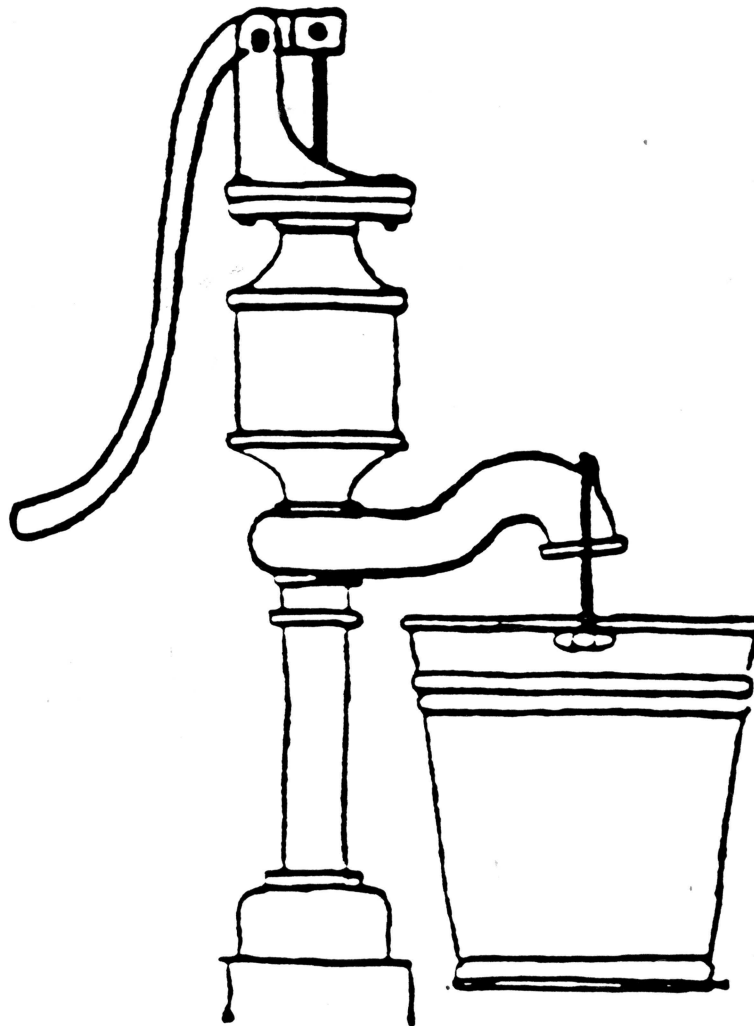


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# Quality of Rural Well Water North Missouri



Special Report 402  
Agricultural Experiment Station  
College of Agriculture  
University of Missouri-Columbia  
September, 1989



## FOREWORD

Data contained in this report were obtained from samples taken from December 1987 to September 1988. A total of 101 wells were sampled four times (December, March, May, September) in four areas of northern Missouri (see map of sampling areas). All values in Tables 1 and 2 are parts per billion (ppb); in Table 3 milligrams per liter (mg/L). "ND" means None Detected.

The survey was conducted to provide a data base on the general quality of water coming from private rural wells in agricultural areas. These data should not be extended beyond the areas from which they came. Detailed analyses of the data are contained in separate reports. For more information contact:

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# Quality of Missouri's Rural Well Water

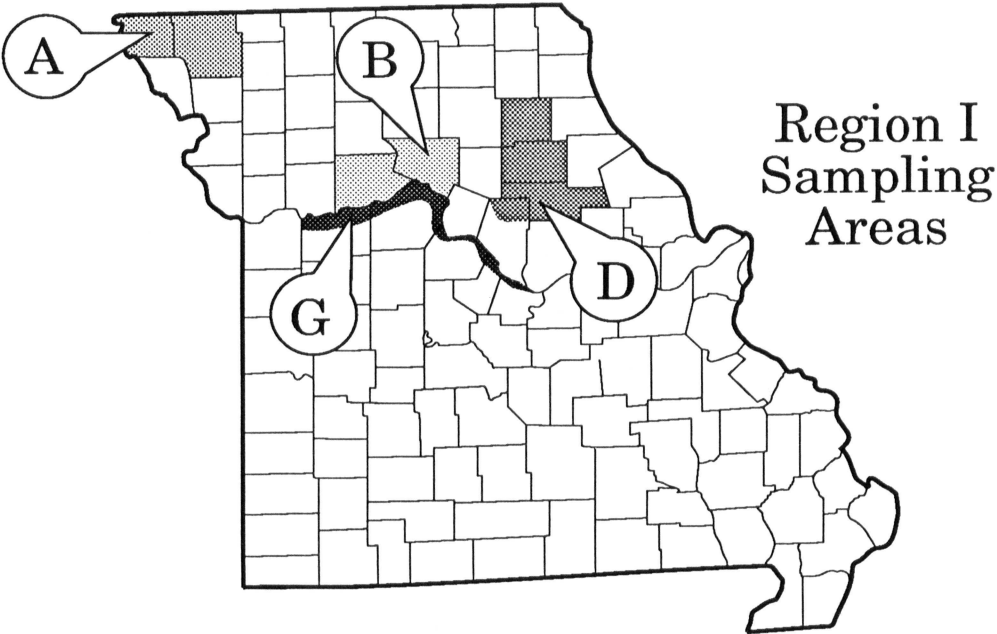




















Table 1. Summary of Herbicide Detections

AREA	CODE	ALACHLOR	ATRAZINE	BENTAZONE	CYANAZINE	LINURON	METRIBUZIN	PROPACHLOR	SIMAZINE	TRIFLURALIN	2,4-D	2,4,5-T	BUTYLATE
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All Detections in parts per billion (ppb)

"ND" = None Detected

















Table 2. Summary of Insecticide Detections

AREA	CODE	CARBARYL	CARBOFURAN	CHLORPYRIFOS	FONOFOS	TERBUFOS	TOXAPHENE	DIAZONON	PARATHION	MALATHION	ETHOPROP	CHLORDANE	LINDANE	HEPTOCHLOR
G	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	17	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All Detections in parts per billion (ppb)

"ND" = None Detected

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
A	1	0.34	0.008	0.007	0.07	3.65	16.73	0	18.72	7.89	70.36	25.73	19.47
A	1	0.38	0.037	0	0.03	3.45	16.44	0	15.60	7.70	71.03	26.60	12.00
A	1	0.28	0.008	0	0.1	3.02	14.77	0	14.20	5.25	64.91	24.28	11.85
A	1	0.14	0.002	0.003	0.03	2.80	17.71	0	14.80	21.10	67.56	25.33	11.60
	AVG	0.29	0.0138	0.003	0.06	3.23	16.41	0	15.83	10.49	68.47	25.49	13.73
A	2	0.29	0.034	0.007	0.1	5.85	24.52	0	34.00	38.40	120.95	39.24	142.40
A	2	0.12	0.01	0	0.03	4.23	21.92	0	29.25	40.00	119.50	39.42	131.00
A	2	0.28	0.042	0.04	0.1	3.69	20.60	0	28.25	38.75	113.98	37.44	130.00
A	2	0.13	0.008	0	0.03	2.91	24.87	0	27.25	41.00	115.01	38.84	125.25
	AVG	0.21	0.0235	0.012	0.07	4.17	22.98	0	29.69	39.54	117.36	38.74	132.16
A	3	0.06	0	0	0.07	0.02	11.32	0	15.57	7.61	60.86	17.70	31.17
A	3	0.06	0.047	0.003	0.06	0.18	9.82	0	13.00	6.00	60.17	16.72	27.50
A	3	0.06	0.03	0.003	0.08	0.25	10.00	0	13.05	5.55	56.20	16.28	22.90
A	3	0.06	0.007	0	0.12	0.08	12.62	0	13.20	5.40	54.69	16.23	20.25
	AVG	0.06	0.021	0.002	0.08	0.13	10.94	0	13.71	6.14	57.98	16.73	25.46
A	4	0.16	0.014	0	0.38	0.91	13.05	0	14.90	10.80	47.43	11.86	39.10
A	4	0.18	0.029	0	0.56	0.33	9.58	0	13.65	10.00	59.74	16.86	38.10
A	4	0.24	0.02	0	0.05	0.29	8.55	0	13.35	10.05	57.78	16.28	37.05
A	4	0.14	0.007	0	0	0.12	11.31	0	13.45	9.95	56.30	16.32	37.35
	AVG	0.18	0.0175	0	0.25	0.41	10.62	0	13.84	10.20	55.31	15.33	37.90
A	5	0.19	0.013	0	0.03	0.36	9.66	0	10.60	8.80	62.45	17.53	77.20
A	5	0.18	0.03	0	0.03	0.42	10.04	0	9.88	9.38	55.15	15.01	71.13
A	5	0.14	0.014	0	0.1	1.00	12.63	0	9.75	8.63	50.66	12.48	88.75
A	5	0.14	0.008	0	0.2	0.96	12.76	0	9.62	6.25	52.44	13.11	74.75
	AVG	0.16	0.0163	0	0.09	0.69	11.27	0	9.96	8.27	55.18	14.53	77.96
A	6	0.08	0.02	0	2.81	0.73	11.10	0.15	21.60	8.06	34.78	11.42	0.32
A	6	0.07	0.014	0	2.16	0.55	11.52	0.1	20.46	7.36	40.52	12.02	0.00
A	6	0.16	0.006	0	3.1	1.09	10.30	0.03	22.65	9.70	55.41	14.33	41.90
A	6	0.35	0.028	0	0.43	0.60	10.56	0.02	21.20	9.40	58.45	14.88	24.30
	AVG	0.17	0.017	0	2.13	0.74	10.87	0.075	21.48	8.63	47.29	13.16	16.63
A	7	0.17	0.011	0	0.03	0.73	9.16	0	18.80	9.88	68.77	13.52	27.80
A	7	0.46	0.011	0.004	0.06	0.65	9.45	0.01	18.90	13.00	74.80	14.87	25.60
A	7	0.12	0.074	0.011	0.05	0.54	9.13	0	20.85	14.55	75.99	14.84	22.35
A	7	0.08	0.005	0	0.05	0.55	8.35	0.04	20.90	10.85	78.22	15.28	18.05
	AVG	0.21	0.0253	0.004	0.05	0.62	9.02	0.0125	19.86	12.07	74.45	14.63	23.45
A	8	0.04	0.007	0	0.1	1.28	11.97	0	14.55	6.44	29.25	8.72	20.64
A	8	0.09	0.007	0	0.03	1.50	12.90	0	13.45	6.30	30.39	9.16	18.95
A	8	0.06	0.01	0	0.2	1.36	11.66	0.06	11.75	7.05	28.88	9.19	22.85
A	8	0.09	0.007	0	0.05	1.31	12.27	0.01	12.80	7.65	30.94	9.56	12.80
	AVG	0.07	0.0078	0	0.10	1.36	12.20	0.0175	13.14	6.86	29.87	9.16	18.81

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
A	9	0.14	0.036	0.007	0.1	0.73	11.47	0	16.90	17.60	58.50	13.69	52.40
A	9	0.15	0.042	0.004	0.15	0.55	11.06	0	16.38	18.38	60.00	14.62	50.25
A	9	0.32	0.046	0.005	0.2	0.61	10.78	0	16.50	21.25	59.76	14.16	48.50
A	9	0.14	0.014	0	0.15	0.62	10.56	0	16.75	20.50	63.18	14.39	44.25
AVG		0.19	0.0345	0.004	0.15	0.63	10.97	0	16.63	19.43	60.36	14.22	48.85
A	10	0.22	0	0	0.62	2.20	22.22	0.2	7.94	4.34	66.61	20.93	0.66
A	10	0.09	0	0	0.32	2.25	23.75	0.22	8.72	4.15	67.01	21.79	1.32
A	10	0.06	0	0	0.26	2.01	21.76	0.17	8.53	3.83	61.74	19.90	2.23
A	10	0.1	0.001	0	0.24	2.01	22.09	0.14	8.40	3.82	68.77	21.88	1.30
AVG		0.12	0.0003	0	0.36	2.12	22.46	0.1825	8.40	4.04	66.03	21.13	1.38
A	11	0.13	0.03	0.007	0.03	1.10	18.39	0	39.40	26.60	75.89	23.55	116.20
A	11	0.23	0.036	0.046	0.26	1.00	22.58	0	35.25	25.50	79.48	25.15	101.50
A	11	0.1	0.014	0	0.1	0.88	18.65	0.01	28.25	31.75	78.36	24.70	113.00
A	11	0.1	0.021	0	0.02	0.91	16.69	0	23.25	42.75	84.24	26.41	128.25
AVG		0.14	0.0253	0.013	0.10	0.97	19.08	0.0025	31.54	31.65	79.49	24.95	114.74
A	12	0.33	0.014	0.019	0.09	0.73	11.12	0.03	25.36	9.32	51.38	12.52	13.18
A	12	0.04	0.006	0	0.09	0.65	10.83	0.05	20.95	10.15	50.65	12.83	11.20
A	12	0.03	0.007	0	0.06	0.50	11.63	0.05	19.45	8.85	52.27	12.56	11.50
A	12	0.02	0.002	0	0.02	0.50	9.57	0.02	18.95	7.85	48.14	11.92	11.55
AVG		0.11	0.0073	0.005	0.07	0.60	10.79	0.0375	21.18	9.04	50.61	12.46	11.86
A	13	0.44	0.014	0.052	0.72	0.91	16.08	0	29.50	15.60	49.01	14.65	72.20
A	13	0.72	0.123	0.014	1.95	1.05	15.90	0.01	28.13	19.00	51.43	15.48	69.75
A	13	0.11	0.073	0.014	0.45	1.10	19.19	0.04	32.75	38.00	65.09	18.49	67.63
A	13	0.2	0.024	0	0.1	0.80	17.18	0	28.50	20.38	55.01	16.26	70.75
AVG		0.37	0.0585	0.02	0.81	0.97	17.09	0.0125	29.72	23.25	55.14	16.22	70.08
A	14	0.15	0.038	0.01	0.1	0.36	11.03	0	28.70	13.40	71.15	14.13	55.20
A	14	0.23	0.127	0.004	0.2	0.50	11.29	0	27.75	15.38	77.14	15.48	56.88
A	14	0.18	0.078	0	0.12	0.39	11.04	0	28.00	17.88	74.95	14.78	53.88
A	14	0.54	0.03	0.003	0.05	0.40	9.82	0	27.50	14.62	71.35	14.59	53.25
AVG		0.28	0.0683	0.004	0.12	0.41	10.80	0	27.99	15.32	73.65	14.75	54.80
A	15	0.22	0.005	0	0.07	0.91	12.62	0	14.90	12.60	62.45	18.84	61.90
A	15	0.08	0.008	0	0.03	0.70	12.21	0	15.25	13.13	63.12	18.74	58.13
A	15	0.07	0.005	0	0.02	0.69	12.98	0.01	15.63	15.50	61.14	18.04	55.13
A	15	0.09	0.027	0.01	1.12	1.01	9.33	0.12	17.25	17.50	50.72	16.36	52.62
AVG		0.12	0.0113	0.003	0.31	0.83	11.79	0.0325	15.76	14.68	59.36	18.00	56.95
A	16	0.41	0.015	0.031	6.72	3.29	19.83	0.05	13.20	74.40	134.39	41.86	404.00
A	16	0.03	0.005	0	0.17	3.30	19.82	0	12.00	90.50	140.26	46.84	447.50
A	16	1.01	0.002	0	0.4	3.21	18.99	0.02	11.00	105.50	130.18	39.50	449.00
A	16	9.86	0.026	0.014	4.38	3.30	14.98	0.05	10.50	81.00	124.64	38.73	430.00
AVG		2.83	0.012	0.011	2.92	3.28	18.41	0.03	11.68	87.85	132.37	41.73	432.63

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
A	17	0.03	0.003	0	0.03	1.74	13.09	0	21.40	33.20	57.71	17.36	128.20
A	17	0.02	0.003	0	0.06	1.65	13.36	0	19.75	30.50	60.00	17.92	117.50
A	17	0.01	0.002	0	0.02	1.51	12.02	0	19.50	37.50	54.24	15.41	112.50
A	17	0.01	0.001	0	0.08	1.46	11.29	0	17.75	24.75	49.86	15.08	100.00
AVG		0.02	0.0023	0	0.05	1.59	12.44	0	19.60	31.49	55.45	16.44	114.55
A	18	0.05	0	0	0.07	1.65	10.17	0.6	41.84	9.96	79.05	16.05	16.48
A	18	0.09	0.015	0	0.99	1.45	10.37	0.61	36.90	15.05	83.38	17.01	17.35
A	18	0.03	0.009	0	0.74	1.60	11.05	0.66	36.60	14.10	79.88	16.10	9.60
A	18	0.1	0	0	0.2	1.66	9.82	0.62	33.25	15.15	74.78	14.98	11.80
AVG		0.07	0.006	0	0.5	1.59	10.35	0.6225	37.15	13.57	79.27	16.04	13.81
A	19	0.18	0.016	0	0.24	1.46	13.99	1.25	45.67	14.95	105.93	26.60	9.64
A	19	0.09	0.011	0	0.09	1.30	14.06	1.08	35.45	29.40	110.65	26.17	3.45
A	19	0.13	0.008	0	0.06	1.42	14.14	1.16	36.20	31.25	109.46	22.43	3.55
A	19	0.24	0.036	0	0.42	2.06	7.61	1.38	27.95	24.20	94.38	21.58	0.75
AVG		0.16	0.0178	0	0.20	1.56	12.45	1.2175	36.32	24.95	105.11	24.20	4.35
A	20	0.4	0.032	0	0.55	1.65	33.53	0.2	30.20	43.20	79.05	23.20	111.00
A	20	0.41	0.019	0	0.06	1.25	33.30	0.03	29.50	44.50	79.48	23.57	109.75
A	20	0.13	0.013	0	0.06	1.47	35.27	0.11	27.50	67.50	96.64	26.48	99.75
A	20	0.5	0.07	0.027	0.08	1.41	36.82	0.05	26.50	55.25	99.71	28.78	99.75
AVG		0.36	0.0335	0.007	0.19	1.45	34.73	0.0975	28.43	52.61	88.72	25.51	105.06
A	21	0.12	0.01	0	0.02	0.91	26.32	0	19.70	26.40	46.64	13.65	93.20
A	21	0.06	0.012	0.004	0.03	0.90	26.27	0	20.00	30.00	48.31	14.26	101.25
A	21	0.05	0.01	0	0.02	0.87	28.68	0	17.75	32.25	47.34	13.24	74.00
A	21	0.05	0.004	0	0.02	1.06	26.27	0	19.00	25.75	48.14	12.81	100.00
AVG		0.07	0.009	0.001	0.02	0.94	26.89	0	19.11	28.60	47.61	13.49	92.11
A	22	0.63	0.203	0.017	4.63	1.28	10.46	0.05	32.80	20.90	58.50	13.60	34.90
A	22	0.11	0.204	0	0.64	1.65	10.14	0.03	38.00	23.40	60.00	14.76	31.35
A	22	0.11	0.248	0	1.81	2.57	12.98	0.11	58.85	28.80	72.98	16.67	28.50
A	22	0.72	0.147	0.027	1.47	1.66	13.01	0.02	50.30	25.80	69.63	14.98	11.70
AVG		0.39	0.2005	0.011	2.14	1.79	11.65	0.0525	44.99	24.73	65.28	15.00	26.61
A	23	0.4	0.033	0	0.92	1.28	61.30	0.15	85.60	311.20	192.10	56.69	340.40
A	23	0.54	0.25	0.011	0.87	1.20	59.91	0.11	83.00	350.00	197.14	61.10	320.50
A	23	0.62	0.09	0.005	0.74	1.24	59.69	0.12	78.50	371.00	203.16	61.87	401.50
A	23	0.2	0.018	0.007	0.71	1.48	30.96	0.97	49.50	47.00	88.54	18.82	12.50
AVG		0.44	0.0978	0.006	0.81	1.30	52.97	0.3375	74.15	269.80	170.24	49.62	268.73
A	24	0.04	0.008	0	0.55	0.91	28.12	0.09	52.00	11.03	51.78	12.73	1.46
A	24	0.04	0.017	0	0.79	0.85	26.04	0.04	52.45	13.05	49.09	12.73	2.10
A	24	0.01	0.012	0	0.55	1.01	25.58	0.06	51.25	11.20	49.31	12.10	2.60
A	24	0.05	0.006	0	0.53	0.86	25.53	0.02	50.65	10.55	47.28	11.92	25.80
AVG		0.04	0.0108	0	0.61	0.91	26.32	0.0525	51.59	11.46	49.37	12.37	7.99



Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
A	25	0.19	0.044	0	0.14	1.10	18.53	0	13.75	31.20	54.54	13.87	109.85
A	25	0.14	0.08	0	0.12	0.85	18.66	0	10.50	25.75	55.32	14.66	100.00
A	25	0.06	0.06	0	0.04	0.96	17.63	0	12.50	32.50	52.27	13.47	91.00
A	25	0.17	0.033	0	0.08	0.86	17.92	0	12.75	23.50	54.15	13.80	101.25
AVG		0.14	0.0543	0	0.10	0.94	18.19	0	12.38	28.24	54.07	13.95	100.53
A	26	0.11	0.034	0	0.07	0.55	39.22	0.02	43.30	32.70	59.29	18.84	25.40
A	26	0.1	0.012	0	0.08	0.60	39.63	0.01	38.20	33.85	61.96	22.50	36.05
A	26	0.06	0.015	0	0.02	0.78	35.17	0.01	29.00	38.25	105.23	22.83	45.15
A	26	0.11	0.014	0	0.02	0.65	20.87	0	24.45	32.55	55.01	17.44	49.00
AVG		0.10	0.0188	0	0.05	0.65	33.72	0.01	33.74	34.34	70.37	20.40	38.90
B	1	0.49	0.019	0	0.1	1.28	41.38	0.05	45.50	75.00	110.67	23.28	207.75
B	1	0.37	0.08	0	0.41	1.05	43.55	0.03	45.25	79.75	121.56	26.48	203.00
B	1	0.61	0.047	0	0.15	1.42	48.06	0.04	45.25	92.00	122.29	26.48	209.50
B	1	0.39	0.006	0	0.08	1.11	44.68	0	48.00	87.00	115.19	24.44	203.00
AVG		0.47	0.038	0	0.19	1.22	44.42	0.03	46.00	83.44	117.43	25.17	205.81
B	2	1.09	0.024	0.01	0.27	0.55	39.30	0.02	18.75	34.00	33.20	7.85	46.75
B	2	3.19	0.017	0.004	0.2	0.50	39.86	0.01	20.05	39.85	36.62	9.06	49.45
B	2	2.39	0.017	0.005	0.04	0.73	26.74	0.01	19.20	18.90	33.53	7.76	48.85
B	2	2.43	0.015	0	0.05	0.50	25.53	0	19.60	19.50	34.38	8.08	46.85
AVG		2.28	0.0183	0.005	0.14	0.57	32.86	0.01	19.40	28.06	34.43	8.19	47.98
B	3	0.04	0.003	0	6.36	1.74	11.61	0.55	47.75	23.30	57.71	15.92	0.00
B	3	0.04	0.006	0	8.44	1.75	11.29	0.48	45.90	23.30	60.39	17.16	0.00
B	3	0.01	0.006	0	4.56	1.78	10.85	0.49	46.90	36.30	66.25	17.94	0.00
B	3	0.02	0.002	0	6.5	1.64	9.32	0.44	44.16	24.00	56.30	15.62	0.00
AVG		0.03	0.0043	0	6.47	1.73	10.77	0.49	46.18	26.73	60.16	16.66	0.00
B	4	0.03	0.02	0	1.54	0.73	33.53	0.5	1.95	5.34	46.64	8.63	0.20
B	4	0.02	0.006	0	1.43	0.82	34.22	0.26	2.01	5.82	52.60	10.08	0.00
B	4	0.01	0.006	0	1.26	0.78	34.88	0.38	2.31	6.08	58.03	10.06	0.00
B	4	0.01	0.012	0	1.63	0.76	29.95	0.4	1.65	5.98	48.14	8.28	0.00
AVG		0.02	0.011	0	1.47	0.77	33.15	0.385	1.98	5.81	51.35	9.26	0.05
B	5	0.04	0.01	0	0.03	0.91	55.20	0	55.00	79.25	52.96	18.84	128.25
B	5	0.05	0.014	0	0.03	1.05	51.15	0	54.50	95.25	57.66	21.49	125.25
B	5	0.08	0.01	0	0.02	1.30	54.26	0.01	54.13	100.13	64.80	23.20	131.50
B	5	0.04	0.012	0	0.13	1.51	50.57	0	52.00	76.25	56.73	19.51	100.00
AVG		0.05	0.0115	0	0.05	1.19	52.80	0.0025	53.91	87.72	58.04	20.76	121.25
B	6	0.02	0.006	0	0.05	0.73	36.06	0	16.00	23.63	72.10	12.82	88.25
B	6	0.02	0.007	0	0.03	0.80	36.40	0	16.25	24.75	76.36	13.75	86.00
B	6	0.01	0.005	0	0.02	1.10	22.87	0	28.87	10.50	54.16	16.41	0.47
B	6	0.02	0.002	0	0.06	4.03	6.75	0	27.40	8.08	23.61	16.55	13.15
AVG		0.02	0.005	0	0.04	1.67	25.52	0	22.13	16.74	56.56	14.88	46.97

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
B	23	0.06	0.002	0	5.34	1.62	54.30	3.36	856.00	2.25	176.23	58.24	0.00
B	23	0.11	0.003	0	3.44	1.50	46.81	2.68	648.50	5.25	208.54	64.82	0.00
B	23	0.11	0	0	7.92	1.57	47.76	3	807.00	10.25	231.14	62.90	0.00
B	23	0.17	0.002	0	21.6	1.57	51.43	2.76	793.00	9.75	203.02	63.95	0.66
AVG		0.11	0.0018	0	9.59	1.57	50.08	2.95	776.13	6.88	204.73	62.48	0.17
B	24	0.06	0.015	0	0.2	0.66	27.05	0.01	14.80	12.65	36.07	7.26	64.40
B	24	0.05	0.016	0	0.2	0.86	20.66	0	16.35	12.65	32.93	7.10	59.55
B	24	0.13	0	0	0.14	0.84	21.99	0.04	12.20	16.40	37.74	7.45	59.65
B	24	0.14	0.012	0	0.81	0.81	21.90	0.08	17.18	14.58	36.70	7.62	57.70
AVG		0.10	0.0108	0	0.34	0.79	22.90	0.0325	15.13	14.07	35.86	7.36	60.33
B	25	0.01	0.002	0	0.03	0.76	28.58	0.01	7.84	0.87	34.53	8.62	0.60
B	25	0.03	0.001	0	0	0.73	30.94	0	7.24	0.86	36.58	9.39	0.36
B	25	0.03	0	0	0.03	0.73	26.12	0	7.03	0.93	33.96	8.10	0.38
B	25	0.03	0.001	0	0.05	0.62	27.26	0.02	7.57	1.35	33.98	8.62	1.10
AVG		0.03	0.001	0	0.03	0.71	28.23	0.0075	7.42	1.00	34.76	8.68	0.61
D	1	0.06	0.004	0	1.85	1.63	33.96	0.26	494.00	6.00	219.61	54.57	0.00
D	1	0.03	0.004	0	12.4	1.50	33.58	0.29	543.75	4.75	234.15	59.00	0.00
D	1	0.04	0.042	0	8.06	1.46	31.48	0.26	523.75	5.49	233.96	55.00	1.22
D	1	0.04	0.004	0	1.62	1.37	30.95	0.24	534.25	19.25	228.40	54.67	0.22
AVG		0.04	0.0135	0	5.99	1.49	32.49	0.2625	523.94	8.87	229.03	55.81	0.36
D	2	0.02	0	0	3.73	1.97	93.09	0.19	243.25	8.25	148.92	52.05	0.00
D	2	0.01	0.002	0	3.15	1.82	91.59	0.22	263.62	6.38	139.02	52.35	0.00
D	2	0.01	0	0	3.23	1.88	95.98	0.17	253.13	7.69	162.26	57.60	0.16
D	2	0.01	0.002	0	3.24	1.57	96.19	0.22	259.25	7.38	159.52	55.48	0.39
AVG		0.01	0.001	0	3.34	1.81	94.21	0.2	254.81	7.43	152.43	54.37	0.14
D	3	0.12	0	0	11.8	1.52	43.79	0.14	0.00	7.22	76.62	19.70	0.00
D	3	0.66	0.001	0	13.2	1.50	42.54	0.12	0.00	7.58	73.17	19.94	0.00
D	3	0.04	0.088	0.092	0.99	1.36	41.74	0.02	1.33	6.68	78.30	20.00	0.00
D	3	0.01	0	0	0.93	1.37	43.33	0.06	1.50	6.78	77.94	21.18	0.00
AVG		0.21	0.0223	0.023	6.72	1.44	42.85	0.085	0.71	7.07	76.51	20.21	0.00
D	4	0.03	0.005	0	0.03	1.10	31.73	0.01	60.57	6.88	96.04	36.10	23.00
D	4	0.01	0.007	0	0.05	0.95	33.18	0.01	65.25	8.00	105.36	42.80	23.30
D	4	0.01	0	0	0.03	0.99	34.38	0.01	63.60	8.60	101.89	38.80	0.00
D	4	0.01	0.008	0	0	1.06	31.90	0.02	64.85	8.40	99.70	38.53	24.05
AVG		0.02	0.005	0	0.03	1.03	32.80	0.0125	63.57	7.97	100.75	39.06	17.59
D	5	0.06	0.007	0	1.37	8.64	98.34	0.04	487.50	23.75	175.90	47.01	0.00
D	5	0.04	0.01	0	0.9	8.30	95.66	0.05	458.25	20.50	178.90	50.28	0.00
D	5	0.06	0	0	0.41	8.57	98.44	0.01	444.00	28.00	194.34	51.00	0.26
D	5	0.16	0.013	0	0.98	8.36	101.43	0	467.75	35.50	191.14	52.66	0.15
AVG		0.08	0.0075	0	0.92	8.47	98.47	0.025	464.38	26.94	185.07	50.24	0.10

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
D	6	0.29	0.021	0	3.39	3.41	110.14	0.17	122.25	6.50	76.62	28.54	0.00
D	6	0.12	0.03	0	1.87	3.45	101.76	0.18	129.25	7.50	72.44	27.76	0.00
D	6	0.09	0	0	1.98	3.45	108.93	0.16	131.60	7.95	81.13	29.00	31.65
D	6	1.26	0.02	0	10.9	2.99	109.52	0.02	118.30	7.50	81.57	28.45	1.15
AVG		0.44	0.0178	0	4.54	3.33	107.59	0.1325	125.35	7.36	77.94	28.44	8.20
D	7	0.02	0.005	0	0.06	6.74	67.92	0.46	664.50	20.25	221.22	53.17	16.75
D	7	0.01	0.008	0	0.17	4.18	66.15	0.81	867.75	3.75	270.33	67.73	0.32
D	7	0.06	0.008	0.01	14.3	22.47	5.80	2.93	4.25	15.65	33.96	9.60	0.00
D	7	0.03	0.009	0	1.13	5.32	60.95	0.57	259.70	12.50	246.52	55.08	1.15
AVG		0.03	0.0075	0.003	3.91	9.68	50.21	1.1925	449.05	13.04	193.01	46.40	4.56
D	8	0.34	0.044	0	11.8	1.82	28.58	0.36	294.62	2.38	168.34	48.13	0.00
D	8	0.28	0.044	0	10.2	1.73	24.42	0.22	301.12	3.12	139.02	42.38	0.00
D	8	0.04	0.012	0	3.08	3.87	56.25	0.06	312.75	4.27	126.42	38.40	1.04
D	8	0.05	0.035	0	4.97	3.65	53.81	0.06	356.50	5.12	123.26	37.93	0.33
AVG		0.18	0.0338	0	7.51	2.77	40.77	0.175	316.25	3.72	139.26	41.71	0.34
D	9	0.12	0.003	0	0.39	5.68	82.60	0.05	115.05	15.28	85.25	29.44	0.00
D	9	0.04	0.004	0	0.37	5.56	80.90	0.05	109.95	17.80	76.46	28.59	0.00
D	9	0.05	0.013	0	2.97	3.74	59.60	0.05	111.15	19.30	126.42	38.60	0.00
D	9	0.04	0.003	0	0.3	3.55	57.14	0.04	112.00	17.25	128.70	39.34	0.00
AVG		0.06	0.0058	0	1.01	4.63	70.06	0.0475	112.04	17.41	104.21	33.99	0.00
D	10	0.08	0.002	0	0.48	6.82	190.12	0.04	247.50	67.25	76.62	31.34	0.00
D	10	0.05	0.002	0	0.66	6.30	211.67	0.05	255.25	76.50	77.19	34.90	0.00
D	10	0.04	0.002	0	0.68	6.64	217.63	0.1	260.00	87.50	79.24	31.80	0.59
D	10	0.06	0.001	0	0.34	6.64	207.14	0.02	313.25	83.75	81.57	32.28	0.38
AVG		0.06	0.0018	0	0.54	6.60	206.64	0.0525	269.00	78.75	78.66	32.58	0.24
D	11	0.2	0.004	0	0.07	1.06	49.30	0.01	19.44	19.00	101.44	30.51	35.82
D	11	0.22	0.006	0	0.15	1.09	53.93	0.02	20.10	28.50	107.56	35.73	45.80
D	11	0.2	0.003	0	0.11	0.99	51.12	0	20.00	45.90	107.55	31.70	47.40
D	11	0.43	0.007	0	0.54	1.11	51.19	0	20.70	23.55	107.85	32.38	34.00
AVG		0.26	0.005	0	0.22	1.06	51.39	0.0075	20.06	29.24	106.10	32.58	40.76
D	12	0.14	0.004	0	0.11	2.04	39.86	0.12	79.00	5.35	87.41	34.14	0.00
D	12	0.05	0.004	0	0.37	2.04	38.26	0.13	77.30	6.05	82.68	35.73	0.00
D	12	0.06	0	0	0.37	2.04	40.18	0.11	75.30	6.00	94.34	35.20	0.00
D	12	0.08	0.003	0	0.3	1.77	36.67	0.13	77.55	6.60	94.26	35.91	0.00
AVG		0.08	0.0028	0	0.29	1.97	38.74	0.1225	77.29	6.00	89.67	35.25	0.00
D	13	0.03	0.009	0.002	0.03	2.27	66.08	0.39	91.38	12.00	70.14	33.58	2.25
D	13	0	0.014	0	0.42	2.32	70.22	0.34	105.15	10.75	68.05	35.32	3.30
D	13	0.01	0	0	0.37	2.40	70.54	0.42	562.00	42.95	75.47	36.00	0.00
D	13	0.48	0.014	0	5.68	2.42	68.10	0.6	112.60	10.32	74.32	36.32	10.85
AVG		0.13	0.0093	0.001	1.63	2.35	68.74	0.4375	217.78	19.01	72.00	35.31	4.10

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
D	14	0.12	0.022	0	0.17	0.83	29.11	0.25	11.75	60.25	84.17	21.83	187.50
D	14	0.05	0.028	0	0.37	1.00	29.51	0.46	11.75	64.00	87.07	22.60	188.00
D	14	0.02	0	0	0.08	0.78	24.78	0.12	12.00	63.00	77.36	18.60	143.25
D	14	0.01	0.018	0	0.05	0.71	23.10	0.11	10.20	53.62	75.68	19.42	116.75
AVG		0.05	0.017	0	0.17	0.83	26.63	0.235	11.43	60.22	81.07	20.61	158.88
D	15	1.23	0.021	0	0.92	1.59	120.63	0.35	3365.00	20.63	453.24	353.73	59.38
D	15	1.99	0.02	0	1.13	1.59	106.85	0.62	2508.75	18.75	358.54	395.84	32.50
D	15	0.41	0.004	0	0.42	1.83	156.25	0.06	2960.00	83.00	509.43	352.00	147.00
D	15	0.2	0.032	0.004	1.72	1.63	150.20	0.11	3125.00	66.00	540.54	404.31	106.00
AVG		0.96	0.0193	0.001	1.05	1.66	133.48	0.285	2989.69	47.10	465.44	376.47	86.22
D	16	0.03	0.004	0	0	1.21	81.29	0.01	254.25	36.13	126.80	31.18	112.00
D	16	0	0.007	0	0	1.41	86.50	0.02	223.50	49.75	135.36	34.07	132.00
D	16	0.08	0.004	0	0	1.15	92.41	0	228.75	68.50	147.17	33.80	146.50
D	16	0.02	0.004	0	0	1.16	83.63	0	241.25	56.75	144.59	31.75	119.00
AVG		0.03	0.0048	0	0	1.23	85.96	0.0075	236.94	52.78	138.48	32.70	127.38
D	17	0.05	0.002	0	0	1.18	95.72	0.01	86.88	29.50	36.15	24.69	85.88
D	17	0.22	0.002	0	0	0.91	94.64	0.01	85.88	38.00	69.51	26.01	101.13
D	17	0.12	0.001	0	0.04	0.94	97.32	0	86.75	38.38	73.58	26.80	97.50
D	17	0.13	0.004	0	0	0.80	91.95	0.01	88.38	31.75	74.32	25.84	85.12
AVG		0.13	0.0023	0	0.01	0.96	94.91	0.0075	86.97	34.41	63.39	25.84	92.41
D	18	0.09	0.004	0	0	1.36	110.14	0.01	166.45	22.65	71.22	24.40	55.85
D	18	0.05	0.002	0	0.02	1.23	104.25	0	142.38	25.38	73.73	24.33	66.38
D	18	0.09	0.03	0	0.42	1.10	113.84	0	152.50	21.75	81.13	26.80	51.38
D	18	0.06	0.003	0	0.06	1.16	99.46	0.01	161.62	22.38	74.32	24.74	59.75
AVG		0.07	0.0098	0	0.13	1.21	106.92	0.005	155.74	23.04	75.10	25.07	58.34
D	19	1.7	0.004	0	0.14	1.21	43.27	0.02	18.62	31.50	99.28	33.58	92.38
D	19	0.45	0.003	0	0.04	1.12	42.66	0	19.38	33.50	102.65	34.02	79.25
D	19	1.39	0.006	0	0.06	0.96	43.08	0	19.38	25.00	104.72	35.30	55.88
D	19	0.13	0.007	0	0	0.91	40.59	0	20.75	28.88	104.05	34.52	55.75
AVG		0.92	0.005	0	0.06	1.05	42.40	0.005	19.53	29.72	102.68	34.36	70.82
D	20	0.06	0.007	0	0.17	4.24	29.37	0.04	26.50	2.55	114.39	54.29	0.00
D	20	0.2	0.02	0	0.92	4.29	31.66	0.02	26.20	2.95	135.18	60.43	0.00
D	20	0.95	0.011	0.046	1.44	4.13	31.25	0.06	26.45	10.50	130.19	60.40	0.00
D	20	0.02	0.004	0	0.56	3.85	30.04	0.04	28.25	4.98	127.03	57.60	0.46
AVG		0.31	0.0105	0.012	0.77	4.13	30.58	0.04	26.85	5.25	126.70	58.18	0.12
D	21	1.22	0.012	0.035	5.71	3.52	73.43	0.1	62.55	6.65	77.70	65.48	0.75
D	21	0.93	0.01	0.009	0.73	3.48	78.76	0.01	61.45	6.90	88.19	36.50	0.80
D	21	0.45	0.004	0	0.14	5.12	57.59	0	43.90	9.30	75.47	32.60	0.00
D	21	1.04	0.006	0	0.01	4.65	54.40	0	53.42	9.40	70.27	30.83	0.90
AVG		0.91	0.008	0.011	1.65	4.19	66.05	0.0275	55.33	8.06	77.91	41.35	0.61

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
D	22	0.15	0.024	0.005	4.29	3.18	107.52	0.05	162.50	66.12	114.39	53.17	188.62
D	22	0.23	0.02	0	0.57	2.97	106.56	0.03	155.75	67.25	117.11	53.47	178.00
D	22	0.34	0.04	0.01	2.4	2.93	104.02	0.02	154.75	90.00	115.09	52.00	179.00
D	22	0.07	0.007	0	1.06	2.83	102.71	0.01	161.75	79.25	122.97	54.09	184.50
AVG		0.20	0.0228	0.004	2.08	2.98	105.20	0.0275	158.69	75.66	117.39	53.18	182.53
D	23	0.03	0.041	0	0.03	1.67	163.90	0.02	368.50	125.25	139.21	48.69	185.25
D	23	0.03	0.073	0	0.04	1.66	158.30	0.02	351.00	158.75	174.94	50.59	192.00
D	23	0.12	0.087	0	0.09	1.63	173.37	0.02	347.25	179.75	191.42	53.47	207.50
D	23	0.29	0.089	0	0.03	1.49	144.11	0.06	353.50	152.00	166.22	47.26	193.00
AVG		0.12	0.0725	0	0.05	1.61	159.92	0.03	355.06	153.94	167.95	50.00	194.44
D	24	1.51	0.201	0.002	0.08	5.23	82.60	0.01	88.50	63.50	104.68	32.57	186.62
D	24	2.13	0.107	0.003	0.07	5.03	84.94	0.01	91.25	75.00	112.77	33.14	198.75
D	24	1.16	0.057	0.003	0.06	4.55	83.67	0	82.00	72.00	114.21	33.58	197.25
D	24	0.74	0.036	0	0.11	2.51	76.32	0	70.00	71.75	113.51	35.08	167.50
AVG		1.39	0.1003	0.002	0.08	4.33	81.88	0.005	82.94	70.56	111.29	33.59	187.53
D	25	0.77	0	0	0.11	15.08	110.14	0	324.88	23.38	105.76	57.42	3.25
D	25	1.61	0.008	0	0.23	13.97	101.93	0.02	319.25	26.12	111.32	55.23	3.12
D	25	0.91	0	0	0.12	15.66	111.56	0.02	322.12	27.75	114.21	60.41	3.38
D	25	1.1	0	0	0.24	13.98	95.40	0.01	312.62	23.56	108.11	53.63	3.32
AVG		1.10	0.002	0	0.18	14.67	104.76	0.0125	319.72	25.20	109.85	56.67	3.27
G	1	0.14	0.005	0	0.59	4.39	18.62	0.02	13.75	2.44	60.43	27.65	0.00
G	1	0.13	0.01	0	0.66	4.63	18.34	0.01	13.89	2.42	65.78	28.18	0.00
G	1	0.11	0	0	0.89	4.70	21.29	0	13.85	2.53	65.15	28.14	1.89
G	1	0.07	0	0	0.6	4.25	16.44	0	13.86	2.70	58.10	26.49	0.00
AVG		0.11	0.0038	0	0.69	4.49	18.67	0.0075	13.84	2.52	62.37	27.62	0.47
G	2	0.08	0.004	0	9.76	5.56	5.48	0.74	18.05	24.05	155.43	26.79	0.00
G	2	0.16	0.01	0	10.5	5.70	5.79	0.8	21.25	28.25	166.26	28.82	0.00
G	2	0.06	0	0	9.66	5.83	7.54	0.77	22.45	18.65	158.44	27.58	0.00
G	2	0.07	0.001	0	9.52	5.26	4.87	0.8	21.90	20.75	127.03	22.34	0.00
AVG		0.09	0.0038	0	9.87	5.59	5.92	0.7775	20.91	22.93	151.79	26.38	0.00
G	3	0	0.013	0	0.7	3.20	26.26	0.01	18.66	9.67	56.82	27.79	0.00
G	3	0.02	0.009	0	0.85	3.32	28.38	0	18.69	9.25	62.17	29.38	0.00
G	3	0.02	0	0	0.63	3.50	28.64	0.01	18.89	9.62	58.71	27.95	2.29
G	3	0.02	0.025	0	1.06	3.12	26.39	0	17.40	11.70	54.05	28.06	0.00
AVG		0.02	0.0118	0	0.81	3.29	27.42	0.005	18.41	10.06	57.94	28.30	0.57
G	4	0	0	0	2.91	4.51	7.53	1.14	21.15	12.72	115.32	22.75	5.70
G	4	0.01	0.006	0	13.4	4.67	7.72	1.97	20.15	12.40	116.38	24.25	0.00
G	4	0.04	0	0	35.2	5.38	9.61	2.2	11.65	15.20	115.01	24.02	5.15
G	4	0.01	0	0.008	25.1	4.50	6.50	2.29	9.95	12.60	91.89	19.57	0.00
AVG		0.02	0.0015	0.002	19.2	4.77	7.84	1.9	15.73	13.23	109.65	22.65	2.71

Table 3. Summary of Inorganic Parameters

AREA CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
G 5	0.02	0.003	0	8.56	3.69	8.90	0.39	2.27	5.75	105.71	19.33	0.00
G 5	0.01	0.008	0	8.82	3.52	8.49	0.4	1.20	4.74	97.59	18.17	0.00
G 5	0.01	0	0	8.51	3.73	9.99	0.41	1.39	4.81	97.32	18.48	0.00
G 5	0.04	0.007	0.008	10.4	3.30	8.93	0.42	3.33	4.89	98.65	18.92	0.00
AVG	0.02	0.0045	0.002	9.08	3.56	9.08	0.405	2.05	5.05	99.82	18.73	0.00
G 6	0.21	0.102	0.01	1.86	4.53	13.82	0.03	18.25	9.94	58.08	26.46	0.18
G 6	0.13	0.122	0.006	1.88	5.12	14.58	0.01	18.22	9.94	57.83	26.01	0.40
G 6	0.16	0.022	0	0.38	5.48	15.83	0.01	18.17	10.05	57.91	26.92	0.25
G 6	0.11	0.013	0	0.78	4.79	12.18	0	17.90	8.01	48.65	24.00	0.19
AVG	0.15	0.0648	0.004	1.23	4.98	14.10	0.0125	18.14	9.49	55.62	25.85	0.26
G 7	0.04	0.095	0.01	6.72	4.26	33.79	0.57	78.68	13.88	86.08	19.05	0.00
G 7	0.03	0.05	0.003	6.87	4.31	35.71	0.76	81.20	13.05	94.70	20.65	0.00
G 7	0	0.002	0	5.25	4.27	30.53	0.65	0.00	4.80	99.73	22.04	0.00
G 7	0.06	0	0.004	5.56	4.03	26.79	0.75	72.40	12.70	99.32	22.15	0.57
AVG	0.03	0.0368	0.004	6.1	4.22	31.71	0.6825	58.07	11.11	94.96	20.97	0.14
G 8	3.35	0.706	0.054	44.9	6.83	12.78	2.25	0.22	6.08	172.14	47.50	0.00
G 8	1.11	0.354	0.014	34.1	5.56	11.97	1.76	0.00	5.20	152.53	38.74	0.00
G 8	2.84	0.625	0.016	36.3	6.10	15.26	1.84	0.00	5.75	139.14	37.24	0.00
G 8	2.18	0.527	0.027	21.0	5.34	11.37	1.9	0.21	7.45	124.32	33.23	0.16
AVG	2.37	0.553	0.028	34.1	5.96	12.85	1.9375	0.11	6.12	147.03	39.18	0.04
G 9	0.95	0.071	0.006	4.19	5.93	7.53	0.39	38.95	10.40	117.83	22.24	0.00
G 9	1.16	0.007	0.003	9.1	6.10	8.49	0.48	0.00	10.00	127.95	24.25	0.00
G 9	0.51	0.072	0	2.34	6.48	9.61	0.4	37.85	9.60	124.66	23.36	0.00
G 9	1.32	0.009	0	9.3	5.30	6.49	0.44	31.00	12.45	90.54	19.02	0.00
AVG	0.99	0.0398	0.002	6.23	5.95	8.03	0.4275	26.95	10.61	115.25	22.22	0.00
G 10	1.43	0.008	0	0.89	8.22	25.12	0.54	46.60	9.20	135.38	31.11	0.54
G 10	1.73	0.01	0	1.3	8.39	27.03	0.57	40.25	9.40	138.80	31.54	0.00
G 10	1.18	0.006	0	0.85	9.00	28.84	0.6	50.22	10.72	145.58	34.06	0.65
G 10	1.56	0.017	0	0.56	7.59	24.36	0.53	50.30	11.75	140.54	32.31	1.45
AVG	1.48	0.0103	0	0.9	8.30	26.34	0.56	46.84	10.27	140.08	32.26	0.66
G 11	2.3	0.004	0.006	4.8	5.26	3.88	0.39	3.20	0.54	91.92	30.87	0.00
G 11	0	0	0	0			0					
G 11	0.12	0.004	0.008	3.88	19.34	156.97	0.09	0.00	1.85	3.22	5.63	0.00
G 11	0.26	0.003	0.019	18.9	5.27	4.87	0.23	0.00	2.38	72.97	25.85	0.18
AVG	0.67	0.0028	0.008	6.89	9.96	55.24	0.1775	1.07	1.59	56.04	20.78	0.06
G 12	0.01	0.01	0	14.6	7.14	8.45	0.48	35.25	22.95	106.96	24.13	0.00
G 12	0.01	0.013	0	13.7	7.20	9.27	0.49	32.90	25.55	108.43	24.17	0.00
G 12	0.02	0.009	0	14.0	8.12	9.99	0.51	25.55	21.60	111.80	25.70	0.00
G 12	0	0.001	0.008	14.0	6.70	6.90	0.48	29.40	16.85	97.97	23.36	0.34
AVG	0.01	0.0083	0.002	14.1	7.29	8.65	0.49	30.78	21.74	106.29	24.34	0.09

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
G	13	0.15	0.009	0	0.03	7.32	59.59	0.11	95.25	23.75	152.92	46.55	0.00
G	13	0.11	0.01	0	0.07	6.89	57.92	0.11	86.62	20.25	148.92	44.66	74.50
G	13	0.07	0.004	0	0	6.72	57.29	0.11	84.00	21.25	138.34	42.40	67.75
G	13	0.08	0.003	0	0.22	6.36	49.12	0.1	78.25	19.50	117.57	36.55	51.12
	AVG	0.10	0.0065	0	0.08	6.82	55.98	0.1075	86.03	21.19	139.44	42.54	48.34
G	14	0.09	0.003	0	6.67	4.17	7.08	0.15	16.24	3.62	83.15	19.00	0.00
G	14	0.06	0.002	0	6.82	4.39	7.14	0.15	20.94	3.87	81.19	18.89	0.00
G	14	0.02	0.006	0	6.1	3.60	7.92	0.16	23.20	3.76	84.45	20.22	0.00
G	14	0.04	0	0	6.5	3.56	6.90	0.14	23.01	4.00	79.73	19.11	0.22
	AVG	0.05	0.0028	0	6.52	3.93	7.26	0.15	20.85	3.81	82.13	19.31	0.06
G	15	0.01	0.005	0	7.63	4.48	5.71	0.24	11.71	2.08	83.56	19.19	0.00
G	15	0.02	0.008	0	7.9	4.59	6.56	0.23	11.28	2.39	84.58	19.69	0.00
G	15	0	0.004	0	7.3	4.27	7.73	0.24	12.15	2.36	83.65	19.61	0.00
G	15	0	0	0	7.22	4.21	6.29	0.25	11.94	2.70	81.76	19.02	1.10
	AVG	0.01	0.0043	0	7.51	4.39	6.57	0.24	11.77	2.38	83.39	19.38	0.28
G	16	0.34	0.009	0	1.8	5.99	5.25	0.22	29.78	2.65	117.83	30.40	1.60
G	16	1.87	0.003	0	0.78	6.13	5.40	0.23	25.45	3.30	134.46	32.89	85.65
G	16	0.11	0	0	0	5.67	7.54	0.16	27.35	4.55	138.34	34.15	89.70
G	16	0.75	0	0	0.11	5.88	5.08	0.12	28.45	4.00	120.27	29.45	56.48
	AVG	0.77	0.003	0	0.67	5.92	5.82	0.1825	27.76	3.63	127.73	31.72	58.36
G	17	0.76	0.375	0.037	0.52	14.33	43.15	0.25	65.40	5.45	94.43	19.95	4.05
G	17	2.72	0.464	0.044	0.16	12.82	35.71	0.18	53.10	5.50	86.75	18.41	1.50
G	17	1.13	0.25	0	0.09	14.57	13.57	0.14	45.55	5.85	107.77	24.30	9.45
G	17	0.89	0.028	0	0.36	10.39	10.15	0.13	38.82	5.02	98.65	21.60	6.08
	AVG	1.38	0.2793	0.020	0.28	13.03	25.65	0.175	50.72	5.46	96.90	21.07	5.27
G	18	0	0.004	0	5.01	3.81	7.99	0.13	12.66	3.00	77.72	17.57	0.06
G	18	0	0.01	0	4.92	4.08	7.92	0.03	12.50	3.50	78.80	18.25	0.20
G	18	0	0.002	0	4.93	3.58	8.67	0.16	14.03	3.12	77.21	18.29	0.00
G	18	0	0.0022	0	5.25	3.78	6.50	0.13	12.91	3.67	64.86	15.69	0.36
	AVG	0	0.0046	0	5.03	3.81	7.77	0.1125	13.03	3.32	74.65	17.45	0.16
G	19	7.13	1.147	0.065	30.7	5.93	12.33	0.49	90.75	32.00	146.24	30.87	0.00
G	19	0.18	0.012	0.006	12.0	6.29	12.36	0.46	94.15	34.40	140.24	29.30	0.00
G	19	1.85	0.134	0.024	18.8	6.02	15.08	0.52	107.90	35.95	149.60	30.58	0.00
G	19	0.06	0.006	0	12.5	5.12	11.77	0.48	94.50	28.25	135.14	30.46	0.16
	AVG	2.31	0.3248	0.024	18.5	5.84	12.89	0.4875	96.83	32.65	142.81	30.30	0.04
G	20	0.15	0.036	0	2.01	3.20	12.56	0.67	94.65	11.30	140.39	27.55	2.50
G	20	0.19	0.037	0	1.26	3.44	13.51	0.7	88.30	12.65	134.46	26.73	1.85
G	20	0.14	0.02	0	0.69	3.07	14.32	0.66	78.70	12.05	132.71	26.74	1.75
G	20	0.1	0.011	0	0.61	3.01	11.37	0.61	70.10	8.60	117.57	24.00	0.49
	AVG	0.15	0.026	0	1.14	3.18	12.94	0.66	82.94	11.15	131.28	26.26	1.65

Table 3. Summary of Inorganic Parameters

AREA	CODE	ZINC	COPPER	LEAD	IRON	POTASSIUM	SODIUM	MANGANESE	SULFATES	CHLORIDES	CALCIUM	MAGNESIUM	NITRATES
G	21	0.02	0.005	0	11.1	3.33	46.12	0.8	11.75	55.25	96.94	19.28	0.00
G	21	0.04	0.018	0	10.1	3.60	51.06	0.83	11.85	52.65	95.78	20.61	0.00
G	21	0.01	0.023	0	7.36	3.34	47.68	0.83	12.50	51.30	86.06	18.39	0.00
G	21	0.03	0.007	0	6.58	3.23	41.82	0.84	11.85	48.20	79.82	17.81	0.49
	AVG	0.03	0.0133	0	8.79	3.38	46.67	0.825	11.99	51.85	89.65	19.02	0.12
G	22	0.1	0.007	0	2.68	1.75	12.10	0.36	63.10	15.00	90.25	38.47	0.00
G	22	0.39	0.032	0	17.4	2.77	16.22	0.61	36.45	15.75	89.64	28.50	0.00
G	22												
G	22	0.1	0.004	0	5.29	2.92	14.08	0.39	57.10	14.55	86.01	28.85	0.00
	AVG	0.20	0.0143	0	8.47	2.48	14.13	0.4533333	52.22	15.10	88.63	31.94	0.00
G	23	0.2	0	0	0.76	1.03	17.12	0.02	6.89	1.52	66.85	24.22	0.00
G	23	0.2	0.022	0	0.68	0.96	12.44	0.01	6.45	1.74	65.70	24.62	0.00
G	23	0.1	0	0	0.14	0.78	12.25	0.04	7.03	1.68	65.15	24.86	0.20
G	23	0.13	0	0	0.36	0.84	11.66	0.04	7.40	2.19	64.68	23.93	0.26
	AVG	0.16	0.0055	0	0.49	0.90	13.37	0.0275	6.94	1.78	65.60	24.41	0.12
G	24	0.44	0.012	0	2.03	2.00	1.94	0.02	20.60	4.45	55.99	23.56	0.00
G	24	0.2	0.01	0	1.06	2.03	2.33	0.01	24.05	5.39	50.66	22.68	0.00
G	24	0.18	0.003	0	0.95	1.84	3.30	0.05	24.02	6.15	51.88	22.52	0.00
G	24	0.17	0.003	0	1.03	1.78	2.82	0.02	23.23	5.78	50.23	21.98	0.33
	AVG	0.25	0.007	0	1.27	1.91	2.60	0.025	22.98	5.44	52.19	22.69	0.08
G	25	0.41	0.003	0	0	0.91	11.87	0.01	18.20	4.55	78.55	27.07	5.80
G	25	0.08	0.015	0	0.1	1.09	6.99	0.03	23.25	3.89	80.74	28.16	2.82
G	25	0.1	0.006	0	0.06	0.82	9.42	0.05	26.08	2.58	75.60	29.08	0.29
G	25	0.09	0.003	0	0	0.80	8.85	0.02	22.82	3.22	74.31	28.57	9.61
	AVG	0.17	0.0068	0	0.04	0.91	9.28	0.0275	22.59	3.56	77.30	28.22	4.63

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All Values in milligrams per liter (mg/L)



TABLE 4. WELL INTEGRITY DATA.

AREA	WELL CODE	TIER	RANGE	DEPTH TO WATER, FT	YEAR CONSTRUCTED	YIELD GPM	CASED	GROUTED
A	1	66N	41W	50	1945	5	BRICK	
A	2	66N	40W	33	1925		BRICK	
A	3	66N	40W	40	1930		CLAY TILE	NO
A	4	66N	40W	70	1970		YES	NO
A	5	66N	40W	55	1982		TILE	NO
A	6	66N	40W	55	1972		TILE	NO
A	7	66N	39W	70	1982		YES	NO
A	8	66N	40W	35	1952		YES	NO
A	9	65N	39W	47	1976		CONCRETE	
A	10	65N	39W	70	1970		CONCRETE	
A	11	64N	39W	40	1966		YES	
A	12	64N	39W	30	1970		CONCRETE	
A	13	63N	39W	30	1900		CLAY TILE	NO
A	14	63N	39W	50	1965	10	YES	
A	15	63N	39W	50	1954		YES	NO
A	16	63N	39W	46	1940		YES	NO
A	17	62N	37W	24	1950	15	YES	NO
A	18	62N	37W	40	1983	200	GRAVEL	
A	19	63N	34W	30	1930			
A	20	63N	34W	25	1970	25	PLASTER	NO
A	21	63N	34W	27.5	1986	25	PLASTER	
A	22	64N	34W	50	1930		CLAY	NO
A	23	64N	34W	30	1900		CLAY	
A	24	64N	35W	29	1970		YES	
A	25	66N	35W	30			YES	
A	26	66N	36W	50	1900		BRICK	
B	1	52N	25W	35				
B	2	53N	25W	45				
B	3	53N	25W	40				
B	4	53N	25W	80			YES	
B	5	53N	25W	60			YES	
B	6	53N	24W	30				
B	7	53N	24W	60				
B	8	53N	24W	35			YES	
B	9	53N	24W	30			YES	
B	10	53N	24W	12			YES	
B	11	54N	24W	12			YES	
B	12	53N	21W	82			YES	NO
B	13	53N	21W	50		10	YES	NO
B	14	53N	21W	55		12	YES	NO
B	15	23N	17W	165			YES	NO
B	16	54N	21W	80		10	YES	NO
B	17	24N	21W	75		8	YES	NO
B	18	54N	21W	94	1972	15	YES	NO
B	19	54N	21W	60				
B	20	54N	21W	40				
B	21	55N	21W	85			YES	NO
B	22	56N	21W	90			YES	NO
B	23	54N	20W	100			YES	NO
B	24	54N	19W	90		15	YES	NO
B	25	54N	19W	90		12	YES	NO

TABLE 4. WELL INTEGRITY DATA.

AREA	WELL CODE	TIER	RANGE	DEPTH TO WATER, FT	YEAR CONSTRUCTED	YIELD GPM	CASED	GROUTED
D	1	56N	10W	165	1975		YES	NO
D	2	58N	10W	160	1948		YES	NO
D	3	57N	9W	200	1975		YES	
D	4	56N	7W	55	1960		YES	NO
D	5	54N	8W	170			YES	NO
D	6	59N	12W	200			YES	NO
D	7	57N	12W	150	1934		YES	NO
D	8	59N	9W	160	1933		YES	NO
D	9	57N	11W	173	1916	5	YES	
D	10	58N	12W	200	1976	10	YES	
D	11	56N	10W	265	1961	4	YES	NO
D	12	55N	10W	151	1955	12	YES	
D	13	57N	9W	150	1974	3	YES	NO
D	14	54N	11W	70	1958	3	YES	
D	15	53N	12W	120	1943	2	YES	NO
D	16	53N	11W	40		15	NO	NO
D	17	51N	8W	35	1903		NO	
D	18	51N	8W	25	1938		NO	NO
D	19	50N	10W	80		12	YES	NO
D	20	51N	7W	322	1987	21	YES	NO
D	21	50N	11W	750	1967	10	YES	NO
D	22	51N	12W	60	1970	10	NO	
D	23	51N	11W	30	1935		NO	
D	24	51N	11W	50	1925		NO	
D	25	51N	11W	756	1955	20	YES	
G	1	46N	11W	165	1972	30	YES	
G	2	46N	13W	35	1978	25	YES	
G	3	45N	12W	310	1973		YES	YES
G	4	45N	13W	55	1973	250	YES	YES
G	5	45N	12W	50	1950		YES	NO
G	6	47N	13W	500	1956		YES	NO
G	7	48N	14W	100	1978		YES	YES
G	8	48N	15W	25	1960	20	NO	
G	9	49N	16W	36	1986		NO	
G	10	49N	16W	22	1974	5	NO	
G	11	51N	23W	35				
G	12	51N	23W	50			YES	NO
G	13	51N	23W	20				
G	14	52N	23W	60			YES	
G	15	52N	23W	50			YES	
G	16	52N	22W	20				
G	17	52N	22W	50			YES	
G	18	52N	23W	60			YES	
G	19	51N	25W	30				
G	20	51N	25W	30				
G	21	52N	25W	60			YES	
G	22	44N	10W	160	1930	800	YES	
G	23	46N	13W	193	1964	20	YES	
G	24	46N	14W	400	1979		YES	
G	25	46N	14W	125	1960		YES	