	68.206	68.389	68.339	1.1	1.244	200	0.00455	0	0	0.0176	17.2587	0.41	0.78	4.53	1	0.18	0.66	DG 0.024
004-003	A15.09	A15.008	31	69.450	70.599	68.182	68.041	68.339	68.198	1.268	2.558	250	0.00455	0	11.694	0.0319	28.9704	0.4	0.89	5.01	1.001	0.13	0.63	
004-004	A15.008	A15.007	20	70.599	70.209	68.041	67.95	68.198	68.107	2.558	2.259	250	0.00455	0	0	0.0411	28.9818	0.4	0.89	5.01	1.001	0.13	0.63	
004-005	A15.007	A15.006	98	70.209	67.877	67.95	66.727	68.066	66.843	2.259	1.15	250	0.01248	0	0	0.1091	29.0657	0.56	1.31	4.58	2.053	0.1	0.46	
004-006	A15.006	A15.005	41	67.877	67.367	66.727	66.217	66.843	66.333	1.15	1.15	250	0.01244	0	0	0.1281	29.0891	0.56	1.31	4.58	2.048	0.1	0.46	
004-007	A15.005	A15.004	44	67.367	66.846	66.217	65.696	66.335	65.814	1.15	1.15	250	0.01184	0	0	0.1484	29.1142	0.55	1.28	4.6	1.971	0.11	0.47	DG 0.040
004-008	A15.004	A15.003	88	66.846	66.788	65.656	65.256	65.814	65.414	1.19	1.532	250	0.00455	0	0	0.1891	29.1644	0.4	0.89	5.01	1.001	0.13	0.63	
004-009	A15.003	A15.002	31	66.788	67.349	65.256	65.115	65.414	65.273	1.532	2.234	250	0.00455	0	0	0.2034	29.1821	0.4	0.89	5.01	1.001	0.13	0.63	
004-010	A15.002	A15.001	48	67.349	68.045	65.115	64.897	65.273	65.055	2.234	3.148	250	0.00454	0	0	0.2256	29.2095	0.4	0.89	5.02	1.001	0.13	0.63	
004-011	A15.001	A015	18	68.045	68.175	64.897	64.815	65.055	64.973	3.148	3.36	250	0.00456	0	0	0.2339	29.2198	0.4	0.89	5.02	1.001	0.13	0.63	DG 0.026
003-001	A36.003	A36.002	16	79.763	79.718	78.713	78.64	78.752	78.679	1.05	1.078	150	0.00456	0	0	0.0074	0.0091	0.41	0.41	2.83	1.029	0.26	0.26	
003-002	A36.002	A36.001	55	79.718	79.341	78.64	78.291	78.676	78.326	1.078	1.05	150	0.00635	0	0	0.0328	0.0405	0.47	0.47	2.73	1.336	0.24	0.24	
003-003	A36.001	A036	13	79.341	79.651	78.291	78.232	78.33	78.271	1.05	1.419	150	0.00454	0	0	0.0388	0.0479	0.41	0.41	2.83	1.029	0.26	0.26	
002-001	A40.001	A040	43	84.228	83.000	83.178	81.95	83.203	81.974	1.05	1.05	150	0.02856	0	0	0.0199	0.0245	0.79	0.79	2.31	4.314	0.16	0.16	
001-001	A047	A046	33	85.654	85.069	84.604	84.019	84.632	84.047	1.05	1.05	150	0.01773	0	0	0.0153	0.0188	0.67	0.67	2.44	2.977	0.18	0.18	
001-002	A046	A045	41	85.069	84.855	84.019	83.805	84.056	83.842	1.05	1.05	150	0.00522	0	0	0.0343	0.0422	0.44	0.44	2.78	1.146	0.25	0.25	
001-003	A045	A044	97	84.855	85.479	83.805	83.364	83.844	83.402	1.05	2.115	150	0.00455	0	0	0.0791	0.0976	0.41	0.41	2.83	1.029	0.26	0.26	
001-004	A044	A043	42	85.479	85.617	83.364	83.173	83.403	83.212	2.115	2.444	150	0.00455	0	0	0.0985	0.1216	0.41	0.41	2.83	1.029	0.26	0.26	
001-005	A043	A042	37	85.617	85.550	83.173	83.005	83.212	83.043	2.444	2.545	150	0.00454	0	0	0.1156	0.1427	0.41	0.41	2.83	1.029	0.26	0.26	

SES VETOR IPITANGA  
Rede Coletora de Esgoto - Bacia A

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
001-006	A042	A041	29	85.550	85.416	83.005	82.873	83.044	82.912	2.545	2.543	150	0.00455	0	0	0.129	0.1593	0.41	0.41	2.83	1.029	0.26	0.26	
001-007	A041	A040	75	85.416	83.000	82.873	81.95	82.903	81.98	2.543	1.05	150	0.01231	0	0	0.1637	0.2021	0.59	0.59	2.54	2.24	0.2	0.2	
001-008	A040	A039	37	83.000	82.355	81.95	81.305	81.978	81.333	1.05	1.05	150	0.01743	0	0	0.2007	0.2477	0.67	0.67	2.44	2.938	0.18	0.18	
001-009	A039	A038	36	82.355	81.795	81.305	80.745	81.334	80.773	1.05	1.05	150	0.01556	0	0	0.2173	0.2683	0.64	0.64	2.47	2.689	0.19	0.19	
001-010	A038	A037	48	81.795	80.860	80.745	79.81	80.772	79.837	1.05	1.05	150	0.01948	0	0	0.2395	0.2957	0.69	0.69	2.41	3.203	0.18	0.18	
001-011	A037	A036	35	80.860	79.651	79.81	78.601	79.833	78.624	1.05	1.05	150	0.03454	0	0	0.2557	0.3157	0.85	0.85	2.26	5.001	0.16	0.16	DG 0.369
001-012	A036	A035	60	79.651	76.667	78.232	75.617	78.254	75.639	1.419	1.05	150	0.04358	0	0	0.3222	0.3979	0.92	0.92	2.2	5.991	0.15	0.15	
001-013	A035	A034	22	76.667	76.335	75.617	75.285	75.646	75.314	1.05	1.05	150	0.01509	0	0	0.3324	0.4105	0.63	0.63	2.48	2.626	0.19	0.19	
001-014	A034	A033	57	76.335	75.419	75.285	74.369	75.313	74.397	1.05	1.05	150	0.01607	0	0	0.3587	0.443	0.65	0.65	2.46	2.757	0.19	0.19	
001-015	A033	A032	28	75.419	75.251	74.369	74.201	74.405	74.237	1.05	1.05	150	0.006	0	0	0.3716	0.459	0.46	0.46	2.74	1.278	0.24	0.24	
001-016	A032	A031	29	75.251	75.213	74.201	74.069	74.24	74.108	1.05	1.144	150	0.00455	0	0	0.385	0.4756	0.41	0.41	2.83	1.029	0.26	0.26	
001-017	A031	A030	92	75.213	75.377	74.069	73.65	74.108	73.689	1.144	1.727	150	0.00455	0	0	0.4275	0.5281	0.41	0.41	2.83	1.029	0.26	0.26	
001-018	A030	A029	63	75.377	74.052	73.65	73.002	73.682	73.033	1.727	1.05	150	0.01029	0	0	0.4566	0.5641	0.55	0.55	2.59	1.948	0.21	0.21	
001-019	A029	A028	25	74.052	74.222	73.002	72.888	73.041	72.927	1.05	1.334	150	0.00456	0	0	0.4682	0.5784	0.41	0.41	2.83	1.029	0.26	0.26	
001-020	A028	A027	41	74.222	74.658	72.888	72.701	72.927	72.74	1.334	1.957	150	0.00456	0	0	0.4872	0.6018	0.41	0.41	2.83	1.029	0.26	0.26	
001-021	A027	A026	42	74.658	75.299	72.701	72.51	72.74	72.549	1.957	2.789	150	0.00455	0	0	0.5066	0.6258	0.41	0.41	2.83	1.029	0.26	0.26	
001-022	A026	A025	66	75.299	76.833	72.51	72.21	72.549	72.248	2.789	4.623	150	0.00455	0	0	0.5371	0.6635	0.41	0.41	2.83	1.029	0.26	0.26	
001-023	A025	A024	64	76.833	74.073	72.21	71.919	72.249	71.958	4.623	2.154	150	0.00455	0	0	0.5667	0.7	0.41	0.41	2.83	1.029	0.26	0.26	
001-024	A024	A023	40	74.073	72.256	71.919	71.206	71.976	71.263	2.154	1.05	150	0.01783	0	5.54	0.5852	6.2628	0.67	1.01	3.31	2.99	0.18	0.38	
001-025	A023	A022	88	72.256	70.925	71.206	69.875	71.266	69.935	1.05	1.05	150	0.01513	0	0	0.6259	6.313	0.64	0.96	3.37	2.631	0.19	0.4	DG 0.024
001-026	A022	A021	31	70.925	70.779	69.851	69.705	69.935	69.789	1.074	1.074	150	0.00471	0	0	0.6402	6.3307	0.42	0.62	3.77	1.057	0.26	0.56	
001-027	A021	A020	35	70.779	69.740	69.705	68.69	69.756	68.741	1.074	1.05	150	0.029	0	0	0.6564	6.3507	0.8	1.21	3.15	4.366	0.16	0.34	
001-028	A020	A019	28	69.740	68.763	68.69	67.713	68.738	67.761	1.05	1.05	150	0.03489	0	0	0.6693	6.3667	0.85	1.3	3.1	5.04	0.16	0.32	DG 0.023
001-029	A019	A018	80	68.763	68.079	67.69	67.006	67.761	67.077	1.073	1.073	150	0.00855	0	0	0.7063	6.4124	0.52	0.78	3.58	1.685	0.22	0.47	
001-030	A018	A017	71	68.079	67.804	67.006	66.683	67.092	66.769	1.073	1.121	150	0.00455	0	0	0.7391	6.4529	0.41	0.61	3.79	1.029	0.26	0.57	
001-031	A017	A016	22	67.804	67.842	66.683	66.583	66.769	66.669	1.121	1.259	150	0.00455	0	0	0.7493	6.4655	0.41	0.61	3.79	1.029	0.26	0.58	
001-032	A016	A015	20	67.842	68.175	66.583	66.492	66.669	66.578	1.259	1.683	150	0.00455	0	0	0.7585	6.4769	0.41	0.61	3.79	1.029	0.26	0.58	TQ 1.703
001-033	A015	A014	20	68.175	68.774	64.789	64.698	64.973	64.882	3.386	4.076	250	0.00455	0	0	1.0016	35.7081	0.4	0.92	5.15	1.001	0.13	0.73	
001-034	A014	A013	99	68.774	68.348	64.698	64.248	64.882	64.432	4.076	4.1	250	0.00455	0	0	1.0474	35.7646	0.4	0.92	5.15	1.001	0.13	0.74	
001-035	A013	A012	79	68.348	67.067	64.248	63.889	64.432	64.073	4.1	3.178	250	0.00454	0	0	1.0839	35.8097	0.4	0.92	5.15	1.001	0.13	0.74	
001-036	A012	A011	33	67.067	66.209	63.889	63.739	64.073	63.923	3.178	2.47	250	0.00455	0	0	1.0992	35.8285	0.4	0.92	5.15	1.001	0.13	0.74	
001-037	A011	A010	100	66.209	63.856	63.739	62.706	63.878	62.845	2.47	1.15	250	0.01033	0	0	1.1454	35.8856	0.52	1.28	4.85	1.774	0.11	0.55	DG 0.046
001-038	A010	A09	25	63.856	63.850	62.66	62.546	62.845	62.731	1.196	1.304	250	0.00456	0	0	1.157	35.8999	0.4	0.92	5.15	1.001	0.13	0.74	
001-039	A09	A008	26	63.850	64.081	62.546	62.428	62.731	62.612	1.304	1.653	250	0.00454	0	0	1.169	35.9147	0.4	0.92	5.15	1.001	0.13	0.74	TQ 0.846
001-040	A008	A007	23	64.081	64.516	61.582	61.477	61.768	61.663	2.499	3.039	250	0.00457	0	0	1.3811	36.1766	0.4	0.93	5.16	1.001	0.13	0.74	
001-041	A007	A006	30	64.516	65.168	61.477	61.341	61.663	61.526	3.039	3.827	250	0.00453	0	0	1.395	36.1937	0.4	0.93	5.16	1.001	0.13	0.74	
001-042	A006	A005	28	65.168	65.592	61.341	61.214	61.527	61.399	3.827	4.378	250	0.00454	0	0	1.4079	36.2097	0.4	0.93	5.16	1.001	0.13	0.74	
001-043	A005	A004	55	65.592	63.718	61.214	60.964	61.4	61.15	4.378	2.754	250	0.00455	0	0	1.4333	36.2411	0.4	0.93	5.16	1.001	0.13	0.74	
001-044	A004	A003	33	63.718	62.321	60.964	60.814	61.15	61	2.754	1.507	250	0.00455	0	0	1.4486	36.2599	0.4	0.93	5.16	1.001	0.13	0.74	
001-045	A003	A002	75	62.321	59.226	60.814	58.076	60.911	58.173	1.507	1.15	250	0.03651	0	0	1.4833	36.3027	0.81	2.06	4.3	4.71	0.08	0.39	
001-046	A002	A001	60	59.226	57.956	58.076	56.806	58.189	56.919	1.15	1.15	250	0.02117	0	0	1.511	36.337	0.67	1.69	4.54	3.101	0.09	0.45	TQ 2.351
001-047	A001	A1A	52	57.956	38.000	54.455	36.85	54.51	36.905	3.501	1.15	250	0.33856	0	0	1.5811	36.421	1.78	4.58	3.4	26.933	0.05	0.22	
001-048	A1A	FIM	46	38.000	31.145	36.85	29.995	36.918	30.063	1.15	1.15	250	0.14902	0	0	1.7488	36.626	1.38	3.42	3.72	14.971	0.06	0.27	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

29/12/2016

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CIDADE: CASSANGE BACIA: B

POP. INICIAL: 319 POP. SATURAÇÃO: 491 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00039 VAZÃO EM MARCHA FIM (l/s.m): 0.00072

COMPRIMENTO VIRTUAL REDE (m): 1414.00 COMPRIMENTO TOTAL REDE (m): 2260.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia B**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
009-001	B1.4	B1.3	13	74.073	73.978	73.023	72.928	73.057	72.962	1.050	1.050	150	0.00731	0.000	0.000	0.008	0.012	0.49	0.49	2.68	1.49	0.23	0.23	
009-002	B1.3	B1.2	39	73.978	67.997	72.928	66.947	72.944	66.963	1.050	1.050	150	0.15336	0.000	0.000	0.031	0.048	1.43	1.43	1.91	15.89	0.11	0.11	
009-003	B1.2	B1.1	32	67.997	60.000	66.947	58.950	66.962	58.964	1.050	1.050	150	0.24991	0.000	0.000	0.050	0.078	1.70	1.70	1.81	23.20	0.10	0.10	
009-004	B1.1	B001	44	60.000	46.000	58.950	44.950	58.964	44.964	1.050	1.050	150	0.31818	0.000	0.000	0.076	0.118	1.85	1.85	1.76	27.96	0.09	0.09	DG 0.162
008-001	B9.13	B9.12	65	58.620	56.027	57.570	54.977	57.593	55.000	1.050	1.050	150	0.03989	0.000	0.000	0.026	0.037	0.89	0.89	2.23	5.59	0.15	0.15	
008-002	B9.12	B9.07	6	56.027	55.858	54.977	54.808	55.002	54.833	1.050	1.050	150	0.02817	0.000	0.000	0.028	0.040	0.79	0.79	2.31	4.27	0.16	0.16	
007-001	B9.11	B9.10	12	74.052	73.474	73.002	72.424	73.024	72.446	1.050	1.050	150	0.04817	0.000	0.000	0.007	0.011	0.95	0.95	2.18	6.48	0.14	0.14	
007-002	B9.10	B9.09	97	73.474	62.533	72.424	61.483	72.442	61.501	1.050	1.050	150	0.11279	0.000	0.000	0.065	0.101	1.29	1.29	1.98	12.53	0.12	0.12	
007-003	B9.09	B9.08	77	62.533	59.842	61.483	58.792	61.506	58.815	1.050	1.050	150	0.03495	0.000	0.000	0.110	0.172	0.85	0.85	2.26	5.05	0.16	0.16	
007-004	B9.08	B9.07	42	59.842	55.858	58.792	54.808	58.810	54.826	1.050	1.050	150	0.09486	0.000	0.000	0.127	0.195	1.21	1.21	2.02	10.95	0.12	0.12	
007-005	B9.07	B09.1	65	55.858	52.878	54.808	51.828	54.830	51.850	1.050	1.050	150	0.04585	0.000	0.000	0.181	0.272	0.94	0.94	2.19	6.23	0.15	0.15	
006-001	B09.6	B09.5	22	75.377	72.642	74.327	71.592	74.344	71.609	1.050	1.050	150	0.12432	0.000	0.000	0.013	0.020	1.33	1.33	1.96	13.51	0.11	0.11	
006-002	B09.5	B09.4	69	72.642	66.833	71.592	65.783	71.611	65.802	1.050	1.050	150	0.08419	0.000	0.000	0.054	0.084	1.16	1.16	2.05	9.99	0.13	0.13	
006-003	B09.4	B09.3	39	66.833	62.830	65.783	61.780	65.801	61.798	1.050	1.050	150	0.10264	0.000	0.000	0.077	0.120	1.24	1.24	2.00	11.65	0.12	0.12	
006-004	B09.3	B09.2	32	62.830	59.610	61.780	58.560	61.798	58.578	1.050	1.050	150	0.10063	0.000	0.000	0.090	0.138	1.24	1.24	2.01	11.47	0.12	0.12	
006-005	B09.2	B09.1	56	59.610	52.878	58.560	51.828	58.577	51.845	1.050	1.050	150	0.12021	0.000	0.000	0.112	0.170	1.32	1.32	1.97	13.16	0.12	0.12	
006-006	B09.1	B009	25	52.878	47.800	51.828	46.750	51.843	46.765	1.050	1.050	150	0.20312	0.000	0.000	0.307	0.464	1.58	1.58	1.85	19.76	0.10	0.10	DG 0.310
005-001	B14.5	B14.4	95	85.550	75.972	84.500	74.922	84.518	74.940	1.050	1.050	150	0.10082	0.000	0.000	0.038	0.053	1.24	1.24	2.01	11.48	0.12	0.12	
005-002	B14.4	B14.3	98	75.972	71.241	74.922	70.191	74.944	70.212	1.050	1.050	150	0.04828	0.000	0.000	0.076	0.108	0.96	0.96	2.18	6.49	0.14	0.14	
005-003	B14.3	B14.2	47	71.241	67.821	70.191	66.771	70.211	66.790	1.050	1.050	150	0.07277	0.000	0.000	0.104	0.152	1.10	1.10	2.08	8.92	0.13	0.13	
005-004	B14.2	B14.1	7	67.821	67.641	66.771	66.591	66.796	66.616	1.050	1.050	150	0.02571	0.000	0.000	0.108	0.158	0.77	0.77	2.34	3.98	0.17	0.17	
005-005	B14.1	B014	23	67.641	68.260	66.591	66.486	66.630	66.525	1.050	1.774	150	0.00457	0.000	0.000	0.122	0.180	0.41	0.41	2.83	1.03	0.26	0.26	
004-001	B15.4	B15.3	47	79.718	74.503	78.668	73.453	78.686	73.471	1.050	1.050	150	0.11096	0.000	0.000	0.028	0.043	1.28	1.28	1.98	12.37	0.12	0.12	
004-002	B15.3	B15.2	6	74.503	73.698	73.453	72.648	73.470	72.665	1.050	1.050	150	0.13417	0.000	0.000	0.031	0.049	1.37	1.37	1.94	14.33	0.11	0.11	
004-003	B15.2	B15.1	50	73.698	69.604	72.648	68.534	72.667	68.553	1.050	1.070	150	0.08228	0.000	0.000	0.061	0.095	1.15	1.15	2.05	9.77	0.13	0.13	
004-004	B15.1	B015	51	69.604	70.899	68.534	68.302	68.573	68.341	1.070	2.597	150	0.00455	0.000	0.000	0.091	0.142	0.41	0.41	2.83	1.03	0.26	0.26	
003-001	B16.1	B016	87	79.763	78.236	78.713	77.186	78.741	77.214	1.050	1.050	150	0.01755	0.000	0.000	0.052	0.080	0.67	0.67	2.44	2.95	0.18	0.18	
002-001	B17.4	B17.3	21	84.228	84.046	83.178	82.996	83.211	83.029	1.050	1.050	150	0.00867	0.000	0.000	0.012	0.019	0.52	0.52	2.63	1.70	0.22	0.22	
002-002	B17.3	B17.2	9	84.046	83.999	82.996	82.949	83.033	82.986	1.050	1.050	150	0.00522	0.000	0.000	0.018	0.028	0.44	0.44	2.78	1.15	0.25	0.25	
002-003	B17.2	B17.1	8	83.999	83.975	82.949	82.913	82.988	82.951	1.050	1.062	150	0.00450	0.000	0.000	0.022	0.035	0.41	0.41	2.83	1.03	0.26	0.26	
002-004	B17.1	B017	70	83.975	83.551	82.913	82.501	82.949	82.537	1.062	1.050	150	0.00589	0.000	0.000	0.064	0.100	0.45	0.45	2.75	1.26	0.24	0.24	
001-001	B018	B017	61	85.416	83.551	84.366	82.501	84.390	82.525	1.050	1.050	150	0.03057	0.000	0.000	0.024	0.034	0.81	0.81	2.29	4.55	0.16	0.16	
001-002	B017	B016	47	83.551	78.236	82.501	77.186	82.519	77.203	1.050	1.050	150	0.11309	0.000	0.000	0.116	0.177	1.29	1.29	1.98	12.55	0.12	0.12	
001-003	B016	B015	49	78.236	70.899	77.186	69.849	77.202	69.865	1.050	1.050	150	0.14973	0.000	0.000	0.196	0.303	1.42	1.42	1.92	15.60	0.11	0.11	TQ 1.547
001-004	B015	B014	94	70.899	68.260	68.302	67.210	68.333	67.240	2.597	1.050	150	0.01162	0.000	0.000	0.325	0.498	0.58	0.58	2.55	2.14	0.20	0.20	TQ 0.724
001-005	B014	B013	67	68.260	62.861	66.486	61.811	66.506	61.831	1.774	1.050	150	0.06978	0.000	0.000	0.486	0.739	1.09	1.09	2.09	8.63	0.13	0.13	
001-006	B013	B012	49	62.861	55.957	61.811	54.907	61.828	54.924	1.050	1.050	150	0.14090	0.000	0.000	0.515	0.785	1.39	1.39	1.93	14.89	0.11	0.11	
001-007	B012	B011	49	55.957	48.000	54.907	46.950	54.923	46.966	1.050	1.050	150	0.16239	0.000	0.000	0.525	0.794	1.46	1.46	1.90	16.61	0.11	0.11	DG 0.023
001-008	B011	B010	32	48.000	47.950	46.927	46.781	46.966	46.820	1.073	1.169	150	0.00456	0.000	0.000	0.531	0.801	0.41	0.41	2.83	1.03	0.26	0.26	
001-009	B010	B009	75	47.950	47.800	46.781	46.440	46.820	46.478	1.169	1.360	150	0.00455	0.000	0.000	0.546	0.816	0.41	0.41	2.83	1.03	0.26	0.26	
001-010	B009	B008	58	47.800	47.700	46.440	46.176	46.479	46.215	1.360	1.524	150	0.00455	0.000	0.000	0.865	1.292	0.41	0.41	2.83	1.03	0.26	0.26	
001-011	B008	B007	34	47.700	47.600	46.176	46.021	46.215	46.060	1.524	1.579	150	0.00456	0.000	0.000	0.872	1.299	0.41	0.41	2.83	1.03	0.26	0.26	
001-012	B007	B006	33	47.600	47.500	46.021	45.871	46.060	45.910	1.579	1.629	150	0.00455	0.000	0.000	0.878	1.305	0.41	0.41	2.83	1.03	0.26	0.26	
001-013	B006	B005	54	47.500	47.400	45.871	45.625	45.910	45.664	1.629	1.775	150	0.00456	0.000	0.000	0.889	1.316	0.41	0.41	2.83	1.03	0.26	0.26	
001-014	B005	B004	29	47.400	47.300	45.625	45.493	45.664	45.532	1.775	1.807	150	0.00455	0.000	0.000	0.895	1.322	0.41	0.41	2.83	1.03	0.26	0.26	

**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia B**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
001-015	B004	B003	44	47.300	47.200	45.493	45.293	45.532	45.332	1.807	1.907	150	0.00455	0.000	0.000	0.904	1.331	0.41	0.41	2.83	1.03	0.26	0.26	
001-016	B003	B002	46	47.200	47.000	45.293	45.084	45.332	45.122	1.907	1.916	150	0.00454	0.000	0.000	0.913	1.340	0.41	0.41	2.83	1.03	0.26	0.26	
001-017	B002	B001	65	47.000	46.000	45.084	44.788	45.123	44.827	1.916	1.212	150	0.00455	0.000	0.000	0.926	1.353	0.41	0.41	2.83	1.03	0.26	0.26	
001-018	B001	FIM	20	46.000	46.600	44.788	44.670	44.824	44.706	1.212	1.930	150	0.00590	0.000	0.000	1.006	1.475	0.46	0.46	2.75	1.26	0.24	0.24	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

26/12/2016

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CIDADE: CASSANGE BACIA: C

POP. INICIAL: 159 POP. SATURAÇÃO: 899 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00014 VAZÃO EM MARCHA FIM (l/s.m): 0.00094

COMPRIMENTO VIRTUAL REDE (m): 1988.00 COMPRIMENTO TOTAL REDE (m): 2255.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia C**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
013-001	C-1.17	C-3.2	47	63.081	57.912	62.031	56.862	62.049	56.880	1.050	1.050	150	0.10998	0.000	0.000	0.016	0.054	1.27	1.27	1.99	12.29	0.12	0.12	
012-001	C-1.17	C-1.19	62	63.081	54.353	62.031	53.303	62.048	53.320	1.050	1.050	150	0.14077	0.000	0.000	0.021	0.071	1.39	1.39	1.93	14.87	0.11	0.11	
012-002	C-1.19	C-1.18	40	54.353	47.114	53.303	46.064	53.319	46.080	1.050	1.050	150	0.18098	0.000	0.000	0.035	0.117	1.52	1.52	1.88	18.07	0.11	0.11	
012-003	C-1.18	C-1.1	5	47.114	46.720	46.064	45.670	46.083	45.689	1.050	1.050	150	0.07880	0.000	0.000	0.036	0.122	1.13	1.13	2.06	9.49	0.13	0.13	DG 0.060
011-001	C-1.17	C-1.14	49	63.081	61.402	62.031	60.352	62.055	60.375	1.050	1.050	150	0.03427	0.000	0.000	0.017	0.056	0.85	0.85	2.26	4.97	0.16	0.16	
010-001	C-3.4	C-1.16	36	70.366	68.635	69.316	67.585	69.338	67.607	1.050	1.050	150	0.04808	0.000	0.000	0.012	0.041	0.95	0.95	2.18	6.47	0.14	0.14	
010-002	C-1.16	C-1.15	33	68.635	64.589	67.585	63.539	67.602	63.556	1.050	1.050	150	0.12261	0.000	0.000	0.023	0.079	1.32	1.32	1.96	13.37	0.12	0.12	
010-003	C-1.15	C-1.14	79	64.589	61.402	63.539	60.352	63.562	60.375	1.050	1.050	150	0.04034	0.000	0.000	0.050	0.169	0.90	0.90	2.22	5.64	0.15	0.15	
010-004	C-1.14	C-1.13	63	61.402	57.120	60.352	56.070	60.372	56.090	1.050	1.050	150	0.06797	0.000	0.000	0.088	0.297	1.08	1.08	2.10	8.46	0.13	0.13	
010-005	C-1.13	C-1.12	56	57.120	47.788	56.070	46.738	56.086	46.754	1.050	1.050	150	0.16664	0.000	0.000	0.107	0.361	1.47	1.47	1.90	16.95	0.11	0.11	
010-006	C-1.12	C-1.2	6	47.788	47.609	47.609	46.738	46.559	46.762	1.050	1.050	150	0.02983	0.000	0.000	0.109	0.368	0.81	0.81	2.30	4.46	0.16	0.16	TQ 0.625
009-001	C-1.11	C-1.10	40	55.598	55.871	54.548	54.366	54.587	54.405	1.050	1.505	150	0.00455	0.000	0.000	0.014	0.046	0.41	0.41	2.83	1.03	0.26	0.26	
009-002	C-1.10	C-1.5	87	55.871	54.043	54.366	52.993	54.394	53.021	1.505	1.050	150	0.01578	0.000	0.000	0.043	0.145	0.64	0.64	2.47	2.72	0.19	0.19	
008-001	C-1.15	C-1.7	44	64.589	59.150	63.539	58.100	63.556	58.117	1.050	1.050	150	0.12361	0.000	0.000	0.015	0.050	1.33	1.33	1.96	13.45	0.12	0.12	DG 0.046
007-001	C-012	C-1.9	62	65.249	62.619	64.199	61.569	64.221	61.591	1.050	1.050	150	0.04242	0.000	0.000	0.017	0.042	0.91	0.91	2.21	5.87	0.15	0.15	
007-002	C-1.9	C-1.8	28	62.619	61.296	61.569	60.246	61.591	60.268	1.050	1.050	150	0.04725	0.000	0.000	0.024	0.060	0.95	0.95	2.18	6.38	0.14	0.14	
007-003	C-1.8	C-1.7	43	61.296	59.150	60.246	58.100	60.267	58.121	1.050	1.050	150	0.04991	0.000	0.000	0.039	0.110	0.97	0.97	2.17	6.66	0.14	0.14	DG 0.046
007-004	C-1.7	C-1.6	82	59.150	56.454	58.054	55.358	58.117	55.421	1.096	1.096	150	0.03288	0.000	9.877	0.082	10.131	0.83	1.44	3.43	4.81	0.16	0.42	
007-005	C-1.6	C-1.5	86	56.454	54.043	55.358	52.993	55.424	53.059	1.096	1.050	150	0.02750	0.000	0.000	0.111	10.229	0.78	1.35	3.49	4.19	0.17	0.44	
007-006	C-1.5	C-1.4	32	54.043	48.010	52.993	46.960	53.033	47.000	1.050	1.050	150	0.18853	0.000	0.000	0.165	10.410	1.54	2.73	2.87	18.65	0.10	0.27	
007-007	C-1.4	C-1.3	8	48.010	47.274	46.960	46.224	47.008	46.272	1.050	1.050	150	0.09200	0.000	0.000	0.167	10.419	1.20	2.11	3.10	10.70	0.12	0.32	DG 0.063
007-008	C-1.3	C-1.2	39	47.274	47.609	46.161	45.934	46.272	46.045	1.113	1.675	150	0.00582	0.000	0.000	0.178	10.446	0.45	0.74	3.99	1.25	0.24	0.74	
007-009	C-1.2	C-1.1	52	47.609	46.720	45.934	45.610	46.046	45.722	1.675	1.110	150	0.00623	0.000	0.000	0.301	10.848	0.46	0.77	3.99	1.32	0.24	0.74	
007-010	C-1.1	C-001	33	46.720	46.173	45.610	45.123	45.693	45.206	1.110	1.050	150	0.01476	0.000	0.000	0.346	10.993	0.63	1.09	3.76	2.58	0.19	0.55	DG 0.114
006-001	C-3.4	C-3.3	29	70.366	68.637	69.316	67.587	69.337	67.608	1.050	1.050	150	0.05962	0.000	0.000	0.010	0.033	1.03	1.03	2.13	7.64	0.14	0.14	
006-002	C-3.3	C-3.2	84	68.637	57.912	67.587	56.862	67.604	56.879	1.050	1.050	150	0.12768	0.000	0.000	0.038	0.129	1.34	1.34	1.95	13.79	0.11	0.11	
006-003	C-3.2	C-3.1	71	57.912	47.427	56.862	46.377	56.879	46.393	1.050	1.050	150	0.14768	0.000	0.000	0.078	0.264	1.41	1.41	1.92	15.44	0.11	0.11	
006-004	C-3.1	C-003	9	47.427	46.405	46.377	45.355	46.395	45.373	1.050	1.050	150	0.11356	0.000	0.000	0.081	0.274	1.29	1.29	1.98	12.59	0.12	0.12	
005-001	C-3.2	C-5.1	66	57.912	52.606	56.862	51.556	56.881	51.575	1.050	1.050	150	0.08039	0.000	0.000	0.022	0.075	1.14	1.14	2.06	9.64	0.13	0.13	
005-002	C-5.1	C-005	10	52.606	51.268	51.556	50.218	51.573	50.235	1.050	1.050	150	0.13380	0.000	0.000	0.026	0.087	1.37	1.37	1.94	14.30	0.11	0.11	
004-001	C-3.3	C-6.1A	98	68.637	58.855	67.587	57.805	67.605	57.823	1.050	1.050	150	0.09982	0.000	0.000	0.033	0.112	1.23	1.23	2.01	11.40	0.12	0.12	
004-002	C-6.1A	C-006	8	58.855	58.431	57.805	57.381	57.826	57.402	1.050	1.050	150	0.05300	0.000	0.000	0.036	0.121	0.99	0.99	2.16	6.97	0.14	0.14	DG 0.155
003-001	C-6.6	C-6.5	22	70.018	69.789	68.968	68.739	68.999	68.770	1.050	1.050	150	0.01041	0.000	0.000	0.008	0.025	0.56	0.56	2.58	1.97	0.21	0.21	
003-002	C-6.5	C-6.4	25	69.789	67.904	68.739	66.854	68.758	66.873	1.050	1.050	150	0.07540	0.000	0.000	0.016	0.054	1.12	1.12	2.07	9.17	0.13	0.13	
003-003	C-6.4	C-6.3	29	67.904	64.235	66.854	63.185	66.871	63.202	1.050	1.050	150	0.12652	0.000	0.000	0.026	0.087	1.34	1.34	1.96	13.69	0.11	0.11	
003-004	C-6.3	C-6.2	66	64.235	59.362	63.185	58.312	63.205	58.332	1.050	1.050	150	0.07383	0.000	0.000	0.048	0.162	1.11	1.11	2.08	9.02	0.13	0.13	
003-005	C-6.2	C-6.1	70	59.362	58.353	58.312	57.303	58.341	57.332	1.050	1.050	150	0.01441	0.000	0.000	0.072	0.242	0.62	0.62	2.49	2.53	0.19	0.19	
003-006	C-6.1	C-006	17	58.353	58.431	57.303	57.226	57.342	57.264	1.050	1.205	150	0.00453	0.000	0.000	0.078	0.262	0.41	0.41	2.83	1.03	0.26	0.26	
002-001	C-1.16	C-11.1	54	68.635	65.604	67.585	64.554	67.606	64.575	1.050	1.050	150	0.05613	0.000	0.000	0.018	0.062	1.01	1.01	2.14	7.29	0.14	0.14	
002-002	C-11.1	C-011	8	65.604	65.536	64.585	64.486	64.587	64.519	1.050	1.050	150	0.00850	0.000	0.000	0.021	0.071	0.52	0.52	2.64	1.68	0.22	0.22	TQ 0.588
001-001	C-014	C-013	58	66.379	65.093	65.329	64.043	65.355	64.069	1.050	1.050	150	0.02217	0.000	0.000	0.020	0.066	0.73	0.73	2.38	3.54	0.17	0.17	
001-002	C-013	C-012	15	65.093	65.249	64.043	63.975	64.082	64.013	1.050	1.274	150	0.00453	0.000	0.000	0.024	0.076	0.41	0.41	2.83	1.03	0.26	0.26	
001-003	C-012	C-011	17	65.249	65.536	63.975	63.898	64.014	63.936	1.274	1.638	150	0.00453	0.000	0.000	0.028	0.088	0.41	0.41	2.83	1.03	0.26	0.26	
001-004	C-011	C-010	16	65.536	65.382	63.898	63.825	63.937	63.864	1.638	1.557	150	0.00456	0.000	0.000	0.054	0.169	0.41	0.41	2.83	1.03	0.26	0.26	
001-005	C-010	C-09	54	65.382	62.886	63.825	61.836	63.848	61.859	1.557	1.050	150	0.03683	0.000	0.000	0.068	0.205	0.87	0.87	2.25	5.26	0.15	0.15	

**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia C**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
001-006	C-09	C-008	71	62.886	59.696	61.836	58.646	61.858	58.668	1.050	1.050	150	0.04493	0.000	0.000	0.087	0.253	0.93	0.93	2.20	6.14	0.15	0.15	
001-007	C-008	C-007	55	59.696	58.480	58.646	57.430	58.672	57.456	1.050	1.050	150	0.02211	0.000	0.000	0.102	0.290	0.73	0.73	2.38	3.54	0.17	0.17	
001-008	C-007	C-006	12	58.480	58.431	57.430	57.375	57.469	57.414	1.050	1.056	150	0.00458	0.000	0.000	0.105	0.298	0.41	0.41	2.83	1.03	0.26	0.26	DG 0.149
001-009	C-006	C-005	51	58.431	51.268	57.226	50.218	57.243	50.235	1.205	1.050	150	0.13741	0.000	0.000	0.236	0.739	1.38	1.38	1.94	14.60	0.11	0.11	
001-010	C-005	C-004	54	51.268	47.330	50.218	46.280	50.238	46.299	1.050	1.050	150	0.07293	0.000	0.000	0.280	0.887	1.10	1.10	2.08	8.93	0.13	0.13	
001-011	C-004	C-003	43	47.330	46.405	46.280	45.355	46.306	45.381	1.050	1.050	150	0.02151	0.000	0.000	0.292	0.916	0.72	0.72	2.38	3.46	0.18	0.18	
001-012	C-003	C-002	15	46.405	46.178	45.355	45.128	45.384	45.157	1.050	1.050	150	0.01513	0.000	0.000	0.377	1.200	0.64	0.64	2.48	2.63	0.19	0.19	
001-013	C-002	C-001	10	46.178	46.173	45.128	45.083	45.167	45.121	1.050	1.090	150	0.00450	0.000	0.000	0.380	1.207	0.41	0.41	2.83	1.03	0.26	0.26	DG 0.074
001-014	C-001	FIM	6	46.173	46.700	45.009	44.300	45.058	44.349	1.164	2.400	150	0.11817	0.000	0.000	0.727	12.201	1.31	2.41	3.12	12.99	0.12	0.33	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

29/12/2016

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CIDADE: CASSANGE BACIA: D

POP. INICIAL: 61 POP. SATURAÇÃO: 346 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00031 VAZÃO EM MARCHA FIM (l/s.m): 0.00211

COMPRIMENTO VIRTUAL REDE (m): 341.00 COMPRIMENTO TOTAL REDE (m): 621.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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SES VETOR IPITANGA  
Rede Coletora de Esgoto - Bacia D

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
004-001	D-1.3	D-1.2	74	59.150	51.149	58.100	50.099	58.118	50.117	1.050	1.050	150	0.10812	0	0	0.04	0.17	1.27	1.27	1.99	12.12	0.12	0.12	DG 0.021
004-002	D-1.2	D-1.1	42	51.149	51.620	50.078	49.887	50.117	49.926	1.071	1.733	150	0.00455	0	0	0.05	0.22	0.41	0.41	2.83	1.03	0.26	0.26	
004-003	D-1.1	D-001	82	51.620	49.174	49.887	48.124	49.913	48.150	1.733	1.050	150	0.02150	0	0	0.08	0.33	0.72	0.72	2.38	3.46	0.18	0.18	TQ 0.859
003-001	D-4.3	D-4.1	22	60.395	59.869	59.345	58.819	59.371	58.845	1.050	1.050	150	0.02391	0	0	0.01	0.03	0.75	0.75	2.36	3.76	0.17	0.17	DG 0.083
002-001	D-4.2	D-4.1	19	59.872	59.869	58.822	58.736	58.861	58.774	1.050	1.133	150	0.00453	0	0	0.01	0.02	0.41	0.41	2.83	1.03	0.26	0.26	
002-002	D-4.1	D-004	26	59.869	58.944	58.736	57.894	58.760	57.918	1.133	1.050	150	0.03238	0	0	0.02	0.08	0.83	0.83	2.28	4.76	0.16	0.16	TQ 1.453
001-001	D-009	D-008	80	61.296	59.189	60.246	58.139	60.271	58.164	1.050	1.050	150	0.02634	0	0	0.03	0.10	0.77	0.77	2.33	4.05	0.17	0.17	
001-002	D-008	D-007	38	59.189	58.492	58.139	57.442	58.166	57.469	1.050	1.050	150	0.01834	0	0	0.04	0.15	0.68	0.68	2.43	3.06	0.18	0.18	
001-003	D-007	D-006	56	58.492	57.768	57.442	56.718	57.472	56.748	1.050	1.050	150	0.01293	0	0	0.06	0.22	0.60	0.60	2.52	2.33	0.20	0.20	
001-004	D-006	D-005	35	57.768	58.177	56.718	56.559	56.757	56.597	1.050	1.618	150	0.00454	0	0	0.07	0.26	0.41	0.41	2.83	1.03	0.26	0.26	
001-005	D-005	D-004	26	58.177	58.944	56.559	56.441	56.598	56.479	1.618	2.503	150	0.00454	0	0	0.08	0.30	0.41	0.41	2.83	1.03	0.26	0.26	
001-006	D-004	D-003	55	58.944	49.567	56.441	48.517	56.458	48.534	2.503	1.050	150	0.14407	0	0	0.13	0.45	1.40	1.40	1.93	15.14	0.11	0.11	
001-007	D-003	D-002	9	49.567	48.536	48.517	47.486	48.535	47.504	1.050	1.050	150	0.11456	0	0	0.13	0.46	1.29	1.29	1.98	12.68	0.12	0.12	DG 0.021
001-008	D-002	D-001	44	48.536	49.174	47.465	47.265	47.504	47.304	1.071	1.909	150	0.00455	0	0	0.15	0.52	0.41	0.41	2.83	1.03	0.26	0.26	
001-009	D-001	FIM	13	49.174	48.000	47.265	46.900	47.290	46.925	1.909	1.100	150	0.02808	0	0	0.23	0.85	0.79	0.79	2.31	4.26	0.16	0.16	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

29/12/2016

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CIDADE: CASSANGE BACIA: E

POP. INICIAL: 342 POP. SATURAÇÃO: 698 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00045 VAZÃO EM MARCHA FIM (l/s.m): 0.00110

COMPRIMENTO VIRTUAL REDE (m): 1318.00 COMPRIMENTO TOTAL REDE (m): 1474.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia E**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
006-001	E-1.2	E-1.1	29	36.615	33.862	35.565	32.812	35.583	32.830	1.050	1.050	150	0.09493	0.000	0.000	0.012	0.022	1.21	1.21	2.02	10.96	0.12	0.12	
006-002	E-1.1	E-001	40	33.862	32.368	32.812	31.318	32.835	31.341	1.050	1.050	150	0.03735	0.000	0.000	0.029	0.052	0.87	0.87	2.24	5.32	0.15	0.15	DG 0.139
005-001	E-3.11	E-3.10	75	60.706	59.252	59.656	58.202	59.683	58.229	1.050	1.050	150	0.01939	0.000	0.000	0.049	0.098	0.69	0.69	2.41	3.19	0.18	0.18	
005-002	E-3.10	E-3.9	37	59.252	58.940	58.202	57.890	58.235	57.923	1.050	1.050	150	0.00843	0.000	0.000	0.073	0.146	0.52	0.52	2.64	1.67	0.22	0.22	
005-003	E-3.9	E-3.8	53	58.940	59.438	57.890	57.649	57.929	57.688	1.050	1.789	150	0.00455	0.000	0.000	0.084	0.157	0.41	0.41	2.83	1.03	0.26	0.26	
005-004	E-3.8	E-3.7	21	59.438	60.353	57.649	57.553	57.688	57.592	1.789	2.800	150	0.00457	0.000	0.000	0.097	0.184	0.41	0.41	2.83	1.03	0.26	0.26	
005-005	E-3.7	E-3.6	22	60.353	62.201	57.553	57.453	57.592	57.492	2.800	4.748	150	0.00455	0.000	0.000	0.112	0.213	0.41	0.41	2.83	1.03	0.26	0.26	
005-006	E-3.6	E-3.5	91	62.201	56.176	57.453	55.126	57.478	55.151	4.748	1.050	150	0.02557	0.000	0.000	0.171	0.331	0.76	0.76	2.34	3.96	0.17	0.17	
005-007	E-3.5	E-3.4	4	56.176	56.295	55.126	55.108	55.165	55.147	1.050	1.187	150	0.00450	0.000	0.000	0.173	0.336	0.41	0.41	2.83	1.03	0.26	0.26	
005-008	E-3.4	E-3.3	39	56.295	54.860	55.108	53.810	55.132	53.834	1.187	1.050	150	0.03328	0.000	0.000	0.199	0.387	0.84	0.84	2.27	4.86	0.16	0.16	
005-009	E-3.3	E-3.2	11	54.860	51.612	53.810	50.562	53.824	50.576	1.050	1.050	150	0.29527	0.000	0.000	0.206	0.402	1.80	1.80	1.78	26.39	0.09	0.09	
005-010	E-3.2	E-3.1	72	51.612	37.779	50.562	36.729	50.578	36.744	1.050	1.050	150	0.19213	0.000	0.000	0.253	0.495	1.55	1.55	1.87	18.93	0.10	0.10	
005-011	E-3.1	E-003	22	37.779	32.924	36.729	31.874	36.744	31.889	1.050	1.050	150	0.22068	0.000	0.000	0.267	0.524	1.63	1.63	1.84	21.07	0.10	0.10	
004-001	E-008	E-6.6	38	50.409	49.246	49.359	48.196	49.383	48.220	1.050	1.050	150	0.03061	0.000	0.000	0.025	0.050	0.81	0.81	2.29	4.55	0.16	0.16	
004-002	E-6.6	E-6.5	34	49.246	48.978	48.196	47.928	48.230	47.962	1.050	1.050	150	0.00788	0.000	0.000	0.047	0.094	0.50	0.50	2.66	1.58	0.22	0.22	
004-003	E-6.5	E-6.4	42	48.978	49.336	47.928	47.737	47.967	47.776	1.050	1.599	150	0.00455	0.000	0.000	0.074	0.149	0.41	0.41	2.83	1.03	0.26	0.26	
004-004	E-6.4	E-6.3	12	49.336	49.359	47.737	47.682	47.776	47.721	1.599	1.677	150	0.00458	0.000	0.000	0.082	0.164	0.41	0.41	2.83	1.03	0.26	0.26	
004-005	E-6.3	E-6.2	5	49.359	48.709	47.682	47.659	47.721	47.698	1.677	1.050	150	0.00460	0.000	0.000	0.085	0.171	0.42	0.42	2.82	1.04	0.26	0.26	
004-006	E-6.2	E-6.1	71	48.709	42.115	47.659	41.065	47.677	41.083	1.050	1.050	150	0.09287	0.000	0.000	0.131	0.263	1.20	1.20	2.02	10.78	0.12	0.12	DG 0.021
004-007	E-6.1	E-006	48	42.115	43.785	41.044	40.826	41.083	40.864	1.071	2.959	150	0.00454	0.000	0.000	0.163	0.326	0.41	0.41	2.83	1.03	0.26	0.26	
003-001	E-3.4	E-7.1	76	56.295	43.005	55.245	41.955	55.261	41.971	1.050	1.050	150	0.17487	0.000	0.000	0.049	0.099	1.50	1.50	1.89	17.60	0.11	0.11	DG 0.023
003-002	E-7.1	E-007	53	43.005	43.454	41.932	41.691	41.971	41.730	1.073	1.763	150	0.00455	0.000	0.000	0.084	0.168	0.41	0.41	2.83	1.03	0.26	0.26	
002-001	E-3.5	E-9.2	21	56.176	55.075	55.126	54.025	55.147	54.046	1.050	1.050	150	0.05243	0.000	0.000	0.014	0.027	0.98	0.98	2.16	6.92	0.14	0.14	
002-002	E-9.2	E-9.1	50	55.075	52.981	54.025	51.931	54.047	51.953	1.050	1.050	150	0.04188	0.000	0.000	0.046	0.093	0.91	0.91	2.21	5.81	0.15	0.15	
002-003	E-9.1	E-009	24	52.981	52.315	51.931	51.265	51.956	51.290	1.050	1.050	150	0.02775	0.000	0.000	0.062	0.124	0.79	0.79	2.32	4.22	0.16	0.16	TQ 1.532
001-001	E-012	E-011	99	52.044	51.069	50.994	50.019	51.026	50.051	1.050	1.050	150	0.00985	0.000	0.000	0.042	0.074	0.55	0.55	2.60	1.88	0.21	0.21	
001-002	E-011	E-010	44	51.069	51.900	50.019	49.819	50.058	49.858	1.050	2.081	150	0.00455	0.000	0.000	0.071	0.132	0.41	0.41	2.83	1.03	0.26	0.26	
001-003	E-010	E-009	19	51.900	52.315	49.819	49.733	49.858	49.771	2.081	2.582	150	0.00453	0.000	0.000	0.083	0.157	0.41	0.41	2.83	1.03	0.26	0.26	
001-004	E-009	E-008	89	52.315	50.409	49.733	49.328	49.772	49.367	2.582	1.081	150	0.00455	0.000	0.000	0.203	0.396	0.41	0.41	2.83	1.03	0.26	0.26	
001-005	E-008	E-007	47	50.409	43.454	49.328	42.404	49.345	42.421	1.081	1.050	150	0.14732	0.000	0.000	0.233	0.458	1.41	1.41	1.92	15.41	0.11	0.11	TQ 0.713
001-006	E-007	E-006	6	43.454	43.785	41.691	41.664	41.730	41.702	1.763	2.121	150	0.00450	0.000	0.000	0.321	0.634	0.41	0.41	2.83	1.03	0.26	0.26	TQ 0.838
001-007	E-006	E-005	63	43.785	36.696	40.826	35.646	40.845	35.665	2.959	1.050	150	0.08222	0.000	0.000	0.525	1.042	1.15	1.15	2.05	9.81	0.13	0.13	
001-008	E-005	E-004	8	36.696	35.642	35.646	34.592	35.663	34.609	1.050	1.050	150	0.13175	0.000	0.000	0.530	1.052	1.36	1.36	1.95	14.13	0.11	0.11	
001-009	E-004	E-003	54	35.642	32.924	34.592	31.874	34.613	31.895	1.050	1.050	150	0.05033	0.000	0.000	0.565	1.122	0.97	0.97	2.17	6.70	0.14	0.14	
001-010	E-003	E-002	25	32.924	32.280	31.874	31.230	31.901	31.257	1.050	1.050	150	0.02576	0.000	0.000	0.848	1.679	0.77	0.79	2.40	3.98	0.17	0.18	
001-011	E-002	E-001	11	32.280	32.368	31.230	31.179	31.271	31.220	1.050	1.189	150	0.00464	0.000	0.000	0.856	1.693	0.41	0.43	2.90	1.03	0.26	0.27	
001-012	E-001	FIM	19	32.368	33.000	31.179	31.070	31.218	31.109	1.189	1.930	150	0.00574	0.000	0.000	0.889	1.749	0.45	0.47	2.85	1.23	0.24	0.26	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

30/05/2016

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CIDADE: CASSANGE BACIA: F

POP. INICIAL: 588 POP. SATURAÇÃO: 588 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00107 VAZÃO EM MARCHA FIM (l/s.m): 0.00128

COMPRIMENTO VIRTUAL REDE (m): 955.00 COMPRIMENTO TOTAL REDE (m): 990.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Baía F**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
003-001	F1.001	F001	81	49.500	47.000	48.450	45.950	48.474	45.974	1.050	1.050	150	0.03086	0.000	0.000	0.103	0.120	0.82	0.82	2.29	4.58	0.16	0.16	
002-001	F006	F2.007	54	67.947	60.653	66.897	59.603	66.914	59.620	1.050	1.050	150	0.13507	0.000	0.000	0.069	0.080	1.37	1.37	1.94	14.41	0.11	0.11	DG 0.022
002-002	F2.007	F2.006	99	60.653	61.799	59.581	59.131	59.620	59.169	1.072	2.668	150	0.00455	0.000	0.000	0.194	0.227	0.41	0.41	2.83	1.03	0.26	0.26	
002-003	F2.006	F2.005	67	61.799	59.690	59.131	58.640	59.165	58.674	2.668	1.050	150	0.00733	0.000	0.000	0.279	0.326	0.49	0.49	2.68	1.49	0.23	0.23	
002-004	F2.005	F2.004	76	59.690	51.141	58.640	50.091	58.658	50.108	1.050	1.050	150	0.11249	0.000	0.000	0.376	0.439	1.28	1.28	1.98	12.50	0.12	0.12	
002-005	F2.004	F2.003	14	51.141	50.524	50.091	49.474	50.113	49.496	1.050	1.050	150	0.04407	0.000	0.000	0.393	0.460	0.93	0.93	2.20	6.04	0.15	0.15	
002-006	F2.003	F2.002	15	50.524	50.235	49.474	49.185	49.501	49.212	1.050	1.050	150	0.01927	0.000	0.000	0.412	0.482	0.69	0.69	2.41	3.18	0.18	0.18	
002-007	F2.002	F2.001	22	50.235	49.906	49.185	48.856	49.214	48.885	1.050	1.050	150	0.01495	0.000	0.000	0.440	0.515	0.63	0.63	2.48	2.61	0.19	0.19	
002-008	F2.001	F002	22	49.906	50.000	48.856	48.756	48.895	48.795	1.050	1.244	150	0.00455	0.000	0.000	0.468	0.547	0.41	0.41	2.83	1.03	0.26	0.26	
001-001	A15.013	F011	15	74.247	73.810	73.197	72.760	73.221	72.784	1.050	1.050	150	0.02913	0.000	0.000	0.019	0.022	0.80	0.80	2.30	4.38	0.16	0.16	
001-002	F011	F010	45	73.810	72.613	72.760	71.563	72.785	71.588	1.050	1.050	150	0.02660	0.000	0.000	0.076	0.089	0.77	0.77	2.33	4.08	0.17	0.17	
001-003	F010	F09	22	72.613	72.618	71.563	71.463	71.602	71.502	1.050	1.155	150	0.00455	0.000	0.000	0.104	0.122	0.41	0.41	2.83	1.03	0.26	0.26	
001-004	F09	F008	19	72.618	72.700	71.463	71.377	71.502	71.415	1.155	1.323	150	0.00453	0.000	0.000	0.128	0.150	0.41	0.41	2.83	1.03	0.26	0.26	
001-005	F008	F007	38	72.700	71.469	71.377	70.419	71.402	70.444	1.323	1.050	150	0.02521	0.000	0.000	0.176	0.206	0.76	0.76	2.34	3.92	0.17	0.17	
001-006	F007	F006	50	71.469	67.947	70.419	66.897	70.439	66.917	1.050	1.050	150	0.07044	0.000	0.000	0.240	0.280	1.09	1.09	2.09	8.70	0.13	0.13	
001-007	F006	F005	97	67.947	67.520	66.897	66.456	66.936	66.494	1.050	1.064	150	0.00455	0.000	0.000	0.363	0.424	0.41	0.41	2.83	1.03	0.26	0.26	
001-008	F005	F004	98	67.520	61.938	66.456	60.888	66.477	60.908	1.064	1.050	150	0.05682	0.000	0.000	0.487	0.569	1.01	1.01	2.14	7.36	0.14	0.14	
001-009	F004	F003	66	61.938	51.535	60.888	50.485	60.904	50.501	1.050	1.050	150	0.15762	0.000	0.000	0.571	0.667	1.45	1.45	1.91	16.24	0.11	0.11	
001-010	F003	F002	9	51.535	50.000	50.485	48.950	50.501	48.966	1.050	1.050	150	0.17056	0.000	0.000	0.582	0.680	1.49	1.49	1.89	17.26	0.11	0.11	DG 0.194
001-011	F002	F001	46	50.000	47.000	48.756	45.950	48.776	45.970	1.244	1.050	150	0.06100	0.000	0.000	1.109	1.296	1.04	1.04	2.12	7.78	0.14	0.14	
001-012	F001	FIM	35	47.000	30.802	45.950	29.752	45.963	29.765	1.050	1.050	150	0.46280	0.000	0.000	1.219	1.423	2.11	2.11	1.69	37.36	0.08	0.08	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

30/05/2016

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CIDADE: CASSANGE BACIA: G

POP. INICIAL: 84 POP. SATURAÇÃO: 84 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTA MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00059 VAZÃO EM MARCHA FIM (l/s.m): 0.00071

COMPRIMENTO VIRTUAL REDE (m): 248.00 COMPRIMENTO TOTAL REDE (m): 439.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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SES VETOR IPITANGA  
Rede Coletora de Esgoto - Bacia G

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
002-001	G2.002	G2.001	59	65.942	65.030	64.892	63.980	64.921	64.008	1.050	1.050	150	0.01546	0.000	0.000	0.047	0.053	0.64	0.64	2.47	2.68	0.19	0.19	
002-002	G2.001	G002	58	65.030	64.457	63.980	63.407	64.012	63.439	1.050	1.050	150	0.00988	0.000	0.000	0.092	0.106	0.55	0.55	2.60	1.89	0.21	0.21	
001-001	G004	G003	32	66.975	66.328	65.925	65.278	65.952	65.305	1.050	1.050	150	0.02022	0.000	0.000	0.025	0.029	0.70	0.70	2.40	3.30	0.18	0.18	
001-002	G003	G002	99	66.328	64.457	65.278	63.407	65.305	63.434	1.050	1.050	150	0.01890	0.000	0.000	0.103	0.119	0.69	0.69	2.42	3.13	0.18	0.18	
001-003	G002	G001	103	64.457	59.000	63.407	57.950	63.428	57.971	1.050	1.050	150	0.05298	0.000	0.000	0.216	0.245	0.99	0.99	2.16	6.97	0.14	0.14	
001-004	G001	G001A	66	59.000	24.000	57.950	22.950	57.962	22.962	1.050	1.050	150	0.53030	0.000	0.000	0.229	0.258	2.21	2.21	1.66	41.51	0.08	0.08	DG 0.027
001-005	G001A	FIM	22	24.000	24.392	22.923	22.823	22.962	22.862	1.077	1.569	150	0.00455	0.000	0.000	0.234	0.263	0.41	0.41	2.83	1.03	0.26	0.26	FIM

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CIDADE: CASSANGE BACIA: H

POP. INICIAL: 118 POP. SATURAÇÃO: 118 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00029 VAZÃO EM MARCHA FIM (l/s.m): 0.00035

COMPRIMENTO VIRTUAL REDE (m): 708.00 COMPRIMENTO TOTAL REDE (m): 843.00

Zonas de Densidade Vinculadas ao Projeto da Bacia

Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia H**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
002-001	H3.10	H3.9	26	57,072	58,408	56,022	55,892	56,055	55,925	1,050	2,516	150	0,00500	0,000	0,000	0,013	0,014	0,52	0,52	2,64	1,00	0,22	0,22	
002-002	H3.9	H3.8	15	58,408	58,959	55,892	55,817	55,925	55,850	2,516	3,142	150	0,00500	0,000	0,000	0,020	0,022	0,52	0,52	2,64	1,00	0,22	0,22	
002-003	H3.8	H3.7	18	58,959	59,570	55,817	55,727	55,850	55,760	3,142	3,843	150	0,00500	0,000	0,000	0,029	0,032	0,52	0,52	2,64	1,00	0,22	0,22	
002-004	H3.7	H3.6	87	59,570	59,505	55,727	55,292	55,760	55,325	3,843	4,213	150	0,00500	0,000	0,000	0,071	0,080	0,52	0,52	2,64	1,00	0,22	0,22	
002-005	H3.6	H3.5	25	59,505	58,821	55,292	55,167	55,325	55,200	4,213	3,654	150	0,00500	0,000	0,000	0,084	0,094	0,52	0,52	2,64	1,00	0,22	0,22	
002-006	H3.5	H3.4	75	58,821	56,788	55,167	54,792	55,200	54,825	3,654	1,996	150	0,00500	0,000	0,000	0,120	0,135	0,52	0,52	2,64	1,00	0,22	0,22	
002-007	H3.4	H3.3	80	56,788	54,747	54,792	53,697	54,818	53,723	1,996	1,050	150	0,01369	0,000	0,000	0,159	0,178	0,74	0,74	2,36	2,17	0,17	0,17	
002-008	H3.3	H3.2	19	54,747	54,246	53,697	53,196	53,719	53,218	1,050	1,050	150	0,02637	0,000	0,000	0,169	0,189	0,93	0,93	2,20	3,61	0,15	0,15	
002-009	H3.2	H3.1	55	54,246	52,813	53,196	51,763	53,218	51,785	1,050	1,050	150	0,02605	0,000	0,000	0,196	0,219	0,92	0,92	2,20	3,57	0,15	0,15	DG 0.007
002-010	H3.1	H3	28	52,813	52,575	51,756	51,518	51,785	51,547	1,057	1,057	150	0,00850	0,000	0,000	0,209	0,234	0,62	0,62	2,49	1,50	0,19	0,19	DG 0.002
001-001	H11	H10	38	67,035	65,892	65,985	64,842	66,006	64,863	1,050	1,050	150	0,03008	0,000	0,000	0,019	0,021	0,97	0,97	2,17	4,00	0,14	0,14	
001-002	H10	H9	15	65,892	64,965	64,842	63,915	64,860	63,933	1,050	1,050	150	0,06180	0,000	0,000	0,026	0,029	1,25	1,25	2,00	6,98	0,12	0,12	
001-003	H9	H8	34	64,965	61,298	63,915	60,248	63,931	60,264	1,050	1,050	150	0,10785	0,000	0,000	0,043	0,048	1,52	1,52	1,88	10,75	0,10	0,10	
001-004	H8	H7	27	61,298	57,617	60,248	56,567	60,263	56,582	1,050	1,050	150	0,13633	0,000	0,000	0,056	0,062	1,65	1,65	1,83	12,89	0,10	0,10	DG 0.005
001-005	H7	H6	88	57,617	54,059	56,562	53,004	56,582	53,024	1,055	1,055	150	0,04043	0,000	0,000	0,099	0,111	1,08	1,08	2,10	5,03	0,13	0,13	DG 0.002
001-006	H6	H5	31	54,059	53,199	53,002	52,147	53,024	52,169	1,057	1,052	150	0,02758	0,000	0,000	0,114	0,128	0,94	0,94	2,19	3,74	0,15	0,15	DG 0.002
001-007	H5	H4	28	53,199	52,676	52,145	51,624	52,169	51,648	1,054	1,052	150	0,01861	0,000	0,000	0,128	0,143	0,82	0,82	2,29	2,75	0,16	0,16	DG 0.009
001-008	H4	H3	19	52,676	52,575	51,615	51,516	51,648	51,549	1,061	1,059	150	0,00521	0,000	0,000	0,137	0,153	0,52	0,52	2,63	1,02	0,22	0,22	
001-009	H3	H2	88	52,575	28,000	51,516	26,950	51,529	26,962	1,059	1,050	150	0,27916	0,000	0,000	0,364	0,405	2,12	2,12	1,68	22,44	0,08	0,08	DG 0.001
001-010	H2	H1	25	28,000	21,000	26,949	19,949	26,962	19,962	1,051	1,051	150	0,28000	0,000	0,000	0,369	0,410	2,12	2,12	1,68	22,49	0,08	0,08	DG 0.003
001-011	H1	FIM	22	21,000	18,738	19,946	17,685	19,962	17,701	1,054	1,053	150	0,10277	0,000	0,000	0,373	0,415	1,50	1,50	1,89	10,36	0,11	0,11	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

01/06/2016

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CIDADE: CASSANGE BACIA: I

POP. INICIAL: 382 POP. SATURAÇÃO: 382 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTE MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00096 VAZÃO EM MARCHA FIM (l/s.m): 0.00116

COMPRIMENTO VIRTUAL REDE (m): 688.00 COMPRIMENTO TOTAL REDE (m): 850.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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**SES VETOR IPITANGA**  
**Rede Coletora de Esgoto - Bacia I**

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
001-001	I015	I014	29	66.379	66.633	65.329	65.197	65.368	65.236	1.050	1.436	150	0.00455	0.000	0.000	0.034	0.039	0.41	0.41	2.83	1.03	0.26	0.26	
001-002	I014	I013	83	66.633	66.700	65.197	64.819	65.236	64.858	1.436	1.881	150	0.00455	0.000	0.000	0.130	0.152	0.41	0.41	2.83	1.03	0.26	0.26	
001-003	I013	I012	75	66.700	64.482	64.819	63.432	64.846	63.459	1.881	1.050	150	0.01849	0.000	0.000	0.218	0.254	0.68	0.68	2.42	3.08	0.18	0.18	
001-004	I012	I011	72	64.482	64.066	63.432	63.016	63.468	63.052	1.050	1.050	150	0.00578	0.000	0.000	0.302	0.351	0.45	0.45	2.75	1.24	0.24	0.24	
001-005	I011	I010	20	64.066	63.723	63.016	62.673	63.044	62.701	1.050	1.050	150	0.01715	0.000	0.000	0.325	0.379	0.66	0.66	2.44	2.90	0.19	0.19	
001-006	I010	I09	16	63.723	63.286	62.673	62.236	62.698	62.261	1.050	1.050	150	0.02731	0.000	0.000	0.343	0.400	0.78	0.78	2.32	4.17	0.17	0.17	
001-007	I09	I008	41	63.286	61.816	62.236	60.766	62.259	60.789	1.050	1.050	150	0.03585	0.000	0.000	0.391	0.456	0.86	0.86	2.25	5.15	0.16	0.16	
001-008	I008	I007	35	61.816	60.542	60.766	59.492	60.789	59.515	1.050	1.050	150	0.03640	0.000	0.000	0.432	0.503	0.87	0.87	2.25	5.21	0.15	0.15	
001-009	I007	I006	77	60.542	57.824	59.492	56.774	59.515	56.797	1.050	1.050	150	0.03530	0.000	0.000	0.521	0.608	0.86	0.86	2.26	5.09	0.16	0.16	
001-010	I006	I005	89	57.824	55.073	56.774	54.023	56.798	54.047	1.050	1.050	150	0.03091	0.000	0.000	0.625	0.729	0.82	0.82	2.29	4.59	0.16	0.16	
001-011	I005	I004	37	55.073	55.278	54.023	53.855	54.062	53.893	1.050	1.423	150	0.00454	0.000	0.000	0.668	0.779	0.41	0.41	2.83	1.03	0.26	0.26	
001-012	I004	I003	15	55.278	55.538	53.855	53.787	53.894	53.825	1.423	1.751	150	0.00453	0.000	0.000	0.686	0.799	0.41	0.41	2.83	1.03	0.26	0.26	
001-013	I003	I002	99	55.538	53.000	53.787	51.950	53.814	51.977	1.751	1.050	150	0.01856	0.000	0.000	0.801	0.933	0.68	0.68	2.42	3.09	0.18	0.18	
001-014	I002	I001	85	53.000	29.000	51.950	27.950	51.964	27.964	1.050	1.050	150	0.28235	0.000	0.000	0.818	0.950	1.77	1.77	1.79	25.49	0.09	0.09	
001-015	I001	FIM	77	29.000	18.327	27.950	17.277	27.967	17.294	1.050	1.050	150	0.13861	0.000	0.000	0.833	0.966	1.38	1.38	1.94	14.70	0.11	0.11	FIM

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**SISTEMA SANCAD - DADOS GERAIS DO PROJETO**

28/12/2016

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CIDADE: CASSANGE BACIA: J

POP. INICIAL: 169 POP. SATURAÇÃO: 169 PER\_CAPITA (l/hab.dia): 125

COEFICIENTE K1: 1.20 COEFICIENTE K2: 1.50 COEFICIENTE DE RETORNO (%): 80

MATERIAL PREDOMINANTE NA BACIA: PVC ABNT MANNING DESTA MATERIAL: 0.013

DIÂMETRO MÍNIMO: 0.150 COEF. DE INFILTRAÇÃO (l/s.m): 0.000200

RECOBRIMENTO MÍNIMO NAS RUAS (m): 0.900 RECOBRIMENTO MÍNIMO PASSEIOS (m): 0.650

VAZÃO EM MARCHA INICIO (l/s.m): 0.00040 VAZÃO EM MARCHA FIM (l/s.m): 0.00047

COMPRIMENTO VIRTUAL REDE (m): 742.00 COMPRIMENTO TOTAL REDE (m): 761.00

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Zonas de Densidade Vinculadas ao Projeto da Bacia

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Codigo	Nome da Zona de Densidade	Vazão Ini.	Vazão Final
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SES VETOR IPITANGA  
Rede Coletora de Esgoto - Bacia J

Coletor	PVM	PVJ	Comp (m)	CTM (m)	CTJ (m)	CCM (m)	CCJ (m)	NA mon	NA jus	PRFM (m)	PRFJ (m)	Diam (mm)	Decl (m/m)	Q conc ini (L/s)	Q conc fim (L/s)	Q ini (L/s)	Q fim (L/s)	Vel ini (m/s)	Vel fim (m/s)	Vel cri (m/s)	Trativa (Pa)	H/D ini	H/D fim	Obs
002-001	J1.004	J1.003	51	61.431	60.085	60.381	59.035	60.406	59.060	1.050	1.050	150	0.02639	0.000	0.000	0.030	0.034	0.77	0.77	2.33	4.06	0.17	0.17	
002-002	J1.003	J1.002	21	60.085	59.418	59.035	58.368	59.059	58.392	1.050	1.050	150	0.03176	0.000	0.000	0.043	0.049	0.82	0.82	2.28	4.69	0.16	0.16	
002-003	J1.002	J1.001	96	59.418	56.440	58.368	55.390	58.392	55.414	1.050	1.050	150	0.03102	0.000	0.000	0.100	0.113	0.82	0.82	2.29	4.60	0.16	0.16	
002-004	J1.001	J001	32	56.440	56.211	55.390	55.161	55.425	55.195	1.050	1.050	150	0.00716	0.000	0.000	0.119	0.135	0.49	0.49	2.69	1.47	0.23	0.23	
001-001	J008	J007	96	66.975	64.317	65.925	63.267	65.950	63.292	1.050	1.050	150	0.02769	0.000	0.000	0.057	0.065	0.79	0.79	2.32	4.21	0.17	0.17	
001-002	J007	J006	92	64.317	61.308	63.267	60.258	63.291	60.281	1.050	1.050	150	0.03271	0.000	0.000	0.112	0.127	0.83	0.83	2.28	4.79	0.16	0.16	
001-003	J006	J005	77	61.308	59.393	60.258	58.343	60.283	58.368	1.050	1.050	150	0.02487	0.000	0.000	0.158	0.179	0.76	0.76	2.35	3.87	0.17	0.17	
001-004	J005	J004	86	59.393	59.551	58.343	57.952	58.382	57.990	1.050	1.599	150	0.00455	0.000	0.000	0.209	0.237	0.41	0.41	2.83	1.03	0.26	0.26	
001-005	J004	J003	74	59.551	58.192	57.952	57.142	57.983	57.173	1.599	1.050	150	0.01095	0.000	0.000	0.253	0.287	0.57	0.57	2.57	2.05	0.21	0.21	
001-006	J003	J002	49	58.192	57.268	57.142	56.218	57.169	56.245	1.050	1.050	150	0.01886	0.000	0.000	0.282	0.320	0.69	0.69	2.42	3.12	0.18	0.18	
001-007	J002	J001	68	57.268	56.211	56.218	55.161	56.247	55.190	1.050	1.050	150	0.01554	0.000	0.000	0.323	0.366	0.64	0.64	2.47	2.69	0.19	0.19	
001-008	J001	FIM	19	56.211	56.800	55.161	55.000	55.194	55.033	1.050	1.800	150	0.00847	0.000	0.000	0.446	0.505	0.52	0.52	2.64	1.67	0.22	0.22	FIM