Mineral content

Table 15. ~~Descriptions~~ of sediments sampled along Big Brushy Creek and other tributaries to the Saluda River, Anderson County and Greenville County, S. C.

Block	Station number	Sample number	Material sampled	Depth of sample below surface of flood plain (feet)	Screening characteristics: Plus 1/4 inch: Volume ratio	Plus 1/4 inch: Composition (percent)	Plus 1/4 inch: Maximum intermediate dimension (inches)	Minus 1/4 – plus 1/8 inch: Volume ratio	Minus 1/4 – plus 1/8 inch: Composition (percent)	Minus 1/8 inch: Sand Volume ratio	Minus 1/8 inch: Silt and clay Abundance	Weight of concentrate (grams)	Minerals in concentrate: Sieve fraction: Mesh	Sieve fraction: Percent of concentrate	Monazite: Percent of concentrate	Monazite: Pounds per cubic yard	Ilmenite: Percent of concentrate	Ilmenite: Pounds per cubic yard	Rutile: Percent of concentrate	Rutile: Pounds per cubic yard	Zircon: Percent of concentrate	Zircon: Pounds per cubic yard	Garnet: Percent of concentrate	Garnet: Pounds per cubic yard	Kyanite: Percent of concentrate	Kyanite: Pounds per cubic yard	Sillimanite: Percent of concentrate	Sillimanite: Pounds per cubic yard	Magnetite	Hematite	Staurolite	Tourmaline	Amphibole, pyroxene, biotite	Epidote	Quartz	Others
															Percent of concentrate																					
A	1	52-DC-444	Riffle gravel		14	60 qtz, 20 gr, 10 fels, 10 bio sch	4	2	50 qtz, 20 fels, 20 gr, 10 bio sch & micas	16		82.5	45	11	1		10		—		tr		tr		—		—		—	—	—	—	—	tr	—	
													100	48	4		25		1		4		tr		—		—		—	—	—	—	1	3	6	
													170	18	2		7		—		8		—		—		—		—	—	—	—	—	1	—	
													Total		7	1.2	42	6.9	1	.2	12	2.0	tr	—	—	—	—	—	21	—	—	—	1	4	6	
	2	52-DC-464	Riffle gravel		10	60 gr, gr, 20 qtz, 10 fels, 10 sill sch	4	1	50 qtz, 20 fels, 10 sill sch, 10 gr, 10 bio sch & micas	8	10	4.0	45	36	5		19		—		—		11		—		—		—	—	—	—	—	—	1	Xenotime
													100	53	5		25		—		—		2		—		3		—	—	—	1	—	—	11	—
													170	8	2		6		—		tr		—		—		—		—	—	—	—	—	—	—	tr
													Total		12	.1	50	.4	—	—	tr	—	13	.1	—	—	3	.02	3	—	—	1	—	—	18	tr
B	3	52-DC-462	Riffle gravel		13	60 qtz, 20 gr, 10 fels, 10 bio sch	1	2	70 qtz, 20 fels, 10 gr, bio sch & micas	18		407.0	45	3	tr		3		—		tr		tr		—		—		—	tr	—	—	tr	tr	tr	
													100	18	tr		9		tr		1		tr		—		—		—	tr	—	—	tr	4	4	
													170	9	—		7		tr		1		tr		—		tr		—	—	—	—	—	—	tr	
													Total		tr	—	19	15.4	tr	—	2	16	tr	—	—	—	tr	—	20	tr	—	—	tr	4	4	
	4	52-DC-463	Riffle gravel		20	50 gr, 20 qtz, 15 fels, 5 bio sch	3	1	50 qtz, 20 bio sch, 10 fels, 10 sill sch, 10 gr	10		484.0	45	35	6		13		—		1		4		—		—		—	—	—	—	—	1	10	
													100	16	3		10		—		tr		tr				tr						tr		3	
													170	1	tr		1		—		tr		tr												tr	
													Total		9	8.7	24	23.2	—	—	1	10	4	3.9			tr		48				tr	1	13	
C	5	52-DC-438	Riffle sand		4	50 gr, 30 qtz, 10 fels, 10 bio sch	3/4	1	40 qtz, 40 gr, 15 fels, 5 bio sch	20		37.5	45	3	—		1		—		—		1										tr	tr	1	
													100	9	—		2		—		—		1											1	5	
													170	1	tr		1		—		tr		—											tr	tr	
													Total		tr	—	4	.3	—	—	tr	—	2	.2					81				tr	1	6	
	6	52-DC-440	Riffle sand		2	60 qtz, 20 gr, 20 fels	2	3	60 qtz, 25 fels, 10 gr, 5 micas & bio sch	24		84.2	45	4	—		4		—		—		tr											tr		
													100	20	—		6		—		—		—										2	8	7	
													170	2	—		1		—		tr		tr											1	1	
													Total		—	—	11	1.8	—	—	tr	—	tr	—					14				2	1	1	
D	7	52-DC-439	Riffle sand		10	60 qtz, 20 gr, 10 fels, 10 bio sch	2	5	60 qtz, 20 fels, 10 gr, 10 sill sch & bio sch	19		67.0	45	19	3		11		—		—		1											2	2	
													100	54	8		31		—		—		tr				1			2				2	6	
													170	13	1		1		—		2		—				1							1		
													Total		12	1.6	49	6.6	—	—	2	.3	1	.1			2	.3	14	2				1	1	
	8	52-DC-465	Riffle gravel		17	50 qtz, 20 gr, 20 fels, 10 bio sch & sill sch	5	2	60 qtz, 20 fels, 10 bio sch, 10 sill sch	14		265.8	45	30	1		22		—		—		7												tr	
													100	60	6		46		—		5		2												1	
													170	10	3		6		—		1		—													
													Total		10	5.3	74	39.2	—	—	6	3.2	9	4.8					tr						1	
		52-DC-466	Bank gravel	4	1	80 qtz, 10 fels, 10 gr	4	1	70 qtz, 10 fels & gr	9	10	127.1	45	52	9		15		—		—		20												4	
													100	42	5		14		—		1		6				2								14	
													170	6	tr		5		—		1		—												tr	
													Total		14	4.2	36	10.9	—	—	2	.6	26	7.8			2	.6	tr	—	—	—			2	
E	26	52-DC-482	Riffle sand		10	40 qtz, 30 gr, 20 sill sch, 10 fels	2	3	40 qtz, 30 sill sch, 20 fels, 10 gr	19		118.1	45	32	1		23		—		1		2				1		—						4	
													100	50	4		36		—		2		1				2		—						—	
													110	10	1		8		—		1		—												tr	
													Total		6	2.1	61	23.8	—	—	4	1.4	3	1.1			3	.1	8						1	
F	9	52-DC-441	Riffle gravel		15	50 qtz, 20 gr, 15 fels, 15 bio sch	3	2	50 qtz, 20 fels, 20 bio sch, 10 gr & micas	12		48.8	45	49	7		35		—		—		1												—	
													100	40	1		20		—		—		2				1								10	
													170	10	2		5		—		2		tr												1	
													Total		16	.6	60	5.8	—	—	2	.2	1	.9			1	.1	1						11	
	10	52-DC-443	Riffle sand		2	50 qtz, 30 gr, 10 fels, 10 bio sch	5/8	6	60 qtz, 20 fels, 10 bio sch, 10 gr	25		7.5	45	15	tr		9		—		—		6												6	
													100	70	5		46		—		1		10												6	
													170	15	2		11		tr		1		tr												2	
													Total		7	.1	66	1.0	tr	—	2	.03	16	.2			3	.04	tr						6	
G	11	52-DC-437	Riffle sand		5	50 qtz, 20 gr, 20 bio sch, 10 fels	3/4	2	60 qtz, 20 fels, 10 gr, 10 bio sch	24		133.2	45	9	—		8		—		—		tr											1	tr	
													100	54	—		34		—		—		—											12	8	
													110	18	—		8		—		8		—												tr	
													Total		—	—	50	13.3	—	—	8	2.1	tr	—					19					15	8	
	12	52-DC-435	Riffle sand		5	70 qtz, 10 gr, 10 fels, 10 bio sch & sill sch	3/4	5	70 qtz, 10 gr, 10 fels, 10 bio sch	24		186.5	45	23	1		12		—		—														10	
													100	49	—		34		—		—		1												1	
													110	6	tr		3		—		2														1	
													Total		1	.4	49	18.2	—	—	2	1	1	4					22						20	
	13	52-DC-436	Riffle sand		4	50 qtz, 30 bio sch, 20 sill sch, 10 fels	5/8	5	50 qtz, 20 sill sch, 10 bio sch, 10 fels, 10 gr & micas	24		65.0	45	28	tr		21		—		—												1	7		
													100	51	—		21		—		—												2	16	12	
													170	1	tr		1		—		tr												—	tr	tr	
													Total		tr	—	43	5.6	—	—	tr	—							20				3	20	14	
	14	52-DC-428	Riffle gravel		14	50 gr, 30 qtz, 10 fels, 10 bio sch	5	1	60 qtz, 20 fels, 15 mag, 5 sill sch	17		1816.0	45	9	—		1		—		—		—												8	
													100	10	tr		2		—		—		—		—		tr		—	—	—	—	—		8	
													170	1	—		1		—		tr		—		—		—		—	—	—	—	—	tr	tr	
													Total		tr	—	4	14.5	—	—	tr	—	—	—	—	—	tr	—	80	—	—	—	—	tr	16	
H	15	52-DC-431	Riffle gravel		27	60 gr, gr, 20 qtz, 20 fels	3	1	50 qtz, 40 gr, 10 fels & bio sch	4		59.9	45	16	—		3		—		—		—		—		—		—	—	—	—	—	1	12	
													100	6	—		tr		—		—		—		—		—		—	—	—	—	tr	1	5	
													170	1	tr		1		—		tr		—		—		—		—	—	—	—	—	tr	tr	
													Total		tr	—	4	.5	—	—	tr	—	—	—	—	—	—	—	11	—	—	—	tr	2	11	
	16	52-DC-432	Riffle sand		1	50 gr, 20 qtz, 10 fels, 10 mica, 10 bio sch	3/4	3	50 qtz, 20 gr, 20 fels, 10 mica & bio sch	27		46.4	45	2	—		2		—		—		—		—		—		—	tr	—	—	—	tr	tr	
													100	36	—		30		—		—		—		—		—		—	1	—	—	—	tr	—	
													170	24	—		14		—		4		—		—		—		—	1	—	—	—	tr	tr	
													Total		—	—	51	4.7	—	—	4	.4	—	—	—	—	—	—	58	2	—	—	—	tr	—	
	17	52-DC-433	Riffle gravel		19	40 gr, 40 qtz, 10 fels, 10 bio sch	4	1	60 qtz, 20 fels, 10 gr, 10 bio sch & micas	8		152.8	45	19	2		16		—		tr		tr		—		—		—	—	—	—	—	1	—	
													100	19	1		12		—		tr		—		—		—		—	—	—	—	—	2	4	
													170	2	tr		2		—		tr		—		—		—		—	—	—	—	—	tr	tr	
													Total		3	.9	30	9.2	—	—	tr	—	tr	—	—	—	—	—	60	—	—	—	—	3	4	