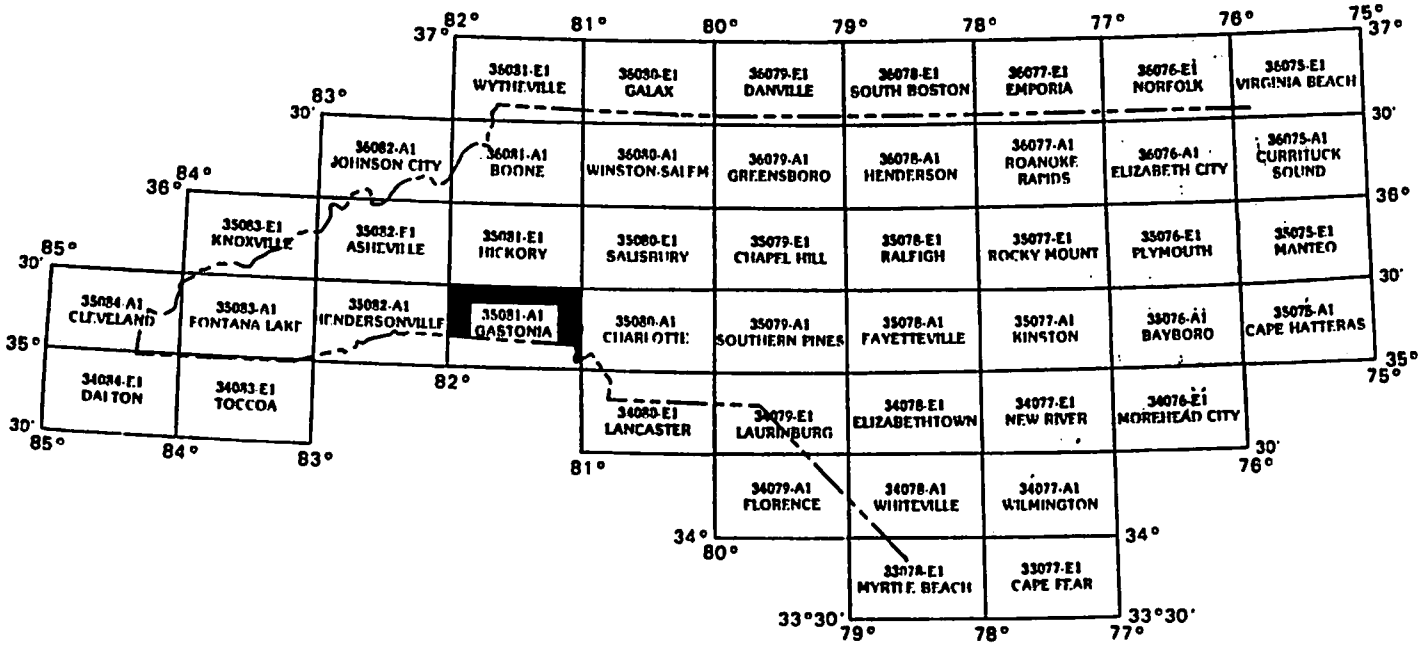
Listing of Concentrations of Variables of Stream Sediment, Stream Water, and Groundwater for the Gastonia 30 x 60 - Minute Quadrangle -NURE Database

by
Robert H. Carpenter and Jeffrey C. Reid



NORTH CAROLINA GEOLOGICAL SURVEY
OPEN-FILE REPORT 93-11

State of North Carolina
James B. Hunt, Jr., Governor

Department of Environment, Health and Natural Resources
Jonathan B. Howes, Secretary
Division of Land Resources
Charles H. Gardner,
Director and State Geologist

July, 1993

GEOLOGICAL SURVEY SECTION

The Geological Survey Section examines, surveys and maps the geology, mineral resources, and topography of the State to encourage the wise conservation and use of these resources by industry, commerce, agriculture and government agencies for the general welfare of the citizens of North Carolina.

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Jeffrey C. Reid
Chief Geologist

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INTRODUCTION

This report is a compilation of geochemical data for stream sediment and groundwater for the Gastonia 30 x 60 - minute quadrangle (Figure 1). Maps and tables were prepared from statewide data obtained by the Savannah River Laboratory under sponsorship of the U.S. Dept. of Energy in its National Uranium Resources Evaluation (NURE) program (Sargent and others, 1982). Sampling and analysis were performed during the period 1976 - 1980.

Because of the large size of the database, the North Carolina Geological Survey is presenting the database in both statewide and 30 x 60 - minute quadrangle formats. Statewide formats currently available include atlases of stream sediment and hydrogeochemical data which contain maps showing quartile distribution of concentrations of variables (Reid, 1991; Reid, 1993). Reid and Carpenter (1993a, 1993b) present listings of concentrations of variables which equal or exceed the 90th percentile (and pH and conductivity below the 10th percentile) for stream sediment and groundwater-stream water.

This open-file report is part of a series of reports that present sample-location maps and listings of analyses of all variables in all of the 30 x 60 - minute quadrangles that comprise the state of North Carolina. Subsequent reports will review the NURE data for individual 30 x 60 - minute quadrangles. These reviews will contain the following: 1) maps showing concentrations of all the variables in up to eight class intervals; 2) geologic review of the quadrangle and discussion of relationship of geochemical variables to rock units and structural features; 3) review of mineral resources and discussion of relationship of geochemical variables to mineral occurrences; and 4) discussion of outliers that may relate to anthropogenic contamination.

In this report, site-location maps use state boundaries, county boundaries and 7-1/2 - minute quadrangle boundaries as references to site-locations. The North Carolina Index to Topographic and Other Map Coverage, prepared by the U.S. Geological Survey, is a useful reference document. The List of Publications of the North Carolina Geological Survey indicates areas within the state for which some geologic and geophysical maps, and reports, are available.

Listings in this report are in the same basic format as those presented in microfiche by Sargent

and others (1982). Column 1 lists the laboratory numbers applied to each analyzed sample. Column 2 lists site identification codes. The first two characters are the codes for the county name. The next three digits are sample numbers. They are listed sequentially for each county in the order they were collected. The next two columns list the latitude and longitude of the sampling sites in decimal degree format. The remaining columns are data columns and analyses are given in parts per million (stream sediment) and parts per billion (groundwater). In these columns, a minus (-) sign indicates that a value is below the detection limit. If background is high, and an accurate estimate of minimum detection limit could not be made, a period (.) indicates that the element was not detected and that the detection limit is unusually high. Missing data are denoted by the letter "M". For gold, analyses are listed only for those samples in which gold was detected. For arsenic, a value of 0 is assigned for samples in which arsenic was analyzed, but not detected.

For stream sediment, two listings are presented. The first listing is for elements analyzed by neutron activation as well as field measurements for pH and conductivity of stream water. Variables included in this listing are pH, conductivity, uranium (U), thorium (Th), hafnium (Hf), cerium (Ce), iron (Fe), manganese (Mn), sodium (Na), scandium (Sc), titanium (Ti), vanadium (V), aluminum (Al), dysprosium (Dy), europium (Eu), lanthanum (La), samarium (Sm), ytterbium (Yb), and lutetium (Lu). The second listing is for supplemental elements analyzed by a variety of techniques. These include extractable uranium (Ux), silver (Ag), arsenic (As), barium (Ba), beryllium (Be), calcium (Ca), cobalt (Co), chromium (Cr), copper (Cu), potassium (K), lithium (Li), magnesium (Mg), molybdenum (Mo), niobium (Nb), nickel (Ni), phosphorous (P), lead (Pb), selenium (Se), tin (Sn), strontium (Sr), tungsten (W), yttrium (Y), and zinc (Zn). Stream sediment analyses are for the minus 100 mesh fraction (< 149 microns) unless otherwise noted.

Groundwater, normally samples of water from wells, was also analyzed by neutron activation. Field measurements were made of pH and conductivity. Variables included in listings of groundwater analyses include pH, conductivity, uranium (U), bromine (Br), chlorine (Cl), fluorine (F), magnesium (Mg), manganese (Mn), sodium (Na), vanadium (V), uranium/conductivity, aluminum (Al), and dysprosium (Dy). Stream water was also analyzed for these variables at 295 sites in North Carolina. Listings for stream water are included for areas in which these sites are located.

Although the data was acquired with considerable attention to quality control, some errors exist. These include uncertainties of sample locations due to the use of county road maps as base maps for field use and digitizing sampling sites. Malfunction of field equipment used in measurement of pH and conductivity has also been recognized in some areas. Some of the analyses are also in error. Some of these errors are apparent when concentrations show systematic "breaks" at county boundaries. This suggests that conditions of analysis for different batches of samples were not uniform. In general, analyses of stream sediment by neutron activation are more reliable than analyses of sediment by other supplemental methods.

For a number of counties, supplemental analyses were not made. Thus elements of interest for mineral exploration and environmental geochemistry are lacking for large areas.

REFERENCES

Reid, Jeffrey C., 1991 (revised 1993), A geochemical atlas of North Carolina: North Carolina Geological Survey, Bulletin 93, text plus 45 plates.

Reid, Jeffrey C., 1993, A hydrogeochemical atlas of North Carolina: North Carolina Geological Survey, Bulletin 94, text plus 26 plates.

Reid, Jeffrey C., and Carpenter, Robert H.,1993a, Listings of concentrations (stream sediments) of variables which equal or exceed the 90th percentile, and pH and conductivity below the 10th percentile in the North Carolina portion of the NURE database: North Carolina Geological Survey, Open-File Report 93-1, introductory text plus 178 pages of data.

Reid, Jeffrey C., and Carpenter, Robert H., 1993b, Listing of concentrations (groundwater and stream water) of variables which equal or exceed the 90th percentile, and pH and conductivity below the 10th percentile in the North Carolina portion of the NURE data base: North Carolina Geological Survey, Open-File Report 93-2, introductory text plus 162 pages of data.

Sargent, K.A., Cook, J.R., and Fay, W.M., 1982, Data report: North and South Carolina, National Uranium Resource Evaluation Program, Hydrochemical and stream sediment reconnaissance: E.I. du Pont de Nemours & Co., Savannah River Laboratory, Aiken, S.C., under contract to the U.S. Dept of Energy, contract DE-AC09-76SR000001 (DPST-81-146-22; GBJX-102), 45 p. plus microfiche.

CONTENTS

COUNTY CODES

Code	County
CV	Cleveland
GA	Gaston
LI	Lincoln
PO	Polk
RU	Rutherford

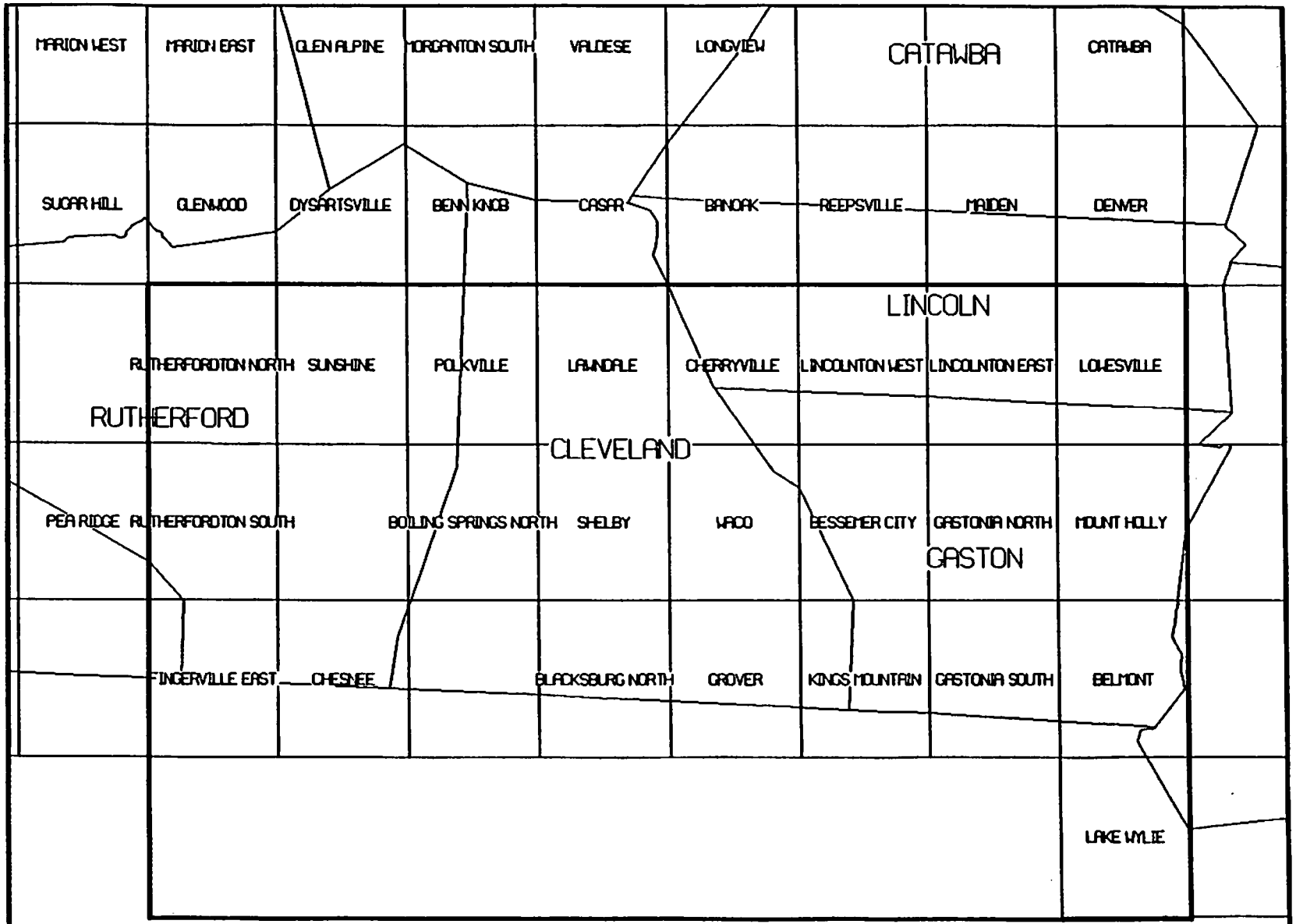

Figure 1. Map Showing Outlines of Gastonia 30 x 60 Minute Quadrangle and Contained 7 - 1/2 Minute Quadrangles.

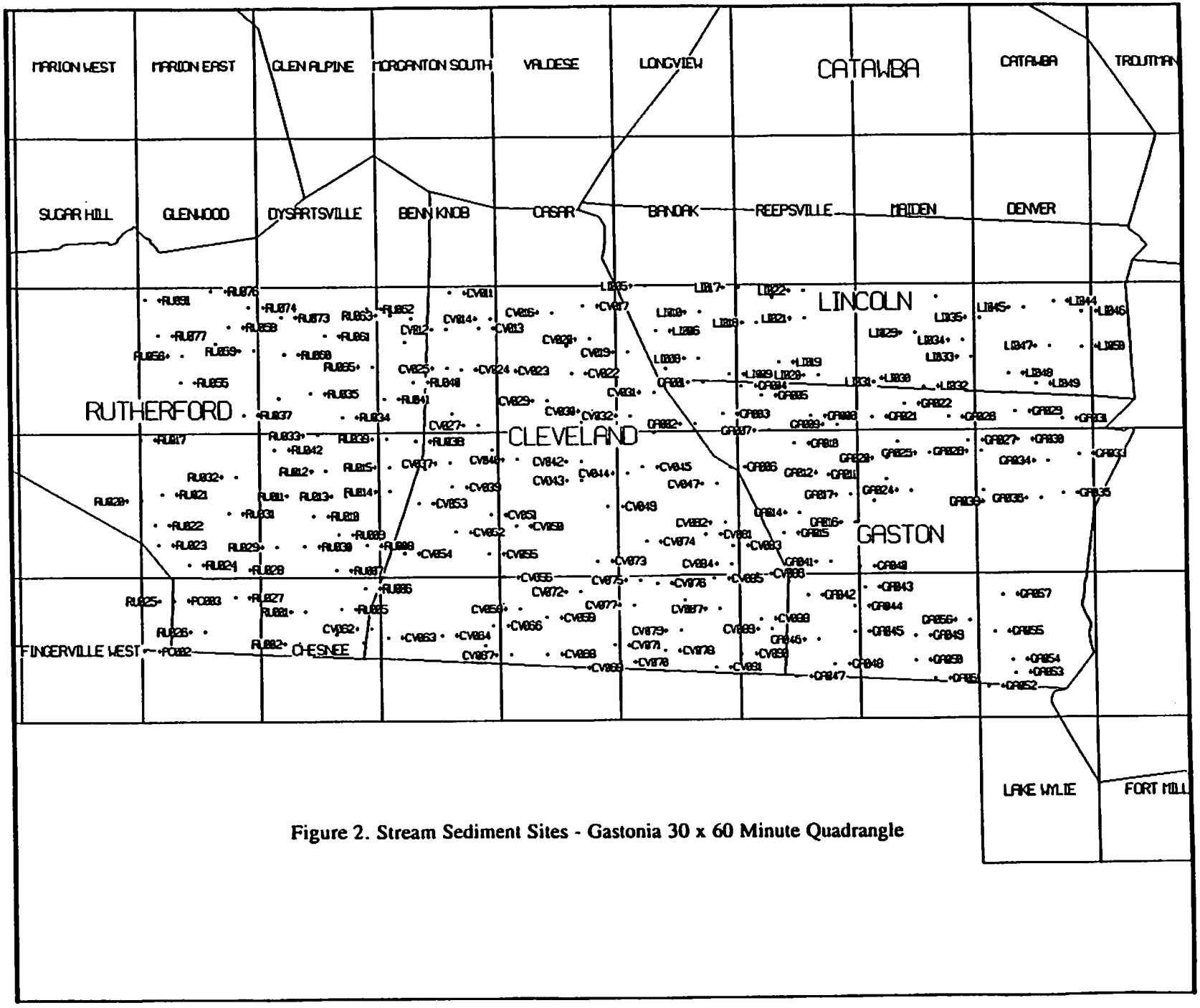

Figure 2. Stream Sediment Sites - Gastonia 30 x 60 Minute Quadrangle

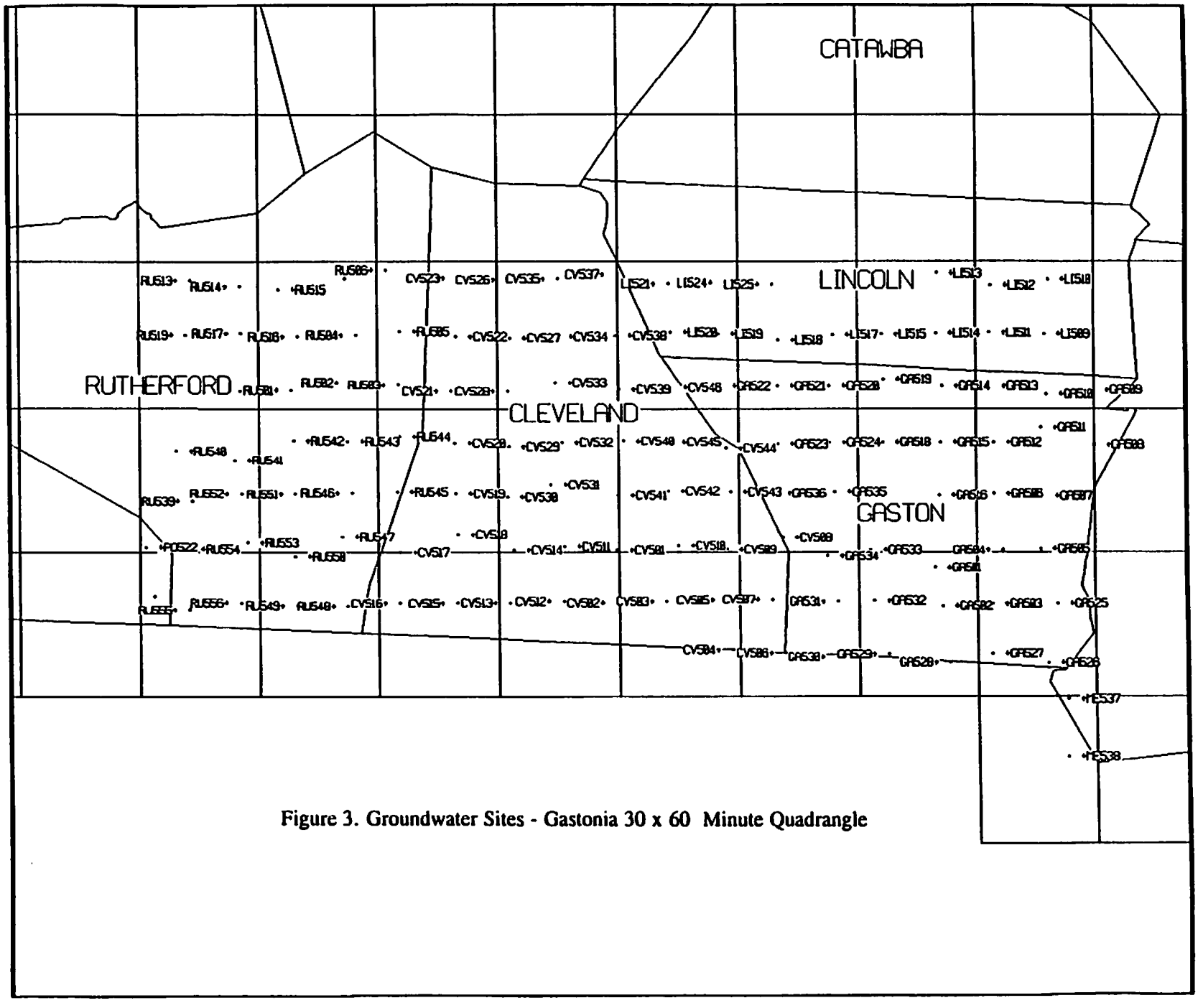

Figure 3. Groundwater Sites - Gastonia 30 x 60 Minute Quadrangle

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
1545	CV011	35.4944	81.6730	7.1	39	5.1	20	17	33300	64	10200	140	1800	3.2	4100	50	5.3	2.4	38	8	1.8	0.2	0.057
1546	CV012	35.4634	81.6771	7.4	38	29.4	281	86	34500	1214	22800	510	2100	4.5	13200	60	23.5	5.9	720	108	M	0.8	
1547	CV013	35.4641	81.6438	7.0	54	7.2	38	11	59200	180	13500	140	1800	4.2	5500	70	5.6	3.5	88	18	3.7	0.4	0.088
1548	CV014	35.4721	81.6315	7.0	33	17.1	97	20	37400	409	16200	110	1200	4.6	4200	40	18.4	2.2	246	45	7.1	0.5	
1549	CV015	35.4795	81.6097	7.4	40	12.0	70	39	51500	333	12500	280	1700	6.0	7100	50	8.4	-1.0	161	27	2.9	0.4	
1550	CV016	35.4771	81.5664	6.8	42	25.4	271	28	63000	1021	12300	190	4100	2.7	5300	40	9.4	-1.4	574	103	M	-0.2	0.136
1551	CV017	35.4823	81.5340	7.4	44	17.6	150	32	41800	618	21400	230	3800	4.4	4700	20	4.4	-1.0	331	69	3.3	-0.2	
1552	CV018	35.4856	81.4971	7.0	44	27.8	214	35	85300	953	22500	260	2500	5.7	14300	100	19.0	-1.4	504	104	11.6	0.8	
1553	CV019	35.4434	81.4882	7.3	50	17.4	128	27	62000	549	15600	330	2800	4.2	7900	60	9.0	-1.4	275	57	4.3	0.3	
1554	CV020	35.4545	81.5270	7.1	63	11.5	79	19	55400	280	22700	530	1400	10.3	5000	50	7.7	2.6	179	33	5.3	0.5	
1555	CV021	35.4490	81.5517	7.3	41	7.2	26	20	33800	119	12000	110	800	2.3	2800	50	6.4	1.3	60	15	3	0.3	
1556	CV022	35.4257	81.5469	7.2	53	4.2	13	25	26500	44	20800	170	1100	6.8	2500	40	3.3	2.0	30	7	2	0.5	
1557	CV023	35.4280	81.6207	7.5	40	12.9	46	21	54400	234	14500	210	1600	5.2	5400	70	10.8	-1.0	115	24	4.5	0.9	
1558	CV024	35.4294	81.6619	7.2	37	8.5	58	24	32900	255	24900	160	1100	6.5	2500	40	9.1	9.9	123	22	8.7	1.2	
1559	CV025	35.4306	81.6766	7.9	35	9.5	44	26	56900	237	18600	520	2700	4.1	6400	60	4.2	-1.0	120	23	4.6	0.6	
1560	CV026	35.3913	81.6720	7.9	36	9.3	55	18	49400	296	26200	130	1800	4.6	4500	50	6.2	2.9	158	31	4.7	0.4	
1561	CV027	35.3814	81.6454	7.1	41	12.6	87	22	55300	360	15000	290	1200	4.8	4000	60	9.5	-1.4	213	36	4.6	0.7	
1562	CV028	35.3996	81.6076	7.8	39	8.5	67	15	37200	237	18800	130	1400	5.7	2800	50	6.4	2.0	147	25	5.5	-0.2	
1563	CV029	35.4022	81.5726	7.1	48	9.9	44	25	53300	221	18000	260	600	4.4	4500	60	5.5	-1.0	103	22	4.7	0.7	
1564	CV030	35.3932	81.5252	7.3	60	6.2	41	20	18000	161	10700	110	1200	2.3	1800	20	5.7	-1.0	105	14	2.6	-0.2	
1565	CV031	35.4088	81.4612	7.2	54	11.5	95	32	65200	405	16100	280	3000	5.9	5900	70	4.1	-1.0	200	47	4.9	M	
1566	CV032	35.3888	81.4858	7.3	52	26.4	310	50	30900	1089	12800	280	1300	4.5	5200	40	17.9	-1.0	615	103	M	-0.2	
1567	CV033	35.3743	81.4622	7.5	50	16.1	160	33	67600	698	15300	190	700	3.2	14500	150	6.9	6.4	380	76	M	M	
1568	CV034	35.3833	81.5369	7.0	53	4.7	19	23	45000	122	28500	190	1100	7.4	3900	50	1.6	3.9	45	8	2.2	0.5	
1569	CV035	35.3767	81.5742	7.8	40	6.0	31	8	41500	106	5600	100	1300	2.3	3800	50	3.7	4.4	79	10	M	0.3	
1570	CV036	35.3598	81.6309	7.0	44	6.7	35	13	67900	181	18300	310	1100	5.1	2900	50	4.1	-1.0	95	19	2.2	0.6	0.199
1571	CV037	35.3485	81.6750	7.5	40	16.9	66	21	62200	374	26600	160	1400	4.4	4100	60	5.6	-1.0	197	41	5.2	0.5	
1572	CV038	35.3434	81.7013	7.5	40	10.3	60	16	66500	270	15000	190	2900	3.8	3800	50	4.6	1.7	173	18	M	M	0.100
1573	CV039	35.3277	81.6730	7.0	45	49.1	238	53	84700	1179	23900	570	1700	5.6	20600	90	16.5	2.6	639	96	15.5	-0.2	
1574	CV040	35.3514	81.6051	7.5	40	25.1	146	16	50900	-20	26400	140	400	5.1	11000	80	5.7	1.8	373	M	5.9	-0.2	
1575	CV041	35.3351	81.5782	7.5	55	10.1	50	19	38100	262	9900	90	1800	2.7	4500	40	10.3	-1.0	143	23	3.8	0.3	
1576	CV042	35.3495	81.5381	7.3	62	17.5	164	56	36300	679	19000	190	1800	7.5	4900	40	13.0	4.0	383	64	2.4	0.7	
1577	CV043	35.3331	81.5376	7.4	72	13.9	98	71	18700	458	10700	180	1200	3.0	3500	20	21.9	-1.0	226	45	6.3	0.5	
1578	CV044	35.3390	81.4897	7.5	70	7.1	59	29	18800	174	17500	90	800	3.7	1900	30	5.4	-1.0	134	24	4.6	-0.2	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
1579	CV045	35.3443	81.4737	7.1	49	9.9	85	23	54800	346	16100	290	3200	4.6	5800	60	3.0	3.7	190	35	2	0.4	
1580	CV046	35.3408	81.4288	8.0	78	8.2	50	11	40100	180	26900	520	6000	10.1	7800	70	4.8	-1.2	91	19	M	-0.2	
1581	CV047	35.3294	81.3973	7.7	60	7.3	6	8	36500	43	62800	2110	7100	10.0	36200	110	2.2	-1.0	14	7	3.1	0.2	
1582	CV049	35.3102	81.5103	8.0	61	4.5	42	21	11300	123	10300	50	900	2.7	1100	20	2.5	-1.0	81	12	4.6	0.3	
1583	CV050	35.2936	81.6071	7.5	55	13.8	102	20	47700	432	22300	140	1600	6.7	7100	60	6.9	2.9	253	45	M	-0.2	
1584	CV051	35.3037	81.6332	7.2	78	43.0	180	49	74100	887	27400	490	2600	5.6	16900	80	18.4	2.4	478	103	9.2	0.7	
1585	CV052	35.2885	81.6693	7.2	65	10.3	77	32	73900	427	24800	270	500	4.9	11100	120	4.4	3.1	237	28	M	M	
1586	CV053	35.3138	81.7082	7.0	58	12.2	90	32	50600	403	19000	270	1200	4.5	5900	80	9.1	-1.4	209	40	2.4	-0.2	
1587	CV054	35.2700	81.7241	7.6	42	6.3	55	30	25200	268	8400	170	1000	3.0	4400	30	7.1	-1.0	154	21	5.1	-0.2	
1588	CV055	35.2693	81.6357	7.3	85	50.3	268	60	62600	1354	23900	390	M	3.6	20500	100	38.0	-1.9	728	154	11.6	0.6	
1589	CV056	35.2494	81.6203	7.2	37	13.1	79	23	65700	348	21300	200	2100	6.6	5800	100	10.2	-1.0	189	36	6.9	1	
1590	CV058	35.2221	81.6039	7.5	79	14.0	49	27	71900	227	24900	490	1800	10.3	8200	90	7.9	-1.0	120	27	4.2	0.8	
1591	CV059	35.2144	81.5758	8.1	50	20.5	90	15	79300	398	29700	270	3000	6.2	8000	110	11.5	-1.6	262	45	2.5	0.7	
1592	CV060	35.2262	81.6219	7.6	74	27.4	85	22	47600	480	16700	190	2000	5.5	6200	60	31.1	3.5	245	53	9.4	1.4	
1593	CV062	35.2058	81.7595	7.7	39	23.3	101	28	44200	475	11800	190	1200	5.3	6700	40	25.8	-1.4	297	49	7.9	1.1	
1594	CV063	35.1978	81.7425	7.3	41	13.7	61	27	46000	293	7200	180	1400	2.8	4700	40	21.8	-1.0	146	31	5.3	0.5	
1595	CV064	35.1994	81.6850	7.5	40	4.6	27	32	27400	80	21900	160	1100	8.6	4100	40	2.6	-1.0	63	12	1.7	-0.2	0.099
1596	CV065	35.1908	81.6408	7.0	40	11.9	45	18	58000	185	15000	310	1900	4.9	4400	70	8.8	-1.0	108	24	6.1	0.3	
1597	CV066	35.2077	81.6318	7.2	56	11.9	53	15	72200	281	45700	200	1500	9.9	4200	70	3.7	-1.4	142	28	5.9	0.6	
1598	CV067	35.1824	81.6141	7.3	39	18.0	69	15	80200	329	30400	220	1300	8.1	4500	90	6.5	1.7	181	40	3.8	0.8	
1599	CV068	35.1830	81.5758	8.1	65	31.6	157	22	34900	802	19900	190	1000	3.8	7200	50	29.2	-1.0	420	80	7.9	0.6	0.072
1600	CV069	35.1710	81.5477	7.2	58	13.3	59	23	50700	299	24900	420	3300	7.9	6100	80	8.1	1.8	151	34	7.3	0.3	
1601	CV070	35.1755	81.4994	7.3	1700	11.9	36	5	56000	90	17100	400	6500	3.0	1800	20	3.0	-1.0	69	6	4.2	M	
1602	CV071	35.1902	81.5057	7.4	91	7.0	22	14	61900	67	24100	740	3000	6.7	6800	80	4.6	3.1	48	13	5	0.6	
1603	CV072	35.2368	81.5404	7.6	52	24.6	89	22	69300	441	30300	300	2100	11.7	7700	100	20.9	8.3	249	45	9.1	0.8	
1604	CV073	35.2626	81.5220	7.2	73	19.1	62	35	40600	319	10900	160	1400	4.6	5800	60	10.8	1.5	154	33	3.2	0.5	
1605	CV074	35.2792	81.4709	7.2	85	8.3	45	17	41500	205	20800	300	1400	7.0	5000	50	5.9	3.9	96	17	M	-0.2	
1606	CV075	35.2463	81.4773	7.5	70	8.9	40	11	41300	167	10500	200	2000	4.5	3300	40	2.0	1.3	81	18	1.9	0.2	
1607	CV076	35.2434	81.4603	7.1	69	10.6	21	8	73400	50	33800	720	4000	5.7	9500	40	M	0.7	29	7	2.2	0.9	
1608	CV077	35.2249	81.4847	7.4	58	9.8	39	16	23100	177	8400	140	1900	3.4	2600	20	5.3	1.5	85	21	1.8	0.3	
1609	CV078	35.1852	81.4532	7.8	48	6.4	13	3	53100	-20	8400	220	5200	1.7	2900	10	3.0	-1.0	21	6	3.4	M	
1610	CV079	35.2025	81.4368	7.2	41	8.5	8	2	63700	71	9100	200	6900	2.0	2600	20	2.9	-1.0	33	7	3.1	0.4	
1611	CV080	35.2287	81.4320	7.6	45	17.3	41	3	80400	130	13500	340	7400	2.1	3600	10	12.7	4.6	84	20	8.2	1	
1612	CV081	35.2852	81.4095	7.5	34	18.8	35	10	40000	214	5800	550	3100	3.5	7400	30	35.7	1.7	108	26	14.3	2.3	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
1613	CV082	35.2958	81.3896	8.0	45	7.2	8	3	56400	38	21600	610	6300	6.4	8800	50	4.2	-1.0	25	5	4.5	-0.2	
1614	CV083	35.2754	81.3811	8.0	35	7.9	8	7	38500	48	13300	290	1300	4.5	4900	30	8.9	1.1	27	9	7.5	0.9	
1615	CV084	35.2598	81.3835	7.0	34	12.3	26	8	39100	85	13200	690	2300	6.1	9300	30	25.7	3.5	68	13	14.9	1.9	
1616	CV085	35.2472	81.4014	7.1	71	7.8	10	14	42500	58	27700	740	4600	7.0	10400	40	6.0	-1.0	24	10	M	0.4	
1617	CV086	35.2511	81.3572	7.4	50	5.5	11	5	36900	68	34100	430	2000	9.1	6900	50	4.1	-1.0	33	8	4.8	-0.2	
1618	CV087	35.2210	81.3959	7.7	35	20.4	43	10	47200	209	24800	480	2500	6.0	7300	50	23.7	-1.0	102	29	13.7	1.8	
1619	CV088	35.2121	81.3531	7.4	900	4.0	-2	2	48300	-20	46900	750	12700	15.2	4600	90	1.5	-1.0	25	1	7.8	M	
1620	CV089	35.2034	81.3418	7.1	55	1.4	6	7	37900	37	30900	290	5100	6.3	5500	130	5.9	-1.0	15	3	M	0.3	
1621	CV090	35.1821	81.3744	7.5	750	3.5	5	3	29000	71	29500	690	8200	9.8	5300	60	3.0	-1.0	11	1	M	M	
1622	CV091	35.1707	81.4011	7.9	80	4.8	-1	8	39900	34	17100	710	3400	5.0	7700	40	2.3	-1.0	17	M	M	0.4	
2245	GA001	35.4171	81.4102	7.7	50	9.2	82	29	59000	314	28300	250	1400	4.9	12300	110	7.5	-1.9	200	21	6.4	0.5	
2246	GA002	35.3815	81.4190	7.8	45	8.0	71	26	48300	371	25100	240	1200	5.9	9200	100	5.2	-1.0	156	31	M	-0.2	
2247	GA003	35.3899	81.3904	7.6	68	18.8	100	47	69500	394	40200	1110	6500	13.5	23100	130	11.5	3.7	222	40	5.7	1	
2248	GA004	35.4137	81.3709	7.3	78	9.1	57	20	50500	225	21700	620	4000	7.5	15300	90	5.5	-1.0	130	54	4.4	0.7	
2249	GA005	35.4054	81.3498	7.4	120	6.3	15	6	45800	66	20600	590	4800	5.9	7600	50	3.4	-1.0	39	4	2.2	-0.2	
2250	GA006	35.3437	81.3835	7.3	51	17.9	28	12	73000	68	46400	2490	6400	13.5	49600	120	17.6	1.7	62	10	6.3	0.7	
2251	GA007	35.3755	81.3425	7.0	118	9.7	33	7	44900	158	16500	900	4000	7.1	15200	40	8.4	-1.0	80	11	4.6	0.6	0.078
2252	GA008	35.3877	81.2985	7.8	72	4.9	10	22	52100	46	63000	2610	6000	12.1	41400	120	2.8	1.1	31	5	M	-0.2	
2253	GA009	35.3802	81.2702	7.7	70	2.2	-3	4	49700	-20	36800	1500	5100	9.0	17700	130	3.8	1.8	14	3	2.4	0.4	
2254	GA010	35.3640	81.3162	7.8	50	3.7	-1	7	48600	-20	51400	2070	4500	9.8	41400	110	4.9	2.2	34	M	2	-0.2	
2255	GA011	35.3367	81.2956	7.9	88	4.9	-3	2	68400	-20	28700	1240	41900	2.9	16000	50	M	4.8	8	M	M	M	
2256	GA012	35.3382	81.2784	7.5	60	1.4	4	9	27600	-20	23000	420	2000	11.0	7300	70	2.6	4.6	12	19	2.6	M	
2257	GA013	35.3070	81.3374	7.7	68	2.9	7	5	40100	-21	39700	1180	7400	14.2	21500	100	2.3	-1.0	12	3	M	-0.3	0.127
2258	GA014	35.3041	81.3112	7.4	60	3.5	-3	6	41200	-20	43700	1610	7400	11.6	32000	100	7.8	0.9	M	4	M	0.5	
2259	GA015	35.2857	81.3283	7.9	35	7.3	11	9	44100	88	32100	1410	5000	10.1	31200	90	9.6	-1.0	46	11	4.5	1.2	
2260	GA016	35.2952	81.2527	7.6	75	1.7	-4	11	34000	-20	23300	430	4700	8.1	6400	70	2.9	-1.0	11	4	M	-0.2	
2261	GA017	35.3192	81.2576	7.9	60	1.3	5	9	19800	32	12700	210	3600	4.6	3000	20	1.8	1.8	24	1	M	M	
2262	GA018	35.3140	81.2333	7.2	68	14.1	106	77	65600	529	34300	590	2800	5.8	13500	90	9.7	-1.2	252	49	M	-0.3	0.111
2263	GA019	35.3321	81.2202	7.6	70	6.0	28	47	44400	111	35100	650	2100	5.9	16700	80	2.9	-1.0	71	11	5.9	0.3	
2264	GA020	35.3506	81.2188	7.3	73	5.3	15	17	79100	123	29600	510	4800	9.7	5400	70	3.7	-1.0	48	7	M	1	
2265	GA021	35.3867	81.2342	7.6	72	1.8	9	20	26500	-21	31200	850	3100	9.9	14800	90	4.4	-1.0	9	4	M	-0.2	
2266	GA022	35.3976	81.1996	7.5	80	5.1	20	35	39700	55	27700	470	2300	12.7	3800	60	2.5	-1.0	24	5	3.4	0.7	
2267	GA023	35.3653	81.2074	7.2	75	4.4	10	34	43700	49	18300	520	4200	6.1	5500	50	M	-1.0	18	4	M	0.7	
2268	GA024	35.3227	81.1939	7.3	79	4.9	15	35	46800	-20	-7400	360	4300	5.6	6100	40	M	3.7	18	5	M	-0.3	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
2269	GA025	35.3550	81.1735	7.8	80	4.2	M	14	62700	M	M	310	12700	3.4	2700	40	M	M	M	44	M	M	
2270	GA026	35.3861	81.1530	7.3	53	9.8	20	93	61500	106	17400	530	4900	4.0	6100	50	3.8	-1.0	60	2	3.7	0.6	
2271	GA027	35.3658	81.1324	8.0	60	3.9	M	35	35900	M	M	280	4700	8.3	4700	50	1.5	M	M	M	M	M	
2272	GA028	35.3563	81.1184	7.8	850	2.0	-4	23	29000	-20	15700	440	7800	6.5	3800	50	1.4	2.2	10	2	M	-0.3	
2273	GA029	35.3906	81.0824	7.8	61	1.7	5	3	45100	-20	34100	790	12300	8.5	4600	90	M	3.9	30	2	M	0.3	
2274	GA030	35.3664	81.0801	7.3	85	1.6	6	5	50100	-20	40600	940	19100	14.9	4900	120	4.6	-1.0	11	M	5.1	-0.3	
2275	GA031	35.3841	81.0318	7.4	63	2.1	M	9	46900	37	18000	460	6400	7.0	1100	60	4.4	-1.7	18	3	2.5	0.3	
2277	GA033	35.3532	81.0149	7.5	90	2.6	-2	14	55500	-21	33400	870	14100	22.5	5100	110	1.7	1.7	11	2	4	-0.3	
2278	GA034	35.3475	81.0485	7.8	88	1.3	8	14	32000	28	34000	950	10500	7.7	9400	120	1.3	-1.0	10	M	3.1	-0.3	
2279	GA035	35.3195	81.0325	7.7	112	1.6	-2	15	81300	43	50600	1460	4300	17.7	10900	180	2.7	2.4	12	4	M	0.7	
2280	GA036	35.3152	81.0565	7.7	132	2.0	-1	19	55800	-20	44500	1720	11600	16.2	11100	220	1.1	0.9	11	4	3	0.2	
2281	GA037	35.3221	81.1172	7.3	78	1.9	-2	10	53900	-20	26600	580	10700	7.9	4200	70	3.2	-1.0	20	M	M	-0.2	
2282	GA038	35.3125	81.1024	7.7	75	1.9	5	6	56600	28	25300	560	5800	6.9	4700	90	1.0	2.0	12	3	M	0.2	
2283	GA039	35.2915	81.2200	7.2	82	9.9	37	57	81600	100	24600	430	12400	5.7	5400	80	M	3.1	52	7	M	0.5	
2284	GA040	35.2569	81.2484	7.4	90	3.4	6	27	59400	68	34700	1160	9300	5.9	8300	130	M	-1.0	27	3	1.7	M	
2285	GA041	35.2610	81.2793	7.5	110	1.5	-2	14	31600	27	31900	550	5700	7.8	4600	80	2.4	-1.0	17	M	M	-0.2	
2286	GA042	35.2326	81.3040	7.3	53	1.4	3	11	29500	18	12400	460	3300	3.0	5300	50	1.4	-1.0	6	1	M	0.4	0.045
2287	GA043	35.2391	81.2438	7.5	75	4.6	21	63	36600	74	27500	430	4900	8.8	5400	80	2.8	1.5	30	8	M	0.7	
2288	GA044	35.2223	81.2551	7.4	80	1.3	3	11	53800	-20	57100	740	6900	12.0	6600	230	1.3	-1.0	15	3	M	0.3	
2289	GA045	35.2006	81.2550	7.7	72	2.8	9	23	43900	35	49800	520	3500	6.9	6900	140	1.9	-1.0	29	5	M	0.3	
2290	GA046	35.1940	81.2930	7.4	40	1.6	M	20	33700	19	29600	180	1100	10.0	5100	110	1.1	-1.0	8	2	M	0.3	
2291	GA047	35.1623	81.3169	7.4	72	1.3	13	5	42400	-20	50800	900	12300	12.2	9400	100	3.8	0.7	15	38	1.8	0.6	
2292	GA048	35.1727	81.2763	7.6	71	1.3	3	8	34000	20	28900	1710	6000	6.3	14100	100	2.2	0.9	11	4	2.8	0.4	0.040
2293	GA049	35.1969	81.1907	7.6	82	8.4	28	99	28800	90	15400	320	3700	4.8	4200	30	1.2	-1.0	58	6	3.2	0.4	
2294	GA050	35.1759	81.1912	7.4	75	3.8	13	26	44000	72	27400	1090	5300	5.1	4900	110	1.6	-1.0	31	6	2.4	0.2	
2295	GA051	35.1596	81.1708	7.7	105	1.1	5	8	54700	41	47800	1860	15900	18.6	6300	160	3.3	1.3	23	5	3.8	-0.2	
2296	GA052	35.1523	81.1152	7.6	98	1.4	-1	17	33400	-20	17900	1070	8500	10.4	6000	70	1.0	2.8	7	2	2	0.2	
2297	GA053	35.1645	81.0863	7.9	105	4.1	-2	171	65300	77	117600	2240	16700	24.4	14100	330	2.9	1.1	31	7	9.7	1.3	0.150
2298	GA054	35.1759	81.0890	7.7	138	2.2	-1	23	76600	63	77600	3580	16600	27.9	18000	420	M	0.6	18	5	2.8	0.4	
2299	GA055	35.2000	81.1074	7.9	105	2.5	27	35	48400	165	75200	2810	7700	20.2	19500	380	3.4	1.8	86	12	8.1	0.7	
2300	GA056	35.2100	81.1337	7.3	107	2.2	6	27	35700	52	28500	1070	6100	6.4	8300	90	1.9	-1.0	14	2	1.8	0.4	
2301	GA057	35.2320	81.0985	7.8	83	1.4	-2	26	37000	-20	28000	1370	8800	10.7	7100	100	2.5	-1.0	17	3	1.8	-0.2	
3502	LI004	35.4967	81.4904	6.6	38	30.3	207	35	59000	952	9800	190	M	3.0	12600	70	21.2	3.9	473	451	M	0.8	
3503	LI005	35.4994	81.4685	7.1	38	5.0	34	17	15900	161	24300	60	200	7.2	1200	20	3.0	0.7	61	M	M	-0.3	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

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3504	LI006	35.4610	81.4587	6.7	67	7.4	52	16	69200	269	12700	140	2300	3.1	7000	120	4.3	-1.0	160	49	4.8	-0.2	
3505	LI007	35.4293	81.4489	7.3	43	14.9	21	44	25600	97	-5000	M	M	4.9	M	M	10.6	-1.0	M	3	M	M	
3506	LI008	35.4377	81.4144	6.8	35	17.9	243	39	44600	1098	45900	170	400	8.5	9600	70	11.8	3.7	593	135	12.3	0.7	
3507	LI009	35.4239	81.3835	7.2	40	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
3508	LI010	35.4767	81.4129	7.2	42	14.6	202	44	44700	897	45600	380	M	10.3	10700	100	9.6	7.0	429	97	8.7	1.1	0.103
3514	LI016	35.4887	81.3377	7.4	40	19.6	263	134	47100	1303	64100	790	1800	16.6	25200	160	11.2	M	672	135	13.6	1.5	
3515	LI017	35.4976	81.3730	6.8	39	11.4	100	80	42400	424	31800	470	1100	5.9	17300	90	8.9	M	220	35	4.4	0.8	
3516	LI018	35.4676	81.3540	7.0	31	11.9	175	43	43300	852	19700	160	400	6.8	10700	80	8.7	M	447	76	8.3	1.1	0.056
3517	LI019	35.4339	81.3310	7.5	49	10.3	79	92	37400	367	35400	810	900	6.5	26000	110	8.2	4.8	222	35	6.6	0.9	
3518	LI020	35.4229	81.2897	7.5	70	7.6	16	36	35100	53	71400	1910	6900	11.6	20900	70	6.9	-1.7	30	14	5.5	0.6	
3519	LI021	35.4710	81.3040	7.1	51	5.9	16	146	45200	147	32900	730	5500	7.9	19500	100	6.0	9.6	55	9	8.2	1.2	
3520	LI022	35.4947	81.3047	7.6	58	14.3	64	415	35600	363	127500	3300	2500	12.0	M	220	11.4	-1.0	152	30	21.1	3.5	
3526	LI028	35.4928	81.2322	7.2	24	8.2	22	6	33000	109	31800	450	1900	6.1	6000	20	3.3	2.4	60	16	2.9	0.6	
3527	LI029	35.4582	81.1880	7.5	55	4.1	12	17	37800	-20	20700	380	5600	7.2	2700	50	1.3	3.7	24	4	M	-0.2	
3528	LI030	35.4196	81.2384	7.3	80	1.8	-2	6	36000	92	69000	670	10100	24.1	8300	100	2.0	-1.0	24	12	M	0.4	
3529	LI031	35.4164	81.2160	7.7	62	2.1	M	17	33500	8	-5000	1200	400	12.9	13500	100	3.8	-1.0	M	M	M	M	
3530	LI032	35.4124	81.1786	7.5	51	1.6	-2	6	40500	-20	19900	290	1800	9.0	4800	60	2.4	-1.0	M	M	M	0.6	
3531	LI033	35.4376	81.1279	7.1	45	7.7	37	62	32000	86	18500	610	2700	3.9	6200	60	3.6	0.9	60	78	2.8	-0.2	
3532	LI034	35.4517	81.1371	7.3	49	5.1	25	26	15100	40	17800	80	1100	4.3	1500	10	0.7	0.7	39	9	M	M	
3533	LI035	35.4708	81.1183	7.2	55	10.5	4	81	M	M	-5000	M	M	5.8	M	M	4.0	0.6	26	M	M	M	
3534	LI036	35.4892	81.1650	7.5	43	3.6	6	13	20900	-20	56200	320	1100	11.0	4000	30	1.7	-1.0	163	M	M	-0.3	
3542	LI044	35.4842	81.0403	7.7	80	6.7	17	45	55500	63	41300	700	7700	9.0	4200	70	M	2.2	72	M	4	M	
3543	LI045	35.4791	81.0727	7.7	65	8.8	25	104	35200	67	24700	700	6400	5.6	5500	70	M	-1.0	M	M	9.8	-0.2	
3544	LI046	35.4756	81.0103	7.8	94	9.3	23	91	49300	90	22100	510	7200	10.2	4900	70	1.7	2.0	96	M	M	-0.3	
3545	LI047	35.4464	81.0454	7.6	85	2.7	M	26	M	7	-5000	M	M	0.6	M	M	0.4	0.7	M	M	M	M	
3546	LI048	35.4233	81.0889	7.5	52	1.6	3	5	31300	20	23300	620	10300	5.9	5800	60	1.7	-1.0	M	M	M	0.5	0.156
3547	LI049	35.4139	81.0601	7.5	55	5.4	14	56	23900	78	18800	560	4600	5.6	6200	40	2.4	1.5	54	6	4.5	0.4	
3548	LI050	35.4458	81.0106	7.7	103	28.7	77	558	44900	245	68900	1370	7200	22.3	10100	190	2.9	4.4	M	M	19.5	2.9	
4735	PO002	35.1869	81.9970	7.1	35	15.9	122	71	19300	547	49400	1640	M	9.9	32600	160	32.4	5.0	286	37	20.3	2.3	
4736	PO003	35.2307	81.9655	7.3	28	42.4	217	256	49300	1216	46000	1610	3400	28.6	22900	220	48.5	3.7	583	127	28.6	3.8	
5233	RU001	35.2205	81.8281	7.6	20	36.7	78	66	50100	385	13800	380	2800	5.2	5700	50	31.7	7.2	183	43	12.3	1.3	0.087
5234	RU002	35.1927	81.8349	7.1	23	43.7	241	33	19100	1090	25000	240	500	7.5	3700	20	25.5	2.0	610	115	23.2	3.2	
5235	RU003	35.2002	81.7964	6.9	18	57.7	208	20	23500	1051	24400	100	600	7.5	1400	30	24.3	1.5	550	110	21	2.5	
5236	RU004	35.1931	81.7687	7.4	16	32.5	197	26	22000	878	22500	120	300	4.2	2700	20	17.6	-1.0	363	66	19.1	2.2	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
5237	RU005	35.2227	81.7913	7.1	30	28.4	40	138	71300	156	11200	280	5400	6.2	2800	30	11.7	1.7	87	19	10.6	1.8	
5238	RU006	35.2405	81.7657	7.0	19	26.2	152	39	44800	690	14300	310	2400	5.6	5800	40	15.4	10.5	378	68	13.9	1.4	
5239	RU007	35.2559	81.7954	6.7	19	34.6	83	56	32800	385	18600	130	1600	7.2	1900	30	13.5	-1.2	177	41	14.9	2.6	
5240	RU008	35.2771	81.7632	7.1	30	4.5	35	16	32700	158	16100	120	800	3.3	2900	40	5.9	2.4	92	10	5.7	0.4	
5241	RU009	35.2867	81.7931	7.1	38	11.2	M	17	33400	M	M	130	900	15.4	1300	40	4.5	M	2	M	M	M	
5242	RU010	35.3031	81.8185	7.0	31	86.8	486	62	61400	1861	26600	820	2500	6.7	22000	80	52.9	M	1020	209	42.3	4.6	
5243	RU011	35.3208	81.8315	7.3	45	19.9	96	29	26200	428	14600	200	1100	4.9	4100	30	8.5	2.8	202	41	7.7	0.8	
5244	RU012	35.3419	81.8055	7.3	20	24.9	236	50	29200	1017	27200	400	600	4.5	8600	40	36.3	-1.9	573	85	16.5	2.3	0.122
5245	RU013	35.3204	81.7849	7.3	21	13.7	79	24	18800	384	10000	70	400	4.3	1500	20	8.9	-1.0	222	43	3.7	0.6	
5246	RU014	35.3244	81.7383	7.1	18	11.4	108	27	19400	528	23000	70	300	5.9	2500	20	4.6	1.7	280	42	7.1	0.6	
5247	RU015	35.3453	81.7386	7.2	22	22.6	148	46	24600	748	15500	210	600	4.4	3600	40	26.7	2.6	334	76	11.2	1.4	
5249	RU017	35.3702	81.9990	7.5	22	52.2	97	879	26100	329	62200	890	1800	28.4	10100	140	15.3	3.5	177	43	23	4.1	
5252	RU020	35.3170	81.9988	7.3	20	22.7	115	230	19000	542	47900	320	1900	20.1	3100	40	15.5	6.1	289	55	23.9	3.3	
5253	RU021	35.3225	81.9769	7.3	25	25.2	183	134	15000	961	44800	410	1200	8.4	5200	60	20.2	4.6	417	100	14.8	1.8	0.083
5254	RU022	35.2959	81.9849	7.3	31	31.6	292	85	18300	-20	56300	490	1000	14.2	5400	60	25.3	6.1	832	M	15.9	2.5	
5255	RU023	35.2784	81.9812	7.5	23	51.2	439	174	12200	2276	57600	690	300	8.8	13700	50	40.9	15.6	1150	230	23.4	2.6	
5256	RU024	35.2610	81.9495	7.3	10	44.1	334	50	32200	1491	14400	340	1200	6.2	7800	50	47.7	4.4	817	150	39.8	4.5	
5257	RU025	35.2304	81.9657	7.1	15	17.1	101	44	38400	479	18600	900	1500	9.9	13600	80	27.7	1.5	220	53	12.3	1	
5258	RU026	35.2034	81.9331	7.2	12	25.4	147	21	19000	616	16800	110	800	6.1	1700	20	13.9	-1.0	366	62	13	1.9	
5259	RU027	35.2330	81.9014	7.2	27	24.2	108	68	26200	495	17000	160	1800	3.9	1600	10	7.7	3.1	245	22	8.1	0.9	
5260	RU028	35.2568	81.9009	7.2	11	19.1	132	22	21400	587	13800	210	900	5.2	3800	40	15.8	2.8	355	60	13.6	1	
5261	RU029	35.2763	81.8575	7.1	12	47.4	165	59	17900	664	10300	80	900	2.5	1400	10	14.2	-1.0	327	80	7.6	1	
5262	RU030	35.2765	81.8283	7.0	18	29.1	184	19	83300	720	23600	350	M	8.2	4800	100	13.6	2.0	396	417	11.2	1.5	
5263	RU031	35.3058	81.9075	6.9	23	31.9	259	101	58700	1298	20700	470	1600	4.3	16800	100	34.5	4.0	638	140	16.4	1.8	
5264	RU032	35.3376	81.8993	7.0	28	30.0	279	74	45000	-20	48400	890	1200	10.7	21200	110	24.3	-1.0	736	M	14.7	2.9	
5265	RU033	35.3733	81.8137	7.1	28	22.5	159	31	55400	745	18000	410	M	3.9	9100	80	17.0	-1.0	347	75	9.6	1.3	
5266	RU034	35.3889	81.7876	7.3	30	13.3	98	17	73200	382	30800	250	M	7.9	3400	70	5.7	1.8	241	30	12.1	0.5	
5267	RU035	35.4091	81.8205	7.1	28	58.7	630	118	13400	3028	16900	220	700	7.1	3400	20	28.8	9.2	M	283	24	2.1	
5268	RU036	35.4052	81.8539	7.2	29	31.5	453	113	32100	2115	62600	650	3800	18.3	11700	90	35.9	19.0	1167	202	18	1.8	
5269	RU037	35.3909	81.8908	7.2	29	31.2	260	127	19400	1343	48400	340	800	12.3	7400	40	23.4	9.4	691	151	12.9	1.3	0.154
5270	RU038	35.3677	81.7107	7.3	27	218.3	1592	91	23700	8266	42300	220	500	8.7	8300	40	144.9	11.6	M	784	62.2	5	
5271	RU039	35.3702	81.7411	7.3	31	44.3	166	29	36800	909	16800	170	M	7.0	5300	60	33.3	3.3	396	73	20.3	2.7	0.126
5272	RU040	35.4185	81.7121	7.2	30	74.3	764	84	19800	-20	17400	480	700	7.2	9400	40	61.7	5.2	M	1227	32.7	-0.2	
5273	RU041	35.4042	81.7431	6.9	31	55.9	M	260	46800	M	M	2520	1400	14.6	68400	150	57.4	M	M	M	M	M	

GASTONIA 100K QUADRANGLE - STREAM SEDIMENTS

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppm	Th ppm	Hf ppm	Al ppm	Ce ppm	Fe ppm	Mn ppm	Na ppm	Sc ppm	Ti ppm	V ppm	Dy ppm	Eu ppm	La ppm	Sm ppm	Yb ppm	Lu ppm	Au ppm
5274	RU042	35.3610	81.8589	7.2	45	35.7	250	46	57900	1197	31200	440	1100	9.5	10000	80	20.7	-1.6	709	122	22.2	2	
5275	RU043	35.3967	81.9271	7.4	50	151.9	M	2028	27900	M	M	4120	5200	48.5	60300	470	388.9	M	M	M	M	M	
5287	RU055	35.4192	81.9564	7.3	38	7.6	23	88	53200	112	29200	1200	8100	11.3	12300	140	11.7	-1.0	47	14	7.6	1.2	
5288	RU056	35.4422	81.9541	7.4	39	4.2	16	21	22100	110	32500	200	5700	13.0	1200	40	3.9	1.5	66	15	11.9	1.2	
5289	RU057	35.4520	81.9192	7.6	39	6.2	18	44	21900	134	28900	220	4700	19.3	1600	30	5.3	-1.0	59	17	7.5	1	
5290	RU058	35.4661	81.9050	7.4	32	9.0	44	54	22600	319	33200	200	2500	11.1	1800	30	10.3	7.9	187	35	9.7	1.4	
5291	RU059	35.4463	81.8794	7.4	41	2.7	5	13	68800	39	24800	650	13300	13.3	4700	90	2.9	1.1	23	4	2.4	0.5	
5292	RU060	35.4427	81.8479	7.4	36	13.9	138	76	49400	663	43300	990	6500	11.5	12200	120	12.6	3.1	348	63	9.6	1	
5293	RU061	35.4581	81.8052	7.4	25	11.5	91	24	80000	410	33900	640	1500	8.1	8500	150	10.0	0.9	185	42	8.6	0.8	
5294	RU062	35.4811	81.7607	7.2	29	7.9	82	37	42400	347	28500	350	2200	6.0	5300	60	6.0	-1.4	184	28	6.4	0.8	
5295	RU063	35.4756	81.7361	7.2	27	13.9	123	41	15700	334	12200	90	700	3.5	2000	20	8.9	-1.0	313	35	5.9	0.3	
5296	RU064	35.4526	81.7212	7.2	25	9.7	87	26	59700	-20	26100	290	2500	7.9	4300	70	5.6	-1.0	221	M	8.7	M	
5297	RU065	35.4322	81.7550	7.1	21	8.2	65	29	20900	329	23700	120	1100	7.3	1800	30	6.5	0.9	165	21	4.6	0.4	
5298	RU066	35.4727	81.7144	7.0	31	5.5	46	18	30900	240	39700	170	1800	9.5	2700	40	1.7	-1.0	130	23	4.4	0.6	
5305	RU073	35.4740	81.8505	7.3	33	9.4	62	26	24300	364	34700	320	800	14.1	2700	40	6.3	1.5	163	38	2	-0.2	
5306	RU074	35.4826	81.8844	7.2	51	8.2	17	105	80700	90	45500	1010	16600	20.6	5900	170	3.9	0.9	46	14	8.8	1.4	
5308	RU076	35.4969	81.9233	7.2	25	22.5	167	87	16100	990	41500	270	2100	11.0	3700	40	27.6	12.5	554	110	28.4	3.8	
5309	RU077	35.4591	81.9792	7.1	40	2.7	6	8	62600	66	24400	680	22300	17.1	2800	100	4.4	-1.0	17	5	6.5	0.6	
5323	RU091	35.4896	81.9927	6.9	48	1.8	3	6	22000	16	21600	240	6800	13.5	700	40	M	-1.0	10	3	2.4	0.5	

GASTONIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County ID	Lat	Long	Ux ppm	Ag ppm	As ppm	Ba ppm	Be ppm	Ca ppm	Co ppm	Cr ppm	Cu ppm	K ppm	Li ppm	Mg ppm	Mo ppm	Nb ppm	Ni ppm	P ppm	Pb ppm	Se ppm	Sn ppm	Sr ppm	W ppm	Y ppm	Zn ppm
1042	CV011	35.4944	81.6730	.	-0.5		.	0.7	.	5	75	5	9000	11	1750	-5	-5	10	110	-10		10	-50	-2	5	16
1043	CV012	35.4634	81.6771	.	-0.5		.	0.5	.	-5	14	4	9400	5	1350	-5	-5	8	678	-10		10	-50	-2	25	11
1044	CV013	35.4641	81.6438	.	-0.5		.	0.9	.	-5	29	6	11600	9	1650	-5	-5	-5	278	-10		5	-50	10	-5	17
1045	CV014	35.4721	81.6315	.	-0.5		.	0.6	.	-5	21	3	10600	10	650	-5	-5	-5	506	-10		20	-50	-2	15	12
1046	CV015	35.4795	81.6097	.	-0.5		.	0.6	.	-5	15	4	10400	6	900	-5	-5	-5	750	-10		5	-50	2	5	22
1047	CV016	35.4771	81.5664	.	-0.5		.	1.1	.	-5	9	2	29600	11	1250	-5	-5	-5	678	-10		20	-50	-2	-5	19
1048	CV017	35.4823	81.5340	.	-0.5		.	1.7	.	-5	-5	2	27600	14	1100	-5	-5	5	746	10		-5	-50	-2	-5	32
1049	CV018	35.4856	81.4971	.	-0.5		.	0.5	.	-5	36	4	9100	8	800	-5	-5	-5	464	-10		-5	-50	2	-5	13
1050	CV019	35.4434	81.4882	.	-0.5		.	1.0	.	5	8	4	18400	14	1850	-5	-5	-5	268	10		-5	-50	-2	-5	24
1051	CV020	35.4545	81.5270	.	-0.5		.	0.8	.	7	-5	8	9200	24	4200	-5	-5	9	1610	-10		-5	-50	-2	-5	32
1052	CV021	35.4490	81.5517	.	-0.5		.	0.6	.	5	9	4	2000	12	1250	-5	-5	8	207	-10		-5	-50	3	-5	13
1053	CV022	35.4257	81.5469	.	-0.5		.	0.7	.	10	-5	8	6300	28	4000	-5	-5	18	61	-10		25	-50	-2	-5	30
1054	CV023	35.4280	81.6207	.	-0.5		.	0.6	.	-5	11	6	8600	13	2350	-5	15	8	182	-10		20	-50	-2	5	29
1055	CV024	35.4294	81.6619	.	-0.5		.	0.9	.	12	8	9	9600	13	2950	-5	-5	18	171	12		20	-50	-2	-5	32
1056	CV025	35.4306	81.6766	.	-0.5		.	1.1	.	10	11	6	13000	13	3300	-5	-5	20	-20	-10		60	-50	-2	-5	27
1057	CV026	35.3913	81.6720	.	-0.5		.	0.6	.	-5	10	5	8600	13	2100	-5	-5	8	186	-10		10	-50	-2	-5	19
1058	CV027	35.3814	81.6454	.	-0.5		.	0.8	.	5	7	7	10000	15	1750	-5	-5	12	303	15		15	-50	-2	5	29
1059	CV028	35.3996	81.6076	.	-0.5		.	1.0	.	5	8	5	12300	9	2600	-5	-5	12	471	-10		75	-50	-2	-5	22
1060	CV029	35.4022	81.5726	.	-0.5		.	0.7	.	10	10	7	9000	14	2350	-5	-5	12	85	10		50	-50	-2	-5	27
1061	CV030	35.3932	81.5252	.	-0.5		.	0.5	.	-5	6	4	5600	13	2000	-5	-5	5	318	-10		20	-50	-2	-5	16
1062	CV031	35.4088	81.4612	.	-0.5		.	1.3	.	5	20	5	12800	21	5750	-5	-5	-5	496	22		-5	-50	-2	-5	33
1063	CV032	35.3888	81.4858	.	-0.5		.	1.2	.	5	-5	6	5600	12	5800	-5	-5	12	171	-10		75	-50	2	-5	25
1064	CV033	35.3743	81.4622	.	-0.5		.	0.6	.	-5	40	5	5200	10	2000	-5	-5	5	471	-10		30	-50	-2	-5	22
1065	CV034	35.3833	81.5369	.	-0.5		.	0.8	.	5	-5	8	5600	20	1050	-5	-5	15	-20	10		15	-50	-2	-5	24
1066	CV035	35.3767	81.5742	.	-0.5		.	0.5	.	7	12	5	7600	9	1450	-5	-5	8	385	-10		35	-50	-2	-5	18
1067	CV036	35.3598	81.6309	.	-0.5		.	1.1	.	7	11	6	15200	13	3600	-5	-5	8	232	-10		10	-50	-2	-5	25
1068	CV037	35.3485	81.6750	.	-0.5		.	1.0	.	5	28	7	12300	12	2250	-5	25	5	1000	10		-5	-50	2	30	31
1069	CV038	35.3434	81.7013	.	-0.5		.	0.8	.	-5	12	3	17000	9	3050	-5	-5	-5	328	-10		-5	-50	-2	-5	13
1070	CV039	35.3277	81.6730	.	-0.5		.	0.9	.	7	7	7	13400	12	2550	-5	-5	5	175	10		10	-50	-2	60	27
1071	CV040	35.3514	81.6051	.	-0.5		.	0.7	.	5	17	5	11920	8	2000	-5	-5	5	250	-10		10	-50	-2	-5	20
1072	CV041	35.3351	81.5782	.	-0.5		.	-0.5	.	-5	50	5	7200	7	1750	-5	-5	-5	139	-10		10	-50	-2	-5	16
1073	CV042	35.3495	81.5381	.	-0.5		.	0.8	.	12	29	9	7600	15	3200	-5	5	15	453	-10		15	-50	2	90	28
1074	CV043	35.3331	81.5376	.	-0.5		.	-0.5	.	7	9	4	5000	10	2600	-5	-5	10	289	-10		15	-50	-2	9	19
1075	CV044	35.3390	81.4897	.	-0.5		.	-0.5	.	7	-5	5	2200	10	1450	-5	-5	10	46	-10		25	-50	-2	-5	15

GASTONIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County ID	Lat	Long	Ux ppm	Ag ppm	As ppm	Ba ppm	Be ppm	Ca ppm	Co ppm	Cr ppm	Cu ppm	K ppm	Li ppm	Mg ppm	Mo ppm	Nb ppm	Ni ppm	P ppm	Pb ppm	Se ppm	Sn ppm	Sr ppm	W ppm	Y ppm	Zn ppm
1076	CV045	35.3443	81.4737	.	-0.5		.	1.6	.	7	11	4	22000	17	1850	-5	-5	5	79	-10		-5	-50	-2	-5	34
1077	CV046	35.3408	81.4288	.	-0.5		.	1.5	.	7	-5	11	14000	23	4250	-5	-5	10	79	10		-5	-50	-2	-5	35
1078	CV047	35.3294	81.3973	.	-0.5		.	2.3	.	5	7	5	15400	27	7100	-5	-5	-5	-20	-10		-5	-50	-2	40	14
1079	CV049	35.3102	81.5103	.	-0.5		.	-0.5	.	5	-5	4	4400	8	1900	-5	-5	7	-20	-10		10	-50	-2	-5	15
1080	CV050	35.2936	81.6071	.	-0.5		.	1.1	.	-5	18	6	13000	12	1350	-5	-5	7	186	12		10	-50	-2	-5	26
1081	CV051	35.3037	81.6332	.	-0.5		.	1.2	.	-5	16	9	18400	12	2650	-5	-5	7	621	12		5	-50	-2	10	32
1082	CV052	35.2885	81.6693	.	-0.5		.	0.8	.	10	22	12	4200	14	1900	-5	-5	12	128	10		20	-50	-2	-5	78
1083	CV053	35.3138	81.7082	.	-0.5		.	1.0	.	10	-5	8	6680	16	2950	-5	-5	12	143	10		10	-50	2	-5	26
1084	CV054	35.2700	81.7241	.	-0.5		.	0.7	.	-5	-5	4	6400	15	1650	-5	-5	5	-20	-10		10	-50	-2	-5	16
1085	CV055	35.2693	81.6357	.	-0.5		.	0.9	.	-5	35	6	5000	8	1900	-5	5	-5	603	-10		30	-50	-2	160	16
1086	CV056	35.2494	81.6203	.	-0.5		.	1.2	.	10	8	12	9400	23	2950	-5	-5	10	132	10		-5	-50	-2	10	37
1087	CV058	35.2221	81.6039	.	-0.5		.	2.3	.	5	6	12	16520	25	10600	-5	-5	10	-20	10		15	56	-2	-5	17
1088	CV059	35.2144	81.5758	.	-0.5		.	1.1	.	7	17	9	7200	16	1200	-5	-5	5	325	10		10	-50	5	10	23
1089	CV060	35.2262	81.6219	.	-0.5		.	1.8	.	-5	8	20	12400	33	2800	-5	-5	50	136	-10		-5	-50	-2	-5	-5
1090	CV062	35.2058	81.7595	.	-0.5		.	0.8	.	5	6	4	13240	16	1600	-5	-5	5	25	-10		-5	-50	-2	40	21
1091	CV063	35.1978	81.7425	.	-0.5		.	0.6	.	5	-5	3	8440	12	1200	-5	-5	5	150	-10		-5	-50	-2	-5	17
1092	CV064	35.1994	81.6850	.	0.5		.	0.9	.	10	5	6	6800	12	2950	-5	-5	12	-20	-10		10	-50	-2	-5	27
1093	CV065	35.1908	81.6408	.	-0.5		.	1.2	.	7	16	7	13400	25	2200	-5	-5	10	57	10		-5	-50	-2	-5	25
1094	CV066	35.2077	81.6318	.	-0.5		.	1.8	.	10	-5	10	11600	44	800	-5	-5	10	-20	17		20	-50	-2	9	34
1095	CV067	35.1824	81.6141	.	-0.5		.	1.2	.	5	27	9	15200	22	1350	-5	-5	7	57	-10		5	-50	-2	-5	24
1096	CV068	35.1830	81.5758	.	-0.5		.	0.8	.	-5	11	3	6840	15	2600	-5	-5	7	182	-10		-5	-50	5	-5	17
1097	CV069	35.1710	81.5477	.	-0.5		.	1.7	.	10	15	9	10860	17	2700	-5	-5	12	1203	-10		-5	-50	-2	-5	36
1098	CV070	35.1755	81.4994	.	-0.5		.	2.9	.	-5	-5	5	25400	29	1250	-5	-5	-5	136	-10		-5	-50	-2	10	25
1099	CV071	35.1902	81.5057	.	-0.5		.	1.5	.	22	-5	14	14000	28	3150	-5	-5	20	96	12		-5	-50	-2	10	56
1100	CV072	35.2368	81.5404	.	0.7		.	1.5	.	7	8	11	8640	31	2800	-5	-5	17	36	12		-5	-50	5	-5	43
1101	CV073	35.2626	81.5220	.	-0.5		.	1.0	.	-5	-5	5	8080	22	1850	-5	5	7	282	10		-5	-50	4	40	22
1102	CV074	35.2792	81.4709	.	-0.5		.	1.2	.	7	-5	9	12240	19	4700	-5	-5	12	21	10		-5	-50	-2	40	31
1103	CV075	35.2463	81.4773	.	-0.5		.	0.8	.	-5	7	3	11640	17	2500	-5	-5	6	-20	-10		-5	-50	-2	40	20
1104	CV076	35.2434	81.4603	.	-0.5		.	3.0	.	-5	-5	22	24000	22	1400	-5	5	-5	82	17		-5	-50	2	50	66
1105	CV077	35.2249	81.4847	.	-0.5		.	0.9	.	-5	-5	3	10160	15	2700	-5	20	5	25	-10		5	-50	-2	-5	20
1106	CV078	35.1852	81.4532	.	-0.5		.	4.8	.	-5	-5	-2	22600	25	700	-5	10	-5	129	-10		-5	-50	-2	10	13
1107	CV079	35.2025	81.4368	.	0.5		.	4.7	.	-5	-5	-2	24000	45	1000	-5	20	-5	111	-10		-5	-50	-2	50	18
1108	CV080	35.2287	81.4320	.	-0.5		.	2.2	.	-5	-5	2	29800	19	1150	-5	-5	-5	246	-10		-5	-50	-2	10	21
1109	CV081	35.2852	81.4095	.	-0.5		.	1.6	.	-5	-5	-2	23000	20	1100	-5	40	-5	170	-10		-5	-50	-2	235	6

GASTONIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County ID	Lat	Long	Ux ppm	Ag ppm	As ppm	Ba ppm	Be ppm	Ca ppm	Co ppm	Cr ppm	Cu ppm	K ppm	Li ppm	Mg ppm	Mo ppm	Nb ppm	Ni ppm	P ppm	Pb ppm	Se ppm	Sn ppm	Sr ppm	W ppm	Y ppm	Zn ppm
2327	LI006	35.4610	81.4587	.	-0.5		.	2.0	.	5	30	7	5000	45	1500	5	55	7	5350	-10		-5	-50	2	5	32
2328	LI007	35.4293	81.4489	.	-0.5		.	1.0	.	7	25	8	6200	-5	1400	5	-5	22	2250	-10		-5	-50	-2	15	30
2329	LI008	35.4377	81.4144	.	-0.5		.	-0.5	.	10	30	8	6200	-5	1300	-5	65	19	2000	-10		5	-50	-2	130	25
2330	LI009	35.4239	81.3835	.	-0.5		.	1.0	.	7	30	6	6200	-5	1000	-5	25	23	2900	-10		-5	-50	-2	60	25
2331	LI010	35.4767	81.4129	.	-0.5		.	1.0	.	10	19	7	.	-5	1500	-5	-5	15	2500	-10		5	-50	-2	60	35
2337	LI016	35.4887	81.3377	.	-0.5		.	1.0	.	7	36	11	5200	-5	2200	-5	35	22	1850	-10		5	-50	40	70	20
2338	LI017	35.4976	81.3730	.	-0.5		.	-0.5	.	5	24	6	4200	-5	1800	5	20	25	2300	-10		5	-50	-2	45	15
2339	LI018	35.4676	81.3540	.	-0.5		.	-0.5	.	5	26	6	3200	-5	1300	-5	20	22	2450	-10		-5	-50	2	40	20
2340	LI019	35.4339	81.3310	.	-0.5		.	-0.5	.	7	25	7	3200	-5	1800	-5	130	10	3500	-10		-5	-50	2	35	10
2341	LI020	35.4229	81.2897	.	-0.5		.	12.0	.	5	11	3	13200	31	1700	-5	40	11	3150	-10		5	-50	2	50	17
2342	LI021	35.4710	81.3040	.	-0.5		.	2.0	.	7	12	8	12200	-5	1700	-5	95	25	3000	-10		-5	-50	-2	15	15
2343	LI022	35.4947	81.3047	.	-0.5		.	2.0	.	15	18	8	8200	-5	2300	-5	115	25	3350	-10		5	-50	2	50	15
2349	LI028	35.4928	81.2322	.	-0.5		.	6.0	.	7	16	4	25200	56	800	-5	-5	37	3150	-10		-5	-50	2	-5	20
2350	LI029	35.4582	81.1880	.	-0.5		.	4.0	.	7	8	9	15200	105	1600	-5	-5	56	3000	-10		-5	-50	-2	-5	27
2351	LI030	35.4196	81.2384	.	-0.5		.	14.0	.	25	12	26	2200	91	1700	-5	-5	18	3800	-10		-5	-50	2	20	40
2352	LI031	35.4164	81.2160	.	-0.5		.	3.0	.	12	11	9	4200	10	1600	-5	85	13	3250	-10		-5	-50	2	5	25
2353	LI032	35.4124	81.1786	.	-0.5		.	1.0	.	10	5	7	5200	6	1500	-5	-5	35	2700	-10		-5	-50	2	-5	15
2354	LI033	35.4376	81.1279	.	-0.5		.	1.0	.	7	-5	5	17200	26	1200	-5	5	28	3800	-10		-5	77	-2	5	12
2355	LI034	35.4517	81.1371	.	-0.5		.	2.0	.	5	-5	6	18200	6	1100	5	-5	6	2000	-10		-5	75	-2	5	20
2356	LI035	35.4708	81.1183	.	-0.5		.	2.0	.	5	5	3	18200	-5	1200	-5	-5	8	1750	-10		-5	81	-2	40	27
2357	LI036	35.4892	81.1650	.	-0.5		.	2.0	.	7	16	6	7200	20	1900	-5	30	28	2400	-10		-5	-50	10	10	15
2365	LI044	35.4842	81.0403	.	-0.5		.	2.0	.	10	5	11	20200	-5	1500	-5	-5	39	2500	-10		-5	123	-2	-5	35
2366	LI045	35.4791	81.0727	.	0.5		.	1.0	.	5	-5	6	16200	-5	1000	-5	-5	21	2900	-10		-5	72	-2	-5	27
2367	LI046	35.4756	81.0103	.	-0.5		.	2.0	.	10	7	5	24200	-5	1600	-5	-5	19	3250	-10		-5	152	-2	-5	30
2368	LI047	35.4464	81.0454	.	-0.5		.	2.0	.	5	24	4	10000	-5	2700	5	20	-5	3000	-10		-5	152	-2	-5	7
2369	LI048	35.4233	81.0889	.	-0.5		.	2.0	.	7	-5	9	8000	-5	2200	5	65	-5	2550	-10		-5	94	-2	20	10
2370	LI049	35.4139	81.0601	.	-0.5		.	2.0	.	7	5	3	16000	-5	2800	-5	10	8	3250	-10		-5	136	-2	15	7
2371	LI050	35.4458	81.0106	.	-0.5		.	3.0	.	7	8	7	24000	-5	5800	-5	40	28	6150	12		-5	658	-2	20	20
3063	PO002	35.1869	81.9970	.	-0.5		.	-0.5	.	-5	6	2	2000	-5	850	-5	25	-5	800	-10		-5	-50	2	20	-5
3064	PO003	35.2307	81.9655	.	-0.5		.	0.5	.	8	-5	4	6000	-5	1600	-5	56	-5	2000	-10		-5	53	2	31	13
3365	RU001	35.2205	81.8281	.	-0.5		.	1.0	.	-5	12	-2	21000	21	-200	5	40	-5	3700	12		5	-50	10	140	15
3366	RU002	35.1927	81.8349	.	-0.5		.	0.5	.	5	14	2	9000	11	300	5	230	-5	4600	12		-5	-50	-2	360	17
3367	RU003	35.2002	81.7964	.	-0.5		.	2.0	.	-5	14	2	12000	17	200	-5	50	25	5100	17		-5	-50	53	253	27
3368	RU004	35.1931	81.7687	.	-0.5		.	0.5	.	-5	13	-2	8000	10	300	-5	100	-5	4600	-10		-5	-50	5	135	17

GASTONIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County ID	Lat	Long	Ux ppm	Ag ppm	As ppm	Ba ppm	Be ppm	Ca ppm	Co ppm	Cr ppm	Cu ppm	K ppm	Li ppm	Mg ppm	Mo ppm	Nb ppm	Ni ppm	P ppm	Pb ppm	Se ppm	Sn ppm	Sr ppm	W ppm	Y ppm	Zn ppm
3369	RU005	35.2227	81.7913	.	-0.5		.	2.0	.	-5	8	-2	40000	10	-200	-5	10	-5	3500	-10		-5	-50	-2	80	10
3370	RU006	35.2405	81.7657	.	-0.5		.	1.0	.	-5	10	2	19000	14	200	-5	90	-5	4200	-10		-5	-50	2	100	20
3371	RU007	35.2559	81.7954	.	-0.5		.	2.0	.	-5	15	3	20000	27	-200	5	10	16	4200	-10		-5	-50	3	85	37
3372	RU008	35.2771	81.7632	.	-0.5		.	2.0	.	-5	10	-2	6000	20	200	-5	5	10	4600	-10		-5	-50	-2	25	15
3373	RU009	35.2867	81.7931	.	0.5		.	0.5	.	15	27	13	17000	10	200	5	35	62	3900	10		-5	-50	-2	70	60
3374	RU010	35.3031	81.8185	.	-0.5		.	1.0	.	-5	6	-2	15000	15	200	-5	120	-5	3500	-10		-5	-50	20	410	7
3375	RU011	35.3208	81.8315	.	-0.5		.	2.0	.	5	9	3	15000	15	300	-5	-5	17	3700	-10		-5	-50	4	50	40
3376	RU012	35.3419	81.8055	.	-0.5		.	-0.5	.	-5	7	-2	9000	11	500	-5	35	14	3000	-10		-5	-50	5	130	17
3377	RU013	35.3204	81.7849	.	-0.5		.	0.5	.	-5	17	-2	6000	11	300	5	50	10	2900	-10		-5	-50	5	45	22
3378	RU014	35.3244	81.7383	.	-0.5		.	-0.5	.	-5	18	4	6000	11	300	5	15	12	3500	-10		-5	-50	2	50	27
3379	RU015	35.3453	81.7386	.	-0.5		.	2.0	.	10	26	-2	8000	12	800	-5	35	15	1800	-10		-5	59	2	140	25
3380	RU017	35.3702	81.9990	.	-0.5		.	0.5	.	10	10	5	8000	-5	1600	-5	40	15	2100	-10		-5	174	-2	125	15
3381	RU020	35.3170	81.9988	.	-0.5		.	1.0	.	-5	5	5	9000	-5	700	-5	15	10	2800	-10		-5	52	-2	110	17
3382	RU021	35.3225	81.9769	.	-0.5		.	0.5	.	-5	32	5	8000	-5	1100	-5	210	15	2900	-10		-5	-50	-2	190	22
3383	RU022	35.2959	81.9849	.	-0.5		.	1.0	.	5	13	8	8000	7	700	5	100	19	3100	-10		-5	-50	2	225	30
3384	RU023	35.2784	81.9812	.	-0.5		.	-0.5	.	-5	9	-2	8000	-5	1000	5	250	7	3900	-10		-5	-50	2	335	7
3385	RU024	35.2610	81.9495	.	-0.5		.	1.0	.	-5	15	5	7700	8	700	10	35	10	1200	-10		15	-50	2	245	18
3386	RU025	35.2304	81.9657	.	-0.5		.	1.0	.	-5	11	6	6700	6	1100	35	20	17	1200	-10		-5	-50	14	214	23
3387	RU026	35.2034	81.9331	.	-0.5		.	1.0	.	5	-5	5	17700	14	500	10	5	10	800	-10		-5	54	2	135	24
3388	RU027	35.2330	81.9014	.	-0.5		.	2.0	.	-5	5	2	38700	14	500	5	30	8	1200	12		-5	61	2	130	25
3389	RU028	35.2568	81.9009	.	-0.5		.	1.0	.	-5	9	3	6700	15	600	-5	-5	-5	1600	-10		-5	-50	-2	133	25
3390	RU029	35.2763	81.8575	.	-0.5		.	2.0	.	-5	6	4	24700	14	300	-5	20	11	800	10		-5	-50	2	120	27
3391	RU030	35.2765	81.8283	.	-0.5		.	2.0	.	8	17	9	12700	25	700	-5	10	7	1500	10		-5	-50	-2	90	42
3392	RU031	35.3058	81.9075	.	-0.5		.	-0.5	.	-5	18	4	6700	-5	300	-5	30	-5	2900	-10		-5	-50	-2	130	14
3393	RU032	35.3376	81.8993	.	-0.5		.	1.0	.	-5	20	7	5700	-5	900	-5	80	12	1200	15		-5	-50	-2	235	19
3394	RU033	35.3733	81.8137	.	-0.5		.	2.0	.	-5	12	11	10700	9	2500	.	.	-5	1600	45		.	-50	.		34
3395	RU034	35.3889	81.7876	.	-0.5		.	1.0	.	7	12	12	9700	14	400	5	10	36	1300	22		-5	-50	-2	85	33
3396	RU035	35.4091	81.8205	.	-0.5		.	1.0	.	10	20	17	7700	-5	1400	-5	60	18	2100	10		5	-50	-2	120	33
3397	RU036	35.4052	81.8539	.	-0.5		.	1.0	.	5	10	5	8700	-5	500	5	30	22	2400	15		5	-50	-2	240	17
3398	RU037	35.3909	81.8908	.	-0.5		.	1.0	.	9	-5	18	7700	5	800	-5	20	20	1200	10		5	-50	2	110	41
3399	RU038	35.3677	81.7107	.	-0.5		.	1.0	.	5	26	6	6700	8	800	-5	110	11	6200	25		5	-50	2	700	20
3400	RU039	35.3702	81.7411	.	-0.5		.	1.0	.	7	21	7	6700	7	400	5	40	15	1300	20		-5	-50	15	285	30
3401	RU040	35.4185	81.7121	.	-0.5		.	1.0	.	-5	11	4	9700	6	700	9	40	17	2300	25		-5	-50	19	343	15
3402	RU041	35.4042	81.7431	.	-0.5		.	2.0	.	-5	17	6	3700	5	1300	12	60	17	3000	22		-5	-50	-2	410	20

GASTONIA 100K QUADRANGLE - SUPPLEMENTAL STREAM SEDIMENT

Lab #	County ID	Lat	Long	Ux ppm	Ag ppm	As ppm	Ba ppm	Be ppm	Ca ppm	Co ppm	Cr ppm	Cu ppm	K ppm	Li ppm	Mg ppm	Mo ppm	Nb ppm	Ni ppm	P ppm	Pb ppm	Se ppm	Sn ppm	Sr ppm	W ppm	Y ppm	Zn ppm
3403	RU042	35.3610	81.8589	.	-0.5		.	1.0	.	7	12	9	9700	15	600	5	30	38	1600	22		5	-50	4	105	44
3404	RU043	35.3967	81.9271	.	-0.5		.	-0.5	.	7	11	4	2700	-5	400	-5	50	12	3500	10		10	-50	4	2035	15
3408	RU055	35.4192	81.9564	.	-0.5		.	1.0	.	5	8	9	10700	-5	1800	-5	20	14	900	10		-5	-50	-2	80	23
3409	RU056	35.4422	81.9541	.	-0.5		.	1.0	.	-5	-5	7	7700	-5	800	-5	10	-5	1100	12		-5	-50	-2	60	16
3410	RU057	35.4520	81.9192	.	-0.5		.	1.0	.	8	5	9	10700	-5	1000	-5	15	15	900	15		5	-50	-2	55	25
3411	RU058	35.4661	81.9050	.	-0.5		.	2.0	.	9	-5	8	11700	-5	800	5	10	17	1100	10		-5	-50	-2	35	30
3412	RU059	35.4463	81.8794	.	-0.5		.	2.0	.	5	5	7	11700	-5	900	5	5	15	800	-10		5	67	-2	-5	21
3413	RU060	35.4427	81.8479	.	-0.5		.	1.0	.	6	14	8	6700	-5	900	-5	20	13	1500	17		-5	-50	2	100	21
3414	RU061	35.4581	81.8052	.	-0.5		.	2.0	.	10	17	13	9700	7	600	-5	10	7	1300	22		5	-50	2	15	56
3415	RU062	35.4811	81.7607	.	-0.5		.	1.0	.	5	7	7	11700	9	600	-5	-5	23	800	20		5	-50	3	50	29
3416	RU063	35.4756	81.7361	.	-0.5		.	1.0	.	6	5	8	9700	9	600	-5	5	21	1000	17		5	-50	-2	45	30
3417	RU064	35.4526	81.7212	.	-0.5		.	1.0	.	11	-5	13	10700	13	500	-5	5	33	1000	22		5	-50	-2	30	42
3418	RU065	35.4322	81.7550	.	-0.5		.	2.0	.	11	-5	10	12700	12	800	-5	-5	37	600	25		15	-50	2	50	46
3419	RU066	35.4727	81.7144	.	-0.5		.	2.0	.	13	7	16	12700	17	500	-5	-5	50	1200	30		-5	-50	2	40	61
3426	RU073	35.4740	81.8505	.	-0.5		.	1.5	.	19	5	24	10000	6	3450	-5	5	21	3500	22		-5	-50	-2	35	63
3427	RU074	35.4826	81.8844	.	0.5		.	2.0	.	10	-5	9	14000	-5	2800	-5	-5	17	3500	10		-5	89	-2	30	29
3429	RU076	35.4969	81.9233	.	0.5		.	1.5	.	7	-5	7	10000	6	3100	-5	15	7	1900	10		5	-50	-2	260	31
3430	RU077	35.4591	81.9792	.	-0.5		.	1.0	.	7	-5	8	5000	-5	2650	5	-5	5	2100	12		-5	-50	-2	15	18
3431	RU091	35.4896	81.9927	.	-0.5		.	1.5	.	9	-5	7	4000	-5	3100	-5	-5	14	2600	15		-5	-50	-2	-5	22

GASTONIA 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
1545	CV501	35.2520	81.5023	7.2	158	0.143	.	7700	21	4100	6	7370	-0.1	0.9	294	-0.001
1546	CV502	35.2068	81.5020	6.9	127	0.270	21	M	.	M	33	M	-0.1	2.1	36	-0.001
1547	CV503	35.2079	81.4512	6.4	45	0.280	51	6100	.	.	19	M	-0.1	6.2	26	0.070
1548	CV504	35.1659	81.3826	5.2	92	0.056	18	M	.	510	12	M	-0.1	0.6	75	-0.001
1549	CV505	35.2091	81.3885	5.2	20	0.054	46	5600	.	240	288	1570	-0.1	2.7	39	-0.001
1550	CV506	35.1630	81.3272	6.3	39	0.029	15	5500	38	2460	19	4630	-0.1	0.7	101	-0.001
1551	CV507	35.2097	81.3407	5.6	87	0.041	32	9500	.	5010	.	M	-0.1	0.4	36	-0.001
1552	CV508	35.2628	81.3295	5.7	83	0.095	.	5000	18	.	24	M	-0.1	1.1	106	0.030
1553	CV509	35.2525	81.3881	5.1	31	1.125	6	4800	74	670	7	4650	0.9	36.2	33	-0.001
1554	CV510	35.2557	81.4389	6.3	101	0.387	.	9400	.	1240	18	7520	1.7	3.8	44	-0.001
1555	CV511	35.2551	81.5565	6.9	72	0.038	.	5200	68	2590	45	6790	-0.1	0.5	45	-0.001
1556	CV512	35.2081	81.5577	5.6	40	0.053	71	11300	.	.	9	7220	-0.1	1.3	352	0.140
1557	CV513	35.2068	81.6140	5.7	50	0.025	.	10200	.	890	20	7240	-0.1	0.5	87	-0.001
1558	CV514	35.2520	81.6094	5.6	75	0.037	.	17200	.	.	20	M	-0.1	0.4	197	-0.001
1559	CV515	35.2062	81.6683	6.0	29	0.035	.	4900	.	420	8	1190	-0.1	1.2	26	0.100
1560	CV516	35.2062	81.7283	6.1	58	0.012	.	M	.	350	66	M	-0.1	0.2	39	0.890
1561	CV517	35.2500	81.7273	5.6	38	0.015	.	7100	.	1150	47	4300	-0.1	0.3	79	0.690
1562	CV518	35.2655	81.6671	5.5	35	0.021	40	8300	.	1130	23	3710	-0.1	0.6	45	0.370
1563	CV519	35.3015	81.6694	6.8	82	0.027	.	4900	159	1700	89	8490	-0.1	0.3	26	-0.001
1564	CV520	35.3456	81.6697	6.7	88	0.025	22	5000	16	4990	6	1300	-0.1	0.2	27	0.080
1565	CV521	35.3902	81.6733	6.0	43	0.031	37	7300	.	540	61	4410	-0.1	0.7	34	0.040
1566	CV522	35.4366	81.6683	6.2	60	0.033	.	12900	.	4850	63	6080	0.2	0.5	48	0.070
1567	CV523	35.4863	81.6655	5.8	37	0.046	.	7900	.	.	9	5680	-0.1	1.2	189	-0.001
1570	CV526	35.4848	81.6136	5.8	112	0.022	15	M	.	M	41	M	-0.1	0.2	36	0.080
1571	CV527	35.4355	81.6126	6.4	59	0.188	.	3400	46	2520	8	3810	-0.1	3.1	24	-0.001
1572	CV528	35.3900	81.6151	6.8	75	0.036	6	4800	30	2170	26	4290	0.1	0.4	29	-0.001
1573	CV529	35.3424	81.6143	5.8	34	0.029	42	7300	.	2530	11	2880	-0.1	0.8	103	-0.001
1574	CV530	35.2985	81.6161	7.6	307	0.734	.	M	.	M	36	M	-0.1	2.3	49	0.050
1575	CV531	35.3094	81.5703	6.9	76	0.024	26	5800	.	2620	66	5760	-0.1	0.3	23	-0.001
1576	CV532	35.3461	81.5584	7.3	79	0.038	29	4700	82	2530	27	6500	-0.1	0.4	28	-0.001
1577	CV533	35.3975	81.5650	7.0	103	0.083	32	M	.	M	30	M	-0.1	0.8	22	-0.001
1578	CV534	35.4369	81.5634	7.6	30	0.029	34	8600	.	2180	.	1850	-0.1	0.9	38	0.030
1579	CV535	35.4857	81.5618	7.5	37	0.018	.	9000	.	530	11	4870	-0.1	0.4	87	-0.001
1581	CV537	35.4893	81.4998	5.7	15	0.035	18	4700	12	1080	15	600	-0.1	2.3	33	0.120

GASTONIA 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
1582	CV538	35.4376	81.5023	6.3	65	0.216	.	11100	.	530	4	10140	-0.1	3.3	23	-0.001
1583	CV539	35.3916	81.4991	7.9	118	0.072	35	M	.	M	24	M	-0.1	0.6	39	-0.001
1584	CV540	35.3472	81.4947	7.7	210	0.118	.	15600	.	6450	.	5490	-0.1	0.5	29	0.130
1585	CV541	35.2999	81.5009	6.9	221	0.067	27	M	.	M	73	M	-0.1	0.3	31	0.290
1586	CV542	35.3034	81.4487	7.8	86	0.330	22	5800	74	5340	8	5910	2.9	3.8	22	-0.001
1587	CV543	35.3030	81.3837	7.0	60	40.750	.	4700	67	.	34	6090	-0.1	679.1	26	-0.001
1588	CV544	35.3411	81.3883	6.1	65	0.556	.	11100	.	.	22	M	-0.1	8.5	30	-0.001
1589	CV545	35.3465	81.4471	7.5	146	1.158	.	4900	.	4830	.	1160	-0.1	7.9	32	-0.001
1590	CV546	35.3935	81.4455	7.6	101	0.223	24	4900	.	5800	41	2970	0.2	2.2	27	-0.001
2074	GA501	35.2368	81.1700	6.2	60	0.019	38	6000	.	1580	77	7230	0.2	0.3	34	0.100
2075	GA502	35.2038	81.1621	6.4	30	0.022	.	4200	32	980	16	3530	0.4	0.7	28	0.060
2076	GA503	35.2057	81.1098	6.5	69	0.040	.	5600	.	3710	.	3970	1.7	0.5	20	-0.001
2077	GA504	35.2518	81.0982	5.8	204	0.017	47	18500	.	6450	15	14930	-0.1	0.0	38	-0.001
2078	GA505	35.2529	81.0581	6.6	280	0.267	.	13400	.	17040	120	20210	0.5	0.9	20	-0.001
2079	GA506	35.3012	81.1072	6.5	22	0.017	22	4200	14	450	10	1480	0.1	0.7	27	-0.001
2080	GA507	35.2994	81.0551	5.9	35	0.017	19	4300	.	1870	12	2070	0.5	0.4	23	-0.001
2081	GA508	35.3439	81.0002	6.0	96	0.028	35	12000	.	1400	.	12460	-0.1	0.2	27	-0.001
2082	GA509	35.3910	81.0018	6.4	42	0.039	36	5600	.	600	41	5180	-0.1	0.9	16	-0.001
2083	GA510	35.3876	81.0505	6.1	44	0.013	.	6900	.	1510	12	3040	0.6	0.3	25	-0.001
2084	GA511	35.3590	81.0568	7.6	351	0.017	31	10900	.	14610	171	12920	-0.1	0.0	23	-0.001
2085	GA512	35.3462	81.1066	6.5	34	0.023	18	4800	32	900	.	3940	0.5	0.6	21	-0.001
2086	GA513	35.3945	81.1109	6.4	22	0.009	11	4000	.	280	5	M	-0.1	0.4	24	-0.001
2087	GA514	35.3945	81.1610	6.8	48	0.004	11	4100	90	620	8	5330	1.4	0.0	23	-0.001
2088	GA515	35.3464	81.1624	7.1	35	0.005	21	4400	124	720	.	2230	1.8	0.1	26	-0.001
2089	GA516	35.3000	81.1647	6.8	101	0.712	.	7500	305	.	12	6650	0.4	7.0	22	-0.001
2090	GA517	35.2997	81.2269	6.4	88	0.040	24	4800	52	2770	.	7840	3.2	0.4	22	-0.001
2091	GA518	35.3465	81.2240	6.0	27	0.025	20	3000	.	320	15	3110	0.3	0.9	28	-0.001
2092	GA519	35.4005	81.2230	6.7	49	0.132	9	4200	14	2000	.	3170	0.8	2.6	28	-0.001
2093	GA520	35.3947	81.2796	6.3	52	0.056	.	5200	.	2780	20	M	-0.1	1.0	25	-0.001
2094	GA521	35.3949	81.3337	6.8	84	4.896	17	3600	124	1180	29	22550	0.1	58.2	17	0.030
2095	GA522	35.3949	81.3941	7.8	75	0.160	35	2800	9	1920	14	3360	0.2	2.1	42	-0.001
2096	GA523	35.3449	81.3337	6.9	146	0.091	25	9900	.	10140	14	3860	-0.1	0.6	26	-0.001
2097	GA524	35.3462	81.2795	6.6	48	0.025	12	4200	61	2790	6	4210	0.8	0.5	21	-0.001
2098	GA525	35.2060	81.0405	5.8	70	0.029	.	9400	.	1100	49	10220	0.2	0.4	57	2.350

GASTONIA 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
2099	GA526	35.1548	81.0509	7.7	153	1.804	23	4400	65	4860	5	6460	3.8	11.7	19	0.220
2100	GA527	35.1627	81.1102	6.9	97	0.058	31	12100	.	2730	.	9560	4.8	0.6	242	-0.001
2101	GA528	35.1552	81.1547	7.1	170	0.037	158	17900	.	6160	220	10900	-0.1	0.2	73	0.070
2102	GA529	35.1621	81.2196	6.6	51	0.020	21	4100	92	1500	.	4400	3.3	0.3	27	-0.001
2103	GA530	35.1598	81.2731	7.2	107	0.469	18	4400	43	480	16	3700	1.6	4.3	40	-0.001
2104	GA531	35.2079	81.2717	6.6	60	0.030	11	6900	.	2080	16	5550	1.2	0.5	23	-0.001
2105	GA532	35.2086	81.2341	7.0	49	0.040	37	4600	35	830	11	4820	6.4	0.8	29	-0.001
2106	GA533	35.2523	81.2374	6.9	72	0.365	31	5700	74	.	11	3070	1.5	5.0	24	-0.001
2107	GA534	35.2469	81.2825	5.4	35	0.047	35	5700	.	1030	67	2840	-0.1	1.3	45	0.380
2108	GA535	35.3028	81.2742	7.3	100	0.066	6	5200	.	3190	23	4410	-0.1	0.6	27	0.050
2109	GA536	35.3018	81.3370	5.9	25	0.019	.	4600	19	890	14	2100	0.3	0.7	28	-0.001
3021	L1509	35.4391	81.0528	6.5	92	0.043	.	5300	.	3170	34	5290	1.1	0.4	24	-0.001
3022	L1510	35.4854	81.0486	6.7	52	0.053	33	5500	.	1760	12	6210	3.9	1.0	27	-0.001
3023	L1511	35.4399	81.1112	7.6	148	40.660	.	5100	349	.	29	9890	1.5	274.7	38	-0.001
3024	L1512	35.4802	81.1094	6.8	42	0.071	16	5200	124	1210	.	4510	2.7	1.6	26	-0.001
3025	L1513	35.4904	81.1660	6.4	66	0.037	24	7600	27	3020	19	6640	1.4	0.5	29	-0.001
3026	L1514	35.4397	81.1674	7.0	30	0.592	.	4800	202	.	6	4930	1.5	19.7	25	-0.001
3027	L1515	35.4387	81.2247	6.6	51	0.046	.	4800	30	2640	19	M	0.1	0.9	34	-0.001
3028	L1516	35.4885	81.2213	5.4	13	0.071	24	5000	.	550	16	1570	-0.1	5.4	51	-0.001
3029	L1517	35.4384	81.2756	6.5	23	0.193	18	5500	40	.	.	4530	0.1	8.3	31	-0.001
3030	L1518	35.4338	81.3329	6.7	32	0.034	.	4500	.	670	11	1930	0.5	1.0	24	-0.001
3031	L1519	35.4389	81.3958	6.9	79	0.092	16	6600	.	610	22	3610	0.5	1.1	230	-0.001
3032	L1520	35.4404	81.4455	7.2	128	0.078	21	6500	34	3930	.	3690	-0.1	0.6	61	0.060
3033	L1521	35.4815	81.4476	6.7	212	0.077	.	20900	.	4180	76	15110	-0.1	0.3	189	9.230
3036	L1524	35.4825	81.3877	6.9	41	0.034	15	4500	50	3020	3	2600	2.5	0.8	31	0.110
3037	L1525	35.4811	81.3386	6.4	30	0.021	17	4900	36	1830	.	1620	0.2	0.7	29	0.040
3040	L1528	35.4804	81.2704	6.9	34	0.020	.	5000	157	1270	9	4180	4.8	0.5	61	0.040
3315	ME537	35.1231	81.0299	7.9	345	3.949	.	6800	262	4900	58	10980	-0.1	11.4	23	-0.001
3316	ME538	35.0741	81.0305	6.7	68	0.149	.	6400	27	1140	21	8130	1.3	2.1	30	-0.001
4160	PO522	35.2546	81.9937	6.3	90	0.034	58	9000	39	4550	.	6990	1.2	0.3	25	-0.001
4161	PO523	35.2119	81.9848	5.3	12	0.022	33	M	.	460	25	M	-0.1	1.8	48	-0.001
4590	RU501	35.3912	81.8411	6.8	83	0.060	9	5200	26	2850	20	2420	0.7	0.7	26	-0.001
4591	RU502	35.3975	81.7772	5.5	33	0.026	34	8500	.	770	27	5280	-0.1	0.7	38	0.080
4592	RU503	35.3957	81.7285	5.4	18	0.031	18	5000	.	.	22	1760	0.1	1.7	57	-0.001

GASTONIA 100K QUADRANGLE - GROUNDWATER

Lab #	County ID	Lat	Long	pH	Cond um/cm	U ppb	Br ppb	Cl ppb	F ppb	Mg ppb	Mn ppb	Na ppb	V ppb	U/cond x 1000	Al ppb	Dy ppb
4593	RU504	35.4379	81.7723	6.0	10	0.032	.	4300	.	570	.	950	-0.1	3.2	42	-0.001
4594	RU505	35.4411	81.7264	5.5	20	0.029	31	4000	.	610	15	990	-0.1	1.4	32	-0.001
4595	RU506	35.4930	81.7408	5.8	22	0.031	13	M	.	1050	7	M	-0.1	1.4	31	-0.001
4596	RU507	35.4860	81.7836	6.0	31	0.039	21	5100	21	1040	.	M	-0.1	1.2	51	-0.001
4602	RU513	35.4844	81.9460	6.4	70	0.023	.	4700	.	1770	.	5520	1.7	0.3	36	-0.001
4603	RU514	35.4793	81.8941	6.3	35	0.039	.	4400	.	.	7	1450	0.4	1.1	29	1.210
4604	RU515	35.4768	81.8541	6.1	52	0.033	5	6200	48	1290	86	4390	0.2	0.6	90	0.070
4605	RU516	35.4365	81.8344	7.1	65	0.027	.	4500	.	2960	7	1320	0.2	0.4	25	-0.001
4606	RU517	35.4395	81.8931	7.0	70	0.060	.	4400	.	3690	5	650	0.2	0.8	121	-0.001
4607	RU518	35.3903	81.8940	6.1	108	0.029	.	16600	.	4610	.	6560	-0.1	0.2	31	-0.001
4608	RU519	35.4382	81.9509	6.2	43	0.040	.	4800	.	2360	17	3250	0.6	0.9	28	-0.001
4609	RU520	35.3995	81.9495	7.3	65	0.049	.	4200	18	.	21	1410	0.5	0.7	37	-0.001
4628	RU539	35.2951	81.9448	5.5	15	0.030	14	5100	26	780	10	1320	-0.1	2.0	44	-0.001
4629	RU540	35.3387	81.9611	6.0	72	0.030	.	6600	.	2400	17	4460	0.6	0.4	30	0.090
4630	RU541	35.3308	81.9007	7.3	113	0.055	12	4400	209	860	27	8090	-0.1	0.4	27	-0.001
4631	RU542	35.3475	81.8388	6.5	58	0.025	.	5200	.	1980	60	3360	-0.1	0.4	24	-0.001
4632	RU543	35.3471	81.7813	6.8	98	0.061	.	5300	35	2870	6	1210	0.7	0.6	25	-0.001
4633	RU544	35.3512	81.7275	6.5	25	0.028	16	5500	28	.	20	M	-0.1	1.1	25	-0.001
4634	RU545	35.3029	81.7305	6.8	80	0.027	.	4300	53	1970	55	M	-0.1	0.3	23	-0.001
4635	RU546	35.3018	81.7772	6.6	47	0.025	17	5600	29	3460	3	1130	0.2	0.5	31	-0.001
4636	RU547	35.2638	81.7876	6.8	372	0.191	.	27600	.	10780	8	19990	-0.1	0.5	25	-0.001
4637	RU548	35.2040	81.7822	7.8	152	0.232	23	6700	74	5200	.	2600	0.5	1.5	65	-0.001
4638	RU549	35.2043	81.8360	7.3	68	0.113	.	6000	.	2890	5	4760	1.7	1.6	33	-0.001
4639	RU550	35.2465	81.8372	5.8	42	0.116	.	9300	.	1800	17	3790	-0.1	2.7	67	-0.001
4640	RU551	35.3011	81.8372	5.9	63	0.028	.	14500	.	1690	29	M	-0.1	0.4	37	-0.001
4641	RU552	35.3016	81.8934	7.1	110	0.040	8	5100	44	8490	.	M	-0.1	0.3	43	-0.001
4642	RU553	35.2584	81.8875	5.8	20	0.020	21	M	.	M	10	M	-0.1	1.0	29	-0.001
4643	RU554	35.2531	81.9488	6.3	38	0.040	17	M	.	M	13	M	-0.1	1.0	50	0.050
4644	RU555	35.2006	81.9485	5.7	39	0.140	.	7700	.	620	18	4440	-0.1	3.5	43	-0.001
4645	RU556	35.2067	81.8941	6.2	155	0.050	.	25100	.	.	241	20760	-0.1	0.3	121	3.910